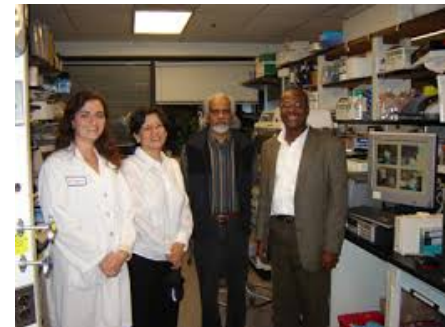




Enhancing Efficiency of Research Core Facilities

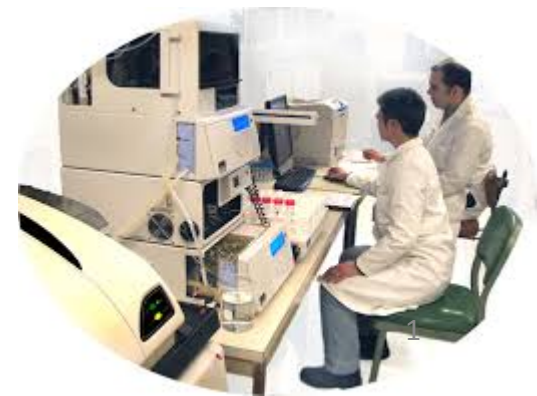
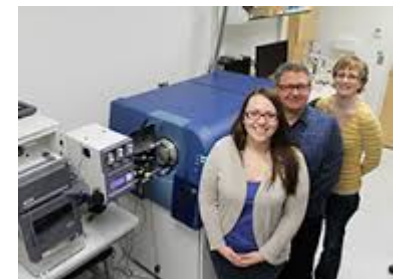


Council of Councils

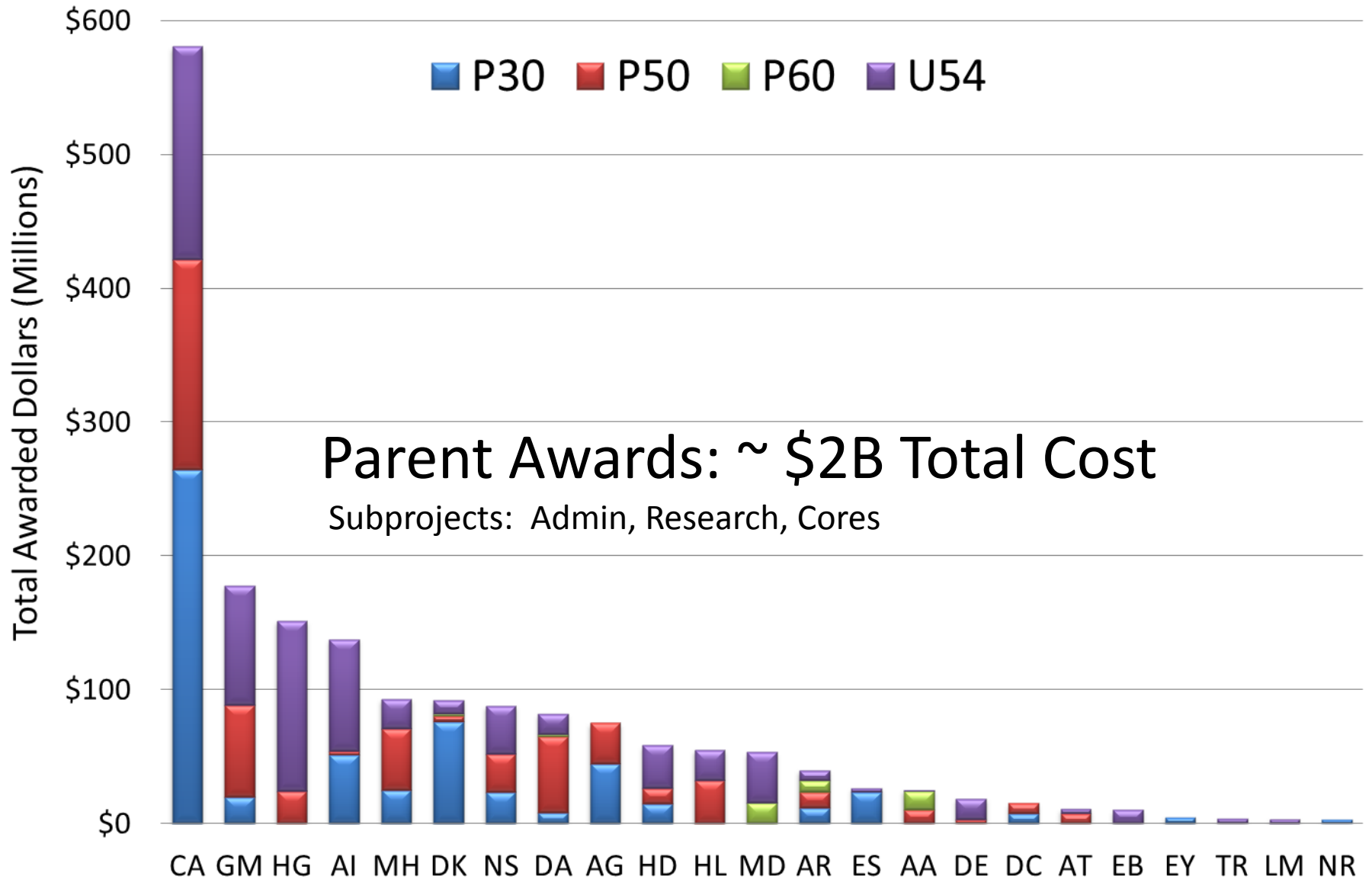
June 19, 2015

James M. Anderson, MD, PhD

Director, DPCPSI



IC Funding By Core Mechanisms FY13



Observations

1. A significant level of NIH support goes to maintain research Core Facilities.*
 - ✓ \$1B, conservative estimate
2. Redundancy exists within institutions and within and between NIH funding Institutes and Centers but the level is challenging to document.
3. Urban myth: NIH review policies discourage sharing
4. Many institutions are motivated to manage Cores efficiently but management practices vary.

Does sharing enhance efficiency?

Outcome of the ARRA Core Consolidation Supplement Program

NOT-RR-10-001

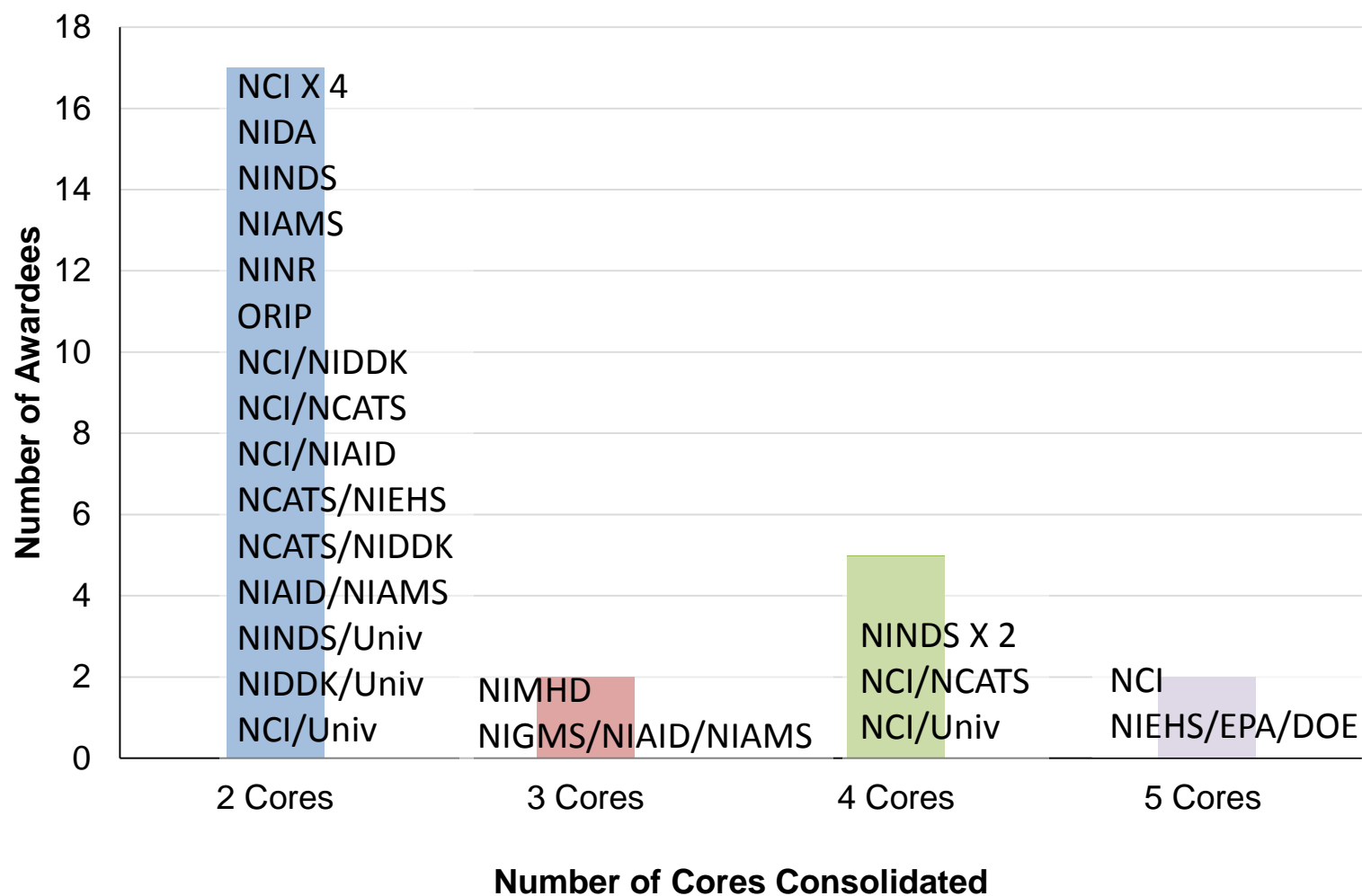
- Release Date: November 6, 2009
- Core facilities support for the purpose of consolidating multiple cores into a single, more efficient core.
 - Consolidated core facilities must be made widely available
 - Must operate within the scope of the parent grant
- Awardees will agree to share best practices.
- 12 ICs participated
- Use of Funds:
 - Personnel to plan and implement core consolidation
 - Equipment (under \$500,000)
 - Minor alteration and renovation

NOT-RR-10-001

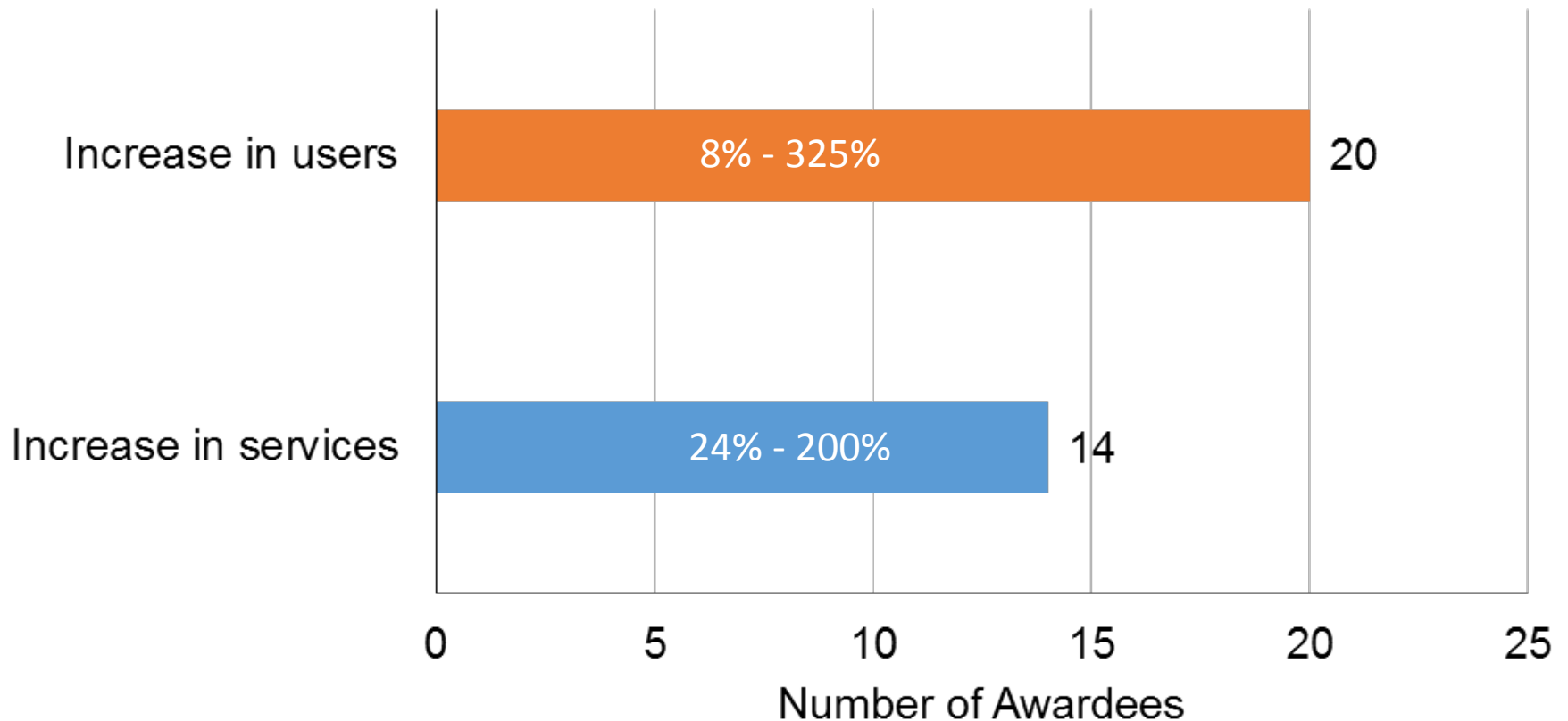
Summary of responses and outcome:

- 80 applications received
- 26 administrative supplements awarded, ranging from \$300k to \$1.3M
 - ✓ P30 (18); UL1 (4); G12 (1); P60 (1); PL1 (1); U42 (1)
- \$22M total cost awarded
- Final Progress Report (May 2014), 13 questions

Partners in Core Consolidated

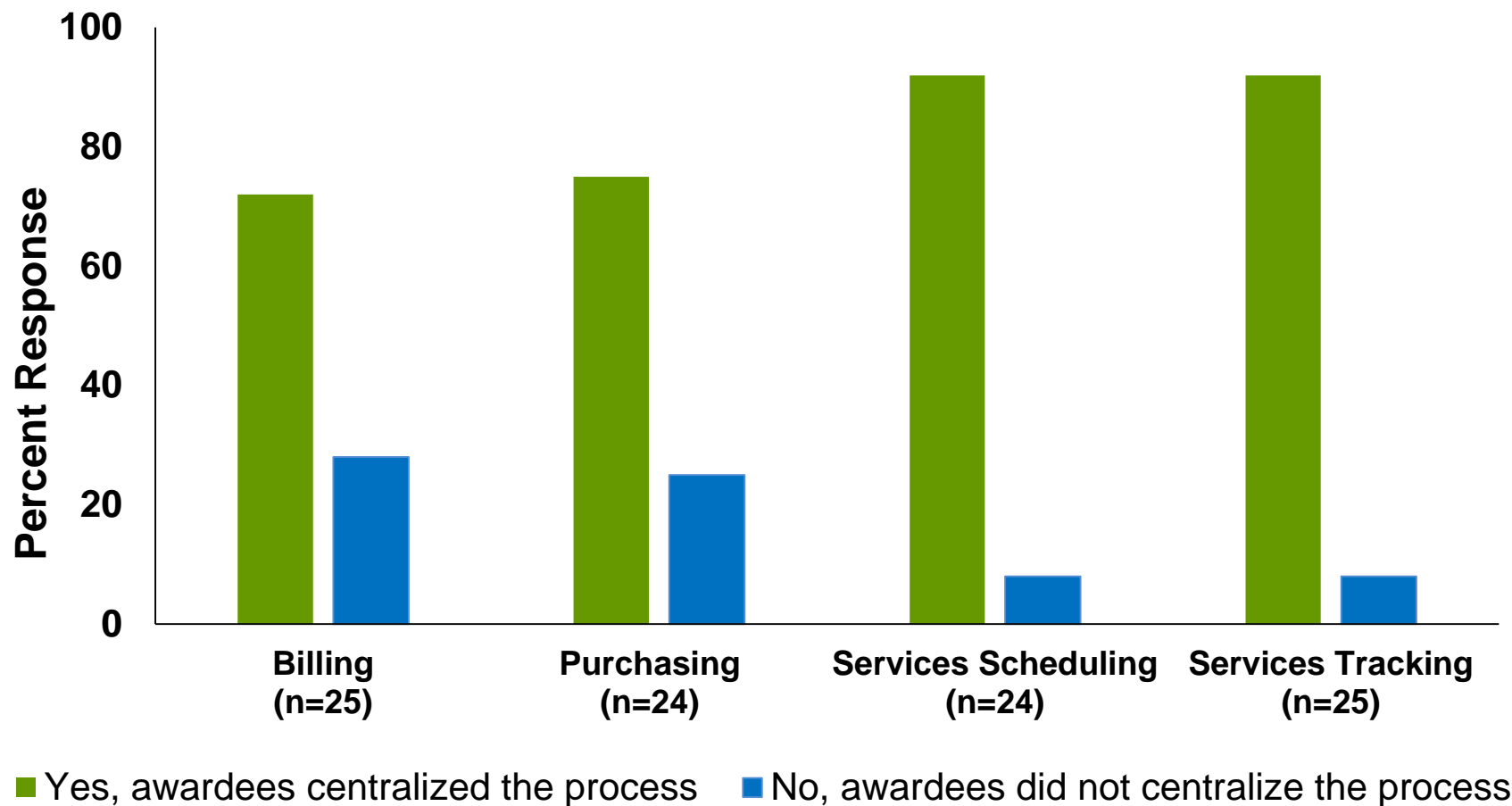


Increases in Users and Services After Consolidation

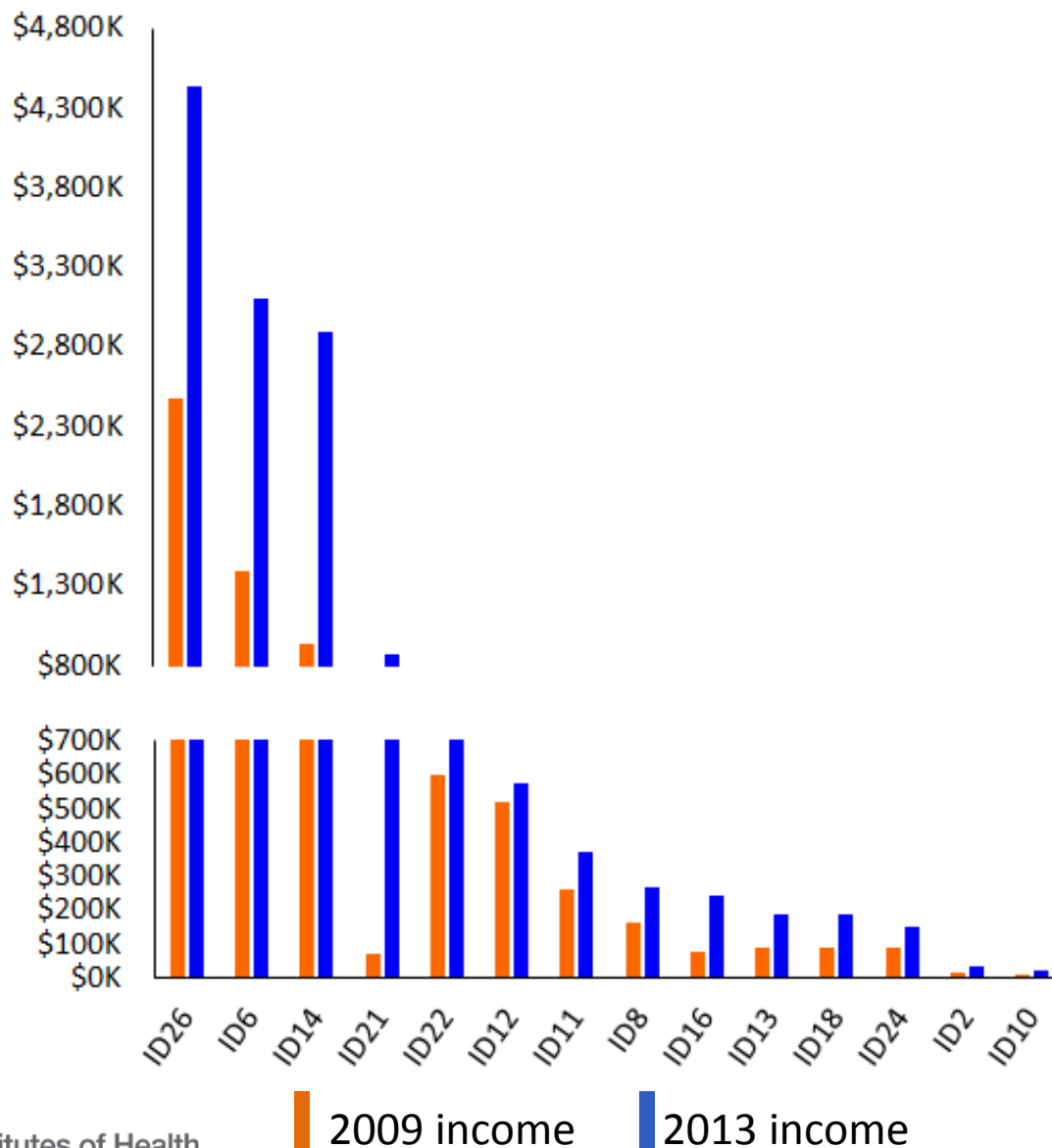


All 26 awardees reported increases in users, services, or both

Centralization of Processes as a Result of Consolidation



Annual Income Generated Prior and After Consolidation



Lessons Learned

- Cores were successfully consolidated within Institutions and among NIH Institutes and Centers
- Efficiencies resulted from:
 - ✓ consolidated billing, purchasing, and scheduling and tracking services
 - ✓ centralization of data processing, licenses and software led to competitive pricing and cost savings
 - ✓ Institutional centralized oversight and planning
 - ✓ advanced methodologies and technologies not available in the smaller cores
 - ✓ cross-training of staff
 - ✓ enhanced consultation and analyses of complex data
 - ✓ standard operating procedures

J Biomol Tech, Apr 26(1):1-3, 2015

COMMENTARY

NIH Core Consolidation – Investing in Greater Efficiency

Michael C. Chang, Steven Birken, Franziska Grieder, and James Anderson
Office of Research Infrastructure Programs

Division of Program Coordination, Planning, and Strategic Initiatives, NIH

The National Institutes of Health (NIH) invests substantial resources in core research facilities (cores) that support research by providing advanced technologies and scientific and technical expertise as a shared resource. In 2010, the NIH issued an initiative to consolidate multiple core facilities into single, more efficient cores. Twenty-six institutions were awarded supplements to consolidate a number of similar core facilities. Although this approach may not work for all core settings, this effort resulted in consolidated cores that were more efficient and of greater benefit to investigators. The improvements in core operations resulted in both increased services and more core users through installation of advanced instrumentation, access to higher levels of management expertise, integration of information management and data systems, and consolidation of billing, purchasing, scheduling, and tracking services. Cost recovery to support core operations also benefited from the consolidation effort, in some cases several fold. In conclusion, this program of core consolidation resulted in improvements in the effective operation of core facilities, benefiting both investigators and their supporting institutions.

NIH-ABRF Workshop on Enhancing Efficiency of Research Core Facilities

March 28, 2015 12:00-5:30 p.m.

The goal of this workshop is to identify lessons learned and best practices for enhancing the efficiency of research core facilities. NIH will characterize its support and policies affecting cores. Institutional leaders will present their experience and perspective on obstacles and solutions to enhancing efficiency including centralizing management, sharing, and co-locating cores.

- DPCPSI, OER, NCATS, NCI, NSF
- Seven Research Deans and Centralized Core Administrators
- >100 registrants



Speakers: NIH-ABRF Workshop on Enhancing Efficiency of Research Core Facilities

Overview of NIH Investment in and Policies Governing Core Facilities

- Sally Rockey, PhD, NIH Deputy Director for Extramural Research
- James M. Anderson, MD, PhD, NIH Deputy Director for Program Coordination, Planning, & Strategic Initiatives

Selected Examples of NIH Approaches to Core Facilities Clinical Translational Sciences Awards and Core Facilities

- Todd Wilson, DO, Medical Officer, Division of Clinical Innovation, NCATS, NIH
- Michael A. Marino, PhD, Program Director, Office of Cancer Centers, NCI

Challenges, Solutions and Best Practices for Centralized Core Management and Overcoming Policy, Administrative, and Practical Challenges to Enhancing Efficiency of Core Facilities

- Bradley Cairns, PhD, Professor and Chair, Department Oncological Sciences, Investigator, HHMI, Senior Director of Basic Science, Huntsman Cancer Institute, University of Utah School of Medicine
- Harris Lewin, PhD, Vice Chancellor for Research University of California, Davis
- Julie Auger, PhD, Associate Director, Campus Core Facilities Program, University of California, Davis
- David M. Dilts, PhD, MBA, CPA, CMA, Professor of Management Oregon Health and Science University
- Terry Magnuson, PhD, (Discussant), Sara Graham Kenan Professor and Chair, Department of Genetics, and Vice Dean for Research, School of Medicine University of North Carolina, Chapel Hill

Sharing and Co-locating Cores

- Sheenah Mische, PhD, Senior Director for Collaborative Science Cores New York University
- David Gorenstein, PhD, Associate Dean for Research, School of Medicine, Chair, Department of NanoMedicine & Biomedical Engineering, University of Texas Health Science Center at Houston
- John Manning, Jr., PhD, MBA, Chief Administrative Officer, Vanderbilt University Medical Center and Senior Associate Dean for Operations and Administration, Vanderbilt University

Workshop Recommendations - Institutions

Strengthen Core Facility Management and Operations: Research institutions should better understand their core facility portfolios and better manage to increase efficiencies, capacity, and competitiveness.

- Develop an institutional core strategic plan to facilitating coordination among all institutional core facilities. (p15)
- Invest in/develop requirements for continuing education of core scientists to accelerate their abilities to adapt to changing technologies and applications. (p17)
- Invest in specialized expertise in financial management (e.g., rate setting) and in making better use of tools (e.g., electronic usage tracking, online scheduling and service requests). (p17)
- When centralizing facilities, tackle the challenges faced by core directors. These include the need for communication tools (e.g., search engines, websites), grant writing support, equipment management, and mechanisms for researcher training and education to create a nimble user base. (p17)
- Ensure strong governance of research core facilities, including building trust and transparency (access, services, pricing, open access and queue). (p20)
- Determine which services qualify for fixed amounts to reduce administrative and reporting burden
- Develop best practices and disseminate
- Develop inventories to understand cores on their own campus

Workshop Recommendations - NIH

- Improve communication and coordination of issues related to NIH-supported Core Facilities
- Enhance cross-agency (e.g., NIH, NSF) coordination about core facility sharing and co-investments
- Convey through FOAs to applicants/grantees that sharing is encouraged through facilities and services
- Identify opportunities to facilitate coordination between and among CTSAs, cancer center support grants, and other funded core facilities
- Develop guidance about internal versus external rates for use of core facilities
- Implement a system of unique core identifiers for use in grant applications and reports to facilitate reporting and citations/indexing
- Clarify NIH policy regarding reporting publications resulting from core facilities

Questions and Discussion

Institutions Receiving ARRA Core Consolidation Supplements

Institution	Awarding IC	Award Total \$
Albert Einstein College of Medicine Yeshiva Univ.	NCRR	\$866,973
Albert Einstein College of Medicine Yeshiva Univ.	NCI	\$849,449
Children's Hospital Medical Center Cincinnati	NIAMS	\$386,385
Dartmouth College	NCI	\$816,000
New York University School of Medicine	NCRR	\$1,192,128
Oklahoma Medical Research Foundation	NCRR	\$1,321,636
Oregon State University	NIEHS	\$292,400
University of Alabama at Birmingham	NINDS	\$1,044,000
University of Alabama at Birmingham	NCI	\$930,000
University of Alabama at Birmingham	NIA	\$614,565
University of California Davis	NCRR	\$769,883
University of California Los Angeles	NINDS	\$757,000
University of Chicago	NCI	\$1,131,386
University of Maryland Baltimore	NINR	\$1,298,153
University of Michigan at Ann Arbor	NIDDK	\$458,000
University of Montana	NINDS	\$1,005,100
University of North Carolina Chapel Hill	NCI	\$622,891
University of North Carolina Chapel Hill	NCRR	\$730,861
University of Rochester	NIEHS	\$986,900
University of Texas Hlth Science Center San Antonio	NCRR	\$1,297,000
University of Texas MD Anderson Cancer Center	NCI	\$1,030,000
University of Utah	NCI	\$845,375
Vanderbilt University	NCI	\$1,249,351
Wayne State University	NCI	\$701,380
Xavier University of Louisiana	NCRR	\$520,000
Yale University	NIDA	\$694,899

Final Progress Report (May 2014)

The 26 awardees responded to 13 Questions

1. *How many core facilities, and of what type, were proposed to be consolidated and how many and what type were consolidated?*
2. *What was the total core facility space (sq. ft.) prior to and after consolidation?*
3. *How many staff were assigned to work in the core facilities prior to and after consolidation?*
4. *Did consolidation allow cross training of staff?*
5. *Did consolidation increase the availability of core services and the number of users? If so, approximately what were the percentage increases?*
6. *Please report the number of projects or services that were completed in CY2011, CY2012 and CY2013 in the consolidated core facility.*

Final Progress Report

7. *Did consolidation lead to centralization of any or all of the following?
Billing, Purchasing, Services Scheduling, Services Tracking*
8. *Were other efficiencies achieved as a result of core consolidation? If yes, please provide a brief description.*
9. *Was the consolidated facility publicized? If so, how (web, journal, conferences, etc.)?*
10. *After consolidation, were best practices documented via standard operating procedures? Were best practices publicized? If so, how (web, journal, conferences, etc.)?*
11. *After consolidation, was a cost recovery and sustainability program implemented and achieved?*
12. *Has the research conducted (science) been better served after consolidation?*
13. *Has the consolidation enhanced scientific collaboration among users?*