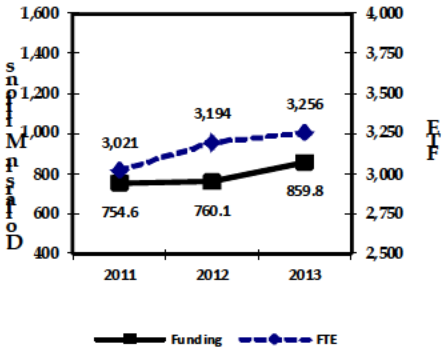
National Institute of Standards and Technology

The mission of the National Institute of Standards and Technology (NIST) is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life. For more than 100 years, NIST has maintained the national standards of measurement, a role that the U.S. Constitution assigns to the Federal Government. Today, the NIST Laboratories address increasingly complex measurement challenges, developing measurements focusing on the very small (e.g., nanotechnology devices) and the very large (e.g., skyscrapers), the physical (e.g., methods for characterizing strands of DNA for forensic testing) and the virtual (e.g., methods for testing electronic health record systems). NIST engages in activities that support trade and global science, provide industry and academia with unique user facilities, and supports development of standards and specifications that define technical and performance requirements for goods and services.

Budget Authority and FTE



The **NIST Laboratories** are part of the President's Plan for Science and Innovation that, consistent with the goals of the America COMPETES Reauthorization Act of 2010, proposes to double funding for research at key basic research agencies. The NIST Laboratories directly support U.S. innovation and industrial competitiveness by developing new measurement instruments and facilities to address critical barriers to innovation; disseminating validated measurement methods and protocols; providing reference data, reference materials, and calibration services to ensure that industry-performed measurements are traceable to NIST standards; and developing testing protocols and supporting laboratory accreditation programs.

The FY 2013 budget request proposes $648.0 million for NIST's Laboratory research programs in the Scientific and Technical Research and Services (STRS) appropriation, an increase of $81.0 million from the FY 2012 Enacted appropriations. Within the request, NIST will support roughly $135.0 million in research efforts focused on Advanced Manufacturing. Proposed initiatives include:

- Supporting new Advanced Manufacturing activities (+$45.0 million)
- Creating a competitive grant program for universities to establish NIST Centers of Excellence (+$20.0 million)
- Addressing challenges in Forensic Science, Advanced Communications, and Disaster Resilience (+$20.0 million)
- Continuing to invest in the Administration's National Strategy for Trusted Identities for Cyberspace efforts (+$8.0 million).

The request also includes a $12.0 million reduction to NIST's STRS extramural grants.

NIST's **Construction of Research Facilities** (CRF) appropriation supports projects for new buildings and the renovation and maintenance of current buildings and laboratories. The CRF account includes an increase of $4.6 million over the FY 2012 enacted appropriations for a total request of $60.0 million. Within this total, $48.2 million is for the Safety, Capacity, Maintenance, and Major Repairs account and $11.8 million is to fund on-going work for the Building 1 Renovation project in Boulder, Colorado.

NIST's FY 2013 request for these two core programs total $708.0 million, almost $86.0 million more than the FY 2012 enacted levels.

The request also includes two extramural programs under the Industrial and Technology Services (ITS) appropriation, the Hollings Manufacturing Extension Partnership (MEP) and the Advanced Manufacturing Technology Consortia (AMTech).

Hollings Manufacturing Extension Partnership (MEP)

Through public (Federal-state-local) and private sector partnerships, MEP provides technical and business assistance to small- and medium-sized manufacturers through a network of centers in all 50 states and Puerto Rico. The request includes $128.0 million for MEP, roughly the same level as in FY 2012.

Advanced Manufacturing Technology Consortia (AMTech)

The request includes $21.0 million for the new Advanced Manufacturing Technology Consortia (AMTech) program, which will provide grants to leverage existing consortia or establish new industry-led consortia. These consortia will develop road-maps of critical long-term industrial research needs as well as fund research at leading universities and government laboratories directed at meeting these needs. This new program would be based on NIST's experience with the Nanoelectronics Research Initiative (NRI) partnership and would expand and improve on that model.

The initiatives in the *Highlights of Program Changes* under STRS, CRF, and ITS outline the Administration's FY 2013 investment priorities for NIST.

Summary of Appropriations

Funding Levels				
	2011	2012	2013	Increase
Appropriation	Actual	Enacted	Estimate	(Decrease)
DISCRETIONARY ACCOUNTS				
Scientific and Technical Research and Services	$506,984	$567,000	$648,000	$81,000
Industrial Technology Services	173,253	128,443	149,000	20,557
Construction of Research Facilities	69,860	55,381	60,000	4,619
Total Appropriation, Discretionary Accounts	750,097	750,824	857,000	106,176
Transfers of funds from Election Assistance	3,244	2,750	2,750	0
Transfers of funds from DoJ to OLES, STRS	1,243	6,500	0	(6,500)
Working Capital Fund, STRS	[0]	[1,695]	[1,500]	
Budget Authority				
Scientific and Technical Research and Services	511,471	576,250	650,750	74,500
Industrial Technology Services	173,253	128,443	149,000	20,557
Construction of Research Facilities	69,860	55,381	60,000	4,619
TOTAL, BUDGET AUTHORITY	754,584	760,074	859,750	99,676
Reorganization from STRS (BPEP)	(9,608)			
Reorganization to ITS (BPEP)	9,608			
Budget Authority (Revised)				
Scientific and Technical Research and Services	501,863	576,250	650,750	74,500
Industrial Technology Services	182,861	128,443	149,000	20,557
Construction of Research Facilities	69,860	55,381	60,000	4,619
TOTAL, BUDGET AUTHORITY	754,584	760,074	859,750	99,676
FTE				
DISCRETIONARY ACCOUNTS				
Scientific and Technical Research and Services	2,001	2,175	2,292	117
Industrial Technology Services	206	133	87	(46)
Construction of Research Facilities	121	121	121	0
Working Capital Fund	693	765	756	(9)
Total	3,021	3,194	3,256	62

Highlights of Budget Changes

Appropriation: Scientific and Technical Research and Services

Summary of Requirements	Detailed FTE	Detailed Amount	Summary FTE	Summary Amount
2012 Enacted			2,175	$567,000
Adjustments to Base				
Adjustments				
Restoration of FY 2012 deobligation offset				1,000
Other Changes				
2013 Pay raise		$978		
Full-year cost in 2013 of positions financed for part-year in FY 2012	27			
Civil Service Retirement System (CSRS)		(224)		
Federal Employees' Retirement System (FERS)		374		
Thrift Savings Plan (TSP)		107		
Federal Insurance Contribution Act (FICA) - OASDI		292		
Health Insurance		1,270		
Employees' Compensation Fund		(24)		
Travel - Per Diem		345		
Rental Payments to GSA		1		
HCHB electricity		(1)		
Electricity rate increase		1,761		
Natural Gas rate increase		189		
NARA		1		
Other services:				
Commerce Business Systems (CBS)		137		
Working Capital Fund (Departmental Management)		24		
Supplies and materials:				
Scientific journal subscriptions		156		
Helium rate increase		29		
General pricing level adjustment:				
Transportation of things		20		
Rental payments to others		34		
Communications, utilities, and miscellaneous charges		68		
Printing and reproduction		5		
Other services		1,181		
Supplies and materials		367		
Equipment		698		
Subtotal, other cost changes			27	7,788
Less Amount Absorbed				(7,788)
TOTAL, ADJUSTMENTS TO BASE			27	1,000
2013 Base			2,202	568,000
Administrative Savings			[0]	[2,693]
Program Changes			90	81,000
TOTAL REQUIREMENTS			2,292	649,000
Recoveries from Prior Year Obligations				(1,000)
2013 APPROPRIATION			2,292	648,000

Comparison by Activity

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
DIRECT OBLIGATIONS	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Laboratory Programs								
Strategic & emerging research initiative fund	24	$10,313	24	$9,668	24	$9,668	0	$0
National measurement and standards labs	1,684	432,472	1,706	421,384	1,762	470,807	56	49,423
User Facilities	259	75,273	259	74,755	270	81,253	11	6,498
Postdoctoral Research Associates Program	99	14,212	103	13,022	103	13,022	0	0
Subtotal, Laboratory Programs	2,066	532,270	2,092	518,829	2,159	574,750	67	55,921
Corporate Services								
Computer Support	12	8,169	12	8,169	12	8,169	0	0
Business System	36	10,481	36	10,481	36	10,481	0	0
Subtotal, Corporate Services	48	18,650	48	18,650	48	18,650	0	0
Standards Coordination and Special Programs								
Standards Coordination and Special Programs	61	38,959	62	30,521	85	56,850	23	26,329
Congressionally Directed Projects	0	0	0	0	0	0	0	0
Subtotal, Standards Coordination and Special Programs	61	38,959	62	30,521	85	56,850	23	26,329
TOTAL OBLIGATIONS	2,175	589,879	2,202	568,000	2,292	650,250	90	82,250
FINANCING								
Unobligated balance, start of year - direct		(15,924)					0	0
Unobligated balance transfer to ITS		1,600						
Recovery of prior year obligations		(1,000)		(1,000)		(1,000)	0	0
Subtotal, financing	0	(15,324)	0	(1,000)	0	(1,000)	0	0
TOTAL BUDGET AUTHORITY	2,175	574,555	2,202	567,000	2,292	649,250	90	82,250
Transfers from EAC		(2,750)				(2,750)	0	(2,750)
Transfers from DoJ		(6,500)					0	0
Transfers to Working Capital Fund		1,695				1,500	0	1,500
Reorganization							0	0
TOTAL APPROPRIATION	2,175	567,000	2,202	567,000	2,292	648,000	90	81,000

Note: The distribution of administrative savings reflected in this table is based on current estimates. As the review and implementation processes proceed, the distribution of these savings may change.

Administrative Savings

The Administration is continuing its pursuit of an aggressive government-wide effort to curb non-essential administrative spending. As a result, the Department of Commerce continues to seek ways to improve the efficiency of programs without reducing their effectiveness. Building on NIST's administrative savings planned for FY 2012 ($11.6 million), an additional $2.7 million in savings is targeted for FY 2013 for a total savings in FY 2013 of $14.3 million. For additional information see the Administrative Savings section of the Introduction to the Budget-in-Brief.

Highlights of Program Changes

	Base		Increase / Decrease	
	FTE	Amount	FTE	Amount
Measurement Science, Services, and Programs				
Advanced Manufacturing	98	$90,824	+58	+$45,000

Manufacturing plays a central role in technological progress and the overall growth and health of the U.S. economy. The ability to rapidly introduce product innovations will support future U.S. manufacturing market growth, competitiveness, and creation and retention of high quality jobs. With its FY 2013 budget request NIST is expanding its laboratory efforts in the following areas to address measurement and technology needs essential to advanced manufacturing:

- $10.0 million for metrology infrastructure and standards to support biomanufacturing. This NIST program will develop measurement methods, protocols, and standards for improved measurement of biologic products during manufacturing and for end-product characterization. NIST will work closely with industry, the FDA, and other standards organizations to achieve greater process understanding, higher quality biologic products through continuous improvement of manufacturing processes, and agile biomanufacturing processes required for next generation products such as stem cells and personalized biotherapeutics.
- $10.0 million for measurement science and standards to support nanomanufacturing. $8.0 million of these funds are requested for the development of measurement methods that will enable manufacturers to overcome a number of technical barriers to cost-effective, high-volume nanomanufacturing. $2.0 million is requested for measurement science and standards development in nanotechnology-related environmental health and safety (nanoEHS). The nanoEHS program will develop new reference materials, measurement protocols, and documentary standards as well as new methodologies to evaluate the release of nanoparticles during manufacture and in consumer products.
- $10.0 million to support measurement science and standards in advanced materials for industry, as related to the national Materials Genome Initiative (MGI). The MGI is an interagency effort to significantly reduce the timeline from discovery to commercial deployment of new materials. The request will enable NIST to strengthen and extend its expertise in the development, use, and integration of materials modeling and simulation, with a focus on standard reference databases, data assessment and validation, and standards development and implementation.
- $10.0 million for measurement science and standards to support smart manufacturing. Smart Manufacturing refers to equipment, factory, and enterprise level production methods that integrate computational (cyber) and physical systems to enable innovative production, products, and systems of products. NIST will develop the measurements and standards necessary to develop automated, in-process quality monitoring and control for factory-level production systems. NIST will also build a testbed integrating a systems architecture framework and an open standards platform to facilitate simultaneous engineering of the cyber and physical elements of manufacturing systems. It will include predictive modeling and simulation for automated control and performance optimization.
- $5.0 million for a NIST Manufacturing Fellowships Program. NIST manufacturing fellowships will provide opportunities for engineers and scientists to work with NIST staff on the measurement and standards required to create cutting-edge tools for manufacturers. Fellowships will be available to qualified candidates who are currently employed in industry and non-profit organizations, as well as to recent recipients of bachelors or masters degrees in relevant fields. NIST Manufacturing Fellowships Program awardees will work jointly with NIST to publicize NIST advanced manufacturing research opportunities.

NIST Centers of Excellence	0	$0	+2	+$20,000

These funds will be used to provide grants to establish four competitively selected Centers of Excellence in measurement science areas defined by NIST that will leverage and expand NIST research capabilities. Each Center of Excellence will provide an interdisciplinary environment in which NIST, academia and industry will collaborate in pursuing early stage basic and applied research focused on innovations in measurement science and emerging technology areas. Potential

focus areas include Advanced Communications, Advanced Manufacturing, Biomanufacturing, Cyberphysical Systems, Forensic Science, Human-Robotic Integration, Materials Modeling and Design, Quantitative Biology, and Telecommunications.

	Base		Increase / Decrease	
	FTE	Amount	FTE	Amount
Secure, Scalable, and Interoperable Advanced Communications	23.2	$10,600	+10	+$10,000

National initiatives such as such Health IT, telemedicine, Smart Grid, environmental monitoring, and cloud computing depend on an interoperable, scalable, secure, advanced networking technology. Current fixed and wireless network infrastructures already show strain meeting short-term, rapid increases in demand. In addition, the growing complexity of networked information systems built upon this infrastructure increases financial and security risks. The requested funding will allow NIST to research technical requirements and develop measurement techniques for future telecommunications technologies that can scale to the long-term demands of advanced networks while maintaining robustness and security.

Measurement Science and Standards in Support of Forensic Science	12.3	$4,605	+16	+$5,000

The funds requested will allow NIST to support the forensic science community through the research and development of traceable standards materials, reference data, and calibration systems; to facilitate standards development; and to provide measurement science research and training opportunities for forensic science practitioners. The NIST laboratories will perform research to characterize and improve many forensic approaches, providing practitioners tools for crime scene investigation, laboratory analysis, and court room use of this evidence while also enabling NIST laboratories to innovate completely new approaches to forensic science disciplines.

Disaster Resilience and Natural Hazards Risk Reduction	3	$1,000	+4	+$5,000

U.S. communities can and do suffer catastrophic loss, due to extreme events such as hurricanes, tornadoes, wildfires, earthquakes, and flooding. Through a multi-year, public-private partnership program strategy, this funding will enable NIST to work with stakeholder interests in all hazard areas to develop and adopt a national resilience framework and associated resilience models, standards and policies. In addition, NIST will help address the Research and &Development (R&D) gaps to realize the full potential of national resilience.

National Strategy for Trusted Identities In Cyberspace	13	$16,500	+0	+$8,000

The budget request includes an increase of $8.0 million for additional grants for the NSTIC initiative begun in FY 2012, which seeks to increase the security of online transactions.

Reduction to NIST's STRS extramural grants	0	$34,200	- 0	-$12,000

NIST requests a $12.0 million decrease to its extramural STRS grant program. The reduction includes $6.0 million from one-time external grants to support industry-led consortia in the development of technology roadmaps. NIST will identify an additional $6.0 million from low priority research areas and areas where intramural efforts are sufficient to meet research requirements.

Crosswalk of Program Changes

STRS Initiative Name	National Measurement and Standards Laboratories	User Facilities	Standards Coordination and Special Programs	Working Capital Fund	Total
Advanced Manufacturing	$29,500	$8,000	$6,000	$1,500	$45,000
NIST Centers of Excellence			$20,000		$20,000
Advanced Communications	$8,000		$2,000		$10,000
Disaster Resilience	$5,000				$5,000
Forensics			$5,000		$5,000
NSTIC	$8,000				$8,000
STRS One-Time Extramural Grants			($6,000)		($6,000)
Reduction to STRS NIST-wide Extramural Grants	($3,827)	($1,502)	($671)		($6,000)
STRS TOTAL	**$46,673**	**$6,498**	**$26,329**	**$1,500**	**$81,000**

Appropriation: Construction of Research Facilities

Summary of Requirements

	Detailed		Summary	
	FTE	Amount	FTE	Amount
2012 Enacted			121	$55,381
Adjustments to Base				
Other Changes				
FY 2013 Pay raise		$44		
Civil Service Retirement System (CSRS)		(10)		
Federal Employees' Retirement System (FERS)		17		
Thrift Savings Plan (TSP)		5		
Federal Insurance Contribution Act (FICA) - OASDI		15		
Health Insurance		65		
Employees' Compensation Fund		5		
Travel - Per Diem		2		
General pricing level adjustment:				
Other services		383		
Supplies and materials		25		
Equipment		1		
Subtotal, other cost changes			0	552
TOTAL, ADJUSTMENTS TO BASE			0	552
2013 Base			121	55,933
Program Changes				4,067
2013 APPROPRIATION			121	60,000

Comparison by Activity

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
DIRECT OBLIGATIONS	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Construction & Major Renovations	121	$68,703	121	$55,933	121	$60,000	0	$4,067
TOTAL DIRECT OBLIGATIONS	121	68,703	121	55,933	121	60,000	0	4,067
REIMBURSABLE OBLIGATIONS		930					0	0
TOTAL OBLIGATIONS	121	69,633	121	55,933	121	60,000	0	4,067
FINANCING								
Unobligated balance, start of year (Direct)		(13,322)						
Offsetting collections from:								
Non-Federal sources		(930)						
Subtotal, financing		(14,252)				0		
TOTAL BUDGET AUTHORITY/ APPROPRIATION	121	55,381			121	60,000		

Highlights of Program Changes

	Base		Increase / Decrease	
	FTE	Amount	FTE	Amount
Construction and major renovations	121	$55,933	+0	$4,067
Renovation of Building 1 at NIST in Boulder, Colorado, Decrease			-0	-$13,900

NIST requests a decrease in the amount of $13.9 million for the completed exterior renovations to Building 1 and interior renovation of Wing 3.

Renovation of Building 1 at NIST in Boulder, Colorado, Increase	+0	+$11,800

NIST requests an increase to continue with the long-term plan to renovate the multi-wing Building 1 of the NIST Boulder, Colorado laboratories, which houses the majority of NIST Boulder research and measurement facilities. The FY 2013 requested increase of $11.8 million would fund Wing 6 interior renovation. The remaining wing renovations will be completed with future funding requests.

NIST Safety, Capacity, Maintenance, and Major Repairs Increase	+0	+$6,167

NIST requests an increase of $6.2 million to expedite the maintenance and repair of facilities and reduce the impact of facility deficiencies on laboratory projects.

Appropriation: Industrial Technology Services

Summary of Requirements

	Detailed		Summary	
	FTE	Amount	FTE	Amount
2012 Enacted			133	$128,443
Adjustments to Base				
Adjustments				
TIP Shutdown/BPEP transition			(50)	
Other Changes				
2013 Pay raise		$37		
Civil Service Retirement System (CSRS)		(8)		
Federal Employees' Retirement System (FERS)		14		
Thrift Savings Plan (TSP)		4		
Federal Insurance Contribution Act (FICA) - OASDI		11		
Health Insurance		47		
Employees' Compensation Fund		6		
Travel - Per Diem		19		
Electricity rate increase		247		
Natural Gas rate increase		25		
General pricing level adjustment:				
Rental payments to others		5		
Communications, utilities, and miscellaneous charges		3		
Other services		203		
Supplies and materials		6		
Equipment		5		
Subtotal, other cost changes			0	624
Less Amount Absorbed			0	(624)
TOTAL, ADJUSTMENTS TO BASE			(50)	0
2013 Base			83	128,443
Program Changes			4	20,557
2013 APPROPRIATION			87	149,000

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
DIRECT OBLIGATIONS	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Technology Innovation Program	39	$8,384	0	$0	0	$0	0	$0
Advanced Manufacturing Technology Consortia	0	0	0	0	4	21,000	4	21,000
Hollings Manufacturing Extension Partnership Program	83	130,826	83	128,443	83	128,000	0	(443)
Baldrige Performance Excellence Program	11	2,050	0	0	0	0	0	0
TOTAL DIRECT OBLIGATIONS	133	141,260	83	128,443	87	149,000	4	20,557
FINANCING								
Unobligated balance, start of year		(8,117)						
Unobligated balance, transfer from STRS		(1,600)						
Recovery of prior obligations		(3,100)						
Subtotal, financing		(12,817)						
TOTAL BUDGET AUTHORITY/ APPROPRIATION	133	128,443	83	128,443	87	149,000		

Highlights of Program Changes

	Base		**Increase / Decrease**	
	FTE	Amount	FTE	Amount
Industrial Technology Services				
Manufacturing Extension Partnership (MEP)	83	$128,443	+0	-$443

The request funds the Hollings Manufacturing Extension Partnership (MEP) at $128.0 million, a reduction of $443 thousand from the FY 2012 enacted appropriations. The reduction will not affect funding for MEP Center renewals in FY 2013.

Advanced Manufacturing Technology Consortia (AMTech) Program			+4	+$21,000

The request includes $21.0 million to establish an Advanced Manufacturing Technology Consortia (AMTech) program that will provide grants to leverage existing consortia or establish new industry-led consortia. These consortia will develop road-maps of key long-term industrial research needs, as well as fund research at leading universities and government laboratories directed at meeting these needs. This new program would be modeled on NIST's experience with the Nanoelectronics Research Initiative (NRI) partnership and would expand and improve on that model.

Appropriation: Working Capital Fund

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
DIRECT OBLIGATIONS	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Obligations	0	$1,695	0	$0	0	$1,500	0	$1,500
Reimbursable Obligations	765	191,552	756	163,190	756	163,190	0	0
WCF Investments		12,120		0		0	0	0
TOTAL OBLIGATIONS	765	205,367	756	163,190	756	164,690	0	1,500
FINANCING								
Unobligated balance, start of year		(125,879)		(125,879)		(125,879)		0
Unobligated balance, end of year		125,879		125,879		125,879		0
Offsetting collections from:								
Federal funds		(128,894)		(110,909)		(110,909)		0
Non-Federal sources		(74,778)		(52,281)		(52,281)		0
Subtotal, financing	0	(203,672)	0	(163,190)	0	(163,190)	0	0
TOTAL BUDGET AUTHORITY	765	1,695	756	0	756	1,500	0	1,500
TRANSFERS								
From other accounts		(1,695)				(1,500)		(1,500)
TOTAL, APPROPRIATION	765	0	756	0	756	0	0	0

Performance Objectives and Measures

(Dollars reflect obligations in Millions)

NIST's program activities support the theme of Economic Growth and two corresponding goals: Innovation and Entrepreneurship, and Market Development and Commercialization. Within these goals, NIST supports three objectives: Stimulate high-growth business formation and entrepreneurship, through investing in high-risk, high-reward technologies and by removing impediments to accelerate technology commercialization (Objective 3); Provide measurement tools and standards to strengthen manufacturing, enable innovation, and increase efficiency (Objective 5); and improve the competitiveness of small and medium-sized firms in manufacturing and service industries (Objective 8). The following table shows the measures that NIST uses to gauge its performance.

	2011 Actual	2012 Enacted / Targets	2013 Estimate / Targets
Objective 3: Stimulate high-growth business formation and entrepreneurship, through investing in high-risk, high-reward technologies and by removing impediments to accelerate technology commercialization*	**$74.2**	**$8.4**	**$21.0***
Objective 5: Provide measurement tools and standards to strengthen manufacturing, enable innovation, and increase efficiency	**$776.1**	**$863.6**	**$874.3**
Qualitative assessment and review of technical quality and merit using peer review	Completed	Complete	Complete
Citation impact of NIST-authored publications	>1.1[1]	>1.1	>1.1
Peer-reviewed technical publications	1,210	1,210	1,210
Standard reference materials sold	32,864	31,000	31,000
NIST maintained datasets downloaded	19.1M	18M	18M
Number of calibration tests performed	18,195	14,000	13,500
Objective 8: Improve the competitiveness of small and medium-sized firms in manufacturing and service industries	**$129.3**	**$134.1**	**$128.7**
Number of clients served by MEP centers receiving Federal funding	33,838	32,500[3]	32,500
Increased sales attributed to MEP centers receiving Federal funding	$2.0B[2]	$2.2B[3]	$2.5B
Capital investment attributed to MEP centers receiving Federal funding	$1.1B[2]	$1.3B[3]	$1.4B
Cost savings attributed to MEP centers receiving Federal funding	$1.1B[2]	$1.1B[3]	$1.1B
Total	**$979.6**	**$1,006.1**	**$1,024.0**

*The TIP was terminated in FY 2012, so the measures have been removed from the BiB. FY 2011 and FY 2012 targets can be found in the FY 2012 BiB. The remaining amount in FY 2013 is for AMTech.

[1] Actual for this measure lags nine months; this estimate is based on the FY 2010 actual.

[2] These amounts are the FY 2011 targets. The FY 2011 actuals will be available in January 2013 due to the lag time associated with collecting and analyzing the Hollings MEP client survey data six months after the services are delivered. The data in the FY 2011 PAR reflects estimated FY 2010 actuals associated with the FY 2010 funding level. The FY 2010 actuals will be available in February 2012.

[3]These targets were changed to reflect the actual FY 2012 appropriation.

Wireless Innovation (WIN) Fund

As part of the National Wireless Initiative included in the proposed American Jobs Act, NIST will create a Wireless Innovation (WIN) Fund to help develop cutting-edge wireless technologies for public safety users. The WIN Fund will provide $300.0 million to help industry and public safety organizations conduct research and develop new standards, technologies and applications to advance public safety communications in support of the initiative's efforts to build an interoperable nationwide broadband network for first responders. As proposed in the American Jobs Act, WIN will be funded from spectrum auction proceeds deposited in the Public Safety Trust Fund. For more details on the Public Safety Trust Fund, please see the entry under the National Telecommunications and Information Administration.

Summary of Appropriations

Funding Levels				
	2011	2012	2013	Increase
MANDATORY ACCOUNT	Actual	Enacted	Estimate	(Decrease)
Wireless Innovation Fund			$300,000	$300,000
FTE			13	13

Highlights of Budget Changes

Mandatory Account: Wireless Innovation Fund

Summary of Requirements

	Summary	
	FTE	Amount
2012 Mandatory Account	0	$0
Adjustments	0	0
2013 Base	0	0
Program Change	13	300,000
2013 Mandatory Account	13	300,000

Comparison by Activity

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Total Authority from Transfer					13	$300,000	13	$300,000
TOTAL OBLIGATIONS	0	0	0	0	13	15,000	13	15,000
FINANCING								
Unobligated balance, end of year	0	0	0	0	0	285,000	0	285,000
TOTAL MANDATORY SPENDING AUTHORITY	0	0	0	0	13	300,000	13	300,000

Highlights of Program Changes

	Base		**Increase / Decrease**	
	FTE	Amount	FTE	Amount
Wireless Innovation Fund	0	$0	+13	+$300,000

The President's Budget includes a request of $300 million in mandatory funds for the Wireless Innovation Fund to help spur the development of cutting-edge wireless technologies. As part of this initiative, NIST will work with industry and public safety organizations to conduct research and develop standards, technologies and applications to advance public safety communications. Core components of this program will include documenting public safety requirements and driving the adoption of those requirements into the appropriate standards; developing the capability for communications between currently deployed public safety narrow band systems and the future nationwide broadband network, and establishing a roadmap that addresses public safety's needs beyond what can be provided by the current generation of broadband technology and driving technological progress in that direction. NIST will accomplish these goals through directed research, development, applications, and demonstration projects. Where appropriate, NIST will collaborate with other government research agencies and transfer funding if particular agencies are better suited to sponsor and oversee relevant research, development, or demonstration projects.

National Network for Manufacturing Innovation

As part of its efforts to revitalize U.S. manufacturing, the Administration will propose legislation creating a mandatory account making available $1.0 billion to establish a National Network for Manufacturing Innovation (NNMI), which would consist of a network of institutes where researchers, companies, and entrepreneurs can come together to invest in new manufacturing technologies with broad applications. The Manufacturing Innovation Institutes would support manufacturing technology commercialization by helping to bridge the gap from the laboratory to the market and address core gaps in scaling manufacturing process technologies.

Summary of Appropriations

Funding Levels				
	2011	2012	2013	Increase
MANDATORY ACCOUNT	Actual	Enacted	Estimate	(Decrease)
National Network for Manufacturing Innovation			$1,000,000	$1,000,000
FTE			25	25

Highlights of Budget Changes

Mandatory Account: National Network for Manufacturing Innovation

Summary of Requirements

	Summary	
	FTE	Amount
2012 Mandatory Account	0	$0
Adjustments	0	0
2013 Base	0	0
Program Change	25	1,000,000
2013 Mandatory Account	25	1,000,000

Comparison by Activity

	2012 Currently Avail.		2013 Base		2013 Estimate		Increase / Decrease	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
SPENDING AUTHORITY					25	$1,000,000	25	$1,000,000
TOTAL OBLIGATIONS	0	0	0	0	25	560,000	25	560,000
FINANCING								
Unobligated balance, end of year	0	0	0	0	0	440,000	0	440,000
TOTAL MANDATORY SPENDING AUTHORITY	0	0	0	0	25	1,000,000	25	1,000,000

Highlights of Program Changes

	Base		**Increase / Decrease**	
	FTE	Amount	FTE	Amount
National Network for Manufacturing Innovation	0	$0	+25	+$1,000,000

As part of its efforts to revitalize U.S. manufacturing, the Administration will propose legislation creating a mandatory account making available $1.0 billion to establish a National Network for Manufacturing Innovation (NNMI), which would consist of a network of institutes where researchers, companies, and entrepreneurs can come together to invest in new manufacturing technologies with broad applications. These institutes will help support an ecosystem of manufacturing activity in local areas and each institute would have a unique technology focus. The Manufacturing Innovation Institutes would support manufacturing technology commercialization by helping to bridge the gap from the laboratory to the market and address core gaps in scaling manufacturing process technologies.