Challenges, Opportunities and New Directions

NSF Regional Grants Conference

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Hosted by: The University of Colorado at Boulder

Ask Us Early, Ask Us Often!!

- **Tom Cooley**
  - Chief Financial Officer & Director, Office of Budget, Finance & Award Management
  - tcooley@nsf.gov
  - (703) 292-8200
- **Mary Santonastasso**
  - Division Director
  - Division of Institution & Award Support and Interim Director, Division of Grants & Agreements
  - msantona@nsf.gov
  - (703) 292-8230

Coverage

- Challenges and Opportunities Along The Road Ahead
  - Tom Cooley
- Electronic Initiatives
  - Mary Santonastasso

Challenges and Opportunities Along the Road Ahead

Along the Road Ahead

- Backdrop – The overall “environment” includes:
  - The political landscape
  - Constrained budgets
  - “War time” environment
  - Disaster relief funding
  - Defecit reduction
  - Economic uncertainty
  - Trade defecit

Along the Road Ahead

- There is some potential good news for R&D
  - The American Competitiveness Initiative

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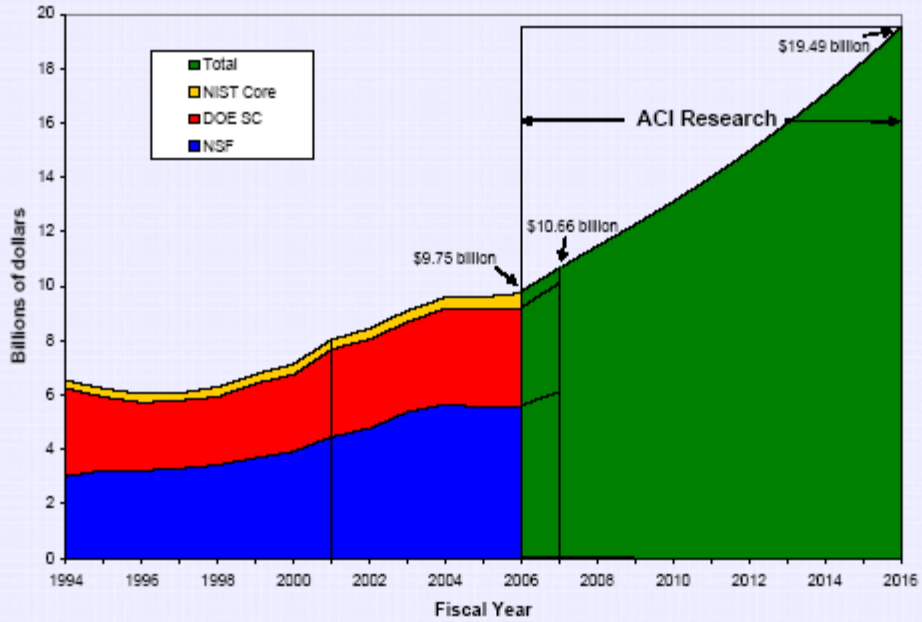
American Competitiveness Initiative Research: FY 2007- FY 2016



	FY 2006 Funding	ACI Research FY 2007		ACI Research FY 2016	
	(billions of dollars)	(billions of dollars)	% increase	(billions of dollars)	% increase over FY06
NSF	$5.58	$6.02	7.8	$11.16[1]	100.0
DoE SC	$3.60	$4.10	14.0	$7.19[1]	100.0
NIST Core[2]	$0.57[3]	$0.54	-5.8[4]	$1.14[1]	100.0
TOTAL	$9.75	$10.66	9.3	$19.49	100.0

[1] ACI doubles total research fund; individual agency allocations remain to be determined.
[2] NIST core consists of NIST lab research and construction accounts.
[3] The 2006 enacted level for NIST core includes $137 million in earmarks.
[4] Represents a 24 percent increase after accounting for earmarks.

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American Competitiveness Initiative

- Boost physical sciences
- More attention to math and science education in public schools
- Focus on applied energy research
- Make Research and Experimentation Federal tax credit permanent

<u>But:</u>

- Flat lines NIH for next 5 years
- Freezes NASA's spending on earth and space sciences

American Competitiveness Initiative

Haves:

- Double over 10 years:
  - DOE Science Programs
  - NSF
    NIST
- DHS: +$18 million for research on nuclear detection and forensics
- ED: Invest $326 million total in Math and Science Education (+51%)

American Competitiveness Initiative

Have Nots:

- NIH: +1%
  - Some few winners:
    - + $110 million for bio defense fund
    - + $49 million for initiative on genes, environment and health
    - +15 million for new bridge award for young investigators
- NASA: +1%
  - A host of science missions being placed on hold including:
    - The space interferometry telescope
    - A probe to search for Earth-like planets
    - Spacecraft to measure global precipitation
- EPA: 6.7% in S&T account
- NOAA: $279 million

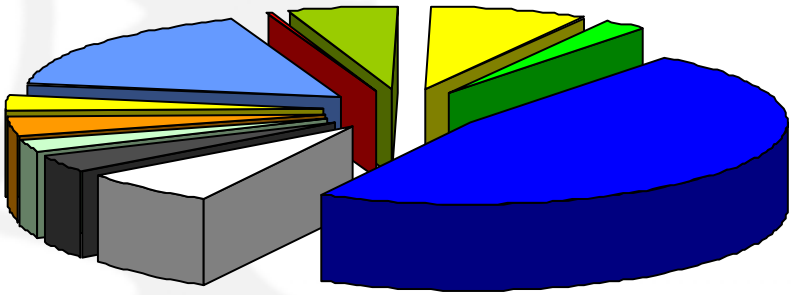
Congress and the Budget:

The Future Appears Bright

NSF's Key Congressional Players

- House and Senate Budget Committees
- Authorization Committees
  - House Science Committee/Sub-committees
  - Senate Health, Education, Labor & Pensions Committee
  - Senate Commerce, Science & Transportation Committee
- Appropriations Committees
  - New committee structure: House and Senate – new staff

Role of Appropriations Subcommittees

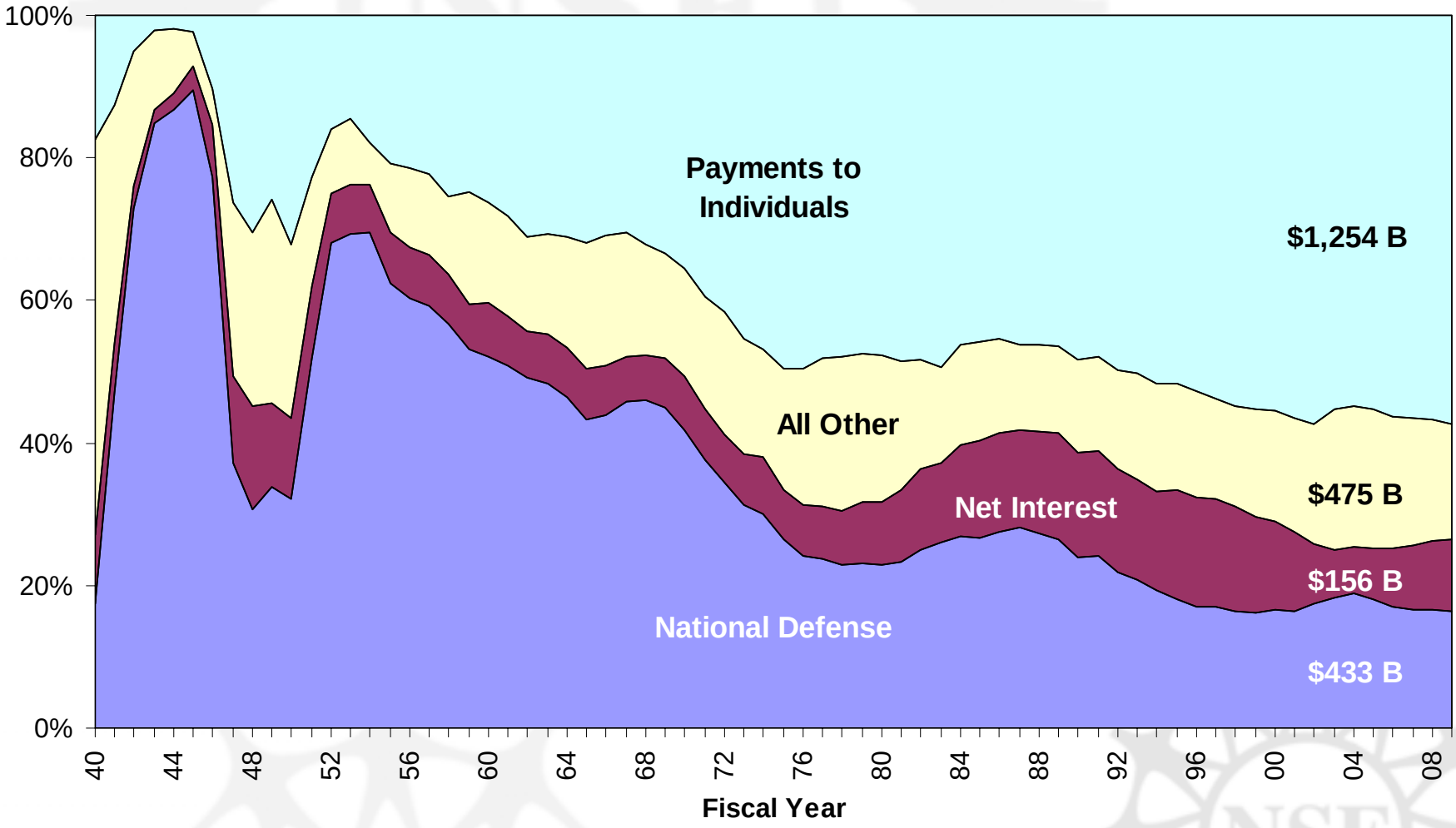


- In FY 2006, they dispersed > $843 billion of discretionary funds.
- Work with Congressional leadership and members to address priorities of budget resolution.

- Agriculture
- Defense
- Sci., State, Justice, Commerce
- Energy & Water
- Foreign Ops
- Homeland Security
- Interior & Environment
- LHHS&Ed
- Legislative
- Military Qual. Of Life & VA
- Trans., Treas., HUD, Jud., DC

Data Source: Table S-4. Discretionary Funding by Appropriations Subcommittee, FY 2007 Budget of the U.S. Government, p. 316.

Percentage Composition of Federal Government Outlays



Total Outlays for FY 2004 = $ 2,318 Billion

FY 2006 and 2007 R&D Budget Highlights

FY 2006

- DHS: 25.5 % over 2005
- Agriculture: Level with 2005
- Defense: 3.2 % over 2005
- NASA: 11.7 % over 2005
- NIH: 0.2 % over 2005
- Commerce:
  - NOAA: 4.5% under 2005
  - NIST: 4.9% under 2005
- DOE Science: 1.6% under 2005
- USGS: 2.6 % over 2005
- EPA: 6.3% under 2005

FY 2007*

- DHS: 1.6 % over 2006
- Agriculture: 16.5 % under 2006
- Defense: 3.2 % over 2006
- NASA: 7.5 % over 2006
- NIH: 0.1% over 2006
- Commerce:
  - NOAA: 6.3% under 2006
  - NIST: 6.4% over 2006
- DOE Science: 14.4% over 2006
- USGS: 4.3% under 2006
- EPA: 7.2% under 2006

* Impact of appropriations not yet known

Data Source: Table 5-1 Federal Research and Development, FY 2007 Analytical Perspectives, p. 49 and OMB MAX database.

R&D Budget

Budget Authority (Dollar amounts in millions)	2007 Proposed	Percent Change
Defense	74,234	3%
Health and Human Services	28,737	0%
NASA	12,245	7%
Energy	9,158	7%
National Science Foundation	4,548	8%
Agriculture/USDA	2,012	-17%
Veterans Affairs	765	0%
Commerce	1,065	-1%
Homeland Security	1,508	2%
Transportation	557	-21%
Interior	600	-6%
Environmental Protection Agency	557	-7%
Other	1,218	-1%
TOTAL	137,204	3%

Along the Road Ahead

- There are some continuing “challenges” for our community:
  - Policies and procedures at Federal agencies “all over the map”
  - Compliance looming large
  - NSF: difficult to balance award size, duration and success rates
  - Audits continue to frustrate

Politics and Procedures: What are the touch points?

- Several Reasons
  - Congressional Intent (laws, regulations, authorizing language, etc.)
    - Example: Improper Payments Improvement Act of 2002
  - Administration Practices or policies (OMB guidance, Administration's political platform, etc.)
    - Example: Nanotechnology Initiative
  - Agency/Department Policy (grants policies, terms and conditions, operating guidance, etc.)
    - Example: NSF Cost sharing policy
  - Community Drivers (NAS, FDP, COGR, AAU, NASCULGC, professional societies, etc.)
    - Example: Success rates, award size and duration

Financial Statement Audits

- Ours and Yours
  - Issue: Recording expenditures properly
- Federal Government
  - More scrutiny of FCTR's will require more documentation
  - Heightened scrutiny of A-133 reports
  - Site visits to high-risk awardees
- You Guys
  - Better accounting system; segregation of costs
  - Better documentation
  - Clean A-133 audits (OIG reviews/recommendations)

Opportunities

- Research Business Models Subcommittee, Committee on Science, National Science and Technology Council
  - Coordinate across Federal agencies to address important policy implications arising from the changing nature of interdisciplinary and collaborative research, and
  - Examine the effects of these changes on business models for the conduct of scientific research sponsored by the Federal government.
  - Outreach with the FDP, COGR, SRA, NCURA, and others

Research Business Models – Success!

- Research Terms and Conditions
  - Received public comment last January
  - Analyzed and resolved issues of concern
  - Will publish final agency implementation in the next few months
  - Guidance will broaden routine implementation of what was FDP terms and conditions

Research Business Models – Success! (Cont'd)

- Multiple Principal Investigators
  - Public comments received September 18
  - NIH has announced interest in multiple PIs in recent requests for applications
  - Agencies will publish coordinated implementation guidance within next few months
  - NSF continues longstanding policy of acknowledging multiple PIs!
- Interim Progress Reports
  - Common format based largely on NSF FastLane format
  - One mandatory element on status
  - Four other optional elements at the election of agencies (significant changes, education, etc.)
  - Discussed at FDP
  - Will publish public request for information, options, etc. in next few months!
  - Agencies will analyze comments, finalize format and publish common guidance

Research Business Models – In the Pipeline!

- Conflict of Interest policy
  - Public comments suggested uniform policy across research agencies
  - Public request for information on concepts and options will be published in the next few months
    - May exclude human subject research
  - Analyze public comments, finalize and publish common agency guidance

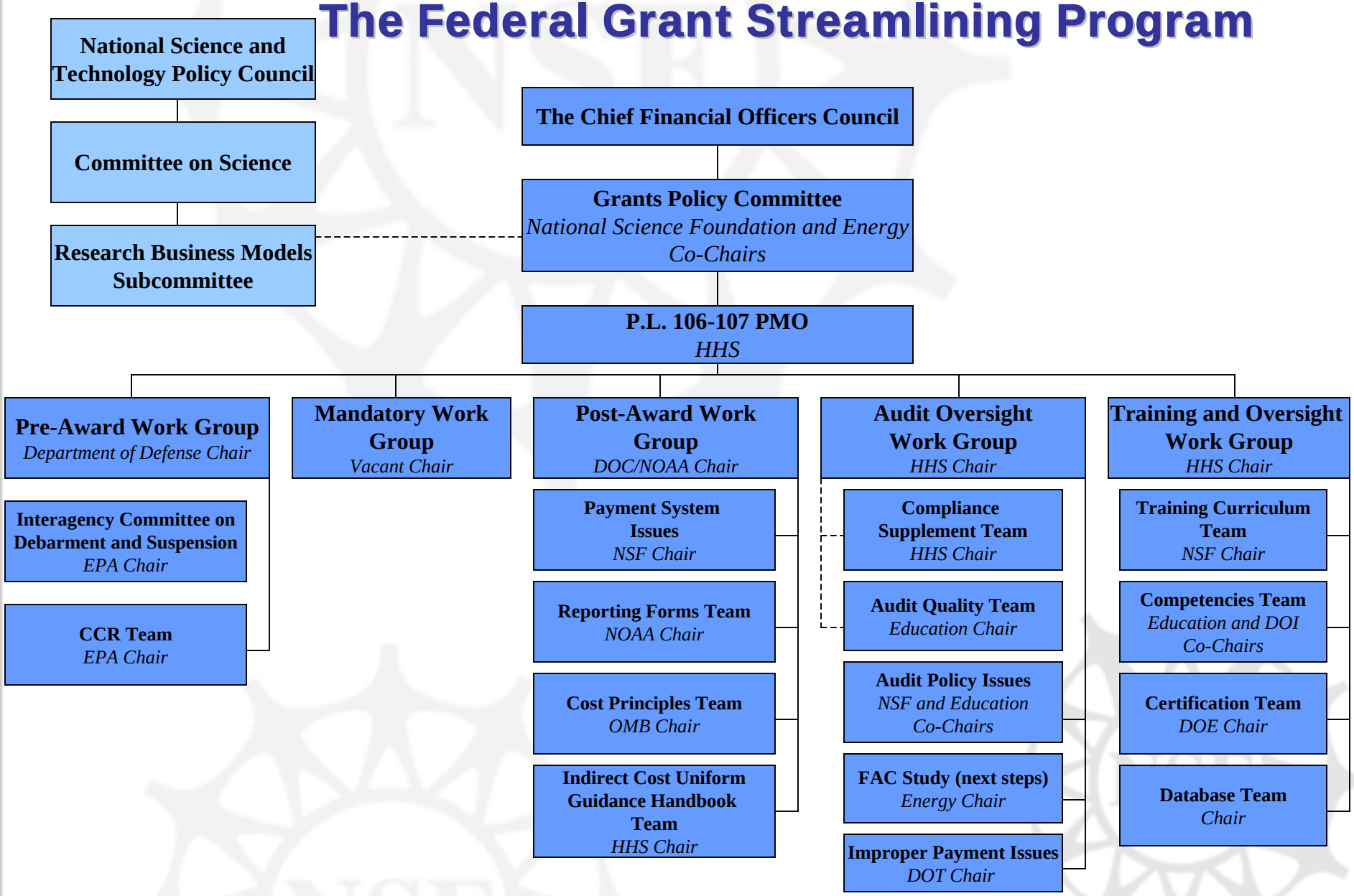
Research Business Models – In the Pipeline! (Cont'd)

- Models of Support for Instrument Operations and Maintenance (O/M)
  - Taking into account NAS "Advanced Research Instrumentation and Facilities"
  - Will address a variety of effective practices in supporting O/M for mid-size instrumentation
  - May attempt to address both institutional and agency practices that enhance ability to deal with unanticipated future O/M requirements
- Enhanced A-133 compliance supplement on subrecipient monitoring
  - Describe risk management and streamlined review for "Prime" subrecipients with satisfactory audits
  - Possible implementation in the 2007 compliance supplement

Outreach and Communication

- Likely to have additional regional public meetings
  - Possibly in conjunction with the Grants Policy Committee and Grants.gov
- Will continue outreach through FDP, SRA, NCURA, COGR, etc.
- See the RBM web site for the latest news http://rbm.nih.gov/

The Federal Grant Streamlining Program



Vision Components Underway

- CCR registration policy just starting
- Standard award terms and conditions to be proposed in 2006
- Standard award notice to be proposed in 2006
- Proposal for handling certifications and assurances in 2006
- Standard financial reporting - FFR being tested Oct 2005 – Mar 2006
- Standard performance reporting – PPR draft ready for public comment, Spring 2006
- Summary invention reporting – new policy for GPC review Nov 2006

Involving Stakeholders

- Dialogues opened with
  - Federal Demonstration Partnership (FDP)
  - National Grants Partnership (NGP)
- Stakeholder meetings proposed for Spring/Summer 2006
  - Uses RBM model to implement
    - Three (at least) – East Coast, West Coast, Mid-America
    - Possibly one wrap-up in DC
  - Host locales to be solicited
  - Webcast – if possible
  - More as it evolves
  - Purpose: Feds “listen” to customer concerns and recommendations and then prioritize and get on with it

Electronic Initiatives

What's the Latest On?

- Grants.gov
- Grants Management Lines of Business (GMLoB)

What is Grants.gov?

- A single source for finding grant opportunities
- A standardized manner of locating and learning more about funding opportunities
- A single, secure and reliable source for applying for Federal grants online
- A simplified grant application process with reduction of paperwork
- A unified interface for all agencies to announce their grant opportunities, and for all grant applicants to find and apply for those opportunities

Grants.gov Brief History

- President's Management Agenda
  - Applicants for federal grants apply for and manage grant funds through a common site, to simplify grant management and eliminate redundancy.

Grants.gov Brief History

- Public Law 106-107 Purposes Include:
  - Simplify federal financial assistance application & reporting requirements
  - Facilitate greater coordination among those responsible for delivering such services

Grants.gov Brief History

- The Case for Grants.gov:
  - Cross-agency initiative
    - 1000+ programs
    - 26 agencies + others
    - >$400B annually awarded

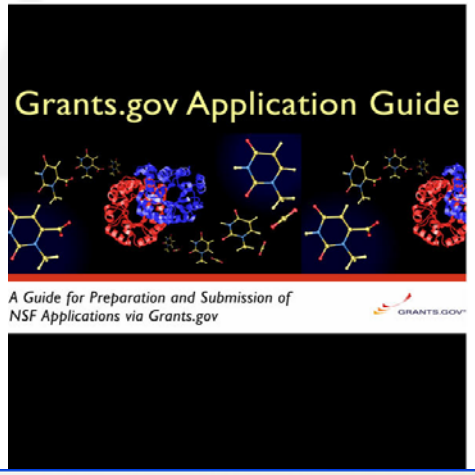
Grants.gov Current Status and Next Steps

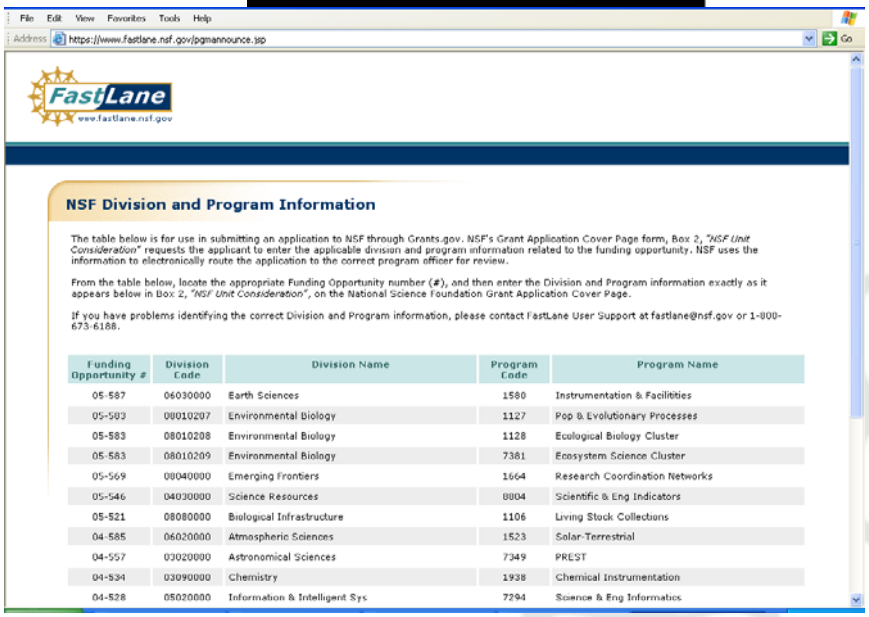
- All 26 grant-making agencies are required to post all discretionary grant programs in the Grants.gov Find

- OMB has directed agencies to post in Grants.gov Apply:
  - 25% of their funding opportunities in FY 2005;
  - 75% of their funding opportunities in FY 2006;
  - 100% of their funding opportunities in FY 2007.

Highlights of NSF Grants.gov Implementation Process

- NSF's Grants.gov Application Guide – has been posted with application package and on Policy website
- A HTML page for proposers to select the NSF unit of consideration and enter on NSF Cover Page
- Process to register new organizations and individuals with FastLane using information provided with the proposal submitted via Grants.gov





Funding Opportunity #	Division Code	Division Name	Program Code	Program Name
05-587	06030000	Earth Sciences	1580	Instrumentation & Facilitities
05-503	08010207	Environmental Biology	1127	Pop & Evolutionary Processes
05-583	08010208	Environmental Biology	1128	Ecological Biology Cluster
05-583	08010209	Environmental Biology	7381	Ecosystem Science Cluster
05-569	08040000	Emerging Frontiers	1664	Research Coordination Networks
05-546	04030000	Science Resources	8804	Scientific & Eng Indicators
05-521	08080000	Biological Infrastructure	1106	Living Stock Collections
04-585	06020000	Atmospheric Sciences	1523	Solar-Terrestrial
04-557	03020000	Astronomical Sciences	7349	PREST
04-534	03090000	Chemistry	1938	Chemical Instrumentation
04-528	05020000	Information & Intelligent Sys	7294	Science & Eng Informatics

NSF Grants.gov Apply Challenges

- Subaward capability will be available to the agencies and NSF will include the subaward form in the NSF application package by early 2006
  - Approximately 20% of NSF proposals contain subawards
- Separately submitted collaborative proposals cannot be submitted through Grants.gov at this time
  - Approximately 10% of NSF proposals are separately submitted collaborative proposals
- Applicant System to System Process – MIT and InfoEd are testing the entire end-to-end business process with NSF

Lines of Business Opportunities

- Common Solution
  - A business process and/or technology based shared service made available to government agencies.
- Business Driven (vs. Technology Driven)
  - Solutions address distinct business improvements that directly impact LoB performance goals.
- Developed Through Architectural Processes
  - Solutions are developed through a set of common and repeatable processes and tools.
- Current LoBs
  - Financial Management (FMLOB)
  - Human Resources Management (HRLOB)
  - Grants Management (GMLoB)
  - Federal Health Architecture (FHALOB)
  - Case Management (CMLOB)

Some Drivers of GMLOB

- President's Management Agenda
- PL 106-107
- GAO Report on PL 106-107
- Grants.gov

Common Themes

- Consolidation
- Coordination
- Communication

Grants Management Line of Business (GMLoB)

- Big dollars spread over many agencies/programs:
  - $ 540 B
  - 26 agencies
  - > 900 programs
- Significant spending on Grant Management systems. Fiscal Year 2006:
  - $150 million Development Modernization and Enhancement
  - $3.8 billion in Operations and Maintenance
- Opportunities for increased efficiencies, improved oversight and management, and customer-centric focus

GMLoB – Vision & Goals

Vision	A government-wide solution to support end-to-end grants management activities that promote citizen access, customer service, and agency financial and technical stewardship.
Goals	• Improve customer access to grant opportunities • Increase efficiency of the submission process • Improve decision making • Integrate with Financial Management processes • Improve the efficiency of the reporting procedures in order to increase the usable information content • Optimize the post-award and closeout actions

GMLoB Participating Agencies

Managing Partners:

- National Science Foundation
- Department of Health and Human Services

Participating Agencies:

- Department of Agriculture
- Department of Veterans Affairs
- Department of Commerce
- Agency for International Development
- Department of Defense
- Corporation for National Service
- Department of Education
- Environmental Protection Agency
- Department of Energy
- Department of Homeland Security
- Institute for Museum and Library Services
- Department of Housing and Urban Development
- NASA
- Department of the Interior
- National Archives and Records Administration
- Department of Justice
- National Endowment for the Arts
- Department of Labor
- National Endowment for the Humanities
- Department of State
- Department of Transportation
- Small Business Administration
- Department of the Treasury
- Social Security Administration

GMLoB - Accomplishments

- GMLoB operating model and approach
- Common Grants Management process
- Evaluation of Request for Information
- Common solution white paper
- Target architecture
- Business case development

Consortia Approach

- Align agency work teams into consortia
  - Shared business interests
  - Planning, leadership, business, and program direction
  - Goal to define a common technical solution to meet members' needs
- Build cross-agency collaboration
  - Helps eliminate the process and technical stovepipes
  - Establishes a community of grant making agencies working together as early as possible
  - No JFMIP equivalent to help guide the way

Consortia Selection

- OMB named the following 3 initial Consortia Leads:
  - The Department of Education (DOEd)
  - The Department of Health and Human Services—Administration for Children and Families (HHS ACF)
  - The National Science Foundation (NSF)

GMLOB Milestones

FY 2008-2011

Implementation and Migration

- Migrate to service centers
- Implement planned system improvements
- Reach steady state

FY 2007-2009

Acquisition and Development

- Procure services / COTS software for GM solutions
- Develop / enhance / customize GM solutions with streamlined processes
- Stand up service centers
- Form service level agreements
- Plan migration
- Pilot cross-servicing

FY 2006-2007*

Planning and Alignment

- Form consortia
- Document and analyze current, detailed business processes
- Define to-be business processes
- Document GM LoB policy, technical, data, process guidelines
- Define integration requirements (FM LoB, Grants.gov, others)
- Define consortia requirements
- Build / buy analysis and acquisition planning