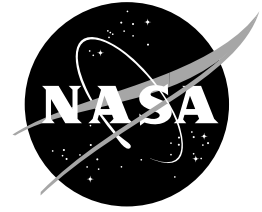


# Fact Sheet



National Aeronautics and  
Space Administration

Langley Research Center  
Hampton, Virginia 23681-2199

FS-2004-01-82-LaRC

## Economic Impact Summary for Fiscal Year 2003

NASA Langley Research Center is an important national resource serving inherent government functions such as safety, national defense, environmental study, and the air transportation system. The Center develops innovative aerospace technologies that not only contribute to the vitality of our Nation's aerospace program but also improve the quality of life for all Americans. The Center's influence extends beyond its technology contributions to U.S. industry, other governmental agencies, and universities to being a solid financial contributor to the local, state, and national economy. For fiscal year 2003, the total direct and indirect impact was over \$2.47 billion.

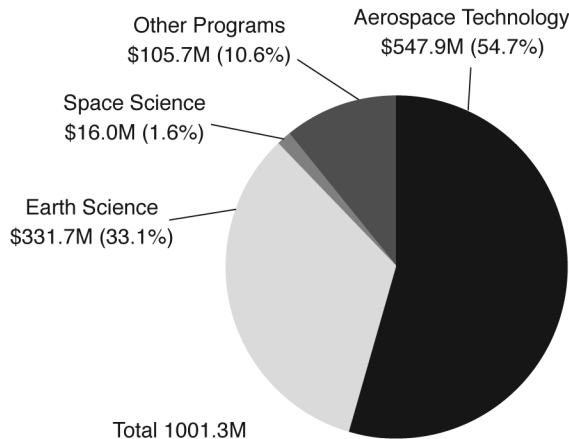
### Annual Budget

Fiscal year	NASA, \$M	Langley, \$M	
		<sup>1</sup> NASA Center Sources	<sup>2</sup> All Sources
1997	13,708.7	689.5	720.6
1998	13,638.0	686.0	712.8
1999	13,653.0	631.8	659.6
2000	13,600.0	606.0	630.5
2001	14,253.2	651.0	668.6
2002	14,901.7	720.2	751.0
2003	15,000.0	823.3	864.3

<sup>1</sup>Includes Langley Research Center programs funded from other Centers.

<sup>2</sup>Includes Langley Research Center programs funded from NASA HQ, other NASA Centers, industry, and government.

### Fiscal Year 2003 Research and Development Spending



### Obligations by Economic Sector

National economy	\$M
Awards to—	
Businesses . . . . .	367.7
Nonprofit institutions . . . . .	52.9
Educational institutions . . . . .	73.5
Total to the Nation <sup>1</sup> . . . . .	494.1
<b>Virginia economy</b>	
Awards to—	
Businesses . . . . .	210.4
Nonprofit institutions . . . . .	39.1
Educational institutions . . . . .	10.6
Total to Virginia <sup>2</sup> . . . . .	260.0
<b>Hampton Roads economy</b>	
Awards to—	
Businesses . . . . .	166.8
Nonprofit institutions . . . . .	38.4
Educational institutions . . . . .	7.0
Total to Hampton Roads . . . . .	212.2

<sup>1</sup>Intragovernmental or outside of U.S. obligations not included.

<sup>2</sup>Intragovernmental obligations not included.

### Technology Transfer

Invention disclosures . . . . .	130
Patent applications . . . . .	15
Provisional patent applications . . . . .	26
Patents issued . . . . .	17
Licenses executed . . . . .	11
Space Act agreements . . . . .	30
Interagency agreements . . . . .	6
Annex work tasks	
Space Act agreements . . . . .	13
Interagency agreements . . . . .	8

## Civil Service Residential Distribution

Locality	Number of employees
York County	602
Hampton	462
Newport News	349
Poquoson	235
Williamsburg	168
Gloucester/Matthews	109
Norfolk	56
Virginia Beach	37
Chesapeake	42
Suffolk	34
Portsmouth	17
Other	161

## Civil Service Skill Mix

Skill	Number of employees
Scientific/Engineering	1,227
Administrative	395
Technical/Craft/Production	510
Clerical	140

## Civil Service Educational Mix

Education level	Number of employees
Doctoral	340
Master	566
Bachelor	619
Associate	355
Some college	252
High school diploma	136
Less than high school diploma	4

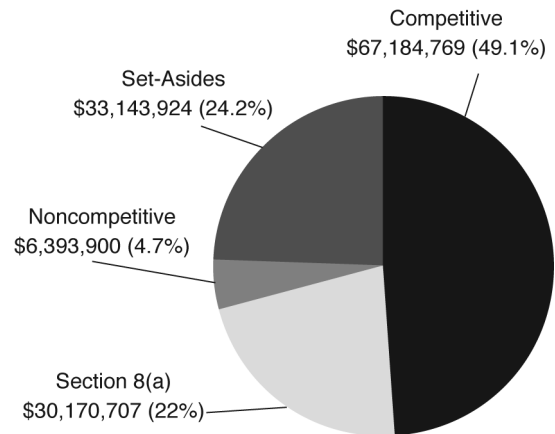
## Center Property Information

Area	808 acres <sup>1</sup>
Buildings	220
Original investment value	\$733,000,000
Current replacement value	\$4,254,000,000

<sup>1</sup>Includes 20 acres permitted by Langley Air Force Base.

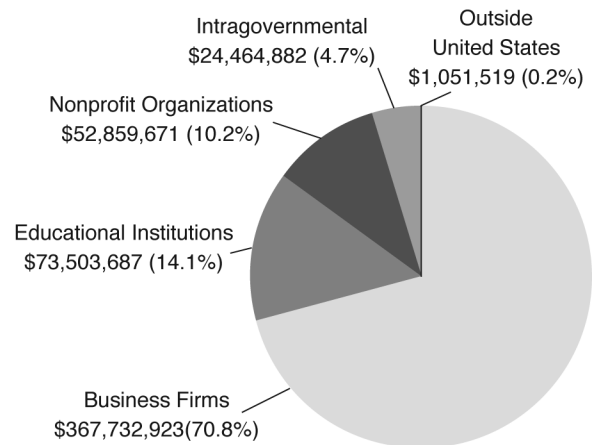
## Small Business Awards

### Net Value of Obligations

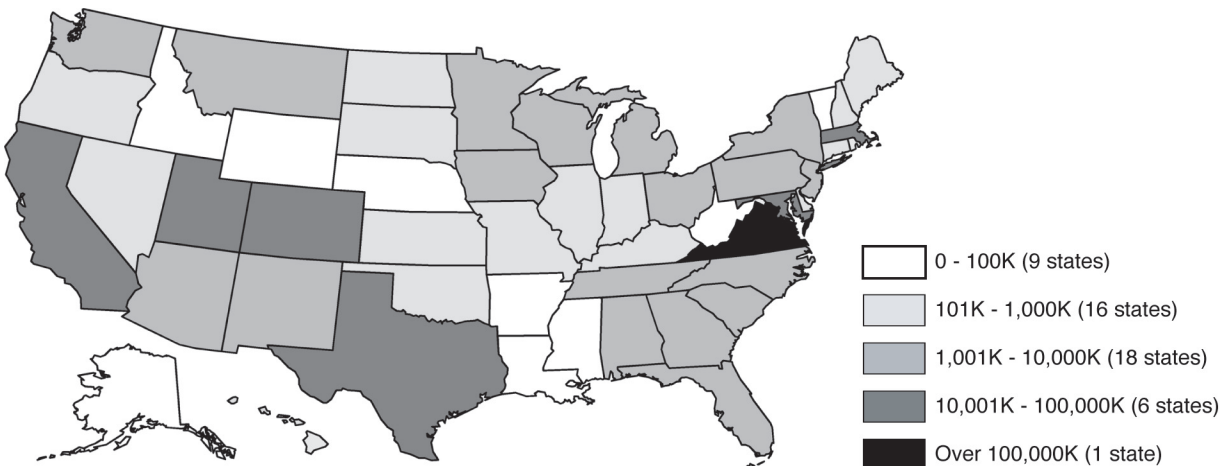


## Fiscal Year 2003 Procurements

### Net Value of Obligations



## Distribution Summary of Obligations



## Obligations per State

State	Dollars
Alabama	3,149,811
Alaska	0
Arizona	3,884,508
Arkansas	0
California	30,689,734
Colorado	23,177,763
Connecticut	488,165
Delaware	101,132
District of Columbia	1,478,354
Florida	2,623,495
Georgia	5,963,205
Hawaii	103,778
Idaho	71,041
Illinois	927,605
Indiana	783,697
Iowa	4,590,076
Kansas	291,274
Kentucky	237,548
Louisiana	57,254
Maine	120,000
Maryland	63,174,775
Massachusetts	15,311,087
Michigan	2,250,677
Minnesota	2,483,668
Mississippi	0
Missouri	724,847
Montana	1,137,821
Nebraska	9,279
Nevada	121,347
New Hampshire	752,875
New Jersey	7,080,679
New Mexico	1,259,111
New York	6,437,970
North Carolina	5,858,621
North Dakota	234,128
Ohio	5,796,132
Oklahoma	156,217
Oregon	613,846
Pennsylvania	5,707,916
Rhode Island	371,435
South Carolina	7,350,595
South Dakota	138,954
Tennessee	2,496,413
Texas	13,643,168
Utah	24,408,229
Vermont	15,090
Virginia	264,084,506
Washington	6,397,198
West Virginia	94,625
Wisconsin	1,025,828
Wyoming	0
Total	517,835,477

## Top Obligations to Educational and Nonprofit Institutions

Institutions	Dollars
Utah State University	22,688,021
National Consortium for Aviation Mobility <sup>1</sup>	14,947,350
National Institute of Aerospace <sup>1</sup>	9,369,755
Old Dominion University Research Foundation <sup>1</sup>	4,437,738
Research Triangle Institute <sup>1</sup>	4,166,712
Princeton University	3,625,734
City of Hampton <sup>1</sup>	3,560,066
Morgan State University	2,981,000
Texas A & M University	2,659,944
Georgia Tech Research Corporation <sup>1</sup>	2,605,286
Virginia Air and Space Center <sup>1</sup>	2,603,385
Iowa State University	2,537,532
Harvard University	2,259,693
Georgia Tech Applied Research <sup>1</sup>	1,772,546
Virginia Tech	1,587,155
University of Virginia	1,544,163
Middle Tennessee State University	1,430,000
George Washington University	1,411,821
Norfolk State University	1,403,554
Christopher Newport University	1,219,797

<sup>1</sup>Nonprofit institution

## Top Obligations to Business Contractors

Business	Dollars
Science Application Intl. Corp.	46,371,059
Swales and Associates	29,386,507
Raytheon Technical Services	24,605,739
Johnson Controls	20,526,760
Ball Aerospace	16,880,185
ACS Government Solutions	14,602,484
Dominion Virginia Power	12,597,000
Tessada and Associates	10,501,990
Wyle Laboratories	10,122,334
Valador VA	9,230,000
Unisys	8,807,611
ASRC Aerospace	8,730,405
Boeing Co.	8,399,439
Northrup Grumman IT	7,809,739
Diversified Technology & Services	5,107,999
Dyncorp Technical Services	4,901,740
Government Micro Resources	4,677,949
Riggins Co.	4,276,003
Analytical Mechanics	4,009,712
Sverdrup Technology	3,538,086
ABB Inc.	3,260,594
Hernandez Engineering	2,977,013
Materials Research and Design	2,832,685
GASL	2,646,337
Modern Machine and Tool Co.	2,498,144

# Economic Impact Study and Analysis for Fiscal Year 2003<sup>1</sup>

Economic impact studies measure direct and indirect effects on an area's economy. Direct impact refers to an agency's spending on goods and services, its various sources of income, and employment level. Indirect impact is the effect of the agency's spending and employment level on other sectors of the economy through the multiplied impact of spending and job creation. The indirect impact is an estimate of the impact of various businesses and industries that depend on the respending of income and other expenditures generated by an organization. NASA Langley is a very large economic generator. Its direct impact can therefore best be analyzed by

evaluating its employment level, payroll budget, contract and grant spending, and research and development. The total economic impact is the combined effect of both direct and indirect effects on the local area in terms of total output, earnings, employment, and general economic growth.

As the table indicates, NASA Langley's total direct outlay of \$811,960,000 increases economic output in the region by a total of \$1,664,025 for a combined impact of over \$2.47 billion.

## Output Spending Impact for Fiscal Year 2003

Category	Direct spending, \$K <sup>2</sup>	Indirect impact, \$K
Engineering and business services	281,719	585,976
Household (payroll)	233,216	405,796
Construction, new, repair, and maintenance	31,692	71,307
Colleges, universities, and schools	87,068	190,679
Utilities	12,696	23,868
Fabricated metal products	34,907	74,352
Transportation (travel)	6,735	16,299
Health services	824	1,961
Communication	5,825	11,534
Machinery, nonelectrical	505	1,202
Instruments and related products	4,625	10,406
Electronic and electric equipment	9,548	23,679
ADP equipment and services	48,920	115,451
Miscellaneous services	53,680	131,516
Total	811,960	1,664,025
Total impact		2,475,985

<sup>1</sup>Prepared for NASA Langley by Dr. Marshall Booker, Professor Emeritus, Christopher Newport University, Newport News, VA.

<sup>2</sup>Funds from research partners included.