NSF supports a variety of centers programs that contribute to the Foundation’s mission and vision. Centers exploit opportunities in science, engineering, and technology in which the complexity of the research program or the resources needed to solve the problem require the advantages of scope, scale, duration, equipment, facilities, and students. Centers are a principal means by which NSF fosters interdisciplinary research.

**NSF Centers**

<table>
<thead>
<tr>
<th>Program Initiation</th>
<th>Number of Centers in FY 2015&lt;sup&gt;1&lt;/sup&gt;</th>
<th>FY 2015 Actual</th>
<th>FY 2016 Estimate</th>
<th>FY 2017 Request</th>
<th>Change Over FY 2016 Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centers for Analysis &amp; Synthesis</td>
<td>1995</td>
<td>4</td>
<td>$21.00</td>
<td>$18.60</td>
<td>$16.00</td>
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<td>Centers for Chemical Innovation</td>
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<td>11</td>
<td>36.66</td>
<td>28.10</td>
<td>29.50</td>
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<td>Engineering Research Centers</td>
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<td>59.69</td>
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<tr>
<td>Materials Centers&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1994</td>
<td>24</td>
<td>79.66</td>
<td>56.00</td>
<td>56.00</td>
</tr>
<tr>
<td>Nanoscale Science &amp; Engineering Centers</td>
<td>2001</td>
<td>6</td>
<td>11.73</td>
<td>7.71</td>
<td>6.71</td>
</tr>
<tr>
<td>Science &amp; Technology Centers</td>
<td>1987</td>
<td>14</td>
<td>50.84</td>
<td>59.99</td>
<td>60.10</td>
</tr>
<tr>
<td>Science of Learning Centers&lt;sup&gt;3&lt;/sup&gt;</td>
<td>2003</td>
<td>3</td>
<td>8.46</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

| Totals | 84 | **$268.04** | **$226.90** | **$229.31** | **$2.41** | 1.1% |

Totals may not add due to rounding.

<sup>1</sup> Includes centers that received no-cost award extensions in FY 2015 but no additional funding.

<sup>2</sup> Due to delayed awards processing, funding for FY 2015 includes $27.74 million carried over from FY 2014 and obligated in early FY 2015.

<sup>3</sup> The Science of Learning Centers program ended as planned in FY 2015 when the last centers reached the end of their ten-year funding cycles.

**Description of Major Changes**

**Centers for Analysis and Synthesis – BIO**

The FY 2017 Request of $16.0 million, $2.60 million below the FY 2016 Estimate, will fund three Centers for Analysis and Synthesis. These centers are described below.

In FY 2017, funding for the Plant Science Cyberinfrastructure Collaborative (iPlant) is reduced $2.0 million below the FY 2016 Estimate to $7.0 million. This reduction is part of this center’s planned ramp-down as FY 2017 is the final year of its ten years of support. iPlant is led by scientists at the University of Arizona, the Texas Advanced Computing Center, Cold Spring Harbor Laboratory, and University of North Carolina at Wilmington. It enables new conceptual advances through integrative, computational thinking to address an evolving array of grand challenges in the plant sciences, including innovative approaches to education, outreach, and the study of social networks.

NSF FY 2017 support to the University of Tennessee Knoxville for the National Institute for Mathematical and Biological Synthesis (NIMBioS) is $3.0 million, $600,000 below the FY 2016 Estimate. This includes $200,000 from the Directorate for Mathematical and Physical Sciences (MPS) Division of Mathematical Sciences (DMS). The decrease is part of the planned ramp-down of the center as FY 2017 is the final year of support. At NIMBioS, top researchers from around the world collaborate across disciplinary boundaries to find creative solutions to today’s complex biological problems. The education and outreach program
focuses on the interface between mathematics and biology and promotes cross-disciplinary approaches to
science for learners of all ages.
The FY 2017 Request for the National Socio-Environmental Synthesis Center (SESync) is $6.0 million,
equal to the FY 2016 Estimate. This center will undergo a renewal review in FY 2016, so FY 2017 support
is contingent upon a successful review. This Center uses synthetic approaches to advance the frontiers of
scientific understanding of environmental complexity to anticipate and manage emerging environmental
change.

Centers for Chemical Innovation (CCI) – MPS

The CCI program is designed to address major, long-term fundamental chemical research challenges
attracting broad scientific and public interest, as well as to provide a rich environment for education,
outreach, and innovation. The CCIls deliver career-shaping educational opportunities for undergraduate
and graduate students and for postdoctoral researchers, including collaborative research and mentoring,
cross-disciplinary training, international research experiences, entrepreneurial and innovation training, and
communication training.

The program is currently structured as a two-phase competition. Phase I centers are funded for three years
and may compete for larger Phase II awards, which are funded for five years with potential for renewal for
up to ten years.

In FY 2017, CCI program funding (+$1.40 million, to a total of $29.50 million) is expected to support nine
Phase II centers and up to three Phase I awards selected in a new competition planned for FY 2017. Total
funding required for these centers is $41.40 million, depending on final number of awards made. Of this
total, $29.50 million is provided in this request. The remaining amount is expected to be provided via
forward funding from prior fiscal years, co-funding by the MPS Office of Multidisciplinary Activities, and
support from the National Aeronautics and Space Administration (NASA) through an ongoing interagency
agreement.

In FY 2017, the Center for Enabling New Technologies through Catalysis (CENTC) will sunset, the Center
for Selective C-H Functionalization (CCHF) will be in its 5th year and under consideration for renewal, and
the other seven centers will continue in Phase II. An external program evaluation for the CCI program is
expected to begin in FY 2017 and completed by FY 2019.

Engineering Research Centers (ERC) – ENG

NSF’s ERCs enable innovation, bridging the energy and intellectual curiosity of university research focused
on discovery with real-world engineered systems and technology opportunities through partnerships with
industry. These centers also are successful in educating a technology-enabled workforce with hands-on
real-world experience. ERCs can be funded for up to ten years if they clear two renewal reviews, one in
year-three to determine if they are structured effectively to deliver on program goals, and another in year-
six to determine if they are delivering effectively, making an impact, and tackling challenging tasks to
warrant further support.

The ERC program periodically commissions program-level evaluations by external evaluators to determine
the effectiveness of ERC graduates in industry, the benefits of ERC membership to industry and others. In
FY 2015, NSF funded the National Academy of Engineering (NAE) in collaboration with the National
Research Council (NRC) to study “The Future of Center-Based, Multidisciplinary Engineering Research.”
This topic arises from discussions NAE held with the NRC on the future of NSF’s center-based,
multidisciplinary engineering research. The project includes a 21-month study that will articulate a new
vision for NSF’s center-based research over the next two decades, identify needs and gaps in current
approaches, and provide guiding principles and possible strategies for implementing the new vision. A report is expected in FY 2017.

At the FY 2017 Request level, 18 ERCs will be funded at $61.0 million ($4.50 million above the FY 2016 Estimate). ENG will award the next class of four ERCs in FY 2017, which requires an increased investment to support planned growth of the Class of 2015 centers and increased first year support of the Class of 2017 ERCs. First year support will increase from the traditional funding profile of $3.25 million per center to $3.50 million per center. Funding and numbers of centers include four Nanoscale ERCs, three from the class of FY 2012 and one from the class of FY 2015.

Materials Centers – MPS

Materials Research Science and Engineering Centers (MRSEC) advance materials research and provide students with an interdisciplinary education, including global experiences. These centers address fundamental research problems of intellectual and strategic importance that will advance U.S. competitiveness and the development of new technologies.

The MRSEC program continues to support the Materials Research Facilities Network (MRFN), which links the instrumentation and subject matter expertise of MRSECs to the larger materials community as well as encourages MRSEC-to-MRSEC collaborations. The MRSEC program also continues to support the interaction of MRSEC Education Coordinators with the NSF Directorate for Education and Human Resources/Division of Research on Learning in Formal and Informal Settings (EHR/DRL) to formulate methodologies for standardizing outreach program assessment and evaluation.

Finally, MRSECs interact with minority serving institutions through the Partnership for Research and Education in Materials (PREM) program. Currently, there are 12 active PREM awards at NSF, all of which are connected to MRSECs. MRSECs are encouraged to develop initiatives and/or educational programs to broaden participation.

The FY 2017 Request at $56.0 million (no change from the FY 2016 Estimate) will support approximately 20 MRSECs, with the actual number depending on the outcome of the next MRSEC competition. MRSEC competitions are held every three years. Twelve centers were awarded as the result of the latest competition in FY 2014. In the next MRSEC competition in FY 2017, nine current centers are expected to re-compete along with about 80 new applicants. Awards are typically $1.60 million to $3.60 million per year, depending on the number of interdisciplinary research groups in a center.

Nanoscale Science and Engineering Centers (NSEC) – multi-directorate

Nanotechnology research, which addresses the smallest of scales, is projected to be one of the largest drivers of technological innovation for the next decade and beyond. This potential was recognized in the National Nanotechnology Initiative, particularly in the burgeoning area of nanomanufacturing. Research at the nanoscale aims to advance the development of the ultra-small technology that will transform electronics, materials, medicine, environmental science, and many other fields.

At the FY 2017 Request Level, $6.71 million ($1.0 million below the FY 2016 Estimate) NSF will fund two sunsetting NSECs. This will be the final year of support as the NSEC program ends as planned. Support for nanotechnology-related projects will continue in other programs, such as the Nanosystems Engineering Research Centers within the Engineering Research Centers (ERC) and the Materials Science and Engineering Centers (MRSEC), both of which are described above.
Science and Technology Centers: Integrative Partnerships (STCs) - multi-directorate
The Science and Technology Centers: Integrative Partnerships (STC) program advances interdisciplinary discovery and innovation in science and engineering through the integration of cutting-edge research, excellence in education, targeted knowledge transfer, and the development of a diverse workforce. The STC portfolio reflects NSF-supported disciplines. Examples of investments include: understanding the brain; engineering of biological systems; energy-efficient electronics; global and regional environmental systems – sustainability and change; new ways of handling the extraction, manipulation, and exchange of information; and new materials for optical and electronic applications. STCs engage the Nation’s intellectual talent and collaborate with partners in academia, industry, national laboratories, and government. STCs strengthen the caliber of the Nation’s science, technology, engineering, and mathematics (STEM) workforce through intellectually challenging research experiences for students, postdoctoral fellows, researchers, and educators and advance public scientific understanding through partnerships with K-12 and informal education communities.

The FY 2017 Request of $60.10 million ($110,000 over FY 2016 Estimate) will support twelve STCs and the administrative costs ($900,000) associated with management and oversight of the program. All are continuing awards from the FY 2010, FY 2013, and FY 2016 cohorts. Awards are for five years, with possible renewal for an additional five years, or 10 years total. Award sizes are typically $4.0 million to $5.0 million per year.

Estimates for Centers Participation in 2015

<table>
<thead>
<tr>
<th>Centers for Analysis &amp; Synthesis</th>
<th>Number of Participating Institutions</th>
<th>Number of Partners</th>
<th>Total NSF Support (in millions)</th>
<th>Total Leveraged Support (in millions)</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,910</td>
<td>933</td>
<td>$21</td>
<td>$0</td>
<td>12,680</td>
</tr>
<tr>
<td>Centers for Chemical Innovation</td>
<td>86</td>
<td>84</td>
<td>$37</td>
<td>$8</td>
<td>899</td>
</tr>
<tr>
<td>Engineering Research Centers</td>
<td>836</td>
<td>385</td>
<td>$60</td>
<td>$134</td>
<td>4,771</td>
</tr>
<tr>
<td>Materials Centers ¹</td>
<td>400</td>
<td>296</td>
<td>$80</td>
<td>$49</td>
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<tr>
<td>Nanoscale Science &amp; Engineering Centers</td>
<td>450</td>
<td>350</td>
<td>$12</td>
<td>$25</td>
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<td>Science &amp; Technology Centers</td>
<td>106</td>
<td>105</td>
<td>$51</td>
<td>$44</td>
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<tr>
<td>Science of Learning Centers</td>
<td>203</td>
<td>252</td>
<td>$8</td>
<td>$42</td>
<td>2,162</td>
</tr>
</tbody>
</table>

¹ Due to delayed awards processing, funding includes $27.74 million carried over from FY 2014 and obligated in early FY 2015.

No. of Participating Institutions: All academic institutions participating in activities at the centers.
No. of Partners: The total number of non-academic participants, including industry, states, and other federal agencies at the centers.
Total Leveraged Support: Funding for centers from sources other than NSF.
Number of Participants: The total number of people who use center facilities, not just persons directly support by NSF.
### Centers Supported by NSF in FY 2015

<table>
<thead>
<tr>
<th>Center</th>
<th>Institution</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Centers for Analysis and Synthesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Evolutionary Synthesis Center</td>
<td>Duke, NC State U, U of N. Carolina</td>
<td>NC</td>
</tr>
<tr>
<td>National Institute for Mathematical &amp; Biological Synthesis</td>
<td>U of Tennessee</td>
<td>TN</td>
</tr>
<tr>
<td>Plant Science Cyberinfrastructure Collaborative</td>
<td>U of Arizona</td>
<td>AZ</td>
</tr>
<tr>
<td>Socio-Environmental Synthesis Center</td>
<td>U of Maryland</td>
<td>MD</td>
</tr>
<tr>
<td><strong>Centers for Chemical Innovation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center for Aerosol Impacts on Climate and Environment (phase II)</td>
<td>U of California-San Diego</td>
<td>CA</td>
</tr>
<tr>
<td>Center for Chemical Evolution (phase II)</td>
<td>Georgia Institute of Tech</td>
<td>GA</td>
</tr>
<tr>
<td>Center for Enabling New Technologies through Catalysis (phase II)</td>
<td>U of Washington</td>
<td>WA</td>
</tr>
<tr>
<td>Center for Multiscale Theory and Simulation (phase I)</td>
<td>U of Chicago</td>
<td>IL</td>
</tr>
<tr>
<td>Center for Selective C-H Functionalization (phase II)</td>
<td>Emory</td>
<td>GA</td>
</tr>
<tr>
<td>Center for Sustainable Materials Chemistry (phase II)</td>
<td>Oregon State</td>
<td>OH</td>
</tr>
<tr>
<td>Center for Sustainable Nanotechnology (phase II)</td>
<td>U of Wisconsin</td>
<td>WI</td>
</tr>
<tr>
<td>Center for Sustainable Polymers (phase II)</td>
<td>U of Minnesota-Twin Cities</td>
<td>MN</td>
</tr>
<tr>
<td>Center for Sustainable Renewable Feedstocks (phase I)</td>
<td>U of California-Santa Barbara</td>
<td>CA</td>
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<tr>
<td>Chemistry at the Space-Time Limit (phase II)</td>
<td>U of California-Irvine</td>
<td>CA</td>
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<tr>
<td>CO$_2$ as a Sustainable Feedstock for Chemical Commodities (phase I)</td>
<td>Brown</td>
<td>RI</td>
</tr>
<tr>
<td>Solar Fuels (phase II)</td>
<td>California Institute of Tech</td>
<td>CA</td>
</tr>
<tr>
<td><strong>Engineering Research Centers</strong></td>
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<tr>
<td>Advanced Self-Powered Systems of Integrated Sensors and Technologies</td>
<td>North Carolina State U</td>
<td>NC</td>
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<tr>
<td>Bio-mediated and Bio-inspired Geotechnics (CBBG)</td>
<td>Arizona State U</td>
<td>AZ</td>
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<tr>
<td>Biomimetic Microelectronic Systems</td>
<td>U of Southern California</td>
<td>CA</td>
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<tr>
<td>Biorenewable Chemicals</td>
<td>Iowa State</td>
<td>IA</td>
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<tr>
<td>Center for Ultra-wide-area Resilient Electric Energy Transmission Network (CURENT)</td>
<td>U of Tennessee</td>
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<tr>
<td>Collaborative Adaptive Sensing of the Atmosphere</td>
<td>U of Massachusetts-Amherst</td>
<td>MA</td>
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<tr>
<td>Compact and Efficient Fluid Power</td>
<td>U of Minnesota</td>
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</tr>
<tr>
<td>Future Renewable Electric Energy Delivery and Management Systems</td>
<td>North Carolina State</td>
<td>NC</td>
</tr>
<tr>
<td>Integrated Access Networks</td>
<td>U of Arizona</td>
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</tr>
<tr>
<td>Mid-Infrared Technologies for Health and the Environment</td>
<td>Princeton</td>
<td>NJ</td>
</tr>
<tr>
<td>Nanomanufacturing Systems for Mobile Computing and Mobile Energy Technologies</td>
<td>University of Texas-Austin</td>
<td>TX</td>
</tr>
<tr>
<td>Nanotechnology Enabled-Water Treatment Systems (NEWT)</td>
<td>Rice University</td>
<td>TX</td>
</tr>
<tr>
<td>Optimization for Electro-thermal Systems (POETS)</td>
<td>U of Illinois-Urbana Champaign</td>
<td>IL</td>
</tr>
<tr>
<td>Quality of Life Technology¹</td>
<td>Carnegie Mellon/U of Pittsburgh</td>
<td>PA</td>
</tr>
<tr>
<td>Quantum Energy and Sustainable Solar Technologies (QESST)</td>
<td>Arizona State</td>
<td>AZ</td>
</tr>
<tr>
<td>Re-inventing the Nation's Urban Water Infrastructure</td>
<td>Stanford</td>
<td>CA</td>
</tr>
<tr>
<td>Revolutionizing Metallic Biomaterials</td>
<td>North Carolina A&amp;T U</td>
<td>NC</td>
</tr>
<tr>
<td>Sensorimotor Neural Engineering</td>
<td>U of Washington</td>
<td>WA</td>
</tr>
<tr>
<td>Smart Lighting</td>
<td>Rensselaer Polytechnic Institute</td>
<td>NY</td>
</tr>
<tr>
<td>Structured Organic Particulate Systems</td>
<td>Rutgers</td>
<td>NJ</td>
</tr>
<tr>
<td>Synthetic Biology</td>
<td>U of California-Berkeley</td>
<td>CA</td>
</tr>
<tr>
<td>Translational Applications of Nanoscale Multiferroic Systems</td>
<td>U of California-Los Angeles</td>
<td>CA</td>
</tr>
<tr>
<td><strong>Materials Centers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brandeis Materials Research Science and Engineering Center</td>
<td>Brandeis</td>
<td>MA</td>
</tr>
<tr>
<td>Center for Emergent Materials</td>
<td>Ohio State</td>
<td>OH</td>
</tr>
<tr>
<td>Center for Multifunctional Nanoscale Materials Structures</td>
<td>Northwestern</td>
<td>IL</td>
</tr>
<tr>
<td>Center for Nanoscale Science</td>
<td>Pennsylvania State</td>
<td>PA</td>
</tr>
</tbody>
</table>

¹ These centers received no-cost award extensions in FY 2015 but no additional funding.
<table>
<thead>
<tr>
<th>Center</th>
<th>University</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Nanostructured Interfaces</td>
<td>U of Wisconsin</td>
<td>WI</td>
</tr>
<tr>
<td>Center for Photonics and Multiscale Nanomaterials</td>
<td>U of Michigan</td>
<td>MI</td>
</tr>
<tr>
<td>Center for Plasmonics and Organic Spintronics</td>
<td>U of Utah</td>
<td>UT</td>
</tr>
<tr>
<td>Center for Polarization and Spin Phenomena in Nanoferroic Structures</td>
<td>U of Nebraska</td>
<td>NE</td>
</tr>
<tr>
<td>Center for Research on Interface Structures and Phenomena</td>
<td>Yale</td>
<td>CT</td>
</tr>
<tr>
<td>Chicago Materials Research Centers</td>
<td>U of Chicago</td>
<td>IL</td>
</tr>
<tr>
<td>Columbia Center for Precision Assembly of Solids</td>
<td>Columbia</td>
<td>NY</td>
</tr>
<tr>
<td>Cornell Center for Materials Research</td>
<td>Cornell</td>
<td>NY</td>
</tr>
<tr>
<td>Harvard Materials Research Science and Engineering Center</td>
<td>Harvard</td>
<td>MA</td>
</tr>
<tr>
<td>Laboratory for Research on the Structure of Matter</td>
<td>U of Pennsylvania</td>
<td>PA</td>
</tr>
<tr>
<td>Materials Research Laboratory at UCSB</td>
<td>U of California-Santa Barbara</td>
<td>CA</td>
</tr>
<tr>
<td>Materials Research Science and Engineering Center</td>
<td>Georgia Institute of Tech</td>
<td>GA</td>
</tr>
<tr>
<td>Materials Research Science and Engineering Center</td>
<td>U of Minnesota</td>
<td>MN</td>
</tr>
<tr>
<td>Materials Research Science and Engineering Center on Polymers</td>
<td>U of Massachusetts-Amherst</td>
<td>MA</td>
</tr>
<tr>
<td>MIT Center for Materials Science and Engineering</td>
<td>Massachusetts Institute of Tech</td>
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</tr>
<tr>
<td>NYU Materials Research Science and Engineering Center</td>
<td>New York U</td>
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<tr>
<td>Princeton Center for Complex Materials</td>
<td>Princeton</td>
<td>NJ</td>
</tr>
<tr>
<td>Renewable Energy Materials Science and Engineering Center</td>
<td>Colorado School of Mines</td>
<td>CO</td>
</tr>
<tr>
<td>Research Triangle Materials Research Science and Engineering Center</td>
<td>Duke</td>
<td>NC</td>
</tr>
<tr>
<td>Soft Materials Research Centers</td>
<td>U of Colorado</td>
<td>CO</td>
</tr>
</tbody>
</table>

**Nanoscale Science and Engineering Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>University</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for the Environmental Implications of Nanotechnology (CEINT)</td>
<td>Duke</td>
<td>NC</td>
</tr>
<tr>
<td>Center for Integrated and Scalable Nanomanufacturing&lt;sup&gt;2&lt;/sup&gt;</td>
<td>U of California-Los Angeles</td>
<td>CA</td>
</tr>
<tr>
<td>Nanotechnology in Society Network: Center at ASU</td>
<td>Arizona State U</td>
<td>AZ</td>
</tr>
<tr>
<td>Nanotechnology in Society Network: Center at UCSB</td>
<td>U of California-Santa Barbara</td>
<td>CA</td>
</tr>
<tr>
<td>National Nanomanufacturing Network: Center for Hierarchical Manufacturing</td>
<td>U of Massachusetts-Amherst</td>
<td>MA</td>
</tr>
<tr>
<td>Predictive Toxicology Assessment &amp; Safe Implementation of Nanotechnology in the Environment (CEIN)</td>
<td>U of California-Los Angeles</td>
<td>CA</td>
</tr>
</tbody>
</table>

**Science and Technology Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>University</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEACON: An NSF Center for the Study of Evolution in Action</td>
<td>Michigan State U</td>
<td>MI</td>
</tr>
<tr>
<td>Biology with X-Ray Lasers</td>
<td>SUNY Buffalo</td>
<td>NY</td>
</tr>
<tr>
<td>Center for Brains, Minds, and Machines: The Science and the Technology of Intelligence</td>
<td>Massachusetts Institute of Tech</td>
<td>MA</td>
</tr>
<tr>
<td>Center for Coastal Margin Observation and Prediction</td>
<td>Oregon Health and Science U</td>
<td>OR</td>
</tr>
<tr>
<td>Center for Dark Energy Biosphere Investigations</td>
<td>U of Southern California</td>
<td>CA</td>
</tr>
<tr>
<td>Center for Energy Efficient Electronics Science</td>
<td>U of California-Berkeley</td>
<td>CA</td>
</tr>
<tr>
<td>Center for Integrated Quantum Materials</td>
<td>Harvard</td>
<td>MA</td>
</tr>
<tr>
<td>Center for Layered Polymeric Systems</td>
<td>Case Western Reserve</td>
<td>OH</td>
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<tr>
<td>Center for Microbial Oceanography: Research and Education</td>
<td>U of Hawaii-Manoa</td>
<td>HI</td>
</tr>
<tr>
<td>Center for Multi-Scale Modeling of Atmospheric Processes</td>
<td>Colorado State</td>
<td>CO</td>
</tr>
<tr>
<td>Emergent Behaviors of Integrated Cellular Systems</td>
<td>Massachusetts Institute of Tech</td>
<td>MA</td>
</tr>
<tr>
<td>Center for the Science of Information</td>
<td>Purdue</td>
<td>IN</td>
</tr>
</tbody>
</table>

**Science of Learning Centers**

<table>
<thead>
<tr>
<th>Center</th>
<th>University</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Excellence for Learning in Education, Science, and Technology</td>
<td>Boston U</td>
<td>MA</td>
</tr>
<tr>
<td>Spatial Intelligence and Learning Center</td>
<td>Temple</td>
<td>PA</td>
</tr>
<tr>
<td>The Temporal Dynamics of Learning Center</td>
<td>U of California-San Diego</td>
<td>CA</td>
</tr>
</tbody>
</table>

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<sup>2</sup> These centers received no-cost award extensions in FY 2015 but no additional funding.