



National Science Foundation
OFFICE OF INFORMATION & RESOURCE MANAGEMENT

Modernizing the Workforce: IT-Driven Change Management

Business and Operations Advisory Committee
December 8, 2015

People | Place | Technology
Your Success is Our Success!

Administrative Services
Human Resource Management
Information Systems
Chief Information Officer



The NSF Tradition: Automating Paper Processes

Program Business Systems

- External facing: FastLane; Review/Panel submission; Grants.gov; early elements of Research.gov
- Internal facing: Reviewer selection; eJacket for declinations and awards; Award system

Other Business Systems

- Financial management: FAS; iTRAK
- HR processing



Outcomes from Automation

Predictable Outcomes

- Efficiency
- Allowed individuals to manage higher proposal loads
- Automated reporting capabilities on key elements
- Minimized requirements for document retention and storage

Unanticipated Outcomes

- Great variety in how organizations implemented the electronic processes
- Shifts in who did what work
- Program staff tied to their computers & “process”
- Needed reporting capabilities not supported by the systems



Beyond Automation

Business Intelligence Capability

- Research.gov
- Evaluation capabilities in E&HR; ENG; and OIA
- HR Business Intelligence

New Reporting Capabilities

- iTRAK
- webTA

Sharing Processes and Information

- Web-based capabilities
- Social media
- Public Access to results of NSF-supported research



Beyond Automation: Potential Outcomes

Enhanced Program Capabilities

- Award portfolio scenarios, analysis
- Outcome evaluation
- Increased transparency about NSF programs

Enhanced Business Capabilities

- Managing workload across programs and individuals
- Tracking processes and work flows
- More consistency in managing processes

Shifts in the Types of Work and Skills Needed

- Award management, evaluation, information to the public
- Need to be able to ask the right questions
- Enhanced data analytics for decision making



Confluence of Opportunities

- New IT-enabled opportunities for doing things differently
- Government-wide emphases on data-driven decision making
- Government-wide emphases on transparency
- Upcoming relocation
- High level of retirement eligibility

Together, these provide an opportunity to reshape NSF's workforce.



Questions for the Advisory Committee

- To what extent have your organizations experienced similar change in IT-enabled capabilities?
- How have you managed adaptation in the workforce in light of such change?
 - Updating the capabilities of the existing workforce
 - Modifying the skills and abilities you are looking for in hiring new employees
- What guidance do you have for NSF as we manage the current confluence of opportunities?