NSF Regional Grants Conference

Challenges, Opportunities & New Directions

October 23-24, 2006

Hosted by: The University of Maryland
College Park, Maryland
> Ask Early, Ask Often!

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Contact</th>
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</thead>
</table>
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Coverage

• Challenges and Opportunities Along The Road Ahead
  – Tom Cooley

• Electronic Initiatives
  – Mary Santonastasso

• NSF Public Information Officer Campaign
  – Mary Hanson
Challenges & 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
  – Deficit reduction
  – Economic uncertainty
  – Trade deficit
Along the Road Ahead

• There is some potential good news for R&D
  – The American Competitiveness Initiative
American Competitiveness Initiative Research: FY 2007 - FY 2016

<table>
<thead>
<tr>
<th>FY 2006 Funding</th>
<th>ACI Research FY 2007</th>
<th>ACI Research FY 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>(billions of dollars)</td>
<td>(billions of dollars)</td>
<td>(billions of dollars)</td>
</tr>
<tr>
<td>NSF</td>
<td>$5.58</td>
<td>$6.02</td>
</tr>
<tr>
<td>DoE SC</td>
<td>$3.60</td>
<td>$4.10</td>
</tr>
<tr>
<td>NIST Core</td>
<td>$0.57^3</td>
<td>$0.54</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$9.75</td>
<td>$10.66</td>
</tr>
</tbody>
</table>

^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.
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

But:
• 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.

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

- **National Defense**
  - Fiscal Years: 1940, 1971, 2004
  - 1940: $400B
  - 1971: $420B
  - 2004: $1,308B

- **Net Interest**
  - Fiscal Years: 1940, 1971, 2004
  - 1940: $50B
  - 1971: $400B
  - 2004: $490B

- **Payments to Individuals**
  - Fiscal Years: 1940, 1971, 2004
  - 1940: $50B
  - 1971: $200B
  - 2004: $178B

- **All Other**
  - Fiscal Years: 1940, 1971, 2004
  - 1940: $400B
  - 1971: $210.2B
  - 2004: $420B

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>1940</th>
<th>1971</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current $</td>
<td>$9.5B</td>
<td>$210.2B</td>
<td>$2,396B</td>
</tr>
</tbody>
</table>
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

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

- **Multiple Principal Investigators**
  - Public comments received in September 2005
  - NIH has announced acceptance of multiple PIs in recent Requests for Applications
  - Agencies will publish this fall-
    - coordinated implementation principles
    - schedule of agency specific implementation
  - NSF continues longstanding policy of acknowledging multiple PIs!
    - Co-PIs are PIs
Research Business Models – Success!

- **Research Terms and Conditions**
  - Received public comment in January 2005
  - Analyzed and resolved issues of concern
  - Will publish final agency implementation this fall
  - Guidance will broaden routine implementation of what was FDP terms and conditions
    - “Out of the Laboratory”
    - More agencies
    - More institutions
Research Business Models – Success!

• **Interim Progress Reports**
  – Common format based largely on NSF FastLane format
  – Two mandatory elements on progress/status of the project
  – Three other optional elements at the election of agencies (participants, products, and impacts)
  – Discussed at FDP
  – FDP Faculty Burden Survey identified progress reports as creating the number one administrative burden
  – Will publish request for public comment this fall about
    ▪ format and information collection
    ▪ questions about burden
  – Agencies will analyze comments, finalize format, and publish common guidance in 2007
Research Business Models – In the Pipeline!

• Conflict of Interest policy
  – Public comments suggested uniform policy across research agencies
  – Reconciling NIH and NSF policies to the extent possible
  – Public request for public comment this fall
    ▪ basic policy
    ▪ differences in treatment and other issues
  – Analyze public comments, finalize, and publish common agency guidance in 2007
Research Business Models – In the Pipeline!

• Enhanced A-133 compliance supplement on subrecipient monitoring
  – Describe risk management and streamlined review for “Prime” subrecipients with satisfactory A-0133 audits
  – Encourage risk management based review of less experienced subrecipients
  – Possible implementation in the A-133 2007 Compliance Supplement

• Voluntary Institutional Compliance Program Guidance
  – OIG, HHS published draft guidance in 2005
  – Public comment indicated the guidance should be Federal-wide
  – RBM offered and OIG agreed to have RBM publish
  – Guidance will be published for public comment this fall
Export Controls

• Bureau of Industry and Security, DoC published two announcements in the Federal Register in response to the OIG recommendations on “Deemed Export”
  – Definition- providing export controlled information to foreign nationals working in U.S. labs
  – Potentially impacts graduates students, post-docs, and faculty
Export Controls

• **Announcement May 22, 2006**
  – Announced the formation of a 12-member “Deemed Export Advisory Committee”
    ▪ 4 from universities
    ▪ 4 from business
    ▪ 4 from all other

• **Announcement May 31, 2006**
  – Stated that current export control policies will remain the same
  – country of origin
    ▪ the definition of “use of technology”, and
    ▪ fundamental research remain the same until the Deemed Export Advisory Committee provides advice on the issue
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

National Science and Technology Policy Council

Committee on Science

Research Business Models Subcommittee

The Chief Financial Officers Council

Grants Policy Committee
National Science Foundation and Energy Co-Chairs

P.L. 106-107 PMO
HHS

Pre-Award Work Group
Department of Defense Chair

Mandatory Work Group
Vacant Chair

Post-Award Work Group
DOC/NOAA Chair

Audit Oversight Work Group
HHS Chair

Training and Oversight Work Group
HHS Chair

Interagency Committee on Debarment and Suspension
EPA Chair

CCR Team
EPA Chair

Payment System Issues
NSF Chair

Reporting Forms Team
NOAA Chair

Compliance Supplement Team
HHS Chair

Audit Quality Team
Education Chair

Audit Policy Issues
NSF and Education Co-Chairs

FAC Study (next steps)
Energy Chair

Improper Payment Issues
DOT Chair

Cost Principles Team
OMB Chair

Audit Policy Issues
NSF and Education Co-Chairs

Training Curriculum Team
NSF Chair

Competencies Team
Education and DOI Co-Chairs

Certification Team
DOE Chair

Database Team Chair

Indirect Cost Uniform Guidance Handbook Team
HHS Chair

Improper Payment Issues
DOT Chair
<table>
<thead>
<tr>
<th>Task</th>
<th>Next GPC Milestone</th>
<th>Status</th>
<th>1st Fed. Reg Notice of Proposal</th>
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<tbody>
<tr>
<td>Post-Award Work Group:</td>
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<td></td>
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<tr>
<td>Federal Financial Reports</td>
<td>2 Q FY 2006</td>
<td>3 Q FY 2006</td>
<td>4 Q FY 2006</td>
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<tr>
<td>Indirect Cost Uniform Guidelines Handbook</td>
<td>4 Q FY 2006</td>
<td>3 Q FY 2006</td>
<td>1 Q FY 2007</td>
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<td>Invention Reports</td>
<td>None, approved by GPC, March 2006</td>
<td>At OMB for review</td>
<td>4 Q FY 2006</td>
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<td>Payment Systems Recommendation</td>
<td>3 Q 2006</td>
<td>3 Q FY 2005</td>
<td>NA</td>
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<tr>
<td>Research Performance Reports</td>
<td>None, approved by GPC, December 2005</td>
<td>At OMB for review</td>
<td>4 Q FY 2006</td>
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<td>Non-Research Project Reports</td>
<td>None, approved by GPC, March 2006</td>
<td>At OMB for review</td>
<td>4 Q FY 2006</td>
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<td>Real Property Reports</td>
<td>None, approved by GPC, December 2005</td>
<td>At OMB for review</td>
<td>3 Q FY 2006</td>
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<td>Tangible Personal Property Reports</td>
<td>None, approved by GPC, March 2006</td>
<td>At OMB for review</td>
<td>3 Q FY 2006</td>
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<td>Pre-Award Work Group:</td>
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<tr>
<td>Standard Award Content and Format (2 CFR, gov't-wide)</td>
<td>4 Q FY 2006</td>
<td>In Preparation</td>
<td>2 Q FY 2007</td>
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<td>Interim Award Terms and Conditions (Research Only) **</td>
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<td>2 Q FY 2007</td>
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<td>Other Pre-Award Portions of 2 CFR (A-89, CCR, late applications, etc.)</td>
<td>TED</td>
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<td>Certifications &amp; Assurances</td>
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<td>2 Q FY 2007</td>
<td>4 Q FY 2007</td>
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<td>Suspension &amp; Debarment ***</td>
<td>3 Q FY 2006</td>
<td>3 Q FY 2006</td>
<td>Aug-05</td>
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<td>Drug-free and anti-lobbying OMB guidance for 2 CFR</td>
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<td>Future Action</td>
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<td>Audit Work Group</td>
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<td>Compliance Supplement ****</td>
<td>3 Q FY 2006</td>
<td>3 Q FY 2006</td>
<td>NA</td>
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<td>Katrina-related Audit Questions</td>
<td>3 Q FY 2006</td>
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<tr>
<td>Quality Control Review of the A-133 Audits</td>
<td>1 Q FY 2007</td>
<td>In Preparation</td>
<td>NA</td>
</tr>
</tbody>
</table>

* Products, such as from the Training and Oversight Work Group, are not included here no they do not affect the public but rather deal with training of Federal staff to strengthen the way they manage grants in this new environment.

** In collaboration with the Research Business Models Subcmte of the COS/NSTC

*** Handled by the ISDC in association with the Pre-Award Work Group.

**** And annually thereafter.
Grants Policy Committee

- Involving Stakeholders
  - Stakeholder meeting proposed for October 25, 2006
  - Will take place at HUD from 11:00 – 1:30 pm
  - Will be webcast:
  - Purpose: Feds “listen” to customer concerns and recommendations and then prioritize and get on with it
Grants Policy Committee

• Federal Assistance & Award Data System (FAADS)
  – Operated by the US Census Bureau – standardized data records on all types of financial assistance awards made by Federal agencies
  – Data is identified by the Catalog of Federal Domestic Assistance (CFDA) program code number and name
  – Issues:
    • Timeliness for reporting by agencies
    • Data quality and standardization
    • Searchable, web-based interface
    • Disconnect between CFDA and FAADS
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 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:
  – 75% of their funding opportunities in FY 2006;
  – 100% of their funding opportunities in FY 2007.
NSF Implementation in 2007

• By close of FY 2006, 80% of NSF funding opportunities had been posted in Grants.gov Apply.
• Those programs designated required in 06 will remain required in 07.
• Unless otherwise specified, optional submission for the vast majority of NSF programs.
NSF Implementation in 2007 (Cont’d)

• **Will not be used until a Grants.gov solution has been developed, for:**
  – Separately submitted collaborative proposals
  – Fellowship programs that require submission of reference letters
Grants Management Line of Business (GMLoB) – 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.
GMLOB Outcomes

• Multiple agencies are using the same grants systems. There are fewer grants management systems in operation across the Federal government

• Business processes across agencies are more standardized and streamlined

• There is decreased administrative burden on grantees as a result of fewer, more standardized sets of grantor procedures and policies
GMLOB Outcomes (Cont’d)

• Information about grants is more readily available, comparable, and transparent
• States and other grantees spend less to interface with fewer grants systems
• Federal spending to build, sustain, and upgrade systems has decreased
• Best practices in grants management more readily implementable among agencies using shared grants systems and services
GMLOB Operating Model

• Grants management community will process grants in a decentralized way using common business processes supported by shared technical support services.
GMLOB Current Status

• Initial 3 Consortia Leads announced in February 2006 budget:
  – Department of Education
  – Health and Human Services: Administration for Children and Families
  – National Science Foundation

• Consortia Lead Meetings
  – Consortia Lead agencies meet once/month to discuss how best to approach the Consortia implementation process
GMLOB Current Status (Cont’d)

• Consortia Partnering
  – Consortia Lead agencies are reaching out to grant-making agencies to begin discussion around shared requirements and needs
  – HHS ACF has commitments from USDA FSIS and Treasury’s CDFI
  – NSF has pilot underway with USDA CSREES

• Government-wide survey completed by most agencies
  – Information on status of grants IT, processes, and programs
GMLOB Next Steps

• Consortia Partnering
  – Continue meeting with agencies and identifying partnerships

• Second Round of Consortia Selection
  – Additional Consortia Lead agencies may be named
  – New Consortia will be announced in passback

• Host Federal Consortia Update meeting in December to introduce new consortia leads

• Kick-off standardization and streamlining work
  – Taxonomy
  – Function and sub-function definition
  – Grants management / financial management interfaces
GMLOB Second Round Consortia Recommendation: Timeline

• The timeline for completing Declarations of Intent and naming the additional consortia is as follows:
  – Week of August 22, 2006 – convene first meeting of the Consortia Recommendation Committee
  – August 25, 2006 – Declarations of Intent due from agencies
  – September 22, 2006 – Recommendation report due to OMB
  – November 2006 – Additional consortia named in passback
  – February 2007 – OMB publicly announces additional consortia in the President’s Budget
NSF Public Information Officer Campaign