

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 improve economic security and our quality of life. NIST develops and disseminates measurement techniques, reference data, test methods, standards, and other technologies and services needed by U.S. industry to compete in the 21st century.

NIST is one of the agencies participating in the President's Plan for Science and Innovation, which, consistent with the America COMPETES Act of 2007, doubles funding for basic research over 10 years. The President's request supports these NIST programs:

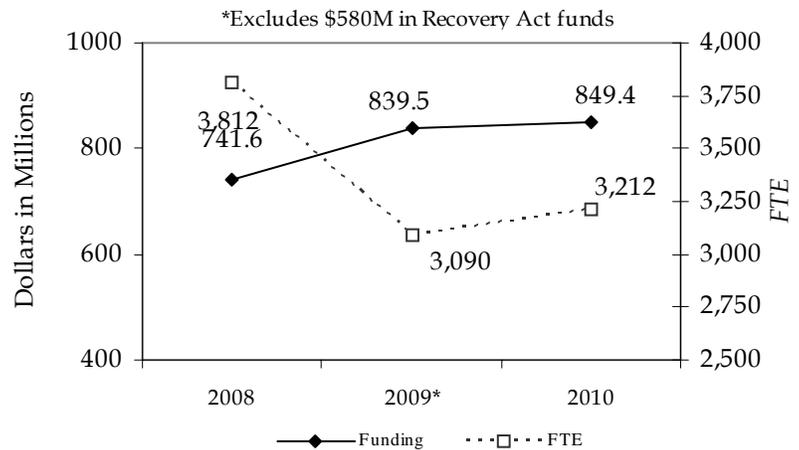
- The **NIST Laboratories** provide the measurement science and physical standards that are essential components of the technology infrastructure underpinning U.S. innovation. NIST's **Construction of Research Facilities** support the projects for new buildings and renovation and maintenance of current buildings and laboratories.
- The **Technology Innovation Program (TIP)** supports innovative, high-risk, high-reward research in areas of critical national need (CNN) where the government has a clear interest due to the magnitude of the problems and their importance to society. The merit-based competitive program funds cost-shared R&D projects by single small- or medium-sized businesses, as well as joint ventures that may include higher education institutions, non-profit research organizations, and national laboratories.
- Through Federal-state-local and private sector partnerships, NIST's **Hollings Manufacturing Extension Partnership (MEP)** provides technical and business assistance to smaller manufacturers through a nationwide network of centers in all 50 states and Puerto Rico.
- The **Baldrige National Quality Program** promotes proven quality and performance management practices to strengthen U.S. companies, educational organizations, and health care providers. Recognized worldwide, the program furthers organizational excellence through education, outreach, and annual awards.

The President's FY 2010 Budget requests \$651.5 million for NIST's core laboratory research and facilities, a net increase of \$7.5 million over FY 2009 levels (excluding amounts provided in the Recovery Act), and \$108.3 million over the FY 2010 base. In concert with the FY 2009 funding provided by the Recovery Act, the Budget sets NIST Labs on the path to doubling by FY 2016 (from 2006 levels). The President's budget also proposes \$124.7 million in FY 2010 for MEP, an increase of \$14.7 million above FY 2009. For TIP, the President's FY 2010 budget request is \$69.9 million, an increase of \$4.9 million above FY 2009. NIST's FY 2010 budget will help address the Nation's immediate and long-term priorities by enabling:

- Creation of a national health IT infrastructure
- Development of Smart Grid standards
- Accurate and effective medical diagnostics
- Efficient manufacture of next generation photovoltaics
- Precise measurement of greenhouse gas emissions
- Security for America's computer networks
- Cost effective revitalization of America's Infrastructure
- Development of Net Zero Energy Buildings

The initiatives described in the *Highlights of Program Changes* under STRS, CRF, and ITS outline the Administration's FY 2010 investment priorities for NIST.

Budget Authority and FTE



Summary of Appropriations

Funding Levels

Appropriation	2008 <u>Actual</u>	2009 <u>Estimate</u>	2010 <u>Estimate</u>	Increase <u>(Decrease)</u>
Scientific and Technical Research and Services	\$440,517	\$472,000	\$534,600	\$62,600
Recovery Act		220,000		(220,000)
Industrial Technology Services	154,840	175,000	194,600	19,600
Construction of Research Facilities	160,490	172,000	116,900	(55,100)
Recovery Act		360,000		(360,000)
Total Appropriation	755,847	1,399,000	846,100	(552,900)
Transfers of funds from Election Assistance Commission to STRS	3,250	4,000	3,250	(750)
Transfers of funds from Community Oriented Policing Services Office, DoJ to Office of Law Enforcement Standards, STRS	1,880	1,500	0	(1,500)
Transfer of Recovery Act funds from the Office of the National Coordinator for Health Information Technology to STRS	0	20,000	0	(20,000)
Transfer of funds to Bureau of Industry and Security, DoC from TIP, ITS	(600)	0	0	0
Unobligated balance, rescission, ITS	(18,800)	(5,000)	0	5,000
Working Capital Fund, STRS		[2,275]	[6,190]	[3,915]
Budget Authority				
Scientific and Technical Research and Services	445,647	717,500	537,850	(179,650)
Industrial Technology Services	135,440	170,000	194,600	24,600
Construction of Research Facilities	160,490	532,000	116,900	(415,100)
TOTAL, BUDGET AUTHORITY	741,577	1,419,500	849,350	(570,150)
FTE				
Scientific and Technical Research and Services	1,891	2,082	2,195	113
Industrial Technology Services	139	141	146	5
Construction of Research Facilities	66	77	81	4
Working Capital Fund	716	790	790	0
Total	2,812	3,090	3,212	122

Highlights of Budget Changes

Appropriation: Scientific and Technical Research and Services

Summary of Requirements

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
2009 Appropriation			2,034	\$472,000
Recovery Act Appropriation			48	220,000
Total Appropriation			2,082	692,000

Adjustments to Base

Adjustments

Restoration of FY 2009 Deobligation Offset		\$1,000		
Less FY 2009 unrequested projects		(3,475)		
Non-recurring ARRA funds (P.L. 111-5)	(48)	(220,000)		
Subtotal, Adjustments			(48)	(222,475)

Other Changes

2009 Pay raise		3,736		
2010 Pay raise		3,665		
Payment to the Working Capital Fund		78		
Full year cost in 2010 of positions financed for part year in 2009	39			
Change in compensable days		0		
Civil Service Retirement System (CSRS)		(310)		
Federal Employees' Retirement System (FERS)		496		
Thrift Savings Plan		206		
Federal Insurance Contributions Act (FICA) - OASDI		246		
Health insurance		247		
Employees' Compensation Fund		60		
Travel:				
Mileage		3		
Per diem		266		
Rental payments to GSA		1		
Postage		5		
HCHB Steam		2		
HCHB Electricity		3		
Printing and reproduction		3		
Other services:				
Working Capital Fund		758		
Less payment to Working Capital Fund for utilities		(5)		
Commerce Business System		135		
NARA		5		
Electricity rate increase		804		
Natural gas rate decrease		(2,993)		
Supplies and materials: Scientific journal subscriptions		97		
General pricing level adjustment:				
Transportation of things		13		
Rent payments to others		7		
Communications, utilities, and miscellaneous charges		24		
Other services		421		
Supplies and materials		173		
Equipment		332		
Subtotal, other cost changes			39	8,478
Less Amount absorbed			0	(2,294)
TOTAL, ADJUSTMENTS TO BASE			(9)	(216,291)

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
2010 Base			2,073	\$475,709
Program Changes			122	59,891
TOTAL REQUIREMENTS			<u>2,195</u>	<u>535,600</u>
Recoveries from Prior Year Obligations				(1,000)
2010 APPROPRIATION			<u>2,195</u>	<u>534,600</u>

Comparison by Activity

	2009 Currently Avail.		2010 Base		2010 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
DIRECT OBLIGATIONS								
National measurement and standards laboratories								
Strategic and emerging research initiatives	10	\$65,001	18	\$8,814	28	\$12,905	10	\$4,091
Electronics & electrical engineering lab	235	87,065	239	54,694	261	60,627	22	5,933
Manufacturing engineering lab	135	48,858	136	35,702	137	36,252	1	550
Chemical science & technology lab	252	64,636	254	51,779	269	58,979	15	7,200
Physics lab	181	70,562	187	49,879	197	55,220	10	5,341
Materials science & engineering lab	177	48,252	180	39,991	202	49,395	22	9,404
Building & fire research lab	139	42,467	143	32,874	153	38,956	10	6,082
Information technology lab	340	94,910	334	59,441	358	75,191	24	15,750
NIST center for neutron research	161	52,059	164	41,271	164	41,271	0	0
Center for nanoscale science and technology	64	35,753	65	27,595	68	28,945	3	1,350
Technology services	78	20,994	78	15,769	83	17,269	5	1,500
External projects	0	3,475	0	0	0	0	0	0
Subtotal, National measurement & standards laboratories	1,772	634,032	1,798	417,809	1,920	475,010	122	57,201
Innovations in measurement science								
Innovations in measurement science	93	20,791	93	20,199	93	20,199	0	0
Next generation measurements training								
Postdoctoral research associates program	132	32,936	94	11,047	94	11,047	0	0
Baldrige National Quality Program								
Baldrige National Quality Program	56	9,489	59	9,627	59	9,627	0	0
Corporate services								
Chief information office	5	15,182	5	6,149	5	6,149	0	0
Business system division	24	10,576	24	10,628	24	10,628	0	0
Subtotal, Corporate services	29	25,758	29	16,777	29	16,777	0	0
TOTAL DIRECT OBLIGATIONS	2,082	723,006	2,073	475,459	2,195	532,660	122	57,201
REIMBURSABLE OBLIGATIONS - Funds from Electricity Delivery and Energy Reliability (DoE) for Smart Grid Interoperability framework	0	10,000	0	0	0	0	0	0
TOTAL OBLIGATIONS	2,082	733,006	2,073	475,459	2,195	532,660	122	57,201
FINANCING								
Unobligated balance, start of year		(6,781)					0	0
Recovery of prior year obligations		(1,000)		(1,000)		(1,000)	0	0
Subtotal, financing	0	(7,781)	0	(1,000)	0	(1,000)	0	0
TOTAL BUDGET AUTHORITY	2,082	725,225	2,073	474,459	2,195	531,660	122	57,201

	2009 Currently Avail.		2010 Base		2010 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
Transfers from EAC		(\$4,000)		\$0		(\$3,250)		(\$3,250)
Transfers from COFS, DoJ		(1,500)		0		0		0
Transfers to Working Capital Fund		2,275		250		6,190	0	5,940
Transfer of Recovery Act funds from the Office of the National Coordinator for Health Information Technology (HHS)*	(10)	(20,000)		0		0	0	0
Offsetting collections from:								
Federal sources: Funds from Electricity Delivery and Energy Reliability (DoE) for Smart Grid Interoperability framework*		(10,000)		0		0	0	0
TOTAL APPROPRIATION	2,072	692,000	2,073	474,709	2,195	534,600	122	59,891

* The FTE levels for FY 2009 shown above are different from the levels reflected in the President's Budget

Highlights of Program Changes

	<u>Base</u>		<u>Increase / Decrease</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>National Measurement and Standards Laboratories</u>	1,798	\$417,192	+122	+\$59,891

Towards A Nationwide Health-Care Information Infrastructure: Assuring Quality, Accessibility, and Cost Containment of Healthcare +12 +\$5,000

NIST requests an increase of 12 FTE and \$5,000 to develop the measurements and standards to ensure the technical infrastructure of any Nationwide Health IT network is correct, complete and testable.

Powering Up America: Accelerating an Interoperable Smart Grid +18 +\$5,000

NIST requests 18 FTE and \$5,000 to support implementation of standards necessary for the interoperability of Smart Grid devices and systems.

Measurement Standards and Measurement Technology to Support Innovation in Health Care; Clinical Diagnostics and Medical Imaging (includes a \$500 transfer to the Working Capital Fund) +10 +\$9,000

NIST requests 10 FTE and \$9,000 to develop measurements and standards to improve the accuracy and reliability of the most critical medical laboratory and imaging tests and to develop measurement science support for quantitative medical imaging.

Advanced Energy Technologies: Solar Energy and Storage (includes a \$2,500 transfer to the Working Capital Fund) +18 +\$7,500

NIST requests 18 FTE and \$7,500 to develop electromagnetic and nanoscale measurements to identify barriers to the low cost manufacture of next-generation solar energy technologies.

	<u>Increase / Decrease</u>	
	<u>FTE</u>	<u>Amount</u>
Greenhouse Gas Emissions Measurements (includes a \$800 transfer to the Working Capital Fund)	+16	+\$7,000
NIST requests 16 FTE and \$7,000 to develop the measurement science, measurement and documentary standards, and laboratory accreditation programs that ensure the accuracy and comparability of quantitative measurements of Greenhouse Gas sources and sinks.		
Measurement Science for Net Zero Energy, High Performance Green Buildings (includes a \$840 transfer to the Working Capital Fund)	+10	+\$7,000
NIST requests 10 FTE and \$7,000 to fund a new and integrated portfolio of measurement science capabilities that not only supports innovation in the design and manufacturing of individual building components, but also comprehensively captures system complexities and interactions.		
Measurements and Standards to Support Rebuilding the U.S. Physical Infrastructure	+8	+\$4,500
NIST requests 8 FTE and \$4,500 to develop the next generation of sensors, nondestructive evaluation methods, interpretive and predictive models, and data and standards to allow civil engineers and planners to accurately assess, predict the reliability, or prioritize repairs to the U.S. physical infrastructure.		
Nanomaterials Environmental Health and Safety: Materials Property Characterization	+7	+\$3,000
NIST requests 7 FTE and \$3,000 to establish a Nanomaterials Environmental Health and Safety (NanoEHS) program that will be coordinated with other agencies participating in the Federal government's National Nanotechnology Initiative.		
Quantum Information Sciences (includes a \$150 transfer to the Working Capital Fund)	+3	+\$1,500
NIST requests 3 FTE and \$1,500 to develop tools for the application of quantum systems for next generation cryptography and metrological tools to create more complicated quantum systems.		
Comprehensive National Cyber Security (includes a \$350 transfer to the Working Capital Fund)	+10	+\$5,500
NIST requests 10 FTE and \$5,500 to develop new security components and methods to enable organizations to identify and remove software vulnerabilities, establish security-testing methods, and initiate cooperative programs working with industry to evaluate the functions of security-relevant products.		
Quantum-Based Measurements (includes a \$800 transfer to the Working Capital Fund)	+10	+\$4,891
NIST requests 10 FTE and \$4,891 to develop new measurement capabilities to improve the International System of Units (SI); create new, sensitive tools that will enable quantum information science; and provide new precision measurements that ultimately will open the way to progress in fundamental research.		

STRS Initiative Name	Strategic and Emerging Research Initiatives	Electronics & Electrical Engineering Lab	Manufacturing Engineering Lab	Chemical Science & Technology Lab	Physics Lab	Materials Science & Engineering Lab	Building & Fire Research Lab	Information Technology Lab *	Center for Nanoscale Science & Technology	Technology Services	Working Capital Fund
Towards a Nationwide Healthcare Information Infrastructure: Assuring Quality, Accessibility, and Cost Containment of Healthcare		\$500						\$4,200		\$300	
Powering Up America: Accelerating an Interoperable Smart Grid		\$3,000	\$550				\$600	\$600		\$250	
Measurement Standards and Measurement Technology to Support Innovation in Healthcare		\$900		\$3,700	\$1,900	\$450		\$1,100	\$450		\$500
Advanced Energy Technologies: Solar Energy and Storage		\$800		\$800	\$850	\$1,400			\$900	\$250	\$2,500
Greenhouse Gas Emissions Measurements				\$2,700	\$1,500		\$300	\$1,000		\$700	\$800
Measurement Science for Net Zero Energy, High Performance Green Buildings		\$308			\$616	\$554	\$4,682				\$840
Measurements and Standards to Support Rebuilding the U.S. Physical Infrastructure						\$4,000	\$500				
Nanomaterials Environmental Health and Safety						\$3,000					
Quantum Information Sciences		\$425			\$475			\$450			\$150
Comprehensive National Cyber Security								\$5,150			\$350
Quantum-Based Measurements	\$4,091										\$800
STRS TOTAL	\$4,091	\$5,933	\$550	\$7,200	\$5,341	\$9,404	\$6,082	\$12,500	\$1,350	\$1,500	\$5,940

* Information Technology Labs does not include EAC transfer of \$3,250

Appropriation: Construction of Research Facilities**Summary of Requirements**

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
2009 Appropriation			77	\$172,000
Recovery Act Appropriation				360,000
Total Appropriation			<u>77</u>	<u>532,000</u>
Adjustments to Base				
<u>Adjustments</u>				
Non-recurring Recovery Act funds		(\$360,000)		
Less Gaithersburg/Boulder construction projects		(29,700)		
Less unrequested projects		(74,000)		
Subtotal, Adjustments				<u>(463,700)</u>
<u>Other Changes</u>				
2009 Pay raise		88		
2010 Pay raise		116		
Annualization of positions financed in FY 2009	4			
Civil Service Retirement System (CSRS)		(10)		
Federal Employees' Retirement System (FERS)		16		
Thrift Savings Plan		7		
Federal Insurance Contributions Act (FICA) - OASDI		8		
Health insurance		9		
Employees' Compensation Fund		3		
General pricing level adjustment:				
Communications, utilities, and miscellaneous charges		5		
Other services		450		
Supplies and materials		26		
Equipment		2		
Subtotal, other cost changes			<u>4</u>	<u>720</u>
Less amount absorbed				<u>(483)</u>
TOTAL, ADJUSTMENTS TO BASE			<u>4</u>	<u>(463,463)</u>
2010 Base			<u>81</u>	<u>68,537</u>
Program Changes			<u>0</u>	<u>48,363</u>
2010 APPROPRIATION			<u>81</u>	<u>116,900</u>

Comparison by Activity

	2009 Currently Avail.		2010 Base		2010 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
DIRECT OBLIGATIONS								
Construction & Major Renovations	77	\$572,058	81	\$68,537	81	\$116,900	0	\$48,363
TOTAL DIRECT OBLIGATIONS	77	572,058	81	68,537	81	116,900	0	48,363
REIMBURSABLE OBLIGATIONS		911	0	0	0	0	0	0
TOTAL OBLIGATIONS	77	572,969	81	68,537	81	116,900	0	48,363
FINANCING								
Unobligated balance, start of year (Direct)		(40,058)				0		
Unobligated balance, start of year (Reimbursable)		(911)				0		
Subtotal, financing		(40,969)				0		
TOTAL BUDGET AUTHORITY/ APPROPRIATION	77	532,000			81	116,900		

Highlights of Program Changes

	Base		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>Construction and major renovations</u>	81	\$68,537	0	+\$48,363
Initial Renovation of Building 1 at NIST in Boulder, Colorado			+0	+\$26,000
NIST requests 0 FTE and \$26,000 to initiate the planning, design, and initial construction of the first phase of renovations to the NIST Building 1 laboratory facilities at the NIST Boulder, Colorado site.				
Planning and Design for the Renovation of General Purpose Laboratories (GPLs) at NIST Gaithersburg			+0	+\$14,363
NIST requests 0 FTE and \$14,363 to begin the overall planning and design for the first phase of the systematic renovation of GPLs at NIST's Gaithersburg, Maryland campus.				
NIST Center for Neutron Research Expansion and Reliability Improvements			+0	+\$8,000

NIST requests 0 FTE and \$8,000 to fund construction fit-up costs associated with configuring and occupying the completed guide hall facility and technical support buildings. It also will fund the construction of a liner for the reactor fuel storage pool that is designed to minimize the likelihood of an undetected leak of water from the pool.

Appropriation: Industrial Technology Services**Summary of Requirements**

	<u>Detailed</u>		<u>Summary</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
2009 Appropriation			141	\$175,000
FY 2009 unobligated balance rescission				(5,000)
Adjustments to Base				
<u>Adjustments</u>				
Restoration of FY 2009 Deobligation Offset		\$3,800		
Restoration of FY 2009 unobligated balance rescission		5,000		
Subtotal, adjustments			0	8,800
<u>Other Changes</u>				
2009 Pay raise		261		
2010 Pay raise		254		
Annualization of positions financed in FY 2009	2			
Civil Service Retirement System (CSRS)		(22)		
Federal Employees' Retirement System (FERS)		35		
Thrift Savings Plan		14		
Federal Insurance Contributions Act (FICA) - OASDI		17		
Health insurance		17		
Travel:				
Per Diem		16		
Electricity rate increase		20		
Natural Gas rate decrease		(61)		
General pricing level adjustment:				
Rent payments to others		1		
Communications, utilities, and miscellaneous charges		2		
Printing and reproduction		1		
Other services		127		
Supplies and materials		4		
Equipment		6		
Subtotal, other cost changes			2	692
Less Amount absorbed				(177)
TOTAL, ADJUSTMENTS TO BASE			2	9,315
2010 Base			143	179,315
Program Changes			3	19,085
TOTAL REQUIREMENTS			146	198,400
Recoveries from Prior Year Obligations				(3,800)
2010 APPROPRIATION			146	194,600

Comparison by Activity

	2009 Currently Avail.		2010 Base		2010 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
DIRECT OBLIGATIONS								
Technology Innovation Program	73	\$83,664	75	\$69,068	75	\$73,700	0	\$4,632
Hollings Manufacturing Extension Partnership Program	68	111,857	68	110,247	71	124,700	3	14,453
TOTAL DIRECT OBLIGATIONS	141	195,521	143	179,315	146	198,400	3	19,085
FINANCING								
Unobligated balance, start of year		(21,221)						
Recovery of prior obligations		(4,300)		(3,800)		(3,800)		
Subtotal, financing		(25,521)		(3,800)		(3,800)		
TOTAL BUDGET AUTHORITY	141	170,000	143	175,515	146	194,600		
Unobligated balance, rescission		5,000						
TOTAL APPROPRIATION	141	175,000	143	175,515	146	194,600		

Highlights of Program Changes

	<u>Base</u>		<u>Increase / Decrease</u>	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
<u>Technology Innovation Program (TIP)</u>	75	\$65,268	+0	+\$4,632

NIST requests an increase of 0 FTE and \$4,632 for a total TIP program of 75 FTE and \$69,900. In FY 2010, TIP intends to hold a grant competition that funds one or more areas of identified critical national need (CNN). CNN areas under consideration for FY 2010 are civil infrastructure, advanced manufacturing, energy, health care, complex systems, and green chemistry.

<u>Hollings Manufacturing Extension Partnership (MEP) Program</u>	68	\$110,247	+3	+\$14,453
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NIST request 3 FTE and \$14,453 for a total MEP program of 71 FTE and \$124,700 to expand MEP services to address the growing national need to support U.S. manufacturing and create new green technology jobs. In FY 2010 MEP will focus on 1) increasing manufacturers' adoption and application of renewable energy technologies and the development of new products, and 2) supporting energy efficient production and reducing manufacturers' environmental impact and related costs by promoting the development of new, environmentally-focused materials, products and processes.

Appropriation: Working Capital Fund

Comparison by Activity

	2009 Currently Avail.		2010 Base		2010 Estimate		Increase / Decrease	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
DIRECT OBLIGATIONS								
Direct Obligations		\$2,275		\$250		\$6,190	0	\$5,940
Reimbursable Obligations	790	172,536	790	151,454	790	151,454	0	0
WCF Investments		(555)		0			0	0
TOTAL OBLIGATIONS	790	174,256	790	151,704	790	157,644	0	5,940
FINANCING								
Unobligated balance, start of year		(123,708)		(123,708)		(123,708)		0
Unobligated balance, end of year		123,708		123,708		123,708		0
Offsetting collections from:								
Federal funds		(124,694)		(101,524)		(101,524)		0
Non-Federal sources		(47,287)		(49,930)		(49,930)		0
Subtotal, financing	0	(171,981)	0	(151,454)	0	(151,454)	0	0
TOTAL BUDGET AUTHORITY	790	2,275	790	250	790	6,190	0	5,940
TRANSFERS								
From Scientific and Technical Research and Services		(2,275)		(250)		(6,190)		(5,940)
TOTAL, APPROPRIATION	790	0	790	0	790	0	0	0

Performance Outcomes and Measures

(Dollars reflect obligations in Millions)

The activities under the NIST accounts support the Department's strategic goal to "Promote U.S. innovation and industrial competitiveness." The following table shows the measures that NIST uses to gauge its performance.

	2008 Actual	2009 Target	2010 Target
Outcome 1: Promote innovation, facilitate trade, and ensure public safety and security by strengthening the Nation's measurement and standards infrastructure.	\$759.3	\$1,479.7	\$807.1
Qualitative assessment and review of technical quality and merit using peer review	Complete	Complete	Complete
Citation impact of NIST-authored publications	> 1.1	>1.1	>1.1
Peer-reviewed technical publications	1,271	1,275	1,300
Standard reference materials sold	33,373	31,000	31,000
NIST maintained datasets downloaded	195.5M	200M	200M
Number of calibration tests performed	25,944	15,000	15,000
Outcome 2: Increase productivity, profitability and competitiveness of manufacturers	\$91.2	\$112.5	\$124.9
Number of clients served by MEP centers receiving Federal funding	31,961 ¹	25,500	29,000
Increased sales attributed to MEP centers receiving Federal funding	\$630M ¹	\$2.0B	\$2.5B
Capital investment attributed to MEP centers receiving Federal funding	\$485M ¹	\$1.0B	\$1.0B
Cost savings attributed to MEP centers receiving Federal funding	\$330M ¹	\$1.0B	\$1.2B
Outcome 3: Promote U.S. competitiveness by directing Federal investment and R&D into areas of critical national need that support, promote and accelerate high risk, high reward research and innovation in the United States:	\$54.5	\$83.7	\$73.7
Cumulative number of TIP Projects funded ²		9	25
Cumulative number of publications ³		27 by 2012	27 by 2012
Cumulative number of patent applications ⁴		18 by 2012	18 by 2012
Cumulative number of projects generating continued R&D ⁵			
Cumulative number of projects with technologies under adoption ⁶			
Total	\$905.0	\$1,675.9	\$1,005.7

¹ The FY 2008 actuals will be available in January 2010 due to the lag time associated with collecting and analyzing the Hollings MEP client survey data six months after the services are delivered.

² This number reflects the number of projects funded to support areas of critical national need. Participating organizations include small and medium-sized companies, institutions of higher education, national laboratories, non-profit research institutes, and other organizations.

³ The measure reflects scientific knowledge being generated from the funding. Publications include academic journals, conference proceedings, and other publications. The measure also reflects the dissemination of the science benefiting other organizations outside of the project participants. Projections are based on historic data from similar R&D programs estimated at 3 publications per completed project. The measure is a lagged measure and assumed that publications will be generated by the third year of project research.

⁴ The measure reflects an additional metric of valuable knowledge and science generated from the funded research. Projections are based on historic data from similar R&D programs estimated at 2 patents per completed project. The measure is a lagged measure and assumed that patent applications will be generated by the third year of project research.

⁵ This measure reflects the implementation of the R&D efforts to benefit end users. Adoption includes testing of the research results at a beta site, licensing the technologies to others, or commercializing the technology through improved products and processes. The measure is a lagged measure and is assumed to be realized near the end of the project at the earliest (generally three years or later).

⁶ This year includes a 2009 competition and a projected 2010 competition.