



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

June 30, 2003

S. 189 **21st Century Nanotechnology Research and Development**

*As ordered reported by the Senate Committee on Commerce, Science,
and Transportation on June 19, 2003*

SUMMARY

S. 189 would authorize appropriations for fiscal years 2004 through 2008 for the National Nanotechnology Program, comprised of various nanotechnology initiatives at nine agencies: the National Science Foundation (NSF), Department of Energy, National Aeronautics and Space Administration, National Institutes of Health, National Institute of Standards and Technology, Environmental Protection Agency, Department of Justice, Department of Homeland Security, and the Department of Agriculture. These programs, which involve technologies that manipulate matter at the atomic level, would be overseen by both external and intergovernmental committees. The bill also would direct the Office of Science and Technology Policy (OSTP) to coordinate and manage the National Nanotechnology Program.

Assuming appropriation of the authorized amounts, CBO estimates that implementing this bill would cost \$226 million in 2004 and a total of \$3.4 billion over the 2004-2008 period. CBO estimates that enacting this bill would have no effect on direct spending or revenues.

S. 189 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 189 is shown in the following table. The costs of this legislation fall within budget functions 250 (general science, space, and technology), 300 (natural resources and the environment), 350 (agriculture), 376 (commerce and housing credit), 550 (health), and 750 (administration of justice).

	By Fiscal Year, in Millions of Dollars					
	2003	2004	2005	2006	2007	2008
SPENDING SUBJECT TO APPROPRIATION						
Spending Under Current Law						
Estimated Authorization Level ^a	566	350	0	0	0	0
Estimated Outlays	438	353	234	91	27	7
Proposed Changes						
Estimated Authorization Level	0	446	876	965	1,022	1,082
Estimated Outlays	0	226	520	771	915	1,000
Spending Under S. 189						
Estimated Authorization Level	566	796	876	965	1,022	1,082
Estimated Outlays	438	579	754	862	942	1,007

a. The 2003 level reflects agencies' estimates of the amount appropriated for nanotechnology programs that year. The 2004 level is the amount authorized to be appropriated for NSF's nanotechnology program under current law.

BASIS OF ESTIMATE

For this estimate, CBO assumes that the amounts authorized will be appropriated each year and that outlays will occur at rates similar to those of existing research and development programs. S. 189 would specify funding levels for each of the agencies for a total of \$796 million in 2004 and a total of \$4.7 billion for the 2004-2008 period. (The \$350 million specified for NSF's program for 2004 is not included in the table as a proposed change because that amount has already been authorized under current law.) The amounts specified in the bill would not cover costs associated with the external advisory functions and studies, but such costs would not be significant.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

S. 189 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

PREVIOUS CBO ESTIMATE

On May 5, 2003, CBO transmitted a cost estimate for H.R. 766, the Nanotechnology Research and Development Act of 2003, as ordered reported by the House Committee on Science on May 1, 2003. The estimated cost of implementing S. 189 is higher than for H.R. 766 because the Senate bill would authorize appropriations for more agencies (nine instead of five) and for a longer period of time (through 2008 instead of 2006).

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