

***Reducing the Administrative Workload for Federally Funded Research***

**Statement of**

**Susan Wyatt Sedwick, PhD, CRA  
Chair, Federal Demonstration Partnership and  
President, FDP Foundation**

**Before the**

**Joint Hearing of  
Subcommittee on Research and Technology  
and  
Subcommittee on Oversight  
Committee on Science, Space, and Technology  
U.S. House of Representatives**

**June 12, 2014**

Chairman, Rep. Paul Broun (R-GA) of the Oversight Subcommittee; and Chairman, Rep. Larry Bucshon (R-IN) of the Research and Technology Subcommittee, and Ranking Members Dan Lipinski (D-IL) and Dan Maffei (D-NY), my name is Susan Wyatt Sedwick. I am the chair of Phase V of the Federal Demonstration Partnership (FDP) and it is in that capacity that I am testifying. I also serve as president of the FDP Foundation. You will note from my curriculum vitae that I am an Associate Vice President for Research and Director of the Office of Sponsored Projects at The University of Texas at Austin. I appreciate the opportunity to appear before you today to provide an overview of the FDP's involvement over the past 25 years and our ongoing efforts to reduce the administrative burdens facing institutions and principal investigators that receive federal funding to conduct scientific research. You have asked me to address specifically the results of our 2005 and 2012 surveys assessing the administrative workload on principal investigators of federally-funded projects to determine the impact of federal regulations and requirements on the research process, and to describe the ongoing pilot demonstrations of an alternative to effort reporting currently underway at four FDP institutions. You have also asked me to provide some insights on the potential impacts on administrative workloads that may result from the implementation of the Office of Management and Budget's recently issued *Uniform Guidance on Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards* (2 CFR 200).

## **Federal Demonstration Partnership Overview**

The Federal Demonstration Partnership (FDP) is an association of federal agencies and academic research institutions with administrative, faculty and technical representation that work together and with input from affiliated research policy organizations to streamline the administration of federally sponsored research. FDP members from all sectors cooperate in identifying, testing, and implementing new, more effective ways of managing federal research funding awarded to our institutions with the goal of improving the productivity of research without compromising its stewardship.

The FDP began in 1986 as the Florida Demonstration Project which was an experiment between five federal agencies (National Science Foundation, National Institutes of Health, Office of Naval Research, Department of Energy, and US Department of Agriculture) and the Florida State University System and the University of Miami to test and evaluate a grant mechanism utilizing a standardized and simplified set of terms and conditions across all participating agencies. The FDP is in the final year of Phase V and has evolved into an organization of 10 Federal agencies and an anticipated institutional membership exceeding 150 research institutions as Phase VI members. Each six-year phase has seen a growth in membership by more than 30 percent.

The stated mission of the FDP is to examine, improve and streamline the administrative processes involved in the competitive appointment, allocation and management of federal funds which support research activities at institutions of higher education throughout the country. This

supports the primary goal of streamlining with accountability to decrease researcher time focused on administrative requirements and to maximize the time available for research. We strive to have our scientists focused on the conduct of science, not administration. Detailed information on the successful projects completed by the FDP and our current initiatives can be found on the FDP website at [thefdp.org](http://thefdp.org). Some of the notable accomplishments of the FDP directly related to reducing administrative burdens are as follows.

- Expanded Authorities
- Governmentwide Standard Terms and Conditions
- Grants.gov Joint Application Design Team
- Faculty Burden Surveys (2005 & 2012) and Reports (2007 & 2014)
- FDP ARRA Administrative Survey and Report (2011)
- Financial Conflict of Interest (FCOI) Model Policy and FCOI Clearinghouse
- STAR METRICS Pilot Demonstration
- Grant Report Information Project (GRIP)
- IRB Practical Guide
- FDP Subaward and Subcontract Templates

The National Academy of Science's Government-University-Industry-Research Roundtable is the neutral convener of the FDP, housing all permanent staff support for FDP activities and committees, as well as providing logistical support for FDP meetings. The strategic direction of the FDP is guided primarily by the Executive Committee comprised of the federal and institutional co-chairs of each of our standing and operational committees. The FDP offers a unique forum for representatives from research institutions to work collaboratively with federal agency officials to improve the national research enterprise. The FDP meets three times per year and all meetings are open for registration and attendance by non-members. At its regular meetings, faculty, administrators, and information technology representatives from the member institutions talk face-to-face with decision-makers from agencies that sponsor and regulate research. Faculty input to our discussions is critical.

The Federal Demonstration Partnership is funded by dues paid by the institutional members and by grant funding provided to the Government-University-Industry Research Roundtable (GUIRR) from the following federal agencies: National Science Foundation, U.S. Department of Health and Human Services through its National Institutes of Health, U.S. Department of Defense, U.S. Department of Agriculture and the Environmental Protection Agency. Institutional funds are managed by the non-profit FDP Foundation and the federal grant funds are managed by GUIRR.

The FDP has enjoyed bi-partisan support since its inception. Senator Lawton Chiles (D-FL) was instrumental in the creation of the Florida Demonstration Project. Senator Chiles remained a stalwart supporter of the FDP throughout his tenure and urged several directors of the Office of Management and Budget to “assess the consequences of its actions – the cost and benefit aspects of changes – before making them.”

In his August 7, 1987 address at Yale University, then Vice President George Bush lauded the successful efforts of the Florida Demonstration Project for its experimental efforts aimed at paring down bureaucratic accretion that he cited as analogous to the geological process of sedimentation stating, “Over time, the layers gradually solidify into nearly impenetrable rock – or in this case, red tape.” He went on to admonish that while the federal government had a legitimate need to ensure that the taxpayers’ money is spent appropriately, “in this context [research] accountability can best be achieved by vigorous review of the end product of the research, not by detailed budget controls and administrative micro-management that is oblivious to the research itself.”

The FDP fully supports the rationalization that the federal government has a duty to ensure transparency, accountability and efficient use of federal research funding. The 26-percent cap on the **reimbursement** of administrative costs to universities has not kept pace with the growing regulatory burden. Please remember that direct and indirect costs are borne by the universities and reimbursed after-the-fact. The Council on Governmental Relations maintains a list of regulations impacting research at universities that have been implemented or significantly revised since the imposition of the cap over 20 years ago. That list includes over 80 new, revised or proposed regulatory requirements but does not include the extremely burdensome requirements associated with the American Recovery and Reinvestment Act (ARRA) funding. That list is attached as Exhibit A.

Administrative requirements on research impact the productivity and performance of researchers. University research administration offices strive to minimize the burdens of these regulatory requirements on researchers but even when principal investigators can be spared direct involvement with data collection and reporting, meeting those requirements consumes administrative resources that would be better spent providing support to principal investigators.

## **FDP Faculty Workload Survey**

### **Background**

Almost 20 years ago, the FDP surveyed federally-funded faculty researchers from FDP institutions to evaluate the worth of the approval of the *expanded authorities*. The expanded authorities evolved from a demonstration project developed and conducted by the FDP in which grantees were allowed to perform some actions without prior federal agency approval such as extending the final project period for up to 12 months. Over 2,500 faculty researchers responded to the survey. Results indicated that these new, more flexible policies saved significant time, much of which could be re-directed toward actively conducting research.

As noted above, a staggering number of new federal regulations have been added to the researcher workload. To be successful, researchers need to be focused on their efficiency and productivity. It is in researchers’ best interests to be good stewards of research funding as their use of time and resources will ultimately impact their achievements as a scientist. Given this,

concerns were raised about the extent to which these additions may erode the time that faculty researchers have available to allocate to active research. In addition, changes in cost accounting standards no longer afford most researchers the option of using a portion of their direct costs to shift the ever-increasing administrative workload to administrative staff.

In 2005, the FDP conducted the first Faculty Workload Survey (see Decker et al., 2007; [http://sites.nationalacademies.org/PGA/fdp/PGA\\_055749](http://sites.nationalacademies.org/PGA/fdp/PGA_055749)), which was completed by 6,295 federally-funded investigators from universities and research centers all across the country. Investigators estimated that as much as **42% of faculty research time** related to federal projects was spent completing tasks to fulfill research administrative requirements rather than actively conducting research. These findings have been a cause of great concern among both scientists (e.g., Lane & Bertuzzi, 2011; Leshner, 2008) and research administrators (e.g., Rockwell, 2009; Sedwick, 2009).

### ***Current Findings***

In early 2012, the FDP conducted a follow-up survey of principal investigators (PIs) of federally-funded projects to document the continuing impact of federal regulations and requirements on the research process. (For the full report, see [www.thefdp.org](http://www.thefdp.org)). The 2012 survey reached almost twice as many investigators as the first, accumulating responses from 13,453 principal investigators with active federal grants from 111 (non-federal) FDP member institutions, including 42 public and 20 private “Very High Research” universities (per the Carnegie Classification System). In brief, the results suggest that no progress has been made.

Researchers still estimate that an average of **42% of their research time** associated with federally-funded projects is spent on **meeting administrative requirements** rather than conducting active research. These results suggest that whatever progress may have been made in reducing administrative burdens has been countered by the introduction of new requirements.

According to principal investigators’ estimates, research time spent on obtaining and completing federally-funded projects is roughly divided as follows:

- 15.4%**     **Proposal preparation activities:** Writing/submitting proposals and preparing budgets;
- 5.7%**     **Pre-award administrative activities:** Applying for approvals, developing protocols, drafting security plans, etc.;
- 13.6%**    **Post-award administrative activities:** Purchasing supplies/equipment, supervising budgets, managing project personnel, complying with regulations, monitoring safety/security plans, etc.;
- 7.6%**     **Report preparation activities:** Writing/submitting required progress/final reports.
- 57.7%**    **Active research:** Reviewing literature, designing studies, running experiments, collecting/analyzing data, writing up findings, presenting/publishing research, etc.

***Proposal and Report Preparation.*** Proposal preparation was identified as the single most time consuming requirement associated with federal research funding. Researchers are routinely concerned about the immense time that proposal writing takes away from research. In open-ended responses, researchers were most concerned about the low cost-benefit ratio associated

with proposal writing. Since so few proposals are funded (typically 5-20%), the odds are high that the direct payoff will be nothing. Many report that this is by far the most unnecessarily time-consuming and ultimately most wasteful aspect of research-related workload. This is especially frustrating because much of proposal preparation has little or nothing to do with the content of the research.

Moreover, because a researcher's time devoted to preparing proposals is not supported by federal funds, the requirement can only be fulfilled through the investigator's institution-funded research assignment. This has become increasingly difficult given reductions in state funding. Even if the project is eventually funded, excess time spent on proposal preparation prevents actively engaging in research. For the 80% or more of proposals that are not awarded funding, the entire proposal-writing exercise undermines the researcher's ability to make progress on his or her program of research.

In addition, both proposals and progress/final reports typically involve extensive requirements and details that may not be necessary, or could at least be postponed until it is clear they will be useful. The excessive need for details across the various types of requirements could be reduced by removing redundancies, unnecessary or irrelevant information, inflexible response formats that often are not a good fit, and overly conservative measures aimed at rare problems, especially if the measures are not likely to ameliorate or prevent the problem. With regard to reports, researchers are especially concerned that the exercise is largely a waste of time in that their reports are rarely read or used, and no useful feedback is provided. Because researchers place a high priority on productivity, requirements that consume significant time and provide no benefit, such as quarterly rather than annual or project-end reporting, are considered especially egregious.

***Pre- and Post-award Administrative Responsibilities.*** In addition to proposal and report preparation requirements, as many as **23 different types of pre- and post-award administrative responsibilities** were identified within the survey. Researchers reported having to manage an **average of 8.67 of these responsibilities** within the one-year time frame of the survey.

These responsibilities included:

- Finances:** Managing grant/contract budgets and expenditures;
- Personnel:** Personnel administrative issues (including hiring, managing, visas, evaluation);
- Effort Reporting:** Federal time and effort reporting, including training;
- IRB:** meeting federal human subjects research requirements;
- HIPAA:** meeting Health Insurance Portability and Accountability Act (HIPAA) requirements;
- Clinical Trials:** Responsibilities associated specifically with conducting clinical trials;
- IACUC:** meeting federal animal care and use requirements;
- General laboratory safety/security** (including laboratory inspections);
- Biosafety** (including biohazards and blood-borne pathogens);
- Chemical safety** (including chemical inventory management);
- Recombinant DNA** (i.e., DNA molecules formed by laboratory methods of genetic recombination);
- Radiation safety** (including radioisotopes);
- Controlled substances/narcotics;**
- Subcontracts:** Responsibilities associated with managing subcontracts to other entities
- Intellectual Property** (including patent/copyright applications, licensing agreements, invention, disclosures, Materials Transfer Agreements, etc.)
- ARRA:** Requirements associated with American Recovery and Reinvestment Act project funding

**COI:** meeting federal conflict of interest requirements;  
**Data Sharing:** Meeting federal requirements for resource and data sharing;  
**RCR:** meeting Responsible Conduct of Research requirements for trainees on federally funded projects;  
**Cross-Agency:** Dealing with differences in requirements and forms across federal agencies;  
**Export controls** (i.e., controls on exports of sensitive equipment, software and/or technology);  
**Select agents** (i.e., agents/toxins with potential to pose a severe threat to public, animal or plant health);  
**Protected Critical Infrastructure Information** (in Dept. of Homeland Security's PCII Program).

Federal project requirements associated with **finances, personnel, and effort reporting** were experienced by the vast majority of researchers and were among the most time-consuming responsibilities overall. For researchers engaged in projects that required human or animal subjects, however, the related **Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC)** requirements were typically the most time-consuming. Other areas viewed as particularly time consuming were those involving clinical trials, subcontracts, and cross-agency differences. Since 2005, we observed increases in the proportion of respondents reporting substantial time devoted to federal project finances, personnel, and patent/copyright applications, with slight decreases in the proportion reporting substantial time required to meet HIPAA (Health Information Privacy and Accountability Act) requirements and to complete IRB training.

Although the priority is to reduce the amount of unnecessary workload, researchers estimated that **additional administrative assistance could reduce their time spent on administrative responsibilities by an average of 27%** (from an average of 42% to approximately 31%). In absolute terms, researchers estimated that with adequate administrative help an average of approximately **4 hours per week** might be reclaimed for active research.

**Impact on Science.** In open-ended comments, a large number of respondents explicitly voiced concern about the future of U.S. science, and the obvious disruption to research productivity that accompanies low funding rates and excessive administrative workload. Many are concerned about the competitive advantage being gained by countries that are focused on investing in research and shielding researchers from other demands. This concern is especially pronounced with respect to the research pipeline. Many respondents argue that there is a clear disincentive in the U.S. to work in scientific/medical fields, particularly in academia. The pressure to compete for ever-dwindling federal funding in order to build and maintain a research program, and the accompanying environment of uncertainty, is discouraging students at all levels from considering science as a career. The need to deal with excessive administrative workload makes research careers even less attractive.

### ***Recommendations***

Reducing the administrative workload associated with federally-funded projects is critical for increasing the efficiency and effectiveness of research. The current levels of administrative workload routinely reduce the ability of highly qualified scientists to focus on the content of their research. Different kinds of research are subjected to different amounts and types of administrative workload, suggesting that solutions may not be the same in all cases. Nevertheless the need for larger-scale solutions, in addition to more focused initiatives, is clearly evident by the growing frustration with the sense that valuable research time is being wasted, and that heavy administrative workloads coupled with the uncertainties of research funding are threatening the viability and attractiveness of research career paths.

Developing new processes and mechanisms to systematically prioritize efficiency and to take into account the costs of administering requirements is essential and will require a holistic approach. Accountability at all levels should include attention to the efficiency and cost/benefit ratio of requirements and their implementation. The FDP can play a key role in identifying potential efficiencies and in demonstrating the value of proposed solutions. Even with respect to larger scale issues, the FDP is ideally positioned to work with federal agency partners and member institutions to emphasize the value of:

- (a) factoring in impacts on research quality and productivity when weighing the costs and benefits of research policies;
- (b) strengthening research programs by minimizing distractions, interruptions, and an environment of uncertainty; and
- (c) reducing disincentives for conducting research and following a research career path.

Many of the particular concerns that were pervasive throughout the survey are already weaved into the fabric of ongoing FDP initiatives. There are many suggestions that could already be tested on a large scale to demonstrate benefits in efficiency with no negative impact (and in some cases a positive impact) on effectiveness. Many of them have already been explored, but given the lack of emphasis on the costs of administrative requirements, there has often been no clear mechanism or incentive for adopting or even considering demonstrably more efficient options. These include:

#### **Project Proposals:**

- Use of simplified modular budgeting as utilized by the NIH or at the very least just-in-time budgets, IRB, and/or IACUC documentation, data management plans, etc., so details are only provided if the proposal is likely to be funded;
- Comparison of productivity from competitive versus non-competitive renewals to determine whether competitions for renewal add value worth the cost;
- Demonstration of feasibility, structure, and advantages of simplified or uniform application forms;

#### **Project Finances:**

- Reduced reporting, documentation, and/or monitoring for small expenditures/purchases;
- Streamlined approaches for justifying and tracking expenditures/purchases;
- Methods for combined optimization of administrative assistance and researcher oversight;
- Focused approaches to easing administrative workload associated with cost sharing, subcontracts, and project-related travel;

#### **Human and Animal Subjects (IRB and IACUC) Requirements:**

- Reduced reporting, documentation, and/or monitoring for low risk research;
- Streamlined approaches for completing, reviewing, and renewing protocols;
- Reduced reporting and documentation for benign modifications;
- Methods for dealing with multiple institution and international projects;
- Approaches to minimizing inconsistencies and redundancies in cross-agency and agency versus institution requirements.



Reducing unnecessary administrative workload will require collaborative efforts to identify potential efficiencies that preserve the intent of requirements. The FDP is perfectly positioned to provide a forum and testbed for exploring possibilities that will be mutually beneficial. With continued access to input from and interaction among researchers, administrators, federal agency representatives, and other interested parties, the FDP can uniquely contribute to shaping a more efficient and effective research enterprise.

## **FDP ARRA Administrative Impact Survey Report**

The American Recovery and Reinvestment Act (ARRA) funding provided an unprecedented opportunity for researchers at colleges and universities to receive funding for critical initiatives and novel research ideas. These additional funds were accompanied by new administrative requirements and recipients were tasked in short term with developing complex reporting systems to comply. In 2011, the FDP published the results of a survey conducted to document the administrative impact of ARRA on institutional members of the FDP. **The administrative costs reported by respondents totaled \$91.7M over the 4 year period, or \$7,973 per ARRA award.**

Data included in the report represented facts and estimates provided from the member institutions via their FDP administrative representatives. It should be noted that under ARRA regulations, no funding was available to colleges and universities to reimburse them for the cost of complying with ARRA requirements. The full report can be accessed at [http://sites.nationalacademies.org/PGA/fdp/PGA\\_058836](http://sites.nationalacademies.org/PGA/fdp/PGA_058836). These results serve as just one example of the substantial unreimbursed costs incurred by an institution from a single regulation. These costs in conjunction with the added workload for researchers place substantial stress on an already overburdened system. This highlights yet again the need to weigh the costs along with the benefits of additional regulations.

## **FDP Payroll Certification Demonstration Pilot**

Effort reporting has become the main method used by institutions of higher education to support confirmation of salary and wage expenses charged to federally sponsored projects as required in OMB Circular A-21. The underlying concept is that an individual's "effort" is the key to determining appropriate charges to federal projects. Effort reporting is based on measuring a percentage of an individual's effort which is difficult to measure, provides limited internal control value, is expensive to quantify, lacks timeliness, does not focus specifically on supporting direct charges, and is confusing when all forms of remuneration are considered.

Over the years, one of the guiding principles of effort reporting has been a complete reporting of all activities. Percentages of effort are reported for all activities and these percentages total 100 percent, indicating a complete accounting for all work activities in a given accounting period. To accomplish this reporting, effort reporting systems have been based on the individual, and not on the project.

The FDP has initiated a payroll certification demonstration as a less burdensome alternative to activity (effort) reporting. With payroll certification, the focus shifts to verification that all of the people who had compensation charged to the project did in fact work on the project and that the

charges to the project were reasonable in relation to the work performed. Certification cycles coincide with project funding periods so principal investigators spend much less time trying to translate the extrapolated percentages of effort that are inherent with the disconnect between effort reporting cycles and project funding periods.

Currently, pilot payroll certifications have been completed at George Mason University, The University of California-Irvine, The University of California-Riverside and Michigan Technological University. All four campuses have reported significant improvement in the efficiency of the administrative process and more effective oversight of compensation charged to federally funded projects. Audit field work of this pilot was conducted by the U.S. Department of Health & Human Services (DHHS) and National Science Foundation (NSF) Inspector Generals in 2013/2014b. Audit reports from DHHS IG and NSF IG are anticipated later this year.

## **Uniform Guidance**

The Office of Management and Budget (OMB) published its final guidance entitled *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) in the Federal Register on December 26, 2013. The Uniform Guidance combines the requirements of eight longstanding OMB circulars including those impacting universities. The Council on Financial Assistance Reform (CoFAR) must be commended for their laudable attempt at balancing the need to protect against fraud, waste and abuse while streamlining processes associated with the awarding of federal funding and easing the administrative burden on diverse grant applicants – universities, tribal entities, and state and local governments. However, this “one size fits all” approach does not result in a good fit for anyone.

The Uniform Guidance was issued as final guidance without further opportunity for comments and will be effective one year from its publication on December 26, 2014. Federal agencies were given one year to implement the new uniform guidance leaving both federal and university representatives scurrying to interpret the guidance. The FDP has initiated a dialogue among university and federal agency representatives aimed at assessing the impact of the uniform guidance.

It is clear that the Uniform Guidance will require changes to institutional policies, procedures and practices and in response to some requirements, costly information systems and policy revisions. While the National Science Foundation has published for public comment its implementation plan, it is anticipated that most other agencies will not follow suit and the implementation plans will be issued collectively by OMB on December 26, 2014 as Interim Final Guidance. This forces universities to forge forward with implementation strategies that are based on assumptions. Sailing blindly into dark seas is never advisable.

There are some positive changes in the uniform guidance: prohibitions on consideration of voluntary cost sharing, the elimination of the example of effort reporting, requirements that federal agencies reimburse universities at their full negotiated rates, and changes to the allowability for charging computing devices and administrative support as direct costs.

It remains unclear whether the uniform guidance will offer any demonstrable relief but in some cases, certain requirements will exacerbate the administrative burdens that are already breaking the backs of universities and principal investigators. Moreover, some changes will clearly have a negative impact on the performance and productivity of research. As an example, new procurement requirements more applicable to the acquisition of unit items (widgets) may result in thousands of transactions (research supplies) being delayed by two or more weeks each. The major areas of concerns of the FDP are outlined in white papers posted on the FDP website at [thefdp.org](http://thefdp.org).

## Summary

It is clear that addressing this problem cannot be accomplished through an incremental, piecemeal approach and if Congress is serious about ensuring the health and well-being of the research enterprise, it is going to require a bold approach of wide-scale overhaul. The basic tenets that must be addressed were penned by the father of the National Science Foundation, Vannevar Bush, in his report, Science – The Endless Frontier.

- *To serve effectively as the centers for basic research, institutions must be strong and healthy.*
- *There must be stability of funds over a period of years so that long-range programs may be undertaken.*
- *To secure a high level of employment, to maintain a position of world leadership – the flow of new scientific knowledge must be continuous and substantial.*
- *We must remove the rigid controls which we have had to impose, and recover freedom of inquiry and healthy competitive scientific spirit.*
- *Leave the internal control of policy, personnel, and the method and scope of the research to the institutions themselves. This is of the utmost importance.*

Thank you for your time, attention and consideration of this written testimony. The Federal Demonstration Partnership would welcome the opportunity to support your efforts.

## References

- Decker, R. S., Wimsatt, L., Trice, A. G., & Konstan, J. A. (2007). *A profile of federal-grant administrative burden among Federal Demonstration Partnership faculty: A report of the faculty standing committee of the Federal Demonstration Partnership*. The Federal Demonstration Partnership. Web site: [http://sites.nationalacademies.org/PGA/fdp/PGA\\_055749](http://sites.nationalacademies.org/PGA/fdp/PGA_055749).
- FDP ARRA Subcommittee of the Research Administration Committee (2012). *FDP ARRA Administrative Impact Survey Report*. The Federal Demonstration Partnership. Web site: [http://sites.nationalacademies.org/PGA/fdp/PGA\\_058836](http://sites.nationalacademies.org/PGA/fdp/PGA_058836).
- Lane, J & Bertuzzi, S. (2011). Measuring the results of science investments. *Science*, 331(6018), 678-680.
- Leshner, A. (2008). Reduce administrative burden. *Science*, 322(5908), 1609.
- Rockwell, S. (2009). The FDP Faculty Burden Survey. *Research Management Review*, 16(2), 29-44.
- Schneider, S. L., Ness, K. K., Rockwell, S., Shaver, K., & Brutkeiwicz, R. (2014). *2012 Faculty Workload Survey Research Report*. The Federal Demonstration Partnership. <http://thefdp.org>.
- Sedwick, S. (2009). Facilities and administrative issues: Paying for administration while under the cap, maximizing recovery, and communicating value. *Research Management Review*, 16(2), 22-28.