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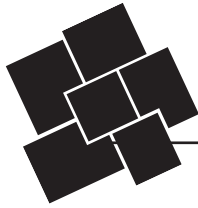
Lessons *from the* NIH Experience

September 2005

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

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Full Report

A Report by a Panel of the

NATIONAL ACADEMY OF
PUBLIC ADMINISTRATION
for the National Institutes of Health

EFFECTIVE ADMINISTRATIVE RESTRUCTURING:

LESSONS FROM THE NIH EXPERIENCE

September 2005

Panel
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Foreword

For many years, the federal government has undergone significant administrative restructuring in order to become more effective, efficient, and accountable to the public. The pace of this effort has accelerated in recent years, and the number of reforms being pursued simultaneously has multiplied.

Currently, much of this activity is driven by *The President's Management Agenda*. Individual departments and agencies have devised their own responses to the five general themes set forth in the agenda. The U.S. Department of Health and Human Services, where the National Institutes of Health (NIH) is located, specifically has emphasized consolidating administrative functions and using automation to reduce the number of staff offices and size of the government workforce responsible for these functions.

By Fall 2003, NIH had become responsible for so many administrative reforms that the agency requested the National Academy of Public Administration's advice and assistance. The Academy previously had assisted NIH with benchmarking and analysis in one function. This new assignment was much broader, encompassing significant reforms in acquisition, budget, equal employment opportunity, facilities, finance, grants, human resources, and information technology.
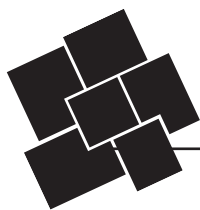
The Academy convened a special panel of experts to respond to this request. The Panel on Administrative Restructuring at NIH, which began its work in January 2004, soon saw that its experience with NIH was demonstrating lessons that could substantially benefit other federal agencies. NIH amended the original contract to enable the Academy to prepare this report as a by-product of its primary technical assistance responsibilities.

The lessons reported in this volume primarily are based on the Panel's work with NIH from January 2004 through July 2005. The NIH experience is extensively documented in the report's appendices. The Academy is pleased to present the report to NIH and the broader federal community. In so doing, the Panel commends NIH for the significant progress it has made on so many different fronts at the same time, while facing many pressures for both scientific and administrative results.

I want to extend my appreciation to NIH for allowing the Academy to assist in its restructuring efforts and to share those experiences with other agencies looking for help with similar administrative restructuring challenges. We believe these lessons provide practical and effective advice consistent with *The President's Management Agenda*. The Academy Panel directing this effort, as well as the project staff, are to be commended for their outstanding work in collecting these lessons and for presenting them in such an accessible manner.

C. Morgan Kinghorn
President
National Academy of Public Administration

National Academy of
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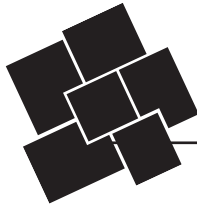
List of Acronyms

The acronyms appearing in this report are defined as follows:

NIH Centers

CIT	Center for Information Technology
CSR	Center for Scientific Review
FIC	John E. Fogarty International Center
NCCAM	National Center for Complementary and Alternative Medicine
NCMHD	National Center on Minority Health and Health Disparities
NCRR	National Center for Research Resources
CC	NIH Clinical Center

NIH Institutes

NCI	National Cancer Institute
NEI	National Eye Institute
NHLBI	National Heart, Lung, and Blood Institute
NHGRI	National Human Genome Research Institute
NIA	National Institute on Aging
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIAID	National Institute of Allergy and Infectious Diseases
NIAMS	National Institute of Arthritis and Musculoskeletal and Skin Diseases
NIBIB	National Institute of Biomedical Imaging and Bioengineering
NICHD	National Institute of Child Health and Human Development
NIDCD	National Institute on Deafness and Other Communication Disorders
NIDCR	National Institute of Dental and Craniofacial Research
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases
NIDA	National Institute on Drug Abuse
NIEHS	National Institute of Environmental Health Sciences
NIGMS	National Institute of General Medical Sciences
NIMH	National Institute of Mental Health
NINDS	National Institute of Neurological Disorders and Stroke
NINR	National Institute of Nursing Research
NLM	National Library of Medicine

Other Acronyms

A-76	Number of the OMB Circular on Competitive Sourcing
Academy	National Academy of Public Administration
AD	Active Directory (of e-mail addresses; consolidated NIH-wide list compiled using Microsoft software named Active Directory)
AO	Administrative Officer
ARAC	Administrative Restructuring Advisory Committee, NIH
CART	Commercial Activities Review Team
CASC	Commercial Activities Steering Committee
CDC	Centers for Disease Control and Prevention, DHHS
CIO	Chief Information Officer
CNMS	Central Network Monitoring System
COAC	Consolidated Acquisition Service Centers
DDM	Deputy Director for Management, NIH
DEAS	Division of Extramural Activities Support (the MEO created by NIH as a result of winning the A-76 grants competition)
DHHS	U.S. Department of Health and Human Services
DOD	U.S. Department of Defense

EEO	Equal Employment Opportunity
EHRP	Enterprise Human Resources and Payroll System
EO	Executive Officer
EPA	U.S. Environmental Protection Agency
EPMC	Extramural Program Management Committee
FAIR Act	Federal Activities Inventory Reform Act
FTE	Full Time Equivalent
FY	Fiscal Year
GAO	U.S. Government Accountability Office
GMAC	Grants Management Advisory Committee
GMO	Grants Management Officer
Guide	*Guide to Administrative Restructuring at NIH*
HPOC	Help Points of Contact
HR	Human Resources
ICs	NIH Institutes and Centers
IG	ARAC Implementation Group
IT	Information Technology
ITMC	IT Management Committee
MEO	Most Efficient Organization (created to administer a function awarded to a federal agency as a result of winning an A-76 competitive sourcing competition)
NBS	NIH Business System (a suite of new, integrated software modules supplied by Oracle)
NIH	National Institutes of Health
nVision	Central databank of records from NBS, including improved report-generating capabilities; replaces old Data Warehouse generated by the old, electronic Administrative Data Base being replaced by NBS
OD	Office of the Director, NIH
OEODM	Office of Equal Opportunity and Diversity Management, NIH
OER	Office of Extramural Research, NIH
OFM	Office of Financial Management, NIH
OHR	Office of Human Resources, NIH
OLAO	Office of Logistics and Acquisition Operations, NIH
OMA	Office of Management Assessment, NIH
OMB	U.S. Office of Management and Budget
ORF	Office of Research Facilities Development and Operations, NIH
ORS	Office of Research Services, NIH
OSMP	Office of Strategic Management and Planning, NIH
PMA	*The President's Management Agenda*
PWS	Performance Work Statement
R&D	Research and Development
RPM	Real Property Management
SAC	HR Strategic Advisory Committee, NIH
SBP	Strategic Business Plan, OHR, NIH
SD	Science Director
SLA	Service Level Agreement
SOP	Standard Operating Procedure
UFMS	Unified Financial Management System
USDA	U.S. Department of Agriculture
VMA	Visual and Medical Arts
Y2K	Year 2000 computer crisis at the turn of the century caused by early software coding practices
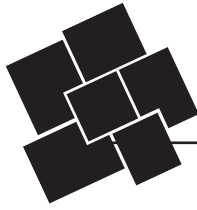
Panel Message

Federal agencies are being required to restructure their administrative functions so rapidly, and in so many ways at once, that many are running the risk of damaging their program effectiveness. Practical experiences, documented in this report, provide lessons for how to avoid or constructively manage these unintended consequences.

In the fall of 2003, the National Institutes of Health (NIH) faced multiple, overlapping administrative restructuring initiatives that were coming together all at once and challenging some traditional practices that had been deemed to be outstandingly successful. Some of these initiatives for change were home grown; others had their roots in government-wide or department-wide reforms. Any one of them, alone, could have been effectively managed—given enough flexibility and time to understand and adapt to its implications. But together, they posed a present danger to the agency.

The externally mandated restructuring of NIH's human resources (HR) function had already resulted in a rapid, unplanned consolidation. This consolidation, and related systems and staffing changes, were widely judged to have significantly reduced service levels in a function vital to maintaining the agency's world class scientific research capabilities. The breakdowns in NIH's HR function sent up red flags that warned NIH management of potential disasters. The Academy was asked to assist with smoothing the transitions required by simultaneous reforms pending in eight administrative areas: acquisition, budget, equal employment opportunity (EEO), facilities, finance, grants management, HR, and information technology.

As part of its work with NIH, the Academy identified the following six major lessons for helping federal agencies to moderate and manage the risks and unintended consequences unleashed by multiple demands for organizational and process change.

1. **Give the agency's mission top priority.** Sustaining and improving the ability of the organization to achieve its mission is of paramount importance to any change. Changes that hinder the effectiveness of an organization in pursuing its mission should be reconsidered and revised.

2. **Provide strong, sustained leadership for change.** Changing the process and cultures of large organizations, installing major new enterprise systems, and competing all "commercial type" activities (found to involve about half of the total workforce at NIH) are very ambitious, decades-long goals. Automation and competition alone are not likely to provide real economies unless they are accompanied by thoughtful and careful process reengineering. It is vital for federal agencies to gear up to achieve the expected benefits of necessary reforms systematically over the long haul, and to provide consistent and continuing leadership. A project-by-project approach is unlikely to provide good results.

3. **Keep the goals for administrative change within manageable bounds.** These goals must be based on empirical analysis of what is reasonable and practical to accomplish within given resource and time constraints. They need to be implemented with enough flexibility to accommodate documented realities and appropriately address internal organizational dynamics. Rapid results may not always be feasible.

4. **Communicate early and often.** Management cannot make fundamental changes by itself. It must have widespread support and commitment throughout the agency, so effective communication is needed to help build support. This communication should begin when developing and setting specific goals and interim targets, and continue through the implementation process until the last detail is accounted for. Genuine feedback from the front lines—where programmatic missions are being carried out—is essential to avoid counter-productive gaps in understanding between managers, workers, program delivery partners, customers, and beneficiaries.

5. **Provide sufficient change-management tools to support smooth transitions.** From cultivating a readiness for change to supplying practical support services, the underlying organizational and programmatic infrastructure for managing change must be in place. This infrastructure must be able to address the human elements of change, as well as the organizational, physical, and procedural ones. The necessary tools include a high level of communications, precise and widely distributed mapping of old and new responsibilities as they undergo change, transition services to individual employees who are being affected, and training—among others.

6. **Emphasize fact-based decision-making.** The achievements of administrative restructuring must be demonstrated on an ongoing basis by periodic measures of efficiency and effectiveness—as well as by measures that can be used to hold managers accountable for (a) achieving intended results consistent with agency missions, (b) meeting financial and non-financial standards of integrity—for example, by adhering to the standards set in the *Federal Managers' Financial Integrity Act of 1982*—(c) demonstrating compliance with applicable laws and regulations, and (d) using reliable and timely information for decision making. Questions to be answered include: how much change has occurred as a result of the reform initiative, has it been in the right direction, has it been worth the effort, and have there been any unintended consequences that need to be addressed by managers in real-time as the changes unfold? Numbers often provide the clearest answers to such questions, but if relevant numbers cannot be generated, qualitative evaluations or assessments need to be devised instead. Automated management systems are the best source of quantitative data designed to track results and to red-flag those that indicate a need for timely management attention. In agencies, including NIH, where management information systems do not meet these requirements, significant new investments are needed to bring them up to current best practice standards. The Panel believes that these investments will yield a high rate of return.

As NIH worked through the ambitious administrative restructuring agenda it set for itself in response to diverse pressures from the department and elsewhere, it showed that it can reform itself and realize economies—and can learn in the process to avoid unintended consequences. For example:

- **EEO Consolidation:** The complete consolidation of EEO employees into a central office was put in motion relatively smoothly and free of negative consequences, when compared to the earlier HR consolidation.

- **NIH Business System:** The roll-out of the later modules of business-process software being installed at NIH is expected to be much more trouble-free than the first two modules—which provided NIH many lessons about the communication and training required to support a smooth transition.

- **Competitive Sourcing:** In its later competitive-sourcing proposals made under the terms of Office of Management and Budget Circular A-76, the NIH programs included have been smaller, less costly, and less risky than the first two, high-profile ones that proved difficult to manage.

- **Evaluation:** The evaluations of HR organizational impacts, unintended workload shifts, and changing demands in the Office of Financial Management resulting from the installation of major new software systems demonstrate the value of monitoring what happens on the front lines as reforms move forward.

This report details the lessons that were learned and documents the NIH experiences that illustrate them. These lessons have been learned before by other large organizations, and there is a rich body of literature about them, some of which is cited below in this report. But each situation brings new ways to apply them, and new challenges to consider.

The Panel believes that it is essential to give careful thought to whether each new change proposed will be worth the effort required to make it happen, and that tracking both the benefits and the costs of changes as they occur will be invaluable in avoiding unwise or counter-productive reforms.

NIH and other agencies are obligated to manage the resources entrusted to them efficiently. But all agencies also are obligated to manage effectively and with integrity; efficiency is not everything. The goal of change is to achieve all three objectives at once, and that is what we believe the lessons in this report will help agencies to do.
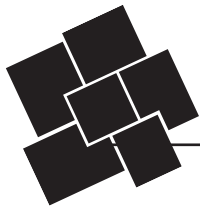
The Context for Administrative Change at NIH

C hange can be disruptive and stressful. And as the 21st Century unfolds, change is pervasive in government. Automation, consolidation, and the search for efficiency are at the forefront of administrative changes in government—just as they are in business. But close behind—in government—is the search for public accountability, results, and excellence in the stewardship of resources. These forces work their way through the fabric of government from Congress and the President, to the implementing departments and agencies, and eventually to the individuals who make the government work. Administrative processes and effective leadership at each level hold this system together, and make it efficient and effective—or not.

In the federal government, administrative changes are being driven by many different forces. Chief among them is *The President's Management Agenda* (PMA). In mid-2001 the President set forth five government-wide initiatives:

- Strategic management of human capital
- Competitive sourcing
- Improved financial performance
- Expanded electronic government
- Budget and performance integration

In 2004, Executive Order 13327, "Federal Real Property Asset Management," established a sixth initiative: improved stewardship of government-owned facilities.[1]

Office of Management and Budget (OMB) circulars guide much of this administrative improvement effort, and it reaches NIH through the department in which it resides—the Department of Health and Human Services (DHHS). In the end, NIH is responsible for improving results.

NIH began upgrading its business processes and electronic systems even before the government-wide and departmental streamlining initiatives arrived. NIH realized, as it prepared to ward off the danger of Y2K, that its 20-year-old automated systems needed modernization for many other reasons—and it began a multi-year program to install a comprehensive new NIH Business System (NBS) with "best practice" integrated operating and reporting functionalities.[2] That prior experience with innovation helped prepare NIH to undertake additional administrative restructuring responsibilities to meet the new government-wide and department-wide requirements—and to become a leader for such changes within the department itself, especially within the information technology (IT) and finance areas.

NIH's goal has been to take advantage of these new administrative technologies (and their potentials for efficiencies) in a way that will leave as much as possible of its resources available for the pursuit of science, while fulfilling scientists' needs for administrative support to maintain the organization's world-class scientific capabilities. A key initiative was establishment of a high-level Administrative Restructuring Advisory Committee (ARAC), which recommended changes in eight administrative areas, and the subsequent efforts to implement those changes.[3]
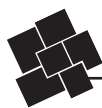
THE NIH APPROACH

From the beginning of its own NBS initiative, NIH recognized the difficult challenges of making agency-wide administrative changes within its traditionally decentralized structure. It had set up a change-management unit to help smooth the way. NIH also saw other needs for: clear and bold leadership (within a consultative framework), specialized consultant assistance, and continuing coordination groups to "pace" the change process and keep it moving. The structure of the administrative reform process that evolved at NIH to respond to multiple forces for change is described below to provide a context within which to view this "lessons learned" report.

Change-Management Framework

Human nature being what it is, the people within organizations—and the organizations they run—tend to resist change, at least initially. The psychology of change has several well defined stages that last various lengths of time and are more (or less) deeply rooted, depending on the degree of change that is occurring and the receptivity of the individuals and organizational cultures involved.[4] The typical stages are:

- **Denial**—"This will never happen, or it won't affect me. So I don't need to pay it any attention."
- **Resistance**—anger, blame, anxiety, or "retire on the job" expressions of passive resistance
- **Exploration**—considering every possible option, but not making the decisions necessary to make improvements
- **Commitment**—working together to make the change happen

A formal change-management team can assist the people and organizations that find themselves caught up in major transformations to recognize and make these transitions as smoothly and quickly as possible—giving each person, group, and organization the psychological and technical tools necessary for success, according to their own individual needs. The needs vary a great deal among the 27 different Institutes and Centers (ICs) at NIH, among the many occupational groups they rely on, and among the hundreds (or even thousands, in some cases) of individuals that need to be part of a successful transition. It has proven to be extremely important to stay attuned and responsive to these diverse and changing needs as they emerge throughout the change process.

A change-management process was used more in some of the NIH administrative restructuring areas than in others, and it is instructive to look at the results and how they evolved over the past two years as transitions occurred in the NBS, grants Most Efficient Organization (MEO),[5] human resources (HR), equal employment opportunity (EEO), and acquisition functions. A significant amount of learning occurred during this time—as described in this report.

The Leadership Component

Clear, strong, and continuing leadership is critical to the success of major organizational reforms. The NIH case illustrates how the results achieved reflected the ebb and flow of leadership throughout the change process. The initial bold leadership by the NIH Director—in initiating the 2003 ARAC effort—enabled NIH to retain authority to make the required administrative changes itself, rather than having several of its administrative functions consolidated at the departmental level. But as the promised changes began to be implemented under eight separate implementation groups, denial and resistance showed up in some, and leadership had to be reasserted to get the reforms back on track.

The Deputy Director for Management (DDM) and the new NIH "Governance Structure" were the ultimate authorities for overseeing administrative restructuring activities. The Governance Structure consists of a policy making Steering Committee chaired by the NIH Director and consisting of 10 IC Directors (seven of whom rotate). Issues coming before the Steering Committee are prepared by one or more of five standing Work Groups responsible for various types of subject matters.

For ARAC, a small and informal Strategy Group also emerged to assist the DDM, and meetings of the ARAC Implementation Group Chairs—representing all eight restructuring initiatives—also proved necessary to keep the process going. In addition, a special Panel of outside public administration experts that was convened by the National Academy of Public Administration (the Academy) to advise NIH on the administrative restructuring effort proved helpful in maintaining the pace of implementation. The Panel met every two months and created external deadlines for status reports and the production of substantial products regularly throughout the project.

Without this rather elaborate internal and external leadership dynamic, it is unlikely that as much progress could have been achieved. The strong inertia of traditional decentralization at NIH, the practical problems involved in making the large changes that had been mapped out, and the natural independence of scientists at NIH, all militated heavily against administrative consolidation, uniform procedures, and restrictive rules. Exercising sensitive but strong leadership in this organizational climate is an art that is not easily taught or acquired.

Specialized Consultant Assistance

NIH retained the Academy to assist each of the eight ARAC Implementation Groups—in addition to advising the agency's central leadership—to overcome anticipated difficulties and to provide enabling services as needed. In this role, the Academy provided continuing staff assistance to the individual ARAC groups, to the ARAC Strategy Group, and to the DDM. This assistance took the form of:

- a *Guide to Administrative Restructuring at NIH* (Appendix D)
- numerous benchmarking studies for individual ARAC groups
- documentation of committee work, decisions made, and progress achieved
- a new ARAC web site and regular progress reporting processes
- NIH-wide training of new grants managers
- studies of performance metrics and service level agreements
- professional meeting facilitation
- several special evaluations and studies

This on-call, just-in-time help was often instrumental in promoting progress. NIH frequently uses consultant help on initiatives of this nature, including the NBS and A-76 efforts.

Coordination Groups

NIH life is filled with meetings. Additional meetings are not always welcomed. But administrative restructuring touched everyone at NIH. So, leaving anyone out risked increasing the resistance to vital changes. Regular meetings became necessary to the success of the venture.

The Academy supported regular meetings of the individual ARAC groups, the ARAC Strategy Group, and the ARAC Implementation Group Chairs. Each of these meetings provided important opportunities to explain new initiatives, share progress and encouragement, and seek coordination. In addition, the Academy worked with NIH leaders to provide comprehensive guidance—derived from the literature of administrative change—in the form of the *Guide to Administrative Restructuring at NIH*. A copy of the *Guide* is provided in Appendix D. The Academy also supported its own outside-expert Panel meetings which provided a non-traditional venue where NIH leaders could come together to consider an independent perspective not always available within NIH.

PLAN OF THIS REPORT

The NIH Steering Committee, the individual ARAC Implementation Groups, and others involved in administrative restructuring at NIH operated within this overall management environment. The experiences of each ARAC group are summarized in Appendix C of this report, as the primary basis for the lessons described in the body of the report. Other major restructuring activities playing out at NIH at the same time as ARAC, and several related work assignments performed by the Academy, are summarized in Appendices E-J.

In reading the summaries, one will note that they encompass a wide variety of experiences. What one group did was not necessarily the same as another group—and neither were the challenges they faced. So, NIH learned as much from comparisons among the groups as from the individual groups. In summarizing the experiences in the eight functions, the lessons from each group were captured in relation to the others. The Academy Panel believes this analysis enriches the lessons from the whole NIH experience.

The lessons presented in this report are consistent with lessons learned in many different organizational settings over a long period of years.[6] But every organization needs to re-learn them and apply them specifically to the unique setting in which it is currently operating. The general principles only take an organization so far. The Academy believes the lessons contained in this report can help diverse federal agencies achieve successful transformations in many different situations.
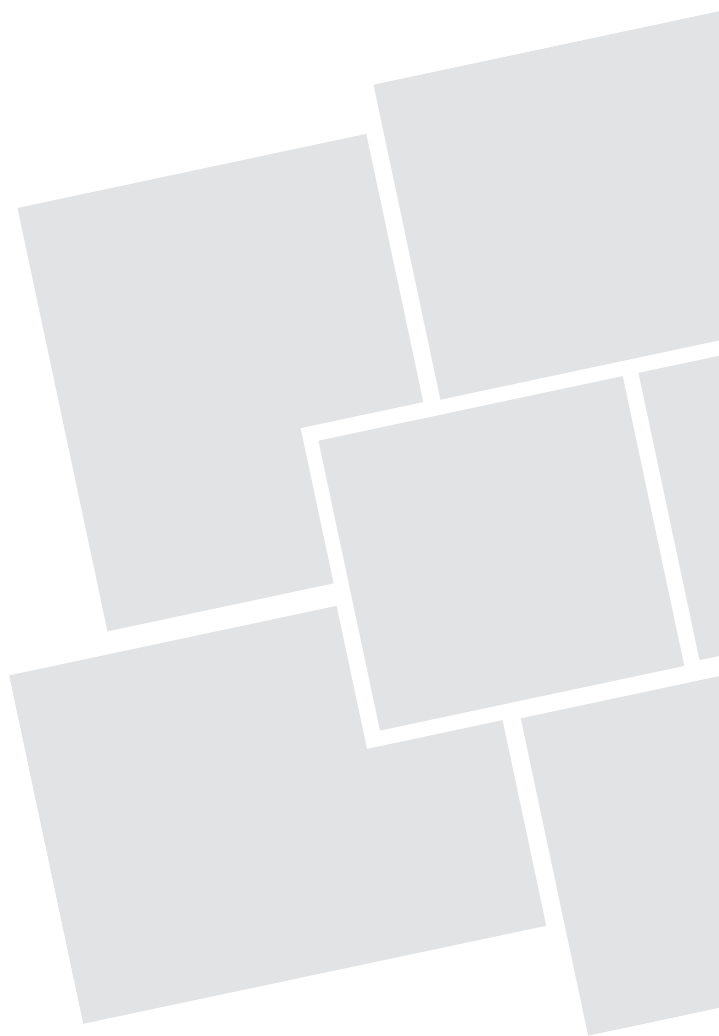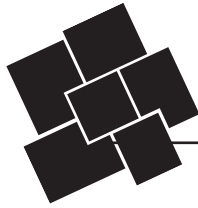
Six Key Lessons

*I*n the year and a half that the Academy worked with NIH to help implement ARAC, one group or another at NIH has learned better ways to restructure administrative services. The Academy and NIH observed these lessons as they developed, and endeavored to transfer them from one group to another.

To simplify the message, the Academy grouped these lessons into six main categories, each of which has sub-lessons that enrich the overall point. The six lessons that follow describe these simple, easy-to-remember prescriptions, and provide actual NIH examples. The six prescriptions are:

1. Give the agency's mission top priority.
2. Provide strong, sustained leadership for change.
3. Keep goals for administrative change within manageable bounds.
4. Communicate early and often.
5. Provide sufficient change-management tools to support smooth transitions.
6. Emphasize fact-based decision-making.

Simple as these prescriptions sound, none is easy to follow.

LESSON 1:
Give the agency's mission top priority.

When the Academy began assisting NIH, the agency was overwhelmed with diverse demands for changing its administrative processes. They were coming from every side. The whirlwind of unpredictable activities that resulted took on the nickname, "The Perfect Storm." The long-time closeness between working scientists and their administrative services aides—who were able to work the system to respond to the scientists' needs rapidly and effectively as their experiments and studies opened new insights to pursue in the search for new knowledge and new cures for human ills— was an exceedingly important ingredient of NIH's outstanding mission success. Some at NIH had deep concerns that breaking this tight bond would cause the entire ship to go under, taking its world-class scientific programs with it.

Sustaining and improving the ability of the organization to achieve its mission is of paramount importance to any change. Changes that hinder the effectiveness of an organization in

Changes that hinder the effectiveness of an organization in pursuing its mission should be reconsidered and revised.

pursuing its mission should be reconsidered and revised. As the doctor's oath prescribes, "First, do no harm."

LESSON 2:
Provide strong, sustained leadership for change.

Top leadership seemed uncertain about ARAC at first. It viewed ARAC as a highly negative subject. Even after the department had accepted ARAC as a way for NIH to demonstrate that the agency could perform the required restructuring by itself, NIH left the ARAC report as a draft and was reluctant to put out strong signals that everyone at NIH was to put their shoulders to the wheel to get it done. Uncertainties remained about how solid and public the department's support for ARAC really was, and that uncertainty settled throughout the agency as a significant drag on implementation activities in the less change-ready groups. Finally, in August 2004—about a year after the release of the ARAC draft report—the *Guide to Administrative Restructuring at NIH* was released with a forthright endorsement in the front by the NIH director and the DDM. Management also created and announced the establishment of a new web site to keep

everyone up-to-date on the eight implementation groups, invite comments and questions, and provide helpful resources. A few months later, a front-page article was printed in the *NIH Record* providing some further background on ARAC and its purposes.

However, these delays had allowed denial and resistance to tarry too long among those groups that had less interest in moving forward. Eventually, though, management took several steps that gradually paid off in strong messages of urgency about building a record to demonstrate to the department that NIH had, indeed, delivered on its promise to implement ARAC. The first step was to create a small Strategy Group chaired by the DDM to sort through The Perfect Storm, begin monitoring the activities of all eight ARAC groups, press for establishment of collaborative ARAC groups in each area, and engage the groups' leaders with each other and with the Academy Panel in an ARAC setting. The ARAC Implementation Group Chairs meetings were used to send strong signals to all the leaders that it was time to make progress.

Meanwhile, the Academy team was specifically tasked with assisting all the groups to communicate with their customers in a service-delivery context, begin developing sound metrics (including baseline data against which to measure change, as well as performance measures) upon which to base service level agreements, and take a change-management approach to readying the affected people for impending changes. Most groups engaged the Academy in metrics benchmarking against other agencies to help move this activity along.

Overall, the leadership exercised by top management grew stronger, more assertive, and more effective as the process matured and as the deadline for demonstrating results to the department approached. The importance of cohesive and sustained leadership is a common theme that runs through much of the literature on change management.[7] Collaborative management is a special topic unto itself, but it is becoming more common within the federal government. It is especially hard work and deserves increased attention.[8]

It seems clear now that administrative restructuring at NIH is still closer to beginning than to finishing. It is a multi-year challenge to federal agencies. Federal leaders should prepare

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> *...administrative restructuring...is a multi-year challenge to federal agencies...A strong governance structure will be a key ingredient in its long-term success.*

to address administrative restructuring on a long-term basis, and leadership responsibilities for it should cascade throughout the organization to encompass the operational levels. A strong governance structure will be a key ingredient in its long-term success.

LESSON 3:
Keep goals for administrative change within manageable bounds.

NIH had thought it was making good progress in modernizing its automated systems through its own NBS program. But, it turned out that was not enough. Under the PMA, government-wide automated systems were beginning to take shape, which could ultimately replace NIH's own new systems just then being installed. In addition, consolidating and reorganizing administrative services across the whole government—and across NIH's parent department, the DHHS—was threatening not only the independence of the agency's 27 separate ICs, but also the independence of NIH itself, all for purposes of economy and efficiency. And the government-wide requirement to compete with the private sector to keep each function of a "commercial" nature within the agency or contract it out, again to improve economy and efficiency, was challenging existing ways of doing business—and requiring a brand new activity that NIH had not performed before. This new activity was specified by OMB Circular A-76.

The ARAC initiative was devised to cope with these outside forces in a coordinated and more effective way, and to demonstrate that NIH could by itself achieve the administrative efficiencies being demanded—without resorting to consolidating various functions into department-wide or government-wide organizations.

As these tugs and pulls became stronger, ARAC, A-76, and NBS emerged as sometimes competing and sometimes reinforcing initiatives. Whether to integrate them or protect their independence from each other became an issue. Depending on whom you asked, keeping them separate was either slowing the progress of administrative reform or keeping it on track. Each one had a different genesis and was operating under different rules.

To a large extent, the ARAC effort was successful in convincing DHHS to let NIH show that it could reach the department's goals for consolidating and downsizing its administrative functions under its own steam. But this agreement neither fully preserved NIH flexibility to determine how to reach some of these goals, nor did it fully integrate the three restructuring initiatives operating within NIH. For example, in the HR consolidation, the department still determined the timing, the organizational structure and functions of the consolidated office, and the staff ceiling under which it would have to operate. ARAC was a short-term response mechanism designed to produce clearly demonstrable results within a year or so. And NBS was a multi-year program that began long before ARAC and would extend long afterward. The A-76 competitive sourcing initiative, just beginning at about the same time as ARAC, was designed as a decade-long program to eventually compete all the agency's commercial-type activities against the private sector as a means of controlling costs.

...the ARAC effort was successful in convincing DHHS to let NIH show that it could reach the department's goals...under its own steam.

NIH had no experience in managing such a complex set of simultaneous administrative restructuring initiatives. And neither did other federal agencies. This was hard work, mostly being invented on the fly. But, NIH met many of the goals, and earned a reputation within the Administration as an effective engine of administrative restructuring.

As one might expect, however, mistakes were made. Some unexpected impacts emerged. Some service levels deteriorated. Morale took a hit. Not all the goals were met, and some had to be changed. No one considered the cumulative impacts of all these simultaneously-occurring changes on the organization, its people, and its mission.

Obviously, NIH bit off more than it could chew, but it had to. There was little time, and only meager management data, with which to prepare empirical analyses of the impacts of proposed changes. NIH learned the hard way that administrative restructuring goals should be based on empirical analyses that take into account baseline conditions, measures of desired performance, costs, potential human and organizational impacts, consequences for the agency's mission, alternative approaches, and a practical schedule for implementation.

No one considered the cumulative impacts of all these simultaneously-occurring changes...NIH learned the hard way that administrative restructuring goals should be based on empirical analyses...

NIH began to adjust, learning to incorporate change faster and cheaper whenever possible. NBS learned to beef up its change-management program to make smoother transitions. NIH established a whole new office for the A-76 program and got improved consultant help to prepare more realistic competitive proposals in succeeding years; and it also established a new Transition Center to take care of workers not employed in the organization that won the bidding. Several of the ARAC groups were able to adjust their goals to bring them into better alignment with reality through the consultative relationship they developed with the customers for their services; the IT, budget, EEO, and acquisition groups provide examples.

The HR group had none of the flexibilities available to the other ARAC groups, NBS, and later A-76 efforts. HR became the poster-child for how not to do a consolidation. It met its consolidation, downsizing, and schedule targets—and is often cited outside the agency as a major success. But inside NIH, HR became an example of reduced services and deteriorating morale—both inside the newly consolidated office and among its customers. This change was made based on the anticipated availability of efficient new automated systems, but it was implemented before the software was capable of operating as advertised. The HR office struggled to correct these shortcomings, but it had a long way to go. Had it used the change-management and software acceptance procedures built into (and steadily improving in) the NBS program, it would not have had such a long way to go.

It is often said that the good manager finds a way to derive benefits from adversity. Slow the rate of change if it is too fast. Increase the speed of response if the change cannot be slowed. Creatively use whatever flexibility is available. Look to outside resources and collaborative sources of new ideas wherever they can be found. Get beyond denial, and take a proactive stance so the change will not simply roll over the organization. That's the advice generally given for navigating through The Perfect Storm of administrative transformations, such as those facing NIH in 2003-2005.

As administrative reforms progressed, the Academy staff was tasked to evaluate the impacts of the HR consolidation (Appendix I), the cumulative impacts of the various administrative restructuring initiatives on IC workloads (Appendix H), and the implications that the roll-out of new financial and travel NBS software systems had for the organization and staffing of the Office of Financial Management (Appendix J). All three of these special studies dug deeply into the changes that occurred, and found that some organizational, staffing, and measurement adjustments would be beneficial. The clear lesson is that NIH needs the capability to assess progress and problems and make mid-course corrections.

> *Creatively use whatever flexibility is available...make mid-course corrections.*

LESSON 4:
Communicate early and often.

Open communication is a significant challenge for NIH. Consistent with best practice, the *Guide to Administrative Restructuring at NIH* put everyone on track to communicate early and often while planning and implementing administrative changes. The NBS protocols also set requirements for communications to begin substantially before the actual change occurs, and continue throughout the change process as well as afterward. They address all the various audiences that have a need or desire to know what's going on, gather feedback on what is being planned, and seek to meet the needs of affected people and pick up lessons learned for improving the process the next time. The EEO ARAC group followed this communications template in its work—to good advantage—and the acquisition ARAC group began taking the same route in 2005, as it took on the serious work of organizing a small

> *The NBS protocols...set requirements for communications to begin substantially before the actual change occurs, and continue throughout the change process as well as afterward.*

number of consolidated service centers in preparation for the introduction of the procurement module of NBS. However, at the policy level—when considering such issues as developing broad strategies for change, meeting Administration and departmental requirements, developing implementation plans, and dealing with unanticipated impacts of changes already made—communications often were considerably more constrained. Competing interests between the Office of the Director and the ICs, between NIH and the department, and between the IC culture of independence and the Administration's and department's culture of consolidation and downsizing, drove policy-making communications into a defensive and much less open posture. Instead of reaching out to get everyone's ideas about options for proceeding, the process tended to tighten the circle to a small number of people who pinned down all the details before announcing a decision. Thus, many key discussions were closed, and the distance between "management" and the ICs lengthened. Good ideas were lost, as frustration grew and management was often seen to be unapproachable.

An illustration of the distance between "them and us" was provided by the Academy's survey of NIH Administrative Officers (AOs) regarding unanticipated workload shifts resulting from administrative restructurings. Approximately 440 AOs were surveyed, and 70 percent replied within three days to a series of detailed close-ended questions. Many of the respondents, collectively, added a hundred pages of written responses to a few open-ended questions that let them elaborate on their experiences with these shifts and how they thought the situations could be improved. They knew the survey was being conducted for top management, and appeared to view this as a rare opportunity to satisfy their hunger to be heard. This survey broadened the circle of ideas thrown into the mix, and enriched the dialogue on an issue of great importance and widespread interest.

> *[At the policy level] more open two-way communications…could help to produce more timely and better results…*

The late and sparing use of general media for spreading the word about administrative restructuring—mentioned above—seems to be rooted in a perception that this topic is so negative that it is best left alone. But that view inhibits clear and strong leadership, allows progress to lag, and wastes

precious time for producing results. The consequence is a rush to produce late in the game, when time to "do it right" is scarce. More open two-way communications—begun earlier and continued throughout the process—could help to produce more timely and better results, or at least to identify goals that may need to be modified.

On this latter point, two ARAC cases illustrate how a more open policy process might be beneficial. First, when the NIH Center for Information Technology began discussing the ARAC goal of consolidating all the NIH IT networks into one, it became apparent that many millions of dollars and a great deal of disruption would be involved if it were done all at once. So the goal was officially changed to move toward the larger goal over time, on a case-by-case basis when new networks are built and old ones need major renovations.

In the second, contrasting, case—consolidating the few remaining large conference rooms and individual IC facilities management and renovation operations to bring them under central control and in line with established delegations of legal authority—the issue was not joined until late in the ARAC effort, alternatives were not considered, and little progress was made against fierce opposition.

Overall, the Office of the Director is not in a strong position to consolidate or unify services, relative to the individual ICs—especially the large ICs. Twenty-four ICs get direct appropriations, prepare their own budgets, and often can veto or simply not go along with NIH-wide policies and decisions. So, central management is acutely sensitive to IC needs and positions.

This hypersensitivity placed the NIH central management offices in the middle between the decentralized culture of the ICs and the centralizing culture of the Administration and the department. This uncomfortable position led to a conservative—more closed than open—approach to communication. On the ARAC web site, for example, relatively little information was posted, because it took too much time and effort to make sure no one would object. And very little use was made of the widely read and highly regarded *NIH Record* to promote wider understanding of administrative restructuring and to provide specific news of actions being taken that might have potential to affect large numbers of people.

The bottom line is that too much time is spent on protective strategizing about communications—to make sure nothing provocative gets out. In comparison, too little time is spent on communications meant to stir productive and energizing dialogues that could enrich the ideas under consideration.

This communications difficulty represents a dilemma. In many of the situations that NIH faces, risks are associated with open communications, and the risks need to be weighed carefully. But moving toward openness in more cases—as NIH has been able to do with some specific systems transitions—could also have value. Searching for increased opportunities to conduct open communications should receive greater consideration. *The Guide to Administrative Restructuring at NIH* lays out six best practice principles of effective consultation that could help this effort succeed (see Box 1). Reformers at the U.S. Internal Revenue Service—a really hard case compared to NIH— recently found that results were almost always better when management engaged their stakeholders before they decided the issue than if they decided first and then had to explain the decision.[9]

Box 1
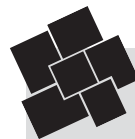
Principles of Effective Consultation

1. Inclusive and well known process—that stakeholders helped to develop and agree is fair, and that is well publicized
2. Stakeholders assisted to participate effectively
3. Two-way exchange of information
4. Timely access to decision makers and feedback to stakeholders
5. Satisfaction with the process
6. Influence on results

Source: Academy, *Rural Transportation Consultation Processes* (Washington, DC: 2000).

LESSON 5:
Provide sufficient change-management tools to support smooth transitions.

The NIH EEO group was ready to go as soon as the ARAC report was accepted by the department. It was to be a full

consolidation, like HR—pulling all the jobs in that classification out of the 27 ICs and locating them together in a central office within NIH. But it only affected about 75 EEO employees (a much smaller number than the HR consolidation), retained flexibility to organize the new office in whatever way made sense for NIH, and had a year to prepare for the actual change. It also had a collaborative-style leader who used a lot of communication and a full set of change-management tools to help make everyone affected as ready as he was to support change and to have a voice in what the change would be. In its second year, the reorganization progressed relatively smoothly; no one has called it "the next HR"—the dreaded term applied at NIH to risky and failed reorganizations.

Like the EEO group, the IT and acquisition ARAC groups established collaborative committees of their customers as soon as the report was accepted by the department. Both groups also welcomed the Academy/NIH support team into their meetings as soon as the contract for assisting NIH was signed, and they began probing for ways in which the Academy could help them achieve their goals. In contrast, four of the ARAC areas were heavily staff-oriented, and did not engage with the Academy/NIH support team until late in the process. One never did establish a group for the Academy/NIH support team to work with. The HR group, which had no opportunity to "get ready" to change originally, and virtually excluded the Academy/NIH support team for much of the first year of the ARAC effort, subsequently made very substantial direct use of Academy assistance.

So, clearly, some groups are more ready than others to take on an assignment to change, to reach out to their customers by forming implementation groups, and to take advantage of support from outside resources. The DDM began to set deadlines for the ARAC groups to demonstrate progress, instituted regular progress reporting by the groups, and established a monthly meeting of all the ARAC group chairs to engage them in a peer setting to encourage the less-ready ones to come along. In addition, each of the chairs was invited to two Academy Panel meetings to report on progress and to present ARAC implementation plans. Before NIH allowed them to present their plans to the Academy Panel, they were required to get them cleared by the NIH Steering Committee—the top group in the NIH governing

> *…take an explicitly change-management approach to [the] implementation effort.*

structure. These "forcing mechanisms" eventually engaged all the groups more fully in the ARAC process—ready or not.

Obviously, some of the groups—by the nature of their goals—had more need than others to work collaboratively and to seek external help. But, once engaged, the Academy/NIH support team was able to provide valuable assistance to even the most reluctant group. So, cultivating a readiness to open up to the change process appears to be worthwhile.

EEO was the first ARAC group to take an explicitly change-management approach to its implementation effort. It held several off-site retreats for EEO professionals as well as representatives of potential customers—the purposes of which were to gather and begin addressing concerns and ideas about how to proceed, and to begin building a unified team approach. The EEO group also used surveys and one-on-one interviews with all directly affected employees. In addition, frequent communications and briefings of NIH leadership groups were maintained— as well as an actively refreshed web site, which this group established before the ARAC-specific web site opened. In addition, this group mapped the relative roles and responsibilities of the new consolidated EEO office and the ICs both before and after consolidation—so all could see exactly what consolidation would mean.

Much of this process mirrored the change-management process in NBS. That process had been used to roll out the first two modules of NBS software, and was later strengthened as a result of follow-up assessments. The acquisition ARAC group began using a similar process to consolidate the contracting service centers scheduled to open by October 31, 2005, ahead of the roll-out of the acquisition module of NBS software planned in the first quarter of calendar year 2006.[10] And some of the same techniques found their way into the A-76 process, which learned from the grants MEO case that better preparation ahead of establishing MEOs would be beneficial.

Learning-by-doing has been an important development in improving change management at NIH. Each succeeding change-management effort has improved by learning from the previous one. This sharing of lessons within an agency— and by benchmarking against other agencies—is an important practice that deserves more attention.[11] Providing independent, third-party expertise and external benchmarking can help to bring in outside perspectives and off-set the natural tendency toward parochialism.

Box 2 lists the main change-management tools used at NIH.
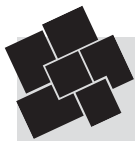
Box 2

Tools for Managing Change
(illustrative list)
- Representative implementation groups
- Frequent information sharing
- Input from affected parties (at all stages)
- Benchmarking against other comparable organizations
- Training in change-management concepts and processes
- Detailed planning for the transition
- Counseling for individual employees affected
- Training for new job skills
- Re-employment services (for employees not placed in the new office)
- Mid-course adjustments in goals, procedures, and schedules
- Lessons for implementing change better the next time

A question for the future is whether it would be beneficial to combine all the change-management resources in one place. At NIH, they are centered largely in NBS, but that is a temporary resource devoted principally to rolling out a few of the major new software systems. At the same time, the A-76 program has developed some similar, but more narrowly conceived, capabilities for the much longer-term competitive sourcing initiative. At some point, the NBS capability will go away, but the need for change-management tools is likely to continue for other purposes. NIH should consider consolidating change-management resources and making them available on a long-term basis.

Change-management processes have the potential to put a human face on administrative restructurings. This applies not just to the effects on individuals, but also on groups. The typical change-management program focuses on helping individuals through reorganizations that may change their duties, where they work, and what new qualifications they may need to acquire. But it usually does not look for identifiable demographic patterns that may show potential inequities. At least one case of a person with disabilities being potentially disadvantaged by the A-76 process surfaced at NIH. It is important that NIH's EEO office continue to be involved in the design and evaluation of restructuring initiatives to make sure these concerns are addressed.

LESSON 6:
Emphasize fact-based decision-making.

As the sound metrics appendix (G) shows, management metrics are not a strong suit at NIH. However, this has been recognized and the Director is pushing for better metrics. In addition, the recently revised OMB Circular A-123 (December 2004) is calling for improved internal management control metrics, and the installation of new systems software provides an excellent opportunity to think this through. It is especially important that these metrics be readily reported to appropriate levels of management in a timely manner when they indicate the need for potential corrective actions.

The general lack of NIH-wide metrics is, in part, a result of the long legacy of decentralization. Even the NIH risk assessment process has used very little data. That process has been based largely on subjective ratings by knowledgeable officials, instead of objective data.

The ARAC work sensitized a significant number of NIH employees to the need for more program metrics. Nevertheless, the agency remains far from having a culture that manages by numbers. Although not everything can be managed by numbers, much more can be managed that way than has been the case at NIH. The ARAC benchmarking by the Academy has verified this point, based on practices at other organizations. When key factors in decision-making are hard to measure quantitatively, assess them qualitatively. That is much better than leaving them out.

Discussions were also underway during 2005 to improve NIH's internal management controls—to provide greater assurances that NIH is operating in a manner as risk-free as possible—and the Academy was also tasked with helping

> *When key factors...are hard to measure quantitatively, assess them qualitatively.*

NIH in this effort. This examination found that potentials for the metrics needed to improve these controls are not well developed at NIH. Even as NBS is being rolled out, for example, management control metrics have not been a significant focus in determining the adequacy of these new systems. The discussions also emphasized the desirability of creating incentives for this activity by including measurable performance provisions in employee evaluation contracts as an incentive for reaching this goal.

It is vital for top management to have an evaluation resource. This resource needs to be readily at hand to meet needs as they arise, but also needs to be used regularly to look into systems and procedures that might cause risks to program performance, or pose financial, legal, or other liabilities. The agency's regular evaluation funds are located in the Office of Science Policy, so have not normally been available to the management offices. In addition, staffing in the NIH Office of Management Quality—where internal management controls and similar issues are handled—was substantially reduced to set up the new office that addresses A-76 needs. So, an evaluation capacity of this sort will need to be reestablished largely anew.

Thus, looking across all the enhanced management requirements that NIH was facing, the potential emerged for better metrics to help improve program performance, guard against unfair and improper impacts on individuals or classes of people, document the restructuring goals achieved, and tighten internal controls. In particular, better cost data were found to be needed to document efficiencies achieved and to support more realistic A-76 competitive sourcing proposals. Better metrics provide a win, win, win opportunity.[12]

> *It is vital for top management to have an evaluation resource...better metrics to help improve program performance...[and] better cost data...*

> *...the Director is pushing for better metrics...and the installation of new systems software provides an excellent opportunity to think this through.*
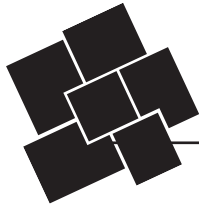
Conclusion

Current trends in administrative management at NIH and other federal agencies appear to be going in two opposite directions at once. Administrative capacity is being downsized and squeezed for resources. But, at the same time, many new administrative duties are being added. The Academy's AO survey at NIH (Appendix H) begins to illuminate this dynamic. It shows, for example, that not only have consolidations shifted workloads back to the ICs where the administrative people needed to do them were removed by the consolidations, but new work—never done before—has been added on top. The new work required under the expanded A-76 requirements, the new emphasis on strengthening internal management controls (government-wide and at NIH), and the need to fund new Homeland Security measures within agencies' existing budgets are among the forces increasingly straining declining administrative resources throughout the government. A reevaluation of this situation is overdue.

In light of the NIH experience, we conclude that administrative restructuring in the federal government is likely to continue for many years. Success in meeting this challenge will require careful application of all the lessons learned at NIH—and more. In addition, the lessons will need to be put together like pieces of a puzzle—with everyone working together to tailor their efforts to their agency's specific circumstances.

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Public Administration
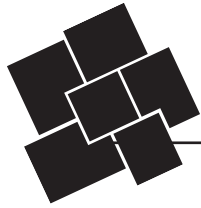
Notes

[1] For a recent exposition on this subject, see: Committee on Business Strategies for Public Capital Investment, National Research Council, *Investments in Federal Facilities: Asset Management Strategies for the 21st Century* (Washington, DC: The National Academies Press, 2004.)

[2] See: Appendix F for a description of NIH's NBS experience and the lessons demonstrated by it.

[3] This temporary 26-member committee was chaired by the NIH Deputy Director and included Institute and Center Directors, senior executive staff from the Office of the Director and the Institutes and Centers as well as members of the Intramural and Extramural programs. Working groups were formed to focus on eight functions: acquisition, budget, equal employment opportunity, facilities, finance, grants management, HR, and IT. Each working group was co-chaired by an Institute or Center Director and a senior NIH executive with functional expertise. An unpublished report was prepared by each working group. The ARAC report recommendations were based on the working group reports. The draft ARAC report was presented to and informally accepted by DHHS, but was never formally published or widely publicized.

[4] See: Appendix D, *Guide to Administrative Restructuring at NIH* (August 2004) Part II, pp. 17-26

[5] An MEO is a federal agency's in-house staffing plan for an "A-76" competition, representing the most efficient and cost-effective organization it would establish and use if it won the competition. The MEO proposal is compared to the bids submitted by private-sector companies. A-76 is the number of the OMB circular that defines and guides the required "competitive sourcing" process.

[6] For example, a similar collection of organization-change experiences in government agencies identified eight lessons: select the right person, clarify the mission, get the structure right, seize the moment, communicate (x3), involve key players, engage employees, and persevere. See: Abramson and Lawrence, eds. *Transforming Organizations* (New York: Rowman and Littlefield Publishers Inc., 2001). Another contemporary account of federal agency reform identified nine principles for successful change: improve how the organization performs; get the right people in the right jobs; use the right measurements and incentives; update organizational structures, business practices, and technologies aligned with customer needs; know what is really going on at the front line; maintain open and honest communication inside and outside the organization; make real changes; recognize that the right governance and leadership are more important than rules and mandates; and recognize that the organization's context limits the amount of change. See: Rossotti, *Many Unhappy Returns* (Boston: Harvard Business School Press, 2005) pp. 293-299.

[7] See: Harokapus, *Transforming the Department of Defense: Creating a New Defense Procurement System*, in Abramson and Lawrence, eds. Transforming Organizations, pp. 11-55.

[8] For a contemporary discussion of this topic, see: Eugene Bardach, *Getting Agencies to Work Together: The Practice and Theory of Managerial Craftsmanship* (Washington, DC: Brookings Institution Press, 1998.)

[9] Rossotti, *Many Unhappy Returns*, pp. 221-237.

[10] This software roll-out was subsequently delayed until fiscal year 2007 for funding reasons.

[11] For a contemporary discussion of this topic, see: Nancy M. Dixon, *Common Knowledge: How Companies Thrive by Sharing What They Know* (Boston: Harvard Business School Press, 2000.)

[12] For a contemporary discussion of management metrics, see: Kaplan and Norton, *Strategy Maps: Converting Intangible Assets into Tangible Outcomes* (Boston: Harvard Business School Press, 2004.) It is important to remember however, that the four dimensions of the balanced scorecard discussed in the Kaplan and Norton book are business oriented. For public sector cases, a fifth dimension should always be added: effectiveness in achieving public policy goals and agency missions.

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The Academy sincerely appreciates the assistance of all those listed here, plus the many others who contributed to this project.

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APPENDIX C

This Appendix Contains:

A DESCRIPTION OF
NIH ADMINISTRATIVE RESTRUCTURING EFFORTS
IN EIGHT FUNCTIONAL AREAS

(as of June 2005)

CONTENTS

**DESCRIPTION OF NIH ADMINISTRATIVE RESTRUCTURING EFFORTS
IN EIGHT FUNCTIONAL AREAS**

This appendix provides details about the administrative restructuring experience at the National Institutes of Health (NIH). It begins with brief background on the key drivers of the changes and the context in which the changes occurred—and continue to occur—at NIH. Then it describes NIH's corporate approach to restructuring. Next, it provides an overview comparing the goals and approaches to change in the eight functional areas that were the focus of the restructuring. This appendix concludes with detailed descriptions of the eight areas' goals, accomplishments, and approaches to change.

BACKGROUND

The Government-wide Impetus for Change

Government-wide initiatives, led by *The President's Management Agenda* (PMA), are pushing federal agencies to make sure they have a positive impact, improve performance, and are as efficient as possible. In response, the Department of Health and Human Services (DHHS) has mandated major changes in how the agency goes about its administrative activities in support of its mission. In turn, NIH has, on its own initiative or in response to DHHS mandates, embarked on numerous restructuring efforts to meet the PMA goals.

The PMA vision is citizen—not bureaucracy—centered, results-oriented, and market-based. The PMA sets forth five government-wide initiatives:

- Strategic management of human capital
- Competitive sourcing
- Improved financial performance
- Expanded electronic government
- Budget and performance integration

In 2004, Executive Order 13327, "Federal Real Property Asset Management," set forth a sixth initiative: improved stewardship of government-owned facilities.

> *To reform government, we must rethink government … Government likes to begin things—to declare grand new programs and causes and national objectives. But good beginnings are not the measure of success. What matters in the end is completion. Performance. Results. Not just making promises, but making good on promises.*
>
> **George W. Bush**

These initiatives work in concert with many ongoing and new legislative initiatives—including the Government Performance and Results Act and the Human Capital Officer Act—to redirect the government's focus toward performance management.

DHHS is following the lead set by the PMA. In 2001, the department began efforts to improve management and, generally, operate as a single organization administratively. The department's "One HHS" initiative calls for consolidating and streamlining administrative functions to improve efficiency and effectiveness, and to reduce costs by streamlining structures, eliminating redundancy, staffing appropriately, and simplifying procedures. The initiative also calls for

these changes to be undertaken in an "employee-friendly" manner, honoring former Secretary Thompson's commitment to consultation and continuous communication with stakeholders, and ensuring that everyone can keep a job.

DHHS has taken, or is taking, several initiatives to carry out the "One HHS" initiative. Key efforts, begun in 2001, include:

- Deployment of the Unified Financial Management System (UFMS), in order to achieve greater economies of scale, eliminate duplication, and provide better service delivery

- Consolidation of the 40 or more separate human resources (HR) offices into four DHHS-level offices, and concurrently, deployment of new personnel processing software. The agency expected to achieve at least a 25-percent reduction in administrative staff and planned to redeploy those resources to mission-critical areas[1]

- Consolidation of administrative functions, such as budget, information technology (IT), procurement, grants management, and finance, at the operational division (e.g. NIH) level, where possible

- Reduction in bureaucratic layers to make the agency more "citizen-centered." The goal was to have no more than four management levels

These DHHS mandates, as well as renewed emphasis on competitive sourcing (as directed by the Office of Management and Budget's—OMB—Circular A-76), were key drivers in moving NIH to reassess its administrative operations.[2]

The Context for Administrative Restructuring at NIH

In October 2002, the Director of NIH requested that administrative functions be studied to determine an appropriate organizational structure that would facilitate program leadership and governance, maximize operational efficiency, expedite communications, and encourage information sharing between clients and service providers. A new, temporary, NIH-wide Administrative Restructuring Advisory Committee (ARAC) was charged with developing specific recommendations to achieve these general goals.[3] The ARAC goals were increased administrative efficiency and cost savings, enhanced mission performance, and improved administrative services to scientists.

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[1] As discussed later in this appendix, NIH's HR function was not consolidated at the DHHS level, but was consolidated, instead, at the NIH level.

[2] OMB Circular A-76 establishes federal policy regarding the performance of commercial activities, stating that "the government shall not start or carry on any activity to provide a commercial product or service if the product or service can be procured more economically from a commercial source." Competitive sourcing is commonly referred to as A-76.

[3] The 26-member ARAC was chaired by the NIH Deputy Director and included Institute and Center directors, senior executive staff from the Office of the Director and the Institutes and Centers as well as members of the intramural and extramural programs. Eight working groups were formed to focus on eight functions: Acquisition, Budget, Equal Employment Opportunity, Facilities, Finance, Grants, Management, HR, and IT. Each working group was co-chaired by an Institute or Center director and a senior NIH executive with functional expertise.

As noted above, the impetus for this effort was largely external. In responding to these consolidation initiatives, NIH wanted to maintain control over its own administrative functions, rather than have them consolidated into DHHS-wide offices. A 1997 consultant study had recommended that most NIH administrative functions be located as closely to the Institutes and Centers (ICs) as possible, in order to maximize the potential for good science. DHHS-level consolidations would be inconsistent with that advice, and with the agency's long-standing practice.

But the goals of PMA and "One HHS" also made a legitimate point and, internally, the NIH Director saw a need to improve management information and increase administrative efficiency wherever possible. Among other things, increased efficiency was a way to limit the resources committed to administration and to protect or increase the amounts that could be directly dedicated to the agency's scientific mission. This administrative effort also paralleled the Director's Scientific Roadmap initiative, which promoted promising NIH-wide priorities to address gaps in biomedical research that no single institute could tackle alone.

Concurrent with ARAC restructuring, two other major reforms were underway:

- At the outset of fiscal year (FY) 2003, NIH was just beginning to conduct A-76 public-private competitions to help drive down the costs of all "commercial-type" functions. These competitions required substantial levels of management attention, and two of them directly impacted functional areas (grants and facilities) also addressed by ARAC. Additional A-76 competitions are expected to take place for at least a decade into the future—affecting both administrative and scientific activities.

- Most major NIH administrative electronic software operations were being replaced—many by NIH-purchased commercial-off-the-shelf systems, but others by DHHS-wide or government-wide systems. Development and deployment of the new NIH Business System (NBS) was a major focus of management attention.

The A-76 and the NBS efforts are discussed in more detail in separate appendices of this report.

Unique Challenges at NIH

Change is stressful for any organization, but NIH faced some unusual challenges, especially as it sought to consolidate and increase consistency in its administrative operations. Stated generally, the same culture that staunchly supported the scientific mission and independence of research hindered management's ability to achieve consistency in administrative operations. The cultural impact of changes—like the ARAC recommendations that would remove some authority and personnel from ICs where they had been directly supporting scientists, and place them in a more distant central office—would be very substantial.

This factor contributed heavily to the unique challenges NIH management faced as it moved to implement administrative change. The sheer scope of change and some negative experiences with early attempts intensified these challenges.

Unprecedented extent of change: The changes proposed for NIH—ARAC, A-76, and NBS— were substantial in both size and scope. And several fundamental changes were mandated to occur over extremely short timeframes. Some of the changes also were substantial enough that, taken alone, they would have impacted the entire agency and its core scientific mission. Together, they increased the size and complexity of the restructuring task and exacerbated the attendant uncertainty.

Negative precedent set by earlier reorganization: NIH management faced very high levels of skepticism as it embarked on the ARAC restructuring efforts. This skepticism was reinforced heavily by what most saw as significantly negative results of a 2002 reorganization of NIH's HR operations. In response to DHHS demands to consolidate, NIH had removed all HR activities from the line authority of the ICs and put them organizationally, though not physically, under the Office of Human Resources (OHR). Total HR staffing was reduced by 25 percent and new, unproven, department-wide software systems were introduced, all at the same time. In fact, the HR ARAC team, formed to identify additional consolidation opportunities, labeled the HR reorganization a "dismal failure." The team noted, among other things, that customer satisfaction had plummeted and processing times had increased.

While the ARAC team was working to develop additional recommendations, however, DHHS proposed that NIH HR be further consolidated into a department-level office. Ultimately, compromise allowed NIH to retain its HR function, but the agency had to structure its HR function as directed by DHHS. As a result, in October 2003, when the agency was beginning to implement the many other ARAC recommendations, NIH-level HR was reorganized again. This time, HR staff were physically moved from the ICs, staffing was again significantly reduced— bringing the total reduction to about 40 percent—and additional new software was introduced. Again, the NIH community saw highly negative results, seriously contributing to agency-wide resistance to other recommended ARAC changes. NIH's experiences with HR restructuring are discussed in more detail later in this appendix.

Preeminence of science: NIH is a world class scientific organization, one in which scientists traditionally have been shielded from "everyday" administrative tasks. The agency culture traditionally has expected excellent administrative support that leaves scientists free to pursue their scientific research unimpeded by bureaucratic burdens. Scientists always expected these high-quality services to be convenient, and were used to receiving most of them from staff who were co-located with them and easily reachable. While scientific exploration thrives on change and new discoveries, scientists were resistant to administrative changes they perceived as being disruptive.

Decentralized structure: The 27 ICs in NIH enjoy significant levels of autonomy. In fact, 24 of them have separate appropriations. Members of the NIH community frequently describe the culture as one of "consensus" management, meaning that all ICs have a chance to weigh in on major decisions. In practice, however, it means that individual ICs, especially large ones, can prevent consensus and, in effect, prevent management from taking consistent action across the whole agency.

Lack of a perceived problem: Although many of the recommended ARAC changes were developed in-house, the initial impetus for change came largely from outside—many in the NIH community did not believe administrative services were "broken." They were reluctant, therefore, to support changing them.

Change is easier when problems are obvious, solutions are clear, and those who will be affected agree that the change is needed.

Lack of NIH-wide data: Many of the administrative functions in NIH have been decentralized for many years. ICs determined for themselves how many resources to devote to specific functions (such as HR and budget preparation), used their own appropriations to support those operations, and carried out many functions very differently from other ICs. Consequently, available data— even when supported by centralized systems—were incompatible across ICs. For this reason, NIH lacked much of the agency-wide management data needed to assess the current costs or processes used, to predict potential savings, or to objectively determine success or failure of the administrative changes.

An uncertain future: While it is clear that many of the factors pushing change will continue for the foreseeable future, the specific form that change will take is uncertain. Even while NIH is working to consolidate internally, DHHS is moving forward on department-level consolidation efforts—in acquisition and other areas—that could ultimately subsume related NIH efforts. Change is also being considered on a government-wide level. Plans have already been announced for HR service centers that would provide basic HR services for multiple departments and agencies. The entire playing field could shift, and NIH knows it.

NIH'S APPROACH TO ADMINISTRATIVE RESTRUCTURING

Management's Initial Organizational Efforts

The ARAC effort's purpose was to unify the several major ongoing efforts and to develop and consider additional restructuring proposals. It began in the spring of 2003, working through eight subject-matter subcommittees (one for each administrative function being addressed), and drafted an overall report in June 2003. The ARAC report was reviewed and accepted by the NIH leadership team and the Steering Committee over the summer of 2003, and was informally agreed to by the Department in the fall of 2003. The department's agreement provided NIH an opportunity to restructure itself in lieu of having some of its administrative functions consolidated into DHHS.

By early calendar year 2004, a leader had been designated to guide implementation of the ARAC recommendations for each of the eight functional areas. In some cases, the leaders were identified earlier and work was well along by this time.

The National Academy of Public Administration (Academy) also began working with NIH in January 2004, to assist in implementing the ARAC recommendations. NIH and Academy representatives formed a small strategy group that met monthly to check status and develop plans

for ensuring progress. Representatives from the Office of Management Assessment (OMA) and the Academy were assigned to each functional area to provide guidance, assistance, and resources for each area. High-level NIH management began encouraging the functional area leads to put together implementation groups (IGs), start fleshing out the ARAC recommendations, and develop specific implementation plans. Some groups began meeting almost immediately.

The Academy also established an expert Panel to advise NIH management as the restructuring initiatives proceeded. The Panel met nine times with the NIH officials directly responsible for the restructuring initiatives between March 2004 and August 2005. In addition, the Panel met with NIH Director, Dr. Elias Zerhouni on April 27, 2004, to get a fuller understanding of NIH needs. At a key point in the process, the IG leads in all eight areas had opportunities to brief the Panel on the groups' status and to talk directly with the Panel about their approaches, implementation plans, and progress. In November 2004, the Panel communicated specific suggestions to NIH intended to help facilitate the agency's ARAC implementation change efforts.

Activities in Support of the Implementation Groups

In the summer of 2004, NIH took several steps to provide guidance for, and ensure progress of, the restructuring effort. Functional leaders who had not yet established an IG were strongly encouraged to do so. Management began meeting monthly with IG leads, as a group, to discuss the status of their efforts, and urge them on. And, with Academy assistance, NIH initiated an NIH-wide web site to provide background and status information for each of the functional areas.

In August of 2004, NIH distributed the Guide to Administrative Restructuring at NIH (*Guide*). Initially drafted by the Academy staff and commented on extensively by the Academy Panel, the Guide:

- Made it clear that NIH leadership was committed to implementing the ARAC recommendations

- Set forth ten principles established by the NIH director to govern the process

- Set forth basic requirements for the IGs, including developing an implementation plan which, among other things, would set clear goals, specify tasks and responsibilities, track progress, link to related change efforts, and identify the resources necessary to reach the group's goals (Figure C-1 reproduces a checklist from the *Guide*, listing primary responsibilities for each IG)

- Established the process through which NIH's Governance Structure would be involved in approving any significant changes from the ARAC recommendations and approving each group's implementation plan

- Provided advice and guidance on how to carry out key activities, such as performing gap analyses, developing performance measures, communicating with stakeholders in NIH, and developing change-management strategies

In the fall of 2004, NIH management directed each IG to present its implementation plan to the NIH Steering Committee for approval. By February 2005, all but one of the eight implementation plans had been approved.

NIH tasked the Academy with several specific efforts, in addition to the general assistance provided throughout. These included efforts in direct support of the Office of Financial Management (OFM) and OHR reorganizations, and an NIH-wide study of the cumulative impacts of the many changes that had been occurring in NIH since 2002. In the fall of 2004, NIH also tasked the Academy to assist all eight ARAC IGs to develop baseline data and performance measures to help track ARAC accomplishments. This work included documenting the levels and quality of services received by the ICs immediately preceding the transition of responsibilities in the eight ARAC administrative areas, and developing capabilities to track and compare future performance with the baselines. (Results of all these special efforts are summarized in Appendices G, H, I and J in this report.)

Principles to Guide ARAC Implementation

The ten governing principles enumerated in the *Guide* were intended to "ensure the success of this important effort…" They follow:

- Undertake administrative change that enhances the NIH research mission.
- Assume the ARAC report represents policy direction; implementation groups have flexibility in defining an optimal approach.
- Achieve efficient use of full time equivalent staff (FTEs) without diminishing services.
- Actively involve the NIH community, including customers, in planning and implementation.
- Create customer service advisory boards for services being centralized.
- Undertake comprehensive change management, including ongoing two-way communications and training.[4]
- Promote "best practices" through benchmarking and integrating efforts with IT initiatives.
- Utilize standard business processes.
- Ensure integrated governance through the NIH Working Groups and Steering Committee.
- Coordinate, as appropriate, with DHHS to maximize efficiencies.

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[4] Broadly speaking, change management includes the entire spectrum of practices needed to ensure that change will effectively address clear goals, is well-designed, is accepted and communicated, and is successfully implemented with minimum disruption to mission and to staff. These principles address this broad view. A more constricted view focuses on the implementation of change once decisions about the what, who and how have been made. In this context, it seeks to ensure staff acceptance and understanding of the change, and prepares the staff and the organization to successfully implement it. Change management is more fully discussed in the report, pp. 12-15, and in the *Guide* (Appendix D) Part II, Sec. 3.6, pp. 17-26.

Figure C-1: Checklist of Primary Responsibilities of ARAC Implementation Groups[*]
(Activities that each group must perform, to the extent applicable, in developing and implementing its Implementation Plan)

Activity	Date Completed
• Develop an Implementation Plan that includes the following steps: (See Plan Template– Box 1)	_____
o Establish clear goals (based on ARAC recommendations) (see Section 3.1), including agreed upon service levels, functional statements, and performance measures.	_____
o Clearly specify any organizational structures to be altered, or processes reengineered, including any transfers of employee positions and reporting relationships. (See Section 3.6.)	_____
o Identify supporting information/activities needed, including current baseline data/metrics and benchmarking of best practices. (Teams may want to benchmark best practices against similar organizations, including individual ICs.) (See Section 3.4.)	
o Undertake risk assessment or gap analysis to formulate the best implementation approach. (See Section 3.2.)	_____
o Identify the number of FTEs within scope of the restructuring based on functional statements. (See Section 3.6.)	_____
o Design a change-management strategy to ensure successful implementation, including customer help/management systems. (See Section 3.6.)	_____
o Design a communication strategy to fully inform affected staff and other interested parties about the restructuring. (See Section 3.7.)	_____
o Establish target completion dates for tasks, including identification of significant milestones. (See Section 2.2.)	_____
o Identify resources required to achieve successful implementation including electronic systems development. (Sec Section 3.2.)	_____
• Obtain WG approval of the Implementation Plan as well as any significant changes to the Implementation Plan as implementation proceeds. (See Section 2.3.)	_____
• Implement Plan.	_____
• Implement project management and tracking process for reporting project status. (See Section 3.5)	_____
• Participate in periodic status meetings with the DDM. (See Sections 2.2, 2.3.)	_____
• Establish strong relationships and coordination with other related ARAC implementation groups and other on-going initiatives as needed—especially Human Resources, Information Technology, Budget, A-76 MEOs, and NBS. (See Section 1.0.)	_____
• Develop and implement quality assurance mechanisms to track performance levels and to ensure customer satisfaction, including appropriate customer service review boards and surveys. (See Sections 3.2 and 3.3.)	_____
• Evaluate the impact of changes over time and capture the "lessons learned" during the implementation process. (See Sections 2.4 and 3.9.)	_____

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[*] Reprinted from the *Guide to Administrative Restructuring at NIH*. (Section numbers refer to sections in the *Guide*.) The *Guide* is reproduced as Appendix D of this report.

OVERVIEW: THE EIGHT FUNCTIONAL IMPLEMENTATION AREAS

Implementation Ongoing

Table C-1, following, summarizes the key ARAC (and related) recommendations and the status of each IG's efforts as of June 2005. In all cases, significant implementation steps had been taken and some planned results had been achieved. However, recommendations had been fully implemented in only one case; in other cases, work remained to be done, and some unintended consequences had appeared.

Major Accomplishments

As Table C-1 shows, change was essentially complete in only one area, IT, but changes had been made, and implementation activities were continuing, in several others.

- IT: Building on earlier consolidations of the e-mail and the help desk IT functions, NIH consolidated the Active Directory (AD)[5] and network monitoring.

- Equal Employment Opportunity (EEO): Functions had been consolidated organizationally into one office, but staff were not yet physically moved and polices and procedures were still being developed.

- HR: Realignments had been completed and staff had been moved, but considerable work was underway to overcome the serious problems that accompanied the restructuring, and to improve service delivery.

- Grants: The ARAC goals had been essentially accomplished. Consolidated entry-level training had begun and some consistent business practices had been adopted for grants management. Work continued to provide consolidated training beyond the entry level and to continue to develop additional consistent business practices. Also, the Most Efficient Organization (MEO) for certain grants processing activities began operation in October 2004, but, by July 2005 when this report was prepared it had not yet assumed all of the tasks for which it is responsible.[6]

- Acquisition and Budget: In these two areas, decisions had been made about what and how to consolidate, and work was underway to bring the consolidations to fruition.

- NBS: Two of seven NBS modules had been deployed and further deployment of the system remained a goal in both the Acquisition and Finance areas.

- Facilities: The remotely located installations had been brought under central management and substantial work had been done on performance measures. However, controversy

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[5] The Active Directory (Microsoft software) provides a continuously updated, consolidated list of legitimate users of the network and controls access to it. This vital tool is further discussed in a later section of this appendix.
[6] An MEO is a federal agency's in-house organization under an A-76 competition. The MEO proposal is compared to the bids submitted by private-sector companies and the MEO is the organization that performs the function if it wins the competition.

over further consolidation of IC facility and conference room management stalled adoption of an overall implementation plan, and a bid protest plus a union impasse significantly delayed implementation of the real property management (RPM) MEO that was designed to streamline facilities administration. The NIH MEO bid won the competition for visual and medical arts (which includes conference room management) and was on track to become operational by October 2005.

Unintended Consequences

Although the groups have made considerable progress toward implementing the ARAC goals, Table C-1 also highlights the unintended consequences that have occurred. The probable causes of these impacts are discussed more fully in the later sections of this appendix and in Appendix H, which presents the results of the Academy's study of changes in IC workloads that have resulted from NIH restructuring efforts. Generally, these unexpected results can be divided into two broad categories, impacts on staff and impacts on services.

Staffing results: In some ways, NIH is caught in a cycle of reduced staff, increasing workloads, reduced morale, and further staff reductions. Only two completed restructurings (HR and the Grants MEO) purposely made significant cuts in staffing. But the impact on staff in those areas was greater than expected.

- HR: The staff who remained after the intended staff reductions faced significantly increased workloads, unfamiliar business processes, new physical locations and workgroups, and, increasingly, negative feedback from customers. Morale was low and staff felt overworked. The result was further attrition.

- Grants: The MEO faced many of the same problems as HR. As the A-76 process progressed, grants administration staff faced significant uncertainty. Staff was to be significantly reduced and downgraded, and everyone who wanted to work for the new MEO had to apply for a new job. As a result, when the MEO was created, many of the experienced staff who NIH management had expected would move to the MEO had left. As with HR, remaining staff faced increased workloads and negative feedback. Turnover in the MEO was high from the beginning, and remained so.

Although the ARAC goals for EEO included a reduction in staff levels of almost one-third (from about 90 to 64), no specific downsizing actions were needed. Attrition moved staff levels below the lowered staffing goal. The Office of Equal Opportunity and Diversity Management (OEODM) was working to determine the appropriate staffing level for the consolidated office, so the extent to which the current staffing levels will need to be increased was unclear. However, morale among EEO staff suffered from the uncertainty surrounding the planned movement of staff—commuting patterns, work environments and co-workers will change when the move occurs. These moves have been postponed for over a year, delayed by lack of central space in which to house the consolidated staff. Additionally, some key leaders and division heads, on whom the OEODM Director was relying to help fully implement the changes, left the organization.

Many other areas also faced unintended staffing shortages and low morale, even though formal downsizing had not yet occurred. In many cases, the underlying factor was low morale driven by uncertainty; in other cases, problems in the HR hiring process made it difficult to fill positions.

- <u>Facilities:</u> As originally bid, the facilities MEO was designed to reduce staff in the function by about 100. Officials reported that the uncertainty about who would lose their positions and what alternative jobs NIH would find for them had already resulted in a significant staff reduction even without implementation of the MEO. In turn, the increased workload caused stress on remaining staff and lower morale, but hiring new staff was difficult because of the difficulties in NIH's HR support, caused by staff reductions and inadequate software systems in OHR.

- <u>Finance:</u> Staffing shortages in OFM resulted in part from delegations of key staff to support NBS and UFMS, as well as normal attrition. Delays in the hiring process at NIH and market place shortages of qualified software specialists made it difficult to replace losses.

- <u>Higher grade positions:</u> In Acquisition, EEO, and HR, several higher-grade positions remained unfilled for long periods of time. In Acquisition this was largely because of uncertainties about the future organizational structure, which were being resolved. In other cases, special NIH-wide restrictions increased the difficulty and slowed the pace of hiring at these levels.

<u>Service results:</u> The restructuring changes themselves resulted in reduced services/and or increased workloads for the ICs in at least three areas.

- <u>NBS:</u> The new Oracle software introduced into OFM placed new responsibilities on the staff, for which they were unprepared. Consequently, OFM had to rely on the NBS staff more than expected. In addition, the new system required significant new work in the ICs, for which they were unprepared.

- <u>HR Services:</u> The new software implemented to support HR changed several processes as well as the roles of the non-HR specialists in the IC staffs. For example, some of the new systems rely on self-service functions, and neither the HR specialists in OHR nor the non-specialists in the ICs who must use the new systems were adequately trained to use these functions effectively. In addition, the software does not include all of the types of personnel actions NIH performs, has been unreliable, and, in fact, has proven unable to support an agency the size of HHS, along with many other federal agencies. The ICs also saw loss of on-site HR staff as a loss of critical "pulse-takers" who kept their eye on emerging staff issues, and the ICs feared a similar loss once the EEO staff is physically moved out of the ICs. Overall, the clear consensus at NIH is that HR services have deteriorated significantly.

- <u>Grants Management:</u> When IC positions were reassigned to the Grants MEO, it became clear that some of the reassigned personnel had been doing tasks that were not transferred to the MEO. As a consequence, IC staff had to pick up the slack, and ICs perceived this as a significant increase in workload for their remaining staff. Further exacerbating the problem, the e-grants software, anticipated throughout the government, was not yet available, though the MEO bid was partially based on it.

APPENDIX C

TABLE C-1: SUMMARY OF ARAC CHANGES

(This table summarizes the key ARAC (and related) goals, as well as accomplishments and unintended consequences that had emerged as of June 2005)

ARAC GROUP	Principal Goals		Staff Changes[**]			Level of Risk to NIH	Accomplishments and Status	Unintended Consequences
	Description of Original Goals	Extent of Change	Pre-ARAC	Goal	Estimated On-board Staff			
1. Acquisition	• Consolidate 15 acquisition offices into 6 full-service centers and 3 specialty centers	Major	449	No change	426	High	• Final structure adopted: 7 full service centers and 3 specialty centers • Implementation planning underway; target is end of FY 2005, prior to NBS deployment	• Several key positions filled for long periods by acting managers
2. Budget	• Retain core budget functions at the IC level • Consolidate selected budget formulation, presentation, and execution functions	Minor	219	200	178	Low	• 7 areas identified for consolidation (about 10 FTEs affected) • Plans for implementation underway	
3. EEO	• Fully consolidate all EEO programs, functions, and personnel from the ICs to the NIH level	Major	90	64	54	Low	• Reorganization complete on paper, staff to be moved in FY 2006 • Common policies/procedures being developed; training and team-building ongoing	• Morale down • Some key managers lost • EEO personnel no longer serving ICs as "early warning" pulse-takers
4. Facilities ARAC	• Bring 3 off-campus installations under central control • Consolidate few remaining IC facilities functions or establish policy allowing to remain in ICs	Moderate	640[a]	488[b]	536	Moderate	• Off-campus installations consolidated • IG did not approve implementation plan for other key issues; under consideration by the Deputy Director for Management	• Significant staff attrition due to long period of transition uncertainties related to MEO • Decline in morale
RPM MEO	• Implement real property management MEO	Moderate				Moderate	• MEO on hold pending resolution of bid protest	
VMA MEO	• Complete visual and medical arts MEO competition	Low	3	3	3	Low	• NIH won bid; MEO stand-up date 10/05	

TABLE C-1: SUMMARY OF ARAC CHANGES (continued)

ARAC GROUP	Principal Goals		Staff Changes**			Level of Risk to NIH	Accomplishments and Status	Unintended Consequences
	Description of Original Goals	Extent of Change	Pre-ARAC	Goal	Estimated On-board Staff			
5. Finance	• Implement NBS and UFMS software to improve business practices • Most services already centralized within OFM, but vital processes will change a great deal	Major	148	No change	109	Moderate	• Two NBS modules deployed; additional modules scheduled for FY 2007 or later • UFMS to be deployed in FY 2007 • OFM expects to close FY 2005 accounts with its own staff	• Significant workloads for ICs associated with new IT systems • Significant vacancy rate • Dependence on NBS staff lasting longer than anticipated
6. Grants ARAC	• Consolidate several non-IC specific functions (grants closeout and fellowships), ultimately part of MEO • Centralize training • Establish common business practices • Develop staffing metrics to help balance workload	Moderate	398[c]	No change	343[c]	Low	• First central training (entry-level) conducted November 2004; other classes to be added to central training program • Some common business terms adopted; considering additional common business practices • Workload metrics adopted; staffing information shared with ICs	
MEO	• Implement MEO for grants management support	Major	750[d]	727[e]	592	High	• MEO established 2004; but had not yet taken full responsibility for closeouts and fellowships	• Government-wide eGrants software not yet fully available • Lengthy MEO transition increasing IC workload • A-76 procedures for modifying MEO unclear, delayed • High turnover rates in MEO • Work left in ICs

TABLE C-1: SUMMARY OF ARAC CHANGES (continued)

ARAC GROUP	Principal Goals		Staff Changes**			Level of Risk to NIH	Accomplishments and Status	Unintended Consequences
	Description of Original Goals	Extent of Change	Pre-ARAC	Goal	Estimated On-board Staff			
7. Human Resources	• Consolidate all HR personnel and operations from the ICs to NIH level[f] • Implement new DHHS software (several types)	Major	450	256	270	Highest	• Consolidation and staff reductions completed October 2003 • New business systems deployed for record keeping, payroll, and processing applications • Implementing Strategic Business Plan and Academy recommendations to overcome significant deficiencies in service delivery	• Loss of key staff • Decline in morale • Significant decline in ability to fill vacancies and promote employees to upper-level jobs • Departmental data systems not full-function, reliable, or well-suited to NIH needs • Great deal of HR work remains responsibility of ICs • HR specialists no longer serving as "early warning" pulse-takers

8. Information Technology	• Continue decentralized IT functions in ICs
	 • Consolidate:[g]
	  o AD
	  o Network operation
	  o Network monitoring
	  o Video conferencing
		Moderate	82[h]	No change[h]	82[h]	Low	• Consolidated AD and network monitoring implemented
							 • Video conferencing will be consolidated in new VMA MEO (see Facilities)
							 • Networking goal changed – consolidation to be phased in slowly	

**Data in this column are intended to provide an overall sense of staffing changes in the ARAC functional areas. Data were derived from a variety of sources, including the original ARAC report, data collected by the ARAC IGs, data collected by the Academy as part of its specific studies, or from officials responsible for the ARAC functions. These data were originally collected for different reasons and are not consistent; they may differ for example, in terms of specific years covered, whether the numbers represent authorized ceilings or actual levels of effort, and whether contract positions are included. Nonetheless, they provide a useful context in which to view the changes in each function.

[a] Initial inventory conducted in support of A–76 activities showed over 700; by the time of ARAC report, attrition had already begun. 640 includes 420 doing MEO-related functions and 52 in remote installations.

[b] 320 are within real property management MEO; FTEs for the MEO will be adjusted following the resolution of the bid dispute and to reflect new facilities and functions that came into the inventory after original scope developed.

[c] Grants management staff in ICs.

[d] Total FTE pre-MEO was 900, including 150 contract staff.

[e] MEO bid called for 677 FTE, but when established it was allotted only 637. Recently, MEO obtained approval for an additional 90 FTE (new total 727).

[f] ARAC goals focused on retaining HR at NIH level (rather than DHHS level), allowing some IC-specific HR support, and postponing staff reductions until new software was fully operational.

[g] ARAC became phase II of ongoing consolidation efforts that had already created a central e-mail service and help desk and implementation of NIH-wide wireless network and perimeter security.

[h] Estimate is for staff associated with ARAC functions, not all IT staff. About 90 contractors support this IT function.

Significant Differences Among NIH Restructuring Efforts

Across the eight functions, dramatic variations existed in the ARAC recommendations for restructuring, the approaches taken by the implementation groups, and the forces driving the changes. No function was totally consolidated, and no function remained completely decentralized. Therefore, each case represents some degree of a hybrid function in which it is essential to recognize the relative roles of the central administrative unit and the decentralized ICs.

Differences in Extent and Risk of Recommended Changes

The nature and extent of the changes proposed by ARAC differed significantly from one function to the next, as did the level of potential risk to NIH's mission, if implementation were not successful. Risk derived not only from the extent of change, but also from the importance of the function to the scientific mission, and from the approach to, and timing of, implementing the change.

As Table C-1 shows, high risk often was associated with major changes, and low risk with minor changes—but that was not always the case. Table C-2, below, further highlights this relationship.

- Minor Change/Low Risk: The changes recommended for the Budget function were fairly minor, as was the associated risk. The function would remain largely decentralized, only limited functions would be consolidated, and staff would not be reduced below the existing on-board staffing level. The potential risk to NIH's mission was low because of the limited extent of change.

- Moderate Change/Moderate Risk: Overall, both the recommended change and potential risk in the Facilities function were moderate. The extent of the most significant change—establishing the MEO—was more limited than for the Grants MEO, largely because the staff reduction was smaller and, unlike Grants, the function was already centralized. Therefore, there would be little, if any, transfer of personnel from ICs to the central MEO. Likewise, the risk was moderate, largely because a mechanism for customer involvement and service agreements was in place to monitor and mitigate the risk of service-level deterioration during implementation.

- Major Change/High-Risk: In three areas—the Acquisition and HR functions and the Grants MEO—major risk was associated with major change. The risk did not derive only from the extent of change, but also from the importance of the function.

  o Acquisition: In Acquisition, for example, though no downsizing or major physical movement of staff were contemplated, this largely decentralized activity was to be consolidated into a limited number of service centers in conjunction with deployment of major new software systems. Either change alone would be significant; together they were major. Acquisition for every IC would be affected,

and failure could have strong negative repercussions across the agency; so the risk to mission was high.

o   HR: Likewise, the very high importance of the HR function combined with the extent of change (both organizationally and in terms of new, unproven, software—discussed above) created the highest risk the agency faced.

o   Grants: Although most of the ARAC recommendations for Grants were relatively limited (and low risk), the effort to consolidate the key administrative processing functions for all ICs into a single MEO affected hundreds of staff who supported what is, by far, the largest part of NIH's scientific work (extramural research). This presented a major potential risk. Poor performance by this new organization could cause very serious funding problems for thousands of hospitals, universities, and other health-related organizations throughout the nation.

- Extent of Change Higher than Risk: In three areas, the risk was lower than the extent of change.

o   EEO: The change recommended for EEO was major, but the potential risk was relatively low. Similar to the HR reorganization, all EEO staff were to be taken from the ICs and organizationally and physically housed in the central NIH OEODM. In addition, the number of staff assigned to equal opportunity and diversity programs would be decreased by about one-third. However, this major restructuring involved many fewer workers than the HR consolidation, would not touch everyone at NIH as directly or immediately, and was unlikely to have a clear, direct, or immediate impact on the agency's scientific mission. Thus, the overall potential risk to NIH from implementing the EEO recommendations imperfectly was much lower than for the HR function.

o   Finance: Implementing the new NBS system in Finance was a major change, not just in software, but in terms of the business processes that the system supports. But the risk was only moderate because of the significant attention being paid to the change process, and the great extent to which recognized accounting standards of good practice have been established. In addition, no downsizing of staff was contemplated.

o   IT: The recommended change was moderate because the functions being consolidated were somewhat limited, even though they affected all 27 ICs. The potential risk was also low because very few positions were affected, no pre-determined staffing limits were imposed, and the effort was well-planned and fully supported by the IT community. Both the extent of change and the risk would have been higher had the original recommendation to centralize all local area networks been implemented immediately, rather than over time.

Table C-2: Summary of Extent and Risk of ARAC Changes*
(This table shows how many of the eight ARAC groups exhibit each extent/risk relationship)

Level of Risk to NIH	Extent of Changes Recommended			Total
	Major	Moderate	Minor	
High	3			3
Moderate	1	2		3
Low	1	2	2	5
Total	5	4	2	11

*Facilities is counted 3 times (ARAC and 2 MEOs) and Grants is counted twice (ARAC and MEO), for a total of 11 assessments. See Table C-1 for details.

IGs' Approaches and Flexibility Varied

The approaches used by the eight IGs also varied significantly, as did the main impetus for change and the degree of flexibility the IGs had as they worked to implement the ARAC recommendations. Table C-3, following, summarizes these differences.

Inclusiveness: Some of the IG leaders were much more inclusive and more heavily influenced by the deliberations of the ARAC group of "customers" that they convened to form the IG. Others relied much more extensively on themselves and their own staffs. The more inclusive groups also tended to include Academy and OMA staff as an integral part of their activities and took advantage of these extra resources.

- Heavy Group Influence: The IGs working on Acquisition, EEO, Grants, and IT emphasized teamwork and inclusiveness from the beginning. They included representatives of ICs, OMA, and Academy staff in active discussions and group tasks, and sought to include other stakeholders more directly—for example in one-on-one meetings with IC representatives and inclusion of IC representatives on sub-groups actively working on ARAC tasks. Two of these functional areas, IT and Grants, had pre-existing active networks of functional staff and officials, and had a history of communication and cooperation.

- Heavy Leader/Staff Influence: Facilities (ARAC) and HR relied much more extensively on their own staff to design and implement change. In both cases, however, teams were eventually activated, and the Academy staff was able to assist them.

- Budget: The Budget IG met infrequently, but its membership never changed significantly from the original one, and its efforts were coordinated and vetted through the regular meetings of the IC budget officers. It also included broader IC representation on the sub-teams created to work on specific tasks. Academy staff provided some benchmarking against other federal agencies' practices.

- NBS Framework: The OFM focused largely on NBS implementation, rather than on ARAC. The NBS Project Team worked hard to be inclusive and seek input from a wide

range of stakeholders throughout NBS design and deployment. OFM officials were working to develop performance measures and assess organizational structure, and sought the Academy's help in doing so. The Academy staff provided recommendations in both areas, based on a benchmarking study completed in the spring of 2005. (See Appendix J.)

- MEO Framework: The A-76 efforts (Facilities and Grants) were undertaken in a framework involving high-level advisory groups and many staff-level working groups. However, involvement by persons outside the officially designated working groups was very strictly limited by the rigorously specified "firewalls" designed to keep the competitive process at arms length.

Impetus for change: In some areas, outside factors were the primary drivers in NIH's decisions to change; in others, internal decisions were the primary motivation.

- External Factors: External factors were the primary drivers of change in three areas, HR and the two major A-76 actions. As might be expected, the degree of flexibility was low for these efforts. Changes to the HR function were mandated by DHHS—the what, how, and when of change were a "given." The A-76 actions had to be taken within mandated timeframes and in accordance with strict competitive guidelines that apply government-wide. Although NIH could design the MEO bids as it chose, there was considerable pressure from its consultant to substantially reduce staffing in the MEO to ensure a winning bid. This pressure significantly limited the agency's flexibility, because once NIH won the competition, it was bound by the strict contractual terms of the bid proposal; any changes to it were restricted to contract modifications that had to be justified according to very specific conditions.

- Internal Factors: NIH decisions were the primary drivers for recommended changes in all of the other functions, although, of course, the DHHS pressure to consolidate was an underlying driver in several. These internally driven changes allowed significantly more flexibility in terms of final designs and implementation schedules. As Table C-1 (previously presented) shows, each original ARAC goal was general enough to allow the implementation group to determine the nature and extent of change or, where goals were specified, the group had the flexibility to propose changes from the original recommendations. For example, the IT and Acquisition changes were predominately ARAC-driven and some IT consolidations had taken place before ARAC began. Though the ARAC recommendations in each case were specific, the groups used a data-driven analytical approach and worked with the functional community to identify and get agreement on more acceptable alternatives to achieve subsequently equivalent outcomes.

TABLE C-3: SUMMARY OF ARAC IMPLEMENTATION GROUP INFLUENCES
(This table summarizes the key factors that influenced how the IGs operated.)

ARAC GROUP	Inclusiveness		Influential Factors				Degree of Flexibility to Modify Goals	Academy Assistance	
	Staff Influenced	ARAC Group Influenced	Driven by:					Involvement	Impact
			DHHS	A-76	NBS	NIH/ARAC			
1. Acquisition		X	Secondary[a]		Secondary	Primary	High	Integral	High
2. Budget	X[b]					Primary	High	Tangential	Low
3. EEO	X	X				Primary[c]	Moderate	Integral	High
4. Facilities ARAC	X[d]					Primary[c]	Low	Focused support, late (Fall 2004)	Limited[e]
RPM MEO	X			Primary			Low	N/A	N/A
5. Finance	X		Secondary (UFMS)		Primary	Secondary	NBS – Moderate	Focused support, late (Fall 2004)	High
6. Grants ARAC	X		Secondary[f]			Primary	High	Moderate	Limited
MEO	X			Primary			Low	N/A	N/A
7. Human Resources	X[g]		Primary				Low	Integral, late (Fall 2004)	High
8. Information Technology		X				Primary[h]	High	Moderate	Moderate

a DHHS-level consolidation under consideration.
b ARAC group met infrequently, but had continuing members. Proposals were vetted through regular meetings of IC budget officers.
c Includes pre-ARAC goals.
d Group reactivated in October 2004; met until February 2005.
e Academy work may be highly useful if management decides to develop policy on IC facilities functions.
f DHHS/PMA and eGrants.
g Active group formed September 2004, is becoming increasingly involved in functional issues.
h Pre-ARAC consolidation may have been more strongly driven by DHHS efforts to consolidate IT functions at the department level.

A Final Observation

The three areas where changes were primarily externally driven (HR and the two major A-76 actions) provide a significant contrast to the other functions. Flexibility was low—the form and/or timing of the change was mandated. In two of these three cases—HR and the Grants MEO—the mandated change was major and the risk to NIH's mission was high. (In contrast, the extent of change and risk of the Facilities MEO was moderate.) And in all three cases, implementation was planned with limited participation by the stakeholders.

Communicating About Administrative Changes Varied Among the Implementation Groups

Because good communication is so critical to successful organizational change, it was supported by substantial material in the ARAC *Guide*, and it merits specific attention here. Therefore, Table C-4 on the following page provides an overview of the many different communication approaches the IGs used to keep the NIH community aware of what was happening and to involve them in the process as the IGs refined the ARAC recommendations and began implementing changes. Some highlights from the table are presented below. The Academy did not evaluate the effectiveness of each group's efforts, but each of the group descriptions presented later in this appendix discusses more specifically the key mechanisms used.

General Approaches

Table C-4 shows that five of the ARAC IGs used a wide array of communication mechanisms. Although, until recently, only two groups had formal communication plans, the leadership in each group took a systematic approach to communication.

- EEO: The EEO group worked throughout its consolidation process to communicate extensively within the EEO functional staff (a relatively small group) as well as with key customers, especially the Executive Officers (EOs) and Administrative Officers (AOs) in the ICs. It used both "passive" means (print media, web sites) and intensive two-way mechanisms, such as one-on-one meetings and retreats.

- Acquisition: The Acquisition group focused most of its efforts on the acquisition community during the early part of its work, but also occasionally briefed the EOs and other customers about the group's process and progress. Once the final decisions about how the function will be structured were made, the group adopted a formal communication plan, including an extensive series of meetings with a variety of stakeholder groups (functional and IC staff) to provide information about, and obtain feedback on, the consolidation of service centers.

Table C-4: ARAC Implementation Group Communication Methods

(This table highlights the communication methods used by each of the IGs. Information in italics represents fairly recent or planned activities)

Methods	Acquisition	Budget	EEO	Facilities	Finance	Grants	HR	IT
Formal communication committee/plan	*Yes*			Consultant developed communication matrix for A-76	NBS plan		*Element in 2004 Strategic Business Plan (SBP); new plan under development*	
Use of web site	*Plan to more fully utilize*		Interactive, EEO web site	Facilities web site predates ARAC; includes info regarding A-76	NBS web site		Interactive, HR web site pre-dates ARAC	IT web site pre-dates ARAC
Print media	*Article in NIH Record*		EEO "News and Notes"		Numerous *NIH Record* articles		*Annual performance report to stakeholders, draft being prepared*	
Stakeholder Input (groups, surveys)	IC staff included in IG working groups	IC staff included in IG working groups	Post-retreat assessment groups; EOs regarding staffing data	Senior management customer satisfaction survey	NBS – many stakeholder advisory groups	IC staff included in IG working groups	HR Advisory Committee; Focus groups; *Special work groups working on SBP tasks; Strategic Advisory Committee*	Met with selected IC reps to develop metrics; IC staff included in IG working groups
Stakeholder Input (one-on-one meetings)	Solicited each IC's preferences for service center roles		Face-to-face meetings with each EEO staffer				*Academy interviews of 35 staff and customers; OHR Director offers monthly "house calls" with ICs*	Met with each IC to agree on timelines
Off-site retreats and facilitated meetings	*Yes; more planned*		Retreats; change-management training	Change-management training			*Two facilitated retreats to clarify organizational roles*	
Briefings and meetings with staff and existing stakeholder groups	Occasional staff briefings; *meetings with groups, e.g., SDs, EOs,IC Advocates*	IC budget officer group vetted proposals	Regular staff briefings	Multiple briefings on A-76 for all facilities staff	NBS Regular information flow to key groups, e.g. SDs, EOs, AOs, IC Directors; *IC Advocates*	Used GMAC and EPMC to vet/approve key changes	Existing groups informed management of problems; *solicit input of EOs, others for improving HR services*	Chief Information Officer network consulted / informed; IC Advocates

- HR: The HR experience again stands out. HR officials conducted a variety of communication activities prior to the 2002 and 2003 reorganizations—including focus groups, staff briefings, and an advisory committee—yet from many anecdotal accounts, staff did not feel engaged in the process. Why these communication efforts were not successful is not completely clear, but it appears that they were perceived to be one-way. Efforts to get input may have been seen as less than sincere, since, in spite of vocal input from the community for the need to keep HR staff in the ICs, everyone understood that consolidation was a "given." Accordingly, management was not perceived as listening. Much later, as officials began to shore up HR services, communication took on an increasingly important role. Customers were increasingly involved through a revitalized advisory committee—representing HR staff as well as customers—and through workgroups carrying out tasks in OHR's strategic plan. A consultant drafted a formal communication plan with goals of ensuring that both HR staff and their customers understand their respective responsibilities, and of opening "communication through partnership with the customers."

- Finance: Although the Finance IG did not undertake any specific communication efforts, the NBS Project Team developed and carried out an extensive communication plan. Among other things, it employed a series of technical, functional, and user advisory groups to provide information. NBS officials also widely disseminated information about the goals and progress of NBS activities through the agency's newsletter and management statements, as well as information provided to representative groups: IC Directors, Science Directors (SDs), EOs, and others. Though generally recognized as successful in deploying the first two NBS modules, the NBS Project Team identified and began implementing improvements to its communication approach for deployment of upcoming modules. Some of these changes seek to ensure more effective two-way communication and, thus, more effective stakeholder input into the change process.

- Facilities: The Facilities IG did not see a need for extensive communication about the reorganization of the off-site installations beyond negotiations with the IC managers at those installations. Office of Research Facilities Development and Operations officials did, however, work to keep the hundreds of facilities staff aware of the status of the A-76 competition for real property management. They posted comprehensive questions and answers about the A-76 process on the facilities internal web site and provided support to help staff cope with the expected changes. They also held all-hands meetings to keep the staff up to date on the MEO's status as well as NIH's plans to make sure no one lost their job. However, as the MEO process dragged on—and questions went unanswered about if and when the MEO would be stood up, and what would happen to specific jobs—the briefings stopped.

Three ARAC groups focused communication efforts more directly on the functional community impacted. In all three areas—Budget, Grants (ARAC) and IT—the extent of change and potential impact on IC staff not directly involved in the process were relatively limited. In each case the implementation groups kept the functional IC leadership up to date and vetted the group's proposals through existing cross-IC functional management groups. For example, the Grants IG worked closely with the Grants Management Advisory Committee (GMAC) and the

Extramural Program Management Committee (EPMC). In IT, monthly meetings with the IC Chief Information Officers kept everyone informed and involved. The NIH budget director also met regularly with the IC budget officers, and began to use those meetings to address ARAC goals. All three IGs also broadened involvement of IC functional staff by including them in sub-groups addressing specific tasks. (The experience of the Grants MEO is discussed in Appendix E.)

Some Communications Mechanisms Were More Widely Used

As each group developed its own communications approach, their methods varied significantly.

- Ad Hoc Methods: Five of the eight groups used "ad hoc" methods to obtain input for designing their changes. These included meetings with small representative groups to develop specific aspects of changes, such as metrics; advisory groups established solely to advise on the change; and customer surveys.

- Existing Networks: Almost all of the groups used, or planned to use, the existing networking structure in NIH.

  o As noted above, this was especially true for the Budget, Grants and IT areas, where the functions were highly decentralized and the functional community had an in-place group designed, at least in part, to share information across ICs.

  o The Acquisition group planned to use other existing groups, for example those representing EOs and AOs or the EPMC, as an integral part of future communication efforts.[7]

  o These existing representative organizations were key drivers in alerting NIH management to the significant cumulative workload shifts resulting from the multiple restructuring initiatives.

- IC Advocates: Although the existing, cross-IC representative groups provide an excellent communication tool for NIH, an important limitation was identified. In their initial change efforts, both the IT ARAC group and the NBS Project Team found that providing information to IC leaders (Directors, AOs, EOs, and others) did not guarantee that the information was passed down to all IC staff. Consequently, both groups established "IC Advocates" and charged them with making sure staff in the ICs had access to needed information.

- One-on-one Meetings: One-on-one meetings (designed to get input about concerns of individual staff members or individual ICs), though not as frequently used, were very effective for the groups that used them. The leaders of the Acquisition and IT teams met with officials from each IC, clearly demonstrating their intent to meet IC needs and

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[7] These groups of IC officials (such as IC Directors, SDs, and EOs) were generally kept informed about the overall ARAC work. The efforts discussed here are meant to more actively involve them in two-way discussions about specific initiatives.

helping to win support. The Acquisition meetings provided detailed information on the group's planned change and solicited IC preferences about the role each wanted to play in the new structure (service center or client). The IT meetings obtained agreement on specific timelines for implementing changes, based on each IC's priorities. The OEODM Director offered to meet individually with all of the EEO staff (about 70) to make sure he understood all of their concerns and to provide information about the group's plans. These meetings were held in preparation for a major retreat at which the proposed structure would be discussed.

- <u>Retreats:</u> Off-site retreats were extremely effective for the Acquisition, EEO, and HR groups in facilitating two-way communication and allowing busy staff to focus on the key issues without day-to-day distractions.

Missed Opportunities

Table C-4 also points to missed opportunities by many groups. Little use was made of the ARAC web site or of the *NIH Record* to disseminate information. The EEO, Facilities, HR, and IT groups all had existing web sites designed to inform functional staff and/or "end users" about services and ongoing initiatives in their areas. The NBS project team also developed a web site, which included frequently asked questions, to provide consistent and up-to-date information for the entire NIH community related to the changes in the finance system. Each found the web to be a useful communication tool. The IT group learned, however, that it is important to advertise the existence of such a site to make it most useful, which it did in its Phase II process. The other groups did not use the web extensively.

Additionally, only NBS made extensive use of the *NIH Record* to keep the community informed. The acquisition group proposed an article for the *Record,* but it was rejected. Given that the consultant preparing the HR draft communication plan concluded that NIH staff look forward to reading the *Record* regularly, it should have been of more use in disseminating information about administrative restructuring initiatives that had widespread impacts throughout NIH.

THE EIGHT EFFORTS IN DETAIL

The following eight sections summarize the goals, processes, and accomplishments in the eight functional areas. They also highlight some of the key lessons and best practices demonstrated by each IG's experience. The information is based primarily on the Academy staff experience in the ARAC process. Information was also obtained from the original ARAC report, various status reports from each of the IGs, IG implementation plans, and interviews with most of the IG leads. A draft of each summary was provided to the group leader for review and comment before it was completed. The status is presented as of June 2005.

Case 1: ACQUISITION

EXECUTIVE SUMMARY

NIH Acquisition offices make routine purchases as well as highly specialized and expensive purchases that directly impact NIH's scientific mission. The acquisition function was being considered for department-level consolidation under the "One HHS" initiative. The ARAC recommendations sought to meet the goals of that effort, while maintaining acquisition operations within NIH.

ARAC Goals and Accomplishments

The initial ARAC report recommended consolidating all acquisition support into six service centers (plus three specialty offices); a significant decrease from the then-existing 12 acquisition offices (and three specialty offices). It also recommended that each center focus on customer service and efficient performance.

The final structure approved by the NIH Steering Committee called for establishing seven full-service centers and three specialty centers. Implementation was also postponed from June 2004 to October 2005. Agreement was reached on many important organization, staffing, performance assessment, and customer service matters, as well as on a communications strategy.

Lessons Demonstrated by the Acquisition Group's Experience

The Acquisition Implementation Group faced resistance to the reorganization, reluctance to expand performance measures beyond customer and employee satisfaction measures, and uncertainty about whether deployment of the NIH Business System (NBS) acquisition module would be overtaken by department-level consolidation efforts. The group also had considerable difficulty obtaining the accurate workload and staffing data critical to decisions about how to distribute IC workload and staff equitably among the new service centers.

The group overcame these obstacles, and NIH was actively implementing this significant reorganization by the summer of 2005. The implementation group's success in reaching agreement on new contracting service centers and how to measure their impact can be attributed to many factors, including:

- NIH and group leadership monitored progress and took steps to overcome uncertainty and to push the group to move ahead in a timely manner.
- Active stakeholder involvement helped improve design of the new centers and obtain buy-in for the consolidation.
- Effective two-way communication kept people engaged, reduced apprehensions among the community of affected employees, and helped to achieve buy-in.
- Solid data and flexibility supported sound decisions and contributed to buy-in.
- Reliable baseline data helped ensure that the impact of change could be measured.
- Outside support helped to provide expertise, perspective, credibility, and resources.

BACKGROUND

Procurement was one of the areas under consideration for department-level consolidation under the "One HHS" initiative. The ARAC acquisition recommendations sought to meet the goals of that effort, while maintaining acquisition operations within NIH. While the ARAC implementation group was working, DHHS was moving forward with department-level consolidation efforts.

Some of the acquisition activities at NIH involve routine administrative purchases, such as copy paper. But many involve highly specialized and expensive purchases, such as purchases of reagents or research instruments, construction, and sophisticated IT systems. Research and development (R&D) contracting also involves a variety of acquisitions, including the conduct of large clinical trials, dissemination of evaluation research results, and development and testing of vaccines and research in the bio-defense area. The Acquisition function directly affects the agency's ability to accomplish its scientific mission.

When the ARAC effort began, NIH had 15 acquisition offices. Some offices made all types of purchases, some did only R&D contracting, and three—the Clinical Center (CC), the Office of Research Facilities Development and Operations (ORF), and the National Institute of Environmental and Health Sciences (NIEHS)—were "specialty" offices whose acquisition activities were uniquely adapted to their special hospital, construction, and environmental missions.

Six of the offices *had* served as "competitive service centers" in years since 1995. These centers provided services on a non-binding basis to other ICs (either those without in-house acquisition staff or others who chose to use their services on individual acquisitions). Less than 20 percent of these centers' activities supported other ICs. Services were provided either on a pro-rated portion of the total cost of the service center, or on the basis of a schedule of a fixed price per service provided (Service and Supply Fund).

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC report recommended consolidation of all acquisition support into a limited number of Consolidated Acquisition Service Centers (COACs). Even though NIH had some experience with the six competitive acquisition service centers,[8] implementing this recommendation meant developing a significantly new way of doing business for acquisitions uniformly all across NIH. For example, customers would no longer be able to chose to split services (e.g. receive R&D support from one center and station support from another), but would receive all support from only one service center.

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[8] NIH also had experience with the service center concept by using the Department's Program Support Center.

The ARAC goal was to create full-service centers that would together serve all ICs, with the exception of the three "specialty" centers that would remain unchanged. The following table summarizes the recommended change in structure.

Table C-5: Recommended Change in Acquisition Structure

Pre-ARAC Structure	ARAC Recommended Structure (to be effective October 2005)
15 acquisition offices	
❖ 6 competitive service centers	6 consolidated centers (later changed to 7)
❖ 3 "specialty" offices (CC, ORF, NIEHS)	3 specialty centers
❖ 6 offices in ICs that did only R&D acquisition (and received other acquisition support from one of the 6 service centers)	

Implementation was to take place between October 2003 and June 2004. No immediate changes in staffing levels or staff assignments were anticipated. Efficiencies were expected once the acquisition module of the new NBS—a new commercial software system—was deployed and fully operational.

The initial ARAC report recommended a focus on customer satisfaction and, therefore, that customer service boards be a key element of each new service center, and that all centers use service level agreements (SLAs) to enumerate service provider and customer responsibilities as well as target performance measures. The SLAs also would provide customers a transparent view of the costs charged for the services rendered.

The report did not spell out details of the new organizational structure (among ICs) or how to make the change. A number of questions had to be answered to implement this change. The pivotal question was what the organizational structure should be: which ICs should be service centers and which ICs each center should serve. A key goal of this determination was to achieve a reasonable balance of workloads across the COACs. An equally important question was whether the reorganization should take place before or after deployment of the NBS acquisition module.

Accomplishments and Status

The NIH Steering Committee approved the Acquisition Implementation Group's (IG) recommended new structure in February 2005. The final recommended structure is somewhat different than the one initially recommended in 2003, in that there will be seven full-service centers instead of six, and there will be no choice of which center to use once the IC assignments to centers are made.[9] The IC distribution among the centers also was decided by mid-2005 (see Table C-6). The approved plan called for completing the reorganization before NBS is deployed. Agreement was reached on key performance measures and a framework was developed for SLAs that all COACs and their IC customers will use to measure the quality of service. The new

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[9] The SLA provides a process for reconsidering the established relationships, but changes are not encouraged or expected.

reorganization is to become effective October 31, 2005, so the new centers will be fully operational by the end of calendar year 2005—and ready to accept deployment of the new NBS procurement software module. The anticipated 2006 deployment date has been delayed, however, until 2007 as a result of appropriation reductions.

Table C-6: Adopted Structure for Acquisition Operations

7 COACs	Customers	Approximate Workload	FTE Allocations
NCI	NCI, NCCAM	$801M	73
NHLBI	NHLBI, CSR, NIAMS, NIDCR, NIBIB, NCRR, NHGRI	$361M	48
NLM	NLM, CIT, OD	$447M	20
NIDDK	NIDDK, NICHD, NIAAA, FIC	$220M	33
Neurosciences	NIDA, NINDS, NIMH	$193M	27
OLAO	NINR, NCMHD, NIA, NEI, NIDCD, NIGMS, OD	$274M	45
NIAID	NIAID, DHHS Biodefense	$1,019M	93
3 Specialty Contract Offices			
NIEHS	NIEHS	$183M	41
CC	CC	$94M	24
ORF	ORF	$325M	22

The Acquisition IG had made progress in implementing this agreed-upon structure.

THE ACQUISITION GROUP'S EXPERIENCE

What Key Challenges Did the Acquisition Group Face?

The prior NIH experience with service centers, though limited, allowed informed discussion about implementing the recommended changes. However, there were challenges.

Reluctance to change: Overall, the major issue that confronted the group was the reluctance to accept that the change was, in fact, going to happen. As with many of the functional areas, the acquisition community and the ICs generally felt the process was working well as it was, and did not need to change. It took six months for management to establish the Acquisition IG; the ARAC report remained in draft, and rumors circulated concerning possible DHHS actions in the acquisition area that might supersede the ARAC recommendations. Additionally, some members felt that acquisition was too far in the forefront in the consolidation area, when

compared with what they saw as significantly less consolidation anticipated by others. Further, without a clear target date for implementation of the NBS acquisition module or a deadline for reorganization, there was little pressure to move forward. Clearer communication of management's intentions earlier may have resulted in quicker actions.

> *Clearer communication of management's intentions earlier may have resulted in quicker actions.*

Distrust of performance measures: There was also reluctance to adopt performance measures beyond the current subjective measures of customer and employee satisfaction already included in the department-wide Balanced Scorecard surveys. Many members of the group continued to question any movement to adopt more objective measures, such as lead time and cost-to-spend, maintaining that the NIH work was unique and should not be put into such constraints.

Inadequate workload and staffing data: Additionally, there was considerable discussion around the accuracy and usefulness of available workload and staffing data that would be critical to decisions about how to distribute IC workload and staff among the new COACs. The group spent considerable time coming up with a uniform set of data the members could agree accurately represented workloads and on-board staff.

Uncertainty about related changes: There was also uncertainty about the relative timing of the reorganization and deployment of the NBS acquisition module. Additionally, DHHS continued to consider consolidating acquisition functions at the department level that could supersede the NIH consolidation efforts.

How Did the Acquisition Group Operate?

Organization and leadership: The Acquisition IG was established in March 2004 and met regularly. It was, by design, an inclusive group involving the various affected communities at NIH, including executive officers (EOs), administrative officers (AOs), contracting officers, and senior policy officials. Most of the members had participated in development of the original ARAC recommendations. The leader encouraged open and frank discussion.

> *Monitoring milestones helped to keep the effort on track.*

Monitoring milestones helped to keep the effort on track. The group leader operated with a clear set of milestone events and dates for each of the four sub-groups established in 2004 to address key issues. Each of these sub-groups—Organizational Alignment, Workload and Staffing, Systems, and Customer Service and Performance Management—worked through its specific tasks and completed its work on time.

> *Active stakeholder involvement resulted in both buy-in and design of better proposals.*

Stakeholder involvement: Active stakeholder involvement resulted in both buy-in and design of better proposals. Acquisition IG members met with key stakeholders in each IC to determine which ones wanted to be a service center and which ones did not, and to learn their expectations for service. In two cases, groups of ICs with related missions developed their own

proposals to "band together" around a particular center, a concept not included in the original ARAC report. Stakeholder participation helped identify a model that met the goals of the agency, reduced the potential impact on staffing, and may, in fact, serve the ICs better than the original design.

Data-driven decisions: Solid data supported sound decisions and helped overcome apprehension to secure buy-in from stakeholders. The Acquisition IG put considerable effort into making evidenced-based decisions. Benchmarking efforts were conducted to identify best

> *Solid data supported sound decisions and helped overcome apprehension to secure buy-in from stakeholders.*

practices in organizational structures for procurement as well as performance measures. It also put considerable effort into obtaining and "rationalizing" data to accurately represent workloads and on-board staff so that they could be meaningfully analyzed and compared. However, many ICs sharply criticized both centralized NIH data and the data collected from individual ICs as inaccurate, or "comparing apples and oranges." Ultimately, developing data that were accepted by the community allowed the analysis of workload distribution that was pivotal in allowing the group to come to a decision. Despite the difficulties in obtaining these data, their existence allowed the group to develop options, overcome concerns about possible negative impacts of change, and ultimately obtain management approval.

> *Flexibility to consider options based on stakeholder input and data analysis was fundamental to buy-in on the final design.*

Decisions through consensus: Flexibility to consider options based on stakeholder input and data analysis was fundamental to buy-in on the final design. The group leader worked hard to obtain consensus for group decisions, both within the group and within the larger acquisition community, and the development of solid data helped him overcome resistance and obtain consensus.

However, towards the end of 2004, it became clear that the consensus technique was not working smoothly enough to meet the deadlines necessitated by the impending deployment of NBS. Management stepped in, providing support and encouragement to help move the group along. With this increased attention from the NIH Deputy Director for Management (DDM) and from the Acquisition IG chair, the group made a timely decision on its recommended approach. Having laid the groundwork through stakeholder participation, data analysis, and establishing baseline performance measures, the group then was able to develop its preferred alternative fairly quickly.

> *Management stepped in, providing support and encouragement to help move the group along.*

Integration with other changes: The introduction of the new NBS acquisition module was a major element in the acquisition ARAC consolidation, and the two efforts were formally linked. The Acquisition IG chair was the "Business Owner" for the acquisition module of NBS, and the Systems sub-group was tasked with coordinating with NBS. However, numerous discussions were held throughout the process over the timing of the consolidation versus the implementation of NBS, usually without a conclusion due to uncertainties about when NBS—and the related DHHS financial system (UFMS)—would be ready. Had there been more certainty on these questions earlier, it is likely that the group could have moved more expeditiously, without always

returning to the question of which should or could come first. The ultimate decision to reorganize before deployment of NBS, to avoid simultaneous implementation of the NBS module and the reorganization, moved the process along by removing a major "unknown."

> *Regular communication kept the staff engaged and reduced apprehension.*

Communication: Regular communication kept the staff engaged and reduced apprehension. As its work progressed, the Acquisition IG communicated about its progress through its website and several briefings with the NIH acquisition community and its customers. In addition, group leaders met face-to-face with representatives from each IC (EOs and AOs) to discuss the status of recommendations and to determine what role (service center or client) each IC preferred.

Focused communications efforts, such as face-to-face meetings and off-site retreats, proved to be valuable two-way communications tools. Once a final decision was reached about the structure and IC assignments to the seven centers, the group quickly moved to inform the entire acquisition community, as well as its customers, about the details of the coming change. The first step in this process was a full-day off-site retreat in March 2005, led by the DDM and the Acquisition IG chair, and supported by the Academy and an outside facilitator. The retreat served as a forum for presenting the new acquisition service model to a large group of NIH contracting officers, EOs, and AOs.

Participants in the retreat identified advantages associated with the new structure, such as greater flexibility in meeting customer needs by providing customers one-stop shopping for all acquisition services and greater career development opportunities for acquisition staff. Participants also identified and prioritized key concerns that needed to be

> *Focused communications efforts, such as face-to-face meetings and off-site retreats, proved to be valuable two-way communications tools.*

addressed, most significantly, the need for sufficient staff, keeping close contact with customers, and eliminating uncertainty. The retreat participants began to build consensus on areas of concern, established a timeline for addressing them, and identified roles and responsibilities for follow-up. The retreat was a very useful technique to both communicate and understand the events surrounding the acquisition ARAC consolidation. Following that meeting, acceptance and support for the planned consolidation within the acquisition community increased significantly.

Following the retreat, a full-scale communications plan was developed—to communicate the details of the change and the change process to all NIH staff—and the Acquisition IG had accomplished a significant portion of the plan by July 2005, (when this report was completed). Among other things, this plan includes a general town meeting as well as several mini-town meetings, and an article drafted for the *NIH Record*. Activities were planned through October 31, 2005, when the new structure was scheduled to go into effect.

Change management: Four working groups were established after the March retreat to address the major concerns identified. Their efforts included key change-management actions needed to prepare the organization for change and to transition staff and customers to the new process. The four groups and their assignments were:

- **Human Resources:** finding where the staff will come from; determining organizational and grade structures; addressing key HR activities needed to implement the restructured offices by October 31; and determining how to select a lead chief contracting officer for each COAC
- **Resources:** determining the right number of staff for each COAC, given the expected workloads; determining the appropriate method of charging customers for services; working out space issues with ICs; identifying any start-up resources needed to establish each new COAC
- **Performance:** determining the governance structure (across all the COACs) needed to ensure quality of services; setting standards for performance and efficiency; recommending a final SLA template; and resolving disputes about service issues
- **Communication and Change Management:** developing a plan to ensure that both acquisition personnel and the NIH customers are prepared for the change

Although the Acquisition restructuring was not expected to have the kind of disruptive impact on staff that resulted from some other changes, such as those in HR and the Grants most efficient organization, this group took significant steps to address the impact of the change on staff. Weekly meetings were held with the Chief Contracting Officers for the new acquisition offices. Acquisition issues dealing with the day-to-day operations in the acquisition offices were addressed on an ongoing basis. In turn, these issues were placed in the context of larger issues such as NBS, management controls, DHHS initiatives and the President's Management Agenda. These steps also included making commercial change-management contractors available through the transition.

Although not part of the acquisition restructuring, NIH plans to provide necessary training to ensure staff have the skills needed to use the new NBS acquisition module, and to understand the changes in business practices embedded in the new system. The NBS Project Office had responsibility for overseeing these training and other change-management activities with regard to NBS. (See the discussion of the NBS experience in Appendix F to this report.)

How Did the Academy Participate?

…outside support provided expertise, credibility, perspective, and needed resources.

The Academy was a full partner in the Acquisition IG's efforts, providing, counsel and active support in conducting analyses and preparing documentation. The Academy's outside support provided expertise, credibility, perspective, and needed resources.

The major area of Academy assistance in the early going was the identification of benchmark performance metrics used by several other acquisition offices across government and industry, including many organizations in the R&D area. Knowing that these metrics had been used by others enabled the group to adopt such measures with confidence that they will be useful. An extensive benchmark case study of the Department of Energy to examine organizational issues surrounding acquisition and R&D procurement—conducted by a sub-contractor—offered useful

insights supporting the current organizational alignments being used by NIH and identified some metrics of potential use..

Once the group agreed on workload and staffing data, Academy staff created Excel tables that showed relevant contract workload data for the ICs and allowed important analyses of the workload distributions of the various combinations of COACs and customers available. The Academy also assisted in planning and executing the off-site retreat, including developing the key issues and providing a professional facilitator.

On a more basic level, given that the work of the Acquisition IG members was conducted as "other duties as assigned," the availability of Academy staff provided valuable resources to support the overall restructuring effort.

How Will the Impact of Change Be Assessed?

Reliable baseline data helped ensure that the impact of change can be measured and, in turn, alleviated apprehension about change. The acquisition function has for some time been included in the DHHS Balanced Scorecard surveys of employee and customer satisfaction. Ongoing collection and analysis of this information will allow this dimension of the impact of change to be measured. It is important to note that existence of this information, and the knowledge that it would continue to be available, were critical in obtaining IC and Steering Committee support for the change. When concerns were expressed that the restructuring would reduce service levels, the Acquisition IG could point to this ongoing performance monitoring to assure those who were concerned that the agency could monitor the impact on service and address any issues that arose.

Reliable baseline data helped ensure that the impact of change can be measured and, in turn, alleviated apprehension about change.

Benchmarking provided valuable information to guide decisions.

Even so, some of the group members thought additional, more quantitative measures were needed. Benchmarking provided valuable information to guide decisions. After considerable discussion, the Acquisition IG adopted three key quantitative measures—cost-to-spend, cost-per-FTE, and lead time—which will be monitored to further assess impact. This is a major accomplishment of the ARAC process.

Among the most significant benefits of the restructuring are establishment of a consistent organizational structure and consistent performance measures across NIH. For the first time, NIH will use cost-to-spend, cost-per-FTE, and lead-time measures across the board for all 10 acquisition centers, and will manage these centers collectively using comparable numbers.

For the first time, NIH will use cost-to-spend, cost-per-FTE and lead time measures across the board for all 10 acquisition offices … and will manage these centers collectively using these numbers.

CONCLUSION

NIH has begun to implement a significant change in its acquisition operations, one that could lead to increased efficiency—through increased flexibility in meeting customer needs and related implementation of new software. And, this restructuring could also improve career development opportunities for acquisition staff. The Acquisition IG has brought the agency to agreement on the form of the change and how its impact will be measured. It is now taking the necessary steps to implement the consolidation. Several factors contributed to this progress, most importantly:

- NIH and group leadership monitored progress and took steps to overcome uncertainty and to push the group to move ahead in a timely manner.
- Active stakeholder involvement helped improve design of the new centers and obtain buy-in for the consolidation.
- Effective two-way communication kept people engaged, reduced apprehensions among the larger community of affected employees, and thus helped to achieve buy-in.
- Solid data and flexibility supported sound decisions and contributed to buy-in.
- Reliable baseline data helped ensure that the impact of change can be measured.
- Outside support provided needed expertise, perspective, credibility, and resources.

Case 2: BUDGET

EXECUTIVE SUMMARY

Budget was one of the functions specifically targeted by DHHS for consolidation at the operational division (e.g. NIH) level under the "One HHS" initiative. However, the ARAC report concluded that, in NIH, the budget function should not be consolidated into the central Office of Budget. Instead there was strong sentiment to maintain a decentralized structure, based on:

- The need to maintain proximity to scientific staff to maintain fiduciary responsibilities
- The fact that 24 of the ICs each received a direct appropriation from the Congress
- Survey data suggesting that the IC Directors believed it was critical to maintain the budget function's close proximity to the IC Director

ARAC Goals and Accomplishments

While emphasizing the need to retain core budget functions at the IC level, the ARAC report made several other recommendations, including:

- Further consolidate certain budget formulation, presentation and execution functions
- Strengthen the linkage between the NIH Associate Director for Budget and the budget officers in the ICs and central services officer, and streamline the Office of Budget's coordination role
- Reduce overall budget staffing allocations from 219 to 200

Four functions were consolidated between June 2003 and September 2004, and consolidation of seven more has been recommended. The implementation plan to address these additional consolidations was approved in the fall of 2004. In accordance with that plan, during the first half of 2005, five working groups developed specific recommendations for consolidating the seven functions. The groups' recommendations for next steps were approved and initial steps to consolidation have been taken.

With respect to staffing reductions, by the end of FY 2004 nine positions had been transferred from the budget offices across NIH, moving the number of dedicated positions toward the goal of 200. At that time, however, there were about 30 vacancies and it was determined that no actual staffing reductions would be needed.

Lessons Demonstrated by the Budget Group's Experience

The task of the ARAC Budget Implementation Group was less extensive than that in the other ARAC areas and the ARAC report allowed considerable room for flexibility. This demonstrates that sound and acceptable decisions can be facilitated by allowing flexibility and basing decisions on solid data and analysis. Also apparent was the importance of management attention—through the request for regular reports—and availability of outside resources early on in the process in keeping the process moving.

BACKGROUND

Budget was one of the functions specifically targeted by DHHS for consolidation at the operational division (e.g. NIH) level under the "One HHS" initiative. However, the ARAC report concluded that, in NIH, the budget function should not be consolidated into the central Office of Budget. Instead there was strong sentiment and rationale for maintaining a decentralized arrangement—that is, a small core central budget staff and related budget staff in each of the ICs and central services offices. The main arguments for maintaining a largely decentralized budget process were:

- The need to maintain proximity to scientific staff to maintain fiduciary responsibilities
- The fact that 24 of the ICs each received a direct appropriation from the Congress and thus needed their own budget offices
- Survey data that suggested that the IC Directors believed it was critical to maintain the budget function's close proximity to the IC Director

ARAC GOALS AND ACCOMPLISHMENTS

Goals

While emphasizing the need to retain core budget functions at the IC level, the report made several other recommendations, including:

- Further consolidate certain budget formulation, presentation and execution functions while retaining core budget functions at the IC level
- Continue to streamline the Office of Budget's coordination functions
- Strengthen the linkage between the NIH Associate Director for Budget and the budget officers in both the ICs and the central services offices
- Reduce overall budget staffing allocations from 219 to 200

To accomplish these goals, work needed to be done to benchmark appropriate staffing levels and to implement a system for monitoring outcome metrics and adjusting operations accordingly.

Accomplishments and Status

Four functions were consolidated between June 2003 and September 2004, and seven more have been identified for possible consolidation. The implementation plan for these additional consolidations was presented to the NIH Steering Committee in October 2004, and it was subsequently approved. The four functions already consolidated were:

1. Allowance—entering budget levels into the central accounting system, following IC input (*budget execution*)
2. Development of standardized reports of obligations/expenditures (*budget execution*)
3. End of year reconciliation of grant obligations with NIH's Information for Management, Planning, Analysis, and Coordination (IMPAC II) system (*budget execution*)

4. Reporting of actual and projected funding for Special Population Institutions, such as Historically Black Colleges or Universities (*budget formulation*)

In accordance with the implementation plan, five working groups were established during the first half of 2005. Each was comprised of one representative from the Office of Budget and staff from the ICs. These groups worked independently and reported weekly to the NIH Assistant Director for Budget. The working groups studied the following seven functions and developed specific recommendations for next steps for possible consolidation of the activities.

1. Apportionment—document preparation of this process with IC input (*budget execution*)
2. Preparation of documentation and schedules to receive and make available appropriated funds, including apportionments (SF132) and financial plans (SF 350) (*budget execution*)
3. Coordination of central Taps/Assessments/Supply and Service Fund (*budget execution*)
4. End of year reports to NIH of IC obligations by various distributions (*budget execution*)
5. AIDS reporting into the new version of the ARIS database (*budget execution*)
6. Development of commitment base for Intramural Program and other in-house activities (*budget formulation*)
7. Congressional justification—input of IC-provided data into standard NIH formats and graphs (*budget presentation*)

The groups' recommendations were presented to the ARAC Budget Implementation Group (IG), next steps were approved, and initial implementation steps have been taken.

With respect to staff reductions, nine positions had been transferred from the budget offices by the end of FY 2004, moving the authorized number of positions toward the goal of 200. However, as shown in Table C-7, below, at that time, there were about 30 vacancies and it was determined that no actual staff reductions would be needed.

Table C-7: Budget Function Staffing in FY 2003 and FY 2004
(This table compares on-board budget function staffing to authorized ceilings in FY 2003 and FY 2004.)

	FY 2003		FY 2004	
	On-board	Ceiling	On-board	Ceiling
ICs	137	159	128	155
Central services offices	34	37	28	31
Office of Budget	22	23	22	24
Total	193	219	178	210

Source: "Presentation to the NIH Management and Budget Working Group," by the Associate Director for Budget, October 19, 2004

THE BUDGET GROUP'S EXPERIENCE

What Key Challenges Did the Budget Group Face?

Implementation of the ARAC recommendations for Budget was less difficult than for the other groups, because of (1) the decision not to fundamentally change the organization of the budget

function, (2) the flexibility to determine which functions to consolidate, and (3) the limited staff reduction recommended. At the same time, however, some officials felt that the function was understaffed to adequately handle increased responsibilities under the Director's Roadmap, the Government Performance and Results Act, and reviews using the Program Assessment Rating Tool.

How Did the Budget Group Operate?

…consistency in the group's membership helped ensure progress.

Consistent leadership: Little was done formally to pursue the ARAC recommendations until NIH management began to emphasize the need for ARAC implementation, and the Budget IG was convened in June 2004. Having consistency in the group's membership helped ensure progress. Because this group was virtually the same as the one that prepared the original ARAC report, it got to work quickly to update the required data and analysis, and decisions were made in a relatively short time.

However, shortly after the NIH Steering Committee approved the implementation plan in the fall of 2004, the Office of Budget's priority switched to briefing the new Secretary and preparing the annual budget, so ARAC progress slowed again. In early February 2005, the NIH Assistant Director for Budget was assigned specific responsibility for accomplishing the ARAC goals. Working groups were organized and proved to be an effective tool for generating consolidation options. The former Director for Budget—who had headed up the committee that drafted the original ARAC report—provided consultation early on in the process to assist with the necessary ARAC steps.

During the ARAC process, NIH budget staff had many priorities. Progress on ARAC was most evident once the NIH Assistant Director for Budget position was filled, when responsibility was clearly assigned, and when regular reports of activities were required.

Progress on ARAC was most evident once the NIH Assistant Director for Budget position was filled, when responsibility was clearly assigned, and when regular reports of activities were required.

Use of existing networks: The changes in the budget function and the potential impact on IC staff not directly related to budget activities were relatively limited. The Budget IG kept the functional IC leadership up to date and vetted proposed changes through the existing budget officers' network. The IG also brought IC budget office representatives into the effort through sub-groups.

Data-driven decisions: Detailed data and analysis supported the group's decisions. The Budget IG was able to reach a consensus and obtain management approval of its plan, in large part, because of the care it took in developing sound data and conducting thoughtful analysis.

Detailed data and analysis supported the group's decisions.

Data gathering and analysis required time and effort, not only of IG members, but of budget staff throughout NIH. To identify existing staffing levels, the group worked through sub-teams, to make a careful count of each position assigned to the ICs, central services

offices, and the Office of Budget. Each budget office was asked to provide the names, grade, series and amount of time (if less than full time) of every member of its office. This analysis updated the information used in the original ARAC report, and showed that, while in FY 2003 there were 219 positions in the budget offices, as of September 2004 that total had fallen to 210. At that time, there were only 178 staff on board. As discussed below, to help determine what the staffing levels should be, the Academy conducted a benchmarking study of other organizations' budget staffing. Although the study did not identify new directions for the group, it did allow it to move forward in the knowledge that budget staffing at NIH is not excessive and could best be termed as "about in the middle."

The ARAC report allowed significant flexibility in the group's decisions about the extent of consolidation. To identify what functions should be consolidated, the group committed substantial resources to an extensive analysis of IC budget-related functions. In its benchmarking study, the Academy found that it could not—without significantly increased resources—sort out the multiple budget functions that are being performed in other agencies and whether the functions are performed centrally or in the program offices. Thus, the NIH group's own analysis of existing budget activities was the best available guide to what would work best there.

> *To identify what functions should be consolidated, the group committed substantial resources to an extensive analysis of IC budget-related functions.*

Two teams of senior NIH budget officers developed lists of individual tasks that are performed by the NIH budget offices. Broadly, the tasks were categorized as: formulation, presentation, execution, and special analyses. A total of 85 separate tasks were identified in the IC budget offices. (An additional 51 tasks were identified that specifically related to the central service offices.) In addition, each IC was asked to identify how many staff-years of work were associated with each task, and to ensure that these data were consistent with those collected for the staffing analyses.

Each task was reviewed against several criteria, and each reviewer assigned a score to each task. The exercise was aimed at updating previous decisions made on the location of certain functions to determine whether the function was best centralized or de-centralized. These tasks were divided into "RED" (cannot be centralized), "GREEN" (currently centralized or could be further analyzed for possible future consolidation), and YELLOW (possibly could be consolidated). The group then discussed the findings. Ultimately, the group agreed on seven additional functions to be consolidated. Of the seven functions, 5 were in budget execution, one was in formulation, and one was in presentation. These consolidations represent relatively small changes in the organization: only about 10 FTEs would be affected, although more employees would be affected because the tasks are not full-time responsibilities of the staff that perform them. Ensuring that affected staff are supported in transition and are prepared for new roles is important, but should not be a significant burden, since the responsibilities are widely distributed among staff.

Improved communications: The Budget IG worked to include representatives from the decentralized budget offices, including junior staff, in the sub-groups that developed the analyses

as well as in the later sub-groups that developed implementation plans for the seven functions that were chosen to be considered for consolidation. Whether broader involvement of customers in the decision-making itself would have moved the group to consolidation of more functions is unknown, but had the extent of consolidation pursued been significantly grater, broader involvement of customers may have been needed.

Consciously recognizing and using the budget officer meetings as a vehicle for two-way communication may improve understanding.

The Budget IG also addressed the ARAC recommendation to improve linkages between the Office of Budget and budget officers in the ICs and the central services offices. It emphasized that future budget officer meetings should be used as a main vehicle for a continuous and ongoing exchange of budget and budget-related information. Consciously recognizing and using the budget officer meetings as a vehicle for two-way communication may improve understanding. This practice mirrors the successful approach used in other decentralized functional areas, such as Grants, where existing networks are used to enhance communication among ICs.

And finally, the October 2004 implementation plan specified that the NIH ARAC web site would be updated with Budget IG activities—a goal that remained to be accomplished, as of June 2005.

How Did the Academy Participate?

The Budget IG was interested in determining optimum budget staffing between the Office of Budget and the decentralized budget offices, as well as whether the total allocation of budget staff was reasonable for NIH. It also wanted to establish some framework and rationale for the staffing reduction that had been recommended. The Academy staff was asked to develop benchmark data from several federal agencies to determine the appropriate mix between central and IC budget staff, and how the budget staffing compared to both total agency budget and total agency staffing.

The Academy completed its study and presented information from five federal agencies in September 2004. Some of the key conclusions concerning staffing were:

- Total budget staffing in NIH fell in the middle of a very wide range of staffing levels.
- There is no single arrangement or staffing pattern that could be termed optimal. Each agency has different policies and procedures, and each agency has its own culture for budget planning, development, and monitoring.
- There is no direct relationship between the number of employees in the agencies studied and their total budget dollars and staff levels. More extensive analysis than could be done in this study would be necessary to understand the differences found in the agencies' staffing levels.

The Academy was also asked to determine what metrics the agencies were using to measure the effectiveness of their budget activities.[10] The Academy staff found that none of the federal

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[10] The Office of Budget Director was particularly interested in comparing NIH to other federal agencies that, like NIH, had budget allocations with many appropriations.

agencies contacted had any meaningful metrics by which they judged the effectiveness of their budget activity. Moreover, no metrics were used by OMB to evaluate their performance.

Enlisting resources from outside the existing budget function was a significant factor in the group's progress.

Enlisting resources from outside the existing budget function was a significant factor in the group's progress, as was filling the NIH Assistant Director for Budget position. The Academy's resources relieved the budget staff of the burden of preparing the benchmarking study, and the assistance was greatly appreciated. Additionally, the former NIH budget director brought agency knowledge and expertise that allowed the group to move quickly on the staffing and functional analysis. These outside resources early in the process provided expertise and helped focus the effort to ensure necessary tasks were completed.

How Will the Impact of Change Be Assessed?

As discussed above, there are no quantitative metrics in general use to evaluate budget office performance. This lack of generally accepted quantitative measures highlights the importance of qualitative measures. NIH now conducts surveys to seek the opinion of the ICs about the effectiveness of the budget function and the related staff. This method will provide on-going information to track customer satisfaction with budget activities, and is a cost-effective way to determine the worth of the budget function. It will not necessarily allow the impact of specific changes to be assessed, however.

CONCLUSION

The task of the Budget IG was less extensive than those in the other ARAC areas and the ARAC report allowed room for substantial flexibility. The group's experience demonstrates that sound and acceptable decisions can be facilitated by allowing flexibility and basing decisions on solid data and analysis. Also apparent was the importance of management attention—through the request for regular reports—and availability of outside resources early on in the process in keeping the process moving.

Case 3: EQUAL EMPLOYMENT OPPORTUNITY

EXECUTIVE SUMMARY

Historically, each of the 27 ICs has had its own equal employment opportunity (EEO) office. They operated with a great deal of independence, creating what management saw as potential liabilities for NIH. Consequently, even before ARAC began, the Director of the Office of Equal Opportunity and Diversity Management (OEODM) had begun discussions with ICs about establishing greater consistency and efficiency in the EEO function. The NIH Director approved consolidation, and the ARAC process formalized this goal. A department-level EEO consolidation was also under consideration.

ARAC Goals and Accomplishments

The ARAC report recommended fully consolidating NIH EEO functions and moving all EEO staff into a central office. The objectives were to improve performance against legally mandated requirements, provide quality customer service, and improve NIH staff diversity. It also recommended a staff reduction from an authorized level of 90 to 64.

In accordance with the phased approach laid out in the ARAC report, the new central office was officially established, on time, on October 1, 2004. OEODM then began working to make the new structure fully operational, for example, by developing standard policies and practices. NIH has begun to physically move staff from the ICs to the central office, but it does not appear that all staff will be centrally located by the September 2005 target because NIH has been unsuccessful in finding sufficient space centrally. Current on-board staff is 54, well below the ARAC target, so no additional downsizing is needed.

Lessons Demonstrated by the EEO Group's Experience

This group was able to overcome resistance and concerns about possible negative impacts on service. In the summer of 2005 it still faced morale problems and the task of physically moving staff continued. Several significant best practices continued to drive progress:

- Leadership's strong support gave credibility to the group and moved those who resisted the change to work to influence it rather than prevent it.
- Flexibility in the design of the reorganization, even though the bottom line—consolidation—was a "given," made stakeholder input meaningful.
- The thoughtful, data-driven approach instilled the effort with credibility.
- Integrating the Academy staff into the group added experience-based advice, energy, and "outsider" credibility.
- Frequent, varied, and two-way communication prevented surprises and helped to achieve stakeholder support.
- Change-management practices helped staff deal with change, prepared them for their new roles, and contributed to the smooth transition experienced to date.

BACKGROUND

At the time the ARAC effort was initiated, the 27 ICs each had its own EEO office. They shared a common mission, yet operated with a great deal of independence from each other and from the OEODM, creating what management saw as potential liabilities for NIH—especially when federal management initiatives were calling for greater central control. As early as 2001, the Director of OEODM began discussions with IC executive officers (EOs) about establishing greater consistency and efficiency in the EEO function. The NIH Director approved consolidating the function into a central office, and the ARAC process formalized that goal. However, even after departmental acceptance of the ARAC plan, department-level consolidation of the EEO function was under active consideration.

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC report recommended fully consolidating NIH EEO functions and moving all EEO staff into a central office. The objectives were to improve performance against legally mandated requirements, provide quality customer service, and improve achievement of the office's mission to improve NIH's diversity. Guiding principles for implementing the change were to create a model program, be inclusive, establish transparency through regular communication, and use consistent evaluation mechanisms.

To achieve these objectives, the report recommended that the central office be organized into six functional divisions, focus more on common objectives, standardize operating procedures, and streamline operations. It also recommended a staff reduction from an authorized level of 90 to 64.

Accomplishments and Status

The ARAC report laid out a two-phase process.

Phase I: Between October 2003 and September 2004, the ARAC EEO Implementation Group (IG) would design the organizational structure and put it in place, with all staff operationally assigned to the central office. The new office was officially established on time on October 1, 2004. However, the implemented structure differed from the initially recommended structure, with four divisions instead of six. As called for in the ARAC report, local EEO officers no longer reported to the ICs during Phase I, but they continued to work in the ICs as the primary interface with customers.

Phase II: Between October 2004 and September 2005, the OEODM and its divisions would work to make the new structure fully operational. Accordingly, during this period OEODM worked to develop NIH-wide policies and standard operating procedures, coordinate newly centralized systems, realign budgetary responsibilities, train staff, gather information on program metrics and evaluation processes, and so on. The central office also continued to provide advice and

guidance to NIH leadership on EEO and diversity issues. The ARAC report envisioned that all EEO staff would be moved out of the ICs and into the central OEODM office. One key modification the group agreed to was to allow at least some "liaisons" to stay on-site in the ICs on a part-time basis. The EEO IG finalized staffing assignments, including identification of the liaisons, and began to move staff to the central office. However, it did not expect all staff to be centrally located by the September 2005 goal because NIH has been unsuccessful in finding sufficient centralized space.

In 2005 the office was authorized 75 FTEs, down from 90 at the beginning of the ARAC process. OEODM was still working to determine what its optimal strength should be and was considering a further reduction in the authorized staffing level. Because the office had an on-board strength of 54, however, staff would not be directly affected by the reduced authorization levels.

The Director, OEODM, reported that, through restructuring, NIH had minimized duplication of EEO program activities while maximizing efficiency in service delivery, eliminated costly and nonessential activities, and strengthened its collaborative base throughout the agency.

THE EEO GROUP'S EXPERIENCE

What Key Challenges Did the EEO Group Face?

Concerns about possible service deterioration: The biggest challenge facing the EEO IG was overcoming concerns by the ICs that removing management of EEO and diversity management functions to a central office would negatively affect service levels. The 2003 HR consolidation may have exacerbated IC concerns about loss of on-site EEO staff: the HR consolidation took HR staff out of the ICs, robbing them of specialist staff they saw as "pulse-takers" among the IC staff and removing on-site expertise.

The EOs in the ICs strongly resisted the restructuring initially, even circumventing the ARAC structure to take concerns about the possibility of service deteriorating directly to NIH management. The Academy facilitated a meeting that helped defuse tensions, acknowledging the EOs' concerns, but also demonstrating the careful thought the EEO IG was putting into the process and the group's commitment to engaging the EOs throughout.

Culture of autonomy: The EOs had been accustomed to setting the agendas for their EEO officers, exercising control over what was done, when, and how. Losing that control created uncertainty and, as in other functions at NIH undergoing restructuring, conflicted with a deep-seated culture of local autonomy. One problem stemming from this IC autonomy was that the ICs frequently used EEO officers flexibly, based on the ICs' specific needs. As a result, some EEO staff members' duties were inconsistent with the official scope of EEO job-series responsibilities. The extent to which EEO staff were performing non-EEO functions was unknown, making it difficult to determine optimal staffing levels for a central office. In addition, especially in the small ICs which dealt with relatively few EEO actions per year, some EEO staff lacked experience in areas that would be necessary in a central office.

> *The EEO IG had limited performance information with which to counter fears that change would impair service…*

Lack of existing performance measures: The EEO IG had limited performance information with which to counter fears that change would impair service and, as the new organization began operations, it suffered from a lack of baseline data. The Equal Employment Opportunity Commission requires metrics on complaint processing times, but other metrics are not available NIH-wide. This made it difficult for the new organization to monitor its performance by comparing it with the past on any dimension other than compliance with regulations for complaints processing.

One performance assessment issue was especially troublesome. The disabled and minorities are often the ones who are most negatively impacted by significant downsizing and consolidations, making the availability of solid EEO support critical during such changes. These risks may have been increased by undertaking the EEO consolidation concurrently with the many other changes, and the lack of data on EEO performance made it more difficult for NIH to assess the impacts on these more vulnerable employees as changes were implemented. Nevertheless, OEODM has been actively involved with competitive sourcing activities under OMB Circular A-76 since the reviews started, working to assess the potential for adverse impacts of competitions. The NIH Diversity Council also has recognized the potential for negative effects, and formed a subcommittee devoted to coordinating workforce issues related to restructuring.

Lack of sufficient office space: Space availability presented the most intractable problem. The ICs had space readily available for IC liaisons, since they were accustomed to having EEO offices located locally. However, while good change management has helped overcome other challenges, a lack of space at the central office persisted well into Phase II, even though the EEO IG submitted its justification for space needs in January 2004. The OEODM could not begin to co-locate staff in the central divisions until January 2005, and relocations may not be completed by the September 2005 target date.

As a result of the delay in locating staff centrally, the OEODM Director believed that the office had suffered a loss of management control, and preparations for training and communication had been interrupted. Even though the restructuring does not threaten any jobs, staff morale suffered because the significant delay in relocation meant that staff did not know when or where they would be moving, affecting their ability to adjust to their new roles in the new OEODM divisions.

How Did the EEO Group Operate?

Inclusive membership: The EEO IG and OEODM Steering Committee were formed in October 2003. The IG was a very inclusive group, comprised of former IC EEO officers, OEODM, representatives from the Office of Human Resources, the Office of Budget, the Office of Management Assessment, the Academy, and the Chair of the NIH Diversity Council. Senior NIH officials, from the ICs and headquarters offices (including EOs and specialists in other functions such as budget and finance), formed the OEODM Steering Committee, which was responsible for oversight. The OEODM Director made sure to include staunch critics of the

consolidation from the ICs on the IG and the Steering Committee, integrating them into the effort by engaging them in the process of shaping the reorganization and preventing predictable problems.

> *By communicating directly to the ICs that consolidation was inevitable, [NIH leaders] gave the ICs an incentive to help craft the change, rather that attempt to oppose the process.*

Leadership support: Both the Director and Deputy Director of NIH openly supported the consolidation project. By communicating directly to the ICs that consolidation was inevitable, they gave the ICs an incentive to help craft the change, rather than attempt to oppose the process. The OEODM Director also demonstrated his commitment to the change and was present and involved throughout the process. He led the EEO IG in an open and supportive manner and worked to make decisions based on sound data.

A flexible approach: Progress was also facilitated by the group's willingness and ability to make changes along the way. The final organizational structure differed somewhat from that originally recommended in the ARAC report. The report recommended creation of six teams for six functional

> *Progress was also facilitated by the group's willingness and ability to make changes along the way.*

areas—complaints management, minority outreach and recruitment, special emphasis programs, affirmative employment, diversity management, and disability programs. Instead, OEODM created four divisions:

- **Division of Policy, Planning, Programs and Diversity Management** conducts strategic planning, provides guidance and standard operating procedures for all EEO functional areas, and is responsible for the NIH diversity strategic plan, an overall diversity training strategy, and technical assistance to ICs. ICs are responsible for providing the resources needed to implement of diversity programs at the IC level.
- **Division of Program Evaluation** develops strategic plans for evaluating performance against all EEO/diversity management accountability standards; it is also responsible for developing and using performance measures.
- **Division of IC Services** is the most heavily staffed and is responsible for actual operations. Its teams, which include IC liaisons, oversee the day-to-day performance of all EEO functional responsibilities. Management accountability for carrying out EEO policies will remain with ICs.
- **Division of Complaints Management and Resolution** manages all aspects of the EEO complaints process, including the pre-complaint and formal stages.

Another key change from the original ARAC recommendation was creation of the liaison positions. In response to the IC concerns about loss of on-site support, the EEO IG agreed to create on-site liaison positions, to allow some EEO staff to remain in some of the ICs, on a part-time basis, reducing local opposition while preserving the intent of the ARAC recommendations. The liaisons now report to the OEODM and are covered by its budget, but their presence in the ICs lessens the perceived threat of change.

Change management: A recognized need for change management guided the EEO IG's work from the very beginning. These efforts proved critical to the transition, overcoming early opposition and at the same time protecting and enhancing service levels. The IG, under the leadership of the OEODM director, is the lead change agent in the process, overseeing the design and implementation of the consolidated OEODM and the shift of authority and staff to the central office—while taking responsibility for protecting service levels during the transition. The EEO IG quickly implemented change-management training for all staff, providing education in the stages of people's reactions to change—which has smoothed the transition by helping staff to understand their reactions, and those of others, to the restructuring.

> *[Change management] proved critical to the transition, overcoming early opposition and at the same time protecting and enhancing service levels.*

As the transition progressed, it became increasingly clear that some staff did not have the full set of skills needed to function in a consolidated office. As these differences in areas of expertise among EEO staff became clear, the IG devoted significant effort to identifying skill gaps and developed training programs necessary to ensure that all staff have the broad skills needed. Substantial resources have been requested and received to provide contracted training opportunities.

> *…the IG… developed training programs necessary to ensure that all staff have the broad skills needed.*

A focus on communication: Perhaps the most significant component of the EEO IG change-management strategy, however, has been a focus on broad, consistent communication and transparency in all processes. Not only was communication important to protecting service levels through the transition, it was equally crucial in getting and constantly reinforcing buy-in by demonstrating commitment to a process that would improve service. By the end of Phase I, all staff had bought into the proposed changes.

The IG monitored its progress, kept the pulse of the community, and held extra meetings and briefings to address emerging concerns. Communications varied to meet the needs of different stakeholders and to ensure stakeholder input.

> *Communications varied to meet the needs of different stakeholders and to ensure stakeholder input.*

- At first, the IG used weekly meetings and a pair of retreats for the team to plan and schedule the process.
- Although the IG included representatives from a broad set of stakeholders, members made sure to expand participation and reach out to all stakeholders, to keep the full community involved in the process.
- The IG used monthly briefings of several standing committees to keep everyone up to speed, and gradually expanded the scope of the communications strategy.

The IG used, and is continuing to use, other communication tools to reach out to staff and the NIH community as a whole. An interactive web site and an EEO newsletter provided readily available and consistent information about the changes underway. The web site remains a one-stop resource for tracking progress and researching the effects of the changes for stakeholders; it

also reinforces stakeholder involvement by allowing them to submit feedback through an evaluation form. OEODM brought its restructuring web site online before the physical transition (Phase II) began. OEODM has also begun to publish its "News and Notes" newsletter, which offers a corporate perspective of EEO and diversity activities, in contrast to prior publications that were IC-based.

Two-way communications: Group-specific meetings (e.g. targeting EEO staff, EOs, IC Directors, NIH leadership, or the office of the ombudsman) and day-long all-hands retreats provided venues for stakeholders to learn, voice uncertainties, and make

The EEO IG and the OEODM Director demonstrated openness to, and acceptance of, stakeholder input…

recommendations. And it was clear that management was listening. The EEO IG and the OEODM director demonstrated openness to, and acceptance of, stakeholder input in several ways:

- In April 2004 the OEODM director offered individual briefings for all EEO staff (70 briefings total) ahead of a May retreat.
- The IG worked with EEO staff to help make assignments to positions in the consolidated OEODM. Although the director had the authority to make all final assignments, the IG provided staff with descriptions of the positions in the new divisions and solicited their preferences and qualifications, rather than leave staff out of the most important part of the restructuring for them.
- In response to IC concerns about loss of on-site support, as discussed above, the IG agreed to allow the ICs to retain a local EEO presence in the form of liaisons.

The EEO IG relied on data-driven processes both to guide decisions about the change and to generate support for it. The group undertook several data collection and analysis efforts.

Data-driven decisions: The EEO IG relied on data-driven processes both to guide decisions about the change and to generate support for it. The group undertook several data collection and analysis efforts. For example it collected data on location of existing EEO officers, some of whom were not co-located with ICs, to help overcome IC concerns about losing on-site support. But the most extensive effort was a workload and staffing analysis. The process of gathering staffing data was not perfect, given disagreements about what, who, and when to count. OEODM surveyed the ICs several times, and eventually settled on staffing data through negotiation with the ICs. For example, the ambiguity about some activities being performed by EEO staff contributed to disagreements, and the IG set up a meeting with EOs to discuss EEO staff duties that did not clearly fall within the scope of EEO (such as employee fitness programs). This functional analysis also alerted the IG to the fact that, in part because of limited experience in some ICs, some staff did not have the broad skills needed to function in the centralized, multifunctional positions they would occupy in the centralized office.

Using this data and allowing the ICs to actively participate in the analysis clarified the functions performed by EEO staff, and facilitated negotiations over what activities to centralize into the OEODM. It also established a baseline of services traditionally provided to the ICs, allowing OEODM to make a more precise comparison of service levels, and helped identify training

needs. Finally, it helped determine that further cuts in staffing would be unnecessary. EEO staff levels were found to have dropped below the ARAC target, largely through attrition during the restructuring process. OEODM was still working to determine what its optimal staffing level should be. However, vacancies in key positions presented problems. In spring 2005, just as the OEODM began to place people centrally, it lost some of its more experienced people—including those who headed the recruitment and outreach efforts. The office was working to bring new staff on board, especially to fill these key vacancies, but it experienced hiring delays associated with NIH's hiring process.

How Did the Academy Participate?

Academy staff played an integral role as a member of the EEO IG and contributed resources, credibility, and expertise to the process.

Academy staff played an integral role as a member of the EEO IG and contributed resources, credibility, and expertise to the process. The Academy liaison served as a catalyst to point the team in the right directions and helped facilitate the change through counsel to the group as well as to the group leader. Her skill, expertise, and close involvement helped her gain the confidence of the team, as did the credibility she brought as an unbiased outsider.

Academy staff frequently played an active part in the briefings and retreats held during both implementation phases. The Academy liaison helped to set agendas and facilitate discussion, as well as providing advice and insights based on many years of experience operating EEO and diversity programs at other agencies.

At the OEODM director's request, the Academy conducted a benchmarking study to obtain data on workload and staffing from comparable organizations and to identify performance measures and best practices in EEO and diversity programs. Limited information was found on staffing and outcome metrics. However, the Academy's study identified an extensive list of best practices for program performance, including a long list of possible output performance metrics. This study probably could not have been completed within existing OEODM resource levels.

How Will the Impact of Change Be Assessed?

As discussed above, the EEO IG was hindered by a lack of performance data with which to monitor service levels as the transition progressed. The Equal Employment Opportunity Commission requires metrics on complaint processing times, but other metrics are not available NIH-wide. This made it difficult for the new organization to compare its performance with the past on any dimension other than compliance with regulations for complaints processing.

OEODM had begun developing a sample service level agreement (SLA) and a three-year strategic plan. The Division of Program Evaluation also had begun developing an approach to evaluating the agency's EEO and Diversity program, looking to both output measures (such as number of complaints, complaint processing times, and the agency's diversity profile) as well as outcome measures (such as employee attitudes toward diversity and diversity programs). The findings of the Academy's benchmarking study supported the Division's work to develop a set of measures to use in tracking the agency's performance as well as its efforts to develop standard

operating policies and procedures. Use of SLAs should help alleviate individual IC concerns about service quality, and the performance assessment program being implemented should help OEODM maintain and improve its services.

CONCLUSION

This group was able to overcome resistance to change and concerns about possible negative impacts on service. It still faced morale problems and the difficult work to physically move staff. Several significant best practices continued to drive progress:

- Leadership's strong support gave credibility to the EEO IG and moved those who resisted the change to work to influence it rather than prevent it.
- Flexibility in the design of the reorganization, even though the bottom line—consolidation—was a "given," made stakeholder input meaningful.
- The thoughtful, data-driven approach instilled the effort with credibility.
- Integrating the Academy staff into the group added experience-based advice, energy, and "outsider" credibility.
- Frequent, varied, and two-way communication prevented surprises and helped to achieve stakeholder support.
- Change management helped staff deal with change, prepared them for their new roles, and contributed to smooth transition experienced to date.

Case 4: FACILITIES

EXECUTIVE SUMMARY

At the time of the initial ARAC effort, NIH facilities operations in the Washington, DC, area had already been consolidated for years and there were relatively few opportunities for additional consolidation. The final report recommendations focused on a few changes that were already underway.

ARAC Goals and Accomplishments

The ARAC report recommendations supported several ongoing efforts.

- Complete the stand up of the new Office of Research Facilities Development and Operations (ORF), with responsibilities carved out of the Office of Research Services (ORS).
- Consolidate management of three remote installations into ORF.
- Complete the competitive sourcing competition for the real property management (RPM) function being conducted under OMB Circular A-76
- Consolidate management of large conference rooms.
- Determine which facilities-related activities were being carried out independently by ICs and which of those actions are appropriate for ICs. (This goal was added in the fall of 2004.)

The first two goals were accomplished, and NIH initially won the RPM competition. However, as of the summer of 2005, when this report was being prepared, the award was pending resolution of a bid protest, and a union dispute also had to be resolved before the new organization could be established.

Two other key goals had been met, and the Deputy Director for Management was considering how to proceed on two unresolved issues:

- Several ICs continue to control large conference rooms that meet the criteria for consolidation.
- No decision has been made concerning the appropriate division of roles and responsibilities between ICs and ORF for facilities management.

Lessons Demonstrated by the Facilities Group's Experience

Where ORF and ORS officials could act without building consensus among ICs, NIH made progress—ORF is operating separately from ORS, and management of the three remote installations has been centralized. But progress was not made where ICs resisted change. Though seemingly minor in extent, these changes were staunchly opposed and may not have been good candidates for the "consensus approach" that was used.

BACKGROUND

NIH facilities operations in the Washington, DC, area had already been consolidated for years, at the time of the initial ARAC effort and there were relatively few opportunities for additional consolidation. Facilities management covers a wide range of planning and operations activities: master and facilities planning, capital facilities project development, real property management, leasing, and the several facility-based services: building security, food service, and events management (conference services). Most of the services were managed by in-house staff through commercial, fee-for-service contracts. The committee that developed the ARAC recommendations considered a variety of possible future consolidation efforts, however, such as concessions and food management, and noted that possible consolidation of these into department-level contracts also could be explored. But the final report recommendations focused on a few changes that were already underway.

ARAC GOALS AND ACCOMPLISHMENTS

Goals

Prior to initiation of the ARAC effort, NIH had already decided to make several changes in facilities management. The ARAC report recommendations supported these efforts.

- Complete stand-up of ORF: At about the same time as the start of the ARAC activities, NIH carved all facilities-related functions—including property management, facilities planning, capital project management, leasing, and environmental management—out of ORS to form ORF. Completing restructuring and establishment of ORF became one of the ARAC goals.
- Consolidate management of three off-site installations into ORF: Remote installations in Montana, North Carolina, and Baltimore, were managed independently from ORF by IC units in those regional installations. NIH had decided to bring management of these installations under ORF, and this became an ARAC goal.
- Complete the A-76 competition for the RPM function: NIH had decided to compete this function—part of ORF's responsibilities—as part of the A-76 competitive sourcing program under OMB Circular A-76. A cost study was well underway, and it included the three off-site installations as well. Completion of the RPM A-76 competition also became an ARAC goal.
- Consolidate management of all conference rooms that accommodate 50 or more people: Most of these large conference rooms were already centrally managed by ORS. Prior to the ARAC initiative, NIH had decided to include conference room management under a separate NIH A-76 competition for visual and medical arts (VMA). In addition to management of all conference rooms that could accommodate more than 50 people, the performance work statement (PWS) for this competition included related video-conferencing and other visual and medical arts functions, including some information technology functions. Ultimately the conference rooms addressed in the ARAC recommendation would be managed in the organization that won this competition.

- Late in 2004, the ARAC goals were expanded. The Deputy Director for Management (DDM) agreed that the implementation group should determine which facilities-related activities were being carried out independently by ICs, which of those actions were appropriate for ICs, and which should be the sole responsibility of ORF. Key management concerns related to possible NIH liability if ICs failed to follow all legal requirements—for example, those related to environmental safety, employee health and safety, building code, and construction spending requirements—when they conducted independent facilities management actions.

Accomplishments and Status

ORF was established and made fully functional. Responsibility for management of the three major remote installations transitioned smoothly to ORF. The NIH most efficient organization (MEO)[11] bid for VMA was selected, and the new organization was scheduled to go online early in FY 2006.

As of the summer of 2005, when this report was being prepared, several goals had not been met:

- The NIH MEO initially won the A-76 RPM competition. However, the award was pending resolution of a bid protest. In addition, the means of staffing the MEO, if NIH is successful in overcoming the bid protest, had not been worked out with the union representing many ORF staffers.
- Questions about the conference room consolidation had not been resolved; several ICs continued to control conference rooms that meet the criteria for inclusion in the ORS central program (and the MEO).
- No decision had been made concerning the appropriate division of roles and responsibilities between ICs and ORF for facilities management.

The DDM took under advisement how to proceed on the unresolved conference room and facilities management issues.

THE FACILITIES GROUP'S EXPERIENCE

What Key Challenges Did the Facilities Group Face?

Relative to other NIH consolidation efforts, most of the Facilities goals were small. There also was a strong history of customer-based management, including use of service agreements. In addition, concerns about the impact of the changes on service were much more limited than in most other areas. But two major factors hindered progress.

Strong resistance from ICs: Because consolidation of most facilities and conference room management functions had been achieved before ARAC began, the ARAC goals appeared to be simple clean-up activities—bringing the last few facilities management activities and large

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[11] An MEO is a federal agency's in-house staffing plan for an A-76 competition, representing the most efficient and cost-effective organization. The MEO proposal is compared to the bids submitted by private-sector companies.

conference rooms under central management. This perception proved to be deceptive, however, because powerful forces had been exercised by some ICs to keep these exceptional cases independent in the first place. The large ICs, with significant independence, had a long history of maintaining these functions themselves. Additionally, although NIH management knew some functions had not been consolidated, it did not have accurate data on the extent of these independent IC actions.

…although NIH management knew some functions had not been consolidated, it did not have accurate data on the extent of independent IC actions.

Uncertainty about the RPM MEO: The extent of the proposed change (significant staff reductions) encompassed in the RPM MEO, and the ongoing delay in implementing it, put stress on all those involved in the facilities function at the same time that tensions were developing over the other ARAC consolidation issues.

Uncertainty persisted long after the competition had been completed and the facilities community had expected decisions about the MEO to be final. The NIH MEO called for a staffing reduction of about 25 percent (from 420 to 320 for those performing covered functions). The bid protest filed with the Government Accountability Office (GAO) alleged that the NIH MEO had unfairly underbid and would not be able to perform the work in the PWS within the level of effort proposed for the MEO. Both parties and GAO agreed to have an independent consultant review the NIH proposal and recommend adjustments in the man-hour level-of-effort required to accomplish the stated scope. NIH would then consider the recommendations, make adjustments to the cost proposal, and the procurement office would re-evaluate the proposals for selection. The outside competitor's proposal would remain unchanged. The independent study was targeted for completion by the end of October 2005. NIH did not know the extent to which staff would be reduced.

Additionally, the union representing many of the employees affected by the RPM MEO filed a complaint. As proposed, the MEO would result in a major reduction in staff; grade structure would be lowered; and positions would become multidisciplinary. Management planned to make the selections to fill the staffing plan for the MEO on a "best qualified" basis. The union maintained that the positions should be filled by seniority. Management was concerned that using only seniority to staff the downsized organization would significantly reduce the number of lower-level staff and limit management's ability to "grow" leadership in the area, as well as eliminating some of the most highly qualified employees. Union officials were not actively involved in all phases of the competitive process, but it is not clear whether other approaches to involving the union could have avoided the protest; the union's position was well-known. As of the summer 2005, when this report was being prepared, the issue was with the National Labor Relations Board for resolution, but would not move forward until the selection of the MEO was officially completed. Accordingly, NIH remained unable to determine which staff will lose their positions.

Despite these uncertainties, it was clear that a large number of employees would be left without positions in ORF. And the uncertainty took a toll. Staff left, moving to other jobs, retiring, and so

…the uncertainty took a toll.

forth. This attrition was compounded by delays in hiring resulting from HR restructurings as well as by policies NIH put into place to help meet a management promise that no employees would lose their jobs as a result of consolidation. Hiring freezes and increased restrictions on filling higher grade positions were instituted to help ensure that positions would be available for displaced workers to move into. Combined with the attrition, these additional restrictions resulted in understaffing for ORF. The impact of lower staff numbers was, in turn, compounded by significant increases in workload as new facilities came online. All told, ORF reported that staff morale was very low, the remaining workforce was stretched thin, and ORF was having difficulty maintaining adequate service levels.

How Did the Facilities Group Operate?

<u>Limited IC participation:</u> The original ARAC Facilities committee membership included ICs, ORF, and ORS representation. The ARAC recommendations the committee drafted in 2003 were basically non-invasive upon the ICs and did not raise significant concern when the ARAC report was issued. In 2003 and 2004, ORF and ORS officials worked to move toward making ORF fully operational, consolidating management of the three regional institutions into ORF, and participating in the two A-76 competitions.

<u>Expanded representation and mission:</u> After the *Guide to Administrative Restructuring at NIH (Guide)* was published in August 2004, the DDM made clear her desire that a formal implementation group (IG) with IC representation be established for each of the eight ARAC functional areas, and that each group develop its implementation plan and push toward completion of NIH's ARAC commitments to the DHHS. Consequently, the ARAC Facilities IG was reconstituted in the fall of 2004 and began meeting regularly. Although still co-chaired by the Directors of ORF and ORS, membership was expanded to include a larger representation of ICs, including some ICs that continued independent conference room and facilities operations. With this new activity, the Academy also became more actively involved in the process, supporting ORS and ORF and assisting with the IG.

<u>Draft implementation plan:</u> The *Guide* included a requirement for each ARAC IG to develop an implementation plan to accomplish the recommendations included in the ARAC report. The Academy liaison to the Facilities IG drafted an implementation plan, consistent with the *Guide*. The draft plan included activities to stand up the RPM and VMA MEOs, along with an expanded critical path schedule to include MEO activities and address the other ARAC goals. The head of ORF refined and accepted the Academy draft. However, as discussed below, the draft was never finalized.

At the same time, with the agreement of the DDM, the ARAC goals were expanded to include the resolution of the roles and responsibilities issue between the ICs and ORF.

Overall, the Facilities IG was to accomplish four things:

- Approve an implementation plan to be submitted to the NIH Steering Committee for approval

- Review, comment on, and approve a conference room survey form (to identify all conference rooms not then being managed in the ORS central program)
- Establish criteria for central management of conference rooms and help draft a policy document
- Work to resolve the facilities-related roles and responsibilities issue and help draft a policy document

Decisions by consensus: At the initial November 2004 IG meeting, the directors of ORS and ORF established "consensus" as the decision-making process for the group. Regular IG meetings occurred through February 2005. The IG continued to critique the implementation plan but could not come to agreement. The conference room survey was critiqued and revised several times, and was eventually released based on the understanding that a third set of revisions would be incorporated and the survey would be issued immediately thereafter. The IG did not consider the roles and responsibilities issue, even though an initial draft template had been prepared for its consideration.

Because consensus could not be reached, the DDM took responsibility for deciding the next steps.

Clarification of IC roles and responsibilities and conference room consolidation were contentious issues. The late convening of an ARAC committee to address issues with strong IC resistance was "too little, too late," and left little time for the delicate, behind-the-scenes work that would have been required to resolve them. The result was an impasse. No serious dialogue on the real issues occurred, and no minds were changed. Ultimately, the IG meetings were suspended because of the lack of progress. Because consensus could not be reached, the DDM took responsibility for deciding the next steps.

Change management: Although a lot of thought had been given to how to accommodate the many ORF staff who were likely to be displaced by the RPM MEO, and NIH had established programs to help employees adjust, no definite plan could be developed prior to MEO approval. NIH initiated programs to assist individual employees through NIH's Transition Center and training programs to help provide trades people with opportunities to obtain certification in other trade skills—so that they might qualify for the multi-discipline jobs on which the MEO bid was based.

ORF took several steps to prepare for transition to the MEO when it appeared that implementation was near. ORF provided information to all staff on the jobs that would be available after the MEO was established, and encouraged staff to apply. A consultant was retained to brief management on the impacts of change, and provided services during the MEO process. All employees were provided with information to help them understand and cope with the stress of change. A communications matrix (plan) was prepared and, throughout the A-76 study and organizational restructuring, multiple all-hands meetings informed all employees of the process, potential impacts, schedules, and possible outcomes.

As the process bogged down with the union and bid protests, however, staff meetings were discontinued, because ORF officials simply did not have answers about who would lose their positions and what NIH would do to reassign them. Morale suffered. It is difficult to know

whether discontinuing the staff briefings exacerbated the problems, though management felt having meetings with "nothing new to say" just made things worse.

As the process bogged down with the union and bid protests, however, staff meetings were discontinued…

<u>Data collection and analysis:</u> The Facilities IG undertook several efforts to obtain specific data on which to make decisions. A survey was conducted to identify all conference rooms that would accommodate more than 50 people. As noted earlier, the IG debated the content of the survey for some time, but it was eventually distributed to all ICs. Initial response was limited, but ultimately all ICs submitted data. IG meetings were suspended before discussions were initiated on decision criteria for determining which conference rooms should and should not be centrally managed.

In early 2005, the Academy assisted in developing a document to be used by the Facilities IG in establishing a formal understanding about the relative roles and responsibilities of the ICs and ORF for specific facilities functions—including, acquisition, occupancy, operation, maintenance, and renovation. The extent of the overlap and the number of players was unknown. This document displayed NIH Delegations of Authority dealing with facilities management and operations, and ORF's Functional Statement of responsibilities; it also suggested roles and responsibilities in ten functional areas. In addition, the Academy reviewed all IC Functional Statements for reference to facility functions, extracted the information, and identified areas of potential overlap. Again, however, the IG meetings were suspended before the group began discussing this issue.

How Did the Academy Participate?

In early 2004, when the Academy first became involved in the NIH ARAC activities, the Directors of ORF and ORS raised the potential for the Academy to assist in resolving issues around the remaining consolidations of IC facilities and conference room management responsibilities. The Director, ORF, felt that the Academy could provide an independent assessment and recommendations that would carry more weight within the NIH community than an internal study could. But higher authorities decided it was not the right time for that, and the question of IC roles and responsibilities was not made an ARAC issue until late in 2004.

The Director, ORF, felt that the Academy could provide an independent assessment and recommendations that would carry more weight within the NIH community than an internal study could.

Once the IG began meeting regularly in the fall of 2004, however, the Academy became more engaged. It established a presence on-site in the ORF office, conducted the work discussed above related to the implementation plan and roles and responsibilities, and assisted the Directors of ORF and ORS with the ARAC dashboard and other progress reports required by the DDM.

The Academy's fact-finding assistance helped move work forward. The Academy's most extensive efforts related to development of performance metrics, discussed below.

How Will the Impact of Change Be Assessed?

> *…[SLAs]will continue to help define expectations and establish a basis for customers to express their level of satisfaction…But assessing overall changes in performance …requires development of a broader performance measurement program.*

NIH's central facilities office has historically provided contract-based services to ICs. Already existent service level agreements will continue to help define expectations and establish a basis for customers to express their level of satisfaction, at least on an individual IC basis. But assessing overall changes in performance, as envisioned in the *Guide*, requires development of a broader performance measurement program. In response to a specific task by NIH, the Academy helped ORF and ORS identify possible measures to support such a program.

Existing data: Data for ORF already existed in three areas. One was an active and viable building indexing process that identifies all buildings and their components, the condition and projected life of the components, and associated repair/replacement cost information. This information was used to formulate the annual budget to maintain the buildings at the best possible condition based on funds available. It will allow an overall assessment of changes in facilities conditions—a key, long-term outcome measure for facilities management.

The second measure was a customer satisfaction survey that was sent to the 27 IC Directors in November 2004. The survey provided feedback on the individual programs that constitute ORF. ORF received 16 responses to this survey and fairly positive ratings.

Finally, ORF also had a large activity-based costing database from which measurements could be developed.

ORS also had some existing performance measures for centrally managed conference room facilities: customer satisfaction and cost benchmarks. ORS was considering possible additional measures.

New government-wide requirements: As noted above, the Academy also benchmarked facilities management measures in other private and public organizations to identify possible ORF performance measures. But an emerging government-wide initiative to develop standard business measures for facility management made that effort less important.

In February 2004, the President signed Executive Order 13327, "federal real property asset management." This executive order, among other things, directed all major agencies to develop common performance measures for this function. The order resulted in the formation of an Interagency Council to guide and direct the necessary outcomes. During the past year, the Council produced a document titled, "Guidance for Improved Asset Management," which contains 23 common inventory data elements, including four designated as "First Tier" Performance Measures. The four are:

- Utilization

- Condition Index
- Mission Dependency
- Annual Operating and Maintenance Costs

The DHHS Office of Facilities Management and Policy had undertaken the implementation efforts required as a result of the Executive Order. In addition to the four first tier measurements, DHHS added an additional measurement for construction. A work group was assigned to each measurement to develop a standard application for all DHHS elements. DHHS planned to have measurements fully developed by the end of FY 2005. Data collection for some of the measures will be phased in over several years—because of the size of the inventory and the degree of difficulty involved in collecting the information. NIH will have to comply with the five standard measures when they are established.

CONCLUSION

Where ORF and ORS officials could act without building consensus among ICs, progress has been made—ORF is now solidly constituted as a separate entity, and management of the three off-site installations has been centralized. But where ICs resisted change, progress was not made. Though seemingly minor in extent, these changes were staunchly opposed and may not have been good candidates for the "consensus approach" that was used.

Lessons related to the A-76 process are discussed in Appendix E in this report. However, the experience here confirms that of other functions: prolonged uncertainty, low staff morale, increased attrition, and overworked staff constitute an unhealthy cycle—one which requires direct management action (such as hiring, training, and communication) to break.

Case 5: FINANCE

EXECUTIVE SUMMARY

Core accounting and finance functions were already consolidated in the Office of Financial Management (OFM) prior to the initiation of the ARAC effort. Although OFM had been functioning well—for example, it had received a clean financial audit opinion for the past five years—it recognized that it had an outdated accounting system, a workforce that was being challenged with new government-wide reporting and accounting requirements, plus staffing limitations. In fact, as early as 1999, NIH had begun work to replace the aging accounting system: the replacement system is the integrated NIH Business System (NBS), which ultimately will support finance, travel, property management, and acquisition. Because OFM's financial responsibilities, by definition, link it to every IC and office, the entire NIH community has a stake in the office's operations and in the successful deployment of NBS.

ARAC Goals and Accomplishments

The ARAC report recognized the critical role of NBS in continuing sound financial management at NIH, as well as the importance of the department-level Unified Financial Management System (UFMS) that was also under development. The ARAC report recommended four "next steps":

- Continue to support the development of the NBS and the UFMS
- Work closely with the DHHS to develop shared services once UFMS is fully deployed
- Develop benchmarks for staffing levels for the new systems
- Implement a system for monitoring outcome metrics

Planning for NBS had begun long before the ARAC effort. In fact, two NBS modules were installed shortly after completion of the ARAC report, in September and October 2003. Though not without some problems, the deployment was a major accomplishment, and OFM was already reporting benefits—in the form of fewer manual interventions.

OFM was continuing to work with NBS and UFMS officials to design and deploy the remaining NBS modules, and to ensure effective integration with UFMS. These systems will not be fully deployed until FY 2007 at the earliest.

Lessons Demonstrated by the Finance Group's Experience

OFM's accomplishment in supporting implementation of NBS, maintaining its record of clean audit opinions, and avoiding significant reductions in productivity is commendable. In addition to efforts by the NBS Project Team (discussed in Appendix F), these accomplishments were made possible by NIH management's support and the close collaboration between OFM and NBS. Staffing and organizational issues were being addressed, and a performance monitoring program was being developed.

BACKGROUND

Core accounting and finance functions were already consolidated in OFM prior to the initiation of the ARAC effort. OFM provides consolidated accounting and payment support to all 27 NIH ICs. These centralized activities involve all of the traditional finance operations, including accounts receivable and payable, cash management, audit liaison, travel reimbursements, financial statement preparation, and financial policies and procedures.

Although OFM had been functioning well—for example it had received a clean financial audit opinion for the past five years—it recognized that it had an aging and outdated accounting system, a workforce that was being challenged by new government-wide reporting and accounting requirements, plus staffing limitations. In fact, as early as 1999, NIH had begun work to replace the aging accounting system. What emerged was NBS, an integrated Oracle software suite of accounting programs designed to support finance, travel, property, and acquisition functions. Because OFM's financial responsibilities, by definition, link it to every IC and office, the entire NIH community has a stake in the office's operations and in the successful deployment of NBS.[12] (NIH's experience in implementing NBS is discussed in Appendix F.)

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC report recognized NBS's critical role in continuing sound financial management at NIH, as well as the importance of the department-level UFMS that was also under development. The NBS and UFMS systems are both Oracle-based.

The ARAC report identified four "next steps" aimed at ensuring a smooth transition for these systems. These four next steps were:

- Continue to support the development of NBS and UFMS
- Work closely with DHHS to develop shared services once UFMS is fully deployed
- Develop benchmarks for staffing levels for the new systems
- Implement a system for monitoring outcome metrics

Accomplishments and Status

Planning and implementing NBS, which will ultimately be integrated with UFMS, is a long-term project. During the time the ARAC committees were working to develop consolidation recommendations, OFM had already been working closely with the NBS Project Office. In fact, shortly after completion of the ARAC report, in September and October 2003, two finance modules—general ledger accounts receivable and payable, and travel—were installed. Though not without some problems, deployment of these modules was a major accomplishment. After a planned transition period in which NBS staff provided direct support to OFM, OFM took over

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[12] Both the NBS Project Office and OFM report to NIH's Deputy Director for Management (DDM).

the monthly closing of the books with the new system in June 2004. OFM was already reporting benefits derived from the new system, specifically, that fewer manual interventions were required than under the old system.

OFM was continuing to work with NBS and UFMS officials to design and deploy the remaining NBS modules, and to ensure effective integration with UFMS. Most of the remaining NBS modules had been scheduled for deployment in 2006. However, unexpected appropriations reductions resulted in delaying further NBS deployment until at least 2007. UFMS was also scheduled to be deployed in FY 2007.

ARAC did not establish staffing goals, and OFM does not expect to develop final staffing goals until NBS is fully deployed. However, OFM was working to fill a number of vacancies, and had requested some additional positions. OFM was also considering possible performance metrics and working to develop a performance monitoring program. Among other things, OFM was considering 24 metrics recommended in a recent Academy staff study,[13] which is discussed more fully later.

THE FINANCE GROUP'S EXPERIENCE

What Key Challenges Did the Finance Group Face?

Integration with other changes: Coordination with other change efforts required significant staff time and resources. While OFM and the NBS Project Team were working to develop and deploy NBS, work was underway at the department level to develop and deploy UFMS. The OFM and NBS teams had to spend significant

Coordination with other change efforts required significant staff time and resources.

time not only working together, but working closely with the department's UFMS team, to ensure that NBS and UFMS can be effectively integrated. There is currently an extensive study underway to determine how best to merge the two Oracle-based systems. UFMS will provide a more summary level of accounting, while the NBS version includes day-to-day essential operational capabilities at the most detailed level. It is expected that the two systems will be compatible. However, significant uncertainties surrounded proposals DHHS was considering for department-wide consolidations of some financial functions, under which NIH could be either a service center or a customer for some of the functions now being affected by NBS.

Software modifications: NIH selected the commercial-off-the-shelf Oracle software to replace its 20-year-old, outmoded Administrative Data Base. Officials initially expected to deploy NBS with limited customization of this software, advertised as government ready. However, the Oracle software needed considerably more adaptation to make it effective in a government setting than initially expected—a lesson many government agencies were learning at the same time. When the ARAC recommendations were being developed, the initial NBS deployment

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[13] *A Review of the National Institutes of Health Financial Management Organization*, National Academy of Public Administration, March 2005. (The executive summary of this study is contained in Appendix J to this report.)

schedule had already proven optimistic, and initial timelines had been extended significantly to allow needed modifications.

Increasing workload: OFM faced significant challenges in continuing to meet its operational commitments to customers and stakeholders, while at the same time working to deploy the initial and subsequent NBS modules. The stress of continuing day-to-day functions increased as a result of recent requirements for accelerated completion of annual financial statements and expanded responsibilities, such as those for internal management controls being required by the recently revised and strengthened OMB Circular A-123.

Staffing shortages: Since at least 2001, OFM has been operating with staffing levels significantly below authorized ceilings. The ARAC report did not recommend staff reductions, and in fact, recognized the possible need to hire temporary staff to support initial deployment of NBS. However, NIH reduced staffing ceilings (from 148 to 126) in FY 2004, and planned to hire contract or temporary workers as needed. Actual staffing levels have consistently been below the authorized levels, with supplemental contract or temporary staff. In 2001 staffing was at 126, compared to the 148 ceiling; in 2004 there were 109 on-board staff, compared to the 126 ceiling. In 2004, 29 contractors supplemented the 109 staffers. The recent Academy staff study concluded that OFM will need an increased number of civil service staff if it is to meet its future challenges, especially given the transfer of several key staff to the NBS and UFMS efforts.

Although the first two modules of NBS have been deployed, OFM did not fully ramp up in a way that facilitated the development, roll-out, and optimal operation of the deployed modules. Staffing issues were at the core of this problem. OFM faced a significant number of vacancies at both supervisory and technician levels, and existing OFM staff did not have all of the necessary experience and skill required to operate the Oracle systems. A number of factors contributed to this situation. As noted above, NIH made a decision to rely on contract staff to supplement full-time employees, and OFM also detailed several key staff to the NBS and UFMS efforts. However, efforts to hire additional employees faced significant obstacles, including difficulties in filling announced vacancies. These difficulties resulted, in part, from the limited availability of people with necessary Oracle skills in the job market, but internal delays in filling announced job openings presented a much more serious and frustrating problem. As discussed later in this appendix, the upheaval in HR services—including systems problems, restrictions on hiring GS 14s and 15s, and HR's own staffing shortages—slowed hiring to a crawl.

…the upheaval in HR services…slowed hiring to a crawl.

How Did the Finance Group Operate?

Close, formal connection between the key change efforts was a critical factor in deployment of the early modules.

Close alliance with NBS Project Office: Close, formal connection between the key change efforts was a critical factor in the deployment of the early modules. OFM was a key player with the NBS Project Team, and they continued to work closely together. OFM played a substantial role in the requirements studies, development of the business case for NBS, and selection of the commercial-off-the-shelf Oracle software. OFM was also an active

participant in creation of the NBS Project Office, which was staffed in part with several key OFM staff who were detailed to the project, as well as with substantial support from the systems integration contractor, BearingPoint. This close relationship with NBS was OFM's prime focus, and OFM did not pursue any separate ARAC implementation effort to develop staffing metrics and performance measures until the Academy study was initiated in October 2004.

Leadership's support: From its beginning, the development and deployment of NBS has been a high management priority in NIH. Management dedicated a significant level of resources to the effort, including contracting for systems integration services and detailing other NIH staff to the

From its beginning, the development and deployment of NBS has been a high management priority in NIH.

project. The current DDM, who formerly headed the NBS project, demonstrated consistent interest in, and knowledge of, the effort and took decisive action when needed to keep the process moving.

Realistic timetable: Once the extent to which the Oracle system had to be modified became clear, NIH wisely postponed deployment of the NBS modules, some by several years, to ensure that the systems met the agency's needs. This flexibility was critical to success in deployment of the first modules, which was accomplished in accordance with the revised schedule. The agency was on track to implement the additional modules on the new timetable, but was forced to delay deployment until 2007 as a result of appropriations cuts.

Change management: Much of the support for deploying the core financial and travel modules came from the NBS team. This team devoted significant attention to communication and other change-management activities. To implement these first two modules, the team implemented specific communication and change-management plans. A few of their key efforts included:

- Preparing a stakeholder analysis to identify which employees would be affected and how, and to identify which communication strategies would work best with each group
- Conducting "role-mapping" to identify how staff functions would change once the new systems were deployed[14]
- Providing extensive training to staff responsible for using the new systems

In spite of the attention and effort dedicated to change management, implementation was not without problems. One critical issue was that OFM did not quickly adapt to the changes in staff functions brought by implementation of the NBS modules. Tasks formerly done by NIH's information technology staff (such as preparing reports and doing error analysis) are built into the OFM staff functions under the "best practices" represented by the NBS system. NBS officials believed that the agency as a whole (many in management as well as staff) had not fully comprehended the process changes that would need to occur. Consequently, NBS decided to modify its training approach for future modules to better ensure that staff understand not only how the system works, but how the processes it supports will change, specifically comparing the

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[14] An underlying concept of the new system was that "best practices" for business processes were built into the software. As a result, business processes—and individuals' functions—changed to support the new systems.

old and new processes. Additionally, only staff who have been certified as having been trained will be allowed to use the new system.

Stakeholder involvement and communication: The NBS project team concluded that an agency cannot have too much communication among stakeholders. In its initial efforts, the team went to considerable lengths to communicate to key stakeholders and the community at large. An extensive web page provided up-to-date information and stakeholders also were directly involved in the process, for example as:

- Staff on the team (e.g., OFM detailed knowledgeable staff to help in system design)
- Members of a wide variety of operational, technical, and advisory committees, designed to ensure input from technical experts, functional experts, and those who use the services of the systems (essentially IC customers)

The NBS project team was continuing to work to improve stakeholder involvement, for example by clarifying stakeholders' responsibilities for systems implementation. Their new approach was designed to better ensure that stakeholders participate in system design and that the entire community is kept informed of progress. Some of the specific changes include:

- **Expansion of the roles of those responsible for the functional areas being affected:** Rather than serving primarily in an advisory role, they will be actively involved in system development. Not only does this have the potential of improving the ultimate design, but it turns these officials into advocates for the change and helps ensure their active support rather than mere acceptance.
- **Creation of an Acceptance Team:** This team, consisting of system end-users, will participate in developing as well as testing the systems. Although user testing was done in earlier modules, these new teams will be more formally involved, including reviewing the end-to-end processes and participating in testing at an earlier stage.
- **Establishment of IC Implementation Teams and "IC/OD" Advocates:** These people will help ensure that ICs and headquarters offices "take ownership" of the systems. Among the advocates' responsibilities will be (1) certifying that the IC is ready for deployment, including having all staff trained, and (2) communicating throughout the IC about what is happening. One problem noted during deployment of the first modules was that informing only certain key personnel, such as administrative officers and executive officers, did not always guarantee that all affected IC staff was informed.

How Did the Academy Participate?

The Academy became actively involved in the changes in Finance in the fall of 2004. In October 2004, OFM tasked the Academy to: (1) document the current OFM organization and staffing; (2) compare OFM staffing and processes with selected federal agencies; and (3) recommend improvements in OFM's organizational structure, staffing, and business processes. In March 2005, the Academy drafted a technical staff paper which recognized OFM's many accomplishments, but also observed that OFM faced increasing challenges in a rapidly changing and dynamic environment.

NIH management has helped to ensure that HR and OFM work jointly toward making hiring for OFM a priority.

Staffing for OFM becomes increasingly important as the agency prepares to deploy the remaining modules of NBS in the next 2-3 years. The Academy staff made several recommendations aimed at (1) making OFM staffing and skill needs a priority for both OFM and HR, and (2) developing a long-term strategy for dealing with the staffing issue, including the extent to which NIH will rely on contract and temporary employees. The Academy staff also recommended that OFM staff regularly and continuously attend training classes on Oracle software and other system and accounting issues. NIH management has helped to ensure that HR and OFM work jointly toward making hiring for OFM a priority.

The study of OFM's organization and processes was predicated, in part, on the recognition that as processes change—as has happened and will continue to happen with NBS deployment—organizational structures may need to be altered. Among other things—as the additional modules of the integrated Oracle/NBS system are installed to complete this software transition, and the NBS implementation staff is phased out of the NBS Project Office—OFM will need to incorporate some of the system integration and support functions that NBS has been supplying. The Academy staff made several recommendations about organizational structure to better position OFM to support NBS and UFMS deployment, including establishing a small systems unit to give further attention and visibility to these transition requirements.

…as processes change… organizational structures may need to be altered.

Facing significant staffing shortages, OFM took advantage of the Academy's help in conducting an important study of its staffing, organization, and processes.

Facing significant staffing shortages, OFM took advantage of the Academy's help in conducting an important study of its staffing, organization, and processes. NIH reacted positively to the Academy staff's recommendations, and has already begun to implement some.

How Will the Impact of Change Be Measured?

Little progress was made on the ARAC recommendation related to performance measures until the ARAC Finance implementation plan was prepared in October, 2004 and the Academy began its benchmarking study, discussed above. A principal recommendation of the Academy's study was for OFM to formally adopt 24 performance metrics, including eight required by OMB. While an unqualified audit opinion on the agency's annual financial statements certainly provides a great deal of assurance that the agency is properly accounting for its resources, the use of viable and effective metrics would provide more assurance that internal operations are well managed.

A good series of metrics would enable agency leadership to regularly review key barometers of how well the organization is managing its day-to-day processing operations and how well it is satisfying the needs of its clients. Specifically, the Academy staff recommendations on metrics will: (1) expand the number of current metrics used by OFM so that management will have additional early warning signs concerning workload backlogs, workforce performance, system

performance and client satisfaction; and (2) provide indicators that enable OFM and the DDM to know where other corrective management actions may be required. OFM is now considering which performance measures to adopt.

As recommended by the Academy staff, OFM also is working to develop service level agreements (SLAs) with its IC customers. These SLAs would establish appropriate service level expectations for OFM, and would also specify expectations for the ICs, for example, in providing data necessary for timely financial transactions.

> *…use of the more specific measures the Academy staff recommended would provide a much better basis for assessing the impact of changes.*

While current information will allow a high-level assessment of the impact of changes—such as whether the agency continues to receive unqualified audit opinions—use of the more specific measures the Academy staff recommended would provide a much better basis for assessing changes in service quality.

CONCLUSION

OFM was able to support implementation of NBS, maintain its record of clean audit opinions, and avoid significant backlogs or other significant reductions in productivity. In addition to efforts by the NBS project team, these accomplishments were made possible by NIH management's support, and by the close collaboration between OFM and NBS. To ensure a continued high level of service, OFM had begun to address staffing and organizational issues, and to develop a performance monitoring system tied to SLAs.

Case 6: GRANTS MANAGEMENT

EXECUTIVE SUMMARY

The NIH extramural grants management function encompasses 24 funding ICs, whose extramural grant programs provide a cornerstone of the agency's biomedical research mission and accounted for about two-thirds of NIH's budget in FY 2004. As part of the "One HHS" initiative, the department sought to consolidate grants management at the NIH level. But the ARAC committee recommended against doing so, primarily because: (1) each of the 24 ICs receives an individual Congressional appropriation; and (2) the Grant Management Officers in each IC have full authority to commit the government to expenditures of funds.

ARAC Goals and Accomplishments

The ARAC report emphasized the need to retain grants management staff dedicated to the individual ICs, but also recommended (1) consolidating grants training, (2) making selected core business practices consistent across ICs, and (3) further developing a centralized process for allocating grants management staff among ICs. The implementation group extended implementation into FY 2005, and met its key goals. The group (1) developed a training curriculum and piloted the first-ever consolidated course for entry-level grants management specialists, (2) adopted several common business practices, and (3) adopted workload weighting factors and completed a workload and staffing analysis. The group continued to create more central training courses and make additional business practices consistent cross ICs.

The ARAC report also recommended consolidation of selected administrative functions into service centers. However, because NIH was concurrently conducting a competitive sourcing competition under OMB Circular A-76 to consolidate grants administrative functions, the ARAC group deferred to that process and did not pursue other consolidations. NIH won the A-76 competition and the new consolidated organization opened its doors on October 1, 2004. NIH experienced substantial difficulties in standing up this new organization, however.

Lessons Demonstrated by the Grants Management Group's Experience

With the major exception of the A-76 effort, the changes made in the grants management function were not as extensive as in other areas. Yet, given the highly decentralized nature of Grants Management in NIH, officials saw the group's progress as extremely significant. In large part that progress was facilitated by the implementation group's approach to implementing the ARAC recommendations. Most importantly, the group:

- Used flexibility in the ARAC report to design changes that the community could accept
- Effectively invoked NIH leadership's commitment to change to help encourage consensus
- Maintained close and frequent interaction with key grants management leadership groups
- Leveraged its knowledge of the extramural community and the enthusiasm of individuals to help ensure progress

BACKGROUND

The NIH extramural grants management function encompasses 24 funding ICs that award, administer, and oversee a diverse portfolio of grants and cooperative agreements that are a cornerstone of the agency's biomedical research mission. In FY 2004, this portfolio involved almost 50,000 awards valued at approximately $20 billion, almost two-thirds of NIH's total budget. Under the "One HHS" initiative, DHHS had directed that grants management be consolidated at the NIH level.

The June 2003 ARAC report noted that the grants function in NIH is shaped in large measure by two factors: (1) each of the 24 ICs receives an individual Congressional appropriation; and (2) the Grant Management Officers (GMOs) in each IC have full authority to commit the Government to terms and conditions, including expenditures of funds. The report noted that these factors made a strong case for preserving a structure that facilitates "close involvement" of grants management staff in the extramural affairs of each IC. Nonetheless, the report concluded that there were "a number of NIH-wide opportunities for consolidation of certain [grants] functions and responsibilities" that would not "deter from the primary responsibility of the GMO to the IC."

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC report emphasized the need to retain grants management staff dedicated to the individual ICs to support their program objectives. Beyond that, it also recommended that NIH:

- Consolidate extramural grants management staff training in the Office of Extramural Research (OER), including development of a core curriculum and implementation of a consolidated training program for grants management staff in all ICs
- Develop and implement core business practices across all ICs, beginning with adoption of standard award terms to be used by all ICs for routing grant awards
- Further develop a centralized process for reallocating grants management staff across ICs based on need, beginning with conducting a census of grants management staff in all of the ICs, and including development, testing, and refinement of benchmarks and staffing metrics
- Establish service centers to consolidate non-IC specific functions, such as grants closeouts and fellowship appointments and terminations[15]

The report set a target implementation date of September 2004 for implementing the changes. Early in 2004, however, the ARAC Grants Implementation Group (IG) set goals that extended actual implementation of the training program and application of staffing metrics into FY 2005.

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[15] The ARAC report indicated that establishing service center "clusters" based on workload would continue the intimate relationship with ICs while enhancing efficiency.

Concurrent with the development of the ARAC report, during FY 2003, NIH was conducting a large A-76 competition for the provision of streamlined and consolidated administrative processes to support the grants function. The April 2003 performance work statement (PWS) included among the proposed consolidated responsibilities both grants closeout and administrative functions related to fellowships. Consequently, the Grants IG did not further pursue consolidation of functions into service centers. The group continued to pursue opportunities to standardize other business functions across ICs, however.

Accomplishments and Status

ARAC Goals Accomplished

The Grants IG completed the main goals set forth in the ARAC report:

- Developed a training curriculum that includes four levels of progressive developmental training for grants management specialists. It developed and, in November 2004, piloted the first-ever consolidated course for entry-level grants management specialists at NIH; additional sessions were planned for late in 2005.
- Obtained Grants Management Advisory Committee (GMAC)[16] approval for several common business practices, including, for example, (1) adoption of mandatory award terms, and (2) development of common tools for evaluating and managing state obligations. Beginning in October 2004, NIH also centralized receipt and imaging of non-competing applications.
- Developed—and obtained GMAC acceptance of—workload weighting factors for grants management and completed a workload and staffing analysis that identifies those ICs significantly above or below the staffing norm. The group saw this as a major accomplishment, given the highly decentralized nature of grants management.

The Grants most efficient organization (MEO),[17] the Division of Extramural Administrative Services (DEAS), opened its doors on October 1, 2004. However, as of June 2005, it had not assumed all of the tasks included in the MEO bid.

Ongoing Efforts

OER planned to continue efforts to increase flexibility and efficiency in grants management. Work was underway to refine the curriculum for intermediate training, and a pilot session of that course was planned for early FY 2006. OER also planned to develop online processes to support the training function, including online registration, and to establish a Training Advisory Board to oversee the consolidated training effort. As planned, the management of the online processes and advisory board will be housed in OER's Office of Policy for Extramural Research Administration, accomplishing the final aspect of the ARAC recommendation to centralize training.

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[16] GMAC is composed of the Chief GMO in each IC and representatives from OER.

[17] An MEO is a federal agency's in-house staffing plan for an A-76 competition, representing the most efficient and cost-effective organization. The MEO proposal is compared to the bids submitted by private-sector companies.

The staffing and workload data will be updated periodically, and will be shared with ICs for their use in analyzing and changing their internal staffing patterns and grants processes. The group was careful to ensure that the staffing and workload data used were currently available in the agency's automated systems. Changes to the systems were being considered, however, to help make the data more easily accessible to managers. Additionally, DHHS is the lead agency for the government-wide, multi-year e-grants effort to fully automate the grants system. Once this effort is completed, all agencies, including NIH, will use this new system.

The GMOs were working to identify more areas where common business practices could be applied across the ICs, and where increased use of technology could help to achieve greater efficiencies. A key effort was development of a common spreadsheet for use by all ICs as they go through the processing steps for each grant. Other areas under consideration included additional "common award terms," and practices in areas such as review and adjustment of investigator overlap and distributing grant workloads more evenly throughout the year.

THE GRANTS MANAGEMENT GROUP'S EXPERIENCE

What Key Challenges Did the Grants Management Group Face?

The Grants IG benefited from the existence of collegial working relationships between grants function leaders in the various ICs, and the fact that discussions were already underway about trying to make the business practices and processes utilized by the ICs more consistent. But nonetheless, it faced several significant challenges.

Highly autonomous ICs: The ICs, including their grants management offices, historically have been protective of their independence. The extramural grant function includes 24 ICs receiving independent funding, each of which is headed by an individual fully empowered to take final action on grants transactions in their organizations. In spite of existing collegial relationships, achieving consensus among ICs had often been difficult.

Management's demonstrated commitment to consolidation provided a critical and useful catalyst in overcoming reluctance to change. Grants IG members found that the ARAC initiative—and the support of NIH leadership it demonstrated—helped to focus attention on the goals, and provided the impetus to obtain agreement from the ICs on a more timely basis than might otherwise have been possible. For example, at one point, the training effort was bogged down due to the various requirements competing for the attention of the individuals designing the initial course. There was some discussion at that time about postponing the initial course until all of the bugs could be worked out and all issues could be fully resolved. However, because of the need to show progress toward achievement of the training goal, the group decided to work through the potential delays, and was able to successfully pilot the course on its original timetable.

> *Management's demonstrated commitment to consolidation provided a critical and useful catalyst in overcoming reluctance to change.*

Integration with new IT systems: The ARAC group also had to fit its implementation plans to accommodate the new IT processes associated with DEAS, and others to be rolled out in the near- and far-term. When fully implemented, these changes, including the government-wide implementation of an electronic grant process, will further improve efficiency. During the interim phase, however, the grants function has had to design processes using current technology, while planning for the changes that the new technology will bring.

Resource limitations: Change efforts took considerable staff resources both in planning and implementation. ARAC efforts were somewhat slowed by the limited time that group members had to focus on them. This problem was particularly evident in the consolidated training effort.

Change efforts took considerable staff resources both in planning and implementation.

Here the group has already identified a future need to have dedicated staff, funding, and other resources to support the training program. In an effort to ensure its success, however, the initial entry-level course was designed, taught, and supported by Chief GMOs and grants specialists, most of whom were also involved in the restructuring effort, and all of whom did this work as a collateral function to their regularly assigned duties. Most of the materials for the course were "donated" by various ICs, and the Academy assisted by providing some materials and logistical support. Staffing and workload data had to be collected several times and reconciled with similar data reported for other purposes. This resulted in additional work, not only for IG members, but for staff in all of the IC grants management offices.

Implementation of the Grants MEO: During 2003 and 2004, uncertainty and change associated with the Grants MEO placed a significant strain on the entire extramural grants community. Although the Grants IG did not have responsibility for implementing DEAS, and was largely isolated from that effort, the contemporaneous implementation of DEAS directly impacted all of those who were working on, and affected by, the ARAC changes. Not only did DEAS represent a fundamental change in culture (centralized services), it also resulted in significant attrition among the grants community and the need to redesign processes. In the year leading up to the "stand up" of DEAS, the IC grants management offices had to continue performing the duties slated to be moved into the new organization, while also redesigning their processes and procedures to accommodate the substantial staff transfers and departures attendant to the DEAS implementation.

The MEO contributed to stress in the grants area in several ways:

- As planned, the MEO winning bid relied on automated systems and a matrix management approach to support a 300-FTE reduction—about one third of the staff that had been performing the covered administrative tasks—and a significant reduction in grade levels as well.
- Attrition was significantly greater than expected. During the change process many staff who had been expected to be among those to staff the MEO left. Many factors fueled the departures—among them were retirements, dissatisfaction with a new role, concerns about uncertainty, and burnout because of significant workload in the understaffed MEO. As a result, the agency had to bring in a large number of new staff, many of whom were not familiar with all aspects of grants administration.

- In identifying the positions to be included in the MEO, the agency had not taken into account the extent to which the people in those positions also performed non-administrative grants management functions. The ICs, in at least some cases, considered this on-the-job training, and used it to "grow" grants managers from among the administrative staff. Thus, when these positions were transferred to DEAS, the IC grants management staff had to shoulder this workload shift. The Academy's study of shifting workloads (discussed in Appendix H) showed that more than 70 percent of administrative officers, executive officers, and science directors involved with extramural grants indicated that their workloads had increased as a result of the DEAS stand up. IC staff were putting in significant amounts of unpaid overtime and were developing workaround processes (negating the presumed efficiencies of centralization of services) to "get the job done."

NIH has taken its experience in standing up DEAS to heart. Among other things, NIH has provided better guidance on how to identify functions to be included in the scope of the MEO. The new guidance allows positions to be identified as "partially" within scope to allow for the many roles individual staffers play in the ICs. NIH also planned to involve human resources staff more heavily in planning and to assess more accurately which staff are likely to be available to support the new MEOs. (NIH's experience with A-76 is discussed in Appendix E.)

How Did the Grants Management Group Operate?

Initial momentum: Consistency in group membership helped keep the group on track. The sub-groups responsible for the individual components of the original Grants ARAC report continued their independent work between the time the report was issued, in June 2003, and the spring of 2004, when the

> *Consistency in group membership helped keep the group on track.*

grants function formally convened the Grants IG. Many of these same people became members of the IG. So, when the IG began meeting, the group members had already made significant progress on the individual restructuring goals. Sub-groups continued to pursue work in the various areas. These sub-groups expanded participation beyond the IG membership; they included GMOs and other IC grants management staff, and in some cases, executive officers.

> *The group effectively used the active communication network already supporting the grants function.*

Existing communication networks: The group effectively used the active communication network already supporting the grants function. Long before the ARAC effort was undertaken, the grants program managers in the various ICs met regularly in various groups to address common problems and to consider potential program changes intended to improve the overall quality of NIH's grants function. The key group was the GMAC. Many of these leaders formed the core of the group that authored the original Grants ARAC report, and later many of them also participated as members of the IG. From these previous associations, the members of the group already knew each other, were familiar with key concerns within the community, and knew how to engage the community in discussion. The IG made extensive use of the GMAC to communicate to the 24 highly independent ICs the strong support that NIH leadership gave to consolidation, and to help the ICs work through their concerns about this

significant change. For each major action—training curriculum, common terms, and so on—the IG worked with the GMAC to ensure NIH-wide acceptance of initiatives.

Flexibility: Having flexibility in approaching change made progress—and consensus—easier to achieve. Early in the process, the IG extended the implementation dates for some of its activities. For example it did not attempt to implement consolidated training by the originally established date, nor did it try to initiate all central training programs at once.

Having flexibility in approaching change made progress—and consensus—easier to achieve.

Also, rather than putting into place a full program to reallocate staff among ICs, it worked to provide cross-IC data to inform individual IC's staffing decisions. In contrast, the MEO had little flexibility in terms of the extent of downsizing or timing for setting up the new organization—and faced greater difficulties making adjustments.

…[the group] often built upon proven practices in one or more of the ICs.

IC models: As the group worked, it often built upon proven practices in one or more of the ICs. For example, it used an existing model from a large IC as the basis for the workload weighting factors and the training curriculum. It has identified existing practices in selected ICs as possible models for processing checklists and for spreading grant cycles throughout the year.

Individual advocacy: Individual advocates were important to this group's progress. The leaders of the sub-groups worked hard to bring their efforts to fruition and to act as advocates for change in the community. Without their individual support, it is probable that progress would not have been as great. Also, as discussed above, the success of the Grants IG was due in large measure to the quality and durability of the relationships among the group's members and their credibility throughout the NIH community.

Individual advocates were important to this group's progress.

Evidence-based decisions: The considerable effort that was necessary to develop consistent data across all ICs paid off. The group worked hard to develop weighting factors for grants workloads as a first step toward analyzing staffing patterns across ICs. It also dedicated significant effort to obtaining consistent data from the ICs on the number and type of grants

The considerable effort that was necessary to develop consistent data across all ICs paid off.

management staff. Extensive discussion surrounded issues of whom to count, what functions to include, and how to ensure the data were consistent with other existing data, including those reported to DHHS. Ultimately, the GMAC approved both the staffing data and the weighting factors. The IG members saw this agreement as a major step for the largely independent grants community. An analysis was done across ICs to be shared with the ICs for their use in grants management.

Interaction with other restructuring initiatives: The group's early efforts were somewhat clouded by uncertainty about the relationships between the ARAC initiative and the ongoing A-76 process—both had goals of consolidation and efficiency and both began at about the same time. By many accounts, there was uncertainty about whether either of these changes would really

occur, and the uncertainty made progress more difficult. But the decision to move the group's service center consolidation goals to the MEO prevented significant conflict, and the ARAC group was able to operate independently.

Still, undertaking both initiatives at the same time compounded the stress of change. As discussed above, the MEO effort had significant indirect impacts on the grants community as the IG was proceeding with its work. It also impacted the group's work directly in several ways. Several members were involved independently in planning for and setting up DEAS. Among other things, standard operating procedures had to be developed for the DEAS. Because these standard procedures did not already exist when the PWS and MEO bid were developed, each had to be somewhat general. For the organization to function, it needed common practices; it could not support the 24 grants offices using 24 different practices.

> *…undertaking both initiatives at the same time compounded the stress of change.*

While the Grants IG was working to involve grants staff in the ARAC process, the grants management community was focused elsewhere, struggling to maintain day-to-day operations in the face of significant staff shortages. After the DEAS "stand up," they had to remain highly flexible during the "learning curve" phase of the transition to the DEAS, as the new DEAS staff came up to speed on the duties being transferred to them. Although the ARAC goal of establishing service centers had been built into the MEO, many months after DEAS was created, in October 2004, it had not taken full responsibility for grants closeouts or fellowships. The agency struggled as it "learned by doing" in setting up the new organization. This flexibility will be required for some time into the future as DEAS increasingly assumes the duties that it is contractually obligated to perform.

How Did the Academy Participate?

Beginning in the spring of 2004, when the Grants IG was formally organized, Academy representatives attended the group's meetings and fully participated in discussions and implementation efforts. Academy representatives were closely involved with the design and implementation of the inaugural entry-level grants management specialist training course, conducted over a 20-day period in November 2004, including providing logistical support for the course.

The Academy's external benchmarking study of performance measures used by organizations having similar responsibility and scope to the NIH grant offices was slowed at first by difficulties finding organizations that the NIH grants community accepted as sufficiently similar to NIH in the types, purposes, and size of grants awarded. In addition, some organizations declined to provide information. Nonetheless, the Academy was able to find several useful examples of grants processing performance measures being used or developed by other agencies.

Academy staff also participated in early discussions about approaches for obtaining workload and staffing data from the ICs. Initially the IG anticipated enlisting the Academy staff's help in assessing the reasons for significant differences among IC workloads and staffing, if any were found. However, these data proved very sensitive and received extensive attention by the grants

managers themselves. By the time the data were vetted and a comparative analysis of ICs was done, there was inadequate time for the Academy to complete the intended internal study.

How Will the Impact of Change Be Assessed?

The NIH grants function is included in the DHHS Balanced Scorecard and that information will be available to track overall changes in employee and customer satisfaction. OER officials, however, find those data to be of limited value in assessing performance (or impact of change) because it does not provide information for individual ICs. The Academy's benchmarking study provided several possible measures that NIH could use across ICs, and demonstrated that, in fact, some agencies are now beginning to focus significant attention on performance monitoring in the grants management area. These results place NIH is an informed position to pursue grants management performance monitoring in the future. No decisions have been made on how the impacts of changes in training and use of common business terms will be assessed.

> *Some agencies are now beginning to focus significant attention on performance monitoring in the grants management area.*

Some very specific quantitative performance metrics and standards have been set for DEAS and data were being developed to track progress against many of them. However, no baseline data are available, since data from the many ICs cannot be meaningfully combined.

CONCLUSION

Some may see the changes that have been made in the grants management area as somewhat limited—certainly, with the exception of the A-76 effort, the changes did not go as far as those in some other areas. Nonetheless, the group met the goals it set and, in fact, planned to continue pursuing changes that address the overall ARAC goals. In large part, that progress was facilitated by the IG's approach to implementing ARAC. Most importantly, the IG:

- Used the flexibility in the ARAC report to allow it to design and schedule changes that the community could accept
- Effectively invoked NIH leadership's commitment to change to foster consensus in the grants management community
- Maintained close and frequent interaction with key leadership groups in the grants management community
- Leveraged its knowledge of the community and the enthusiasm of individuals, and supplemented its work with outside resources, to help ensure progress

Although the decentralized nature of the grants management function can be expected to present continuing challenges, for example in using the staffing and workload data for management at the NIH level and obtaining agreement on use of common performance measures, given the highly decentralized nature of the grants management function in NIH, officials saw the progress as extremely significant.

Case 7: HUMAN RESOURCES

EXECUTIVE SUMMARY

NIH began planning for the restructuring of its human resources (HR) function as early as 2001. By the time the ARAC effort began, a significant change had already occurred: in October 2002 all HR staff, including those in ICs, began reporting to the Office of Human Resources (OHR). The ARAC committee found that customer satisfaction had plummeted following this change. Thus, the committee—reacting to those findings in relation to efforts under way at the time to consolidate the HR function at the department level—made recommendations designed to support the President's Management Agenda (PMA) and DHHS initiatives, while working to overcome problems resulting from the 2002 changes.

ARAC Goals and Accomplishments

The ARAC committee's first recommended option was to exempt NIH from the department-wide consolidation and from the mandated staffing reductions.

As recommended in the ARAC report, NIH was excluded from the department-level consolidation. However, DHHS required that NIH's HR organization mirror that of the other consolidated service centers that were created to report to DHHS. OHR, therefore, again reorganized in October 2003, and this time most HR staff physically moved out of the ICs and into consolidated space. OHR also lost additional authorized staff, bringing the total reduction from 2001 levels to about 40 percent; simultaneously, new information systems were adopted DHHS-wide.

OHR has been working to reverse the decline in performance that followed the 2002 reorganization and that the 2003 changes exacerbated. OHR developed a Strategic Business Plan and established a Strategic Advisory Committee, which began serving as the ARAC implementation group. Other management initiatives, including two Academy studies, to identify the unintended workload shifts and organizational issues caused by the changes, were prepared to explore options for improvement.

Lessons Demonstrated by the HR Group's Experience

The importance of flexibility in organizational change is clear. In spite of what NIH officials recognized as the legitimate goals of the "One HHS" initiative, mandates for organizational structure, timeframes, software systems, and FTE reductions inhibited NIH's ability to take the planning, communication, and change-management steps recognized as necessary for successful organizational change. The resulting decreases in staff morale, customer satisfaction, and service could have been predicted. NIH took this lesson of flexibility to heart in implementing the ARAC initiatives. Another profound lesson was the impact that major information system changes can have on the processes and culture of an agency, and the necessity of carefully timing deployment of new systems and organizational changes.

BACKGROUND

NIH began planning for the restructuring of its HR function as early as 2001. By the time the ARAC effort began, a significant consolidation had already occurred in October 2002. The ARAC initiative presented an opportunity to look at the impact that change had, as well as look to the future. Thus, the ARAC report focused on the impact of the October 2002 reorganization, recognized efforts underway at that time to consolidate the HR function at the department level, and made recommendations designed to continue to address the goals of PMA and DHHS initiatives while seeking to overcome problems resulting from the 2002 changes.

The 2002 Reorganization

In 2001, NIH's HR operations were highly decentralized. The ICs had more than 25 years of independent operation, with on-site HR experts familiar with both IC functions and HR policies and practices. For much of this time the HR staffs were assigned to the ICs. NIH spent almost a year considering how to consolidate its HR functions. The Academy assisted NIH with that task, and was instrumental in developing stakeholder input and identifying functions that could benefit from consolidation, compared to those seen as critical to retain at the IC level. The Academy also conducted a pre-consolidation benchmark study of HR organizational structures in other organizations. Although NIH decision-makers sought input from both the HR community and its customers, one change was a "given:" all HR staff would report to one central HR office, as opposed to the independent HR offices then existing in the ICs.

The goal of consolidation was to address department concerns, such as the need for consistency and accountability, by centralizing, automating, and standardizing activities where it made sense to do so—including activities such as employee benefits, personnel processing, and training. At the same time, the agency sought to maintain certain functions, such as hiring and classification, at the IC level because of their direct impact on the ICs' missions.

NIH's OHR was reorganized into six divisions, and although most HR staff physically remained in the ICs, they reported to OHR. Total HR staffing was reduced by about 25 percent in this first reorganization. Simultaneously, NIH introduced a new HHS-wide personnel information system, the Enterprise Human Resources and Payroll Systems (EHRP). In 2002, a Human Resources Advisory Committee, consisting of NIH management and HR customers, was formed to advise the Deputy Director for Management (DDM) and OHR director. Other changes were planned, including additional automated systems and implementation of service level agreements (SLAs). But, as discussed below, HHS-mandated changes overtook these plans.

The original ARAC HR report concluded that, although some benefits had been achieved by the 2002 reorganization—such as reduced FTEs devoted to HR activities, improved consistency in HR actions, and increased oversight by NIH—these benefits had come at considerable cost. It declared the reorganization a "dismal failure"—most notably, customer satisfaction had plummeted. A survey of 95 customers showed that, while only one respondent rated HR services as poor before consolidation, more than half rated it poor after consolidation; conversely, while more than half rated service as excellent before consolidation, only three rated

it excellent afterward. Quantitative data also showed that both processing times and workload per HR staff member had increased significantly.

DHHS-Wide HR Consolidation

At the time the ARAC committee was considering consolidation options, DHHS had already announced plans to consolidate all DHHS HR functions into four department-level service centers, one of which would serve only NIH. Each center would be organized into three divisions, requiring a change from the six NIH established in 2002, and overall staffing levels would be reduced again for NIH. The department also intended to introduce several additional automated HR systems to support recruitment and hiring, payroll, classification, and other activities. Finally, and perhaps of most concern to the ARAC committee, DHHS planned to physically relocate all HR staff into the centrally located service center. The most common concern expressed by the NIH HR customers surveyed was that "uncoupling the HR staff from direct participation" in the ICs had dramatically reduced service levels. Sixty-one percent of those surveyed rated the HR strategic alignment with IC mission as poor.

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC committee's first recommended option was to exempt NIH from the department-level consolidation and from the mandated staffing reductions.

The report also identified a second option, however, apparently to address DHHS-level consolidation, should it occur. It recognized the potential benefits of consolidating some functions, including benefits counseling, personnel and payroll processing, and automation of the paperwork aspects of staffing and classification work. But it expressed uncertainty about the new automated systems' ability to meet NIH's needs, and cautioned that to bring new systems up to speed takes time and significant personnel resources during the transition. Therefore, it presented three recommendations:

- Postpone staff reductions envisioned for October 2003 until key new automated systems are fully operational.
- Expand the number of Account Managers (included in the DHHS HR central office proposal) so that all large and medium size ICs would have a full-time Account Manager on-site.
- Establish an Advisory/Policy Board made up of senior officials from the major HHS Operational Divisions, including NIH, to advise the Deputy Assistant Secretary for HR.

Accomplishments and Status

As recommended in the ARAC report, NIH was excluded from the department-level consolidation, but it was required to have its HR organization mirror that of the other three consolidated service centers. Therefore, NIH's OHR again was reorganized, effective October

2003, shortly after the ARAC report was completed. And in spite of the ARAC recommendations, staff was again reduced: FTEs were reduced by another 25 percent—bringing the total reduction to almost 40 percent. Also, all HR staff were physically moved out of the ICs, leaving no on-site HR support in the ICs. Once again, the reorganization was accomplished with limited planning time, and in conjunction with the introduction of unproven new software systems and arbitrary reductions in staff.

OHR worked throughout 2003 to reverse the decline in performance identified by the ARAC report and to address the many problems that were exacerbated by the 2003 reorganization. By mid-2004, OHR had developed a Strategic Business Plan (SBP) to help it make the best use of the 2003 reorganization and, in the fall of that year, established a Strategic Advisory Committee (SAC), which began serving as the ARAC implementation group. With support from SAC, the Academy, and other contractors, OHR was working to implement the SBP. However, NIH leadership may revise the SBP (or develop a totally new plan) to (1) incorporate implementation of actions identified by Academy staff to help overcome the current problems (discussed in more detail in later sections), (2) infuse new resources into the function, and (3) identify and prioritize the root causes of major problems.

THE HR GROUP'S EXPERIENCE

What Key Challenges Did the HR Group Face?

Over time, NIH became increasingly aware of unexpected problems and unintended consequences.

OHR faced increasingly unhappy staff—as well as unhappy customers—as the impact of the reorganizations, especially the 2003 consolidation, were felt. Over time, NIH became increasingly aware of unexpected problems and unintended consequences.

DHHS mandate left no flexibility: In other ARAC areas, where the teams had some flexibility in how and what to consolidate, fewer problems arose.[18] In HR, however, the lack of flexibility led to changes that most in NIH saw as unwise. Both reorganizations were implemented with little time for planning and change-management activities. The changes implemented in 2003 were inconsistent with stakeholder concerns identified by the Academy in 2002 as well as with those identified by the ARAC committee in 2003. Confronted with mandates for organizational structure, timeframes, specific software systems, and FTE reductions, NIH had limited opportunity to take the planning, communication, and change-management steps that are widely recognized as necessary to make organizational restructuring successful. The resulting staff discontent and reduced performance could have been predicted.

Confronted with mandates for organizational structure, timeframes, specific software systems, and FTE reductions, NIH had limited opportunity to take the planning, communication, and change-management steps that are widely recognized as necessary to make organizational restructuring successful.

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[18] Of course, the extent of the ultimate consolidation was usually considerably less in other areas than in HR, which also contributed to their greater progress.

<u>Need to redesign systems</u>: The new DHHS-specified IT systems required significant changes in processes and staff functions that are fundamental to NIH's culture. As staff became familiar with the new automated systems, it became clear that many non-HR staff would have vital HR-related responsibilities. For example, the new systems required scientific supervisors to participate in developing position descriptions for new hires. This was a major unanticipated cultural change for the agency. ICs also began to understand that such cultural change would require them to hire new staff or contractors to perform those tasks that had been performed by the HR staff that had been taken from them and placed in the downsized central OHR.

> *The new DHHS-specified IT systems required significant changes in processes and staff functions that are fundamental to NIH's culture.*

Additionally, each IC had been performing the various HR functions according to its own procedures. Consolidating into one central organization therefore created the need for standard operating procedures (SOPs) for the new central operation. Centralization also required that steps be taken to make sure the staff who moved into the central office had all the skills needed to perform in a consolidated organization, since their responsibilities in the ICs may have been significantly different.

<u>Inadequate, unworkable IT systems</u>: DHHS anticipated significant staff savings from implementation of the new automated systems, such as QuickHire, and based the mandated reduction in FTEs on that premise. But the new systems did not meet all of NIH's management needs and, in fact, were far from fully functional.

> *Consolidating into one central organization therefore created the need for SOPs for the new central operation.*

The new DHHS-wide EHRP system, used to electronically submit and process personnel actions, did not perform several necessary NIH-specific actions, causing a substantial problem for OHR staff. Also, some of these new systems may not be capable of producing the reports necessary for NIH-specific performance and internal management control activities.

Further, the mandated QuickHire system had difficulties from the beginning and ultimately crashed in early 2005, leaving all of the DHHS, and many other federal agencies, to scramble back to the manual handling of cases for new hires. There were several possible underlying factors in this failure, including questions about whether:

- The company could support such large customers as DHHS, and about 100 other federal agencies
- DHHS took the correct approach by having one QuickHire system for all of HHS
- NIH training and policies could have been changed to better prepare the staff and organization to make better use of this new tool

The quick downsizing did not recognize, as the ARAC report had, that it can take substantial time to "debug" new systems and that deploying new systems can initially require an increase of resources during the transition. The problems with these systems, both in design and implementation, caused excessive resources to be drained from the delivery of routine services to

the ICs, leading to a perception among many that the OHR managers were more concerned about systems than about service.

Attrition and loss of institutional knowledge: Upheaval, uncertainty, and increasing workloads fed attrition. Not only were there major, planned reductions in staff, but even more staff—many of whom had the most knowledge of NIH and were the NIH experts in HR—left NIH, or at least NIH's HR

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function. This resulted in a need for recruitment and significant training. ICs were faced with loss of the knowledgeable on-site help they had been used to, and were receiving HR support from staff who knew little about NIH, much less an individual IC's programs and culture.

Increased needs for HR support: All of these challenges were compounded by the addition of new responsibilities for HR, including the responsibilities arising from the other ongoing changes. For example, the new Human Capital Officer Act added significantly to the agency's responsibilities in the area of workforce planning, including succession planning.

> *Upheaval, uncertainty, and increasing workloads fed attrition.*

The A-76 process, especially, placed new and increased responsibilities on OHR as it worked to support the competitions, including the inventories of "commercial" types of employees and the "inherently governmental" positions required by the Federal Activities Inventory Reform Act as well as the studies of possible functions to compete. In addition, OHR was faced with a

> *All of these challenges were compounded by the addition of new responsibilities for HR, including the responsibilities arising from the other ongoing changes.*

significant level of personnel actions resulting from the stand-up of the Grants MEO. An HR official suggested that the 2003 A-76 competitions may have been better handled if OHR had been more involved from the outset.

The other ARAC changes also impacted HR's workload. Some HR resources were directed to assistance for these other initiatives, working to ensure a smooth transition. Especially where staff had been, or would be, organizationally and/or physically moved—Acquisition and Equal Employment Opportunity—HR representatives helped to identify potential HR concerns and worked to ensure that transfers were, or would be, made efficiently and effectively. On the other hand, management policies put in place to support A-76 and ARAC implementation, such as hiring freezes and increased scrutiny for high-level promotions and hires, exacerbated the perception of OHR's inability to meet the ICs' ongoing personnel needs.

> *Finally, the agency had to overcome the challenge of several changes in leadership and organizational structure.*

Changes in leadership: Finally, the agency had to overcome the challenge of several changes in leadership and organizational structure. In the three years of intense HR change, the DDM incumbent changed once, and there had been four Directors or Acting Directors of OHR. Also, the

three-division OHR structure mandated by DHHS did not include several functions that had been part of NIH OHR responsibilities. In part to meet the new significantly reduced staffing levels for OHR, these activities were assigned to two other organizations within NIH. The second of these organizations, the Office of Strategic Management Planning (OSMP), was newly created. The third office, the Office of Research Services, took on the personnel security responsibilities. All three offices reported to the DDM. But this change increased complexities, due to lack of clarity about the separation of functions among the offices, especially between OHR and OSMP. One significant cause of confusion was the clear overlap in the two offices' responsibilities for workforce planning.

How Did the HR Group Operate?

Recognized need for new approach: By early 2004, OHR recognized the need to improve communication within OHR as well as with the ICs, clarify responsibilities under the new structure, improve the skills of HR staff, develop clear outcome measures, and implement SLAs. During the spring and summer of 2004, OHR worked to firm up the reorganization as it dealt with day-to-day management issues. Among other things, OHR was in the process of:

- Developing NIH-wide SOPs for specific HR functions—which had been absent because the IC HR offices had each conducted business in accordance with individual procedures and practices
- Working to develop SLAs and clarify which HR responsibilities remained in the ICs
- Providing training to staff to make sure they all had well-rounded HR capabilities
- Soliciting input from executive officers (EOs) and other officials about their views on improving HR support

Began implementing a strategic business plan: By July of 2004, OHR had developed its SBP to address the major concerns raised by the EOs and other officials. The SBP sought to clarify roles and responsibilities as well as performance expectations, and to ensure that staff are fully prepared for their responsibilities in the consolidated organization. It called for:

- Creating a customer-collaboration environment (including developing SLAs and a communications plan)
- Developing valid HR performance information on which to make decisions (including workforce and workload data and an annual stakeholder report)
- Improving the office's capacity to perform its core mission (including assessing HR data systems and developing SOPs for various HR functions)
- Formulating a professional development program for HR staff

NIH began to dedicate more resources to the HR area and to develop a plan to ensure those resources are used in the best way to overcome existing problems and improve the services to the ICs. In fact, with strong support from the DDM, OHR had begun to correct its internal staffing problems: the DDM and NIH Director authorized OHR to hire 17 additional staff. As of June 2005, OHR had 270 on-board staff.

Created a stakeholder advisory committee: In September of 2004, OHR convened SAC to help it implement the SBP. Soon thereafter, the NIH Steering Committee approved the SBP as the ARAC implementation plan and SAC began functioning as OHR's ARAC HR implementation group. SAC is a broadly representative group and, though its membership was still evolving, it included the Directors of OHR and OSMP, two IC EOs, two IC Science Directors, and a representative from both the Intramural and Extramural Programs. Originally it was co-chaired by the Director, OHR, and an IC Deputy Director. More recently the DDM began co-chairing it with an IC Director.

> *…the DDM's active involvement in SAC clearly communicates management's commitment to this critical function, as well as the importance management places on NIH stakeholders' input.*

It took some time for SAC to become active, in part because of a change of director in OHR late in 2004. However, the DDM's active involvement in SAC clearly communicated management's commitment to this critical function, as well as the importance management places on NIH stakeholders' input. Most recently, SAC provided input on proposed HR organizational changes—leading to some adjustments in the proposals—and electronic personnel files (which had to be in place by August 15, 2005, according to DHHS mandate). SAC's future success may also depend on how successful it is in consulting key stakeholder groups, such as EOs, on key tasks. One important example is the involvement of EOs in development of SLAs and performance metrics for HR functions. Agreement was reached within a working group that included six EOs on such diverse topics as the roles of ICs and OHR and relevant performance metrics. The draft SLAs (including metrics) will be taken to SAC for consideration. Management has indicated that SAC will be a strong avenue for two-way communication between NIH and OHR leadership and the agency's HR customers.

> *Management has indicated that SAC will be a strong avenue for two-way communication between NIH and OHR leadership and the agency's HR customers.*

> *Management saw a critical need to formally identify the impacts the many changes were having.*

Assessed the impact of change: Management saw a critical need to formally identify the impacts the many changes were having. Late in 2004, the DDM tasked the Academy staff with determining how the multiple administrative restructuring changes at NIH had impacted the roles and responsibilities of administrative officers (AOs) and other key IC staffers. That study confirmed the anecdotal evidence that initially sparked management's interest and concerns: there were significant unintended consequences on workloads and staff responsibilities in the ICs. It also showed that the HR changes were the primary source of those consequences. Among the key findings were:

- The new software systems[19] altered not only the way the processes were carried out, but the processes themselves, resulting in new roles for some staff.
- Because "functional" staff in ICs did many things that were not technically HR functions, significant levels of work stayed behind when those staff moved out of the IC to a central organization.

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[19] Including the NBS as well as the HR systems

- Some HR responsibilities initially assigned to the newly centralized OHR staff ultimately were transferred back to the ICs.
- Learning new systems and responding to many questions of other staff, who were also learning new systems, took a considerable toll on the resident IC staff, especially on the AOs.

Worked to improve communication: NIH officials recognized that inadequate communication played a role in the high level of staff and customer dissatisfaction that accompanied HR restructuring. Although OHR used a variety of communication methods throughout the change process—such as an interactive web site, briefings, and creation of an advisory committee—staff still did not feel engaged. In part this could have been because, at least in the early stages, staff were in "denial" and did not believe the change would really happen. However, this lack of engagement also could have resulted from the fact that, in spite of near unanimous sentiment against consolidation, consolidation was a "given." Requests for input could have seemed disingenuous or, at a minimum, not worth stakeholders' continued effort to participate.

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OHR took a number of steps to improve communication within the HR community and with its customers. For example, it established workgroups composed of EOs and other IC representatives to work on specific tasks—such as developing SLAs and performance metrics—providing an effective means to obtain customer input for changes. Additionally, the surveys and interviews the Academy conducted as part of its analysis of the impact of changes provided many IC staff an important avenue to "speak" to management. The SBP that was being implemented seeks to ensure clear communications to all staff. NIH contracted with EnCompass LLC to conduct focus groups with customers and draft a preliminary communication plan.

How Did the Academy Participate?

Academy staff became an active partner in the OHR's effort in the fall of 2004. In December 2004, the DDM tasked the Academy with conducting a study to: (1) review the structure of the three organizations in NIH having HR responsibilities, (2) determine the extent to which provision of HR services is enhanced or inhibited by this structure, and (3) benchmark the organization of similar agencies' HR operations as a foundation for developing organizational options for NIH to consider. The Academy's study of the workload impact of the many restructuring efforts on key IC staff also related closely to OHR's efforts.

The Academy staff studies identified nine major areas of concern related to the adequacy of HR services—including lack of role clarity, loss of on-site support, and problems with new automated systems—plus 18 tactical actions that could immediately help overcome these concerns. These actions include, for example, publishing the major responsibilities of the three HR organizations, clarifying IC responsibilities for recruitment and other functions, routinely identifying problems with the automated systems, and meeting with DHHS staff to address these systems problems.

In most cases, few additional resources would be needed to implement these actions, although any resource demands added to the OHR at this point are likely to decrease efforts in another area. In some cases, joint efforts between the centralized HR and decentralized IC staff would be needed. Those actions, while addressing many of the concerns raised about HR services, would not address the cultural and organizational concerns identified by many of those whom the Academy interviewed. Therefore, the Academy also encouraged NIH to clearly define its expectations with regard to the extent of scientific staff responsibilities for HR activities, and then consider what process changes and/or change-management activities are needed to achieve expected outcomes. Having completed its work to benchmark the HR organizations of other federal agencies, both within and outside of DHHS, the Academy also presented five options for restructuring HR operations under the DDM.

NIH had the studies by the Academy and other consultant organizations under active reviews (as of July 2005) to help it develop the communication and other change-management approaches necessary to achieve the full potential of the HR consolidation.

How Will the Impact of Change Be Assessed?

The Academy's study of workload shifts and other impacts the many changes have had on NIH, discussed above, identified the kinds of impacts related specifically to the HR consolidations and new HR IT systems. But there are no consistent baseline data, making quantitative assessments of the impact of the recent changes impractical. An initial assessment of service prepared in 2004 by OHR, and not vetted with customers, was found inadequate by the NIH Steering Committee, and was not released.

Nevertheless, over two years after the initial reorganization, OHR believed it had made significant progress toward developing a solid performance assessment program for HR. OHR planned to continue working with SAC and other stakeholders to obtain agreement on a draft SLA and performance metrics related to key HR functions. Developing the SLAs first requires obtaining agreement on the relative roles of OHR and the ICs in HR matters—not an easy task, given the IC concerns about unexpected HR tasks returning to the ICs and general dissatisfaction with HR services. These agreed upon metrics, when formally adopted by OHR and NIH management, will allow service levels to be tracked over time. There are questions, however, about whether or when the DHHS-wide data systems will be capable of providing the data necessary to support sound management decision-making, valid performance assessments, and adequate internal management controls.

CONCLUSION

The impact of the HR reorganizations on NIH was profound. Not only did HR services underlie all other operations, but the negative experiences related to the HR consolidation fueled already strong resistance to consolidation from the highly independent ICs. The HR experience dramatically demonstrated the importance of flexibility in organizational change as well as the importance of having the time to make adequate preparations.

Though disagreeing with the extent of consolidation mandated, NIH officials recognized the legitimate goals of the PMA and the Secretary's "One HHS" initiative. Had NIH been allowed more flexibility and time, the mandated changes may ultimately have been made with much less trauma. But as it was, implementation of the "one-size-fits-all" organizational structure and staffing reductions, coupled with the introduction of new, unproven, IT systems and added responsibilities, led to significant, unintended consequences. Confronted with these mandates for organizational structure, timeframes, specific software systems, and staff reductions, NIH had limited opportunity to take the planning, communication, and change-management steps that are widely recognized as necessary to make organizational restructuring successful. Under these circumstances, the decreases in staff morale, customer satisfaction, and service could have been predicted.

Overcoming the negative impacts of earlier HR changes will take time and a significant level of resources. But NIH worked hard to do just that. The DDM's direct involvement in HR issues beginning in 2005 helped OHR begin to overcome staffing shortages, and gave credibility to efforts to use stakeholder input in developing changes to overcome HR service problems. By authorizing additional positions, co-chairing SAC, and openly considering some key organizational realignments, she signaled the importance of improving this vital function.

The early HR experience also informed the broader ARAC effort, providing the following lessons:

- Flexibility is necessary in making changes to avoid harming an agency's mission.
- Management attention to change efforts is vital to ensuring that harmful impacts and unintended consequences are identified and dealt with.
- Involving stakeholders in a meaningful way in decisions about change is essential.
- Carefully timing restructuring initiatives in relation to deployment of new IT systems— and ensuring the systems have been carefully tested and accepted— is very important.
- Developing appropriate performance assessment programs is a difficult but rewarding task.

Case 8: INFORMATION TECHNOLOGY

EXECUTIVE SUMMARY

Information technology (IT) is increasingly becoming a cornerstone of biomedical research, and NIH's ICs have long used and maintained many independent IT systems. However, even prior to ARAC, IT consolidation was under consideration as part of the "One HHS" initiative to increase efficiency. The NIH Chief Information Officer (CIO) and DHHS officials already had agreed that NIH would consolidate several functions, including the help desk, security, wireless networking, and e-mail. Work was well underway on those efforts as the ARAC report was being prepared.

ARAC Goals and Accomplishments

The ARAC report recommended that NIH continue the ongoing consolidation efforts and expand them by centralizing additional IT infrastructure services in a Phase II effort. Key activities necessary to fully accomplish the recommendations included developing a central, NIH-wide Active Directory (which recognizes legitimate users of the network and controls access to systems) and consolidating NIH network systems. The report targeted October 2004 for completion. However, because of IC concerns and anticipated high costs, NIH decided to proceed with consolidation of network monitoring, but to phase in centralized management and operations of IC local area networks as new or renovated facilities come on line. Several other recommendations were made, including consolidation of IT support for conference rooms and restructuring lines of authority between the NIH Center for Information Technology (CIT) and IC CIOs (who report to the IC Directors). The NIH CIO meets monthly with the IC CIOs, but has no direct authority over them.

The key consolidations of both phases were accomplished and, with the exception of a few ICs, they were accomplished within the timeframes set. Efforts to develop measures to track performance and assess the impact of changes were underway. Since the "lines of authority" issue existed for a number of the ARAC activities, NIH leadership felt that it should be subsumed by a consistent, NIH-wide approach, which was pending.

Lessons Demonstrated by the IT Group's Experience

Significant progress was achieved with no apparent decline in service. One significant factor contributing to this progress was the credibility the effort received from NIH leadership's demonstrated priority and by the consistent participation of IT leaders from CIT and the ICs. Other factors included the implementation group's:

- Reliance on empirical and expert information
- Willingness and ability to change goals as circumstances and new information demanded
- NIH leadership's demonstrated support for change and participation by IT leaders
- Careful monitoring of progress
- Efforts to involve stakeholders meaningfully in decisions
- Willingness to learn from experience and modify its restructuring process

BACKGROUND

IT is increasingly becoming a cornerstone of biomedical research, and NIH's ICs have long used and maintained many independent IT systems. However, even prior to the ARAC effort, IT consolidation was under consideration as part of the "One HHS" initiative to increase efficiency. The NIH CIO and DHHS officials already had agreed that NIH would consolidate several functions, including the help desk, security, wireless networking, and e-mail. Work was well underway on those efforts as the ARAC report was being prepared.

ARAC GOALS AND ACCOMPLISHMENTS

Goals

The ARAC report noted that, while the restructuring of IT at NIH was intended to meet the Secretary's goals of efficiency, "all efforts must preserve and protect the robust programmatic aspects of IT related to scientific research." The report recommended that NIH continue the ongoing consolidation efforts and expand them by centralizing additional IT infrastructure services in a Phase II effort. Specifically the report recommended that NIH centralize services such as bandwidth to the wall plate, remote access, and videoconferencing. The report also recommended that the lines of authority between IC CIOs—who report to the IC Directors—and the NIH CIO be restructured. The ARAC report set October 2003 as the target completion date for Phase I efforts and October 2004 for Phase II completion. No staffing reductions were established, though the report noted that, based on others' experience, a reduction of about 10 percent could be expected.

In order to fully accomplish these recommendations, the NIH CIT needed to develop a central Active Directory[20] for all of NIH and consolidate NIH local area network systems, whether operated by CIT or an IC. During 2004, two significant decisions were made in relation to the scope of the goals. First, because of concerns of ICs and because of the cost of the change, NIH decided to proceed with consolidation of network monitoring, but to phase in central CIT management and operation of local area networks as new facilities and major renovations come online. Also, efforts to consolidate video conferencing were postponed to allow coordination with an ongoing competitive sourcing activity under OMB Circular A-76, which included IT support for conference rooms.

Accomplishments and Status

The key consolidations of both phases were accomplished and, with the exception of a few ICs, they were accomplished within the timeframes set. As mentioned above, CIT had already been working on consolidation of several IT activities before the ARAC report was issued. Among other things, by September of 2003, NIH had substantially completed consolidation of 25 IC help desks into one, implementation of an NIH-wide wireless networking system, consolidation of 18

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[20] The Active Directory (Microsoft software) is a consolidated directory of NIH employees, contractors, and others. It recognizes legitimate users of the network and controls access for such systems as shared printers, e-mail, and shared servers. Before consolidation, 18 independently operated "child" domains operated across NIH.

IC e-mail systems into the NIH Central Email System, and implementation of NIH-wide perimeter security policies and practices. A key goal of this initial effort, establishment of a single Active Directory, was postponed because of concerns related to implementing the new Active Directory at the same time as consolidating the existing e-mail systems. The Active Directory consolidation was included in Phase II. By October 2004, a single Active Directory for all NIH was developed and installed. In addition, monitoring for 26 individual IC networks was consolidated into the Central Network Monitoring System (CNMS).

CIT and the Office of Research Services reached agreement on the division of responsibilities in video conferencing–which includes IT support for conference rooms. The agreement was incorporated into the A-76 performance work statement for the visual and medical arts competition and the related most efficient organization (MEO). NIH won that bid in January 2005, and work was underway to stand up the MEO.

Work continued on developing a performance monitoring plan. Preliminary agreement was reached on outcome metrics for the consolidations. These metrics were being incorporated into service level agreements (SLAs) for the consolidated systems. The issue of restructuring the lines of authority among the NIH CIO, the IC CIOs, and other offices of NIH was presented to other management groups in NIH, including the NIH Steering Committee's IT Working Group. Since the "lines of authority" issue exists for a number of the ARAC activities, NIH leadership felt that it should be subsumed into a consistent NIH-wide approach, which was still under leadership consideration as of summer 2005.

THE IT GROUP'S EXPERIENCE

What Key Challenges Did the IT Group Face?

The IT ARAC Implementation Group (IG) benefited from the existence of good working relationships among IC CIOs and the fact that the IT community already had some experience with consolidation. Additionally, most of the consolidated services could be seen as "upgrades" to service and did not significantly impact IC operations.

Resistance from ICs: Nevertheless, network consolidation was a complicated issue. As originally conceived, the network consolidation was to organizationally consolidate all management and operation of network systems centrally. However, network services in NIH were generally seen as sound, and not in need of change, and the ICs were reluctant to have their staffs and resources moved out of their control without achieving a clear advantage.

Reliance on IC data: To effectively consolidate many of the functions, CIT needed to have data provided by the ICs. Because the IC CIOs all had other priorities, it was sometimes difficult for them to provide the needed data on time.

Lack of sufficient data: Absence of solid cost estimates before making recommendations subsequently resulted in significant changes to the goals. After the IG began working on the ARAC recommendations, estimates—which were not available when the ARAC report was

Absence of solid cost estimates before making recommendations resulted in significant changes to the goals.

issued—put the cost of consolidating network operations at $20 million. Given the lack of clearly identifiable advantages, the NIH Steering Committee found this price tag unacceptably high. Consequently, the NIH CIO, working with a subcommittee of the Steering Committee's IT Working Group, developed the alternative: to centralize the network monitoring function as recommended, but move toward centralized management and operation of IC local area networks gradually, as new buildings were built and major renovations were completed.

Late decisions: This decision was not reached, however, until April 2004, only six months before the target completion. This late decision put great pressure on the IG to achieve the expected October 2004 completion date. During the summer of 2004, the implementation group

This late decision put great pressure on the implementation group to achieve the expected October 2004 completion date.

network subcommittee focused on developing a central monitoring system for all of NIH's networks. However, waiting until late in the process to come to agreement with ICs about what they needed to do, and when, resulted in limited time for design and deployment. In the end, although the target implementation date was achieved, the initial functionality of the systems was limited (but has since been expanded).[21]

The contractor who supported Phase I efforts concluded that initial concerns about the impact of the expected A-76 visual and medical arts competition caused "undue stress and distraction for staff." However, because the decision to postpone ARAC efforts until after the A-76 competition was made early in the Phase II process, this impact was avoided for Phase II. Consideration of an MEO for network management was also postponed when that goal was changed.

The group had broad representation from the ICs.

How Did the IT Group Operate?

Broad representation: The ARAC IT implementation group was formed early in the process (January 2004) and it met regularly from that point, with participation by the Academy and the Office of Management Assessment (OMA). The group also had broad representation from the ICs. It included representatives of CIT, which had the primary responsibility for coordinating the consolidation, as well as IC representatives knowledgeable about IC Active Directory, network, and video conferencing activities. Three subcommittees were established for these main efforts, and each had additional representatives from the ICs.

Use of existing networks: The IT Management Committee (ITMC), composed of the IC CIOs—key stakeholders in any IT consolidation—predated ARAC and had been an active participant in the Phase I consolidations. The ITMC had established

The [IT Management Committee] had established working relationships and credibility, and continued to be actively involved in the ARAC process, thus bringing expertise and credibility to the table.

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[21] It should further be noted that, although it occurred late in the process, the final decision to phase in centralized network management was subsequently confirmed as a best practice by the Academy's benchmark study.

working relationships and credibility, and continued to be actively involved in the ARAC process, thus bringing expertise and credibility to the table. Monthly meetings of the ITMC provided valuable give-and-take, and helped ensure direct feedback.

One-on-one communication with ICs: Implementing the changes required each IC to develop and provide data to CIT. Members of the implementation group met with representatives of each IC to clarify what was needed and negotiate an agreement with each IC as to the timeframes by which the ICs could provide the needed data. Inclusion of each IC into the consolidated function was scheduled in accordance with the timeframes negotiated and most ICs met their commitments.

> *Inclusion of each IC into the consolidated function was scheduled in accordance with the*

Flexible approach: The group looked for sound information, including empirical data and expert opinion, when defining goals and—supported by NIH management—showed a willingness to reconsider goals based on new information. Having the flexibility to change goals and target dates clearly contributed to the group's accomplishments. As the work progressed and information became available, goals were allowed to change— with management's approval. Key examples of this important flexibility are:

> *Having the flexibility to change goals and target dates clearly contributed to the group's accomplishments.*

- The decision to delay implementation of the Active Directory until after consolidation of e-mail in Phase I in response to concerns about the possible impact of simultaneously consolidating these two functions
- The decision to revise the network consolidation goal to make it more readily achievable and financially acceptable to the oversight groups by consolidating network monitoring, but phasing in centralized management and operations of networks as new construction and major renovations occur

One note of caution: flexibility needs to be approached carefully. IG leaders felt that, in some cases, they should have worked harder to have all ICs stick to the negotiated agreements on timeframes. They said that making date changes to accommodate some ICs led other ICs to seek delays, putting undue pressure on the group near the end of the process.

> *The group actively monitored progress toward key milestones.*

Milestones were monitored: Because the IT staffs in the ICs were very busy, a concerted effort was needed by both the implementation group and the ICs to ensure that the ICs did provide the needed data on time. The group actively monitored progress toward key milestones. It met weekly to review progress and to resolve technical issues. It also used dashboards which defined the end objective and established clear intermediate milestones to be accomplished along the way by each IC. The system of dashboards had been used by CIT in Phase I.

The dashboards were effective in keeping the ARAC process on schedule by helping to focus management attention at several levels on the need to move ahead. Not only were they used by CIT and the implementation group, but they were also shared with the IC CIOs and executive

…NIH management's systematic use, review—and follow-up—of the IT dashboards during Phase II made it clear that the IT efforts were a management priority.

officers. This helped individual IC leadership work to prevent their ICs from "turning red" or to return them quickly to "green." Also, NIH management's systematic use, review, and follow-up of the IT dashboards during Phase II made it clear that the IT efforts were a management priority. The IT community understood that management expected progress, and the dashboards clearly identified progress (or lack of progress) by individual ICs.

The implementation group, with Academy assistance, identified best practices…

Benchmark information: The implementation group, with Academy assistance, identified best practices for developing and installing a centralized directory system (which identifies users in a complex, distributed computer information system) and for central monitoring of the network system. The report on that work was completed in April 2005, and confirmed that NIH's approach was consistent with that of other similar organizations.

Learning from experience: The implementation group worked to improve its approach to consolidation by learning from its own experience in addition to conducting external benchmarking. The consulting firm that had supported CIT in Phase I prepared a final report

The implementation group worked to improve its approach to consolidation by learning from its own experience…

on those efforts, including lessons learned. Those lessons were considered in the subsequent ARAC consolidation actions. Several lessons focused on having management support for the program, well-defined goals for the objective, clear communications, and adequate funding.

Efforts to involve stakeholders, including customers, helped ensure buy-in for the change and a smooth transition.

Communicating with stakeholders: Efforts to involve stakeholders, including customers, helped ensure buy-in for the change and a smooth transition. The lessons identified from Phase I focused heavily on communication. One of the lessons was that there cannot be too much communication. Among other things, the contractor concluded that providing information on a well-designed web site before users are affected can facilitate effective change, but the web site must also be well-advertised. The CIT developed its own web site as part of Phase I, and widely advertised its existence during Phase II. The implementation group found it an effective tool for communication throughout CIT, OMA, and with end users in the ICs. The CIT staff also worked closely with OMA to provide technical support for the ARAC web site.

…providing information on a well-designed web site before users are affected can facilitate effective change, but the website must also be well advertised.

The contractor also concluded that project teams cannot assume that information will flow through intermediaries to all who require it in the ICs. During Phase II, the implementation group used more direct efforts to ensure that information was communicated clearly, including charging IC representatives in the group with being "IC advocates" responsible for representing the other ICs and seeking input from them during the process.

> *…project teams cannot assume that information will flow through intermediaries to all who require it in the ICs.*

The implementation group also found that open and regular communication is helpful. Having a set structure helps clarify responsibilities for communication and make sure they are carried out. Management can also help overcome skepticism if it is open to discussing problems as well as accomplishments. Even if there have been no recent developments, regularity of communication will help maintain awareness and engagement.

Monitored impact: As discussed below, coming to a decision about how to monitor performance was difficult and time consuming. However, the implementation group was able to monitor help desk contacts as the ICs were moved to the consolidated systems. Although this

> *Even if there have been no recent developments, regularity of communication will help maintain awareness and engagement.*

identified an upsurge of problems associated with specific transition events, the problems were generally of a simple, easily resolved nature. Help desk tracking indicated that post-transition operation was smooth.

How Did the Academy Participate?

From the very beginning, an Academy representative attended all the implementation group meetings and was considered a full partner in the consolidation efforts. Academy staff:

- Conducted a study of the organizational structure of the network division that would have been required if full network consolidation of management and operations had been pursued (the study was completed before the decision to limit network consolidation)
- Conducted a benchmark study of university performance measures and organizational structures for administering active directories and network monitoring systems

As discussed below, Academy staff also facilitated a number of meetings between the CIT staff and IC representatives to move toward agreement on suitable metrics for monitoring the performance of the central functions provided by CIT.

How Will the Impact of Change Be Assessed?

The implementation group dedicated significant effort to developing performance metrics for the consolidated operations. As noted above, the Academy staff conducted a benchmark study of university performance measures for administering active directories and network monitoring systems and, at the implementation group's request, helped define a set of performance measures and develop SLAs for these functions based on its study.

The group was able to overcome concerns that are frequently voiced in NIH—how to measure performance and who should be held accountable for what—to obtain preliminary agreement on a set of performance measures. Officials saw this as a significant accomplishment. But obtaining agreement on performance measures proved difficult. The benchmark study provided a sound starting point for the discussions. Representatives of CIT, the Academy, and the ICs met

in March and April 2005 to develop agreement on the measures that would be most meaningful to both central management and the ICs, and to agree on an outline for the SLAs. SLAs related to functions consolidated in Phase I—e-mail and help desk services—were used to guide the development of SLAs for both the Active Directory and the network monitoring system. The Academy submitted draft SLAs in May and June, respectively, for Active Directory and the CNMS. These drafts were vetted among the ICs during the summer. Because there were no baseline data, it was agreed that standards will not be set for performance measures that are adopted until after data has been collected for at least six months.

> *…obtaining agreement on performance measures proved difficult…the benchmark study provided a sound starting point for the discussion.*

In addition to the Academy's assistance, CIT used the services of an outside consultant to support the Phase I consolidations. Among other things, the consultant provided estimates of cost savings, helped set the rate CIT will charge the ICs for services, and prepared the final report on accomplishments, including the lessons learned. The consultant used financial models to predict cost savings for the consolidated e-mail and help desks, but models were not available for the Active Directory and CNMS. Absent recognized methods to develop cost data in these areas, NIH asked the Academy to conduct the benchmark study of organizational structures in these areas. Having the benchmark data allowed the group to move ahead confidently to establish good practices, without having specific cost estimates.

> *Having the benchmark data allowed the group to move ahead confidently to establish good practices, without having specific cost estimates.*

CONCLUSION

The IT function succeeded in consolidating specific functions with no obvious deterioration in service levels. In fact, many of the consolidations represented upgrades in service. But the most extensive change (and the one most resisted by the ICs) consolidation of network management and operation, was significantly limited. If the costs had not proven unacceptably high to management, it is not clear how easily this recommendation could have been implemented. The group's significant progress in other areas can be attributed to several aspects of its approach, including:

- Reliance on empirical and expert information
- Willingness and ability to change goals as circumstances and new information demanded
- The credibility of the effort, provided by NIH leadership's demonstrated support for change and the consistent participation of IT leaders from CIT and the ICs
- Careful monitoring of progress
- Efforts to involve stakeholders meaningfully in decisions
- Willingness to learn from experience and modify its restructuring process

APPENDIX D

This Appendix Contains:

GUIDE TO ADMINISTRATIVE RESTRUCTURING AT NIH

(in two volumes)

Original publication:
August 2004

Guide to Administrative Restructuring at NIH

Part I
The Basic Guide

August 18, 2004

GUIDE TO
ADMINISTRATIVE RESTRUCTURING AT NIH

PART I: The Basic Guide

CONTENTS

ACRONYMS

A-76	Government-wide competitive sourcing program administered under OMB Circular A-76
ADB	Administrative Data Base
ARAC	(NIH) Administrative Restructuring Advisory Committee
CAB	Customer Advisory Board
CSB	Customer Service Board
DDM	Deputy Director for Management
DHHS	Department of Health and Human Services
EEO	Equal Employment Opportunity
EO	Executive Officer
FAIR Act	Federal Activities Inventory Reform Act
FTE	Full-time equivalent
GPRA	Government Performance and Results Act
HR	Human Resources
IC	Institute or Center
IG	(ARAC) Implementation Group
IT	Information Technology
ITP	Individual Transition Plan
KSAs	Knowledge, Skills, and Abilities
MEO	Most Efficient Organization (established under the A-76 process)
MOU	Memorandum of Understanding
NAPA	National Academy of Public Administration
NBRSS	NIH Business Research and Support System
NBS	NIH Business System (original name of NBRSS; now coming back into general use)
NIH	National Institutes of Health
OE	(NIH) Office of Evaluation
OMA	(NIH) Office of Management Assessment
OMB	(U.S.) Office of Management and Budget
PART	(OMB) Program Assessment Rating Tool
PERT	Program Evaluation and Review Technique
R&D	Research and Development
SC	(NIH) Steering Committee (pinnacle of the NIH governance structure)
WBS	Work Breakdown Structure
WG	(NIH) Working Group (part of the NIH governance structure)

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DATE: August 2004
TO: Chairs, ARAC Implementation Groups
FROM: Colleen Barros, DDM
SUBJECT: *Guide to Administrative Restructuring at NIH*

This final version of the two-part *Guide to Administrative Restructuring at NIH* provides a framework for the Implementation Groups working to implement the Administrative Restructuring Advisory Committee (ARAC) recommendations made last year. Part I is "The Basic Guide," and includes an abridged version of Chapter 3, "Applying Supportive Techniques." Part II provides additional information on "Applying Supportive Techniques" in an expanded version of Chapter 3. Both parts of the *Guide* are available on-line at: http://ARAC.nih.gov.

To ensure the success of this important effort, Dr. Zerhouni has established the following ten governing principles:

- *Undertake administrative change that enhances the NIH research mission.*
- *Assume the ARAC report represents policy direction; implementation groups will have flexibility in defining an optimal approach.*
- *Achieve efficient use of FTEs without diminishing services.*
- *Actively involve the NIH community, including customers, in planning and implementation.*
- *Create customer service advisory boards for services being centralized.*
- *Undertake comprehensive change management, including ongoing two-way communication and training.*
- *Promote "best practices" through benchmarking and integrating efforts with IT initiatives.*
- *Utilize standard business processes.*
- *Ensure integrated governance through the NIH Working Groups and Steering Committee.*
- *Coordinate, as appropriate, with HHS to maximize efficiencies.*

The *Guide* was developed by NIH's Office of Management Assessment (OMA) and the National Academy of Public Administration (NAPA), in consulation with the ARAC Implementation Groups, to provide methodologies for applying Dr. Zerhouni's ARAC implementation principles.

In preparing the *Guide*, we took into account that no two groups are dealing with identical recommendations, and that each Group is at a different stage in implementing ARAC recommendations. Therefore, we do not view the *Guide* as a "one size fits all" requirement. Instead, we tried to provide information that will help each group to take a consistent, thorough, and well-reasoned approach, while still allowing substantial flexibility to move forward most appropriately in addressing the Group's individual circumstances. We hope you will find the material provided helpful now, as you work to develop your ARAC Implementation Plans, and, in the future, as you work to implement your plans.

Dr. Zerhouni has committed NIH to successfully restructuring its administrative functions – increasing both service and efficiency to advance NIH's critical scientific mission – and he has directed each of us to help ensure the success of this endeavor. Thank you for helping us meet this important challenge.

cc: Dr. Elias Zerhouni, IC Directors, Executive Officers, OD Senior Staff

OVERVIEW

This guide provides information to assist the eight Implementation Groups (IGs) charged with implementing the recommendations in the report prepared in the summer and fall of 2003 by the NIH Administrative Restructuring Advisory Committee (ARAC). Dr. Zerhouni initiated, and DHHS leadership has accepted the ARAC report as the framework through which NIH will demonstrate its ability to achieve administrative efficiencies consistent with and in fulfillment of the President's Management Agenda, the Department's administrative services consolidation initiatives, and other administrative reform initiatives at NIH.

At a minimum, the designated leaders responsible for implementing recommendations in each of the eight functions identified by the ARAC Report must have an approved Implementation Plan by September 30, 2004. To help develop this plan and implement it, each of the eight functional area leaders has established or will establish a representative Implementation Group. The group will identify and address risks and gaps associated with implementing the recommendations, develop the Implementation Plan, and achieve the plan's goals. Groups are needed because implementation success will require a team effort. This guide includes a section that describes how to establish and get best efforts from the Implementation Groups.

Some of the Implementation Groups will face particularly challenging assignments because of (1) the large amount of change called for by the ARAC recommendations, (2) the widespread impact of the proposed change, and (3) the simultaneous applicability of related reform initiatives—including Departmental restructuring initiatives, the A-76 competitive sourcing agenda, and long-term NBS reforms. Risk assessment and gap analysis studies may be needed to ensure the plans for implementing ARAC recommendations are complete and fully workable. This guide provides information about how to perform such analyses, when needed.

The Guide also provides a template for preparing the Group's Implementation Plan. The steps outlined include:

- Establishing firm goals that are compatible with those of other related reform initiatives
- Establishing functional statements and administrative service levels to be provided by the consolidated service unit, and a process for ensuring accountability to clients
- Identifying the activities, resources, authorities, and other tools needed to achieve successful outcomes and outputs, and determining how needed resources will be provided
- Providing a project management and tracking process that schedules the needed activities in the sequence necessary to achieve project success

Related to the planning process are guidelines on several specialized elements that may be needed in developing and implementing the plan. These topics include: project management practices and software, change-management processes that address potential transition needs associated with new processes, communications strategies to provide information to affected

parties and gather vital feedback, consultation and decision processes to involve affected parties and resolve issues, systems to provide metrics related to appropriate staffing and performance levels, and benchmarking against best practices. These guidelines are presented in three main sections:

4.0 Getting the substance right ("Implementing the right thing")
5.0 Mastering the planning and implementation processes
6.0 Performing specialized studies

The Guide concludes with a description of the types of help that NIH's Office of Management Assessment (OMA) and the National Academy of Public Administration (NAPA) can provide, and contact information for the members of both groups (see Section 4.0). NAPA is the Congressionally chartered source of advice and assistance to governments, agencies, and others who are grappling with issues of public policy, management, and administration. The Academy has assisted NIH several times in prior years and is well equipped to work with NIH on the matters addressed in this guide.

Additional information about using supportive techniques is provided in Part II of the Guide.

The following checklist summarizes all the requirements that ARAC Implementation Groups must meet, to the extent that they are applicable to each group's situation.

Checklist: Primary Responsibilities of ARAC Implementation Groups
(Activities that each group must perform, to the extent applicable, in developing and implementing its Implementation Plan)

Date
Completed

- Develop an Implementation Plan that includes the following steps: (See Plan Template– Box 1)   _____
  - Establish clear goals (based on ARAC recommendations) (see Section 3.1), including agreed upon service levels, functional statements, and performance measures.   _____
  - Clearly specify any organizational structures to be altered, or processes reengineered, including any transfers of employee positions and reporting relationships. (See Section 3.6.)   _____
  - Identify supporting information/activities needed, including current baseline data/metrics and benchmarking of best practices. (Teams may want to benchmark best practices against similar organizations, including individual ICs.) (See Section 3.4.)   _____
  - Undertake risk assessment or gap analysis to formulate the best implementation approach. (See Section 3.2.)   _____
  - Identify the number of FTEs within scope of the restructuring based on functional statements. (See Section 3.6.)   _____
  - Design a change-management strategy to ensure successful implementation, including customer help/management systems. (See Section 3.6.)   _____
  - Design a communication strategy to fully inform affected staff and other interested parties about the restructuring. (See Section 3.7.)   _____
  - Establish target completion dates for tasks, including identification of significant milestones. (See Section 2.2.)   _____
  - Identify resources required to achieve successful implementation including electronic systems development. (Sec Section 3.2.)   _____
- Obtain WG approval of the Implementation Plan as well as any significant changes to the Implementation Plan as implementation proceeds. (See Section 2.3.)   _____
- Implement Plan.   _____
- Implement project management and tracking process for reporting project status. (See Section 3.5)   _____
- Participate in periodic status meetings with the DDM. (See Sections 2.2, 2.3.)   _____
- Establish strong relationships and coordination with other related ARAC implementation groups and other on-going initiatives as needed—especially Human Resources, Information Technology, Budget, A-76 MEOs, and NBS. (See Section 1.0.)   _____
- Develop and implement quality assurance mechanisms to track performance levels and to ensure customer satisfaction, including appropriate customer service review boards and surveys. (See Sections 3.2 and 3.3.)   _____
- Evaluate the impact of changes over time and capture the "lessons learned" during the implementation process. (See Sections 2.4 and 3.9.)   _____

The *Guide to Administrative Restructuring at NIH* offers information designed to assist ARAC Implementation Groups to meet these requirements. Part I of the *Guide* contains the basic information; Part II provides additional detail for applying supportive techniques. Flexibility is provided in the means used to satisfy requirements.

1.0 GETTING ADMINISTRATIVE RESTRUCTURING RIGHT

This chapter of the Guide provides a context for moving toward integrated implementation of various management initiatives at NIH, including those in the ARAC Report. NIH is taking a collaborative approach to the vital task of integrating these initiatives and recognizes the imperative to align administrative restructuring goals and services with program visions and missions for enhancing the nation's medical science. The medical axiom to "do no harm" should guide those who implement administrative reforms.

In the fall of 2003, when the ARAC Report was completed and accepted by the Department as the basis upon which NIH could move forward with its administrative restructuring activities, NIH had three other initiatives underway that had lives of their own. Of longest standing was the multi-year electronic business systems modernization program known as the NIH Business System (NBS). Second was the government-wide competitive sourcing program administered under OMB Circular A-76, under which NIH will compete additional activities in each of the next several years. Third was the NIH Director's "Roadmap" for accelerating medical discovery and converting these discoveries into medical practice more quickly. In addition to these three internal NIH reform efforts, NIH is working with the Department to restructure administrative functions under Secretary Thompson's "One HHS" initiative. Each of these efforts is intended to achieve the five goals of the President's Management Agenda: strategic management of human capital, competitive sourcing, improved financial performance, expanded electronic government and budget and performance integration.

The ARAC Report demonstrates that NIH can achieve the President's goals through internal administrative restructuring. Although the report was written with knowledge of the other initiatives, it was a snapshot in time, and must continue to evolve and be continuously integrated with other initiatives as they, too, evolve. For example, the far-reaching installation of new electronic systems through the NBS reforms requires specific organizational adjustments to be precisely synchronized with the new systems. In addition, NIH won both FY2003 A-76 competitions and is now reorganizing significant portions of its Grants and Facilities functions under the terms and conditions of the A-76 process. The basis for each A-76 competition is the design of a new "most efficient organization" (MEO) to be established by the winner; so NIH is now establishing two new MEOs within its overall structure. Additional commercial-type activities at NIH are being competed in FY 2004 and scheduled for future years, and the results of those competitions will also change the organizational composition of the administrative functions addressed in the ARAC recommendations.

As they work to recognize and accommodate these evolving interrelationships, the implementation groups at NIH are expected to take a collaborative approach that values the diversity within them and makes the most of it to achieve the best possible results for the whole organization and the fullest possible achievement of the Agency's scientific missions. Inclusive representation in these groups and appropriate use of qualified facilitators are recommended. Additional information about facilitators, and when to use them, is provided in Section 3.8.

2.0 MASTERING THE PROCESSES

Implementing an administrative restructuring proposal involves four different and necessary steps. The first is creation of an effective Implementation Group that is sufficiently representative of the affected and responsible parties to ensure success. The second is development of a realistic Implementation Plan. The third is approval of the plan and provision of any resources or authorities needed but not already available to enable implementation to occur. The fourth is development of an accountability process for tracking and ensuring progress toward implementation.

The purpose of this section of the Guide is to explain how these four essential processes work and how they should be used.

2.1 Getting the Best from the Implementation Group

The designated leader of the Implementation Group is responsible for establishing an appropriately representative roster of members, engaging the group effectively in addressing the restructuring proposals assigned to it, finding the means needed to adequately support the group's work, and focusing the group's work on implementation.

Task 1—Establishing the Right Group

It's important to get the right group, with the right representation and skills, because it is the group that will be the primary forum for consummating the partnerships needed to achieve implementation goals. The leader should assess the group's existing or planned membership in light of the criteria listed below. If changes are needed the leader should consult with the Deputy Director for Management.

- Identify the organizations that will be affected by the new structure that will result from implementing the proposal. If the proposals being addressed change significantly over time, the group's membership should be modified accordingly.
- Include representatives of ICs of different sizes, plus appropriate subject-matter experts, and representatives of related A-76, NBS, and other initiatives. Including some representative "science advisors" from the ICs could also help to ensure integration of the science mission with the restructuring efforts.
- Attempt to get representatives of these organizations who have the skills, temperaments, and time to be constructive group members.
- Common wisdom in the management community is that groups of up to 12 perform best, but limiting the team size to that number for this project may not always be practical. So, as the project proceeds, the core group may need to delegate some implementation tasks to smaller sub-groups that may include supplemental members with the specialized expertise required to complete the tasks.

Task 2—Engaging the Group Effectively

Each member of the Implementation Group will come to the project with some degree of self-interest, functional affiliation, and individual viewpoint. Individual members will need to be melded into a team capable of moving together to implement the approved restructuring recommendations. This can be facilitated by using basic team engagement strategies:

- Be open to suggestions and opinions of the team members.
- Avoid using inhibiting language in discussions—e.g., "that idea will never work."
- Assure balanced participation and avoid dominance by an individual or a sub-group within the team.
- Manage conflict within the team.
- Reward helpful inputs.
- Consider using off-site retreats at appropriate stages of the group's work to provide a larger block of time and greater opportunities for interaction among team members.

Task 3—Providing Support for the Implementation Group

Many of the group's members—if they are the right ones—will already have more than enough to do in their regular jobs, and that's where their first responsibilities lie. Their main contribution to the group may occur as they participate during the meetings. The Group may not always be able to count on them to take on major special assignments unless their regular responsibilities are directly related to the group's restructuring goals and objectives.

In these cases, find ways to provide supplemental support personnel who have the time, skills, and resources to devote to meeting the group's needs. OMA and NAPA may be able to perform some of the necessary tasks and may be able to help identify other resources. (For more information about assistance available from OMA and NAPA, see Section 4.0.)

Task 4—Running the Organization while Changing It

As important as administrative restructuring is for NIH, achieving organizational change cannot come at the expense of interfering with the day-to-day achievement of the agency's scientific mission. The restructuring process may require skills, resources and processes different from those required to run the existing organization; they will also require NIH leaders to operate in two distinctly different modes at the same time, giving appropriate attention to each. Special provisions must be made for the dual processes of operating and changing the organization, and for ensuring that the transitions from old to new ways of doing business will be smooth. (See Section 3.6 for more information about change-management strategies.)

Task 5—ARAC Implementation Profiles

Each ARAC Implementation Group has a unique assignment. Four different types of implementation factors interact to give the assignment its "personality": (1) the "degree of difficulty" of the restructuring recommended, (2) the varying degrees of "dependence on others"

for the success of the restructuring, (3) the status of the Implementation Plan, and (4) the adequacy of support from the governance structure.

Each of these general implementation factors consists of several more discrete sub-factors that, to a greater or lesser extent, tend to inhibit or facilitate progress toward ARAC implementation. To help the Implementation Groups consider all the factors, they have been displayed together on a single-page "Profile Chart" (see Figure 1); each factor is defined in Appendix A. By gauging the current impact of each factor on the implementation process and displaying it with a bar on the chart, the Implementation Group can quickly generate an overall "picture" of what is holding implementation back and what is helping to push it forward. The more that the bars move toward the right side of the chart—shortening on the inhibiting side and lengthening on the facilitating side—the greater the likelihood of successful implementation of the recommendations. Bars representing the factors needing most urgent attention should be shown in red to highlight them visually.

In a nutshell, here is how to interpret the implementation factors in this diagnostic chart.

    A. The greater the amount of change called for, and the more that successful implementation would rely on changing the present behaviors of the affected people, the harder it will be to implement. This is particularly true if the recommendations being implemented provide little or no flexibility to adjust to conditions found to exist at the time of implementation and if conflicts develop between the ARAC changes and the implementation of other changes being made as part of other restructuring initiatives.

    B. These difficulties may be reduced, at least to some degree, by coordinating the implementation with the other initiatives.

    C. When dependence on others is an inhibiting factor, it is important to negotiate and plan ahead to secure the resources needed from appropriate sources to support the recommendations. Often it is useful to involve representatives of the "dependency groups" in the Implementation Group and engage them in the problem-solving process.

    D. The Implementation Planning process (described in Section 2.2) can facilitate the achievement of recommended goals by: (1) making sure that the goals are well justified and widely agreed to, (2) providing for all the steps that will need to be taken by all the responsible and affected parties, and (3) ensuring that communications are adequate to enable all the parties to understand their parts in the implementation process. When any of these conditions are not met, implementation is likely to be slowed or blocked.

    E. The governance system must be adequate to bring in everyone who is needed to bridge gaps, build agreements, and support coordinated action. Gaps here will slow progress, but filling these gaps will facilitate progress.

The Implementation Groups are urged to develop their profiles quickly and begin focusing their energies as effectively as possible on the greatest opportunities for reducing inhibitors and enhancing facilitators. Reassessing the profile monthly will help the group to stay focused on what needs to be done most urgently at any given time during the implementation effort. Those activities that offer the greatest opportunities to move more bars on the chart toward the right are the ones that are most likely to have the greatest positive impact on progress toward implementation.

FIGURE 1. ARAC IMPLEMENTATION PROFILE
(A Diagnostic Tool for Self-Assessing and Prioritizing Needed Work)
_____ FUNCTION

Implementation Factors	Inhibiting		Facilitating	
	Higher	Lower	Lower	Higher

Degree of Difficulty
 	
1. Amount and type of change proposed (departure from existing conditions)
2. Degree of flexibility in ARAC
3. Rapidity of changes proposed
4. Parties involved (DHHS, NIH-HQ, ICs, other customers, etc.)
5. Performance impacts (felt/expected)
6. Learning curves (anticipated)
7. Amount of resistance (known/expected)
   -- ICs
   -- Employees/Unions
• Degree to which changing function will be impacted by the A-76 process and outsourcing decisions				

Dependence on Others • Implementation group (formed, functional) • Policies (adequacy/clarity) • Budget and finance • FTE allocations • Training • Other HR services • Facilities • IT • Interaction with and approval by DHHS leadership				
Implementation Plan • Degree plan completed (technically) • Degree plan agreed/committed to by necessary parties • Adequacy and clarity of performance goals, measures, and monitoring • Long-term implications identified and addressed • Communications component				
Governance • Completeness of client involvement • Necessary linkages to other groups • Clear lines of authority and accountability • Adequacy of authority • Needed MOUs in place • Structure established for feedback and follow-up to assure on-going successful operations • Clear, consistent, and continuous communications during formulation, implementation, and other stages				

2.2 Developing the Implementation Plan

Each Implementation Group is responsible for developing an Implementation Plan for achieving its ARAC restructuring goals. If the ARAC goals and recommendations are being modified, those modifications must be approved by the NIH Working Group and Steering Committee, as provided in Section 2.3.

The Implementation Plan should include the elements listed in the Template found in Box 1.

NIH's overall restructuring effort is intended to provide existing administrative services more efficiently (with fewer people using higher levels of automation) and more effectively (with higher levels of professionalism and expertise more uniformly available to all ICs). It is often assumed that consolidation will automatically increase efficiency and effectiveness. But there are limits to economies of scale and it is possible that further consolidation may not further increase economies in some of the ICs that already have large volumes of such work, high levels of expertise, and direct control of their own workforce for these functions. Thus, it is particularly important in planning for administrative restructuring to (1) pay strict attention to existing service levels, (2) agree on the levels to be maintained or achieved, (3) measure what happens to these service levels during and after consolidation, and (4) be prepared to take corrective actions if services decline. Customer Advisory Boards (CABs) should be established as noted in Dr. Zerhouni's implementation principles, along with customer surveys along with objective before and after measures of service levels.

The Implementation Plan should provide a schedule chart of the planned activities, explicit linkages to other administrative restructuring initiatives that may impact it, and continuing feedback loops designed to make necessary mid-course corrections as needs for them are identified. Because of these complexities, it may not be possible to use standard project management software to monitor the work of the ARAC Implementation Groups in every case.

As a minimum, however, Implementation Groups should chart implementation progress, and constantly review it to help keep the implementation process on track. A sample schedule chart for potential ARAC implementation work is shown in Figure 2. **[NOTICE: This is NOT an actual plan, and should not be construed to be one in any way.]**

Implementation Groups that have precisely defined project-type implementation plans may find project management software helpful. One such tool is described in Section 3.5.

2.3 Getting Decisions Made

The following steps must be used to resolve any issues raised in the implementation planning processes that the group cannot address on its own.
- The ARAC Implementation Group identifies and develops the issue sufficiently to present the issue to the Working Group
- The Working Group either resolves the issue and proposes a decision or refers it to the NIH Steering Committee.

**BOX 1. ARAC Implementation Plan Template:
A List of Elements to be Included**

- Clear goals, functional statements, service levels, baseline and benchmarking data, performance measures, milestones, and target completion dates. Include goals and related performance measures to minimize the impact of negative impacts. To fully support desired goals, qualitative and well as quantitative, performance measures may be needed. (How would you recognize success?)
- Implementation tasks needed to achieve success, including change-management strategies to address the human side of administrative restructuring. (See Section 3.6.)
- An effective change management strategy needs to be developed.
- A project management and tracking process (potentially supported by a commercial software package) to link implementation tasks to the resources, responsible parties, schedules, and phasing required to meet the target implementation date. Ability to assess the extent to which the plan has been implemented at any given time, and to make mid-course corrections. (See Section 3.5.)
- A process to identify and resolve delays.
- Strong relationships with other ARAC implementation groups, activities of the ongoing NIH NBS reform group, A-76 competitions, and other NIH-wide or department-wide reforms (links and processes to resolve any significant dysfunction that could put implementation at risk).
- A gap analysis to identify and supply missing resources required to enable successful implementation. (See Section 3.2.) Such resources may include:
  - Reorganization authority
  - Revised functional statements
  - Transition staffing and/or training
  - Facilities and equipment
  - Budget
  - Authorities and agreements to change processes and relationships among organizational units (including needed MOUs and provisions to harmonize potential dual reporting issues)
  - Policy changes
  - Communications strategies and tools (See Section 3.7.)
- Agreements on service levels to be maintained by central or consolidated service providers.
- Quality assurance mechanisms to ensure customer satisfaction.
- An effective consultation process to involve the affected parties throughout the planning and implementation processes, and to communicate with them frequently and effectively.
- Provision for evaluation studies to capture the "lessons learned" during the implementation process. (See Section 3.9.)

- The Steering Committee advises the Director of NIH about the issue, if it can, and the answer is incorporated into the Implementation Plan
- If the issue remains unresolved, work around it.

The Implementation Plan itself should be presented to the appropriate Work Group and to the Steering Committee, if necessary. The Plan should also be approved by the NIH Director or DDM on his behalf. Any subsequent modifications of the Implementation Plan also must go through the same approval process before they become effective. When reporting to the Work Group or Steering Committee, a consistent status reporting format will be very helpful. The recommended format follows in Figure 3.

FIGURE 2. Sample Gantt Chart for Potential ARAC Implementation Activities

ID	Task Name
1	**Organizational Assessment and Realignment**
2	Analyze historical and current service alignments
3	Evaluate options for new service alignments
4	Recommend initial service centers and customer groups
5	Establish final customer assignments
6	Draft model charter for Customer Service Boards
7	New structure in place
8	**Workload and Staffing Analysis**
9	Analyze current workload allocation
10	Analyze existing staffing distribution
11	Assess adequacy of current staffing levels
12	Make recommendations on initial allocation of staff
13	Make final staffing decisions
14	Develop model for future workload assessment
15	**Automated Systems Integration**
16	Assess impact of consolidation on operational systems
17	Develop system migration strategy
18	Execute system migration
19	Function as ARAC implementation liaison with related administrative reform projects
20	Monitor implementation of consolidation to ensure data integrity
21	**Customer Service and Performance Management**
22	Establish performance metrics
23	Collect performance data on current state
24	Benchmark NIH operational performance
25	Conduct gap analysis
26	Develop performance measurement plan
27	Draft model service agreements

FIGURE 3. [ARAC Function] Implementation Status					
Goal:					Date prepared:
Consistent Steps and Major Milestones	Responsible Person/Office	Completion Dates			Comments
		Original Plan	Revised Plan	Actual Date	

• Develop Implementation Plan
  • Primary Activities and Milestones
  • Benchmarking and Baseline Data Elements
    • Staffing
    • Performance metrics
    • Org. structure
    •   Systems
  • Coordination Element
  • Change-Management Element
  • Communications Element
  • Customer Buy-in Element					

• Obtain WG/SC Approval of Implementation Plan					
• Identify and Obtain Implementation Resources					

• Monitor/Adjust Implementation
  • Unanticipated Effects of NBS and A-76 Initiatives
  • Unexpected Barriers
  • Customer Satisfaction
  • Mid-Course Corrections					

• Obtain WG/SC Approval of Mid-Course Corrections					
• Pilot Test New Systems and Processes (as applicable)					
• Establish New Organization (as applicable)					
• Evaluate New Systems, Processes, and Organization (as applicable)					

2.4 Tracking and Ensuring Progress

Tracking and ensuring progress of the administrative restructuring effort involves tracking the progress of both the implementation process itself, and the results of implementation (including unintended consequences, which may be negative in some cases). Both depend upon good metrics. This section of the Guide addresses methods for tracking progress and provides the basis for taking such mid-course corrective actions as may be needed. Best results may be obtained by continuously measuring, monitoring, reassessing, and adjusting implementation activities and consequences to emphasize the benefits and minimize any negative impacts.

Tracking the Implementation Process

Two primary tools are recommended for use, as appropriate, to track the progress of implementation. One is the Profile Chart introduced in Section 2.1. By reexamining, updating, and comparing Profile Charts over time, Implementation Groups will be able to see how much progress they have been able to make in reducing impediments and strengthening facilitation factors. These periodic comparisons will show where the next most helpful steps are and what should be done to move implementation efforts ahead. Opportunities to reduce impediments should not be overlooked. Frequently, reducing impediments is as effective, or even more effective, in getting desired results as taking advantage of the factors that facilitate action.

The other tool recommended for tracking implementation is a schedule to be developed by each group to keep track of implementation activities. As illustrated in Figure 2 (above), this chart shows all the activities needed to accomplish the implementation, how they are interrelated, and when they need to occur to keep the process on schedule. If delays occur, this chart will show which activities are causing delays, and will suggest where remedial action needs to be taken.

Together, these two charts will answer two related questions: what is not getting done (the schedule chart), and why is it not getting done (the profile chart).   The group will be able to monitor its own implementation process to its conclusion, and determine whether the goals were met ahead of time, on time, or late, as well as the extent to which the final restructuring resembles the proposed one.

Tracking the Results of Restructuring

More complex than tracking what is done is the question of determining what impact the restructuring has had. Simple performance measures can tell part of the story. How does the level of service provided by the new structure compare with the level of service previously being provided? Is it worse, the same, or better? And, what is its cost—the same, less, or more? Performance measures should be established at the beginning of each restructuring effort to capture the initial baseline conditions and track results as the restructuring goes into effect. Short-term tracking can assist with mid-course corrections during implementation. Long-term monitoring and evaluation studies can assess the lasting improvements in the administrative services being provided. (Performance metrics are addressed in Section 3.3, and evaluation is addressed in Section 3.9.)

Simple performance metrics, by themselves, can tell only part of the story—what happened? To learn why it happened requires program or performance evaluation studies that compare the before and after situations in some detail. Fortunately, DHHS (and NIH as part of the Department) has one of the government's longest-established and most robust program evaluation traditions. Since the 1970s, it has funded program evaluation studies regularly, using statutory set-asides from its operating budget as a dependable source of revenue. This resource is unusual in the federal government, and it should be tapped in this case to develop administrative restructuring case studies and "lessons learned" that can be shared within NIH and the Department, and even more broadly. Because there is strong competition for these funds, priority should be given to studies of the most broadly useful lessons. (Program evaluation is addressed in Section 3.9.)

A vital component of tracking the results that make a difference to the clients or customers of administrative services is staying in touch with them. There are several ways to do this. One is to survey them regularly over time, as is being done in DHHS and NIH acquisition programs, through a "balanced scorecard" process. Another is to establish a permanent customer advisory group or to use focus groups on a regular basis to sample satisfaction levels, get insights about service delivery issues, and find better ways of doing business. Other methods include the use of focus groups and peer-review groups.

Reporting Progress

The Implementation Groups obviously have a vital interest in tracking their own work to stay on course, on schedule, and within budget. However, many others have an interest in both the progress being made in implementing changes and the ultimate impact of those changes. These interested parties include those at other levels within NIH, at the Department, within the Administration and the Office of Management and Budget (OMB), in Congress, and across the general public. Thus, the tracking data collected need to be capable of rolling up into reports for higher level managers, legislative overseers, and the public. This concern is consistent with current concepts of performance budgeting and the integration of budgets and financial accountability reports with performance reports. It is also consistent with the improved reporting capabilities of the business systems upgrades being installed at NIH under the long-term NBS program. The point of mentioning it here is to remind the Implementation Groups to take it into account as they go about their own work and establish the performance measures they will be using. Budget and performance integration, as currently required by OMB, is addressed in Section 3.3.

3.0 APPLYING SUPPORTIVE TECHNIQUES

A wide variety of management and analytical tools can be used in reassessing and implementing the restructuring recommendations. The following sections provide brief descriptions of some of these key tools. If you believe they could be useful to the group's efforts, more guidance is available in Part II of this guide. Staff members from OMA and NAPA are available to provide assistance in using each of these tools.

3.1 Vision, Missions, and Goals

Clearly defining the vision, mission, and goals for change is critical to ensuring that the implementation effort moves forward effectively. The vision will be most effective if it is crystal clear and if the common future agreed on is linked to the specific missions and goals needed to create the preferred future. Developing the vision is a make-or-break part of the process and should begin as early as possible.

A visioning process may be helpful in clarifying what needs to be implemented in proper relationship to everything else that is going on at NIH to improve administrative functions. The greater the uncertainties and risks are found to be, the more likely it may be that a formal visioning process could be helpful.

3.2 Analytical Tools

There are many analytical tools that can help in effectively implementing administrative restructuring. Two that are most important for NIH's current efforts are risk assessment and gap analysis. Others include benefit/cost analysis, survey design, and focus groups.

Administrative reorganizations can be risky, so great care must be taken to assess and minimize the risks. The risks come in the form of adverse impacts—often unintended consequences—on people, organizations, and program performance that may occur if restructuring is not done carefully. Involving the potentially affected employees, customers, and managers in developing and integrating competing or overlapping administrative reform proposals can help to identify the most likely adverse consequences and suggest ways to avoid, mitigate, or compensate for them.

Gap analysis is not a particular type of analysis as much as a general concept for measuring the distance between a current situation and a desired future condition. It is an essential step in ARAC planning. Some of the most important "gaps" to be analyzed concern staffing, budgets and resources, and authorities and agreements. The "degree of difficulty" section of the ARAC Profile Chart in Section 2.1 can help in assessing when it is important to identify these "gaps."

A formal, quantitative benefit-cost analysis is not anticipated for ARAC. However, even if only qualitatively done, there should be some explicit determination that the recommended changes are worth doing.

Surveys, focus groups, and various types of statistical analysis can also be used in support of the above analyses. These techniques may also be useful in assessing the success of implementing change, reaction by employees and other stakeholders, and, ultimately, the impact of the changes.

3.3 Sound Metrics

The original ARAC effort considered at least two metrics: staff size (often a reduction) and the ratios of scientific to administrative staff (typically an increase). These are fairly basic staffing benchmark measures and are needed to determine what appropriate staffing levels should be and to compare levels and outputs with comparable organizations. However, additional metrics are needed to adequately address the key goals of program performance and administrative efficiency, including indicators that measure program effectiveness, as well as both positive and negative impacts.

Approaches that can be used in benchmarking staffing measures include an immediate snapshot of the existing work situation using output-per-FTE ratios, which can be used for comparison purposes among similar groups and can show historical trends. However, these basic numbers may not allow for "degree of difficulty" and, consequently, the ratios can only be used as broad guidelines; more detailed analysis is needed to get at root causes for differences across organizations.

Performance measures tell an organization how well the particular function is doing. If we accept the oft-quoted statement "What gets measured gets done!" then we should be careful to select the proper performance measures. Service organizations will most frequently focus on performance that relates to their customers (including service levels provided) and, in doing so, often overlook other useful measures such as business efficiency. Consolidated administrative service centers should work to combine service level and cost data. NIH is not a lowest-price market; it demands topnotch services to keep its programs performing at necessary levels of excellence. Thus, NIH performance measures must combine service-level and cost data to be useful.

The groups should consider working with the balanced scorecard concept to obtain and analyze data which bring together cost and performance information. Regular surveys of customers and other stakeholders provide information on quality of service, timeliness, and responsiveness, which, when combined with data on efficiency and effectiveness, allow an overall rating of activities. An evolving example of this approach is the DHHS balanced scorecard for acquisition.

Identifying and planning to accommodate the number of employees who may be affected by administrative restructuring activities are also important metrics to have. See Section 3.6 for more information about this topic.

3.4 Best Practice Benchmarking and Lessons Learned

ARAC implementation should promote best practices through benchmarking and integrating efforts with IT initiatives. Benchmarking has become one of the most popular management tools in use today. In most cases benchmarking has focused on the types of administrative issues addressed in the NIH restructuring initiatives and therefore offers significant potential in helping the groups as they design their restructuring initiatives.

Conducting a full-fledged, seven-step benchmarking study as outlined in the current literature would require more time and resources than are likely to be available to the Implementation Groups. However, shortcut approaches can be useful in some situations. Groups might be able to find studies already completed that are close enough to be relevant. Short-term "lessons learned" studies within NIH could be done; in fact, NIH has already undertaken these types of studies related to the HR structuring, A-76, and NBS. Quick benchmarking studies can be done without fully undertaking all of the seven steps. At a minimum, one or more of these quick learning techniques should be prepared as part of the on-going organizational reform efforts. If it is decided that a more extensive benchmarking effort is needed, the groups should obtain approval of the Steering Committee and/or DDM.

3.5 Project Management

Once the project is underway, monitoring, getting feedback, and reacting flexibly to any problems are necessary forms of control for keeping the project on track and fulfilling its goals. Effective project management efficiently reallocates resources and budgets to meet deadlines under changing circumstances. Communication is crucial to both planning and control processes. Ongoing use of status reports communicates information on activities to all involved.

Microsoft Project is an example of one of the software programs available that can facilitate effective planning, tracking, and communication of project information, and thereby help keep the project on schedule. The software could be used to track the ARAC Implementation Plan, though the program uses different terminology—for example the ARAC Implementation Plan would be called the "Project Plan." It can facilitate use of tools such a Gantt and PERT charts.

However, this software only works well when the "project" can be well defined and when the group has enough control to review major milestones, make necessary corrections to keep the plan relevant and attainable, and prevent unjustified tendencies to expand the scope of the activities. Where tasks are not completed on time, the group must identify causes and solutions and modify timelines and/or expectations as needed. Where such control is not available, simpler bar-chart schedules may make more sense.

3.6 Change-Management Strategies

Successful change does not happen by accident. Mangers must think not only about what changes to make, but also about how and when the changes should occur, and they must involve

the stakeholders in those decisions. NBS has provided NIH with extensive change-management experience and "lessons learned."

Where implementing ARAC recommendations will result in significant changes to organizational structure, NIH culture, or employee roles, each Implementation Group will need to develop a change-management plan. The overall goal of such a plan is to minimize adverse consequences and facilitate acceptance and use of the changed structures and processes.

Four key steps in developing the change-management strategy are:

- Determine the precise scope and focus of the changes (including employees affected and eligible for transition services).
- Determine the specific activities to be undertaken as part of change management.
- Establish a program of assistance to be provided to the Implementation Group and affected employees and stakeholders during and after the implementation of changes.
- Harmonize potential "dual reporting" relationships.

Among other things, defining the specific changes helps ensure that the group has identified all of the on-going interrelated activities and taken steps to ensure a clearly formulated plan for coordinating the activities.

Depending on the changes contemplated, the change-management plan could require:

- Workforce transition planning
- Training of employees and other stakeholders
- Provisions for helping stakeholders, especially employees, adjust to the changes, such as counseling or relocation assistance
- Provisions for monitoring, feedback, evaluation, and mid-course corrections

If any such assistance is necessary, it should be included in the Implementation Plan. All groups will also need to develop a communications plan to facilitate the change.

3.7 Communications Plan

Communication during change serves many purposes. Ultimately, its goal is to ensure agency-wide support for the changes. At the most basic level, the purpose is to inform all stakeholders of the reason for the change; the vision, goals, and specifics of implementation design, as well as any modifications made as time goes by; and the progress being made. Other important purposes include:

- Involving employees, customers, and other stakeholders in articulating the vision, goals, and design of the changes, and also making them a part of the process and assuring that they are listened to and that they know what is done with their input.
- Monitoring the impact of on-going change on employees' ability to carry out the day-to-day mission.

The extent and formality of the communications plan, and the process used to develop it, will depend on the group's assessment of complexity and importance of communication in relation to the specific changes being made.

Communications must be on-going at many levels as NIH works to clearly and consistently communicate the overall ARAC vision and goals throughout the agency in the context of NIH's scientific mission. A variety of NIH media will need to be used and NIH communications media should be represented on or consulted by each Implementation Group to help craft effective messages and get them out in a timely way.

This guide is a key component of the NIH-wide ARAC communications plan. It provides the essential messages about the program's intent, assignment of responsibility, process requirements, methodologies, and resources to get the job done. Another key component is a new Administrative Restructuring Website established by OMA to provide:

- Basic ARAC documents (including the 2003 ARAC Report and this guide)
- Links to other non-ARAC administrative websites (such as NBS and A-76)—to help integrate related efforts with them
- Links to individual ARAC function websites—to assist each in learning good practices from the others

The single most important dimension of communication during organizational change is that it be two-way. In most cases, face-to-face communication will be needed, but the restructuring website will also be a key component of the NIH-wide communication plan.

3.8 Meeting Facilitation

Many of the group leaders are well-versed in facilitation techniques and use them routinely. Therefore, their need to call in an outside, neutral facilitator may be limited. Nevertheless, they may find assistance could be useful from time-to-time. Some of the most likely times are when the group is:

- Just getting formed and includes several people who do not know each other well
- Developing team cohesiveness and commitment to work together
- Facing an especially contentious decision
- Faced with an especially complex task to accomplish (such as developing consensus on missions and visions, or developing a plan and setting priorities)

Facilitators are also particularly helpful when a group's official leader wants to fully participate in the substantive issues being addressed by the group without being distracted by process issues or constrained by the facilitator's need for neutrality.

3.9 Evaluation

Evaluation should be built into change implementation. In developing performance measures, future as well as current evaluation needs should be considered. Consideration of the specific

evaluation approaches to be used are best done early in the design of any program, process, or change, to ensure that appropriate baseline data are collected for subsequent comparison of effectiveness, efficiency, and performance.

Evaluation will be most important in the Implementation Groups' work when implementation moves forward, and once the change is fully implemented. In each case—as with the other tools discussed in this guide—the specific evaluation tools and techniques that will be most useful will depend on the nature, extent, and timing of the changes being implemented.

Initially, evaluation activities are frequently applied to:

- Pinpointing the services required to support program activity
- Establishing clear goals, objectives and targets for administrative functions
- Selecting from alternative approaches
- Determining how implementation will be monitored and measured

As implementation moves forward, the Implementation Group will benefit from data obtained through short-term, rapid-feedback evaluations designed to determine whether mid-course corrections are needed.

Ultimately, the group's work in these earlier stages, setting goals and developing performance metrics, will set the direction for longer-term, post-implementation evaluations. After implementation is complete, evaluations may help to provide a systematic assessment of accomplishments and effects, and to determine the extent to which intermediate and long-term goals have been achieved.

A variety of evaluation questions and methods can be used. Several key principles that should guide evaluation decisions may include (among others):

- Collaborate with stakeholders
- Allow for possible unintended consequences
- Use data that are accurate, up to date, have credibility within the NIH community, and already exist (to the extent possible)
- Use multiple evaluation methods to the extent possible
- Communicate the results of evaluations

4.0 GETTING HELP FROM THE OMA/NAPA TEAMS

The NIH Office of Management Assessment (OMA) and the National Academy of Public Administration (NAPA) have teamed-up to assist administrative restructuring efforts at NIH. OMA staff possesses direct knowledge of NIH culture and functions as well as insights into management's goals and expectations. NAPA staff, and the NAPA Panel overseeing the staff's work on this project, bring to the table many years of experience in administration and organizational change, expertise in the specific functional areas addressed in the ARAC recommendations, and knowledge about NIH's operations gained from its prior studies to assist NIH.

Organizationally, OMA and NAPA have established teams to interact directly with ARAC implementation leaders and groups in all eight functional areas addressed in the ARAC Report. In addition, OMA and NAPA are interacting regularly with the DDM and are developing as-needed links to the NIH governance structure.

Initially, it was intended that the OMA/NAPA team focus its efforts exclusively on implementing the ARAC Report. However, NIH and NAPA have recognized that the other concurrent efforts to respond to NIH's long-term business process modernization, the A-76 competitive sourcing process and other parts of the President's Management Agenda, and the Department's continuing administrative consolidation initiatives are intertwined with ARAC. Therefore, OMA and NAPA are prepared to assist ARAC implementation efforts directly and to help integrate ARAC implementation with the other administrative restructuring initiatives.

On many tasks, OMA and NAPA will work together. On other tasks, one will take the primary lead. These areas of responsibility are set forth, following the basic contact information.

4.1 Key Contacts

The key OMA and NAPA contacts for each ARAC Implementation Group are listed below. Their phone and email addresses are also provided and contact with them is encouraged.

One OMA staffer and at least one NAPA staffer have been assigned to work directly with each of the functional leaders and Implementation Groups. For most purposes, these will be the groups' primary contacts. If specialized assistance is needed, the OMA/NAPA staff members will help arrange it.

- Acquisition—Weymouth (OMA) and Hulick (NAPA)
- Grants—Best (OMA) and Butler (NAPA)
- Information Technology—Gillen (OMA) and McCutcheon (NAPA)
- Facilities—Best (OMA) and Barnard (NAPA)
- Human Resources—Weymouth (OMA) and Millard (NAPA)
- Equal Employment Opportunity—Best (OMA) and Goode (NAPA)
- Budget—Gillen (OMA) and McCutcheon (NAPA)
- Finance—Weymouth (OMA) and McCutcheon (NAPA)

Name	Phone	Email
Jim Barnard	(703) 683-8812	JNBarnard@wmconnect.com
Charles Best	(301) 451-6729	bestch@mail.nih.gov
Jane Butler	(202) 347-3190	JButler@napawash.org
Bill Gillen	(301) 496-2462	gillenw@od.nih.gov
Ann Goode	(202) 347-3190	AGoode@napawash.org
Chuck Hulick	(202) 347-3190	CHulick@napawash.org
John McCutcheon	(301) 208-3539	john0510@earthlink.net
Bruce McDowell (NAPA Project Director)	(202) 347-3190	BMcDowell@napawash.org
Regina Millard	(703) 691-1440	RgMllrd@aol.com
Rob Weymouth (OMA Project Director)	(301) 402-6350	weymoutr@od.nih.gov

4.2 Joint Responsibilities of OMA and NAPA

OMA and NAPA are working together to conduct the following activities in support of ARAC implementation.

- NIH-wide ARAC Communications
- NIH-wide ARAC Change-Management Process
- Communication with the NIH Steering Committee and Work Groups

4.3 NAPA Specializations

NAPA staff has expertise and is available to help Implementation Groups in the following areas:

- Implementation Plans for Individual ARAC Implementation Groups
- Meeting Support
- Risk Assessments
- Gap Analysis
- Performance Metrics (qualitative as well as quantitative)
- Benchmarking and Best Practices
- Visioning
- Project Management
- Change Management
- Communications
- Customer Service Assurance

4.4 OMA Specializations

OMA staff can help to fill gaps in:

- Reorganization Authority
- Transition Staffing and/or Training
- Facilities and Equipment
- Budget
- Authorities and Agreements to Change Processes and Relationships Among Organizational Units (including needed MOUs and changes in reporting channels)
- Service-Level Agreements
- Policies
- Resources for Evaluation Studies

APPENDIX.
DEFINITIONS – ARAC IMPLEMENTATION FACTORS IN THE PROFILE CHART

<u>**DEGREE OF DIFFICULTY**</u> – *factors related to the scope of the proposed changes and outside factors that may compete with ARAC implementation*

- **Amount and type of change proposed** – the degree of departure from existing conditions.
- **Degree of flexibility in ARAC** – the amount of discretion that the implementation group has to make decisions regarding implementation (e.g., flexibility to determine appropriate FTE levels, appropriate numbers of centers for consolidated function, etc.)
- **Rapidity of changes proposed** – how aggressive the timing is for full implementation of the proposed changes.
- **Parties involved** – whether and to what extent other entities (DHHS, NIH-HQ, ICs, other customers, etc.) will impact an implementation team's ability to implement its ARAC restructuring plan.
- **Performance impacts** – degree to which staff and organizational changes may affect job performance.
- **Learning curves** – degree to which new job descriptions will require training and orientation to ensure adequate job performance.
- **Amount of resistance** – how opposed various parties (particularly the ICs, employees, and employee representation groups) are likely to be to the proposed changes and how likely it is that this opposition will impede the speed with which the changes can be implemented.
- **Degree to which the changing functions will be impacted by the A-76 process and outsourcing decisions** – whether and to what extent the implementation of the proposed changes may be disrupted by A-76 competitions or other out-sourcing activities, PART reviews and other government-wide, departmental, or NIH competing initiatives.

<u>**DEPENDENCE ON OTHERS**</u> – *factors related to reliance that the ARAC implementation teams may have on support from other activities*

- **Implementation Group** – whether and to what extent the group is formed and functional.
- **Policies** – whether and to what extent revised or new policies will be required to enable ARAC implementation: (1) during the change process; and, (2) for the establishment of the new structures.
- **Budget and finance** – whether and to what degree financial resources or changes in budget formulation policies will be required to enable ARAC implementation.
- **FTE allocations** – whether and to what extent additional new or transferred staff will be required, or excess staff will need to be transitioned to enable ARAC implementation.
- **Training** – whether and to what extent existing or newly assigned employees will require job-specific or general training to enable ARAC implementation.

- **Other HR services** – whether and to what extent other HR services may be required to assist with such activities as reassignments, recruitments, early retirements, buy-outs, creation of new position descriptions, etc., to enable ARAC implementation.
- **Facilities** – whether and to what extent additional or reconfigured space and other physical support services will be necessary to enable ARAC implementation.
- **IT** – whether and to what extent new or revised automated systems will be required to enable ARAC implementation; status of required systems.
- **Interaction with and approval by DHHS leadership** – the degree to which approval from DHHS leadership will be required to enable ARAC implementation.

IMPLEMENTATION PLAN – *factors related to the written strategy for fully implementing ARAC proposals*

- **Degree plan completed** – status of preparation the ARAC implementation plan; the degree to which additional detail, including practical and timely action steps, may be needed.
- **Degree plan agreed/committed to by necessary parties** – status of approval process for ARAC implementation plan, number and importance of additional approvals required.
- **Adequacy and clarity of performance goals, measures, and monitoring** – status and adequacy of processes to establish performance goals and monitoring systems; additional steps necessary to implement.
- **Long-term implications identified and addressed** – degree to which plan demonstrates a clear understanding of the impact that the changes will have on the Department, NIH, the function and individual IC over the long haul; identification of the steps necessary after the ARAC implementation process has been completed.
- **Communications component** – whether the implementation strategy includes appropriate mechanisms to provide effective on-going information about the changes to all affected and interested parties.

GOVERNANCE – *factors related to the integration of the ARAC implementation process and the changed organizations into the on-going operations of HHS, NIH, and the ICs*

- **Completeness of client involvement** – degree to which potentially affected parties are being included in the implementation process.
- **Necessary linkages to other groups** – degree to which an ARAC implementation team is coordinating its implementation efforts with other groups: 1) with which it shares interdependencies; and, 2) whose actions it is reliant upon to fully implement ARAC.
- **Clear lines of authority and accountability** – degree to which responsibilities and decision-making authorities have been decided and are clearly spelled out.
- **Adequacy of authority** – extent to which the ARAC implementation teams and the organizations being restructured have clear power to take the actions necessary to fully implement ARAC.

- **Needed MOUs in place** – to the extent that inter-organizational agreements are required to achieve ARAC implementation, whether such agreements have been drafted, agreed to by the parties and executed.
- **Structure established for feedback and follow-up to assure on-going successful operations** – whether there is in place a process to solicit and act on feedback received from customers and other affected and interested parties.
- **Clear, consistent, and continuous communications during formulation, implementation, and other stages** – whether the implementation strategy includes appropriate mechanisms for providing effective on-going information to all affected and interested parties.

Guide to Administrative Restructuring at NIH

Part II
Applying Supportive Techniques: Additional Information

August 18, 2004

**GUIDE TO
ADMINISTRATIVE RESTRUCTURING AT NIH**

PART II: Applying Supportive Techniques

CONTENTS

ACRONYMS

A-76	Government-wide competitive sourcing program administered under OMB Circular A-76
ADB	Administrative Data Base
ARAC	(NIH) Administrative Restructuring Advisory Committee
CAB	Customer Advisory Board
CSB	Customer Service Board
DDM	Deputy Director for Management
DHHS	Department of Health and Human Services
EEO	Equal Employment Opportunity
EO	Executive Officer
FAIR Act	Federal Activities Inventory Reform Act
FTE	Full-time equivalent
GPRA	Government Performance and Results Act
HR	Human Resources
IC	Institute or Center
IG	(ARAC) Implementation Group
IT	Information Technology
ITP	Individual Transition Plan
KSAs	Knowledge, Skills, and Abilities
MEO	Most Efficient Organization (established under the A-76 process)
MOU	Memorandum of Understanding
NAPA	National Academy of Public Administration
NBRSS	NIH Business Research and Support System
NBS	NIH Business System (original name of NBRSS; now coming back into general use)
NIH	National Institutes of Health
OE	(NIH) Office of Evaluation
OMA	(NIH) Office of Management Assessment
OMB	(U.S.) Office of Management and Budget
PART	(OMB) Program Assessment Rating Tool
PERT	Program Evaluation and Review Technique
R&D	Research and Development
SC	(NIH) Steering Committee (pinnacle of the NIH governance structure)
SLA	Service-level Agreement
WBS	Work Breakdown Structure
WG	(NIH) Working Group (part of the NIH governance structure)

DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

National Institutes of Health
Bethesda, Maryland 20892
www.nih.gov

DATE: August 2004
TO: Chairs, ARAC Implementation Groups
FROM: Colleen Barros, DDM
SUBJECT: *Guide to Administrative Restructuring at NIH*

This final version of the two-part *Guide to Administrative Restructuring at NIH* provides a framework for the Implementation Groups working to implement the Administrative Restructuring Advisory Committee (ARAC) recommendations made last year. Part I is "The Basic Guide," and includes an abridged version of Chapter 3, "Applying Supportive Techniques." Part II provides additional information on "Applying Supportive Techniques" in an expanded version of Chapter 3. Both parts of the *Guide* are available on-line at: http://ARAC.nih.gov.

To ensure the success of this important effort, Dr. Zerhouni has established the following ten governing principles:

- *Undertake administrative change that enhances the NIH research mission.*
- *Assume the ARAC report represents policy direction; implementation groups will have flexibility in defining an optimal approach.*
- *Achieve efficient use of FTEs without diminishing services.*
- *Actively involve the NIH community, including customers, in planning and implementation.*
- *Create customer service advisory boards for services being centralized.*
- *Undertake comprehensive change management, including ongoing two-way communication and training.*
- *Promote "best practices" through benchmarking and integrating efforts with IT initiatives.*
- *Utilize standard business processes.*
- *Ensure integrated governance through the NIH Working Groups and Steering Committee.*
- *Coordinate, as appropriate, with HHS to maximize efficiencies.*

The *Guide* was developed by NIH's Office of Management Assessment (OMA) and the National Academy of Public Administration (NAPA), in consulation with the ARAC Implementation Groups, to provide methodologies for applying Dr. Zerhouni's ARAC implementation principles.

In preparing the *Guide*, we took into account that no two groups are dealing with identical recommendations, and that each Group is at a different stage in implementing ARAC recommendations. Therefore, we do not view the *Guide* as a "one size fits all" requirement. Instead, we tried to provide information that will help each group to take a consistent, thorough, and well-reasoned approach, while still allowing substantial flexibility to move forward most appropriately in addressing the Group's individual circumstances. We hope you will find the material provided helpful now, as you work to develop your ARAC Implementation Plans, and, in the future, as you work to implement your plans.

Dr. Zerhouni has committed NIH to successfully restructuring its administrative functions – increasing both service and efficiency to advance NIH's critical scientific mission – and he has directed each of us to help ensure the success of this endeavor. Thank you for helping us meet this important challenge.

cc: Dr. Elias Zerhouni, IC Directors, Executive Officers, OD Senior Staff

3.0 APPLYING SUPPORTIVE TECHNIQUES

A wide variety of management and analytical tools can be used in implementing the restructuring recommendations. The following section provides descriptions of some of these key tools. The methodologies described here may be used when appropriate, but are not meant to be either prescriptive or comprehensive. OMA and NAPA staffs are available to assist with any of the techniques described.

3.1 Visions, Missions, and Goals

Clarity and alignment stand out as two key words that need to guide NIH groups as they implement the ARAC Report. A "visioning" process may be helpful in clarifying what needs to be implemented in proper relationship to everything else that is going on at NIH to improve administrative functions.

Visioning is often critical in a transformational process designed to redirect the course of an organization—perhaps even in very dramatic ways. A recent example at NIH is Dr. Zerhouni's Roadmap for Accelerating Medical Discovery to Improve Health. The process used to produce this new vision involved a large number of key leaders throughout the organization working together in retreats and other settings over a period of more than a year to establish new path-breaking initiatives for medical science. It was a no-holds-barred creative process that produced a widely held clarity of purpose and an alignment of leaders across the NIH ICs on the need for the breakthrough results shown in Box 1.

But, the use of a visioning process is not limited to such high visibility initiatives or extensive efforts. This technique is used in many different venues and at multiple levels—by individuals, work groups, major independent organizations, and component sub-organizations. The vision produced by the process captures and clearly articulates a preferred future to which the involved parties are committed; it will be most effective if it is crystal clear to all involved, and if the common future agreed on is linked to the specific missions and goals needed to create the preferred future.

The purpose of this section of the *Guide* is to suggest how the visioning concept can be used by the ARAC Implementation Groups to help them effectively meet their responsibilities.

Steps in the Visioning Process

Visioning techniques have been in common use for many years and could be made available to ARAC Implementation Groups. For do-it-yourself groups, a number of published guides are available—such as Scott, Jaffe, and Tobe, *Organizational Vision, Values and Mission: Building the Organization of Tomorrow* (Menlo Park, CA: Crisp Publications, Inc., 1993). In addition, NAPA can provide assistance (see Section 4of Part I of the *Guide*), and facilitation services may be available from the NIH Ombudsman's Office.

BOX 1. NIH Roadmap Visioning
Accelerating Medical Discovery to Improve Health

Process	Product

1. Five "Roadmap Meetings" with outside experts
  ✓ Compelling initiatives over next 10 years
  ✓ Profound impact on medical research
  ✓ Accomplished only by NIH as a whole
	New Pathways to Discovery: Strategies for Diagnosing, Treating, and Preventing Disease
	  ✓ Building Blocks, Biological Pathways, and Networks
	  ✓ Molecular Libraries and Imaging
	  ✓ Structural Biology
	  ✓ Bioinformatics and Computational Biology
	  ✓ Nanomedicine

2. 2002 NIH Leadership Forum
  ✓ Annual retreat of IC directors
  ✓ Five workgroups on major themes from Roadmap Meetings
  ✓ Exciting enabling ideas for trans-NIH action
	Research Teams of the Future
	  ✓ High-Risk Research
	  ✓ Interdisciplinary Research
	  ✓ Public-Private Partnerships
	
	Re-engineering the Clinical Research Enterprise

3. Spring 2003 NIH Working Groups with outside advisors
  ✓ Initial blueprints for transformational action that only NIH can do
  ✓ Presented to 2003 NIH Budget Retreat of IC directors
	✓ Harmonization of Clinical Research Regulatory Processes
	  ✓ Integration of Clinical Research Networks
	  ✓ Clinical Research Informatics: National Electronic Clinical Trials and Research System (NECTAR)
	  ✓ Regional Translation Research Centers
	  ✓ Enabling Technologies for Improved Assessment of Clinical Outcomes

4. Nine Implementation Groups	✓ Enhance Clinical Research Training in the Medical Scientist Training Program and Multidisciplinary Training ✓ Create a National Clinical Research Corps

- **Involving Affected Parties.** The Implementation Group itself should be representative of the key groups affected by the ARAC recommendations, but it is, by design, a relatively small group. That may be satisfactory for visioning broad strategies, but it probably will not be large enough to successfully vision about more detailed "how-to" implementation issues. So, the Implementation Group should think through the purpose of the specific visioning topic and make sure the types and numbers of invitees are appropriate to the task. Larger groups, when necessary, can be effectively managed in a retreat setting by using break-out groups for detailed topics and report-back sessions to share results with the larger group and to generate plenary dialogues about integrating or inter-relating sub-topics into the larger themes.

- **Clarifying Key Values.** This opening dialogue with the group should establish and explicitly state the essential common understandings within the group about those cultural norms and ways of doing business within the organization that might be affected by the recommended changes being implemented. This step simply gets everyone off on the same footing.

- **Scanning the Current Situation.** This part of the dialogue should be as realistic as possible about the current status of all the related administrative reform initiatives that may affect ARAC implementation. If special resource people are needed to make sure this will be a well-informed dialogue, the organizers should make sure they will be present and properly prepared. The group should be clear and explicit about any uncertainties and risks that may be present in the current situation.

- **Recognizing Emotional Content.** Not everything about visioning the future is purely factual. In fact, the emotional content generated by recommendations for changing the way business is done may be as great (or greater) than the factual content. This emotional content is as "real" as the factual content, and it should be dealt with as explicitly as the factual content. It is the human side of change, and it needs to be provided for in the same way as the systems and technology parts of change. Failing to do so may be fatal to the success of the implementation effort. Provisions for this reality should be made in the change-management portion of the implementation plan—as discussed in Section 3.6.

- **Developing the Vision.** Taking the current situation, the system-change proposals in the ARAC Report, and the human factors into account, the group should construct a vision consistent with the objectives of the Report. Adequate time should be provided for intense and extensive exchanges of views during this part of the process, because this is the stage where the group will coalesce—or not. It is a make-or-break part of the process. Proper preparation in previous parts of the process is important to success in this stage. The aim should be to finish the visioning process with not only a clearly stated vision but also with a broadly held commitment to it. Administrative restructuring goals and objectives should support NIH strategic mission goals, and should include subjective goals and measures, as well as quantitative ones, to the extent appropriate.

- **Integration Imperative.** In ARAC, the vision statement has a special imperative to integrate the multiple administrative reform initiatives as much as possible. ARAC is not occurring in a vacuum, and it cannot be a success if it is implemented in a vacuum.

- **Expressing the Vision as Clear Goals.** All federal agencies go through some sort of visioning process under the strategic planning requirements of the *Government Performance and Results Act* (GPRA). It is important to tie administrative restructuring to that process and express the vision for it as clear goals related to the performance of strategic agency missions. The definitions of strategic goals and objectives, as well as performance goals, which have been developed by OMB over the past decade, are recited in Box 2 for your convenience.

> **BOX 2. GPRA Definitions of Goals**
>
> ***Strategic Goal or Strategic Objective (also General Goal)***: A statement of aim or purpose included in a strategic plan (required under GPRA) that defines how an agency will carry out a major segment of its mission over a period of time. The goal is expressed in a manner which allows a future assessment to be made of whether the goal was or is being achieved. In a performance budget/performance plan, strategic goals should be used to group multiple program outcome goals; the program outcome goals should relate to and in the aggregate be sufficient to influence the strategic goals or objectives and their performance measures.
>
> Effective performance budgeting and management relates program performance goals to the agency's strategic goal framework. Programs supporting a goal may be complementary, parallel (serving different populations), alternative (trying different approaches to see which works best), or competitive. Programs supporting a strategic goal can maximize their effectiveness by planning strategy together and coordinating operations. The relative strengths and effectiveness of each program should influence resource allocation to maximize the strategic goal outcome. Changing circumstances or effectiveness would be reflected in modified strategy or focus for the following year.
>
> ***Performance Goal***: A target level of performance at a specified time or period expressed as a tangible, measurable outcome, against which actual achievement can be compared, including a goal expressed as a quantitative standard, value, or rate. A performance goal is comprised of a performance measure with targets and timeframes. Program performance goals are included in the performance budget and together contribute to the achievement of strategic goals. The distinction between "long-term" and "annual" refers to the relative timeframes for achievement of the goals.
>
> SOURCE: OMB Circular A11, Part 6

3.2 Analytical Tools

Many analytical tools exist that may be helpful in supporting the implementation of ARAC and related administrative restructuring recommendations at NIH. This section of the *Guide* focuses primarily on the two that are likely to be of greatest importance—risk assessment and gap analysis—and makes only brief reference to four others—survey design, focus groups, statistical analysis, and benefit/cost analysis.

Taking Risks into Account

Administrative reorganizations, such as those recommended in the ARAC Report, can be risky so great care must be taken to assess and minimize the risks. The risks come in the form of adverse impacts on people, organizations, and program performance. And such risks may be multiplied when several administrative reforms occur at the same time without being fully integrated with each other.

Risk assessment, risk management, and risk communication are three interrelated tools that may be used to help meet this challenge.

- **Risk assessment** is the process of characterizing a risk as accurately as possible. The concept of risk includes three parts. First is the event that could cause a change—such as reorganization, transfers of employees, reduced resources, and changes in duties. Second is the probability that the event will actually have negative consequences—estimating whether and when the recommendations will actually be implemented. Third is the potential magnitude of the negative consequences that might occur—including estimating how many employees will be affected, how they will be affected, how many program missions will be involved, and how serious the consequences could be for program performance. In short, risk assessment is the process of identifying and estimating the magnitude of the event, its probability of causing negative consequences, and the magnitude of the negative consequences.

- **Risk Management** is the process of planning and taking appropriate actions to reduce (or compensate for) the risks identified and quantified in the risk assessment step. This effort may include actions to reduce the number and size of events having negative consequences and the likelihood they will occur, as well as preparations to respond appropriately when adverse consequences occur.

- **Risk communication** is now recognized as a third dimension of programs that deal with risk, because the concepts of risk are complex and may not be easy to explain to policy-makers and all the potentially affected parties. Thus, communicating risks in a way that keeps them in perspective has become a significant concern. The National Academy of Sciences (*Improving Risk Communication*, National Academy Press, 1989) has recommended improving risk communications by relating the messages specifically to the intended audiences, being clear and explicit about any uncertainties that may be involved, comparing the current risks to other familiar ones the audience is likely to understand, and providing complete information to avoid perceptions by affected persons that they are being kept in the dark.

In the ARAC context, implementation of the recommendations for administrative consolidations and staff reductions entail two main types of risk. One is the risk that the level of administrative services will be reduced, potentially resulting in damaged morale and reduced performance of the scientific missions entrusted to NIH. The other is that implementing an ARAC recommendation may have an adverse impact on some other administrative reform that is going on at the same time, potentially reducing its effectiveness and wasting funds and efforts already invested in it.

Examples of both types of risk have already begun to emerge in early ARAC efforts. Thus, taking risks into account may be a highly relevant and essential part of ARAC implementation.

Identifying and Filling Resource Gaps

Gap analysis is not a specific analytical technique as much as it is a general concept of establishing the distance between a current situation and a desired future condition—or simply the distance between any two points. Most fundamentally, the distance between the existing

organizational structure and staffing patterns of an administrative function at NIH and the ARAC recommended structure and staffing is a "gap" to be analyzed. It is what the ARAC Profile Chart in Section 2.1 of this guide calls "degree of difficulty." The wider this gap, the more difficult it may be to be to bridge it.

One of the most important gaps to be analyzed in developing an ARAC Implementation Plan is the resources gap. The resource gap is the shortfall of staff, training, facilities, equipment, reorganization and operational authority, working agreements among ICs, budget authority, and other such ingredients needed for successful implementation of an ARAC recommendation. However, it should be noted that there may be cases where too many resources may be available, creating a surplus (or negative gap) to be reduced.

Gap analysis is an essential step in ARAC planning, and it relies on specific and well-known types of analysis including:

- **Staffing Analysis.** Comparing existing (baseline) and projected staffing will show positions that may remain unchanged, or be transferred, retrained, outsourced, or terminated. Workforce planning, based on this initial analysis, will be required to make staffing transitions efficient, smooth, and equitable. The HR and EEO offices at NIH should be involved as early as possible in this work. Current baseline staffing information is being gathered under the FAIR Act inventory, and will be used as the basis for proposing A-76 competitions and the design of MEOs, as well as for ARAC and other administrative restructuring activities.

- **Budget Analysis and Strategic Planning.** After people, money is the most important ingredient of administrative restructuring. Although savings in the administrative budget are the key objective of ARAC, some transfers of funds from one part of NIH to another, and some short-term investments may be needed to meet essential training, staff transition, facility and equipment upgrade, and other transition costs. Obviously, the NIH/OD Budget Offices will be a key contact in planning to meet these funding shifts and temporary new costs. In addition, however, the strategic planning office in the Office of Science Policy should be consulted, as necessary, to help build a stronger alignment between budget and performance. When special facilities, equipment, or computer software and hardware needs are involved, links to the NIH Facilities, Acquisition, IT, or NBS offices may be required to effectively address these costs in a timely way. Some of these funding needs may have to be addressed through multi-year planning—especially if they involve major capital investments. Thus, it is important to let the other offices know of your needs as soon as possible.

- **Authorities and Agreements.** Any gaps in legal authority to make specific changes or in interagency agreements among ICs and consolidated service centers to work together, will need to be addressed. Level-of-service agreements between ICs and service centers should be included. Assistance in filling these types of gaps may be available from OMA (see Section 4 of Part I of the *Guide*).

Other Analytical Tools

- **Surveys.** Some of the qualitative performance data needed to track the success of ARAC implementation will be available only by surveying those who are affected. An example is customer satisfaction of IC staff using administrative services provided by a consolidated service center. Other surveys may be needed to get inputs to ARAC implementation planning processes, and other examples could be cited. Generally, such surveys attempt to capture the overall sentiments of an entire group, so random sampling or other means of ensuring representative results may be important. NAPA may be able to assist with surveys (see Section 4 of Part I of the *Guide*).

- **Focus Groups.** In cases when a survey may be too expensive or take too long, a small group of representatives or opinion-leaders may be brought together to explore a topic or proposal and get feedback. Variations of this technique may be used to pre-test questions for a survey, get quick reactions to implementation options at an early stage, or to help think through any number of other preliminary questions. NAPA may be able to assist Implementation Groups with this technique (see Section 4 of Part I of the *Guide*).

- **Statistical Analysis.** This family of standard analytical tools is widely used when large quantities of reasonably reliable data are available over long periods of time for exploring quantitative questions related to the reforms being pursued. Where such data are available, reliable, and relevant, they should be analyzed. Some of the performance data to be collected as a result of ARAC initiatives may be candidates for such analysis at a later time, and they should be developed with that possibility in mind. NAPA may be able to assist with this consideration (see Section 4 of Part I of the *Guide*).

- **Benefit/Cost Analysis.** This is one of the most demanding types of analysis performed by government agencies, and it is not recommended for ARAC in any formal sense. Nevertheless, the concept of balancing benefits against costs should always be kept in mind.

3.3 Sound Metrics

The ARAC Report addresses only certain administrative services within NIH. Its purpose is to consolidate these services as much as possible across NIH to take advantage of available efficiencies by eliminating redundant staff positions, standardizing processes and procedures, and using Information Technology more effectively. Thus, the recommendations being implemented emphasize staff reductions in these administrative functions as an indicator of success. The upside of these reductions is the promise that scientific staff will be maintained at or above current levels. Thus, a second indicator of success identified in the ARAC report is increased ratios of scientific to administrative personnel.

Both of these previously identified ARAC performance measures are indicators of intermediate outputs—administrative services provided to mission-critical agencies.

At the same time, a broader array of measures can provide other needed information such as positive and negative impacts on service levels. A balanced scorecard approach to performance measurement would provide this broader perspective and would also be consistent with the emphasis in the President's Management Agenda on budget and performance integration. Assessments by consumer relations boards, surveys, focus groups, and peer review groups may provide important supplements to quantified performance data.

This section of the *Guide*, therefore, addresses staffing metrics, performance metrics, the balanced scorecard concept, and the idea of budget and performance integration.

Staffing Metrics

Staffing benchmark measures are needed to determine appropriate staffing levels and to compare levels and outputs with comparable organizations. Approaches that can be used in establishing staffing benchmark measures include an immediate snapshot of the existing work situation using output-per-FTE ratios, which can be used both for comparison purposes among similar groups and to show historical trends. However the weakness of these aggregate measures is that in generalizing across an entire work category, e.g. R & D contracts, there is no allowance for degree of difficulty so the figure can be misleading. In looking across several organizations and noting the differences in the ratios, the immediate question is "Why are these ratios so different?" The answer may lie in the fact that there is a substantial difference in difficulty in the work, the experience and training of the staffs, the desired quality of the output, the efficiency of the process, or other factors. . The result is that the ratios can only be used as broad guidelines, and more detailed analysis is needed to get at root causes for differences among different organizations.

During the development of the ARAC Report, NIH prepared a staffing "benchmarks" book to provide a baseline of staffing levels against which to measure progress toward ARAC staff-change goals, including output-per-FTE ratios. However, the book was incomplete and not wholly satisfactory for the reasons noted above. To correct this shortcoming, the FAIR Act inventory of all staff at NIH is being prepared as a baseline for the A-76 competitive sourcing initiative. When available, other efforts to establish this essential baseline will build on it. In the future, a more complete Human Resources database, built on operating data, could supply this vital information on a more timely basis.

Performance Measures

Performance measures tell an organization how well the particular function is doing, e.g. (1) are requests for service being processed in a timely manner, (2) are error rates on finished work at an acceptable level, and (3) are overhead costs in line with similar organizations.

Performance metrics are frequently used to assist managers monitor the performance of their organization and make month-to-month if not more frequent adjustments. If we accept the oft-quoted statement "What gets measured gets done!" then we should be careful to select the proper performance measures. The SMART test is frequently used to assess the quality of a particular performance measure

- **S**pecific – The measure is clear and focused to avoid misinterpretation. The description of the measure should include assumptions and a definition that ensures that the measure will be accurately interpreted.
- **M**easurable – Quantifiable measures that can be compared to other data and can be subjected to statistical analysis are usually preferred, but qualitative measures that provide texture, variety and nuance often provide valuable supplemental insights and information.
- **A**ttainable - The measures, and the associated performance goals and targets, are achievable, reasonable and credible, given the existing circumstances.
- **R**ealistic – The measures fit into the organization's constraints, including resource constraints.
- **T**imely – Measures that are available too late to inform relevant decisions are of little use. The challenge of ensuring the timeliness of the measure increases as time frames shorten. Fortunately, there is a concomitant increase in the availability of real-time web-based systems to collect, monitor and analyze performance data.

This approach to performance measures is consistent with the GPRA definitions in OMB Circular A-11, Part 6. Those definitions are recited in Box 3 for your convenience.

BOX 3. GPRA Definitions of Sound Metrics

Performance Measures: Indicators, statistics, or metrics used to gauge program performance. Typically, program performance measures include outcome, output, and efficiency measures, because each kind of measure provides valuable information about program performance. Collectively, these measures convey a comprehensive story regarding what products an services agencies provide, how well they do so, an with what result.

Target: A quantity or otherwise measurable characteristic that conveys how well and by when a program must accomplish a performance measure.

Outcome: The intended result, effect, or consequence that will occur from carrying out a program or activity. With respect to programs, an outcome is an event or condition that is external to the program or activity and is of direct importance to the intended beneficiaries and/or the public.

Output: The level of activity or effort that will be produced or provided over a period of time or by a specified date, including a description of the characteristics (e.g., timeliness) established as standards for the activity. With respect to programs, outputs refer to the internal activities of a program (i.e., the products and services delivered). Outputs should support or lead to outcomes, just as annual goals should link logically to long-term goals.

Efficiency measure: A description of the level which programs are executed or activities are implemented to achieve results while avoiding wasted resources, effort, time, and/or money. Efficiency can be defined simply as the ratio of the outcome or output to the input of any program.

Program assessment: A determination, through objective measurement and systematic analysis, of the manner and extent to which Federal programs achieve intended objectives.

SOURCE: OMB Circular A-11, Part 6

Consolidated administrative service centers should work with the ICs to combine service level and cost data. NIH is not a lowest-price market; it demands topnotch services to keep its programs performing at necessary levels of excellence. Thus, the design of NIH performance measures must combine the SMART attributes described above, and be consistent with A-11 definitions.

Developing performance metrics for administrative restructuring starts with gathering data on the service organization's costs. The service organizations need to reduce their costs to remain competitive with other service centers in NIH, DHHS, other federal agencies, and the private sector. At the same time, they need to make sure that they are delivering increased value for the dollars they are charging. Service quality is as important as price, especially in the demanding NIH market.

The development of performance measures must be consistent with the organization's primary goals, objectives and performance targets. This is no small task since the organization's internal and external stakeholders may hold substantially different views. One potentially valuable starting point for NIH is the goal (and related objectives) of achieving excellence in management practices that is found in the NIH Annual Performance Plan and Report.

Balanced Scorecard Approach

The balanced scorecard is a conceptual framework for translating an organization's strategic objectives into a set of performance indicators distributed among four perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. The NIH Acquisition office is participating in a department-wide balanced scorecard effort for acquisitions that has roots going back to 1998. It includes several other departments, and relies on an outside contractor to collect survey data and perform analysis of data from operating records. The Acquisition Balanced Scorecard illustrates how survey data can be brought together with data from departmental contract and personnel databases to develop performance and cost indicators robust enough to support program improvement initiatives.

Regular surveys of customers, vendors, acquisition employees, and acquisition managers provide quality-of-service, timeliness, and responsiveness data that are combined with an efficiency and effectiveness analysis (incorporating objective data on labor costs and workloads) to provide an overall rating of the various operating agencies within the Department, of which NIH is one. Comparing these operating agencies over time allows identification of the ones that are providing excellent values, and using them as the internal "benchmarks" within the Department against which the others can measure their progress in improving their practices. A Balanced Scorecard User Group meets quarterly to help guide, refine, and make fullest use of this tool.

Budget and Performance Integration

Costs and service outputs to customers are the two basic measures in this analysis. They are integrated directly with each other, but only indirectly with the scientific mission (program) outcomes that drive the ICs. As customers of the NIH Acquisition process, the ICs link

Acquisition to their program outcomes through their satisfaction ratings. Both the grants and facilities areas also lend themselves to receiving timely feedback from their IC customers.

The Acquisition balanced scorecard illustration may be instructive in identifying how other administrative service consolidation recommendations could be effectively designed and implemented by ARAC Implementation Groups, and how they could develop the types of performance measures they will need to support their operations in a properly integrated and customer-friendly way. This budget and performance integration effort is not the same as the approach taken by the OMB Program Assessment Rating Tool (PART), which is used to evaluate the agencies' broader missions, but it is more appropriate to the administrative services realm.

3.4 Best Practice Benchmarking and Lessons Learned

Best practices benchmarking began in 1979 as a means of corporate survival in the increasingly competitive world economy, and it has become one of the three most popular management tools being used by large corporations today—along with strategic planning and mission/vision statements. Best practice benchmarking helps to answer questions such as:

- Are my organization's current processes the best they could be?
- Are other organizations that perform similar functions being more effective or efficient?
- Have we considered alternative ways of organizing and doing business that could give us better results?

Over 80 percent of companies responding to a recent survey of North American and European companies now use benchmarking, and they gave it a rating of 4 on a scale where 5 indicates the highest level of user satisfaction. Benchmarking is now widely practiced in the public sector as well.

Benchmarking has become popular because it allows organizations to learn how to improve their own practices by comparing them to the best practices of others, including their competitors in many cases. Many best practice cases have been published, and more are becoming available every year. In addition, strong links are being forged in many fields between individual cases and emerging standards of good practice. Human resources, financial reporting, accountability systems, and other administrative functions are among the fields most frequently benchmarked. Thus, benchmarking is particularly relevant to the ARAC and related administrative reform initiatives currently affecting NIH.

This section of the Guide:

- Describes benchmarking and related "lessons learned" research
- Explores three key issues that may limit the use of benchmarking for ARAC purposes
- Discusses NAPA's role in using benchmarking and lessons learned to assist ARAC implementation efforts

The Benchmarking and Lessons Learned Techniques

Done right, benchmarking studies often require considerable time and resources. Careful researchers have developed benchmarking into a highly structured process with several formal steps. These steps may be summarized as follows:

- *Carefully select the process or practice to be benchmarked.* This step will define the scope of work, and it should be carefully considered in relation to the time, talent, and resources available to do the job. Direct relevance to a specific ARAC recommendation or related administrative reform initiative should be identified. The more highly targeted the benchmarking study is, the more feasible and directly useful it is likely to be.

- *Develop a consensus on the reason for undertaking the benchmarking study.* Everyone involved should be clear about why benchmarking is being done and the specific questions to be answered. This consensus should include identification of the measures of performance, staffing, or other goals that will be used as indicators of success in the administrative reforms being pursued.

- *Choose the organizations that will serve as the benchmarking partners.* These organizations may be within NIH and DHHS, or in other parts of the government, or even outside the government. This is a very critical step because comparing the practices among organizations may not be valid unless the organizations are similar enough in key respects to be considered comparable. Other issues are also involved in making good and affordable selections, and they will be discussed at greater length below.

- *Collect information on the selected practices and related data on performance.* The range of information collected must be sufficient to make valid comparisons between the practices of the partner organizations and comparable measures of processing costs, operating performance, customer satisfaction, and other relevant characteristics of the function that is being benchmarked.

- *Analyze the information and identify opportunities for improvement.* The rigor with which benchmarking partners were selected and the extent to which the partners' processes are clearly understood will determine the degree of confidence that this analysis can be relied on and that recommended improvements will be feasible.

- *Adopt and implement the best practice.* The purpose of the benchmarking is to help reduce resistance to change by showing that the proposed administrative change has been made elsewhere with beneficial results, or that mistakes made elsewhere can be avoided by adapting the recommended changes, based on lessons learned from the benchmark cases.

Since it may not always be possible to go through all these steps, shortcuts may be necessary. Three such shortcuts are: finding benchmarking studies already conducted that are close enough to be relevant; conducting timely "lessons learned" studies within your own agency as changes

are occurring; and preparing quick benchmarking studies based on less thorough attention to the formal steps outlined above.

NIH is already preparing lessons learned for the Human Resources Consolidation completed last year, the first round of A-76 competitions conducted last year and being implemented this year, and the NBS business systems change-management process that has implemented the first two of its five stages. These quick evaluations are much like the after-action reports now routinely prepared by the Army after each engagement to learn how to adapt to the new and rapidly changing tactics being confronted in modern warfare. Although probably not qualifying as benchmarking in the classic sense, these quick learning techniques centered in the organization's own operations have some of the same elements, and they should be prepared as an inexpensive and more-timely part of any organizational reform effort.

The Army's after-action approach to developing new knowledge has the distinct advantage of being directly relevant to the organization, since it is on the inside and involves the people who took part in the action being evaluated. The whole group is convened as soon as possible after the event while everyone's memories are still fresh, and the group's task is clearly focused on finding ways to perform the action better next time—not on recriminations. As these reports accumulate one after the other, they can be evaluated together by others who may be able to spot trends and gain larger insights that can be applied on a larger scale. Over time, this approach provides a continuing, almost real-time type of program evaluation (see Section 3.9).

Key Benchmarking Issues

The three main difficulties with conducting valid benchmarking studies are: (1) making sure the partner organizations to which comparisons are being made are sufficiently comparable; (2) gaining access to the data and other information needed; and (3) finding the time and resources to conduct a thorough study.

- *Comparability.* This issue begins with selection of the partner organizations. The agencies that will most likely be seen as comparable to NIH are other units within it. For example, if one or more of the ICs or service units has already completed an administrative reform similar to one being recommended, it might be used as a benchmarking partner—because it is already operating within the NIH administrative structure. Similarly, another agency within DHHS—such as FDA or CDC, which have some research functions similar to those at NIH—might be a partner for comparison— since it is already operating within the same Department. Other federal agencies outside DHHS might also be comparable if carefully chosen for having similar research missions. Outside the government, research hospitals, non-profit research organizations, and pharmaceutical companies may be logical choices. The problem in selecting comparable partners, however, is that it may take a fair amount of research time and money just to develop the basis for selection. There will be a practical limit to how much of this can be done within the short ARAC timeframe.

- *Access.* The selected benchmarking partners will have to be willing to provide the data and other information needed to develop the desired comparisons. Some candidates may

already be participating in industry-wide benchmarking efforts, and will not need to be contacted directly. However, if they are not, they may have to assess whether they have the time to participate and whether they have any proprietary problems with sharing the requested information. Private companies are more likely to have proprietary problems because of their competitive positions in the marketplace.

- *Time and Resources.* Individual benchmarking studies may take a considerable investment of time and resources to complete. Limited studies may get by with a few phone calls, visits to websites, and collection of available reports and data by mail. More thorough studies, however, may require site visits and in-depth research.

NAPA's Role in Benchmarking and Lessons Learned

NAPA has performed five previous benchmarking studies for NIH in the Human Resources field, plus another small one for the ARAC Implementation Group responsible for IT. NAPA also will be conducting limited external and internal benchmarking for the ARAC Acquisitions Implementation Group in the field of R&D contracting. Within the limits of its current NIH contract for ARAC assistance, NAPA is prepared to perform additional benchmarking studies. See Section 4 of Part I of the *Guide* for NAPA contact information.

NAPA will also be gathering the lessons learned from NIH administrative reform efforts and providing the results to the ARAC Implementation Groups.

3.5 Project Management

Project management consists of guiding a project from inception through completion, using tools for planning and control. Planning involves outlining the desired results, establishing schedules, estimating the resources required, and defining the roles and responsibilities for those involved. Once the project is underway, monitoring, getting feedback, and reacting flexibly to any problems are necessary forms of control for keeping the project on track and fulfilling its goals. Communication is crucial to both planning and control.

Effective project management efficiently reallocates resources and budgets in order to meet deadlines. It also helps control unanticipated deviations—but plans are never infallible, so it is important to be able to anticipate and react to needed changes along the way without losing momentum. Clearly defining team members' roles and responsibilities can help play to their strengths and make maximum performance achievable, whether the project proceeds according to plan or requires flexible responses.

Microsoft Project Software

Microsoft Project is an example of one of the software programs currently available that can facilitate effective planning, tracking, and communication of project information, and help keep the project on schedule. It allows tasks to be scheduled, the relationships between tasks to be documented and factored into the timeline, resources to be budgeted, and the project's plan and

progress to be monitored through various visual formats. However, effective use of this software relies on the ability of the project team to prepare fairly precise plans and exercise a considerable amount of control over major factors during the implementation process. When these conditions are met, this software provides several useful tools. Where such control is not available, simpler bar-chart schedules may make more sense.

Tools. Microsoft's Project software offers a variety of tools that can be used for various project tasks. The Gantt Chart view consists of a time-scaled bar chart that graphically represents the tasks in the project in terms of start and finish dates, duration, status, and relationships between tasks. Task data is simple to input and can be edited as resources are added, tasks are completed, and so on. Saving baseline data enables Microsoft Project to track progress by comparing current status to a fixed point in time.

The Detail Gantt view shows any slack associated with a task—that is, the amount of time a task can be delayed before it delays another task or the completion of the project. In doing so, it also identifies the critical path: the sequence of tasks that will negatively affect the finish date if any of the tasks are delayed. Identification of these tasks is crucial to on-time project management as a guide for allocating resources and effort.

Microsoft Project will also perform PERT (Program Evaluation and Review Technique) analysis to estimate task durations, utilizing optimistic, pessimistic, and most likely durations.

Resource allocation (e.g., personnel workload) can be tracked and adjusted in the Resource Usage view and report.

It is useful when dealing with several projects at once, such as the restructuring of the various administrative functions at NIH, to be able to consolidate project information. *Microsoft Project* allows multiple projects to be combined into a single consolidated project file temporarily or permanently. The different project tasks and timelines can thus be viewed simultaneously, and reports can be generated with data from the collective projects. It is also possible to link tasks between projects. For example, a task in one project, such as development of a software package, may need to be completed before a task in another project can begin. This tool will be particularly useful in addressing the cross-cutting issues between the different administrative functions.

Communications. It is important to share progress reports and other project information with team members and others with a stake in the project. There are several possibilities for sharing information using *Microsoft Project*. In addition to simply printing out the myriad available views and reports, which can quickly become out of date, project information can be published online (on the NIH intranet), allowing managers to easily share the most current details with online viewers. Project information can also be transferred into other Microsoft Office programs, such as *Powerpoint*, for use in presentations.

To make best use of this software, the following process is recommended:

Planning Requirements

The first step in project planning is defining the project objectives, which should be specific, measurable, realistic, and time-sensitive. While considering these objectives, it is important to evaluate whether the expected benefits are worth the cost and whether the project is technically feasible. If both of these conditions are met, the next step is to develop a Project Plan, which should include:

- An overview of the reasons for the project, including the needs to be satisfied and their priorities.

- A detailed description of results to be achieved, performance targets, and measurements for success.

- An outline of all the work to be performed, divided into tasks and subtasks with enough detail that the lowest level activities do not take longer than two weeks to accomplish and are clear enough to be delegated.

- Roles and responsibilities of all team members, sufficiently detailed to establish accountability mechanisms and lines of authority, and to give team members confidence that the work will be completed.

- A detailed project schedule outlining the duration of each task and subtask, down to lowest level activities, as well as their sequence and any dependent relationships between them (i.e. before y can start, x must be completed). This schedule should also document important milestones and identify the critical path.

- Budgets for personnel, funds, and facilities, including estimates of the human and other resources needed, in what quantity, for how long.

- The explicit assumptions being made about critical issues affecting project performance, such as available funds or necessary authorizations—to avoid hidden tasks and potential problems that may arise as the project progresses.

- Identification of risks such as potential bottlenecks and information deficiencies, evaluate their potential impacts, and establish strategies for managing and reducing risks. Such strategies will consider both the probability of risks and their potential magnitude.

Project Plans address many barriers to productive work, such as (a) vague roles or objectives, b) the probability of risks that could interfere with project implementation, (c) inadvertent exclusion of key stakeholders, (d) poor or incomplete schedules and budgets, (e) lack of communication or accountability, (f) weak leadership, or (g) a lack of commitment. Project management will have to consider and reassess these factors throughout the course of the project; with this information,

managers can minimize the effects of these factors by developing contingency plans. Planning also provides opportunities to engage those pushing for, implementing, and receiving the changes by seeking their input and getting their buy-in.

Short-term project plans can establish an effective general framework for proceeding, but longer-term projects present their own challenges. They often require a planning process that must be more carefully thought out, but left more flexible than short-term plans. Activities to be completed a year or more in the future present more opportunities for losing touch with original goals; loose articulation of those goals may cause the project to founder due to unclear objectives, while changes in objectives will require appropriate organizational responses as events unfold. For a project with the size and complexity of the ARAC restructuring, a separate Project Plan will be needed for each of the eight functional areas. When developing a Work Breakdown Structure (WBS—the list of tasks broken down to lowest level activities even for a short-term project), plan in detail for the first three months and break down future tasks into one to two month segments. As the project progresses, refine the less-detailed tasks and modify them as necessary.

Network diagrams, such as PERT charts, are important tools in scheduling. They require step-by-step thinking and thus help to reveal hidden tasks, demonstrate relationships between activities, and foster discussion about appropriate sequencing. They will also help to separate the critical path from other sequences having slack time.

Once the list of activities has been compiled, team members can refine their assignments. It is important that these assignments be clear in order to establish known expectations; putting staff assignments in writing may help. Communication will help to ensure allocation according to skills and interests, illuminate potential problems or gaps in responsibilities, and win staff buy-in.

Person Loading Charts are useful tools in assessing staff commitments and highlighting reallocations needed to avoid over-commitments. The WBS is also useful in assigning resources.

Controlling the Process

In order to begin work, the Project Plan must win formal approval by the appropriate authority. As the project progresses, regular meetings will be needed to publicize it among relevant stakeholders maintain clarity on the goals, and focus individuals on their assigned roles.

The software's tracking systems provide effective means of ensuring that the project team(s) stays on point. At certain milestones, reviews should reconfirm the project plan, make necessary corrections to keep the plan relevant and attainable, and prevent any unjustified tendency for the scope to expand.

3.6 Change-Management Strategies

Many ARAC recommendations approved for implementation (as well as other administrative restructuring initiatives) will cause significant changes in the organizations where NIH employees are working, the business processes they are using, the hardware and software

packages they are using, and the duties they perform. When that is the case, the Implementation Plan should include a "change-management" section to help affected employees (and their customers, when appropriate) adjust effectively, efficiently, and willingly, to their changed work environment.

Successful changes of this magnitude do not happen by accident. Years of research shows that for organizations to successfully implement change, managers must think not only about what changes to make, but about how and when the changes should occur, and they must involve the stakeholders in those decisions. The change-management strategies included in the Implementation Group's Implementation Plan should be designed to take care of the human side of the administrative changes as much as possible, so that the change being made will be productive rather than counter-productive.

Effectively implementing the diverse changes planned in each of the eight ARAC administrative functions will require customized change-management plans to minimize adverse consequences, and facilitate acceptance and use, of the changed structures and processes. The change management component of each group's Implementation Plan will be a critical part of its success. The basic content of a successful change-management program includes three broad topics:

- Determining the precise scope and focus of the change
- Determining the specific activities to be undertaken as part of a change-management initiative
- Establishing a program of change-management assistance that can be provided to Implementation Group and affected employees
- Providing for performance monitoring, feedback, and mid-course corrections

This section of the Guide describes the content of the required change-management plan. It provides an introduction to and overview of change-management options for the design of the individual Implementation Group's change-management approach, as well as information on how the groups can get help in developing and pursuing different options.

The material presented here reflects lessons learned by the NIH/consultant change-management team that has been facilitating the success of NBS business-process reforms at NIH since 2001. Their general approach is also applicable to ARAC and A-76 reforms. See Box 4 for a brief description of the NBS change-management process.

Determining the Precise Scope and Focus of the Change

The nature of the changes encompassed in the eight administrative functions of ARAC is diverse. They include centralization of functions, staff reductions, speeded-up production of data and reports, reassignment of user groups (customers) to different service providers, consolidation of staffs, establishment of new reporting relationships and lines of authority, implementation of new electronic tools and processes, establishment of new advisory groups, and more. Fortunately none of the eight administrative areas are likely to encounter all of these changes.

However, the lack of a common set of changes precludes a common change-management approach for the eight areas. Customized change management plans will be needed.

BOX 4. Change Management at NIH

The importance of managing change has been recognized at NIH in the work done to replace its Administrative Data Base (ADB) with new technology. The ADB is an integrated information technology system that grew up one piece at a time over several decades to serve most of the administrative activities of NIH including financial management, procurement, inventory, travel, property and service and supply fund activities. Implementing a replacement─the National Institutes of Health Business System (NBS)—had to be done in a way that did not interfere with the agency mission, and would ultimately enhance the mission.

Three major interrelated plans were developed to guide this transition. The first two plans were typical of major IT conversions and addressed technical aspects (hardware and software) and the functional aspects (business processes). Unlike many other conversions, however, NIH also developed a change management plan that included:

- Communication
- Specific functional plans (scientific community, executive officer group, administrative employees, etc.)
- Training
- Workforce transition (job content—new business processes)
- Evaluation

Although the evaluation is only partially complete, evidence indicates that the change-management activities have played an important role in making the transition to NBS successful. For example, over 2,500 NIH employees have received training in a variety of areas ranging from the characteristics of new systems and processes to "work transition" training for employees whose job content or actual jobs are changing. The number of employees trained is likely to rise to 5,000 as the IT conversions continue, and more members of the NIH scientific workforce are affected.

Three fundamental changes that give rise to the design of successful change-management initiatives are:

- Electronic systems—in some recent NIH experience (e.g. the NBS), the electronic systems component of the change has impacted all other aspects of change. This may also be the case in one or more of the eight ARAC areas. Determining the extent to which implementation of new electronic systems has already taken place will be an important step.
- Business systems—the impact of new business systems and the extent to which change has already taken place will have an important impact on the design of the change-management initiative.
- Physical changes—relocation to different office space, altered access to office equipment, and changes in who employees are working with, are all powerful changes that can impact the morale and productivity of employees. An accurate assessment of the extent of past and pending physical changes will be critical to developing a change management initiative.

The following types of questions need to be addressed by the Implementation Group in order to determine the scope of the change-management program, and the resources needed to carry it out.

- What will be changing? For example, will changes occur in organizational or individual functions, business processes, IT systems, or organizational structure?
- What is the probability the change will occur on a particular time schedule?
- What is the potential impact of parallel planning activities underway regarding the change? For example, will the NBS, A-76, other ARAC, or departmental consolidation efforts affect the planned changes?
- Who is impacted by the change? For example, will employees, customers, suppliers or grantees be affected?
- What is the magnitude of the change? How many employees, customers, or others, will be affected? How extensive is the organizational change?
- What is the nature of the impact? Does it significantly change the culture of the organization? Does it change job content, skills needed, or size of workforce?

From the earliest possible stage of restructuring, it is important to assign responsibility to one or more people to identify and work with those who are designing the changes. This strategy will allow some potentially adverse impacts to be avoided, and will provide an early start toward accommodating or compensating for others.

Box 5 outlines the instructions that have been issued—July 29, 2004, by the Deputy Director for Management—for identifying all the NIH employees and contractors (including vacancies) assigned to the administrative activities, tasks, and sub-tasks in the ICs and central services units of NIH that are proposed to be restructured. These employees, contractors, and vacancies are to be expressed/reported as FTEs. Thus, the purpose of this effort is to identify "FTEs in scope" of being affected by a specific administrative restructuring effort. Tables 3.1-3.4 in the Appendix illustrate how the required information can be clearly displayed and submitted to the Implementation Group responsible for the specific restructuring project.

Determining the Specific Activities to Be Undertaken as Part of the Change Management Initiative

The changes in the eight ARAC areas may not impact only the employees in the impacted organizations, but also those who receive services from the affected organizations. Consequently, an effective change-management plan is likely to require:

- Workforce planning
- Training of employees and customers
- Effective two-way communications with affected parties to keep them informed, identify their needs, and monitor the extent to which their needs are being met
- Processes for helping employees and other affected parties to adjust to the changed administrative programs (See Box 5 for more information about this.)
- Monitoring, feedback, and evaluation of changes as they occur, and needed mid-course corrections

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BOX 5. Summary[*] of Instructions for Identifying FTEs Within the
Scope of Administrative Restructuring Initiatives

- The designated leader of an Administrative Restructuring Initiative (ARI) will define the positions and duties that fall within the scope of the specific initiative—in consultation with a representative implementation group, and with approval of the appropriate NIH Steering Committee Work Group.
- The leader will use the current FAIR Act Inventory and IC staffing lists to build an initial list of positions performing the defined duties.
- The IC executive officers (EOs) will modify, validate, certify, and submit corrected lists of positions and FTEs devoted to actually performing the defined functions—including vacancies and contractors. Submissions will be accepted only from EOs.
- The FTEs submitted will be frozen while the restructuring is in process, and the list of employees reported "in scope" will be the pool of employees from which the restructured organization will be staffed.
- The DDM, in consultation with the ARI leader, will determine the need for timing of a freeze on new hires and promotions into in-scope positions. DDM will issue instructions and rules governing any such freeze.
- When the restructuring is complete, all work at NIH within its scope will be conducted in the restructured organization. No shadow organizations will be allowed in the ICs.
- Letters notifying employees that they are within the scope of the restructuring will be processed through the EOs.

[*] For compliance purposes, please use the complete version of these instructions distributed by Colleen Barros July 29, 2004 (email with attachments).

The change-management program should be designed to ensure complimentary timing of the physical changes and efforts to offset the human impacts.

By defining the specific changes that are occurring, the change-management effort for each Implementation Group will help ensure that the group has identified all of the on-going interrelated activities, and taken steps to ensure a clearly formulated plan for coordinating the activities. The change management plan will also track the timing of the other activities as they relate to the group's efforts to assure support is available when needed. NBS found that this was a critical aspect of change management. They developed flow charts and used other project management techniques to identify critical intersections of the efforts (including the availability of training in relation to availability of software packages) to ensure effective phase-in of implementation.

Establishing a Change-Management Program

The array of assistance that may need to be provided to people who must adjust to the administrative restructuring initiatives includes:

- Direct two-way communication about the changes with affected persons
- Psychological adjustment opportunities
- Training to perform new duties

- Relocation services
- Services to meet other needs

Specific provisions for meeting these needs should be included in the Implementation Plan to the extent possible, as the needs are identified. The *Change Management Plan,* 2 July 2001, prepared by KPMG for NBS, provides an informative example, although it is more extensive than generally would be contemplated for ARAC. It focuses on two tracks: (1) creating readiness for change before the actual change occurs, and (2) follow-up after the change is deployed to make sure the new arrangement is performing properly. Box 6 summarizes some of the research foundation supporting this approach to change management.

Transition Services for Employees

The NIH Transition Center is a comprehensive program established to assist NIH employees that are impacted by Administration or Departmental initiatives transition to a new position. Those may be in the restructured NIH organization, a different career field at NIH, or in another DHHS division or Federal agency. Two levels of services are available for impacted employees: basic services for **potentially affected** employees, and intensive services for **affected** employees.

Services for Potentially Affected Employees. **Potentially affected** employees are those who are: a) in positions within scope of a competitive sourcing study or are in positions that are part of an Administration or Department-initiative such as consolidation, delayering, etc.; and, b) still performing their existing job duties because the restructured organization has not completed its staffing process or, in the case of a contractor winning a competitive sourcing study, the contractor has not yet assumed the duties. The first priority of the NIH is to staff the restructured organization, so the orientation of this level of services is toward assisting these employees obtain a position within the restructured organization. Employees are considered potentially affected at the point the study/restructuring activity is officially announced. The following basic services are available:

- Workshops on creating resumes, interviewing, and stress management
- Assistance and equipment to create a resume
- Individual coaching sessions for resume reviews and interviewing practice with optional videotaping
- Self-help resources, such as videos and books, on a range of topics

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BOX 6. The Psychological Component of Administrative Change

William Bridges (author of *Transitions* and *Managing Transitions*) has shown that it is not the actual change that does in individuals and organizations, as much as the transitions from one state to another. An ending (giving up the old way) precedes every beginning (doing things a new way), and endings must be recognized. They create losses that need to be openly marked with appropriate activities of respect and an opportunity for individuals to take a piece of the past with them.

Bridges concludes, "The single biggest reason organizational changes fail is because no one thought about endings or planned to manage their impact on people. Naturally concerned about the future, planners and implementers usually forget that their people have to let go of the present first. The first task of transition management is to convince people to leave home" and travel to a new, uncertain place that is only described as a plan, vision, or hoped for end-state.

Noted cancer physician Dr. Elizabeth Kubler-Ross has described a predictable four-stage cycle of grief that applies in many types of change, particularly the loss of a loved-one. The initial stage is denial ("perhaps this won't happen after all"). This stage is followed by anger ("why is this happening to me?"). The third stage is bargaining ("if this doesn't happen, we promise to do better in the future"), followed by a fourth stage of acceptance and getting on with whatever needs to be done.

These insights about individual loss informed research that has identified four parallel stages in organizational change. Anyone helping an organization work through a change must be able to determine where the organization is with regard to these four stages. Some of the typical behaviors that can be observed in each stage are:
- **Denial.** People may withdraw, practice business as usual, and focus on the past.
- **Resistance.** People may express anger, blame, anxiety, or may "retire on the job." They may say to themselves: "This organization doesn't care about me so I don't care about it."
- **Exploration.** People may expend lots of energy and activity without much focus, perhaps creating over-preparation, confusion, and chaos. Too many options may be considered—"Let's try this and this and what about this…"
- **Commitment.** People who are committed to the new state will be working together. There will be cooperation and an improved focus shared by most.

Nancy Barger and Linda Kirby have looked at change in organizations with respect to personality preferences. They found that extraverts view organizational change as the loss of personal relationships, while introverts are more likely to experience loss of territory due to changing offices. Similarly, "thinking types" who value competency and expertise, and hate making mistakes of logic, are likely to point out illogical and poorly considered changes and doubt the leadership that proposed them. Barger and Kirby have developed a four-day training program for managers and executives to help them respond to these personality preferences.

Efforts to move directly from denial to commitment often fail. Therefore, working through the intermediate stages is important. Specific interventions appropriate for each stage include:
- **During Denial.** Provide specific information that demonstrates that the change will happen. Explain what to expect and describe what they can do to adjust to the change. Give them time to think things over and let the change "sink in." Conduct a series of planning sessions.
- **During Resistance.** Listen, acknowledge feelings, find out what losses individuals are experiencing so that you can respond effectively.
- **During Exploration.** Focus on short-term activities and goals so that there are early successes. Conduct brainstorming, visioning and planning sessions to help clarify the future.
- **During Commitment.** Set longer-term goals and concentrate on team building. Recognize and reward those responding positively to the change.

The NIH NBS change-management team has recognized the importance of communication in addressing these psychological aspects of change. For more information about communications strategies, see Section 3.7.

<u>Services for Affected Employees.</u> Intensive services are designed to support the needs of **affected** employees, that is, those who lose job duties as a result of an eligible initiative. Once a restructured organization has completed its staffing process, an employee not receiving a position is considered **affected**. An affected employee is eligible for a much more extensive, second tier of services to help him/her get a new job. Such employee remains **affected** until he/she gets a new position, resigns, retires, or receives a reasonable job offer. The orientation for these services is placement into a new job, either at NIH, DHHS, or another Federal agency. The following services are included:

- Workshops on numerous topics such as how to apply for jobs, writing KSAs, networking, and negotiating
- Individual Transition Plan (ITP) development that incorporates identified training needs and personal development goals and objectives
- Individual sessions with a counselor for career coaching, job search strategy, referrals, resume review, hard and soft skills assessments, and interview practice
- Self-help resources, such as videos and books, on a range of topics
- Equipment such as computers, copiers, and fax machines
- Access to job fairs
- Skills training to meet the requirements of a new position
- Discussion groups and lunchtime seminars from various experts in career development
- Temporary office space to relocate affected employees if necessary

<u>Services for Managers of Potentially Affected and Affected Employees.</u> In addition, a limited number of services are available for managers/supervisors of impacted employees to help them support their employees during periods of change and minimize conflict and work disruption. These include:

- Workshop: *Guiding Change and Transition: From the Leader's Perspective*
- Fact sheet on guiding change and transition
- Informational consultations on an individual basis by phone or in person

<u>How Employees Can Help Themselves.</u>

- Keep up with the latest A-76 activities at http://a-76.nih.gov/ so they will know what studies are being conducted/planned. Transition information related to employee concerns can be found at http://osmp.od.nih.gov.
- Update their resumes.
- Scan the potential NIH job market occasionally through CareerHere or QuickHire at http://www.jobs.nih.gov/current.htm.
- Browse through USAJobs (http://www.usajobs.opm.gov) for jobs outside NIH that.
- Maintain their job performance at the fully successful level to ensure they are in the best possible "eligibility" position for placement opportunities.

Employees should request services at least two weeks in advance to ensure Transition Center staff availability and adequate time for an IC to consider options. The NIH Transition Center

can be contacted by phone at (301) 496-1050 or by e-mail nihtransitioncenter@mail.nih.gov**.**
The website address is http://osmp.od.nih.gov.

OMA and NAPA may be able to assist in finding resources to support needed change-
management activities. (See Section 4 of Part I.)

*Clarifying Accountability and Working Relationships that May Change because of
Administrative Restructuring*

When an administrative activity or function is consolidated, people, positions, and budgets are
not the only things that are moved. Accountability responsibilities—including reporting
channels and decision-making authorities—may also be transferred. If changes to the
accountability structure are not made clear, confusion about reporting channels and decision-
making authority is likely to hinder the success of the consolidation. Thus, it is as important to
clarify and harmonize the transfer of accountability and working relationships as it is to
appropriately account for the transfer of people and funding.

It is also important to remember that many consolidations do not completely transfer an activity
or function. Sometimes a portion of the consolidated activity (and its associated people,
positions, and budget) will remain in the original organizational location where it will retain its
existing reporting responsibilities and administrative accountability structure. However, the
transferred employees will "report" to and be accountable to new bosses—even though they may
be performing exactly the same duties for the benefit of exactly the same client as before.
Therefore, both transferred and non-transferred employees may need to establish new
relationships for sharing information and working together across organizational lines.

When administrative services are consolidated into a service center(s), the restructured or
consolidated service unit will provide services to a number of operating units (customers of the
service units).   In order to ensure the smooth transition and orderly on-going operation of the
administrative functions, the operating units need to clearly understand what services will be
consolidated into the service unit, and what services will be retained by the operating unit. This
clear delineation of responsibilities allows an appropriate accountability system to be established.

In addition to clarifying accountability for individual employees, the service center should be
made accountable to its customers in accordance with negotiated "service-level agreements"
(SLAs) for the work that the center is intended to perform. This overall (unit level)
accountability can be exercised through the Customer Advisory Board (CAB) or other
organization that negotiated the SLAs with the service unit. Such accountability is possible,
however, only if adequate information is reported to the CAB or other organization.

Consolidation situations raise the following questions:

- **Employees remaining in the original work unit**—What, if any, responsibilities do
  these employees retain related to the consolidated activities or functions? Their original
  reporting lines will continue, but what information sharing and working relationships will
  they need to establish with the consolidated service unit?

- **Employees transferred to the new work unit**—These employees will be working for and "reporting to" new bosses, even though they may continue to serve the same clients—and may even remain in their same physical location. What information sharing and working relationships will they need to establish with the operating units (customers) they are serving?

Each ARAC Implementation Group should provide clear answers to these questions and have the answers authoritatively established by the NIH governance structure. (See Section 2.3 for information about getting such decisions made.) An example of how the EEO Implementation Group handled this issue is provided in Table 3.4 in the Part II Appendix.

3.7 Communications Strategies

Research convincingly shows that effective communication during change is extremely helpful in ensuring that employees and other stakeholders understand the process, feel part of it, and are able to influence it. This approach frequently results in employees who support instead of resist the change. Good communication also facilitates development of better solutions by recognizing and using the related knowledge of all stakeholders.

To be effective, communications must be on-going at many levels to clearly and consistently transmit the overall ARAC vision and goals throughout NIH in the context of its scientific mission. A variety of NIH media will need to be used to adequately reach the diverse audiences that will be affected at NIH—including the functional stakeholders in all eight of the ARAC reform areas. NIH communications media should have access to and be able to advise each Implementation Group as they endeavor to craft effective messages and get them out in a timely way.

Communication during change serves many purposes. Ultimately, its goal is to ensure agency-wide support for the changes. At the most basic level, the purpose is to inform all stakeholders of the reason for the change; the vision, goals, and specifics of implementation design, as well as any modifications made as time goes by; and the progress being made. Other important purposes include:

- Involving employees and other stakeholders in articulating the vision, goals, performance measures, and design of the changes; making them a part of the process, ensuring they are listened to, and ensuring they know what is "done" with their input.
- Monitoring the impact of on-going change on employees' ability to carry out their day-to-day mission.
- Providing for regular feedback from affected employees and others.

Section 3.6 discusses the four stages that organizations go through when undergoing change. Box 7 describes the appropriate communication approach to move the organization from each stage to the next and ultimately to successful implementation of the changes. Training is available for managers who are responsible for such communications, as explained in Section 3.6.

Research has identified many principles that underlie effective communication, including:

- Be accurate, honest, and open about the extent to which visions, goals, and proposed changes can be modified or are "mandated," as well as about the development and use of performance measures.
- Provide sufficient detail to avoid raising anxieties unnecessarily.
- Use the most cost-effective means to reach different stakeholders; diverse media will be needed to reach different audiences.
- In most cases, some face-to-face communication will be needed. This is the only way to ensure that communication is two-way, with management not only communicating "downward," but also hearing what employees have to say.
- Allow feelings to be expressed and dealt with openly.

BOX 7. Potential Roles of Communication During the Stages of Change

During Denial: Moving individuals beyond the denial stage requires facts that prove that the change will happen. Listening to employees is necessary to determine whether they have moved on.

During Resistance: At this stage, listening comes first because different individuals experience different losses during change, and understanding their losses is key to addressing them and moving on.

During Exploration: Developing options, building a consensus around a vision and goals, and exploring what might be, all require open two-way communication.

During Commitment: Setting longer-term goals and assuring that members of the team continue in the committed mode (recycling to previous stages is common) requires continuous two-way communication.

Face-to-face communication can be augmented (but not replaced) by just-in-time or on-demand information. Some organizations have used a "change information room" to display all the material relating to the change including schedules, goals, frequently asked questions, and more. The door to the change information room is always open, and frequently there is an informed person on duty to answer questions. Virtual change information rooms in the form of websites serve many of the same purposes, and offer some advantages:

- Employees can access the information anonymously.
- The questions employees ask can be used to determine what is on their minds and what additional information needs to be provided.
- Employees in remote locations (and even different time zones) have equal access to the information.

The single most important dimension of communication during organizational change is that it must be two-way. Organizational change can be like a parade with different units in the parade marching along a parade route that includes several turns. Although top management may be in

the lead, and turning corners first, other units are turning the corners at different times. Two-way communication is critical if the parade units are to successfully navigate the same route.

Agency-wide Communication Strategy

This guide is a key element of the ARAC communications plan. It provides the essential messages about the program's intent, assignment of responsibility, process requirements, methodologies, and resources to get the job done. Another key component is a new Administrative Restructuring Website established by OMA to provide:

- Basic ARAC documents (including the 2003 ARAC Report and this guide)
- Links to other non-ARAC administrative websites (such as NBS and A-76)—to help integrate related efforts with them
- Links to individual ARAC function websites—to assist each in learning good practices from the others
- Provisions for feedback

Figure 1 illustrates what this network of continually updated websites is expected to look like when completed.

The OMA website is expected to include current information on policy updates, key contacts, and events; a help desk; issues log; frequently asked questions (FAQ) section; and a dialogue room. The individual ARAC function websites will contain the Implementation Group's ARAC Implementation Plan and other current information. These websites are intended to be simple, inexpensive add-ons to existing NIH websites. Box 8 shows the current ARAC home page of NIH's EEO Implementation Group to illustrate what these websites might look like.

Other important elements of the agency-wide ARAC Communications Plan will include:

- Timely e-mail broadcasts (listserve announcements and brief articles); both targeted and broad-scale
- An e-mail newsletter
- Regular articles in existing NIH newsletters (featuring current news and features on ARAC and related events)
- Meetings and other regular and special events (including briefings, town halls, retreats, demonstrations, and video-casts)
- Provisions for feedback

These elements of the plan, as well as the websites, will be scheduled and publicized frequently to help maintain momentum and progress toward the achievement of ARAC goals. However, care should be taken to monitor and control costs; some activities (such as town halls, retreats, demonstrations, and video-casts) may be expensive and should be used sparingly. The less expensive media should be used to a greater extent.

FIGURE 1. General Configuration of NIH's Change Management Website Network

NIH Transition Center

extramuralmeo.nih. gov/faq-transitioncenter.asp

NBS

nbrss.nih.gov

EEO

www5.od.nih.g ov/oeodm/cic/p lan/index.html

A-76

a-76.nih.gov

Administrative Restructuring at NIH

http://arac.nih.gov (Central ARAC Website w/links to other sites)

IT

itconsolidation. nih.gov

Acquisition

Grants

Facilities

HR

Finance

Budget
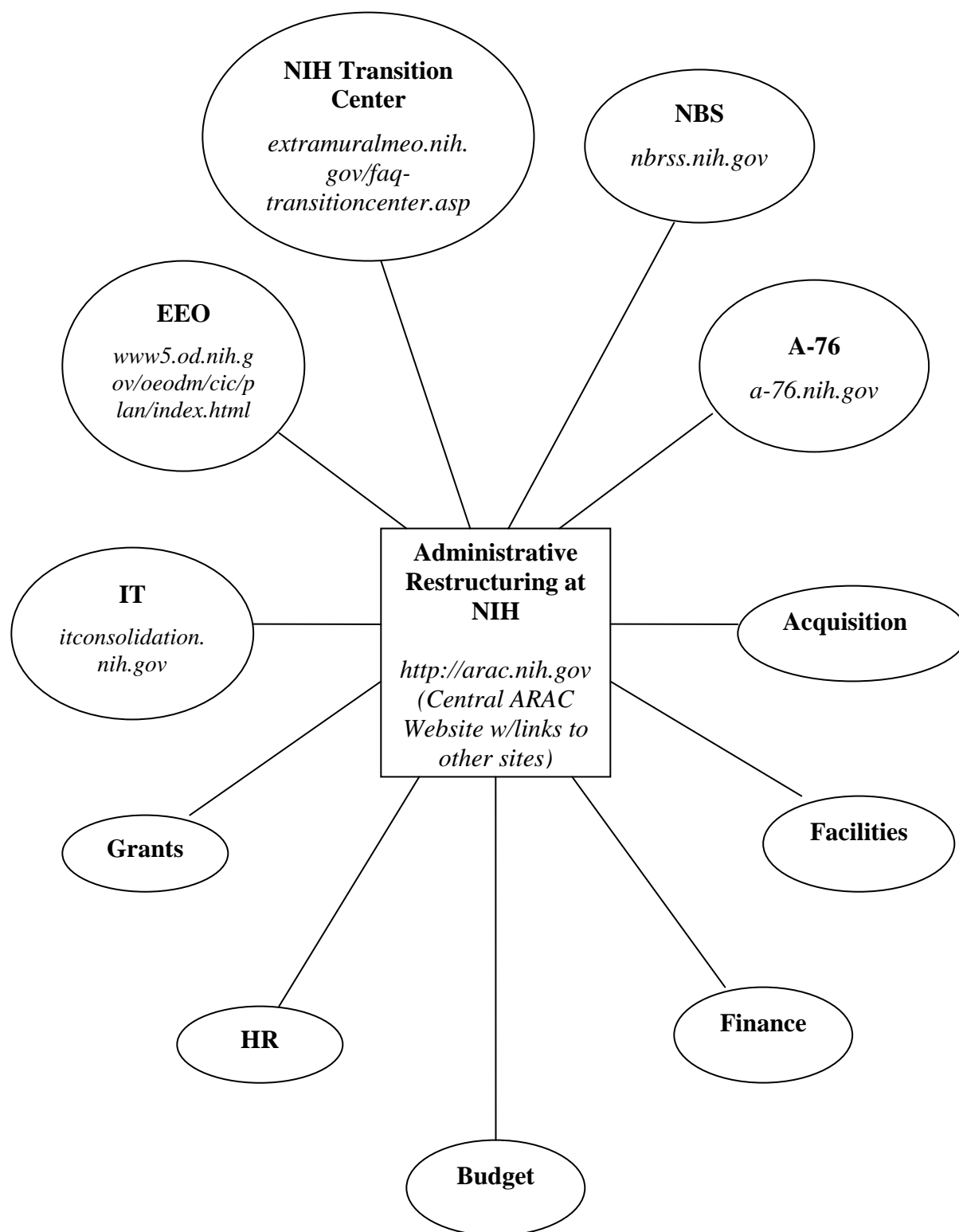
BOX 8. Sample Function Website

U.S. DEPARTMENT OF HEALTH AND HUMAN SE

National Institutes of He

Office of Equal Opportunity & Diversity Management
Consolidation Information Center

Organization Chart

Functional Statements

Timeline

FAQ's

Retreat Information

Contact Information

Welcome to the Office of Equal Opportunity & Diversity Management Consolidation Information Center

This Web site is intended to provide the NIH community with the most recent information concerning the restructuring of equal opportunity and diversity management functionality within NIH.

Home | Organization Chart | Functional Statemets | Timeline | FAQ's | Retreat | Contact Us

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Implementation Group Communication Plans

As it moves forward, each Implementation Group needs to put in place a communication plan to involve affected employees and other stakeholders in the change process. These plans should follow the principles described earlier and be linked to the central ARAC website. The extent and formality of this plan, and the process used to develop it, will depend on the Group's assessment of complexity and importance of communication.

The NBS team has found that following a specific, well-thought-out communications plan is especially valuable in designing and implementing its initiatives. Box 9 highlights some important aspects of the NBS experience that could benefit ARAC groups.

The key steps and components of the Implementation Group communication plans are summarized below.

- Determine who the group needs to communicate with. To do this the team needs to look at the big picture. As the group uses a systems approach to assess the goals and design the changes they will be identifying all those affected by the changes. These stakeholders should be included in the communications plan.
- Assess how each stakeholder is impacted and what their perspective and questions might be. Include management above the group, as well as directly affected stakeholders and the members of other related groups.

- Determine which kind of communication strategy is likely to be most useful with specific stakeholders. Some stakeholders may need to be frequently involved, through two-way meetings; others may need only periodic status updates with infrequent face-to-face meetings. To the extent possible, the teams should use existing mechanisms, such as newsletters, websites, periodic meetings of organizations, and special events. Develop new ones only if demonstrably needed. The purpose of ARAC is to save money, not to spend more than is essential to get the needed reforms done well.
- Assess the group's ability to carry out communication efforts and determine if outside help—on a one-time or on-going basis—is necessary. If necessary, work with OMA/NAPA to obtain the needed expertise and resources. (See Section 4 of Part I.)
- Develop a written communication plan. The plan must:
  - o Identify the key tasks (such as setting up a website, providing information to existing newsletters, holding meetings, and creating essential special events) and key targets and expectations for each (such as give information to entire organization, ask questions of functional experts, and respond to stakeholder input)
  - o Establish the frequency of each task (weekly, monthly, as needed, etc.)
  - o Assign responsibilities for each task
  - o Ensure those responsible have sufficient time and resources, and that management has authorized those resources
- Establish a mechanism to ensure that steps in the communication plan are carried out.
- Establish key expectations and outcome measures to help determine if the communications are successful or need to be revamped as implementation goes forward.

Figure 2 shows the desired connections between NIH leaders (who initiate and receive reactions to many ARAC messages) the various communications media that may be used to transmit these messages, and provisions for feedback.

BOX 9. Communicating Change at NIH

The NBS change-management team has recognized the importance of communication. It established a website, announced its availability to employees though email and at meetings, and is monitoring its use. Feedback so far indicates the website has been very effective.

Other lessons learned to date include:

- Message continuity is important. This is true both over time (if the story changes too many times employees won't believe any messages) and across the organization (if the tech folks give one message and the change-management folks give a different message, the employees won't know who to believe).
- Announcements without details create more anxiety than comfort. It is not enough to say a change is coming. Employees must be given enough information so that they can decide what they need to do (if anything).

This NIH experience parallels nearly every book and expert on managing change, confirming that it is impossible to over-communicate during organizational change.
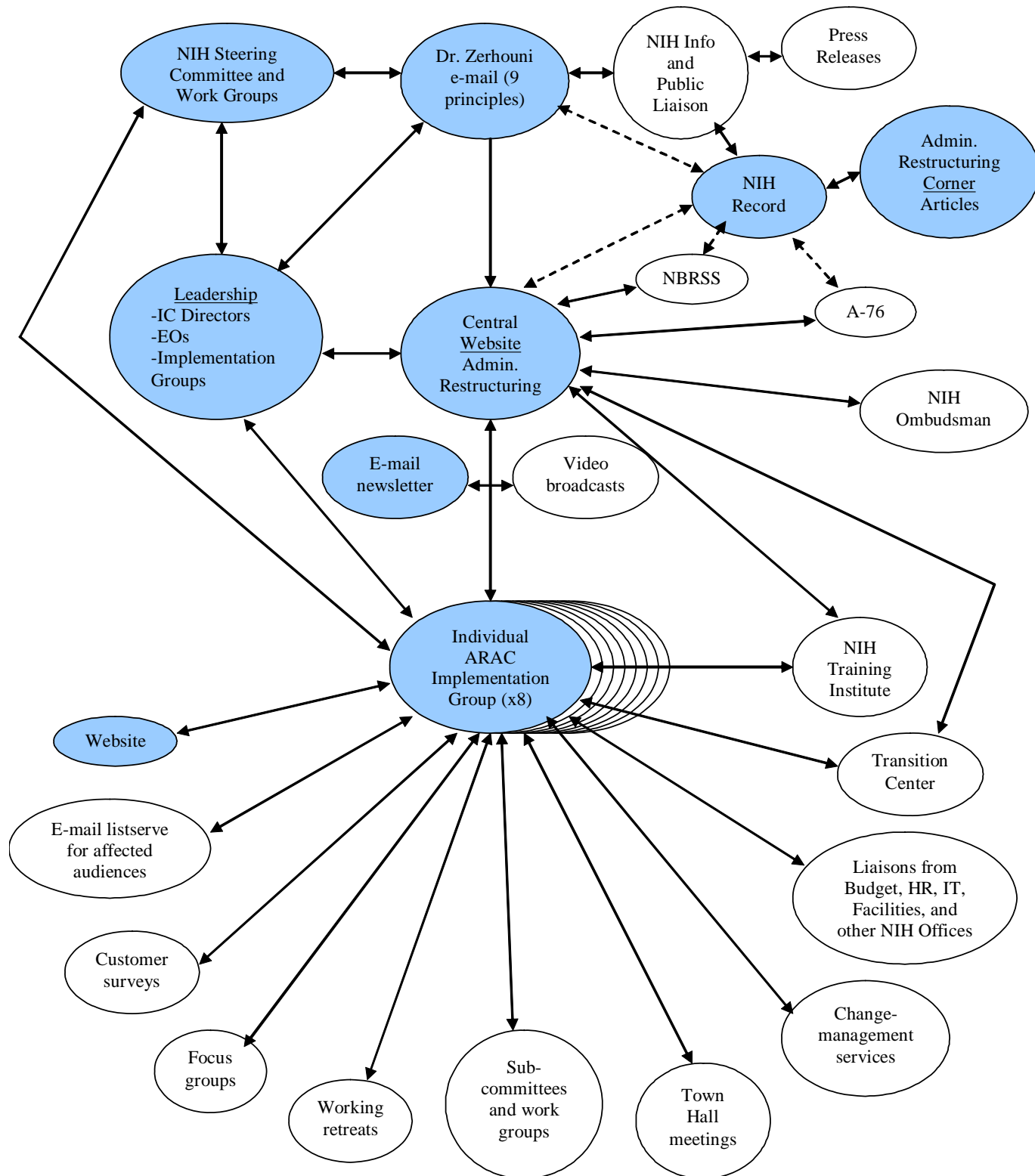

Interpersonal Communication

Interpersonal communication is the foundation of teamwork. Facilitating effective collaboration, especially in an arena in which organizations and people are facing changes—especially reductions in their authorities and responsibilities—requires significant interpersonal skills. Effective communication within the Implementation Group must overcome significant barriers such as "protectionist" points of view, defensive attitudes, and fear of reprisal for honest criticism of the status quo. Information on meeting facilitation in Section 3.8 may help overcome these barriers. If barriers are substantial, the team leader may want to obtain outside help to ensure or improve open discussion. That help could come from a variety of sources, including OMA, NAPA, or outside consultants, and take on a variety of forms, such as training for team leaders and/or members, or actual facilitation of all or some meetings.

Illustrative Messages

Box 10 contains some illustrative ARAC messages that might be directed at some of the primary audiences involved in the ARAC implementation process. The audiences include policy leaders and managers, affected employees and program clients, and the overall NIH community. The messages noted are purely illustrative. They are not meant to be either mandatory or limiting. The "potential" headlines also are meant to be purely illustrative.

The key point is that ARAC communications should be continuing, frequent, and timely. They should provide information that affected people can use when they get it. Box 11 suggests some specific messages that might be planned.

FIGURE 2. NIH Administrative Restructuring Communications Network

NIH Steering Committee and Work Groups

Dr. Zerhouni e-mail (9 principles)

NIH Info and Public Liaison

Press Releases

Admin. Restructuring Corner Articles

NIH Record

Leadership
-IC Directors
-EOs
-Implementation Groups

Central Website Admin. Restructuring

NBRSS

A-76

NIH Ombudsman

E-mail newsletter

Video broadcasts

Individual ARAC Implementation Group (x8)

NIH Training Institute

Transition Center

Website

E-mail listserve for affected audiences

Customer surveys

Focus groups

Working retreats

Sub-committees and work groups

Town Hall meetings

Liaisons from Budget, HR, IT, Facilities, and other NIH Offices

Change-management services

**BOX 10. Types of Messages Supporting
Administrative Restructuring at NIH**
(Always provide opportunities for two-way communications,
and target to specific audiences as much as possible.)

Principles, Policies, and Guidelines
(Blunt the dread of arbitrariness and loss of control over managers' situations.)
TARGET AUDIENCE: NIH managers and implementation workers
- Here is what is proposed.
- Here is how you may suggest modification.
- These principles/policies are now final, but they provide considerable flexibility.
- These guidelines are helpful suggestions for your use as appropriate.
- Here is where/how you can get help applying these principles, policies, and guidelines.
- Basic Principle: Do not break anything.

Communications with Affected Persons
(Answer their questions and take care of their needs as directly, fully, and quickly as possible.)
TARGET AUDIENCE: Affected employees, customers, and managers
- What will the changes be?
- How will it affect me?
- Can I suggest modifications to the change? When? Where? How?
- Can I get help adjusting? Where? How?

Improving the Image of Administrative Restructuring
(Accentuate the positive; while being open and honest, of course, and inviting feedback.)
TARGET AUDIENCE: NIH in general
- Administrative Restructuring currently has a predominantly negative image. It takes time and effort away from the main scientific missions that people would rather be working on, has the potential to reduce vital services, and has actually done so very dramatically in the case of HR.
- Explain why change is occurring/needed.
- Identify expected benefits; give actual examples.
- Tell success stories.
- Use personal experiences to put a human face on successful changes.

Here are some potential "headlines."
- ARAC Reassessment finished/approved.
- Alternative implementation plans being debated; impacts might be…
- Retreat planned; participation invited.
- Survey about to go out; watch for it.
- Briefings scheduled.
- Dates set for Town Hall meeting.
- Key person in charge of … has just the right background.
- Important document just posted on website for review and comment; your ideas needed.
- New training course announced; will be repeated several times to meet needs of all.

BOX 11. Initial Set of Articles and Other Messages

- Introduce the new website
- IT accomplishments
- EEO involvement process
- Feature one or more key elements in the Guide (a "did you know" teaser to get people to look and comment")
- Short piece on NAPA role and Panel; pitch the "NIH is trying to do this right" angle—getting best advice possible
- Short feature on Transition Center
- A positive piece on improvements in HR (we recognize problems and are working on them; need your help)

3.8 Meeting Facilitation

Facilitation is the act of helping people successfully work together in committees, boards, teams and other groups. The use of facilitation has increased as the management of organizations has become more egalitarian and participatory, and as unilateral top-down command and control techniques have proven less effective in achieving desired commitment and results. Highly trained professional facilitators are now widely available, but experienced non-professional facilitators may be adequate for all but the most difficult assignments. The purpose of this section is to present some of the basics of facilitation. It is organized into five sections:

- The characteristics of groups
- The diverse roles of facilitators
- Desirable facilitator characteristics
- Facilitation tools and techniques
- When to use facilitation

The Characteristics of Groups

The NIH environment surrounding the ARAC initiative contains a variety of newly formed groups including the NIH Steering Committee, ARAC Study and Implementation Groups, and several HHS-level groups focusing on individual functions. In addition, a number of long-standing groups such as the IC Directors, the Executive Officers, the Scientific Directors and the Information Officers are directly or indirectly involved with ARAC activities. Facilitation plays important but different roles during the establishment of a group, and during its functioning after the group has achieved maturity. Understanding group characteristics during these two phases is important to the understanding the facilitator's role.

Groups typically work through a series of phases as they are developing into a productive team:

- Forming: Whether members have been assigned or have volunteered, this is typically a "polite phase" as individuals get acquainted.

- Storming: This is typically described as the "power phase." Who has the power? Who is doing what to get it?
- Norming: During this phase the team comes together and agrees on processes for getting the job done.
- Performing: This is typically described as the "proficient" phase with the group effectively getting the job done.

It is a rare senior manager that has not encountered the frustrations of unproductive group work. As one unknown author put it, "On Judgment Day, God invited those on His right hand to enter the gates of heaven, and those on His left hand He put into small groups." Groups that are working through the four start-up phases, as well as groups that have been functioning for some time, are both likely to encounter situations that would benefit from facilitation—especially when provided by an outsider who is recognized to have no stake in the decisions to be made.

It is not unusual, for example, for a newly formed group to get hung up in the storming phase and to expend all of the time allotted to the assignment without accomplishing its mission. A similar non-productive scenario can occur when the group's task is unclear or impossible to accomplish. Some groups are constituted from representatives from different organizations who may feel constrained to protect their organization's "turf" and may be unwilling to compromise.

Mature groups can face difficulties rooted in the group's responsibilities to set priorities, establish policy or make policy interpretations, develop plans or perform many other management or advisory tasks. Central to most if not all of a group's activities is the resolution of differences of opinion and decision-making.

The Diverse Roles of Facilitators

Facilitators typically make their contributions and perform their services during "meetings." The roles they play and the contributions they make are as diverse as the nature of meetings. Thus, a facilitator, at one extreme, may simply observe a weekly "staff meeting" and provide minimal feedback to the group; or, at the other extreme, may plan for and provide direct leadership to a multi-day team-building or goal-specific retreat. Specific support activities frequently performed by facilitators include:

- Helping the group leaders plan for a successful meeting.
- Informing the group members of typical group behavior and problems, and suggesting alternative approaches to improve group performance.
- Monitoring group dynamics and suggesting alternative approaches, or initiating appropriate interventions on an as-needed basis.
- Assisting the group in assessing its performance and developing improved approaches for future meetings.
- Providing advice to individual group members to help them support the group in its activities.

Facilitators whose role is to actively contribute to the performance and success of the group are likely to engage more directly in the management of the group process. Managing the group

may include recognizing, rewarding and motivating group members; pushing the group to stay on target, e.g. to come to a decision; and dealing with individual group members that are hindering the group, on the one hand, or who have dropped out and are not contributing, on the other hand.

The role of the facilitator typically encompasses the functioning of the group and excludes the substance of the work being performed by the group. The facilitator must not only be neutral with respect to the group's substantive work, the group members must perceive him or her to be neutral. Specific actions the facilitator can take to ensure that group members recognize this neutrality are remaining silent on substantive issues, stepping aside when the group is self-facilitating, and expressing enthusiasm for the effective working of the group while avoiding emotional attachment to the substance of the group's deliberations.

The group should not be expected to understand the facilitator's role a priori. In addition, the role should not be dictated by—although it can be suggested by—the facilitator. In essence, the group and the facilitator must reach a mutually acceptable agreement. In many cases this is the first critical test of a facilitator's ability to work with a particular group.

Desirable Facilitator Characteristics

The single most important facilitator characteristic is self-awareness. For example, a facilitator with unrecognized high control needs is likely to attempt to dominate rather than facilitate a group, and not understand the group's resistance. Similarly, a facilitator who is insensitive or overly sensitive to the feelings of others is likely to be ineffective in supporting group deliberations on topics that engender strong feelings among group members.

A list of desirable facilitator characteristics sounds a bit like the Boy Scout's code—"A scout is trustworthy, loyal, helpful, friendly . . ."—but with a difference based on the need for the facilitator to assist others in getting the job done. A facilitator "code" might include items such as:

- Trust that the group can do the job.
- Focus on getting results.
- Be a good listener.
- Support broad participation in the group's functioning. (Get reluctant members to participate and do not allow more vocal members to "take over.")
- Question without appearing confrontational.
- Be aware of subtleties and non-verbal messages.
- Assist in decision-making without imposing a decision.

Facilitation Tools and Techniques

The tools and techniques of the facilitation trade are as diverse as the roles facilitators are asked to play. They greatly exceed the space allocated to this section of the guide. A visit to any well-stocked library (or bookseller website) will produce a list of publications, many of which address particular facilitator roles such as team building, facilitating team meetings, and conflict

resolution. As an example of the types of available material, some of the major topics covered in the 400+ pages of *The Facilitator's Handbook* are listed below. (Tom Justine and David W. Jamieson, *The Facilitator's Handbook*, AMACOM, The American Management Association, New York, 1999.)

- Preparation—Organizing the group, setting group norms, and planning the meeting.
- Working with the group—Starting right, establishing memory systems, decision modes, handling conflict, evaluation and group closure.
- Follow up—Recording meetings, revisiting recommendations, implementation planning.
- Special meetings—Planning meetings to address specific issues, such as mission, vision, strategic planning, or Gantt Chart planning.
- Facilitating with Technology—Holding electronic meetings.

When to Use Facilitation

Many of the group chairs are well-versed in facilitation techniques and use them routinely. Therefore, their need to call in an outside, neutral facilitator may be limited. Nevertheless, there may be specific times when the groups will find that they need to use a facilitator. Some of the most likely times are when the group is:

- Just getting formed and includes several people who do not know each other well.
- Developing team cohesiveness and commitment to work together.
- Facing an especially contentious decision.
- Faced with an especially complex task to accomplish (such as developing consensus on missions and visions, or developing a plan and setting priorities).

A facilitator may be particularly helpful for meetings that are designed to achieve multiple goals (e.g., team building and priority setting), and those scheduled to extend over several hours or even days (e.g., a retreat). Facilitators are also particularly helpful when a group's official leader wants to fully participate in the substantive issues being addressed by the group without being distracted by process issues or constrained by the facilitator's need for neutrality.

3.9 Evaluation

The term "evaluation" is used to identify a broad range of activities designed to provide decision makers with the information they need to assess and improve processes and programs. In the case of administrative functions, evaluation tools and techniques can be used to: (1) determine if existing administrative activities are meeting the programmatic needs of program managers in the most cost effective way, (2) support the consideration and design of alternative approaches, and (3) track the implementation of the alternative processes to determine if they are providing the desired improvements. Consideration of the specific evaluation approaches to be used are best done early in the design of any program, process or change, to ensure that appropriate baseline data are collected for subsequent comparison of effectiveness, efficiency and performance.

The purpose of this section is to describe evaluation approaches and activities that may be useful to NIH managers as they consider and implement restructuring initiatives. The section is organized into five topics:

- Introduction
- Evaluating administrative restructuring initiatives
- Evaluation principles
- Potentially useful evaluation techniques
- Evaluation support available to the ARAC Implementation Groups

Introduction

Evaluation tools and techniques can help agencies answer questions in a timely manner about what is actually happening, how what is happening compares to what was expected, why it is happening, and what – if anything – should be changed to improve results. Conducting pre-implementation evaluations of NIH's administrative restructuring initiatives will be essential to post-implementation evaluations of the extent to which the changes made are achieving their desired purposes. Appropriate evaluation activities will also help ensure that the changes will not and are not disrupting the Agency's scientific mission, or causing other unintended consequences. Minimizing negative impacts deserves as much attention as maximizing positive outcomes.

Long established evaluation approaches are also increasingly being used to demonstrate accountability. Today, NIH operates in a climate driven by GPRA and Congressional oversight to ensure that budgets are linked to program performance. Establishing appropriate evaluation activities can demonstrate NIH's commitment to the concept of accountability while providing information necessary for reporting to DHHS and the Administration, Congress, the broader research community, and other stakeholders.

NIH's scientific culture embodies and embraces evaluation activities, and many of the data collection and analysis techniques used for process and program evaluations are similar to those used by NIH intramural researchers as well as the researchers funded through NIH grants. Nevertheless, conducting evaluations in support of restructuring activities still can be challenging.

The performance and staffing metrics discussed in Section 3.3 are associated with evaluation activities in several ways. Previously established and historic metrics will provide the information needed for evaluating administrative reform designs and redesigns. Evaluation techniques—particularly those with a substantial research component—can help to establish relationships between specific administrative activities and program performance. These same metrics also play important roles in implementing and operating new administrative processes over the long term.

Evaluating Administrative Restructuring Initiatives

Evaluation will be most important both when implementation moves forward; and once the change is fully implemented. In each case—as with the other tools discussed in this guide—the

specific evaluation tools and techniques that will be most useful will depend on the nature, extent, and timing of the changes being implemented. For example, some of the changes proposed in NIH's administrative functions may require training activities to ensure that employees are prepared to deal with their new or revised roles, responsibilities, and job content. Effective evaluation techniques for assessing multi-level impacts of training initiatives have been developed and refined, and have demonstrated their usefulness for many years.

At the outset, evaluation activities are frequently applied to:
- Pinpointing the services required to support program activity
- Establishing clear goals, objectives and targets for administrative functions
- Selecting from alternative approaches
- Determining how implementation will be monitored and measured

As implementation moves forward, the Implementation Group will benefit from data obtained through short-term, rapid-feedback evaluations designed to determine whether mid-course corrections are needed. The extent to which these short-term evaluations will be useful depends in large part on the effective application of a different form of evaluation – process evaluation. Process evaluations are frequently used to provide systematic assessments focused on processes and operations to determine how they are being conducted, if they are being conducted as planned, whether expected results are being obtained, and how critical processes can be improved.

Ultimately, the group's work in these earlier stages, setting goals and developing performance metrics, will establish a sound direction for longer-term, post-implementation evaluations. After implementation is complete, evaluations may help to provide a systematic assessment of accomplishments and effects, and to determine the extent to which intermediate and long-term goals have been achieved.

Evaluation Principles

Evaluation techniques have evolved from research methods, and early evaluation activities were frequently referred to as "evaluation research." Consequently, many of evaluation's tools and techniques are identical to those used by researchers of all persuasions. They both include the review of previous work and available data, development of hypotheses, data collection through a variety of means, the application of a wide variety of analytical tools, and the presentation of results through a variety of modes.

A characteristic of evaluation that frequently distinguishes it from research, however, is the use of a reference point or standard against which programs or processes are measured. Evaluators frequently ask, "How is this program or process doing compared with an ideal design, its previous performance, similar programs or processes, or an established standard?" One of the approaches of greatest potential use to NIH in these evaluations is frequently referred to as the Measure-Act-Measure approach. This simple but powerful three-step concept involves establishing an accurate picture of the current situation before implementing a change, (the Act), and then determining the post-implementation situation.

Program evaluation, like research, must be managed. Some of the key principles for helping evaluations to be effective are:

- Collaborate with stakeholders in developing the goals to be measured and factors to be assessed in the evaluation.
- Remain open to unexpected happenings, including negative unintended consequences, and develop data collection activities to determine if they are occurring.
- To the maximum extent possible, use existing data sources or ones that are being planned to serve multiple purposes.
- Develop multiple evaluation methods as much as possible to verify findings and ensure credibility. For example, quantitative information from management systems could be paired with interview or case study information to increase credibility.
- Use data that are accurate, up-to-date, and have credibility within the agency.
- Communicate the results of evaluations. Employees and stakeholders will know the evaluations are on-going; failure to communicate about them will raise anxiety. Communicating evaluation results also may produce suggestions about how to use or improve results.

Another overriding principle of evaluation is that evaluators must ask the right question and use an evaluation approach that answers it. Good, objective data, carefully collected and analyzed does not guarantee good results. Some examples of questions most likely to be asked during the NIH restructuring initiative and options for answering them follow.

- Is the change being implemented as designed?—Essentially, this is a compliance question. A basic evaluation would use objective data and observation to determine the extent of compliance. Limited interviewing may also be useful. A more sophisticated evaluation of this issue may go further, to determine whether, even if there is an apparent implementation, the desired change is actually taking effect. It would look, for example, to see if "shadow systems" were being used. The evaluation approach here would use observation and interview, but perhaps more intensively than the original effort; simple case studies may also be useful.—These evaluations are designed to be short-term or real-time.

- What impact is the change having on administrative efficiency and effectiveness?—A basic evaluation of efficiency would look at data (before and after) for the performance measures established by the Implementation Group. These could include measures such as average time to process an action, work volume, timeliness, and overall staffing levels. Effectiveness could be evaluated in the same way, using measures such as accuracy of actions and many others. But just because change occurs doesn't necessarily mean the administrative restructuring was the cause. A more sophisticated analysis would go beyond tracking changes in performance measures to see if there were other factors impacting them. Was there an unanticipated increase or decrease in work? Were staff members insufficiently or inadequately trained? Did the computer system fail? These evaluations may require observation, interviews, further data collection—if necessary to assess the extent of these other factors—and in some instances case studies. Such evaluations can be short-, mid-, or long-term and probably should be built into the implementation effort.

- How have the changes affected NIH's clients and employees?—This is a critical question that can be answered best by the clients and employees themselves. Depending on the extent of change and management's assessment of the potential impact, a host of data collection approaches can be used. Mail or phone surveys, focus groups, and on-site interviews all could help answer this question. Objectivity is important in determining how the questions are asked and how the "interviewees" are selected.

- What is the impact on the science mission?—These evaluations can be mid-term or long-term, and generally would be fairly sophisticated in design. The most immediate, least sophisticated analysis could assess whether there had been a change in FTEs dedicated to the science mission. A second level of evaluation could look more closely at other potential impacts as well as potential factors affecting the outcomes. This evaluation would address questions and use methods similar to those addressing changes in workload, training, and competing demands on scientific staff. Finally, a more rigorous analysis would seek to more clearly define exactly what the scientific impact is. For example, if there are more FTEs devoted to science, what does that mean? More scientific breakthroughs? Better supported results?

Potentially Useful Evaluation Techniques

One widely published expert in the field identified 30 different types of evaluation in one of his books and describes this long list as "illustrative" rather than "exhaustive." Similarly, a wide variety of techniques have been assembled by evaluators to address different situations, needs and approaches. Some of the approaches previously described, such as Measure-Act-Measure and rapid-feedback evaluations, bring with them specific techniques. Other techniques that may be useful in the NIH setting are:

- Making full use of data and information that are readily available, especially information that builds on the baseline developed during reassessment and design
- Using focus groups to collect qualitative data to support the design of more quantitative data collection efforts and identify previously unrecognized variables
- Collecting data through small sample surveys
- Performing "evaluability" assessments to provide limited but valuable insights about specific matters and to determine if more exhaustive efforts to evaluate them are warranted
- Carefully managing the relationship between the evaluator and process manager to ensure a cooperative and productive relationship and to guard against unintended negative impacts.

Evaluation Support Available to the ARAC Implementation Groups

NIH's extensive experience in research and evaluation is not limited to the scientific study at the core of its mission. The ICs also have experience in conducting evaluation activities to improve decision-making and enhance program performance. The Implementation Group will often be able to use the evaluation expertise of its own members as well as the following sources:

- The NAPA/OMA team has considerable expertise and is available to help design and carry out evaluations in cooperation with the Implementation Groups.

- Staff of the Office of Evaluation (OE) in NIH's Office of Science Policy are experienced in the tools and techniques of evaluation and they encourage and support these activities at NIH. They routinely work with and can call on individuals from the NIH evaluation community, are available to consult with members of the Implementation Groups to provide assistance directly, and can help find needed consultant expertise and advice.

- Other sections of this Guide provide information that directly related to evaluations. Section 3.2 describes several analytical tools, including gap analysis and risk assessment. Section 3.3 provides information on specific metrics, including staffing benchmarks, performance measures, balanced scorecards, and integrating budget and performance information.

- External Consultants: Federal agencies generally have rosters of pre-qualified consultants they can call in on short notice to perform evaluation (and other) studies that need to get started quickly.

Evaluations, especially long-term policy and program impact evaluations typically require significant time and resources. However, the evaluations conducted during the current administrative restructuring are not anticipated to be highly resource-intensive. Even after full implementation, long-term evaluations of current restructuring changes will require only modest resources if the Implementation Groups successfully build evaluations into the overall reform effort and ensure that supportive data collection is on-going.

If, however, an Implementation Group identifies a need for a resource-intensive evaluation, there is an important source of funding available in NIH—the DHHS "Evaluation Set-Aside." It is important to remember, however, that these funds are limited and that competition for them is stiff. The "Evaluation Set-Aside" fund authorizes a small percentage of each year's Department of Health and Human Services (DHHS) appropriation to be used to assess the effectiveness of federal health programs and to identify ways to improve program implementation. This fund is available to NIH and other Public Health Service agencies in DHHS; within NIH it is administered by the OE.

The OE has published the *NIH Program Evaluation Guide*, which provides information on how to apply for these funds. The OE guide contains information that may be helpful even if Set-Aside funds will not be used for the evaluations. Supporting materials in the guide provide information on typical evaluation strategies used for each type of program evaluation; examples of program goals, performance measures, comparison measures, study questions and conceptual frameworks; and tips on how to develop an evaluation budget estimate. An outline version of the *Program Evaluation Guide* is available on the NIH/OE website.

Appendix

Supporting Tables for Determining the Scope and Focus of an Administrative Restructuring (FTEs in Scope)

Table 3.1. (Administrative Function) Certified FAIR Act Inventory Staffing List

IC	Administrative Title	Job Series	Pay Plan	Grade	Name	Part-time	Position Title	Activity FNC Code	Admin. Function Responsibilities	IC Responsibilities	IC other duties	Total FTE Usage
					xxx							
					yyy							
					zzz							
					VACANT							
					aaa							
					…							
Additional employees performing in scope functions (10% or more effort)												
					bbb							

Table 3.2. Survey of (Administrative Function) Employee FTEs by Location Where Performing (including vacancies identified separately)

Activities	CC	CIT	CSR	FIC	NCAAM	NCI	NCMHD	NCRR	NEI	NHGRI	NHLBI	NIA	NIAAA	NIAID	NIAMS	NIBIB	NICHD	NIDCD	NIDCR	NIDDK	NIEHS	NIGMS	NIMH	NINDS	NINR	NLM	OD	ORS	Total %
Task 1																													
Subtask																													
Subtask																													
Task 2																													
etc.																													

Table 3.3. Survey of (Administrative Function) Contract FTEs by Location Where Performing

Activities	CC	CIT	CSR	FIC	NCAAM	NCI	NCMHD	NCRR	NEI	NHGRI	NHLBI	NIA	NIAAA	NIAID	NIAMS	NIBIB	NICHD	NIDA	NIDCD	NIDCR	NIDDK	NIEHS	NIGMS	NIMH	NINDS	NINR	NLM	OD	ORS	Total	%
Task 1																															
Subtask																															
Subtask																															
Task 2																															
etc.																															

Table 3.4. Distribution of Responsibilities after Restructuring

Activities	Consolidated Service Center	IC Responsibilities	IC-Level Changes
Task 1			
Task 2			
etc.			

THE NIH A-76 COMPETITIVE SOURCING EXPERIENCE:
Key Lessons Demonstrated

EXECUTIVE SUMMARY

NIH's first two competitive sourcing competitions under Office of Management and Budget (OMB) Circular A-76, conducted in fiscal year (FY) 2003, directly impacted two ARAC groups: Grants and Facilities. While the Academy was not involved in NIH's competitive sourcing efforts, the close association and the similarities in some of the experiences with ARAC merit a brief description of the A-76 process and lessons learned.

Competitive sourcing opens commercial functions performed by the federal government to competition with the private sector to achieve cost savings. It was formalized in federal policy when the OMB released its first Circular A-76 in 1966, but was practiced by few agencies beyond the Department of Defense through the 1990s. Its inclusion in the President's Management Agenda (PMA) in 2001 and the revision to the Circular in 2003 renewed interest in—and guidance for—competitive sourcing across the federal government.

NIH faced challenges in complying with A-76. The NIH in-house teams won both of NIH's first two competitions; each involved more than 700 full time equivalent (FTE) staff and was completed in just over nine months. The new NIH organization that won the competition to provide administrative support for NIH's $20-billion extramural grants program, eliminated 296 FTEs and was expected to produce an estimated $15 million in annual savings. It began operations in October 2004. The new NIH organization that won the real property management (Facilities) competition called for a 100-FTE reduction, but implementation was stalled by a bid protest and union dispute, which together were not expected to be resolved until 2006.

A-76 Lessons Learned and NIH Actions

In May 2004, NIH convened a Lessons Learned Workshop with staff involved in the two 2003 competitions. The Workshop, as well as NIH's post-award experience, highlighted several lessons. NIH should:
- Dedicate additional resources (staff, funding, and facilities) to perform A-76 competitions
- Focus more on advance planning for competitions, including developing credible, standardized workforce data and realistic expectations for post-award staff availability
- Identify additional contract support providers with more A-76 expertise
- Clearly define and communicate roles, responsibilities, and points of contact

NIH has taken these lessons to heart and has begun implementing changes, including:
- Hiring more NIH staff and using contractors with greater A-76 experience
- Providing clearer guidance for advance planning and analysis, including workload calculations
- Stressing the primacy of the NIH mission over simply winning the competition
- Developing an A-76 Handbook to clarify roles and responsibilities
- Facilitating better communication and engaging stakeholders at all levels, including labor unions

INTRODUCTION

At about the same time NIH embarked on the ARAC restructuring process, the agency began conducting competitive sourcing competitions. The first two such competitions, the largest at NIH to date, directly impacted two of the ARAC areas, Grants and Facilities. The Academy was not actively involved in NIH's A-76 efforts and did not formally study them. However, their close association with the ARAC initiative, and the similarity in some of the experiences, merits a description of the A-76 process and of NIH's experience.

This appendix presents a brief background on the A-76 process government-wide, a description of NIH's early experience, and a discussion of the lessons NIH has learned from that early experience and how it was responding. Much of the information about NIH in this appendix was obtained anecdotally as the Academy staff met with NIH officials and staff actively working on ARAC initiatives. However, Academy staff also reviewed documentation of an A-76 Lessons Learned Workshop and met with officials responsible for A-76 implementation. The scope and methodology is described further at the end of this appendix.

BACKGROUND

Competitive sourcing opens commercial functions performed by the federal government to competition with the private sector to achieve cost savings. Contracting out for goods and services, when cost effective, has been formalized in federal policy since the OMB released its first Circular A-76 in 1966. Through the 1990s, however, few civilian agencies practiced competitive sourcing. The 1998 Federal Activities Inventory Reform (FAIR) Act required agencies to classify all functions as commercial or inherently governmental and submit an inventory of their staff positions to OMB each year for both categories.

PMA Puts New Government-wide Emphasis on Competitive Sourcing

In 2001, competitive sourcing received renewed attention across the federal government, particularly in civilian agencies. The Administration made it a top-five priority in the PMA and directed agencies to compete 15 percent of commercial functions by FY 2003.[1] The ultimate goal is to compete 100 percent of commercial functions—more than 416,000 FTEs—by 2013. In an effort to improve the competitive sourcing process, OMB revised *Circular A-76* in May 2003 with new guidelines that:

- Emphasize "maximum value" for tax dollars and improving performance, not just reducing cost
- Eliminate direct conversions, which allowed agencies to shift work to the private sector without competition
- Require standard competitions (described below) if more than 65 FTEs are involved (agencies may select either a standard or streamlined competition for 65 or fewer FTEs)

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[1] Responding to criticisms that the government-wide target of 15 percent was arbitrary, OMB subsequently developed a scorecard approach to tracking progress that is more tailored to each agency's mission and workforce.

- Limit the standard competition to 12 months, by which time a decision must be made to award the work to a new "most efficient organization" (MEO)[2] within the government or a contractor outside the government
- Allow in-house employees to appeal the competition decision—in addition to appeals by losing bidders and unions

Although civilian agencies had little experience with competitive sourcing under Circular A-76 prior to 2003, they are already adjusting their approaches. For example, between FY 2003 and 2004, the average size of competitions by federal agencies doubled as these agencies found that larger competitions are often needed to achieve significant cost savings and attract private-sector bidders. During this period, agencies conducted fewer competitions, but the average FTEs studied doubled from 27 to 58.[3] Expected net savings over three to five years grew from $1.1 billion to $1.4 billion. Taking into account costs of conducting competitions, average savings per FTE increased from $12,000 to $22,000, indicating economies of scale.[4]

DHHS is one of six departments to achieve "green light" status on the PMA scorecard, indicating that the agency has developed and implemented an OMB-approved competition plan, completed at least 10 competitions since January 2001, completed at least 90 percent within a 12-month time frame, and cancelled fewer than 10 percent of announced competitions.

The A-76 Process

The standard competitive sourcing process has several steps:

- <u>Preliminary planning</u> – Agency selects the activities and FTEs to compete; determines baseline costs; develops competition schedule; and appoints competition officials, including the agency tender official, contracting officer (CO), and performance work statement (PWS) team leader.
- <u>Public announcement</u> – Agency formally announces the start date of the competition.
- <u>Performance work statement</u>[5] – In-house team prepares the PWS to specify the work needed and clarify how bids will be graded.
- <u>MEO</u> – In-house team establishes the staffing plan and cost proposal for its in-house bid.
- <u>Competition</u> – Private bidder(s) and MEO submit bids to the source selection authority, who is an appointed agency official operating independently from the agency tender official, human resources adviser, or MEO team for the A-76 competition.

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[2] An MEO is a federal agency's in-house staffing plan for an A-76 competition, representing the most efficient and cost-effective organization. The MEO proposal is compared to the bids submitted by private-sector companies.

[3] In 2004, federal agencies held 217 competitions, including 12,573 FTEs, collectively estimated to generate $1.4 billion in savings over three to five years. In 2003, agencies held 662 competitions including 17,595 FTEs, saving $1.1 billion over three to five years. (Safavian, 2005)

[4] Net savings = total gross savings less incremental costs. Does not include fixed costs for either year ($36 million in FY 2004, data were not collected in FY 2003). (Safavian, 2005)

[5] A performance work statement is a statement of the technical, functional and performance characteristics of the work to be performed. It identifies essential functions to be performed, determines performance factors, including the location of the work, the units of work, the quantity of work units, and the quality and timeliness of the work units.

- Source selection – The source selection authority evaluates the in-house proposal against private sector bid(s) using COMPARE software. The agency then publicly announces the competition winner.
- Post-competition accountability – Circular A-76 requires agencies to track competitions in a database, monitor performance (e.g., actual costs and performance metrics for chosen service provider), and post best practices and lessons learned on the SHARE A-76 web site. The function must be re-competed every five years.

A streamlined competition differs from the process described above in three key ways. The competition (1) must be completed in less than 90 days, (2) involves 65 or fewer FTEs, and (3) does not require private contractors to submit a bid; the agency can perform market research to determine the cost of performing the activity in the private sector. Agencies conducting streamlined competitions are encouraged, but not required, to form MEOs.

Agencies' Challenges in Implementing A-76 Competitive Sourcing

Many agencies continue to struggle to meet the requirements of Circular A-76. The Government Accountability Office (GAO) gleaned several lessons from Department of Defense (DOD) A-76 competitions in the 1990s: (1) studies took longer than initially projected, (2) costs and resources required to prepare the studies were underestimated, (3) selecting and grouping functions to compete was difficult, and (4) determining and maintaining reliable estimates of savings was difficult.

Subsequent GAO studies have shown similar challenges for civilian agencies. A 2004 GAO report identified several key challenges in a review of the competitive sourcing activities at seven agencies, including DHHS: (1) developing workforce inventories and classifying positions as inherently governmental and commercial, (2) ensuring adequate personnel with the skills needed to run a competitive sourcing program, and (3) securing funding to conduct studies.

GAO cautioned that OMB guidance has emphasized process over results. In response, agencies have not assessed broader issues, such as weighing potential improvements against the costs and risks associated with the competitions. GAO recommended that OMB help agencies to (1) ensure greater consistency in classifying positions, (2) make more strategic and transparent sourcing decisions by identifying broader functional areas for competition, and (3) focus on efficiency and performance outcomes.

NIH'S EXPERIENCE WITH A-76 ACTIVITIES

To handle this new work, NIH established a new A-76 office and transferred positions to it from other offices. In its most recent FAIR Act inventory, more than half of NIH's nearly 18,000 FTEs were classified as commercial. Like other civilian agencies, NIH had little experience with competitive sourcing prior to its inclusion in the PMA in 2001. NIH began its first two A-76 competitions on October 1, 2002: Grants and Facilities.

Each involved more than 700 FTEs and was completed in just over nine months—a short time period, given that DOD studies took an average 25 months prior to the revised Circular. The Grants MEO, the newly formed Division of Extramural Administrative Support (DEAS), provides administrative support for NIH's $20-billion grants program.[6] Its creation was expected to eliminate 296 FTEs and was expected to produce an estimated $15 million in annual savings. While about 30 potential bidders attended the offering conference, only one submitted a proposal. That bidder failed to meet agency requirements, and the in-house team won. The in-house team also won the Facilities competition, but the award was stalled by a bid protest and a union dispute, which were not expected to be resolved until 2006.

While other agencies are moving toward larger competitions, NIH is taking a different tack. The 11 competitions completed in FY 2004 were significantly smaller than those in 2003, ranging from 2 to 61 FTEs, and most were streamlined competitions. The in-house team won in all but one of the 2004 competitions.

Status of FY 2003 MEOs

Grants: The Grants MEO, DEAS, began operations in October 2004, one year after winning the A-76 competition. An interim director of DEAS was appointed in February 2004 and a permanent director was appointed in April 2004. However, in February 2005, the director left the position, and it remained open as of June 2005.

DEAS represented a major downsizing, a significant process reengineering, and a significant cultural shift—away from independent grants operations in the Institutes and Centers (ICs) toward centralized operations. The MEO's bid relied on automated systems and a matrix management approach to support a 296-FTE reduction—about one-third of the staff that had been performing the covered tasks—and included a significant reduction in grade levels. The PWS included administrative grants support functions, such as grants file management, typing and answering phones, preparing travel and training documents, maintaining data systems, and supporting meetings. Previously, this work was carried out by staff in NIH's Center for Scientific Review and in the Grants Management Offices and Program Offices in 24 of the agency's 27 ICs.

NIH struggled as it "learned by-doing" in setting up this first new A-76 organization. The transition was very stressful for the grants management community. In the year leading up to implementation, IC grant offices had to continue performing the duties slated for DEAS as they grappled with substantial staff transfers and departures. After the "stand up," the ICs had to remain flexible as the new—and largely inexperienced—DEAS staff came up to speed on the duties being transferred to them. In addition, NIH had to establish another new A-76 office—the Transition Center—in the Office of Strategic Management and Planning, to handle the employees no longer utilized in the grants function. The Office of Human Resources also experienced significant new work associated with the MEO transition.

By the summer of 2005, the MEO was still having difficulties assuming all of the functions included in the PWS, in part because many knowledgeable staff left during the transition. DEAS

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[6] FY 2004 NIH Awards (competing and non-competing).

has had to devote substantial resources to train new hires, an effort complicated by continuing high turnover. The Academy's study of workload shifts (see Appendix H) identified DEAS as a primary source of additional work falling on administrative officers (AOs), executive officers (EOs), and Science Directors working in extramural research, and found that the grants managers in the ICs were developing "workarounds," using grants management staff, that diluted the efficiency goals of consolidation.

Facilities: The NIH MEO bid was selected in the 2003 Facilities A-76 competition. However, the sole commercial bidder filed a protest with GAO and no final selection was expected until 2006.

The PWS for the competition established a single performance-based contract to cover grounds and facilities management, operations, and maintenance; operation and distribution of utilities; and design and construction of interior alterations, renovations, repairs, and new construction at the Bethesda Campus and three major off-campus installations. These functions were already carried out centrally by the Office of Research Facilities Development and Operations, which will retain responsibility for certain core functions—such as master and facilities planning; management of large or high-risk construction projects, and environmental stewardship—when the competitive organization (MEO or private contractor) is created.

The commercial bidder claimed that NIH unfairly underbid the contract and the proposed MEO was not equipped to fully meet the PWS requirements. Both parties and GAO agreed to have an independent consultant review the NIH proposal and recommend adjustments in the staffing level-of-effort proposed to accomplish the stated scope. NIH would then make adjustments to the cost proposal to incorporate the independent recommendation, and the procurement office would re-evaluate the proposals for selection. The outside competitor's proposal would remain unchanged. The independent study was targeted for completion by the end of October 2005.

At the same time, the major labor union representing many of the staff affected by the MEO objected to the proposed staffing process. The MEO wanted to select staff on merit, while the union insisted that they be selected by seniority. The agency and union are in a formal dispute process which will not be further addressed until the final service provider is chosen.

Unlike DEAS, this MEO does not represent a significant change in culture; facilities management was already largely centralized. However, the MEO bid called for a reduction in staff of about 25 percent, as well as a significantly lowered grade structure. The uncertainty surrounding the status of the MEO was taking its toll on staff morale. Staff were leaving, confronting NIH with what officials saw as growing burnout for remaining staff.

Status of related FY 2004 MEOs: One of the FY 2004 competitions also directly relates to the ARAC initiatives. Prior to the ARAC initiative, NIH decided to compete the already-centralized Office of Research Services conference room management program in the Washington, DC area. The PWS for visual and medical arts included management of all conference rooms accommodating more than 50 people, as well as related video conferencing, medical and visual arts, and some information technology functions. Completing the conference room consolidation was included in the ARAC Facilities goals. The NIH MEO bid for visual and medical arts was

selected and the new organization will go on line in FY 2006, with or without the proposed ARAC adjustments to conference room management consolidation.

LESSONS LEARNED AT NIH

The Lessons Learned Workshop with staff involved in the two 2003 competitions, convened by NIH in May 2004, affirmed the importance of decisive leadership and advance planning. A general consensus emerged from the group that NIH should (1) dedicate additional resources (staff, funding, and facilities) to perform A-76 competitions; (2) focus more on advance planning for competitions, including developing credible, standardized workforce data; (3) identify additional consultant support with more A-76 expertise; and (4) more clearly define roles, responsibilities, and points of contact. As MEO implementation proceeded, other lessons emerged, especially the need to anticipate the impact of unexpected attrition and workload increases.

> *…self-assessment provided valuable insights and NIH has taken these lessons to heart.*

This self-assessment provided valuable insights and NIH has taken these lessons to heart. Many of the lessons mirror those learned during the ARAC process, including those related broadly to resources, sound data, integration of initiatives, outside assistance, communication, and change-management. By 2005, NIH was implementing changes to address the major problems encountered. The major lessons learned are summarized below, followed by a brief description of NIH's key efforts to improve ongoing and future competitive sourcing actions.

Resources

Implementing Circular A-76 required a significant level of resources. NIH spent $3.5 million in 2003 on contract support for its two large studies. The two competitions also diverted more than 114,000 hours of staff time. The funds for both came out of the operating budget. At the same time,

> *Implementing Circular A-76 required a significant level of resources.*

ARAC consolidation and other cuts in staff and resources further strained the agency. Lessons Learned Workshop participants recommended securing a commitment from management at NIH and DHHS to provide special staff, money, and facilities to run the A-76 program.

Other federal agencies also spent large sums on A-76. OMB estimates the average government-wide costs of administering competitions to be $2,000 to $5,000 per FTE studied. In one case, the U.S. Department of Agriculture (USDA) spent more administering competitions in FY 2003 than it achieved in savings. Its Forest Service reported spending $18.7 million on competitive sourcing in FY 2002-03, more than half of USDA's total A-76 expenditures. The Forest Service acknowledges that cost savings were lackluster because more than half of its 160 competitions involved three or fewer FTEs and generated little public sector interest.[7]

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[7] In March 2004, the Surveys and Investigations Staff of the House Appropriations Committee reported on "Implementation of the Competitive Sourcing Initiative at the U.S. Forest Service." The report pointed to a number

Data Collection

In a 2004 report, the GAO cited NIH's decision support software as a promising approach to identify activities to compete. The software captures and uses managers' judgments to assess the mission effectiveness, human capital impact, demand, and risk of each commercial activity. Following this exercise, NIH's Commercial Activities Steering Committee (CASC)[8] considers additional factors, such as the impact on mission, costs, socioeconomic impacts, and potential advantages to competing the activity. NIH used this approach to identify grants management support and real property management as good candidates for competition.

> *…the lack of accurate, credible data made preparation of the MEO bid difficult and contributed to staff resistance to the change.*

Despite this attention to data-driven decision making, the lack of accurate, credible data made preparation of the MEO bid difficult and contributed to staff resistance to the change. There was a perception that the FAIR Act inventory data were not consistent across the ICs and that some ICs had not reported all FTEs for the competed functions. Workshop participants stressed that leadership must ensure that teams don't "game" the system. The Workshop group recommended improving data collection and suggested reviewing current NIH business systems that could be used or modified to support this effort (e.g., timekeeping, projects module).

Integration with Related Change Efforts

A critical issue for NIH was the integration of A-76 activities with two contemporaneous initiatives: the NIH Business System (NBS) and ARAC restructuring. ARAC and A-76 have a similar focus on centralization and streamlining, and their anticipated efficiencies were in part predicated on anticipated software improvements.

> *A critical issue for NIH was the integration of A-76 activities with two contemporaneous initiatives: NIH Business Systems and ARAC restructuring.*

At first, NIH had difficulty determining the order of priority between A-76 and ARAC consolidations. For example, the Lessons Learned Workshop participants from the grants competition suggested that A-76 should have been postponed until after ARAC consolidation was complete. Ultimately, the specific ARAC goal to establish service centers for several grants functions was transferred to the MEO, effectively separating the two initiatives. Even so, early uncertainty was problematic. The Workshop participants recommended creating a subcommittee made up of representatives from the ARAC and A-76 efforts to share information.

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of lessons learned, including several intended to reduce the costs and burden on staff of implementing competitive sourcing competitions.

[8] CASC is chaired by the DDM and comprised of EOs and senior NIH officials in the areas of competitive sourcing, acquisition, strategic planning, HR, EEO, General Counsel, and IT.

Outside Assistance

> *Because in-house time and expertise to implement A-76 was limited, outside assistance was instrumental.*

Because in-house time and expertise to implement A-76 was limited, outside assistance was instrumental. NIH recognized this, and secured contract support for the teams developing the PWSs and MEO proposals. However, while the contractor was familiar with A-76, it lacked experience with a decentralized organization like NIH and did not always provide the best advice, urging a reduction of FTEs and costs beyond what many believe in retrospect was necessary or prudent. Its recommendations were not based on a workload analysis. The Lessons Learned Workshop participants recommended using more than one contractor, improved data collection tools, and training that is focused, ongoing, and up-to-date with A-76 rules.

Other agencies have successfully relied on contract support. One Navy official who had participated in a competitive sourcing study noted that it is important that contract support be on-site and on call. He also cautioned that agencies should use contractors as a supplement, rather than a substitute, for government involvement in the process.

Communications

Initially, A-76 competitive sourcing was regarded with suspicion and resistance at NIH, making effective communication a high priority. Communicating across the 27 ICs at NIH was a significant challenge, which the agency took several steps to meet. In October 2003, the Commercial Activities Review Team (CART)[9] developed a communications plan to coordinate between DHHS and NIH leadership, staff, and other stakeholders; and to delineate roles and responsibilities. Among other things, the plan called for:

- Weekly meetings with CART and CASC
- Monthly meetings with stakeholders (e.g., EOs)
- Internal A-76 web site with FAQs and information on the process
- Town hall meetings on the A-76 process (held in November 2002 and March 2003)

Despite these efforts, Lessons Learned Workshop participants pointed to weaknesses in communication both within the NIH community as a whole and among the staff carrying out the competitions. For example, they noted that staff throughout NIH were not convinced that change would occur, and reported that ICs weren't kept fully informed during the competition process. Participants also reported that there was uncertainty about roles

> *…there was uncertainty about roles and responsibilities of the various players and slow responses to inquiries.*

and responsibilities of the various players and slow responses to inquiries. Anecdotal information also indicates that promised IC-level briefings were postponed or cancelled, further frustrating staff hoping for information, and that information distributed to different groups of people sometimes seemed contradictory.

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[9] CART, made up of staff from OMA and contract support, provides overall project leadership of the A-76 process.

Change Management

NIH's experience demonstrated the potential for unanticipated consequences and the need to be able to make mid-course corrections. The grants MEO was bid on the expectations that the downsized operation would (1) include mostly existing staff with institutional knowledge, (2) be staffed with mostly federal workers, and (3) benefit from electronic grants processing tools. Instead, for a variety of reasons—job uncertainty or dissatisfaction, buyouts, or transfer—people left and the MEO faced a staffing shortage.[10] New staff were hired; more than half of the staff were not familiar with grants operations or NIH. More than 60 contractors were also brought on to fill the gap temporarily. Finally, DEAS is still three to four years away from having a fully electronic grants process.

> *NIH's experience demonstrated the potential for unanticipated consequences and the need to be able to make mid-course corrections.*

A significant increase is grants workload compounded the impact of the staffing problems. From 2002 to 2004, the number of applications increased by 30 percent and the number of customers by 40 percent. As of July 2005, DEAS only had enough FTEs to cover the 2002 workload. Because the organization operates under a contract with NIH to provide grants administrative services, it was required to submit contract modifications before increasing staffing levels. The FY 2006 modification requested an additional $4.9 million in funding and 94 FTEs. As of June 2005, DHHS and NIH had not provided clear guidance or established processes to submit modifications for A-76 contracts, making this a difficult task.

Policies intended to ease the transition for workers affected by A-76 also had unintended consequences, leaving NIH understaffed in vital areas. In setting policy for A-76 operations, DHHS promised that no staff would lose their jobs. One step to help ensure this was a Transition Center for employees displaced as a result of A-76 or other consolidation actions. The center offers job search/placement resources, including a course on creating resumes, and one-on-one assistance from career counseling specialists. But NIH also established some broad hiring and promotion freezes, in part to help ensure that positions would be available for staff not included in the MEOs. As the competitions and implementation dragged out, many parts of

> *Policies intended to ease the transition for workers affected by A-76 had the unintended consequence of leaving NIH understaffed in vital areas.*

the agency, not just those directly affected by A-76, experienced attrition. Several functional areas, chief among them Facilities and Finance, became significantly understaffed, putting stress on existing staff and negatively impacting morale. In particular, the Facilities function faced significant attrition while it waited for the bid protest to be decided, with officials reporting the professional facilities workforce down by about one-third, and staff in trade skills down by about half.

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[10] NIH's experience has mirrored other agencies' experiences with A-76. An October 2004 report by the IBM Center for the Business of Government found that only 13 percent of positions reduced through competition were involuntarily separated; the majority left the agency though retirement or transfer to another government job.

NIH ACTIONS

Resources and Planning

Following the 2003 competitions, the Office of Management Assessment, the division that oversees competitive sourcing at NIH, increased its staff and requested additional on-site staff with A-76 expertise. The agency began using two contractors to support competitions, instead of just one. One of those contractors was also helping DEAS with training, contract modifications, and validating workload data.

> *NIH has provided clearer guidance for the planning and analysis that underlies the A-76 process.*

NIH has provided clearer guidance for the planning and analysis that underlies the A-76 process. In stressing early planning and more standardized data collection, the agency is mirroring other agencies' experience. Many agencies moved through the competition process quickly at first, but now recognize the need for planning ahead. The Office of Personnel Management recommends building in at least 60 to 120 days for strategic planning.

In the beginning, OMB and DHHS established quotas for the yearly percentage of staff to be studied for competition. In addition, NIH's contractor pushed the in-house teams to reduce FTEs and costs beyond what was apparently necessary to win the competition. NIH's competitive sourcing official now stresses that ensuring adequate performance of the agency's mission—rather than just winning the competition—is the top priority. NIH also has given staff more guidance on FAIR Act inventories and calculating FTEs. One important change is that in determining what positions to include, organizations can "split" FTEs, recognizing that many positions include functions that are both in and out of the scope of the PWS. Human resources staff are also being made more active partners in the process in order to better assess what the probable staffing pool will look like when an MEO is created.

Communications

Early communication efforts were hampered, at least in part, by the newness and speed of the process, as well as by limited staff capacity. Following the first two competitions, NIH leaders recognized that clear communication and active stakeholder involvement are important elements of success.

> *Following the first two competitions, NIH leaders recognized that clear communication and active stakeholder involvement are important elements of success.*

NIH was working with one of its contractors to develop an A-76 Handbook. Officials pointed to this effort as key to providing detailed guidance for teams involved with competitions, particularly to clarify roles and responsibilities, as well as to inform the community as a whole about the process.

In addition to the handbook, the competitive sourcing official or his staff was sitting in on all of the competition teams' meetings to facilitate communication among those responsible for the process, to clarify issues, and to resolve problems or ensure they are addressed by senior management.

NIH also was making efforts to engage stakeholders at all levels. All of the key people involved in the process were receiving training on A-76. An interactive web site was established to allow users to e-mail OMA directly; leadership reported that queries were answered promptly. NIH began issuing a monthly status report to all EOs letting them know what is going on with all of the competitions. In an effort to avoid the problems of the 2003 Facilities competition, NIH was now making an increased effort to include union representatives in meetings during the preliminary planning process.

Other agencies have taken similar measures to facilitate communications. The Social Security Administration created a competitive sourcing newsletter and held town hall meetings to educate staff about the process. The Department of Commerce established a web training module to perform the dual functions of training employees on conducting competitive sourcing studies and opening lines of communication to address staff concerns. The materials on the site were made available to all federal employees as a way to share information and promising practices.

CONCLUDING COMMENTS

The Grants and Facilities competitions in 2003, as well as the successful competitions conducted in FY 2004, provide NIH with a base of experience with which to move forward in conducting A-76 competitive sourcing activities. As 2013 approaches—when all commercial functions must be competed and several functions will have been re-competed (as required every five years)—it will become increasingly critical to ensure constant and clear communications, solid data collection, and involvement from NIH leadership.

SCOPE AND METHODOLOGY

The Academy did not study or evaluate NIH's A-76 processes and has limited this discussion to areas that most directly relate to the ARAC focus of this report. The information presented here was gleaned from the Academy's work with those implementing ARAC restructurings as well as from interviews with NIH staff involved in conducting A-76 competitions, including the NIH competitive sourcing official. Academy staff also reviewed notes and an executive summary of recommendations from NIH's May 2004 A-76 Lessons Learned Workshop. Additional information was collected through a literature review including newspaper articles on competitive sourcing from the Lexis-Nexis database and the web site of *Government Executive*, which has archived several in-depth articles in a section of its site devoted to A-76. In addition, the Academy reviewed reports relating to competitive sourcing published by OMB and GAO from January 1, 2000, to May 2005.

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IMPLEMENTATION OF NIH BUSINESS SYSTEM:
Key Lessons Demonstrated

EXECUTIVE SUMMARY

The new NIH Business System (NBS) seeks to combine the latest technology with proven best business practices and, as such, represents a fundamental change to NIH's administrative support functions. The Academy has not been involved in NBS implementation and has not reviewed that project. Accordingly, the information presented in this appendix focuses primarily on NBS as it relates to ARAC, especially in terms of lessons about communication and change management.

NBS Goals and Accomplishments

NIH chose the commercial-off-the-shelf Oracle software package to replace its 20-year-old outmoded Administrative Data Base. The expectation was that the Oracle system would be brought online with minimal revisions. However, because the system did not support government functions as well as originally expected, the timeline for implementation was significantly extended, and the NBS project team put considerable effort into identifying and making necessary modifications to the system.

Largely due to the decision to postpone deployment until the system could be modified and fully tested, the first two of six modules were deployed in September and October 2003, respectively, in accordance with the revised deployment schedule. The NBS Project Office was on track to deploy most of the remaining modules in 2006, but reduced appropriations have delayed scheduled deployment until at least 2007.

Lessons Demonstrated by the NBS Experience

NBS officials point to two key lessons: (1) do not proceed until you are ready, and (2) an organization cannot have too much communication. An important factor in NBS's progress was the attention paid to communication and change management. The change-management team worked in concert with the technical teams to ensure that change management and "people issues" were considered along with technical ones.

Although deployment of the first two modules was a major accomplishment for the agency, it was not without some problems. The NBS project team has benefited from a formal, self-assessment of its experience with the first two modules. Some of the key lessons learned, and areas where improvements were being made, include:
- Users of the system must understand that they own the system and must be given—and must accept—a role in system design and development.
- Change agents can be used throughout the organization to support transition and ensure information is communicated throughout the agency.
- Training needs to be mandatory and needs to make clear the relationship between the new systems and the old and new business processes.
- System deployment is only the beginning of implementation.

INTRODUCTION

NBS is one of the three major restructuring initiatives ongoing in NIH, along with competitive sourcing activities under the Office of Management and Budget Circular A-76 and ARAC. The purpose of NBS is to enhance NIH's administrative support to its biomedical research mission and to replace aging legacy computer support systems. It seeks to combine the latest technology with proven best business practices and, as such, represents a fundamental change to NIH's administrative support functions.

NIH's experience with ARAC has been tied closely to its experience with NBS. NBS directly relates to four of the eight ARAC functional areas: its new automated systems support (or will support) Acquisition, Facilities, and Finance, as well as the travel administration function of the Grants most efficient organization. More broadly, the concurrent implementation of the three major initiatives has implications for the success of each of them. Finally, the lessons the NBS project team identified in many ways mirror, and confirm, those learned directly from the ARAC experience.

The Academy has not been involved in NBS implementation and has not reviewed that project. So, the information presented in this appendix focuses primarily on NBS as it relates to ARAC, especially in terms of lessons about communication and change management. It is based largely on information obtained anecdotally as the Academy worked with the ARAC initiatives, but also from review of briefing materials and interviews with the Director of the NBS Project Office and the officials responsible for NBS's communication and change-management programs.

NBS PROGRESS AND STATUS

The NBS Project Office was officially established in May of 2001, after almost two years of preparation. During that time, NIH conducted requirements studies and chose the commercial-off-the-shelf Oracle software package to replace the 20-year-old outmoded Administrative Data Base. The expectation was that the Oracle system would be brought online with minimal revisions. NBS has six primary modules: finance/budget, travel, real and personal property, acquisition, supply management, and service and supply fund. The key advantage of the Oracle system is that it integrates these modules and provides superior report-generating capabilities. In addition, technically proficient staff and consultants are more readily available to maintain and operate the new system than the outdated legacy system.

The systems integration contractor was brought on board in early 2001 shortly before the NBS Project Office was established. Under the original deployment schedule, the first modules were to be deployed in late 2002, and all six modules were to be deployed by the middle of 2004. However, the Oracle system did not support government functions as well as originally expected—a lesson many government agencies were learning at the same time. Consequently the timeline for implementation was significantly extended, and the NBS project team put considerable effort into identifying and making the necessary modifications to the system. New timelines were established, with the first two modules—travel and finance/budget—to be deployed in the fall of 2003, and the others pushed back until 2006 or later. Simultaneously with

development of NBS, the NBS Project Office was cooperating with the NIH team working to create a new integrated database—nVision—to replace NIH's old "data warehouse" (the Automated Data Base). nVision will contain data to support NBS and to provide the basis for periodic and ad hoc reports in support of performance assessment and internal management controls.

Do not proceed until you are ready. Largely due to the decision to postpone deployment until the system could be modified and fully tested, the first two modules were deployed in September and October 2003, respectively, in accordance with the revised deployment schedule. NBS officials pointed to this as their most important overall lesson or best practice, one they found to be echoed over and over again at organizations they looked to as benchmarks: do not proceed until you are ready. And being ready means not only having the software ready, but having the organization ready to accept and use it effectively.

The NBS Project Office was on track toward a goal of deploying three of the remaining modules in 2006, but, because of unexpected reductions in appropriations for fiscal year 2006, they have postponed deployment until at least 2007.

COMMUNICATION AND CHANGE-MANAGEMENT EFFORTS

An important factor in NBS's progress was the extensive attention paid to communication and change management; an explicit change-management effort, with a dedicated core staff, is essential to the success of major systems deployment. A staff of ten (four NIH employees and six contract employees) has supported development and implementation of communication and change-

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This change-management team worked in concert with the technical teams to ensure that "people issues" were considered along with technical ones…

management plans, along with many related analyses and activities. This change-management team worked in concert with the technical teams to ensure that "people issues" were considered along with technical ones, such as data conversion, in designing and deploying the system modules. Their work was consistent with activities and approaches widely recognized as necessary for successfully implementing change, especially in large organizations.

The NBS project team defines change management as an integrated approach to transitioning employees into a new way of accomplishing work. They prepared an extensive change-management plan that involves five inter-related activities:

- **Communications:** The communication plan is directed to all types of stakeholders—keeping them informed, ensuring two-way communication, and modifying the message and approach to the needs of different audiences.

- **Workforce transition:** Key activities include a Critical Implementation Issues Summary and "role-mapping"—to identify the "as is" and "will be" roles of specific positions with regard to system execution.
- **Training:** Training is provided to ensure that staff have the skills necessary to use the system.
- **Evaluation:** Data, customer surveys, and other ongoing assessment tools are used to help determine the success of communications, change management, and workforce preparation.
- **Lessons learned:** A one-time, formal assessment is conducted after the transition to identify improvements needed in the change-management process before the next module is installed.

Some of the key change-management activities performed by the NBS project team were:

- Preparing a stakeholder analysis to identify which employees would be affected and how, and to identify which communication strategies would work best with each group
- Conducting role-mapping to identify how staff functions would change once the new systems were deployed
- Providing extensive training to staff responsible for using the new systems

The NBS project team benefited from a formal self-assessment of its experience with the first two modules.

Deployment of the first two modules was a major accomplishment for the agency. But it was not without some problems. The NBS project team benefited from a formal self-assessment of its experience with the first two modules. The following sections describe some of the key changes the team has made in response to lessons identified from that experience. One major lesson underlies all of these efforts: an organization cannot have too much communication, and leadership needs to play a role in directing that communication.

…an organization cannot have too much communication...

Preparing the Agency for Change

The commercial-off-the-shelf software is designed to encompass best business practices from the business sector. As a result, agency processes must be changed to effectively use the software. This, in turn, often results in significant changes to individuals' responsibilities. NBS officials believe that the agency as a whole (many in management, as well as staff) did not fully comprehend the process changes that would need to occur. The NBS project team has improved its approach to focus on ensuring that the new system supports process changes that enhance completion of the functional tasks, and on communicating those changes better so they will enjoy greater acceptance.

Stakeholder ownership and input

The NBS project team was seeking to more effectively use stakeholder input to foster ownership by those who will use the system. The team used a wide variety of groups, for example, teams of technical experts, teams focused on processes, and advisory committees of high level Office of

the Director (OD) and Institute and Center (IC) officials, to obtain advice from, and to communicate to, the community about NBS decisions. But officials believe more should be done to ensure that the organizations responsible for the functions supported by NBS "take ownership" of the process and system. They have learned that users of the system need to understand that they own the system, and they must be given—and must accept—a role in system design and approval. For future modules, the NBS project team has worked to define better the roles and responsibilities of the "owners" of the system and to obtain and use their input more effectively.

> *…users of the system need to understand that they own the system, and they must be given—and must accept—a role in system design and approval.*

One important step to getting offices to take ownership is the creation of an Acceptance Board and Acceptance Team for each functional module, with members representing the OD and IC offices that are responsible for operating and using the system. These groups have been given a role beyond "advising." The Acceptance Board, among other things, verifies that process designs meet business requirements, approves acceptance criteria, and formally accepts the specific NBS module. The Acceptance Team is comprised of end users who are actively involved in system design, including participating in development and validation of the detailed system design and of test scenarios, and then running acceptance tests. The expectation is twofold that: (1) these, and other steps, will better ensure that the systems and processes work together to support the administrative functions, and (2) these groups will become active change agents supporting, rather than merely acquiescing to, the new systems.

> *A formal "acceptance" process is needed to get things right before implementation begins.*

A formal "acceptance" process is needed to get things right before implementation begins. The NBS project team is also working with the owners of the processes and systems to understand existing problems better. Not only will problems in the existing processes (such as bad data and slow input) not be fixed by implementing new automated systems, but those problems will cause difficulties that may appear to be caused by the new systems. The NBS project team is working with the functional owners of the new modules to identify and correct these problems before new systems are deployed.

Use of change agents

NBS officials believe change agents can be more effectively used to support transitions and ensure that information will be communicated throughout the agency. The responsibilities of the many players involved in the change-management process always included communicating with affected stakeholders and the community as a whole. For the future modules, however, Implementation Teams and "IC/OD Advocates," appointed by IC/OD leaders, will perform system advocacy and serve as points of contact to interface with the NBS project team on activities such as "role mapping" and data conversion. Among other responsibilities, these advocates will be responsible for communicating about NBS through the entire IC/OD. During earlier efforts, the NBS project team learned that

> *…change agents can be more effectively used to support transitions and ensure that information will be communicated throughout the agency.*

internal communications were weak in many ICs, and information did not always get passed down from those involved in NBS to the rest of the organization. As discussed later, the advocates also have a key role in coordinating training.

Preparing the Staff for Change

Training is a crucial component of change management, ensuring that end users clearly understand what changes are coming and what the changes will mean for them personally. Changes have been made to better ensure that all staff receive needed training. The NBS officials believe staff and IC/OD leadership did not take training seriously enough for the first two modules. One possible factor they cited was, again, the lack of understanding of how much processes would be changed by the new software systems. They also noted that the NBS Project Office did not have the authority to require training or to hold staff accountable for having the necessary training and skills to effectively use the system. This was a problem in the early modules, since many staff were initially unable to run the systems by themselves.

> *Training in the new system will be mandatory for anyone who will use it.*

As a result, new requirements have been established for future training efforts. Training in the new system will be mandatory for anyone who will use it. Users will have one opportunity to receive free NBS-provided training, after which their organizations will have to pay for it on a fee-for-service basis. Also, the IC/OD advocates will be responsible for certifying that their organizations meet minimum conditions for training and implementation, including that the entire organization is properly informed about systems coming online and required training has been received. Any individual not certified as having completed the required training will be barred from using the new system.

Also, the NBS project team's approach to training was being revised to improve staff members' understanding of how the new systems relate to changed business processes. Training will put the new systems into a context of the old and the new processes so staff can clearly understand exactly how what they did in the past will change and how the system supports the new approach.

> *…training was being revised to improve staff members' understanding of how the new systems relate to changed business processes.*

Providing Post-Deployment Support

System deployment is only the beginning of implementation. NBS officials emphasized that their role does not end once the systems are deployed. Among other things, they sponsored post-deployment user meetings and provided post-deployment hands-on help. For example, the NBS project team was expanding the role of Help-Points-of-Contact (HPOCs)—end users who can help as on-site mentors to assist staff to use the new systems effectively. HPOCs also may be important in identifying modifications necessary to keep or get systems running effectively. These HPOCs will be brought on board earlier and will be more thoroughly trained in their support functions than for the first two modules.

> *System deployment is only the beginning of implementation.*

Other Changes

The above sections only briefly highlight the lessons learned and changes being made. The NBS project team was continuing to improve and refine its approach in other ways. Some of the other ongoing efforts include:

- Developing clear role-mapping instructions and starting role-mapping earlier
- Fitting communication methods to the audience, telling each only what it needs to know, when it needs to know it—to avoid information overload and confusion
- Ensuring communication is in "plain language" and as brief as possible, while still getting needed information across
- Considering different training venues, such as on-site in an IC

MEASURING CHANGE AND PERFORMANCE:
Progress on Sound Metrics

INTRODUCTION

Meaningful, timely, and accurate data—sound metrics—help inform overall management strategies and allow leaders to move forward more confidently. As the eight ARAC implementation groups (IGs) worked to develop and implement restructured and reengineered organizational processes, NIH leaders wanted to be able to measure the impact of these changes. The central question to address: Have service levels stayed the same, improved, or deteriorated? More broadly, what difference has restructuring made, and has it been worth it? Is the new work more efficient?

In September 2004, NIH formally tasked the Academy with assisting the IGs in developing the metrics necessary to answer these questions. All eight groups started from different places—both in terms of the metrics already in use and the extent of change being implemented—and went about this task in different ways. Generally, the Academy was tasked with helping each group:

- Identify measures already in use to monitor performance as well as other available data that could be used for this purpose
- Identify through internal discussion and external benchmarking additional measures that could be useful
- Design and agree upon the measures to use to track pre- and post-ARAC performance

The groups were also to identify the data sources for these measures, develop service-level agreements (SLAs) to formalize roles and responsibilities for them and their customers, and establish the basis for continuously refining the goals and measures used to assess how well and how efficiently they are being achieved.

PERFORMANCE METRICS

Table G-1 summarizes the performance metrics that were in use or planned for the eight functional areas. The status of these efforts varied widely. The information technology (IT) group reached agreement on a new set of metrics and, as of the summer of 2005, was vetting them with the Institutes and Centers (ICs). In contrast, the Office of Equal Opportunity and Diversity Management (OEODM) was working to develop the expertise to establish meaningful metrics.

The table shows that several functions had no performance metrics prior to ARAC. This does not mean that the no data were collected, but rather that the data and the means to collect them were not systematic or uniform across the ICs. Therefore, it was difficult or impossible to establish baselines and measure the impact of restructuring efforts for these functions.

The Equal Employment Opportunity (EEO) and Finance areas had no metrics beyond legally mandated requirements—Title VI and VII complaint processing times in EEO's case and yearly

audit opinions in the case of finance. These were very high level and had limited usefulness for managing the function or assessing performance. Obtaining performance metrics pre-ARAC was a particular problem for the functions that had been highly decentralized (Grants, EEO, Human Resources (HR), Budget, and IT). While each IC may have tracked the functional performance relative to its needs, there was no NIH-wide performance tracking. In such decentralized functions, there is also a strong mistrust of data that compares ICs.

Some exceptions are the use of customer surveys and balanced scorecards by the Acquisition, Budget, Finance, and Grants groups, though the instruments varied in their utility. For example, the Grants measures operated at such a high level that it was difficult to discern individual IC issues, whereas Acquisition had more specific metrics. Where strong "customer" relationships existed—such as in the Acquisition and Facilities functions—existing performance measures will allow the impact of changes on customer satisfaction to be monitored.

Table G-2 lists in more detail the specific performance metrics and/or operational data available or under consideration for each group pre- and post-ARAC.

STAFFING AND WORKLOAD DATA

Most of the groups also needed to develop staffing and workload data, either to meet a goal of reducing staffing or to generate data to support decisions on how to reorganize. In all cases, the ARAC IGs had difficulty (1) agreeing on which specific activities and which positions should be counted in the function, (2) obtaining the necessary data, and (3) overcoming concerns about comparing ICs because of what members saw as fundamental differences in missions and operations. This was particularly true for the decentralized functions for which NIH had little in the way of centralized data. The groups also had trouble reconciling data collected for different purposes at different times.

One group—Grants—made a significant effort to obtain consistent data and to develop workload weighting factors to allow analysis of staffing across ICs that takes into account variations in the complexity of workloads. The group was careful to ensure that the staffing and workload data used were available in the agency's automated systems. The staffing and workload data will be updated periodically, and will be shared with ICs for their use in analyzing and changing their internal staffing patterns and grants processes. The weights the group agreed to were modeled on factors already in use by one large IC. Obtaining agreement on staffing data and weighting factors was seen as a major accomplishment for the staunchly independent grants community.

ACADEMY ASSISTANCE

Although the activities varied by group, the IGs and the Academy generally worked to (1) identify and benchmark groups' existing staffing and workload levels and performance metrics against comparable federal agencies and/or other organizations, and (2) identify additional forward-looking performance metrics that could be used to measure the impact of restructuring. After initial benchmarking, several groups worked to develop SLAs and choose which specific metrics to track.

The Academy performed staffing and/or workload benchmarking for six of the eight groups: Acquisition, Budget, EEO, Finance, Grants, and IT. In most cases—due to the differences in mission, size, and so forth—it was not possible to compare NIH's staffing with that of other agencies and determine optimal staffing and workloads. Such comparisons would require significantly more complex analyses than could be done within the time and resources available. In the one area—Budget—where the Academy was able to draw some conclusions, NIH was found to be "in the middle" of a wide range of staffing levels maintained by the benchmarked agencies.

The following is a brief description of the activities of the Academy and each IG related to this task order.

Acquisition

The Acquisitions group has tracked customer satisfaction and employee and vendor attitudes through a balanced scorecard survey for more than a decade. The group also used normal acquisitions metrics, such as protests and unobligated balances. The Acquisition ARAC group recommended adoption of SLAs for the seven new consolidated acquisitions centers, which will include the existing balanced scorecard and acquisition metrics, as well as new lead-time and business-efficiency measures. The group initially resisted the lead-time measure, but Academy benchmarking research showing that most other procurement organizations already used lead time as a measure was instrumental in gaining acceptance.

Budget

NIH's budget function has long been decentralized and the 2003 ARAC Report recommended that most of the activities and staff remain in the ICs. The Office of Budget (OB) used few metrics beyond customer surveys. The Academy's benchmarking determined that none of the five comparable federal agencies studied had meaningful budget performance metrics. Further, the Office of Management and Budget (OMB) does not use metrics to evaluate budget offices' effectiveness. NIH's Office of Budget fell in the middle of the benchmarked range in terms of staffing, and its customer surveys were among the better measures. The office may develop additional metrics for new functions being consolidated.

EEO

The primary metrics available to the EEO group related to maximum processing times for Title VI and VII non-discrimination petitions. The Academy conducted a literature review and prepared case studies to identify best practices, performance metrics, and staffing benchmarks for EEO. Little was found relative to staffing benchmarks or metrics for assessing program outcomes, such as staff attitudes toward diversity. It did identify numerous best practices and possible measures of program output, such as agency diversity profiles. OEODM's Division of Program Evaluation, is now working on developing expertise to create meaningful metrics.

Facilities

The Academy conducted a review of the Office of Research Facilities Development and Operations (ORF) records to identify existing measurements. Data in two areas—building indexing and a senior level customer satisfaction survey—were found to be possible baseline

measures. ORF also had a large activity-based costing database from which performance measures could be developed. Following this exercise, the Academy benchmarked facilities management measures against other public and private organizations. This work took on less significance, however, because ORF will be required to adopt new metrics in compliance with upcoming government-wide and DHHS initiatives by the end of fiscal year (FY) 2005. ORF is also grappling with development of other local business measurements. The Office of Research Services (ORS) also had existing measures for its conference room management: customer satisfaction and cost benchmarks. ORS is also considering additional metrics.

Finance

In Finance, some high-level measures, such as yearly audit opinions, existed to alert management to major problems, but additional measures were necessary to adequately identify problems before major failures occur and to assess performance over time. The original ARAC report recommended seven performance metrics. The Academy reviewed these, as well as eight measures published by the Chief Financial Officer Council and metrics in use by other federal agencies. As a result of these reviews, the Academy recommended that the Office of Financial Management (OFM) adopt a total of 24 performance metrics. OFM was reviewing these recommendations. (See Appendix J.)

Grants

The grants function did not have NIH-wide performance metrics, beyond basic data on the number of grants and the percent of applications submitted electronically. The Academy obtained information from several federal agencies concerning how they tracked grants management performance. Practices at the Centers for Disease Control (CDC) and the Environmental Protection Agency (EPA) revealed several options for performance metrics, which the Grants IG was considering.

HR

The Academy's informal investigation of the HR function at NIH revealed no performance metrics were being used in any IC, although some data were available on workload and processing time. A team of staff from the Office of Human Resources (OHR) worked with a group of six IC executive officers to determine performance metrics and draft SLAs. The OHR acting director and the drafting group were finalizing the SLAs to be presented to OHR's Strategic Advisory Committee for final approval. The SLAs will include performance metrics for key HR services, such as benefits, retirement, staffing, and recruitment. While it will not be possible to determine the impact of change, NIH will now be able to track performance against agreed-upon standards.

IT

The Academy benchmarked NIH's Active Directory (AD) and Central Network Monitoring System (CNMS) against five universities for performance measures and found that NIH systems are "ahead of the curve" in developing and using standard operating procedures and monitoring operations. For example, few of the universities had adopted the trouble ticket surveys which allow NIH to measure the services they are providing to customers. The Academy also worked closely with the Center for Information Technology (CIT) and the ICs to develop SLAs and performance metrics for the AD and CNMS. These were being vetted with the ICs during the

summer of 2005. Since baseline data were not available for the new measures, the IT implementation group agreed that performance standards would not be set until data have been collected for more than six months.

CONCLUDING COMMENTS

In most cases, only minimal information will be available to quantitatively compare pre- and post-ARAC service levels. In a few cases, customer surveys and balanced scorecards will help monitor the impact of change. Additional efforts to improve measures and implement SLAs are expected to place the agency in a stronger position to track performance and improve services. But, as NIH continues to deploy NBS and other new IT systems, and to develop new databases such as nVision, it is imperative that they provide the results-oriented information and management reports needed to support ongoing performance assessment and sound management controls.

Table G-1. Measuring ARAC Impact

(This table provides a summary of performance metrics available pre- and post-restructuring for each functional area.)

Group	Pre-ARAC	Experiences	Post-ARAC
Acquisitions	Metrics: • Balanced scorecard surveys (measuring customer satisfaction, employee/vendor attitudes) • Acquisition process metrics (competition, protests, unobligated balances, outstanding audit recommendations)	• Negative initial reactions, particularly to lead-time metrics • Academy benchmarking showed most procurement organizations already using lead time, which helped persuade group to adopt these measures • Involvement of NBS representatives ensured necessary data would be available from the system • Performance sub-group formed to finalize SLAs	Status: • Agreement reached on performance metrics and framework for SLAs • History of customer relationship and existing performance measures will allow impact on service to be measured. Additional measures and SLAs will improve those assessments. Metrics: • Balanced scorecard surveys • Acquisition process metrics • Lead time measures (e.g., percent of acquisition plan dates met) • Business efficiency measures (e.g., cost-to-spend ratios)
Budget	Metrics: • Customer surveys	• Academy benchmarking determined that none of the five comparable federal agencies studied had meaningful budget performance metrics; NIH staffing is in the middle of the benchmarked range and its IC surveys are among the best measures • NIH's existing practice of surveying the ICs is a cost-effective way to measure value of budget function/staff	Status: • Measures may be developed for new functions being consolidated Metrics: • Customer surveys will allow impact on satisfaction to be measured

Table G-1. Measuring ARAC Impact

(This table provides a summary of performance metrics available pre- and post-restructuring for each functional area.)

Group	Pre-ARAC	Experiences	Post-ARAC
EEO	Metrics: • Process times for Title VI and VII claims (against maximum legal processing time of 180 days)	• The Academy conducted literature review and case studies to identify best practices, performance metrics, and staffing benchmarks for EEO • The Academy's review found little information about EEO staffing or outcome measures • In addition to basic legal processing timeframe requirements for NIH and other federal agencies, the Academy report identified potential EEO output measures (e.g., attrition rates, differential promotion rates, number of females and minorities hired over time) as well as outcome measures (e.g. employee attitudes towards EEO and diversity programs)	Status: • No additional metrics were in place; EEO attention given, instead, to producing 180-day progress report on transition process • Output- and outcome-based performance measures will be developed by the new Office of Evaluation • SLAs were being developed Metrics: • Process times for Title VI and VII claims (against maximum legal processing time of 180 days)
Facilities	Metrics: **ORF** • Building condition index • Customer satisfaction survey **ORS** • Customer satisfaction survey • Cost benchmarks SLAs in place for ORF and ORS customers	• Extensive IG and Academy data collection efforts relate to development of performance metrics and SLAs **ORF** • ORF performance metrics must match Federal Real Property Asset Management and DHHS-wide measures (in place by end of FY 2005) • Academy benchmarked facilities management measures of other public/private organizations	Status: • History of customer relationship and existing performance measures will allow changes in service to be measured over long term. Additional measures and SLAs will improve those assessments • Additional ORF and ORS measure being explored; ORS to finalize measures in 2005 • SLAs in place for ORF and ORS customers (continued)

Table G-1. Measuring ARAC Impact

(This table provides a summary of performance metrics available pre- and post-restructuring for each functional area.)

Group	Pre-ARAC	Experiences	Post-ARAC
Facilities (continued)			**ORF** Metrics: • Building condition index • Federal/HHS performance measures **ORS** Metrics: • Customer satisfaction survey • Cost benchmarks
Finance	Metrics • Some high-level measures to alert to major problems (e.g., audit opinions)	• Finance has some high-level measures but needs additional measures to provide meaningful assessments • 2003 ARAC report recommended seven performance measures (e.g., cash balances, electronic payments, travel cards) • The Academy benchmarked ARAC measures against Chief Financial Officer Council/other agencies and recommended a total of 24 metrics (i.e., purchase card rebates earned, days required to close and issue monthly reports) • OMB/DHHS requiring some specific measures to be in place by 2005 • Academy recommended SLAs be developed	Status: • OFM considering which performance measures to use Metrics: • Some high-level measures to alert to major problems • At a minimum, OMB- required measures
Grants	Metrics: • There is some tracking of goals, such as percent of applications submitted electronically	• The Academy identified examples of grants performance measures in other agencies • Some other agencies are beginning to focus on performance measures for grants management. A review of CDC and EPA metrics revealed several options	Status: • Additional measures may be considered in the future (e.g., percent eligible grants closed out) Metrics: • Performance metrics specified for MEO functions but not for grants management functions

Table G-1. Measuring ARAC Impact

(This table provides a summary of performance metrics available pre- and post-restructuring for each functional area.)

Group	Pre-ARAC	Experiences	Post-ARAC
HR	Metrics: • Academy informal investigation found no performance metrics, but some data available on workload and processing time	• Team of staff from OHR worked with a group of six IC EOs to determine performance metrics • OHR Acting Director and drafting group were finalizing SLAs and metrics	Status: • Strategic Advisory Committee to review and approve draft SLAs Metrics: • SLAs will include performance metrics for key HR services (e.g., benefits and retirements; classification and compensation; staffing and recruitment)
IT	Metrics: • Customer satisfaction metrics (e.g., percent satisfaction with service quality, Help Desk calls resolved within one hour) • SLAs for consolidated e-mail and Help Desk services are in place	• The Academy benchmarked CIT against five universities for performance measures; found NIH systems are "ahead of the curve" in developing/using standard operating procedures and monitoring operations • The Academy assisted CIT and ICs in March and April 2005 to agree upon AD and CNMS metrics and draft SLAs • As of summer 2005, draft SLAs and metrics were being vetted with ICs	Status: • Approval of SLAs for AD and CNMS expected 2005 • No baseline data available, so standards for performance measures will not be set until data have been collected for more than 6 months • SLAs for consolidated e-mail and help desk were in place Metrics: • Customer satisfaction metrics (e.g., percent satisfaction with service quality, Help Desk calls resolved within one hour) • AD performance measures (e.g., percent availability of NIH.GOV domain; mean time to respond) will be adopted (continued)

Table G-1. Measuring ARAC Impact

(This table provides a summary of performance metrics available pre- and post-restructuring for each functional area.)

Group	Pre-ARAC	Experiences	Post-ARAC
IT (continued)			• CNMS performance measures (e.g., CNMS system availability, total number of devices, mean time to resolve problems) will be adopted

Table G-2. Measuring ARAC Impact

(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
Acquisition	Balanced scorecard survey • Percent rating on timeliness from customer • Percent rating on quality from customer Acquisition process metrics • Competition • Protests • Unobligated balances • Outstanding audit recommendations	Balanced scorecard survey • Percent rating on timeliness from customer • Percent rating on quality from customer Acquisition process metrics • Competition • Protests • Unobligated balances • Outstanding audit recommendations Lead time • Percent of acquisitions that met the lead-time performance goal for that category as determined by the center • Percent of acquisitions, with deliverables, that met the contractual delivery date for that category Workload metrics • Weighted workload • Complexity: measure of non-numbered effort (e.g., staff estimates of value-added activities). This type of data is subjective, and not contained in any current system. • Average adjusted FTEs and ratio of actions and dollars obligated Business efficiency • Acquisition operating expense as a percent of acquisition spending • Acquisition operating expense per FTE • Percent acquisition volume via purchase card per Center: <$2,500; $2,500 - $25,000; and $25,000 - $100,000 • Dollars spent per FTE • Orders/actions awarded per FTE

Table G-2. Measuring ARAC Impact
(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
Budget	• Customer surveys	• Customer surveys
EEO	• Process times for Title VI and VII claims (against maximum legal processing time of 180 days)	• Maximum legal processing time for Title VI and VII claims of 180 days • Additional metrics under study Possible metrics identified in Academy best practices study • Employee attrition rates • Workforce satisfaction • Market share within new customer bases • External awards and recognition for diversity efforts • Workplace climate satisfaction • Differential promotion rates • Performance awards • Time-to-fill-vacancies • Cost per diversity hire • Diversity hit rate (ratio of job offers to offers accepted) • Diversity hire referral rate • Diversity hire performance impact (average job performance, percentage of new diversity hires promoted within a year, and percentage of new diversity hires retained after a year) • Average tenure by diversity grouping versus former employees • Diversity stability/instability factor • Diversity survivor/loss rate • Diversity feedback from employee opinion surveys • Focus group feedback • Percent of favorable responses on organizational culture audit • Number and percent of minorities and women in management and leadership positions • Funds allocated to diversity initiatives (continued)

Table G-2. Measuring ARAC Impact

(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
EEO (continued)		• Organizational mentoring analysis • Absence rate • Absenteeism cost • Effects of absenteeism on labor utilization (ratio of nonproductive hours to work hours available) • Number of females and minorities hired compared to previous years • Percent gender-based pay differential • Turnover for females and minorities versus white males, compared to previous year's trend, external benchmarks • Turnover rates by diversity categories and by performance levels • Percentage of mothers who return from maternity leave • Number of EEO complaints per 1,000 compared to previous years, other divisions within the organization, and external benchmarks • Costs for investigating complaints, defending the organization, and making financial settlements • Cost of settlements to EEO charges • Examine recruiting efforts to see if they bring in target groups in meaningful numbers • Review career tracks to see if target groups tend to stall before reaching leadership positions, or advance unreasonably slowly • Consider whether target groups tend to hold low-visibility jobs, receive low-visibility assignments, or primarily occupy departments stereotypically "suited" to their group • Compare resources available to members of target groups to the averages for the organization • Compare compensation and raises for members of the target groups to the averages for the organization • Compare attrition rates of target groups to the averages for the organization

(continued)

Table G-2. Measuring ARAC Impact
(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
EEO (continued)		• Number of females and minorities in key management positions • Percent of favorable responses to survey questions, compared to previous surveys and external benchmarks • Quantity of business done with minority/female-owned organizations • Number of employees using flexible hours, job sharing, and telecommuting • Wage and salary adjustments above guideline increases • Change in female and minority participation in programs • Percentage of homogenous vs. diverse work groups in terms of output quantity, quality, and time • In-office desk compliance reviews and on-site monitoring of personnel records and programs
Facilities	**ORF** Building index identifies: • All buildings and their components • Condition of the components • Projected life of the components • Associated repair/replacement cost information Customer satisfaction survey • November 2004 survey of senior management	**ORF** Building index identifies: • All buildings and their components • Condition of the components • Projected life of the components • Associated repair/replacement cost information Federal/HHS "first tier" performance measures • Utilization • Condition index • Mission dependency • Annual operating and maintenance costs • Construction [Additional metrics are under consideration]

(continued)

Table G-2. Measuring ARAC Impact

(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
Facilities (continued)	**ORS** Customer satisfaction of conference room scheduling experience • Responsiveness • Convenience • Competence • Courtesy • Handling of problems • Availability • Cost benchmarks	**ORS** Customer satisfaction of conference room scheduling experience • Responsiveness • Convenience • Competence • Courtesy • Handling of problems • Availability • Cost benchmarks [Additional metrics are under consideration]
Finance	• Some high-level measures to alert to major problems (e.g., audit opinions) but additional measures needed	Performance measures recommended by the Academy and under consideration by OFM: Measures required by OMB: • Reconcile Department fund balance with Treasury • Limit amount of dollars in suspense accounts • Reduce delinquent accounts receivable from the public greater than 180 days old • Make at least 96 percent of vendor payments electronically • Make non-credit card invoices on time (at least 98 percent) • Limit balances on travel cards for individually billed account • Limit balances on travel cards for centrally billed accounts • Limit balances on purchase cards Additional Academy-recommended metrics: • Reduce delinquent accounts receivable from Intragovernmental Accounts greater than 180 days • Purchase card rebates earned (continued)

Table G-2. Measuring ARAC Impact
(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
Finance (continued)		• Timeliness of purchase card receiving reports • Travel card rebates earned • Management of funds (year end) • Travel vouchers approved for payment but rejected by Oracle • Days required to close and issue monthly reports • Elimination of outstanding audit issues • Satisfaction survey with budget and accounting reports • NBS problem severity and root cause analyses report • Average cost of accounts payable transaction per FTE • Average number of invoices processed per FTE • Duplicate payments and other errors per month • Backlog of invoices awaiting receiving reports from ICs • Number of invoices exceeding TBD days before invoice is posted and ready for IC receiving report • Percentage of vouchers with errors
Grants	• Some tracking of goals, such as percent applications submitted electronically	Central performance metrics may be applied in the future: <u>CDC metrics to consider</u> • New grant cycle-time (starting when program announcement is received, ending when award is approved in the system) • Carry over cycle-time (starting when complete carry over request is received, ending when award is approved in the system) • Continuation cycle-time (starting when application is received, ending when award is approved in the system) • First-pass yield from both the grantee and program manager perspective <u>EPA metrics to consider</u> • Percent of grant funding packages submitted electronically (currently being tracked by DHHS for NIH) (continued)

Table G-2. Measuring ARAC Impact

(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
Grants (continued)		• Average number of days to process a grant • Electronically transmitting award transactions to finance (100 percent at NIH) • Percent of grants awarded in the 4th quarter • Number of internal compliance reviews • Percent of eligible grants closed out
HR	• The Academy's informal investigation found no performance metrics, but some data were available on workload and processing time	Metrics from draft SLAs • Benefits and retirements (4 discrete metrics) • Classification and compensation (5 discrete metrics) • Staffing and recruitment (9 discrete metrics) • Labor relations, employee relations, performance management, and employee recognition (2 discrete metrics) • Management advisory services and account management (12 discrete metrics)
IT	Customer satisfaction • Percent satisfaction with overall service quality • Percent of Help Desk initial calls resolved within one hour • Percent of common desktop software/systems available by remote access • Percent of employees that perceive the systems and programs as user friendly	Customer satisfaction • Percent satisfaction with overall service quality • Percent of Help Desk initial calls resolved within one hour • Percent of common desktop software/systems available by remote access • Percent of employees that perceive the systems and programs as user friendly Performance measures under consideration for AD • NIH.GOV domain controller availability • Mean time to accomplish domain-wide replication across all NIH.GOV domain controllers for a specified reporting period • Mean time to respond (MTTR) for a specified reporting period • Mean time to restore a deleted AD object for a specified reporting period

(continued)

Table G-2. Measuring ARAC Impact
(This table provides specific performance metrics to be used, or under consideration, in each functional area.)

Group	Pre-ARAC Performance Metrics	Post-ARAC Performance Metrics
IT (continued)		Performance measures under consideration for the CNMS • CNMS system availability • Total number of devices • IC network availability • Summary network availability • Mean time to resolve problems • Summary mean time to resolve problems

APPENDIX H

This Appendix Contains the Summary of:

UNANTICIPATED SHIFTS IN NIH
ADMINISTRATIVE WORKLOADS

The full report can be found at
http://www.napawash.org/pc_management_studies/ongoing_nih.html

Published:
September 2005

Technical Paper by the Staff of the

**NATIONAL ACADEMY OF
PUBLIC ADMINISTRATION**

*For the Deputy Director for Management,
National Institutes of Health*

September 2005

UNANTICIPATED SHIFTS IN NIH

ADMINISTRATIVE WORKLOADS

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SUMMARY:
UNANTICIPATED SHIFTS IN NIH ADMINISTRATIVE WORKLOADS

ADMINISTRATIVE CHANGES ARE SHIFTING WORK TO ADMINISTRATIVE OFFICERS

Over the last four years, change has been the order of the day for administrative services at the National Institutes of Health (NIH). It has been precipitated by many factors. Some change is the direct result of NIH initiatives, such as the Director's Roadmap and the NIH Business System (NBS) initiative. Other change is driven by the President's Management Agenda (including the A-76 competitive sourcing program), and more is driven by various initiatives under the "One HHS" initiative that included consolidation of many administrative services. The varied purposes of these changes included the desire to shift resources from administration to science, improve efficiency and effectiveness, and, in some cases, establish greater oversight in functions with perceived problems.

These changes are touching everyone working at NIH. However, one group was thought to be affected more than others—the Administrative Officers (AOs). So, it was not surprising when a group of AOs suggested to the NIH Deputy Director for Management (DDM) that there had been a dramatic, cumulative impact on the AOs as a result of all of the administrative changes that were occurring. The demands being placed on them had increased significantly.

The DDM realized there had not been any systematic examination of these impacts, and asked the National Academy of Public Administration (the Academy) to examine the impact of the administrative changes on the AOs, including:

- An inventory of the changes that have increased AO workloads
- A listing of specific tasks for each of these change areas
- An indication of how these new tasks have changed the qualifications for the AO positions
- An indication of how the AOs were coping with the added duties

PURPOSE OF THIS REPORT

This report describes a survey conducted in response to the AOs' request to find out more about the cumulative effects of administrative changes on their workloads. It also describes a supplemental survey of executive officers (EOs) and science directors (SDs) in the 27 individual Institutes and Centers (ICs) that constitute NIH. The EOs and SDs do some similar tasks to the AOs, who report to them. So, EOs and SDs are exposed to many of the same workload shifts that affect AOs.

ADMINISTRATIVE OFFICERS LINK SCIENTISTS TO ADMINISTRATIVE SERVICES

At the NIH, AOs (GS 341 job series) are the primary interface between the scientific staff of the Institutes and Centers (ICs) and NIH administrative specialists—human resources, Equal Employment Opportunity (EEO), facilities management, budget, grants, contracts, and others—who have authority for each of the areas of administration.

To understand this essential nexus between science and administration, it is important to understand the basic role of the AO at NIH. The agency attracts high quality medical and scientific staff to carry out its mission through world-class intramural and extramural research programs. To meet these goals, 28,000 people earn their living at NIH on any given day. Approximately 65 percent are regular federal employees and 35 percent are contract employees and numerous other categories of non-FTE employment, including visiting fellows. These people carry out their missions in millions of square feet of laboratory and office space, and they require various support services to successfully contribute their expertise to NIH research goals.

Support for NIH workers is provided by administrative specialists who are experts in their field. In this environment, expert medical and scientific staff must work with experts in administrative disciplines to purchase supplies, promote employees, renovate space, complete travel expense reimbursement vouchers, and perform other administrative tasks.

The AO position evolved to support mission-critical scientific tasks and connect scientific experts to administrative experts. The fundamental responsibility of an AO is to bridge the needs of their organizations with the legal and procedural administrative requirements of laws and regulations, and to help scientists navigate the bureaucracy to implement their mission in a timely manner.

The AO's role varies depending on whether the AO is serving an intramural or an extramural program, a large or small IC, or some other constituency. AO roles also change depending on the "on-site" availability of the administrative specialists who have authority to provide various administrative services. When the HR functions were decentralized to the ICs, and the ICs could staff that function to meet their own needs, the central HR responsibilities and those of the AOs were diminished. The AO's HR role ebbed and flowed, depending on a variety of factors mentioned above. The one constant, however, is that when something non-scientific needs to be accomplished and no one knows where to turn, they call an AO. Most AOs have earned a reputation for their ability to make things happen. The AO community has become the essential lynchpin in moving the NIH mission forward, regardless of whatever administrative changes have occurred.

ADMINISTRATIVE AREAS WHERE WORKLOADS ARE SHIFTING

The Academy worked with the Co-Chairs of the Intramural AO (IAO) group and the Extramural AO (EAO) group (the Co-Chairs) to plan and implement this effort. The group identified 18 administrative areas in which AO workloads had changed or are anticipated to change. Brief summaries of the 18 areas are presented in alphabetical order in Box 1.

Box 1: Administrative Areas in Which Workloads Are Shifting

- **A-76 MEO (DEAS):** implementing the most efficient organization (MEO) that was established to handle the receipt and processing of research grant applications following an OMB Circular A-76 competition.

- **A-76 Studies:** the identification of all functions and individuals associated with the functions considered to be subject to the A-76 competition, development and pursuit of competitive proposals, and the implementation and maintenance of the Commercial Activities Tracking System (CATS) inventory.

- **Acquisitions:** all activities related to the purchase of supplies, equipment, and services, e.g., procurement, use of purchase cards, etc.

- **Budget—administration:** all of the administrative work typical of a budget office.

- **Budget—new systems:** learning and using the new automated systems supporting the budget function.

- **Director's Roadmap:** a variety of new budget formulation and execution responsibilities associated with the crosscutting research mission areas identified by the NIH Director's strategy.

- **EEO:** the functions left behind in the ICs after EEO staff and functions were consolidated into a central office.

- **Ethics:** the increased oversight on ethics-related issues at NIH to tighten up compliance and reduce abuses of the rules.

- **Finance:** most of the transactional processing of, and accounting for, disbursements of funds using new software systems.
.
- **HR new and frequently changing administrative processes and procedures** related to the review and approval of GS 14 and 15 positions, advertising vacancies, changing Title 42 pay settings, and other matters.

- **HR new software:** the six new HR related systems introduced NIH-wide over the past few years.

- **HR work returned without resources:** the work, both HR related and non-HR related that the HR specialists used to handle in the ICs but no longer perform in the consolidated organization.

- **Visiting Program:** the HR support services for foreign scientists with five years or fewer of post-doctoral research experience.

- **Information Technology:** a cross-cutting area that includes all of the IT consolidation efforts implemented across NIH, such as help desks, e-mail systems, and network monitoring.

- **Management Controls:** a cross-cutting area covering new controls that NIH and the Department are imposing to increase oversight of administrative functions and reduce losses and risks.

- **Space Management:** the work associated with leasing, managing, and renovating space.

- **Travel—administrative clearances:** the work surrounding additional clearance requirements imposed as a result of terrorism and other concerns.

- **Travel new systems (GELCO):** learning and using the automated GELCO system for the preparation and approval of travel orders and vouchers.

DESIGN OF THE TWO SURVEYS

Because so many of the AOs were potentially affected by these administrative changes, the Co-Chairs and the Academy agreed to survey everyone at NIH (other than executive officers) classified in the GS 341 series. In addition, the Academy added others from the NIH community who were doing AO work, but who were not classified in the GS 341 series. The total population surveyed was 440 employees. This is believed to account for all NIH staff engaged in administrative officer work at that time. Since this survey covered the whole universe, no statistical analysis of sampling error was needed.

The survey instrument, designed specifically for this task, was made available to this group online to get their perspectives on the areas increasing their workload, the coping techniques they used to deal with the increased work, the specific tasks they are responsible for, and the impact these changes have had on the qualifications needed to perform their jobs. The survey also asked for demographic information regarding the work environment of the responding AO—including the IC they work in, mission of the areas they service, size of population served, and years of experience—to determine if these demographics affected the responses to the survey questions.

The respondents were also given three open-ended questions:

- Please describe how the qualifications for your job have changed.

- Please explain the effect each of these areas (the top five) has had on your workload.

- Do you have any suggestions for how to reduce your workload?

A similar, but somewhat shorter, survey was designed in consultation with representatives of EOs and SDs, and was administered to all 27 of both types of these officers in the ICs shortly after the AO survey was completed. Results of the EO/SD survey are presented following results of the AO survey.

AO SURVEY RESPONSE RATES WERE HIGH AND REPRESENTATIVE

The 70-percent response rate to the AO survey was outstanding. A brief summary of the major demographic findings follows:

- The scope of AO responsibilities varies, depending on the ICs in which the AO works.

- The areas of work that respondents most frequently identified as one of their responsibilities are: HR work returned, new HR administrative procedures, new HR software, new travel system, budget administration, budget systems, acquisitions, and new travel administrative clearances.

- The areas of work that respondents *most* frequently identified as "not one of their responsibilities" are: Director's Roadmap (possibly impacting only higher level staff), A-

76 MEO (clearly focused on the extramural staff), A-76 studies (just getting started in certain areas), and EEO (traditionally not an administrative officer function, although this may change as a result of the recent consolidation of the EEO staffs being implemented at the time of the survey).

- All ICs except one are definitely represented in the response pool, but 11 respondents failed to identify their IC so it is possible all are included.

- The response rate for ICs closely parallels their representation in the NIH AO population.

- The majority of respondents identified themselves as AOs (58 percent), followed by Supervisory AOs (19 percent), and Principal AOs (12 percent). The remaining 11 percent identified themselves as "other," reporting a variety of different organizational titles: e.g., management analyst, deputy ARC manager, deputy executive officer, etc.

- Fifty-nine percent of the respondents worked in an intramural environment, 43 percent in an extramural environment, and 13 percent in the Office of the Director (OD). (Forty percent of the respondents worked in more than one environment, which accounts for the total equaling more than 100 percent.)

- AOs reported serving anywhere from 25 or fewer people (4.6 percent) to more than 500 (3.5 percent). The majority of respondents (51.4 percent) with the title of administrative officer served from 26 to 100 people.

- On average, IAOs serve more people (76-100) than the EAOs (51-75). The median response for IAOs also was higher (101-125) than EAOs (76-100).

- The AO community is a very experienced workforce. Eighty-six percent of the AO community has a minimum of 6 years of administrative experience, and 27 percent have more than 16 years of experience.

- As a group, the Principal AOs appear to be the most experienced in the AO community (89.1 percent have more than 11 years of administrative experience compared with 75 percent of the Supervisory AOs and 68.8 percent of the AOs).

Taken together, this information suggests that the survey response rate is not only representative of the IC population of AOs, it is also representative of all of the major factors that together distinguish the various AO working environments. The data suggest that the AOs reside in a variety of work environments, so care must be taken not to over-generalize from the information presented in this report. Therefore, most of the data collected are examined against these demographic variables to determine how, if at all, the variables influence AO responses to the survey.

AO SURVEY FINDINGS

The survey responses provided ample information to answer the DDM's questions concerning: areas causing increasing workload, coping techniques being used, specific tasks involved, and impact on qualifications. The open-ended question responses provided a wealth of additional information about impacts on programs and people, and suggestions for improvements. A summary of survey results follows.

Administrative Areas Causing Most Additional Work for AOs

- **The survey confirmed a significant shift in workload burden to the AO community at NIH as a direct result of the major administrative changes that have occurred in the past few years. AO workloads have increased and the nature of the work, as well as the qualifications to perform it successfully, have changed.**

- All 18 of the administrative areas have caused increases in workload to some positions in the AO community.

- The number of AOs reporting workload increases varies by administrative area, from 45 (Director's Roadmap) to 221 (HR work returned to the IC).

- The mode (most frequently occurring) responses revealed workloads were increasing in nine administrative areas:

  1. A-76 MEO
  2. A-76 studies
  3. Ethics
  4. HR returned to IC without resources
  5. HR new software
  6. HR new administrative processes
  7. Management controls
  8. Travel new systems
  9. Travel administrative clearance

- With the exception of the moderate effects described below, the demographic characteristics had little effect on how the respondents answered the "increased workload" question.

  o The institute that the respondents serve had a moderate effect on their assessment of workload across all nine areas.

  o The mission a respondent serves (intramural, extramural, Office of the Director, or mixed) had a moderate effect on their assessment of A-76 MEO workload.

  o Size of the population served and years of administrative experience at NIH both had a moderate effect on respondents' assessment of ethics workload.

o Organizational role (level of job responsibility) had a moderate effect on HR work returned to the IC and new travel systems.

• When identifying the areas most responsible for causing an increase in workload, the AOs, the Principal AOs, and the Supervisory AOs all agreed on the top four sources: HR work returned to the ICs; new HR systems, new HR procedures and processes, and new travel systems.

• Ethics was the next highest area identified by the Principal AOs and the Supervisory AOs, while "travel administrative clearances" was the next highest for the AOs.

• Sixty-one percent of EAOs reported the A-76 MEO as contributing to their increased workload, compared to only 5.2 percent of the IAOs.

• The mode response of "workload stayed the same" was found in eight areas:

1. Acquisition
2. Budget administration
3. Budget new systems
4. EEO
5. Finance
6. Visiting program
7. Information Technology
8. Space management

• Differences in demographics had some "moderate" or less significant effects on responses in these eight areas, as presented in Appendix D.

The timing of this survey likely contributed to the survey responses in several areas. The fact that several of the administrative change areas were only recently accomplished (EEO and IT) and several more are scheduled to be implemented in the near future (acquisitions, budget—new systems (UFMS), space management (MEO implementation)), suggest that the full impact of these changes on the AO community has yet to occur.

Coping Techniques Being Used

Respondents who indicated there had been increases in workload were asked to indicate how they were coping with this added burden, selecting one or more from the following: compensated overtime, uncompensated overtime, postponing other work, lowering the quality of other work, reassigning work to others, absorbing the additional work by improving their own efficiency, and "other" (the respondent was then asked to specify what these were). Responses indicate that:

• **The two top mechanisms reported for dealing with additional work are "postponing other work" and "uncompensated overtime."**

- All of the other coping mechanisms are reported being used throughout the ICs, but to a lesser extent.

- The least-reported coping mechanism is "compensated overtime."

When examining the responses across all 18 of the change areas, similar patterns emerge:

- The most prevalent coping mechanisms reported by AOs for all 18 administrative areas were "postponing other work" and "uncompensated overtime."

- The proportion of respondents identifying "eliminate/delay other work" ranged from 38 percent (Director's Roadmap) to 61 percent (for new automated systems in both HR and Travel.)

- The proportion of respondents identifying "uncompensated overtime" ranged from 35 percent (IT) to 86 percent (HR work returned to the ICs).

- Compensated overtime is the least often used technique, with the range among administrative areas from zero for IT to 7.4 percent for acquisitions.

Impact of New Work on AO Qualifications

The majority of respondents (55.6 percent) said that the additional workload had an impact on the qualifications for their job; 29.6 percent said it did not, and 14.8 percent did not answer. Of those who responded to the question, 65 percent believed the changes have impacted job qualifications; 35 percent believed they had not.

Responses to Open-ended Questions Expand on Survey Findings

The open-ended questions allowed survey respondents to provide comments and details to identify the specific added tasks for each of the administrative areas reported to have the most impact on increasing workload. These areas include: HR work returned to the ICs; HR new automated systems; HR new administrative procedures; travel new systems; travel administrative clearances; ethics; and A-76 MEO (DEAS). The detailed reports provided in Appendix C [of the *Administrative Workloads* report] include brief summaries of the voluminous comments received from the survey respondents—including those which identified the new specific tasks involved, some of the perceived effects of this added burden, and some suggestions for dealing with the added workloads.

Four Main Patterns Provide Insight into Impact of Change on AOs

The Academy study team observed four main patterns with some possible cause-and-effect relationships between types of changes and the types of potential impacts on the AO community. These four patterns, which are discussed below, provide insights concerning the nature of administrative changes and how they have or may affect the AO community.

<u>Consolidations:</u> The NIH consolidations (HR work returned, IT, EEO, DEAS, and space management) have or may in the future take administrative specialists out of the ICs, making them less accessible to the AOs or other IC staff (due in some cases to their new location), and may result in reduced numbers of specialists. AOs report that these consolidations have:

- Blurred the division of responsibilities between the ICs and central offices.

- Caused AOs to take on administrative tasks left behind when administrative specialists were relocated.

- Left unclear, in many cases, how and by whom the work should be handled.

- Added to confusion by seldom communicating a systematic and clear message about division of responsibilities in the consolidated organizations and the ICs.

These reported effects appear to have occurred with the HR and DEAS consolidation efforts. The EEO consolidation was just beginning at the time of this study and there had been serious attempts to ensure that some of the difficulties of the HR and DEAS consolidations were avoided. (Note: At the time of this review the Acquisitions consolidation was still in the planning stages and the management involved was also attempting to avoid these aspects of the prior consolidations.)

<u>New Administrative Systems:</u> In a short period of time, numerous new automated systems—such as Travel, HR, Grant Processing, and Budget—were implemented throughout NIH. The AOs report that many of the new systems increased their workload as well as that of the scientific and program staff. From their perspective, implementation would proceed more smoothly if AOs and/or their supervisors were more involved in the design of the systems and if more rigorous testing were performed prior to deployment. In the AOs' opinion, this would minimize the amount of time needed to master the use of the new programs.

<u>Increased Oversight and Control, and New Top-Down Initiatives:</u> The new initiatives and requirements introduced over the last few years are reported by AOs to reflect a top-down management philosophy that stresses efficiency, accountability, and quick results. Eight of the 18 administrative areas covered in this report fell into this category, including: management controls, travel clearances, ethics, HR visiting program, HR new procedures, finance, A-76 studies, and the Director's Roadmap. To the AOs, these areas represent new, additional work that differs from the added work of consolidations and new administrative systems—which simply represented different ways of doing prior work. In these new areas, the work itself is new. For example, the nature of the clearance requirements for the visiting program was changed significantly as a result of the 9/11/01 terrorist attacks. The requirements for DHHS clearances of both domestic and international travel have added more reviews throughout NIH and at the DHHS level, as part of the "One HHS" initiative.

With many of these changes, the AO community has been called on to:

- Research and learn new rules, regulations, and policies that have been implemented

- Get involved in NIH mission/program work in the areas of ethics, the Director's Roadmap, and A-76 studies

- Become knowledgeable about the legal and policy requirements and the programmatic implications of approval and disapproval decisions, so they can advise program officials

- Provide management analysis, including collecting data, analyzing it, and reporting their findings to higher authorities

Crosscutting Impacts on Managerial Responsibilities and Qualifications: The AOs also report assuming additional managerial and leadership tasks along with new managerial skills needed to "make things happen," such as:

- Negotiating for administrative services for their IC with staff in other organizations not reporting to their IC

- Multi-tasking and often juggling competing program priorities

- Trying to do more with less

- Helping to manage conflicts that arise in their work environment

- Handling aspects of the contracting process, including assuming project officer responsibilities for contract services to assist the ICs

To cope with these new tasks, the AOs identified additional qualifications that they believe are now necessary to successfully accomplish AO work. These were described by AO comments such as:

- To be an AO you must have many traits to succeed: Patience; versatility; knowledge of everything, or at least know where you can go to get the information; and the ability to create a network of resources, analyze information and interpret policy, and be detail-oriented and a forward positive thinker.

- We must continually use analytical, organizational, and managerial skills to handle situations that are much more complex.

- We have to have greater expertise in connecting the dots to make things happen, and there is an increased need for communication skills and flexibility.

- Due to increased responsibilities and the need to multi-task at a faster pace, the position of AO requires someone who can quickly grasp new policies and procedures and integrate them into his or her daily work schedule.

- If you are not hugely persistent or intuitive, it is easy to accept an incorrect response and proceed in the wrong way.

The Academy study team recognizes that a much more detailed analysis would be necessary to make conclusive findings in this area. It is instructive however, to recognize and attempt to incorporate this kind of information as feedback on past changes as well as for future decisions based on the widespread input received in this survey.

A SUPPLEMENTAL SURVEY VALIDATES THE AO SURVEY

The responses from the supplemental EO/SD survey strongly support and expand on those from the AO survey. The EOs/SDs provided an IC-wide perspective on which IC staff have had to assume increased work and how the administrative changes have otherwise affected the ICs. They also confirmed AO responses concerning coping techniques.

- The EOs/SDs reported that the AO workload has increased more than any other positions in the ICs. In addition, out of the four top administrative areas that EOs/SDs reported as having increased workload the most in ICs, they identified AOs as being the most affected in three of the areas – HR work returned, HR new software, and A-76 MEO – and as the third most impacted job series in the fourth area – ethics.

- The EOs/SDs also reported that the administrative changes have slowed down and lowered the quality of services, damaged staff morale, worsened customer service, and made management more difficult.

- The administrative areas that EOs/SDs most frequently identified as having negative effects on the ICs are HR work returned, HR new software, ethics, A-76 MEO, and A-76 studies. Not surprisingly, these are the areas that EOs/SDs also ranked highest in increasing workload in their ICs.

- Few respondents reported positive effects of any of the administrative changes.

- The EOs/SDs also reported information about other groups of employees who are taking on added workloads in these administrative areas. The respondents most frequently identified the following groups of employees as having their workload increased: EOs, supervisors (non-scientific), supervisors (scientific), support staff, extramural scientists, and SDs. Due to the broad impact of all ten administrative areas on these groups and the frequency of being identified, these are likely the types of employees, after the AOs, who have assumed the most work in these administrative areas.

SUGGESTIONS FOR EASING THE IMPACTS OF NEW WORK

Responses from both surveys suggest that the AOs are the NIH employees who have been most impacted by the increased workload in the ICs. The Academy team found a doubling of the rate of turnover of AOs leaving NIH through retirements or otherwise during the height of all these administrative changes.

The AOs also offered positive suggestions for change, including the following general suggestions about planning for administrative changes:

- There should be a deliberate and thorough review of the current division of administrative responsibilities and the new division of responsibilities. This review should produce clear instructions and guidance on how things will be different, including processes, procedures, and staff responsibilities. Representatives of all affected staff should contribute to this review. When staff receive additional duties, it should be clear which duties they are no longer expected to do or can give lower priority.

- When technically feasible, new administrative programs, processes, and systems should be pilot-tested at least once prior to full implementation, and more times if kinks need to be worked out. This will provide an opportunity to work out problems and make revisions to ensure the end goal of the change is achieved.

- All staff affected by the changes should receive appropriate and timely training. In addition, it is important that they have the necessary tools to implement the change, including instructions, guidance, regulations, and forms.

- A complete assessment of the qualifications needed to assume new responsibilities should be carried out prior to making changes.

- Management should ensure that the administrative changes are clearly communicated to all affected staff.

The respondents recognized that the level of advanced planning that they recommend will require additional resources. While this report is not intended to quantify the impacts of these changes, such quantifications clearly will be needed in the future. The Academy study team suggests the following two examples of potential starting points for future resource analysis.

1. **The new consolidated HR environment.** According to data collected for a separate Academy study, NIH employed approximately 450 FTEs in the ICs and in the OD to provide HR services before the consolidation. Since consolidation, most of those same functions and services are being performed in the Office of Human Resources (OHR) under a DHHS-imposed FTE ceiling of 256 FTEs. This significant reduction in HR personnel may be related to the fact that the survey respondents identified three HR change areas among the top five areas that have increased their workloads.

2. **Relationship of the growing service area for AOs.** The second area is the growth in the overall NIH employee population. It is important to recognize that the AO community provides services and support to everyone in its work area, including FTE employees as well as non-FTE employees and contractors. The NIH census indicates that the growth in the number of contract employees grew from 3,348 to 5,978 (a 79 percent increase), a far greater growth in service population that that of the general NIH workforce.

This rate of growth for population served, coupled with the added workloads from the administrative changes, has had a significant impact on AO resources. The degree of impact, however, may vary by IC and is something to consider.

ACADEMY OBSERVATIONS

As a result of this study, the Academy staff study team offers the following observations.

- Due to the nature of the AO position in ICs, it is reasonable to predict that whenever there is a significant change in administrative practice, policy, or procedure, the AO community resources will be impacted.

- Change designed to improve efficiency and reduce cost often increases costs during the transition process.

- It would appear that the volume of change that has occurred in administrative areas at NIH in such a short period of time may have exceeded the NIH and AO community's capacity to absorb the changes effectively. The impact may be adversely affecting the NIH Mission.

- Better planning and preparation could improve the implementation and acceptance of future administrative changes.

- For future changes in NIH administrative programs, transitions would be smoother and more likely to meet the transition goals if there is a systematic pre-transition review.

APPENDIX I

This Appendix Contains the Executive Summary of:

A REVIEW OF THE

NATIONAL INSTITUTES OF HEALTH HUMAN RESOURCE ORGANIZATIONS

(An unpublished technical paper by the staff of
the National Academy of Public Administration)

Original paper dated:
March 2005

Technical Paper by the Staff of the

NATIONAL ACADEMY OF
PUBLIC ADMINISTRATION

For the Office of Management,
National Institutes of Health

March 2005

A REVIEW OF THE

NATIONAL INSTITUTES OF HEALTH
HUMAN RESOURCE ORGANIZATIONS

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I. EXECUTIVE SUMMARY

This study was requested in December 2004 by a task order issued to NAPA by the NIH Deputy Director for Management (DDM). This study has three primary purposes: 1.) To review the three central organizations at NIH (OHR, OSMP and ORS) reporting to the DDM that have major HR responsibilities; 2.) To identify and document the extent to which the delivery of HR services at NIH is inhibited or enhanced by the current organizational structure and divisions of responsibilities; and 3.) To review how other Federal Agencies organize their HR responsibilities and provide the DDM with organizational options to improve the delivery of HR services at NIH.

The study relies largely on the NAPA study team's research combined with interviews of staff and management of the three organizations as well as Executive Officers, Administrative Officers, and Senior Scientific Staff of the ICs. In total, 34 people were interviewed.

Current NIH Workforce
The NAPA report begins by examining the current workforce employed by NIH and how that workforce appears to be changing over time. Principal findings here indicate that the composition of this workforce is changing. Decreases are occurring in the Commissioned Corps, SES, Wage Grade and part-time populations, while increases are apparent in the Title 5 (GS/GM) jobs and Title 42 special status employees. In addition, more than 35 percent of the approximately 28,000-person workforce at NIH are not regular government employees (including contractors and Non-FTE employees).

Current NIH Organizational Structure for HR
Next, the report reviews the organizations at NIH that have HR responsibilities and identifies which employees they serve. It finds that not all HR responsibilities are in the three organizations under review. Examples include equal employment opportunity, diversity management, and training responsibilities. The report also identifies HR functions that do not appear to be performed to any extent by a central NIH organization, such as recruiting.

Taken together, these findings show a very complex HR environment at NIH. The structure includes a wide variety of pay systems, uneven services to workers, and a patchwork organizational environment. The three organizations that are the subject of this report, together, generally provide HR services only to the Title 5 and some of the Title 42 employees at NIH, plus specialized services to visiting fellows from other countries.

The report also traces the evolution of the HR service organizations at NIH over the past 30 years. The major changes identified have affected HR services for the Title 5 and Title 42 workforces, which make up most of the civilian government employee workforce. Radical changes have occurred in the organizational responsibilities for serving these NIH populations. After being almost totally centralized in the early 1970s, the ICs experienced a period of over 25 years of increasing decentralization of the HR responsibilities. By 2001, just before the consolidation, every institute at NIH had its own HR office, staffed to meet its own unique needs and with delegated authorities to meet most of those needs. At that point the ICs had been provided on-site HR servicing for more than 30 years. They also had organizational

responsibility for their own HR needs for almost two decades. In October 2002, centralization began under Secretary Thompson's One-HHS initiative. The NIH's 27 HR offices were consolidated into one—the Office of Human Resources (OHR)—in October 2003, by transferring all professional HR employees from the ICs to OHR and reducing the total FTEs by almost 200 to a DHHS mandated ceiling of 256. These changes have had significant impacts on the NIH.

Impacts of the 2003 HR Consolidation at NIH
The interviewees for this study took the opportunity to comment on the consolidation impacts in addition to the organizational structure issues being studied by NAPA. The interviewee comments covered nine major Concern Categories:

- Lack of Role Clarity
- Senior Level Recruitment
- Loss of On-site HR Services
- Problems with New Automated HR Systems
- Culture Change
- Reduction in HR Capacity
- Priorities for What Needs to be Done
- Communication
- Need for Organizational Change

Each of the areas is defined in the report and the interviewee feedback in each area is summarized. There is general agreement about these concerns from all interview groups: Executive Officers, Administrative Officers, Scientists, and the staff and managers of the three target organizations. Many of these concerns can be traced back to changes resulting from the consolidation and subsequent reduction in resources available to handle HR support. Others are directly attributable to the fact that there was little time or flexibility afforded to those responsible for this consolidation to prepare the NIH community for the mandatory changes. In addition, the new automated systems that were also mandated significantly changed how business was done, even as the HR staffs needed to support them were no longer as accessible to managers and employees in the ICs. As a result, frustrations grew and working relationships in the HR functions deteriorated.

Potential Non-Organizational Improvements in HR Services
The report identifies 18 actions that could be taken now to deal with most of the problems identified by the interviewees. In most cases, few additional resources would be needed to implement these actions, although any resource demands added to the OHR at this point are likely to decrease efforts in another area. In some cases, joint efforts between the centralized HR and decentralized IC staffs would be needed. These actions, while addressing many of the concerns raised about HR services, would not address the cultural and organizational concerns identified by many of the interviewees.

One final non-organizational finding from the interviews is the clear perception among all parties that the 2003 consolidation and related matters caused a significant shift of administrative workloads and responsibilities. The perception is that much of the work previously undertaken

by the HR staffs in the ICs has now been shifted to non-HR staffs in the ICs, including the Administrative Officers and, possibly more significantly, the scientific staffs (at the expense of their primary research missions). This study was not designed to collect quantitative data on workload or the shift in workload, but such a study may be needed.

Some Fundamental Issues
If the goal of centralizing and reducing administrative FTE support was to increase the resources available for research, the perceptions of many of those interviewed raise doubts about whether that desirable goal is being met. Many of the research managers interviewed were clear about how much more of their time is now devoted to administrative work previously done for them by no-longer-available administrative staffs. If the interviewees' perceptions are correct, this unintended outcome of consolidation suggests a need to rethink the administrative structure at NIH.

Alternatively, more change-management work by NIH may be necessary to help the affected scientists, particularly those in management positions, to adjust more efficiently to their new work setting. Clarifying and resolving this important area—through the development of a shared vision—might be an essential first step to begin managing expectations about the level and type of administrative support that can be provided. The report discusses this matter and how this cultural change may lead to other decisions about resources and priorities.

Organizational Options
The five Organizational Options presented in this report derive from combining inputs from multiple sources including: the interviews, the review of how other Federal Agencies organize their HR responsibilities, and independent research.

The interviewees' suggestions came largely from a few Executive Officers and staff members of the three target HR organizations. In many cases, the suggestions were conflicting, e.g. some argued the Employee Relations functions should be transferred back to the Client Services Division, while others argued that it was working better since it was separated.

For comparison, the report reviews how other agencies organize their HR services. The Food and Drug Administration and Center for Disease Control's HR organizations are examined first, since they are also in DHHS and are subject to essentially the same consolidation and IT systems mandates. The key issue is to determine how they divided up their HR responsibilities between their OHR-equivalent centers (that now report to the DHHS) and other organizations (like OSMP) that were set up to handle additional HR work not incorporated into the standard departmental template. No single method was found. The differences appear to relate to whether the certain functions will be handled within their OHR equivalent organization with its prescribed FTE ceiling. Different agencies handle the CO function, the workforce planning function, the security function, and the transition center functions in different ways. The similarities and differences are described.

The non-DHHS Federal agencies reviewed included: the Environmental Protection Agency, the Agricultural Research Service of the U.S. Department of Agriculture; the National Institutes of Standards and Technology of the Department of Commerce; the Kennedy and Goddard Space

Centers of the National Aeronautics and Space Administration. The report compares each of these reviewed agency's HR organizational structures to the division of responsibilities between the three target NIH HR organizations.

These agencies were selected because of their scientific missions and the expected diversity of scientific disciplines within their employee populations. Although some resource information about these agencies and their HR organizations were collected and are presented in the report, many differences made comparisons difficult. First, no evidence was found to enable a comparative assessment of efficiency or effectiveness of the HR programs. In addition, the functions considered to be "HR" differ slightly from one agency to another. It is also important to recognize that the trend across Government is towards centralization of at least some of the HR functions; the disagreements appear to be more associated with which functions to centralize. The competing priorities of centralization to achieve economies of scale vs. the need to maintain the strategic relationships between HR professionals and the programs they serve as envisioned by the Human Capital Officer Act, are also discussed.

Some of the major differences include:

- Degree of centralization (DHHS-CDC/FDA) vs. decentralization (NASA, EPA, NIST and ARS).
- A clear structure to support the new Human Capital Officer (HCO) role (EPA, NIST, ARS) vs. no-HCO role (NIH, NASA).
- The degree to which employee benefits and employee relations services are combined or separated from other HR operations: combined (NASA-Kennedy), separated (NIH, NIST) partial- separation (EPA).
- The organizational location of an Executive Resources component: highly placed separate organization, (EPA, ARS, NIST) vs. buried in lower organizational levels (NIH, NASA).
- The combination of strategic planning and the data analysis capability to support it (separated at NIH, combined at NASA Kennedy and Goddard, ARS, NIST, and EPA).

The report ends with the presentation of organizational options for the DDM's consideration. The options build upon each other for presentation purposes, but in reality, the proposed changes can be intermixed. The first two options would meet the NAPA understanding of the DHHS mandated organizational structure for the OHR. The last three would modify existing understandings. In brief, the five options are:

Option One: Appoint a Human Capital Officer (minimum change option): Under this option, OHR would remain consistent, in terms of servicing ratios, with the other three HR servicing offices of DHHS (for Rockville, Baltimore, and Atlanta) and would maintain the status quo on functions performed or not performed.

Option Two: HCO Plus Minor Structural Changes in HR Responsibilities: Under this option, it is assumed that the changes envisioned under Option One are in place or being implemented. The changes in this option are additive and not independent from Option One. Under this option, most of the organizational changes identified from the

interviews would be implemented, except those that would alter the OHR structure from what the DHHS model prescribes. The following organizational changes would be made:

- Move the Transition Center out of OSMP and the Human Resource Advisor (HRA) role out of OHR and merge the two functions reporting the Human Capital Officer.
- Establish a new HR Policy Office in the Office of the Director, OHR.
- Establish a new Executive Services Group
- Expand the training function of OSMP to include the Enter on Duty (EOD) Orientation

Option Three: **Merge the OHR and OSMP**: This option would modify the OHR structure by beginning the process of merging the OHR and OSMP. The Human Capital Officer would head the new OHR and all of the operating divisions of HR would report to that individual. The new relationships are explained in the report. Under this option, the Executive Resources staff, the Policy staff, and the Transition Center would report to the HCO. Additional changes would separate the existing Workforce Relations Division of OHR into two divisions: one for employee and labor relations and the other for benefits and other services. The benefits functions would be combined with other employee services from the current OSMP including the training function, quality of worklife programs, and the Commissioned Corps liaison function. A new Workforce Planning and Analysis Division would retain most of the responsibilities of the OHR's Strategic Programs Division.

Option Four: Add International Services and Split Client Services Division: This option builds on Option Three. The main features added are:

- The International Services responsibilities of ORS are transferred to the new OHR.
- Divides the current Client Services Division into two organizations.
- Establishes the HR Systems support group reporting to the HCO.

Option Five: A move closer to one-stop shopping for the Clients: This option builds on Option Four. The main features of this option are:

- The employee and labor relations functions and the benefits functions are all reassigned back to the Client services Divisions.
- Transfer the transition center to the special programs staff along with the training and quality of worklife function

APPENDIX J

This Appendix Contains the Observations and
Recommendations Section of:

A REVIEW OF THE

NATIONAL INSTITUTES OF HEALTH
FINANCIAL MANAGEMENT ORGANIZATION

(An unpublished technical paper by the staff of
the National Academy of Public Administration)

Original paper dated:
June 2005

Technical Paper by the Staff of the

NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

For the Office of Financial Management,
National Institutes of Health

June 2005

A REVIEW OF THE

NATIONAL INSTITUTES OF HEALTH FINANCIAL MANAGEMENT ORGANIZATION

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INTRODUCTION

BACKGROUND

This report is the product of several months review by the National Academy of Public Administration (NAPA) in response to a tasking by the Director, Office of Financial Management, and Deputy CFO of the National Institutes of Health (NIH). The NAPA task order for the review of the NIH's Office of Financial Management (OFM) has three deliverable products:

1. Document current OFM organization and staffing
2. Compare OFM staffing and processes with selected federal agencies
3. Recommend improvements in: OFM organizational structure; staffing; and business processes

WORKPLAN

The work plan called for NAPA to:

- Meet with key management leaders within OFM and the Project Managers for the NIH Business System (NBS) and the DHHS Unified Financial Management System (UFMS), document the current organizational structure and reporting relationships of OFM, and document the current FTE allocation, skill mix, and use of support contractors and temporary hires

- Assess the organizational structure in comparable organizations by meeting with key managers from at least two agencies; develop matrix of staffing and specific financial management process characteristics at these agencies, including changes as the result of new financial systems; compare processes and staffing at OFM with selected agencies; and, develop best practice suggestions

- Develop a new organizational structure for OFM, consistent with understanding the organizational and staffing needs for OFM for a fully implemented NBS system environment; with suggestions for: FTE and contractor needs for the new system environment, for organizational changes to improve performance in the new system environment, and for consistent business process adjustments

In response to this work plan, NAPA personnel conducted 32 in-person and telephone interviews, collected information concerning NIH operations and other federal agencies, and investigated the experience of other federal agencies in installing and using the Oracle Federal Financial software.

The principal observations and recommendations, made by the Academy staff consistent with this research, follow this introduction. Then the technical report is presented. The technical

report contains three sections plus appendices that provide additional information. The three sections cover: (1) an assessment of current OFM organizational structures and staffing; (2) comparisons with other comparable federal finance offices; and (3) a discussion of OFM's proposed performance indicators as detailed in its October 1, 2004 ARAC implementation plan, plus some additional performance indicators the OFM may find useful in effectively communicating the status of its performance.

OBSERVATIONS AND RECOMMENDATIONS

OBSERVATIONS:

The NIH Office of Financial Management faces increasing challenges. These include: assisting in bringing on and supporting two concurrent financial management system developments—the NIH Business Systems (NBS) and the Department's Unified Financial Management System (UFMS); accelerated audits, including additional year-long audits for entity-wide and Services and Supply Fund financial statements; increased involvement and responsibility in new legislation such as Audit Recovery, Improper Payment Improvement Act, and new OMB Circular A-123 (Internal Control) requirements. These challenges make it difficult for the OFM to meet its operational commitments to customers and stakeholders, and continue to retain its excellent reputation into the future—a reputation that has enabled OFM to: attain a clean audit opinion for five consecutive years; process invoices and make payments without significant backlogs; and implement, together with the NBS Project Office, several modules of a new commercial off-the-shelf software package. These are very significant accomplishments, but the challenges place increasing demand on OFM's limited resources. Departmental and NIH management should take note of the concurrency of these new workload demands and facilitate the acquisition of the resources needed for continued success.

Our assessment has generated the following three overall observations:

1. **The OFM's human resource strategy has evolved as a result of hiring freezes, impact of A-76 actions, HR processing throughput challenges, and the need to find short-term remedies pending its ability to bring on permanent staff. Reduced civil service staffing levels have meant OFM increasingly uses contractors rather than federal workers to support or conduct financial management functions. We have suggested several interim steps, but we believe a more detailed and deliberate evaluation would be beneficial. Our recommendation # 3 regarding a Strategic Workforce planning exercise would be particularly useful to OFM and to NIH management.**

2. **The OFM, in addition to the metrics in use as a result of HHS-required reporting, should add additional metrics which would then be used to monitor, analyze, and review day-to-day operations of its office and functions. Our recommendation # 4 addresses this issue and suggests twenty-one selected metrics for OFM's consideration.**

3. **The OFM needs to upgrade its skill mix of systems-trained staff to best address the full implementation of the Oracle Financial Management system. Our recommendation # 8 provides some suggestions in this arena. This area has also been addressed by BearingPoint in its report dated April 15, 2004 and updated May 4, 2004. And, again, the Strategic Workforce planning exercise, together with some discussions with several mangers in other federal agencies that we identified, would be useful.**

In support of these overall observations, we offer the following details:

- We have observed that the OFM has brought in 19 federal workers over the past four years (8 new hires—4 in 2001, 3 in 2002, 1 in 2003, and none in 2004—and 11 transfers—2 in 2001, 1 in 2002, 1 in 2003, and 7 in 2004). At the same time, OFM lost 46 of its staff through transfers, retirements and resignations. The deficit has been largely offset by hiring contractors to fill accountant positions and using temporary hires to fill accounting technician positions. The FTE ceiling has been adjusted downward, but there are still 16 vacant positions. The OFM has initiated fill actions through HR for all of these vacancies. The vacancies are in three components: accounting techs; professional accountants, grades 13 and below; and professional accountants, grades 14 and 15. The traditional HR staffing process now includes an added dimension that requires all 14s and 15s to be vetted through a DDM-established review process. See Attachment 1 for an update on OFM's vacancies.

- In spite of management's intent to form a Policy and Quality division, the Assistant Director position has not been filled, in part due to the lengthy process within NIH for hiring or promoting personnel to the GS-14/15 level.

- Although we were informed by the HR staff responsible for OFM that there are no restrictions being placed on OFM hiring due to the ARAC, OFM has several important vacancies that still exist.

- The OFM, at the lower graded accounting tech positions, has utilized temporary contract employees as an interim strategy to mitigate its federal staffing shortfalls. Most of these positions are in support of going operations, most evident in Commercial Accounts. This should remain as an interim strategy, but these positions should be filled with more permanent resources (either federal or long-term contractual). We understand that it is management's desire that vacant federal positions be filled with permanent hires—we agree with that approach.

- The OFM, at the mid- to higher-graded professional accounting positions, utilizes resources provided by various professional accounting and consulting firms. These resources support newer, more complicated requirements associated with the audits, financial statement analysis, and compliance with the most recent legislation, such as the reviews and related reports associated with the Improper Payment Improvement Act.

- At the inception of the NBS project, individuals who could act as project leads were identified within NIH workforce—three individuals from OFM were identified and transferred. Two of the individuals were in senior management positions—a GS 15 and a GS 14 and were involved in direct support of operations. The original plans were that these individuals would return to OFM in two to three years bringing with them experience with the new Oracle system. Additionally, three members of the OFM staff, including two senior positions, have been detailed on a long term basis to the UFMS project. It is now expected that none of these individuals will return to the OFM. These

personnel actions, though certainly necessary for the implementation of the NIH and department-wide systems, do create additional personnel pressure on the OFM, particularly as it relates to experienced staff vacancies.

- The OFM, in response to the requirements to assume responsibility for completed portions of the NBS, has redeployed several of its staff and worked with a couple of ICs to transfer a couple of others in support of the operations and maintenance of the NBS. The OFM has also identified and selected additional process experts to acceptance teams. Nevertheless, the OFM has not been able to fully ramp up in a way that would facilitate the development, roll-out, and optimal operations of the completed modules. The OFM's efforts to date include redeploying two existing OFM staff and transferring-in two additional staff from outside the OD.

- NBS staff provided support to the FY 2004 year-end closing, as provided for in the transition plan. OFM took over the monthly closing in June 2004. But, due to system-related synchronization issues, which still exist, the NBS technical team must make manual adjustments to align file structures, etc. to be compatible with annual closing procedures. Once these systems-related issues have been resolved, it is expected that the OFM will be able to make monthly closing without assistance from the NBS technical team. The OFM has been reluctant to bring on additional integrator staff to assist in the operations areas for NBS tracks, because it believes that, until systems stabilization occurs, such action would cloud the internal control required in the development plan. Staffing for the OFM becomes an increasingly more significant concern as NBS and OFM prepare for the implementations of Tracks 3 and 4 over the next 12 months.

- Our recommendations below address the need for OFM to acquire the additional technical competencies to support its assumption of responsibilities for the NBS implementation. We also believe NIH management should set a specific target date when the HR group and the OFM will have accomplished the hiring for the vacant accounting technician positions. Finally, as noted in recommendation #3, we have also supported a reassessment of OFM workforce. As noted in our section on the review of other federal Finance offices, there is evidence to suggest that OFM's structure, and the proposed interim staffing, is very similar to comparable Offices of Financial Management. OFM can eliminate the long-term use of contract temporary employees by hiring to its assigned ceiling. If OFM decides to use contractors to provide technical support for Oracle Federal Financials, this would obviate the need for obtaining such critical skills through civil service hiring and training of internal NIH transfers—but this policy needs to be made in a deliberate and considered manner and would be an appropriate consideration as part of the recommended strategic workforce planning exercise (Recommendation #3). We note that almost all federal agencies are using contractors to provide the needed technical expertise because of the market demand and supply issues.

RECOMMENDATIONS

1. **OFM and the Office of Human Resources (OHR) and the Office of Strategic Management Planning (OSMP) need to take immediate and continuing steps to fill the vacancies in the OFM.**

   We have noted in our text that steps are underway to address this issue, but progress has been slow. BearingPoint conducted a study in April, 2004 that suggested that seven additional FTE's were necessary, including staff with Oracle expertise. It is not clear from that report whether this recommendation is in addition to the FTE vacancies (our assumption is that it is in addition to the authorized FTE level,) but in any case it is clear that permanent civil service staff over and above the current on-board complement is necessary if OFM is to meet its future challenges, particularly given the fact that several key staff members were transferred to either the NBS or UFMS system implementation efforts—as noted in the above section. The implementation of our recommendation # 4 concerning performance metrics, and recommendation # 3 concerning a formal strategic workforce planning exercise is also critical to establish current workload needs and future staffing augmentations. Accordingly, until OFM comes closer to its authorized complement, and until workforce metrics are in place, BearningPoint's suggestions for new positions, should be held in abeyance. Based on our review of similar Finance Offices in the Departments of Education and Energy, we have noted that the total staffing complement and organizational arrangement in these two agencies are similar to that of NIH's OFM.

2. **OFM and senior management in NIH should consider the value of establishing a formal deputy position to the Director, OFM.**

   There is an OFM-wide absence of deputies at all leadership levels. We recognize that the Clinton Administration's National Performance Review (and the Reinventing Government activities) caused many agencies to increase the ratio of employees to supervisors by eliminating deputies and creating non-supervisory "team leads." However, agency management must also deal with the attendant management risk at leadership levels, when resignations, retirements, prolonged absences or press of duties can lead to uncertain and delayed responses when prompt decisions are required. The Deputy CFO/Director of OFM is in a critical position, having to make policy decisions, render advice to NIH management, formulate strategies, and balance resource needs involving more than 140 civil service positions and a significant number of contractors across three divisions and an administrative support office. More recently, additional leadership responsibilities have been placed on the OFM leadership, the most obvious examples being the design and implementation of new COTS financial management systems (NBS and the DHHS Unified Financial Management System (UFMS)), demand for audited financial statements shortly after the close of the fiscal year, requirement for performance measures, increased emphasis on internal controls, and new external reporting requirements, such as the Improper Payments Information Act.

Recognition of these critical management risks should be met with an explicit mitigation strategy. One such strategy would be to hire a Deputy Director, who ideally has both financial management expertise and experience with systems implementation.

3. **OFM, with the assistance of the Office of Human Resources and Office of Strategic Management Planning (OSMP), should conduct a formal strategic workforce planning (SWP) exercise.**

Several key Assistant Directors and Managers are or will be eligible for retirement in the near future. Also, the OFM needs to consider more carefully and systematically the impact of several organizational, personnel, system and functional changes that have occurred in the past few years, including some of the observations contained in this report. We have identified and observed several issues during our review (the need for assistance from NBS staff to close the books each month; the loss of key staff members to the system implementation efforts; the need for more Oracle trained staff and more Oracle training; the suggestion by BearingPoint that additional staff should be authorized; and a decision review on the proper mix of civil service and temporary staff to perform basic accounting responsibilities) which suggest that a more detailed and deliberate process, similar to what is described below, would be highly desirable.

A SWP is a systematic process for identifying, acquiring, developing and retaining the human resources required to meet mission needs. It involves ensuring the right number of people is in the right jobs with the right competencies. A SWP involves four primary activities:

- determining organizational strategy, business and operating requirements

- identifying positions, skills and competencies needed to successfully achieve these requirements, including the proper mix of staff

- evaluating the level of preparedness of the current workforce to meet today's and tomorrow's mission needs

- developing strategies for bridging the gap between today's job/ skills and tomorrow's mission

4. **OFM should utilize additional metrics to those required by the Department to measure unit performance on an ongoing basis. Furthermore, OFM should adopt a dashboard-like monthly report to track key areas of concern that particularly need to be updated, reviewed and addressed on a monthly basis.**

The performance metrics collected within OFM or proposed in the ARAC implementation report are required by the Department. However, the OFM should include additional indicators identified by OMB and the Chief Financial Offices Council for all federal

financial management organizations, i.e., the Metric Tracking System (MTS) indicators.[1] In addition, internal performance measures and their analysis in regular formal reviews would provide the OFM leadership with early warning signs of emergent invoice backlogs, data entry errors, customer satisfaction issues, and compliance concerns so that proper and timely corrective actions could be taken. We recommend that such formal monthly performance reviews be instituted by OFM management. We have identified 23 specific metrics and associated standards for the OFM's consideration.

5. **The OFM, once additional vacancies are filled, should review the merits of elevating the Central Services Operations Branch, currently an element of the Division of CFO and Central Services Operations, to division status, creating a separate Division of Central Services Budget and Accounting. The OFM should consider placing the functions performed by the CFO Activities Branch into the Policy and Quality Division.**

   In our opinion, the separation to two distinct divisions would help underscore the importance of each of the operations. The Central Services operation has important responsibilities to ensure effective and efficient budgeting and accounting for the shared supplies and services required by the ICs and for the shared support of the Clinical Center's operations and other safety and security operations. Furthermore, the key functions of the CFO Activities Branch, such as financial policy, account reconciliations, and the preparation of the Annual Financial Statements, are sufficiently distinct and important that it too needs to be a separate operation. The magnitude and complexity of these operations, plus the issue of a NBS solution to replace the ADB/CAS, argues for the two branches being separated. We point out below that the CFO Activities Branch could be placed into the Division of Policy and Quality Control.

6. **We endorse the need for a Division of Policy and Quality Control, and furthermore, we recommend that the OFM implement the recommendations for staffing and responsibilities as defined in the justification for the division.**

   Based on our interviews, the structure of other similar federal agencies, and our experience, there is a strong need for greater attention and a separate division responsible for financial management policy development, audit liaison and performance measurement and management control oversight, including issues associated with travel reimbursement. Some of these functions are currently being provided by the CFO Activities Branch. We endorse the transfer of those related activities into this division from the CFO Activities Branch.

   In the short term, the open vacancies for the travel policy and oversight function leave a gap in OFM's ability to take proactive action to provide timely guidance to the NIH ICs

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[1] These are: Fund Balance with Treasury (Net); Amount in Suspense Accounts Greater than 60 Days Old; Delinquent Accounts Receivable from Public over 180 Days; Number of Vendor Payments Paid Electronically; Percent of non-credit card invoices paid on time; interest penalties paid due to late invoice payments; Travel Card Delinquency Rates for Individually Billed Accounts; Travel Card Delinquency Rates for Centrally Billed Accounts; and, Purchase Card Balances outstanding over 61 Days Old.

regarding travel, entertainment and other expenditures—and thereby avoid adverse audit findings. In the longer run, the failure to develop and staff this Division will reduce OFM's ability to provide expanded policy guidance that would strengthen internal control and oversight of a wide range of financial management functions. Part of the staffing for this Division could come from contract auditors assigned to the Director of the current Division of CFO and Central Services Operations who do audit liaison and related work. However, this type of work would be more effectively performed by management in a separate Division reporting directly to the Director of the OFM. Furthermore, in the long run, this type of oversight work is best performed by federal employees rather than by contract employees. The FTE implications of this should be a critical element of the analyses associated with our recommendation to conduct a strategic workforce planning exercise.

7. **We recommend that OFM develop Service Level Agreements, by the end of this fiscal year, that would include OFM, customers and stakeholders, to govern the relationships and expectations among these entities. Three examples of SLA's that we believe are worthy of consideration include:**

   (a) **between OFM and the ICs related to the input and processing of receiving reports**

   (b) **between the IC's and the OFM related to the performance measurements for which the OFM will be held responsible**

   (c) **between OFM and the NBS Project so that timelines and responsibilities will be clearly articulated, including the operations and maintenance of the Oracle Federal Financials, the Gelco Travel Manager, and the implementation of the next Oracle modules.**

No Service Level Agreements currently exist between OFM and other NIH organizations to govern the relationships among these entities. An example of a needed SLA between OFM and the ICs stems from the requirement that the administrative officers take an active role in querying the invoices received data base, and then providing the Commercial Accounts Branch within the OFM with the appropriate receiving report. Lack of timely attention by the administrative officers to their receiving report responsibilities can figure into a backlog of invoices received, but not ready for certifying payments due to a lack of receiving reports; eventually, this leads to a much increased probability of a late payment and the government's liability for interest payments.

The second SLA would strengthen OFM's responsibilities to the IC's for delivering timely reports. And finally, the last suggested SLA would better define the shared responsibilities between the NBS staff and the OFM for the further implementation and continued operations and maintenance of the new Oracle COTS product. We do note, however, that there currently exists a Project Management Plan for the NBS project which OFM management suggests is more than sufficient to mange the relationships between OFM and the NBS project management team. However, we still believe a formal Service Level Agreement for this critical project should be executed.

8. **The Director, OFM should continue to address the new requirements posed by the NIH Business System and Unified Financial Management System. This includes:**

   a. **obtaining the necessary skilled staff resources to ensure full functional operational responsibilities for the first two tracks of the NBS, including monthly closings**

   b. **mitigating the implementation risk posed by the NBS tracks 3 and 4 by obtaining additional staff with the Oracle skills needed to successfully transition current accounts payable and other affected operations to the new systems**

   c. **ensuring that relevant staff in OFM regularly and continuously attend training classes on Oracle software and related system and accounting issues, including how to improve throughput in the invoice processing function, how to perform ad hoc queries, how to prepare and use reports, how to make adjustments to the system, and how to close the books in the most effective manner for year-end and each month**

   d. **considering the establishment of a small separate systems unit within the Quality and Policy Division to give further attention and visibility to transition requirements regarding both the NBS and UFMS projects**

   e. **ensuring that no enhancements (apart from minor technical "fixes"), and certainly no upgrades, are made to the NBS financial management system for at least two years after full deployment so as to ensure that all elements of the system are working in a settled and stabilized environment.**

Our review of other federal agencies found that it was common for the organization directly responsible for financial management to have an accounting systems unit reporting directly to the head of the Finance agency. It is also common for Finance to be responsible for the implementation of any new systems related to financial management. However, such a configuration does not exist at NIH. Instead, one unit performs operation and maintenance on the accounting systems, while another unit is responsible for new systems implementation. We are not recommending any changes in this organizational structure at NIH as such configurations similar to the NIH environment also exist in government as well as private industry, and either configuration can work equally well.

It is critical, however, that the OFM continue to ensure that close coordination be maintained with the NBS and UFMS Project teams and that a level of system sophistication and experience be achieved and maintained within the accounting staff of the OFM. We have made several suggestions above which we believe are necessary to be further developed in OFM so as to ensure successful implementation of the NBS project. Furthermore, as the department moves toward completion of the UFMS project, the OFM needs to be prepared to address the system integration issues as well as the expected

operational issues related to the possible consolidation of financial services and the related consolidation of locations. For all of these reasons, we believe the establishment of a dedicated unit within the Division of Policy and Quality should be considered.

During the course of our review of other federal agencies that have successfully implemented COTS financial management and accounting systems, we observed that the Oracle implementation at the Department of Education was particularly innovative. The Department was able to achieve a stable operating environment more rapidly than any other federal agency by (1) resolving data migration and clean-up issues, and (2) using contract accounting professionals to operate the current systems while focusing their financial management leadership on achieving a high level of operational proficiency in Oracle prior to "going live." In a separate section of this report we describe in great detail the experiences at Education.

We recommend that OFM and NBS/UFMS staff discuss the Department of Education's experience with Education's Assistant CFO for Financial Systems Implementation. We found his grasp of the problems and issues related to Oracle systems implementation very comprehensive, and believe the NIH and DHHS staff would benefit from understanding in detail Education's operational approach and lessons learned, even if the NIH ultimately takes a different approach.

One final point. Once the current Oracle system is fully operational, NIH should not make any enhancements or adjustments to the system (apart from minor technical fixes,) and certainly no system upgrades to a new version, for at least two years. This would allow the OFM sufficient time to become familiar and expert with the system and the associated software in a settled and stabilized environment.

9. OFM should update and improve the information content on its website.

We queried the OFM website and found it largely out-of-date and missing detailed descriptions of the roles and missions of each unit, key staff members and points of contact. There is a helpful Directory of Selected Financial Activities, with the name of the branch or team, room number, and phone number, which we relied on for some of the detailed information in this report. This would be improved, however, with the addition of a specific point of contact, the name of the branch supervisor and a detailed description of each unit and its responsibilities. We believe the internal operations of agencies are facilitated if this information is readily available, and that it is especially valuable to new NIH staff that lack a detailed understanding of the OFM's roles and responsibilities. In our review of other federal agencies, we noted several good examples of such information, and we particularly recommend the data on the website of the CFO for the Department of Education.

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