Stewards of Place Research/Regional Engagement

Richard Dunfee, GRC
Elements of Engagement

- Undergraduate Research
- The development of long-term employer and community partnerships
- The development of formal, transparent, win/win relationships with partners
- Strategic planning
- Integration of teaching and research
  - Student learning/workforce skills development
  - Faculty development/employer relations
Expand sponsored programs, and basic and applied research activity at all AASCU institutions
Pressure for higher education to prove their value as regional drivers of prosperous and healthy communities is a high priority.

- sponsored programs staff at the center of their outreach operations to ensure efficient faculty/student engagement,
- maximize fiscal benefit for all stakeholders
- engage in external and internal planning for the strategic commitment of resources.

Treating all outreach activities as sponsored programs will result in the validation of our worth through metrics.
What FY 14/15 Budget Deal Means for Funding

Spending ceilings increase

- Non-defense discretionary (NDD) spending from $469 to approximately $492 billion in FY 14 and 15 (+4.9%)
- Defense discretionary spending from a previous cap of $498 to $520 billion in FY 14 (+4.4%)

Optimism -- the stability of two year budget and morale of a 1% pay increase
## Total Commitment to R&D from All Sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount in Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$415</td>
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<tr>
<td>2011</td>
<td>$428</td>
</tr>
<tr>
<td>2012</td>
<td>$437</td>
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<tr>
<td>2013</td>
<td>$436</td>
</tr>
<tr>
<td>2014</td>
<td>$464 (projected)</td>
</tr>
</tbody>
</table>

in billions

Source: Batelle, R&D Magazine
Priorities FY13-14

Health Education & Research
- Health Providers (nursing and therapies)
- Public Policy
- Technology
- Health Ecology

Social and Behavioral Sciences
- Occupational Science
- Psychology and Behavior
- Social Equity and Engagement

STEM Education
- Inter-system relationships (pipeline)
- Employment and Workforce
- Innovation
- Entrepreneurship

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Priorities FY13-14

Energy Economy
- Sustainability (Environ & Econ)
- Workforce
- Public/Private Partnerships

Innovation Eco-Systems
- Regional Leadership
- Interactive Planning
- Workforce Interventions

Entrepreneurship
- Faculty/Student Engagement
- Access to Private Financing
- Cultural Issues

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Private/Public and Public Partnerships
EDA’s Challenge Grants Accelerated 32 Projects in 2010 and 2011
DOC Regional Innovation Clusters
2010-13 -- $68M

Clemson University, Francis Marion University, South Carolina State University, and UNC Charlotte (*Carolinas Nuclear Collaborative*)

Delta State University, Jackson State University, and University of Southern Mississippi (*Enterprise for Innovative Geospatial Solutions*)

Northern Illinois University, Southern Illinois University Carbondale, and University of Illinois at Chicago (*Illinois Science and Technology Coalition*)

Cleveland State University, Youngstown State University, and University of Akron Job Accelerator

Rockford Area Aerospace Cluster

San Diego-Imperial Valley Renewable Energy Generation Training/Demonstration Center led by San Diego State University
Connecting the Dots

Economic Development Agencies

Higher Education

Startup America = Startup Companies

Accelerators & Incubators

Federal Agencies & Labs

Large Companies
November 27, 2013 – DOC Invests $2.4 Million to Support Economic and Job Growth in Three States
November 5 – DOC Unveils Report Showing How Universities are Fueling Innovation and Entrepreneurship to Keep America Competitive.
October 22 – Administration Awards $20.5 Million in Make It In America Challenge Grants To Spur Business Investment and Job Creation
September 25 – Obama Administration Officials Announce $7M In Grants and DOC Invests $21 Million to Support Economic and Job Growth in 11 States
September 23 -- U.S. DOC Announces $1 Million Investment to Help Develop an International Commerce Strategy for Louisiana
September 19 – DOC Announces $200,000 Investment to Help Grow Colorado’s Advanced Industries Sector
September 12 – DOC Invests $300,000 to Support Green Building Materials Manufacturing in New York City
September 11 – DOC Invests $8.1 Million to Support Economic and Job Growth in Six States – AND– DOC Invests $6.4 Million to Support Critical Infrastructure in Florida, Massachusetts, South Carolina, and Washington, D.C.
Investing in Manufacturing Communities Partnership (IMCP)

- An administration-wide initiative led by the White House and the U.S. Department of Commerce, [http://www.commerce.gov/IMCP](http://www.commerce.gov/IMCP)

- Two Phase Competition encourages communities to devise comprehensive economic development strategies that attract global manufacturers and their supply chains.

- Areas of focus: workforce and training; advanced research; infrastructure and site development; supply chain support; export promotion; and capital access
Industry Commitment to R&D

Figure 4-4
National R&D expenditures, by funding source:
1953–2008

Percent
80
70
60
50
40
30
20
10
0


NOTES: Data for 2008 are preliminary. Other includes universities and colleges, state and local government, and other nonprofit organizations.

SOURCE: National Science Foundation, Division of Science Resources Statistics, National Patterns of R&D Resources (annual series). See appendix table 4-7.

Science and Engineering Indicators 2010
R&D Funders
Upward Trend Continues
The Source-Performer Matrix
Estimated Distribution of U.S. R&D Funds in 2014
Billions of Current U.S. Dollars (Percent Change from 2013)

<table>
<thead>
<tr>
<th>Source</th>
<th>Federal Gov</th>
<th>FFRDC (Gov)</th>
<th>Industry</th>
<th>Academia</th>
<th>Non-Profit</th>
<th>Total</th>
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<td>2.5%</td>
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<td>1.5%</td>
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<td>Academia</td>
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<td>$13.2</td>
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<td>1.9%</td>
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<tr>
<td>Other Gov</td>
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<td></td>
<td>1.1%</td>
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<td>1.0%</td>
</tr>
<tr>
<td>Non-Profit</td>
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<td></td>
<td></td>
<td>$5.3</td>
<td>$11.3</td>
<td>$16.7</td>
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<td>3.4%</td>
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<tr>
<td>Total</td>
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<td>$62.9</td>
<td>$18.7</td>
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<td>3.8%</td>
<td>2.2%</td>
<td>2.7%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

Source: Battelle, R&D Magazine
Most Effective for Collaboration

Most Effective Organizations for Technology Collaborations

- Foreign industry: 19%
- Non-profit RSD organizations: 20%
- U.S. government labs: 27%
- Academia: 52%
- U.S. industry: 52%

Source: Batteile/R&D Magazine

% Survey Respondents
The Emphasis on Competitiveness, Job Creation, and Economic Recovery
Components

Workforce Development

Economic development
- Institutional intellectual property to the market
- Local entrepreneurs linking to campus
- Collaboration on loan and start-up funding

Community Development
- Health care, K-12, social service collaboration
- Civic engagement
- Healthy social environments

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Inter-Agency
Inter-Disciplinary
Inter-Institutional
Partnerships
Labor & Education

The Trade Act Assistance Community College Career Training (ETA) program

NSF & DOE

Quantum Energy and Sustainable Solar Technologies (QESST) program

NSF & NIH

Advancing Health Services through System Modeling Research
NEH Interagency Partnerships

Documenting Endangered Languages
• Jointly administered between NEH and NSF, awards fellowships, dissertation grants, and institutional grants. Deadline September 15, 2014.

Let’s Talk About It: Muslim Journeys
• Partnership between NEH and American Library Association granted funds and materials to 125 libraries and state Humanities Councils for reading and discussion groups

Digging Into Data
• Partnership between NEH, Arts & Humanities Research Council, Economic and Social Research Council, IMLS, NSF, and other British, Canadian, and Dutch agencies to addressed how "big data" changes the research landscape for the humanities and social sciences.
NEA Partnerships

National Arts and Humanities Youth Program Awards
- Recognizes the accomplishments of arts and humanities after-school and out-of-school programs with $10,000 awards

The Big Read
- Partnership with Arts Midwest to restore reading to the center of American culture with awards of $2,500 to $20,000. Deadline January 28, 2014

The Arts and Human Development
- A new task force of 13 federal agencies including divisions of HHS, NIH, NSF, Dept. of Ed, and IMLS designed to examine links between the arts and positive developmental, behavioral, and social outcomes
- The task force shares latest research in quarterly webinars
Established in 1994, the EJ IWG guides, support and enhance federal environmental justice and community-based activities.

For EPA's strategy and progress report, please refer to Plan EJ 2014.

Comprised of 17 federal agencies and several White House offices:

- Environmental Protection Agency (Chair)
- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Education
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of Housing and Urban Development
- Department of Interior
- Department of Justice
- Department of Labor
- Department of State
- Department of Transportation
- Department of Veteran's Affairs
- General Services Administration
- Small Business Administration
- White House Offices
NIH/Building Infrastructure Leading to Diversity (BUILD) Initiative

**Major initiative to support multi-institution partnerships involving many types of campuses:**

- **Applicant (primary institution):** baccalaureate-granting colleges/universities that receive less than $7.5 million of NIH research project grant (RPG) funding annually and have at least 25% of their students supported by Pell grants

- **Pipeline Partner** - two- or four-year undergraduate institutions

- **Research Partner** -

- **Deadline expected in early to mid 2014** – **10 awards**
Marketing the Regional Comprehensive
Efficient Faculty/Student Engagement

- Centralize management of external relationships – ONE VOICE
- Promote strategic investments in disciplines leading to research growth
- Develop formats and tools to support innovation and entrepreneurship
- Identify appropriate metrics for student and faculty engagement and collect data
Address Infrastructure Issues

- Intellectual Property Issues
- Market value assessments
- Entrepreneurial and finance support
- Reward/support innovation
- Disclose conflicts of interest (transparency)
View business partnerships and economic development activities as workforce activities

Recognize the faculty development importance of external projects

Engage students through applied research
Fiscal Benefit for all Stakeholders

- Coordinate negotiations regarding external relations
- Establish long term partnerships in areas important to the region and institution
- Re-invest in future sponsored programs development
External/Internal Assessment - Then Committing Resources

- Assessment tools to determine strengths and expectations (internal/external)

- Collect data based on metrics that include the engagement of students and faculty in innovation and entrepreneurial activity