

**U.S. Department of Energy**  
Office of Chief Financial Officer



**FY 2001**

Functional Support Cost  
Report of 30 Major DOE  
Contractor Sites

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## **List of Participating Field Sites/Contractors**

Ames Laboratory/Iowa State

Argonne National Laboratory/University of Chicago

Bettis Atomic Power Laboratory/Bechtel

Brookhaven National Laboratory/Brookhaven Science Associates

Fermi National Accelerator Laboratory/University Research Association

Fernald/Fluor Fernald

Golden/National Energy Research Laboratory

Hanford/Fluor Daniel & Bechtel

Idaho National Eng. & Envir. Lab/Bechtel BWXT Idaho, LLC

Kansas City/AlliedSignal, FM&T

Knolls Atomic Power Laboratory/Lockheed Martin

Los Alamos National Laboratory/University of California

Lawrence Berkeley National Laboratory/University of California

Lawrence Livermore National Laboratory/University of California

Mound/Babcock & Wilcox of Ohio

Nevada/Bechtel Nevada  
Oak Ridge Envir. Management & Enrichment Fac./Bechtel Jacobs  
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Rocky Flats/Kaiser-Hill  
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# INTRODUCTION TO THE FUNCTIONAL SUPPORT COST REPORT

## PURPOSE

This report is issued in response to the FY 1999 Energy and Water Subcommittee Report commending the Department for establishing the Functional Support Cost Reporting System (FSCRS), and establishing a requirement for an annual report to the Subcommittee. The attached report presents functional support cost data for 30 of our largest contractors and do not represent the total support costs for the Department as a whole.

## BACKGROUND:

Participating sites classify their total cost as either cost of support activities or cost of mission specific activities. Support activities such as maintenance and utilities are functions required to be performed at DOE sites in support of mission specific activities and generally benefit more than one program. The functional support activities consume a large portion of DOE's site-wide budgets, yet there had previously been little consistent information about these costs at the DOE-wide level. In today's environment of austere budgets and increasing accountability for results and performance, it is paramount that the Department control, report and understand these functional support costs. The FSCRS establishes the capability to quantify this large segment of the DOE budget, making it possible to adequately understand the nature, magnitude, drivers, and trends of the costs of these activities. Specific benefits of this initiative include:

- ! Providing a common set of data and better understanding upon which to base discussions and decisions,
- ! Eliminating some multiple reporting requirements, (allowed elimination of Allocable Cost Report, ALBURT).
- ! Enabling comparable data to be used by contractors as a starting point to identify cost drivers, best practices, benchmarks and performance indicators,
- ! Providing data based on accounting records for verifiability and consistency across years.

Support activities are categorized into twenty two functional areas (e.g. maintenance and utilities). The definition of these functional areas are standard and the reporting sites are required to conform to these standards. Even though the definitions for reporting are standard and consistent across sites, the Department recognizes that each site may actually, and legitimately, record and account for these activities differently. Summary and graphical analysis reports are available to Senior level management through the Departments Executive Information System.

Three additional sites; Bettis Atomic Power Laboratory, Knolls Atomic Power Laboratory, and the Strategic Petroleum Reserve, have been added as reporting sites in the FY 2001 report. Also, the Pacific Northwest National Laboratory, which was combined into the Hanford submission in the FY 2000 report, is displayed separately in the FY 2001 report.

## LIMITATIONS OF FUNCTIONAL SUPPORT COST DATA

Functional support activities are functions required to be performed at DOE sites, that benefit more than one program. These functions do not include the costs of Capital Equipment and Construction.

The purpose of this report is to quantify the cost of supporting program activities at DOE's major sites. The term "functional support cost" cannot automatically be interpreted as "indirect/overhead" costs as this term is defined by the Cost Accounting Standards included in the Federal Acquisition Regulation, CAS Disclosure Statement, or as commonly used in the private sector. The contractors are subject to CAS and do not budget, accumulate, or distribute costs, in the formal accounting system, in the manner reflected in these reports. In the formal accounts the amounts reported as functional cost are distributed, directly or indirectly to program activities and lose their identity. Therefore, the functional support cost are reported on a prime cost basis (i.e., prior to any cost distribution) and, by definition may include both direct and indirect costs in any of the categories. This can cause some anomalies in reporting, such as in the following paragraphs.

Field offices are responsible for the quality of the data. The goal for data accuracy is 100 percent, although it is recognized that it may not be possible to achieve an overall accuracy greater than 90 to 95 percent. However, the current level of accuracy is sufficient for comparison on a given site over time, but not necessarily across sites.

There are numerous factors which affect the mix and volume of expenditures at a given site. These factors vary from site-to-site in both applicability and relative magnitude. For example, cost differences across sites will result from differences in the type, size, nature, environment, etc., of actual work activities. It is a cost management tool and is not intended to be used for determining individual program funding requirements or for budget formulation purposes.

The data reflected in the reports was obtained by analyzing information contained in the contractors' financial management systems and apportioning costs to the functional categories. While the total cost for each contractor is accurate and a standard set of definitions was used, apportioning the costs to functional categories did require the exercise of management judgement.

### **Laboratory Directed Research and Development**

Functional support cost is not determined on the basis of fully allocated cost. Instead of classifying costs as direct or indirect, they are classified as either mission direct or support costs. This recognizes that the classification of direct cost and indirect cost are not relevant to measuring the activity required to support direct mission programs in the Department. For instance, the functional cost report includes senior level program manager salaries as direct mission costs whereas a portion of these costs was allocated to LDRD in the "Report on our Laboratory Directed Research and Development (LDRD) Program and Plant

Directed Research, Development, and Demonstration Program”. As a result, the total reported LDRD functional cost in FY 2001 is \$235 million, which is approximately \$65 million less than the “Report on our Laboratory Directed Research and Development (LDRD) Program and Plant Directed Research, Development, and Demonstration Program”.

The amounts shown in both reports are accurate for the purposes that they are being used. Also note that the total of all costs reported in the functional cost report reconciles to the Department's cost charged against its appropriations.

## **RESULTS**

Functional Support costs have increased by \$374 Million from FY 1997 to FY 2001. However, while the cost has increased over this period, the percentage of Functional Cost to Total Cost has declined from 41.4% in FY 1997 to 39.4% in FY 2001. This indicates that a greater percentage of our budget is going directly to fund mission specific activities.

CFO Contacts:

Ben Chatterson/Richard Heller

301-903-2551

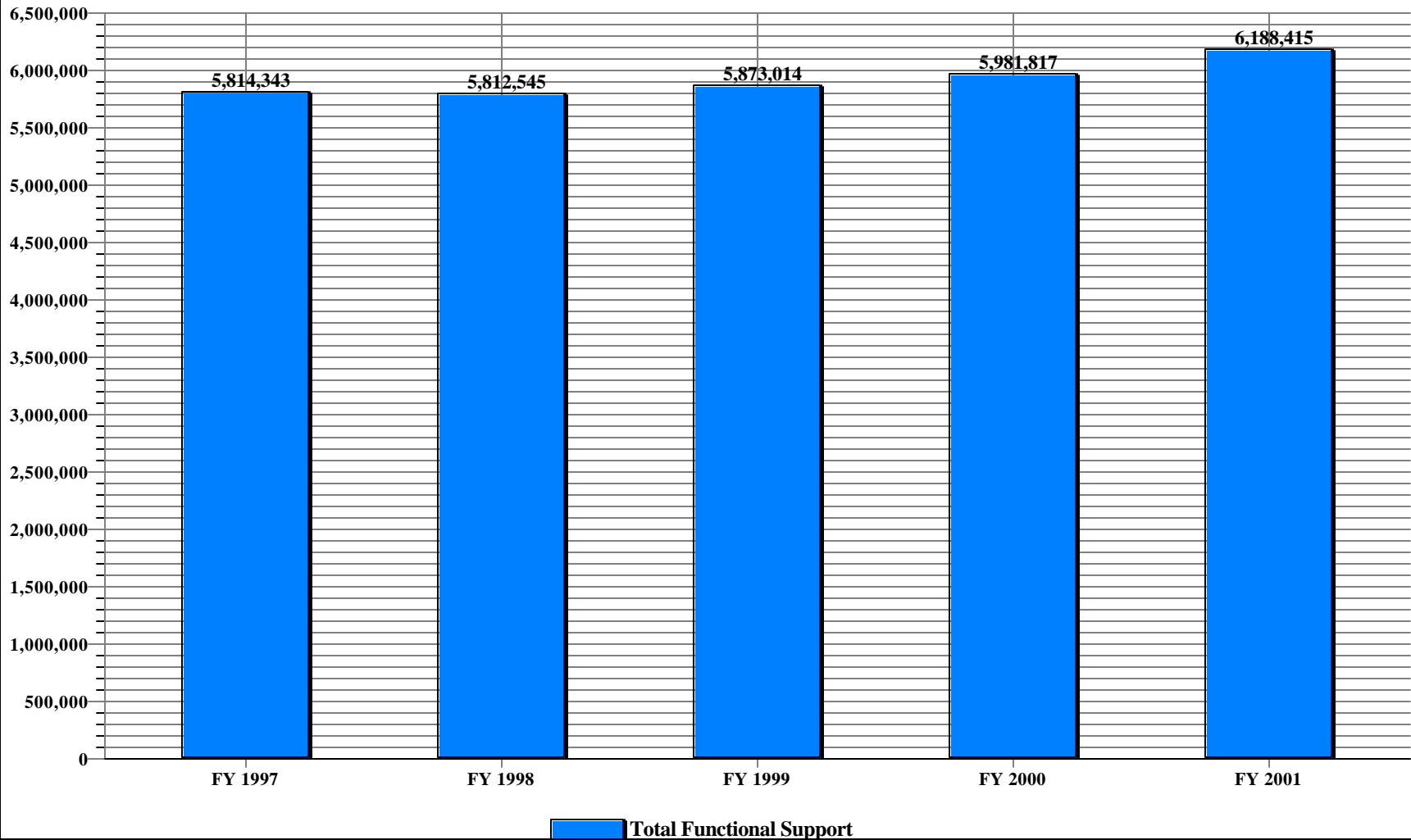
**TOTAL FOR ALL DOE**

FY 2001

**Trends in Total Functional Support Cost Categories**

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	134,539	129,027	140,812	147,335	157,542	23,003	17.1%
HUMAN RESOURCES	158,739	160,795	166,061	181,693	186,601	27,862	17.6%
CFO	166,661	158,739	149,696	139,172	150,581	-16,080	-9.6%
PROCUREMENT	123,093	123,206	124,527	126,821	129,340	6,247	5.1%
LEGAL	39,341	42,486	56,499	60,199	60,508	21,167	53.8%
CENTRAL ADMIN SERVICES	207,991	188,908	181,078	189,259	193,009	-14,982	-7.2%
PROGRAM/PROJECT CONTROL	164,773	178,807	187,475	189,473	186,637	21,864	13.3%
INFORMATION OUTREACH	129,140	139,012	138,947	137,942	135,264	6,124	4.7%
INFORMATION SERVICES	577,322	649,535	635,927	649,809	648,013	70,691	12.2%
OTHER	132,645	116,870	86,191	88,138	89,146	-43,499	-32.8%
<b>TOTAL GENERAL SUPPORT</b>	<b>1,834,244</b>	<b>1,887,385</b>	<b>1,867,213</b>	<b>1,909,841</b>	<b>1,936,641</b>	<b>102,397</b>	<b>5.6%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	199,453	192,252	194,539	196,756	199,960	507	0.3%
SAFETY AND HEALTH	617,134	618,499	658,719	677,246	711,244	94,110	15.2%
FACILITIES MANAGEMENT	325,516	325,958	328,601	384,950	424,480	98,964	30.4%
MAINTENANCE	866,287	878,704	900,261	856,179	821,832	-44,455	-5.1%
UTILITIES	370,234	372,290	352,685	346,506	385,518	15,284	4.1%
SAFEGUARDS AND SECURITY	423,428	402,860	430,202	484,016	509,519	86,091	20.3%
LOGISTICS SUPPORT	145,573	139,412	145,117	151,278	161,908	16,335	11.2%
QUALITY ASSURANCE	138,339	129,131	124,859	126,227	134,679	-3,660	-2.6%
LABORATORY/TECHNICAL SUPPOR	179,553	165,233	165,216	159,497	155,468	-24,085	-13.4%
<b>TOTAL MISSION SUPPORT</b>	<b>3,265,517</b>	<b>3,224,339</b>	<b>3,300,199</b>	<b>3,382,655</b>	<b>3,504,608</b>	<b>239,091</b>	<b>7.3%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	448,222	429,689	420,008	461,138	429,270	-18,952	-4.2%
TAXES	75,968	74,249	75,967	73,133	83,271	7,303	9.6%
LDRD	190,392	196,883	209,627	155,050	234,625	44,233	23.2%
<b>TOTAL SITE SPECIFIC</b>	<b>714,582</b>	<b>700,821</b>	<b>705,602</b>	<b>689,321</b>	<b>747,166</b>	<b>32,584</b>	<b>4.6%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>5,814,343</b>	<b>5,812,545</b>	<b>5,873,014</b>	<b>5,981,817</b>	<b>6,188,415</b>	<b>374,072</b>	<b>6.4%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	6,898,552	7,166,865	7,452,206	7,745,124	8,134,745	1,236,193	17.9%
Capital Construction	1,331,300	1,182,007	1,170,798	1,123,656	1,397,801	66,501	5.0%
<b>TOTAL MISSION DIRECT</b>	<b>8,229,852</b>	<b>8,348,872</b>	<b>8,623,004</b>	<b>8,868,780</b>	<b>9,532,546</b>	<b>1,302,694</b>	<b>15.8%</b>
<b>Total Costs</b>	<b>14,044,195</b>	<b>14,161,417</b>	<b>14,496,018</b>	<b>14,850,597</b>	<b>15,720,961</b>	<b>1,676,766</b>	<b>11.9%</b>
<b>Total Costs w/o Construction</b>	<b>12,712,895</b>	<b>12,979,410</b>	<b>13,325,220</b>	<b>13,726,941</b>	<b>14,323,160</b>	<b>1,610,265</b>	<b>11.2%</b>
General Support % Total Co	13.1%	13.3%	12.9%	12.9%	12.3%		-0.7%
Mission Support % Total Cos	23.3%	22.8%	22.8%	22.8%	22.3%		-1.0%
Site Specific % Total Costs	5.1%	4.9%	4.9%	4.6%	4.8%		-0.3%
Total Support % Total Costs	41.4%	41.0%	40.5%	40.3%	39.4%		-2.0%
Total Support % Total Costs w/o Construct	45.7%	44.8%	44.1%	43.6%	43.2%		-2.5%

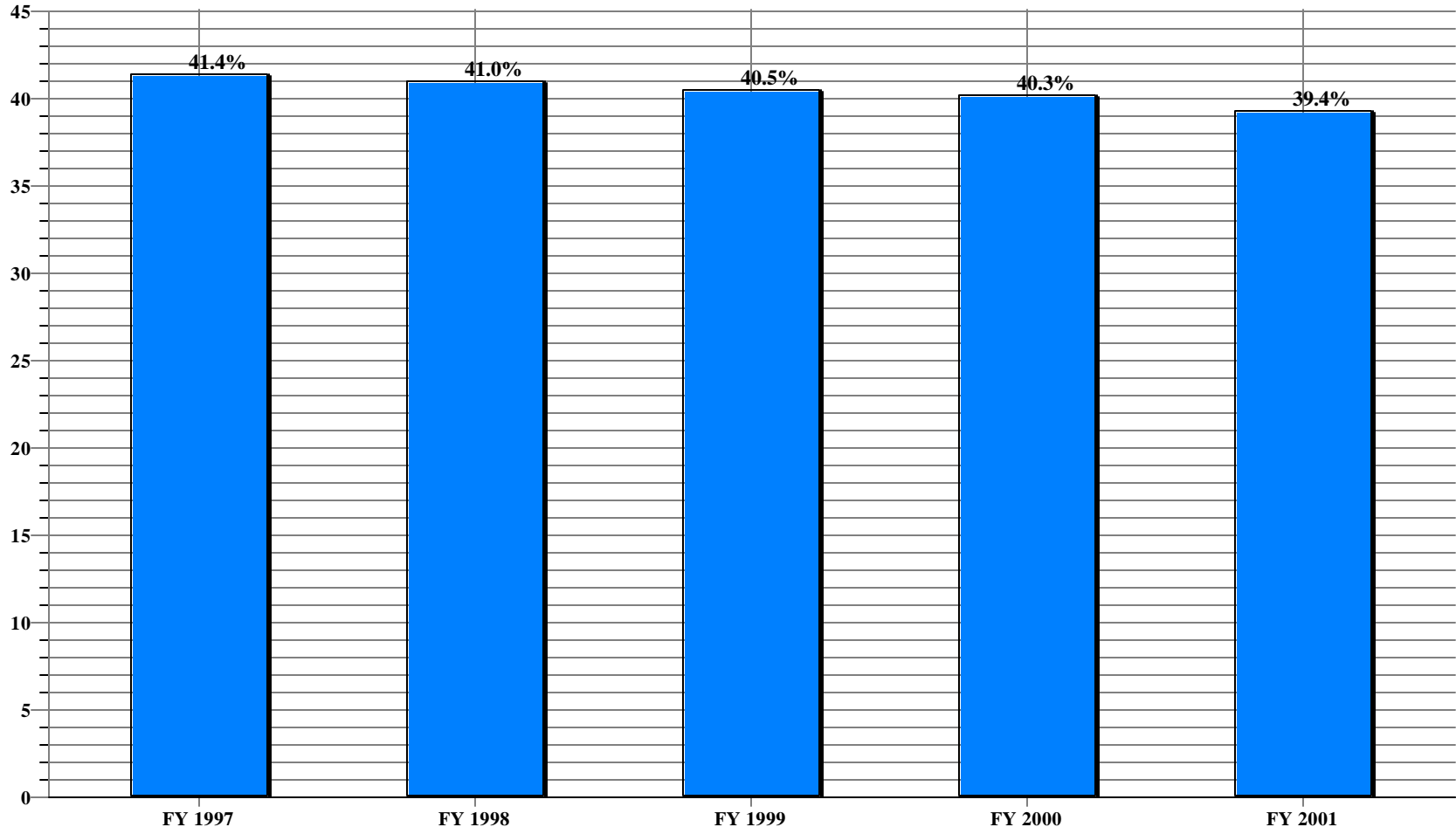
**US Department of Energy  
Total Functional Support  
Total Sites**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	5,814,343	5,812,545	5,873,014	5,981,817	6,188,415



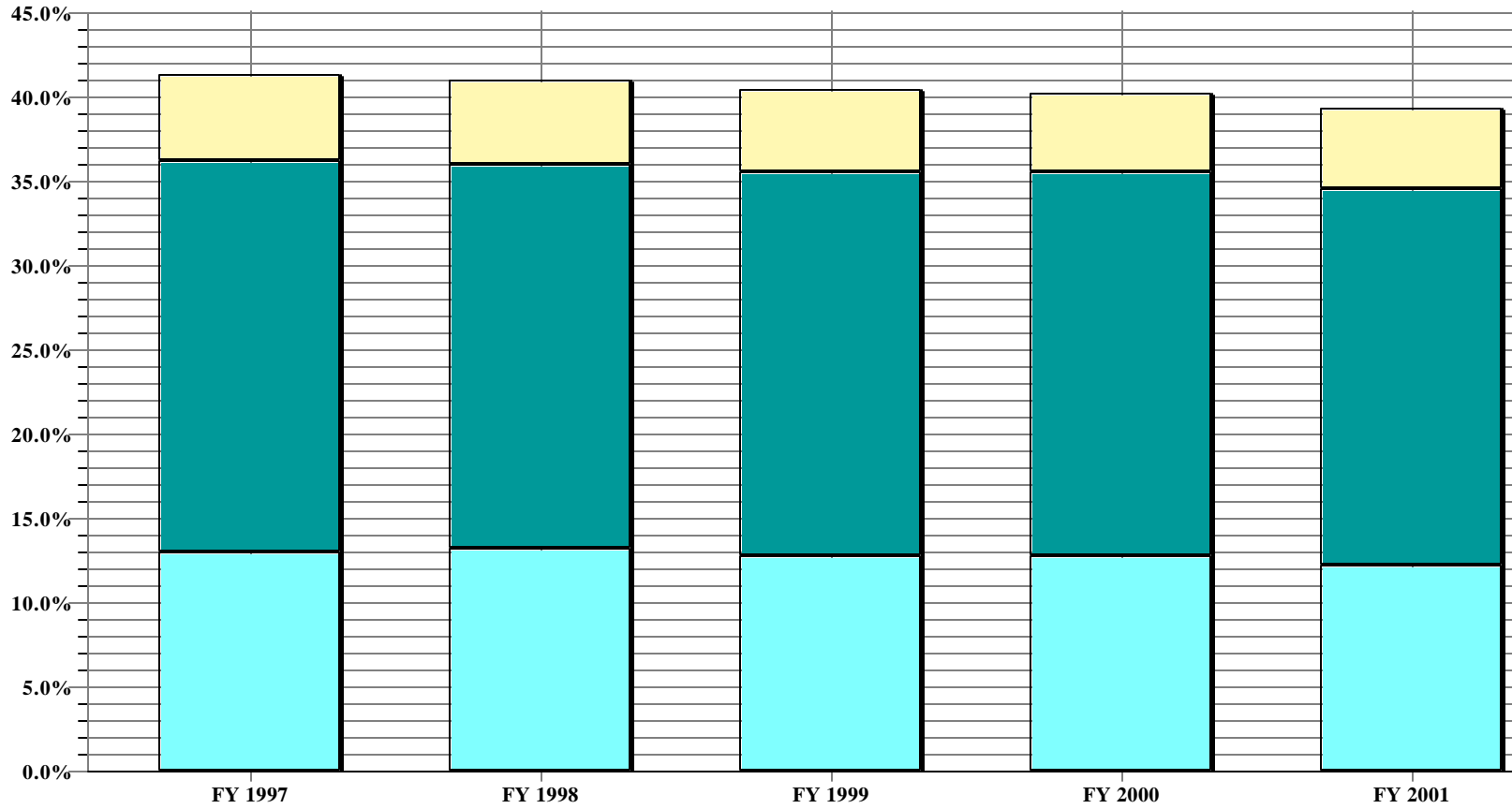
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Total Sites**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	41.4%	41.0%	40.5%	40.3%	39.4%

**US Department of Energy  
Percent of Support Category to Total  
Total Sites**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.1%	13.3%	12.9%	12.9%	12.3%
<b>Mis Sup</b>	23.3%	22.8%	22.8%	22.8%	22.3%
<b>Site Specific</b>	5.1%	4.9%	4.9%	4.6%	4.8%

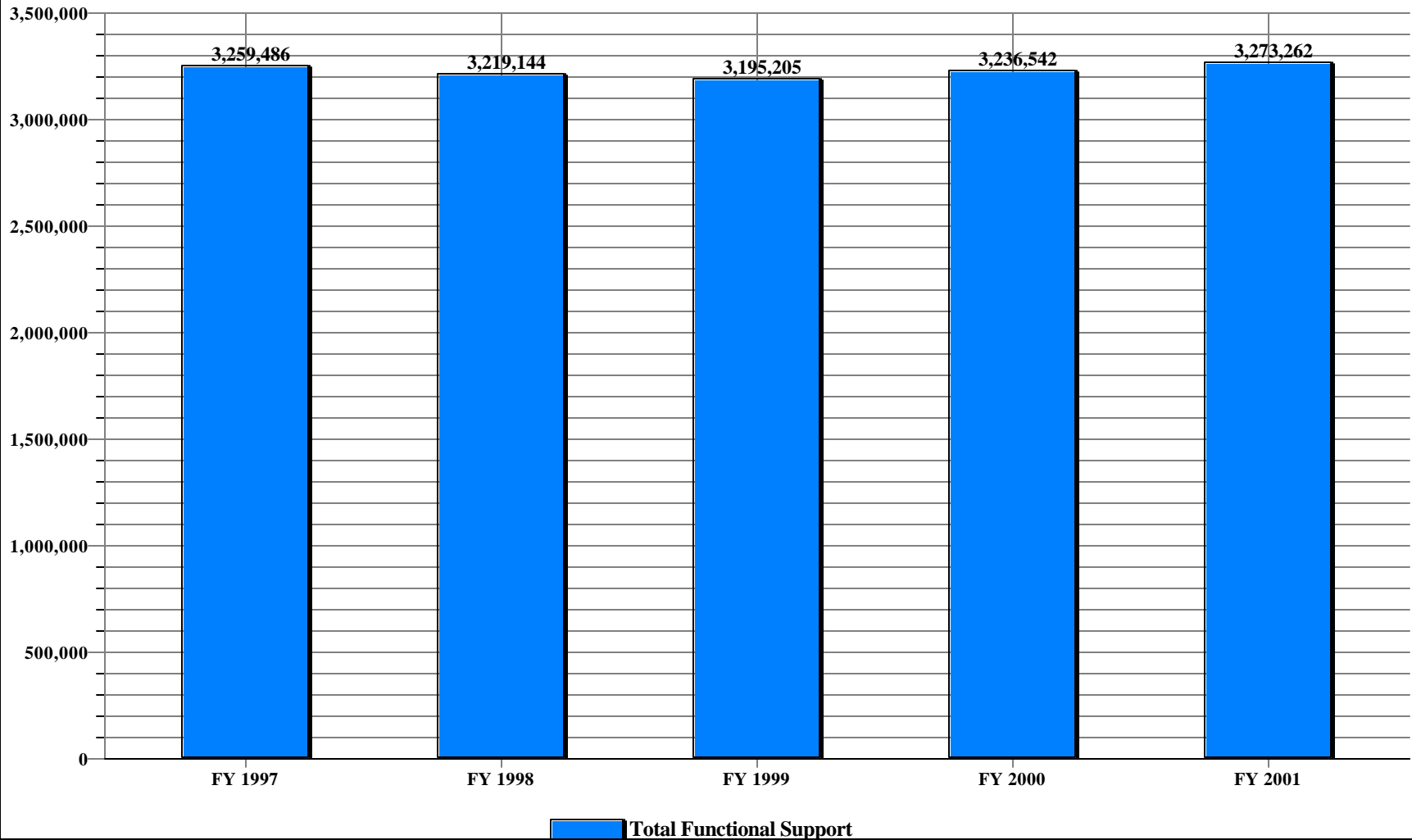
**Total Plants**

FY 2001

**Trends in Total Functional Support Cost Categories**

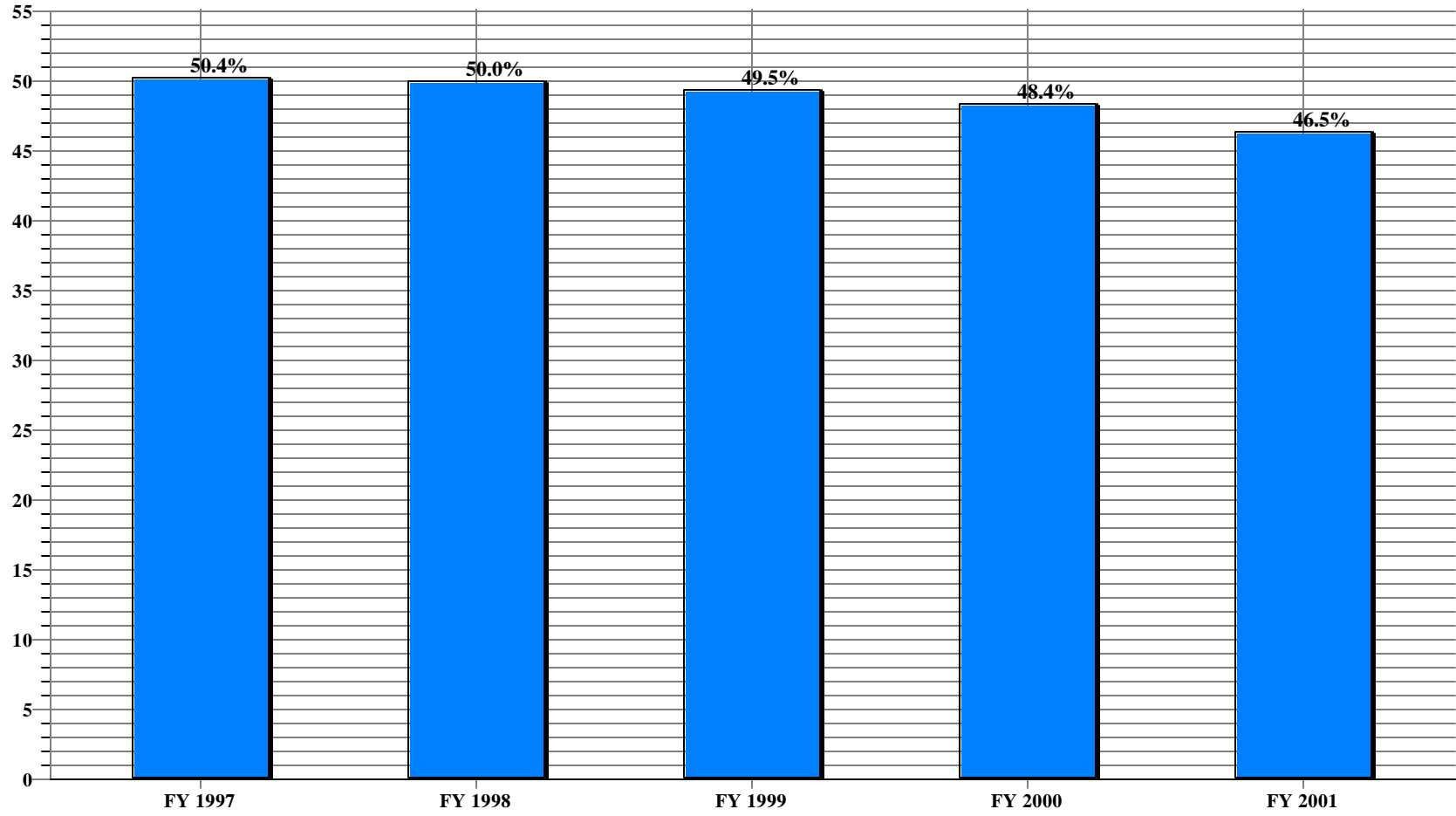
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	66,828	60,492	60,766	59,990	60,964	-5,864	-8.8%
HUMAN RESOURCES	79,107	81,036	80,823	87,674	87,918	8,811	11.1%
CFO	98,087	86,567	78,827	66,322	81,886	-16,201	-16.5%
PROCUREMENT	55,047	54,815	55,805	59,074	61,338	6,291	11.4%
LEGAL	14,372	17,807	28,067	28,970	27,362	12,990	90.4%
CENTRAL ADMIN SERVICES	107,366	95,546	89,098	91,647	94,197	-13,169	-12.3%
PROGRAM/PROJECT CONTROL	105,127	105,981	111,963	113,801	120,005	14,878	14.2%
INFORMATION OUTREACH	48,895	45,848	47,442	49,972	41,927	-6,968	-14.3%
INFORMATION SERVICES	281,484	324,725	294,755	298,369	287,556	6,072	2.2%
OTHER	62,252	52,175	37,152	36,765	27,441	-34,811	-55.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>918,565</b>	<b>924,992</b>	<b>884,698</b>	<b>892,584</b>	<b>890,594</b>	<b>-27,971</b>	<b>-3.0%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	120,867	117,541	123,360	121,459	120,732	-135	-0.1%
SAFETY AND HEALTH	398,885	389,671	417,953	423,752	457,295	58,410	14.6%
FACILITIES MANAGEMENT	208,241	201,735	203,238	178,472	177,391	-30,850	-14.8%
MAINTENANCE	504,646	502,211	496,169	497,829	465,883	-38,763	-7.7%
UTILITIES	189,540	201,564	179,119	168,052	179,963	-9,577	-5.1%
SAFEGUARDS AND SECURITY	242,452	236,335	258,170	288,655	309,730	67,278	27.7%
LOGISTICS SUPPORT	84,786	80,646	86,507	89,943	98,076	13,290	15.7%
QUALITY ASSURANCE	101,079	99,005	91,130	88,878	97,686	-3,393	-3.4%
LABORATORY/TECHNICAL SUPPOR	119,794	111,672	105,103	108,100	105,003	-14,791	-12.3%
<b>TOTAL MISSION SUPPORT</b>	<b>1,970,290</b>	<b>1,940,380</b>	<b>1,960,749</b>	<b>1,965,140</b>	<b>2,011,759</b>	<b>41,469</b>	<b>2.1%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	332,145	320,797	313,158	354,490	321,175	-10,970	-3.3%
TAXES	28,497	24,544	25,866	20,089	29,115	618	2.2%
LDRD	9,989	8,431	10,734	4,239	20,619	10,630	106.4%
<b>TOTAL SITE SPECIFIC</b>	<b>370,631</b>	<b>353,772</b>	<b>349,758</b>	<b>378,818</b>	<b>370,909</b>	<b>278</b>	<b>0.1%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>3,259,486</b>	<b>3,219,144</b>	<b>3,195,205</b>	<b>3,236,542</b>	<b>3,273,262</b>	<b>13,776</b>	<b>0.4%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	2,669,526	2,763,424	2,869,887	3,102,338	3,284,311	614,785	23.0%
Capital Construction	544,470	451,216	392,249	347,372	482,827	-61,643	-11.3%
<b>TOTAL MISSION DIRECT</b>	<b>3,213,996</b>	<b>3,214,640</b>	<b>3,262,136</b>	<b>3,449,710</b>	<b>3,767,138</b>	<b>553,142</b>	<b>17.2%</b>
<b>Total Costs</b>	<b>6,473,482</b>	<b>6,433,784</b>	<b>6,457,341</b>	<b>6,686,252</b>	<b>7,040,400</b>	<b>566,918</b>	<b>8.8%</b>
<b>Total Costs w/o Construction</b>	<b>5,929,012</b>	<b>5,982,568</b>	<b>6,065,092</b>	<b>6,338,880</b>	<b>6,557,573</b>	<b>628,561</b>	<b>9.6%</b>
General Support % Total Co	14.2%	14.4%	13.7%	13.3%	12.6%		-1.5%
Mission Support % Total Cos	30.4%	30.2%	30.4%	29.4%	28.6%		-1.9%
Site Specific % Total Costs	5.7%	5.5%	5.4%	5.7%	5.3%		-0.5%
Total Support % Total Costs	50.4%	50.0%	49.5%	48.4%	46.5%		-3.9%
Total Support % Total Costs w/o Construct	55.0%	53.8%	52.7%	51.1%	49.9%		-5.1%

**US Department of Energy  
Total Functional Support  
Plants**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	3,259,486	3,219,144	3,195,205	3,236,542	3,273,262

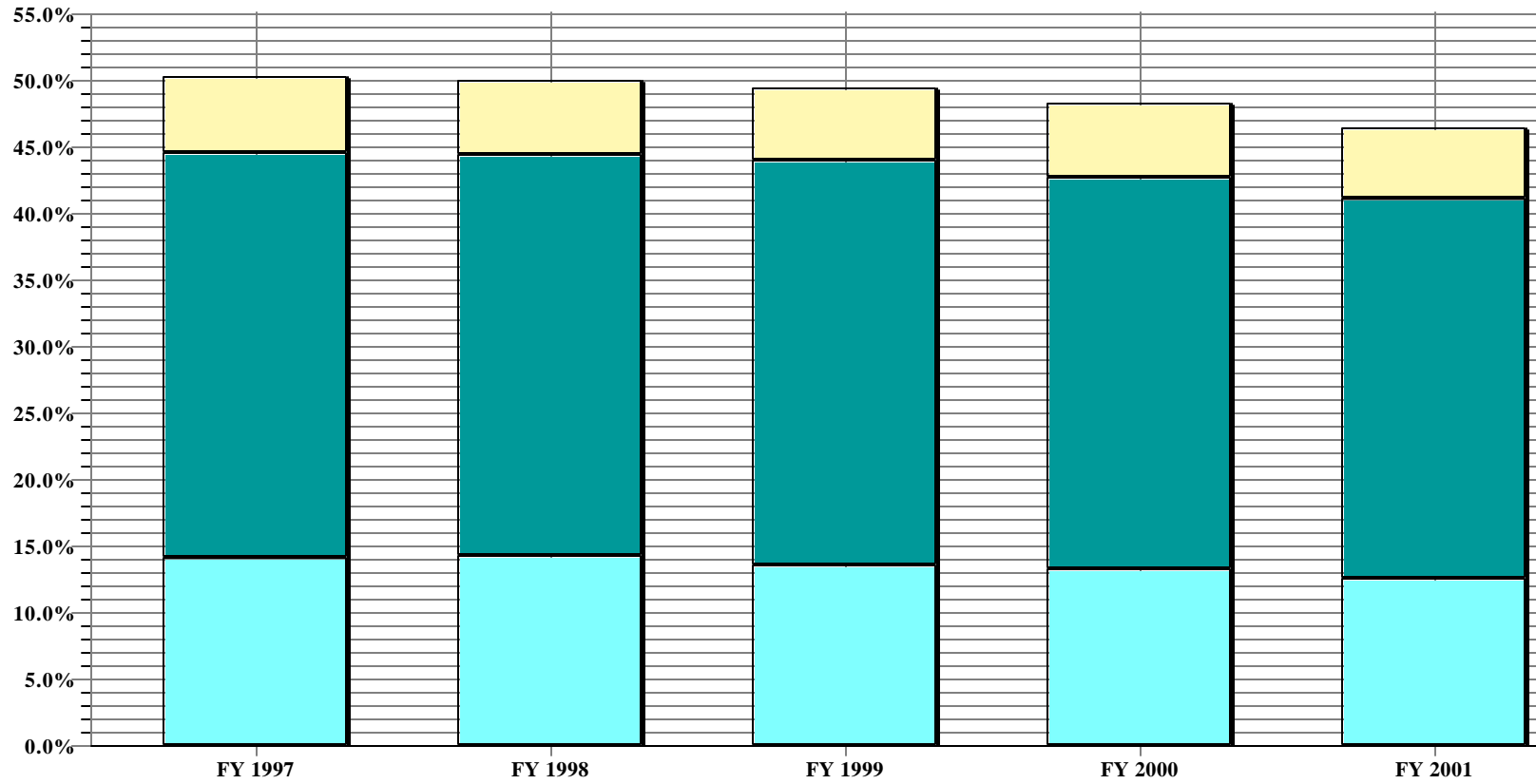
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Plants**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	50.4%	50.0%	49.5%	48.4%	46.5%

**US Department of Energy  
Percent of Support Category to Total  
Plants**



Gen Sup    
  Mis Sup    
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.2%	14.4%	13.7%	13.3%	12.6%
<b>Mis Sup</b>	30.4%	30.2%	30.4%	29.4%	28.6%
<b>Site Specific</b>	5.7%	5.5%	5.4%	5.7%	5.3%

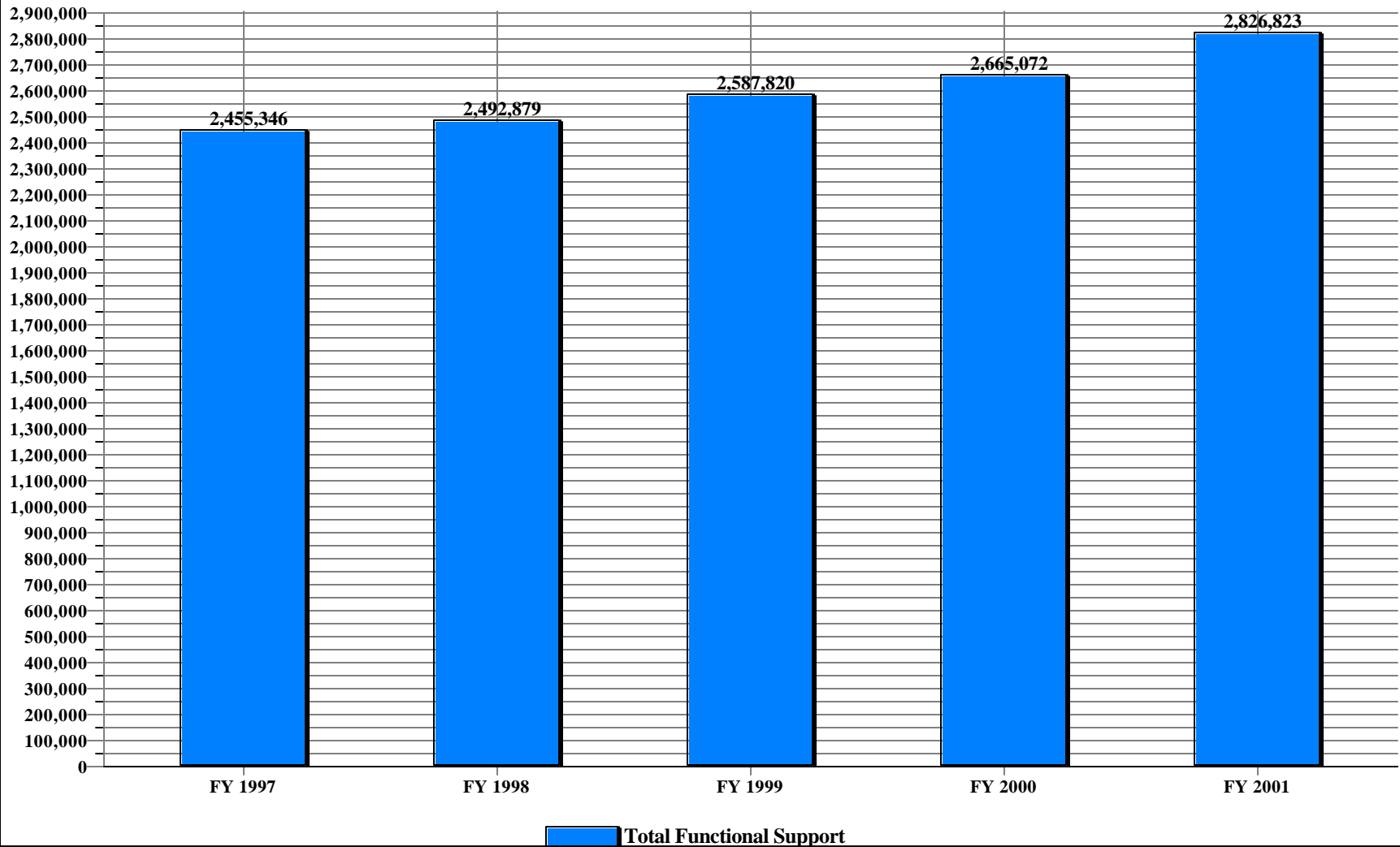
**Total Labs**

FY 2001

**Trends in Total Functional Support Cost Categories**

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	66,411	67,193	78,882	86,785	96,284	29,873	45.0%
HUMAN RESOURCES	77,941	78,014	83,724	91,989	97,347	19,406	24.9%
CFO	66,510	70,041	69,021	71,027	66,726	216	0.3%
PROCUREMENT	65,804	66,077	66,715	65,967	66,084	280	0.4%
LEGAL	24,255	23,942	27,793	29,744	32,392	8,137	33.5%
CENTRAL ADMIN SERVICES	98,753	91,430	90,304	96,138	97,819	-934	-0.9%
PROGRAM/PROJECT CONTROL	53,273	66,249	69,807	70,204	61,884	8,611	16.2%
INFORMATION OUTREACH	78,378	91,237	89,833	86,180	90,975	12,597	16.1%
INFORMATION SERVICES	282,735	311,287	329,442	342,332	349,100	66,365	23.5%
OTHER	70,393	64,695	49,039	51,373	61,705	-8,688	-12.3%
<b>TOTAL GENERAL SUPPORT</b>	<b>884,453</b>	<b>930,165</b>	<b>954,560</b>	<b>991,739</b>	<b>1,020,316</b>	<b>135,863</b>	<b>15.4%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	76,073	72,118	68,929	73,219	77,015	942	1.2%
SAFETY AND HEALTH	215,547	226,040	238,347	250,949	250,811	35,264	16.4%
FACILITIES MANAGEMENT	116,473	123,395	124,645	205,669	246,373	129,900	111.5%
MAINTENANCE	327,784	341,549	373,781	332,515	326,485	-1,299	-0.4%
UTILITIES	178,364	168,321	171,480	176,418	202,652	24,288	13.6%
SAFEGUARDS AND SECURITY	168,926	154,088	161,244	184,619	187,965	19,039	11.3%
LOGISTICS SUPPORT	56,755	54,604	55,000	58,479	60,153	3,398	6.0%
QUALITY ASSURANCE	35,155	27,954	31,845	35,605	35,334	179	0.5%
LABORATORY/TECHNICAL SUPPOR	59,759	53,561	60,113	51,397	50,465	-9,294	-15.6%
<b>TOTAL MISSION SUPPORT</b>	<b>1,234,836</b>	<b>1,221,630</b>	<b>1,285,384</b>	<b>1,368,870</b>	<b>1,437,253</b>	<b>202,417</b>	<b>16.4%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	108,183	102,927	98,882	100,608	101,092	-7,091	-6.6%
TAXES	47,471	49,705	50,101	53,044	54,156	6,685	14.1%
LDRD	180,403	188,452	198,893	150,811	214,006	33,603	18.6%
<b>TOTAL SITE SPECIFIC</b>	<b>336,057</b>	<b>341,084</b>	<b>347,876</b>	<b>304,463</b>	<b>369,254</b>	<b>33,197</b>	<b>9.9%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>2,455,346</b>	<b>2,492,879</b>	<b>2,587,820</b>	<b>2,665,072</b>	<b>2,826,823</b>	<b>371,477</b>	<b>15.1%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	4,137,391	4,308,866	4,500,282	4,604,995	4,813,394	676,003	16.3%
Capital Construction	786,830	730,791	778,549	776,284	914,974	128,144	16.3%
<b>TOTAL MISSION DIRECT</b>	<b>4,924,221</b>	<b>5,039,657</b>	<b>5,278,831</b>	<b>5,381,279</b>	<b>5,728,368</b>	<b>804,147</b>	<b>16.3%</b>
<b>Total Costs</b>	<b>7,379,567</b>	<b>7,532,536</b>	<b>7,866,651</b>	<b>8,046,351</b>	<b>8,555,191</b>	<b>1,175,624</b>	<b>15.9%</b>
<b>Total Costs w/o Construction</b>	<b>6,592,737</b>	<b>6,801,745</b>	<b>7,088,102</b>	<b>7,270,067</b>	<b>7,640,217</b>	<b>1,047,480</b>	<b>13.7%</b>
General Support % Total Co	12.0%	12.3%	12.1%	12.3%	11.9%		-0.1%
Mission Support % Total Cos	16.7%	16.2%	16.3%	17.0%	16.8%		0.1%
Site Specific % Total Costs	4.6%	4.5%	4.4%	3.8%	4.3%		-0.2%
Total Support % Total Costs	33.3%	33.1%	32.9%	33.1%	33.0%		-0.2%
Total Support % Total Costs w/o Construct	37.2%	36.7%	36.5%	36.7%	37.0%		-0.2%

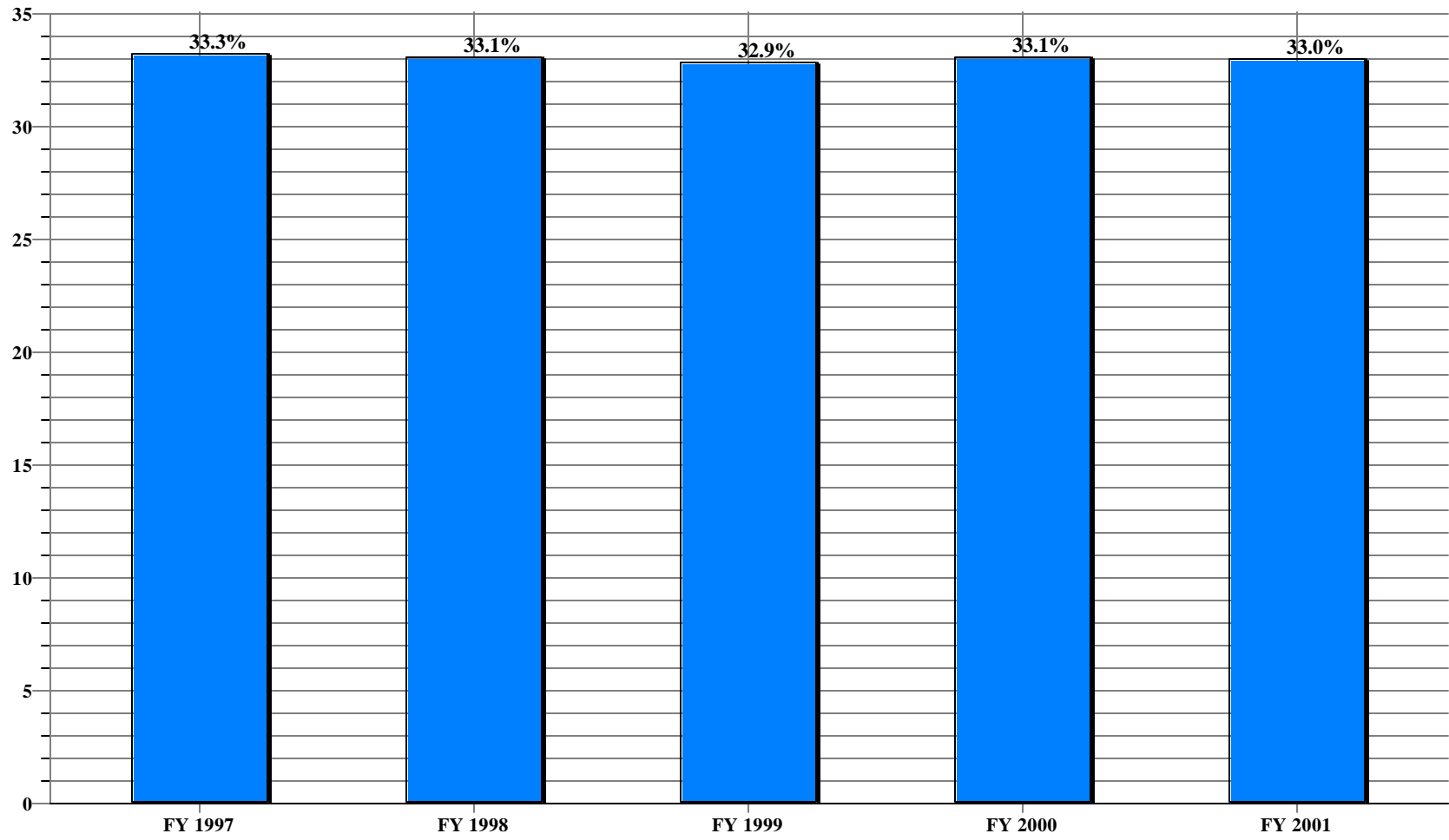
**US Department of Energy  
Total Functional Support  
Labs**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	2,455,346	2,492,879	2,587,820	2,665,072	2,826,823



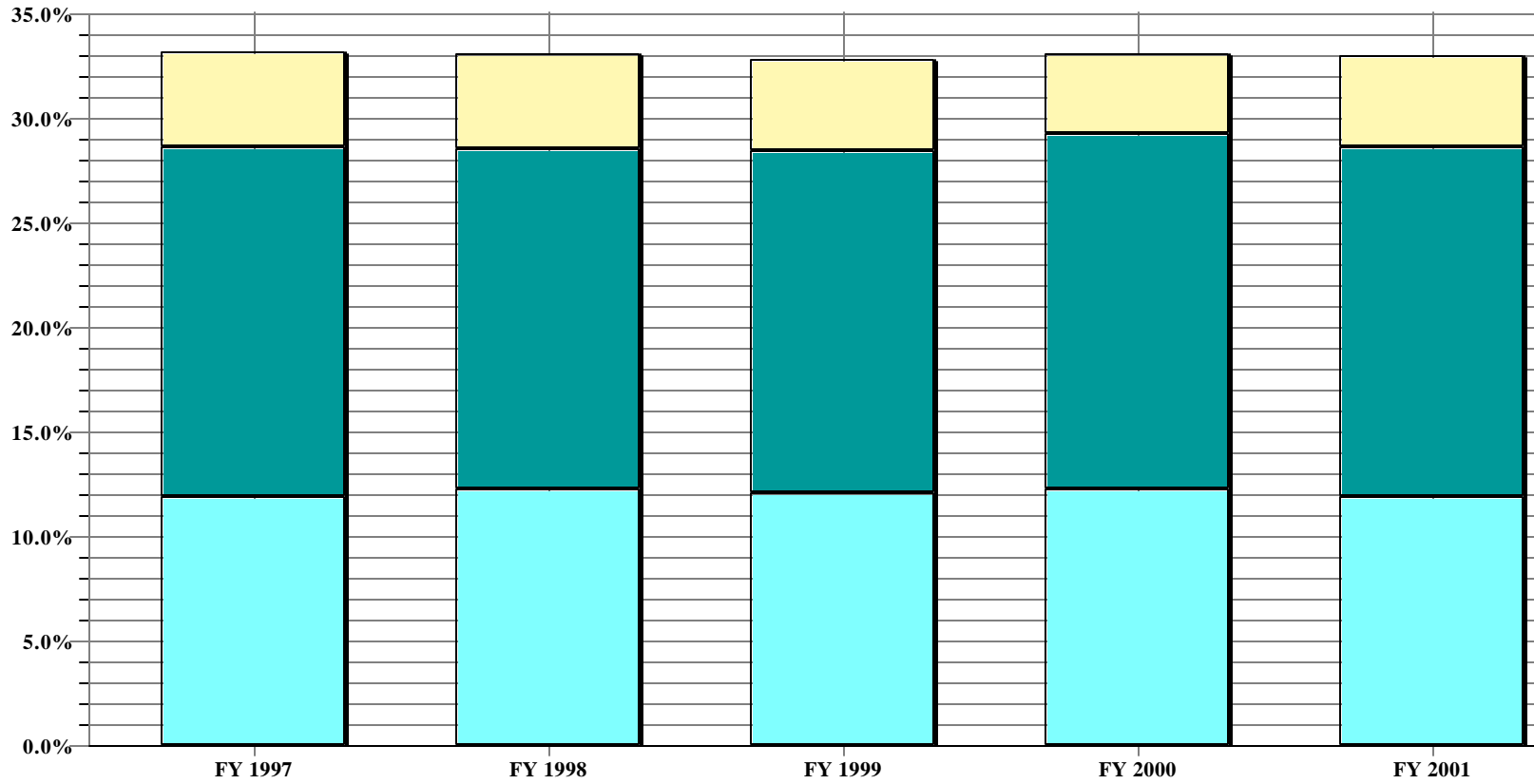
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Labs**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	33.3%	33.1%	32.9%	33.1%	33.0%

**US Department of Energy  
Percent of Support Category to Total  
Labs**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.0%	12.3%	12.1%	12.3%	11.9%
<b>Mis Sup</b>	16.7%	16.2%	16.3%	17.0%	16.8%
<b>Site Specific</b>	4.6%	4.5%	4.4%	3.8%	4.3%

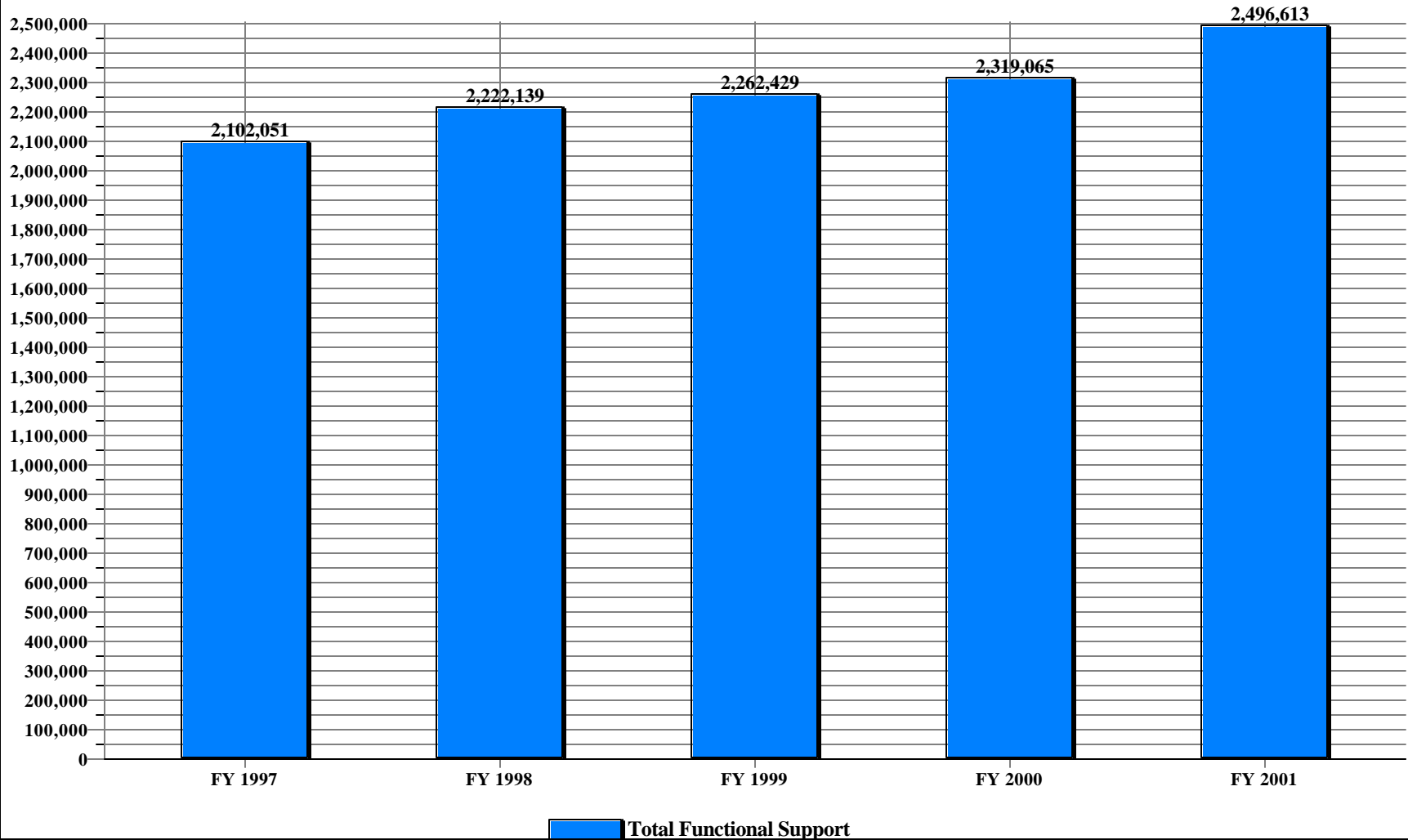
Total DP Sites

FY 2001

Trends in Total Functional Support Cost Categories

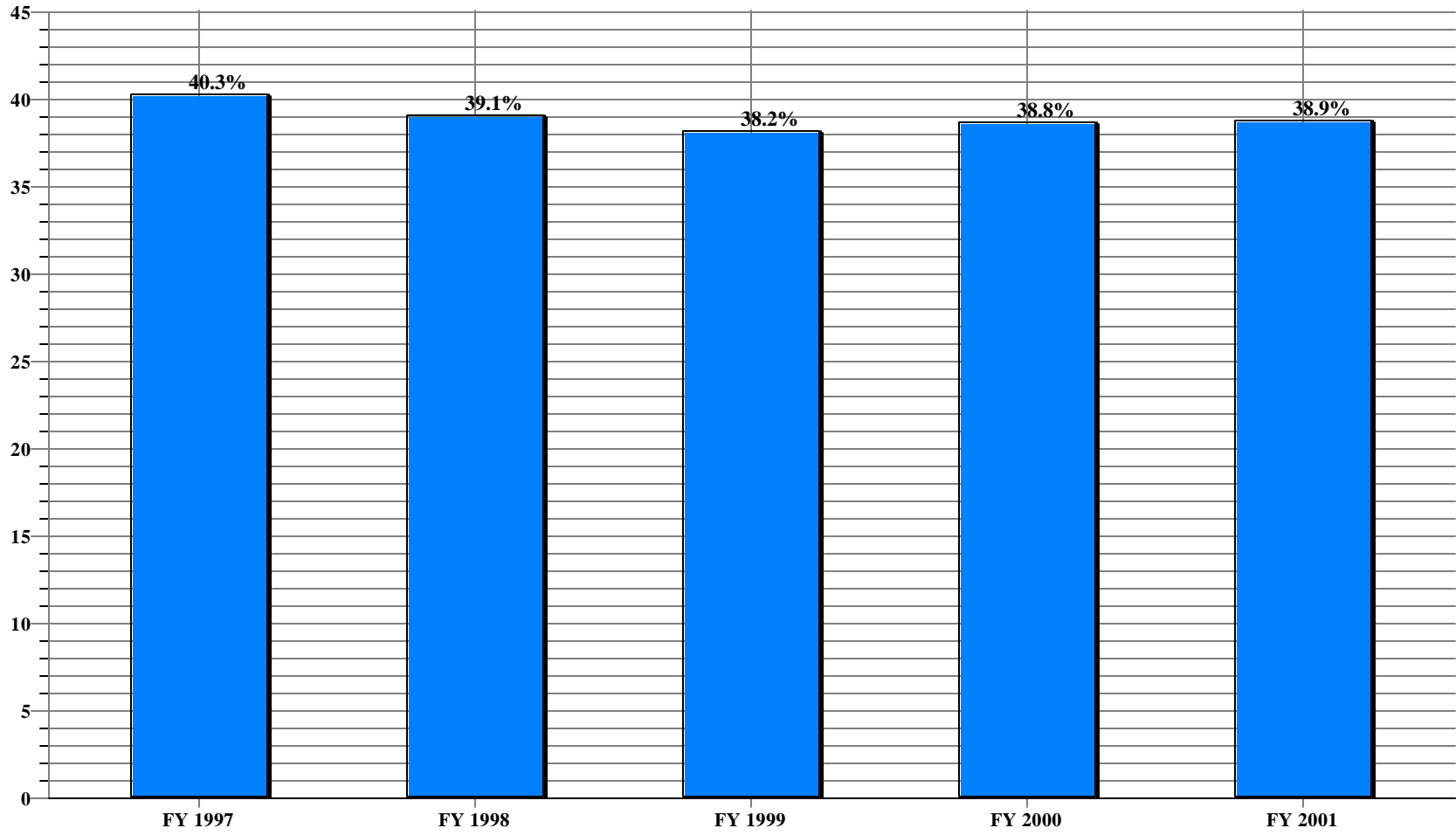
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	46,460	44,538	54,303	62,113	70,417	23,957	51.6%
HUMAN RESOURCES	65,764	65,868	68,668	76,515	81,838	16,074	24.4%
CFO	46,969	44,592	44,906	47,759	47,557	588	1.3%
PROCUREMENT	49,236	47,567	49,163	49,131	51,028	1,792	3.6%
LEGAL	18,743	17,594	20,026	22,686	23,804	5,061	27.0%
CENTRAL ADMIN SERVICES	83,811	79,357	75,669	77,686	77,873	-5,938	-7.1%
PROGRAM/PROJECT CONTROL	31,755	46,079	50,623	48,153	46,740	14,985	47.2%
INFORMATION OUTREACH	54,043	63,238	57,267	53,923	56,990	2,947	5.5%
INFORMATION SERVICES	249,919	275,125	271,015	281,151	287,085	37,166	14.9%
OTHER	51,284	60,800	28,619	26,635	34,594	-16,690	-32.5%
<b>TOTAL GENERAL SUPPORT</b>	<b>697,984</b>	<b>744,758</b>	<b>720,259</b>	<b>745,752</b>	<b>777,926</b>	<b>79,942</b>	<b>11.5%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	68,436	73,825	70,227	68,733	63,434	-5,002	-7.3%
SAFETY AND HEALTH	173,911	168,866	199,691	213,444	216,154	42,243	24.3%
FACILITIES MANAGEMENT	88,882	93,704	93,656	168,214	202,429	113,547	127.8%
MAINTENANCE	312,873	346,456	346,030	303,821	305,299	-7,574	-2.4%
UTILITIES	124,810	156,188	156,188	152,678	179,934	55,124	44.2%
SAFEGUARDS AND SECURITY	206,188	187,159	221,058	254,822	267,643	61,455	29.8%
LOGISTICS SUPPORT	49,807	45,460	50,116	52,752	57,378	7,571	15.2%
QUALITY ASSURANCE	45,717	46,011	36,863	37,503	40,277	-5,440	-11.9%
LABORATORY/TECHNICAL SUPPOR	39,071	38,072	41,852	39,882	40,306	1,235	3.2%
<b>TOTAL MISSION SUPPORT</b>	<b>1,109,695</b>	<b>1,155,741</b>	<b>1,215,681</b>	<b>1,291,849</b>	<b>1,372,854</b>	<b>263,159</b>	<b>23.7%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	114,593	121,758	120,525	117,941	117,684	3,091	2.7%
TAXES	42,267	51,605	52,553	55,329	59,562	17,295	40.9%
LDRD	137,512	148,277	153,411	108,194	168,587	31,075	22.6%
<b>TOTAL SITE SPECIFIC</b>	<b>294,372</b>	<b>321,640</b>	<b>326,489</b>	<b>281,464</b>	<b>345,833</b>	<b>51,461</b>	<b>17.5%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>2,102,051</b>	<b>2,222,139</b>	<b>2,262,429</b>	<b>2,319,065</b>	<b>2,496,613</b>	<b>394,562</b>	<b>18.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	2,681,498	2,985,833	3,117,680	3,164,685	3,292,316	610,818	22.8%
Capital Construction	429,538	469,423	539,929	498,973	629,753	200,215	46.6%
<b>TOTAL MISSION DIRECT</b>	<b>3,111,036</b>	<b>3,455,256</b>	<b>3,657,609</b>	<b>3,663,658</b>	<b>3,922,069</b>	<b>811,033</b>	<b>26.1%</b>
<b>Total Costs</b>	<b>5,213,087</b>	<b>5,677,395</b>	<b>5,920,038</b>	<b>5,982,723</b>	<b>6,418,682</b>	<b>1,205,595</b>	<b>23.1%</b>
<b>Total Costs w/o Construction</b>	<b>4,783,549</b>	<b>5,207,972</b>	<b>5,380,109</b>	<b>5,483,750</b>	<b>5,788,929</b>	<b>1,005,380</b>	<b>17.4%</b>
General Support % Total Co	13.4%	13.1%	12.2%	12.5%	12.1%		-1.3%
Mission Support % Total Cos	21.3%	20.4%	20.5%	21.6%	21.4%		0.1%
Site Specific % Total Costs	5.6%	5.7%	5.5%	4.7%	5.4%		-0.3%
Total Support % Total Costs	40.3%	39.1%	38.2%	38.8%	38.9%		-1.4%
Total Support % Total Costs w/o Construct	43.9%	42.7%	42.1%	42.3%	43.1%		-0.8%

**US Department of Energy  
Total Functional Support  
DP Sites**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	2,102,051	2,222,139	2,262,429	2,319,065	2,496,613

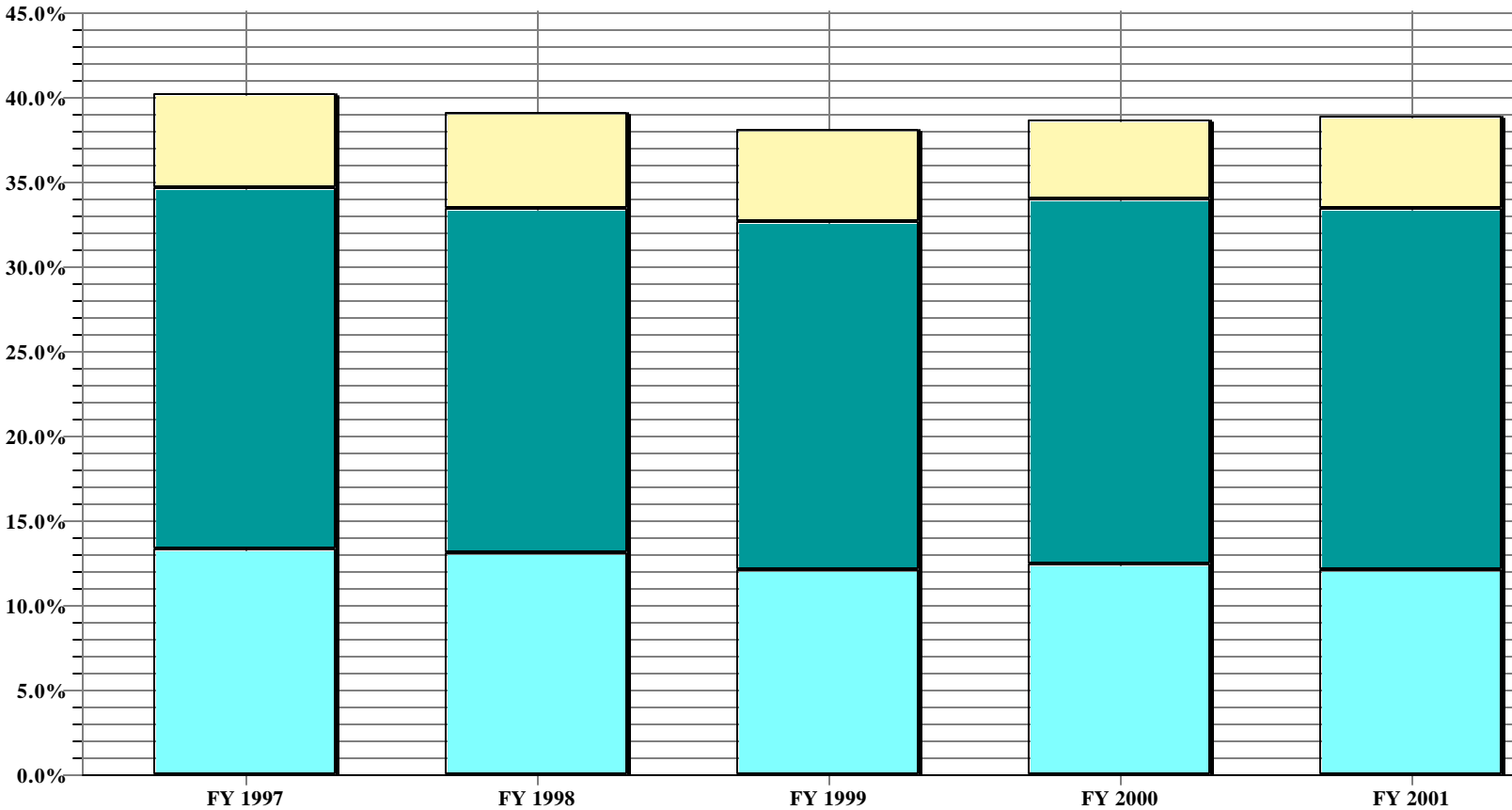
**US Department of Energy  
Total Functional Support as a % of Total Costs  
DP Sites**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	40.3%	39.1%	38.2%	38.8%	38.9%

**US Department of Energy  
Percent of Support Category to Total  
DP Sites**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.4%	13.1%	12.2%	12.5%	12.1%
<b>Mis Sup</b>	21.3%	20.4%	20.5%	21.6%	21.4%
<b>Site Specific</b>	5.6%	5.7%	5.5%	4.7%	5.4%

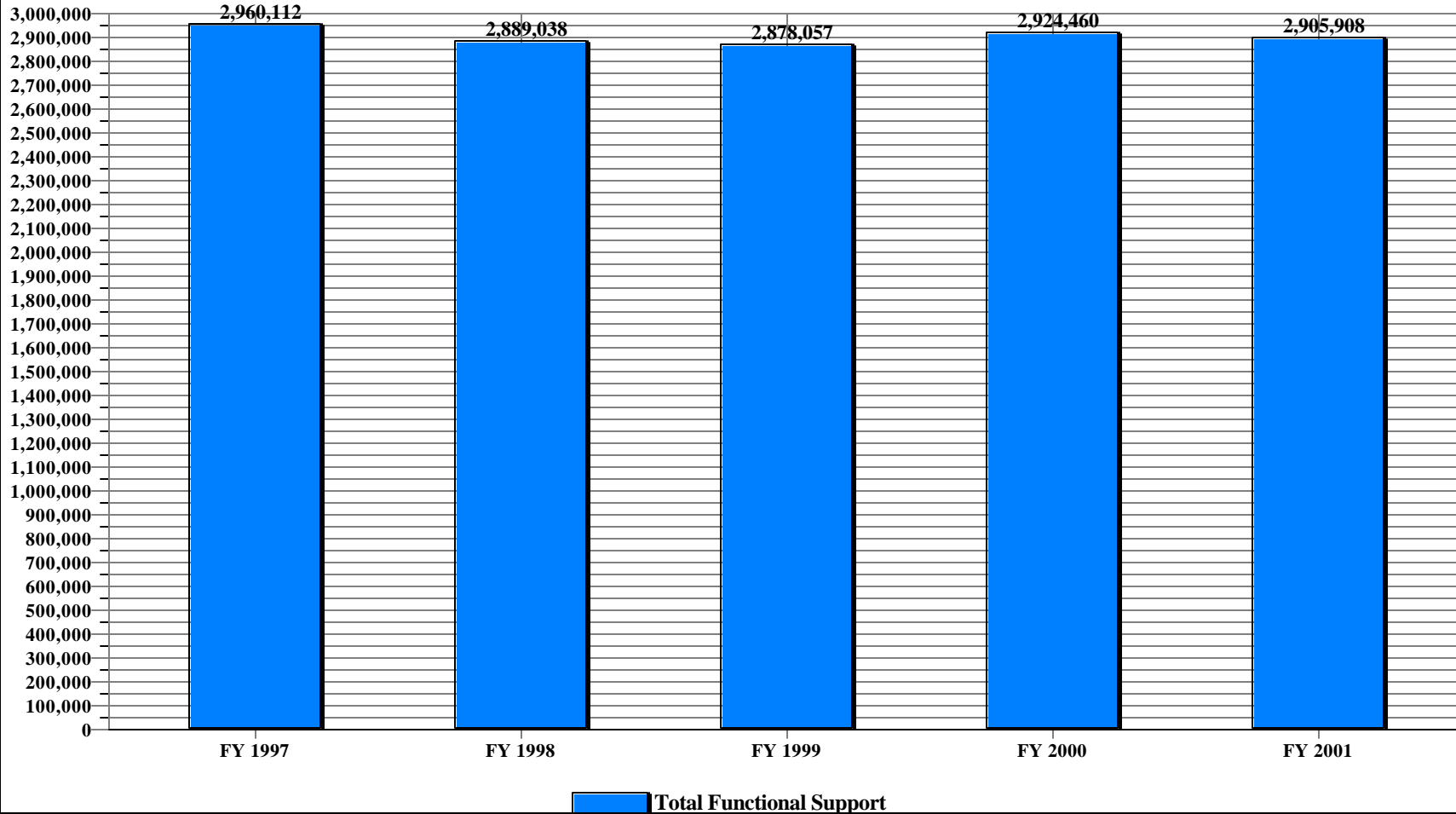
Total EM Sites

FY 2001

Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	60,846	55,447	53,945	53,839	52,803	-8,043	-13.2%
HUMAN RESOURCES	70,825	72,142	73,375	79,409	79,641	8,816	12.4%
CFO	91,604	81,024	74,632	60,551	71,498	-20,106	-21.9%
PROCUREMENT	48,446	48,522	49,410	52,001	53,981	5,535	11.4%
LEGAL	12,788	17,270	27,776	29,176	28,712	15,924	124.5%
CENTRAL ADMIN SERVICES	101,919	86,993	82,270	86,530	87,684	-14,235	-14.0%
PROGRAM/PROJECT CONTROL	99,677	101,987	107,468	109,449	111,134	11,457	11.5%
INFORMATION OUTREACH	46,068	43,799	43,829	48,362	40,415	-5,653	-12.3%
INFORMATION SERVICES	239,801	278,827	260,731	268,967	256,170	16,369	6.8%
OTHER	55,523	43,572	42,286	41,725	27,905	-27,618	-49.7%
<b>TOTAL GENERAL SUPPORT</b>	<b>827,497</b>	<b>829,583</b>	<b>815,722</b>	<b>830,009</b>	<b>809,943</b>	<b>-17,554</b>	<b>-2.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	111,742	101,147	110,415	108,951	110,156	-1,586	-1.4%
SAFETY AND HEALTH	389,781	380,786	396,163	401,614	430,106	40,325	10.3%
FACILITIES MANAGEMENT	189,981	180,846	182,233	164,116	161,066	-28,915	-15.2%
MAINTENANCE	453,374	436,815	455,229	454,211	415,459	-37,915	-8.4%
UTILITIES	167,003	180,563	160,106	152,274	160,491	-6,512	-3.9%
SAFEGUARDS AND SECURITY	201,956	198,519	195,568	222,250	233,199	31,243	15.5%
LOGISTICS SUPPORT	72,340	67,920	69,941	73,374	76,663	4,323	6.0%
QUALITY ASSURANCE	95,658	91,437	84,096	80,871	86,563	-9,095	-9.5%
LABORATORY/TECHNICAL SUPPOR	114,911	105,809	99,576	100,493	95,572	-19,339	-16.8%
<b>TOTAL MISSION SUPPORT</b>	<b>1,796,746</b>	<b>1,743,842</b>	<b>1,753,327</b>	<b>1,758,154</b>	<b>1,769,275</b>	<b>-27,471</b>	<b>-1.5%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	292,400	278,951	272,686	310,030	276,360	-16,040	-5.5%
TAXES	24,452	20,680	16,787	14,350	22,443	-2,009	-8.2%
LDRD	19,017	15,982	19,535	11,917	27,887	8,870	46.6%
<b>TOTAL SITE SPECIFIC</b>	<b>335,869</b>	<b>315,613</b>	<b>309,008</b>	<b>336,297</b>	<b>326,690</b>	<b>-9,179</b>	<b>-2.7%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>2,960,112</b>	<b>2,889,038</b>	<b>2,878,057</b>	<b>2,924,460</b>	<b>2,905,908</b>	<b>-54,204</b>	<b>-1.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	2,485,881	2,551,366	2,716,188	2,949,093	3,076,913	591,032	23.8%
Capital Construction	510,259	403,032	361,693	354,342	468,647	-41,612	-8.2%
<b>TOTAL MISSION DIRECT</b>	<b>2,996,140</b>	<b>2,954,398</b>	<b>3,077,881</b>	<b>3,303,435</b>	<b>3,545,560</b>	<b>549,420</b>	<b>18.3%</b>
<b>Total Costs</b>	<b>5,956,252</b>	<b>5,843,436</b>	<b>5,955,938</b>	<b>6,227,895</b>	<b>6,451,468</b>	<b>495,216</b>	<b>8.3%</b>
<b>Total Costs w/o Construction</b>	<b>5,445,993</b>	<b>5,440,404</b>	<b>5,594,245</b>	<b>5,873,553</b>	<b>5,982,821</b>	<b>536,828</b>	<b>9.0%</b>
General Support % Total Co	13.9%	14.2%	13.7%	13.3%	12.6%		-1.3%
Mission Support % Total Cos	30.2%	29.8%	29.4%	28.2%	27.4%		-2.7%
Site Specific % Total Costs	5.6%	5.4%	5.2%	5.4%	5.1%		-0.6%
Total Support % Total Costs	49.7%	49.4%	48.3%	47.0%	45.0%		-4.7%
Total Support % Total Costs w/o Construct	54.4%	53.1%	51.4%	49.8%	48.6%		-5.8%

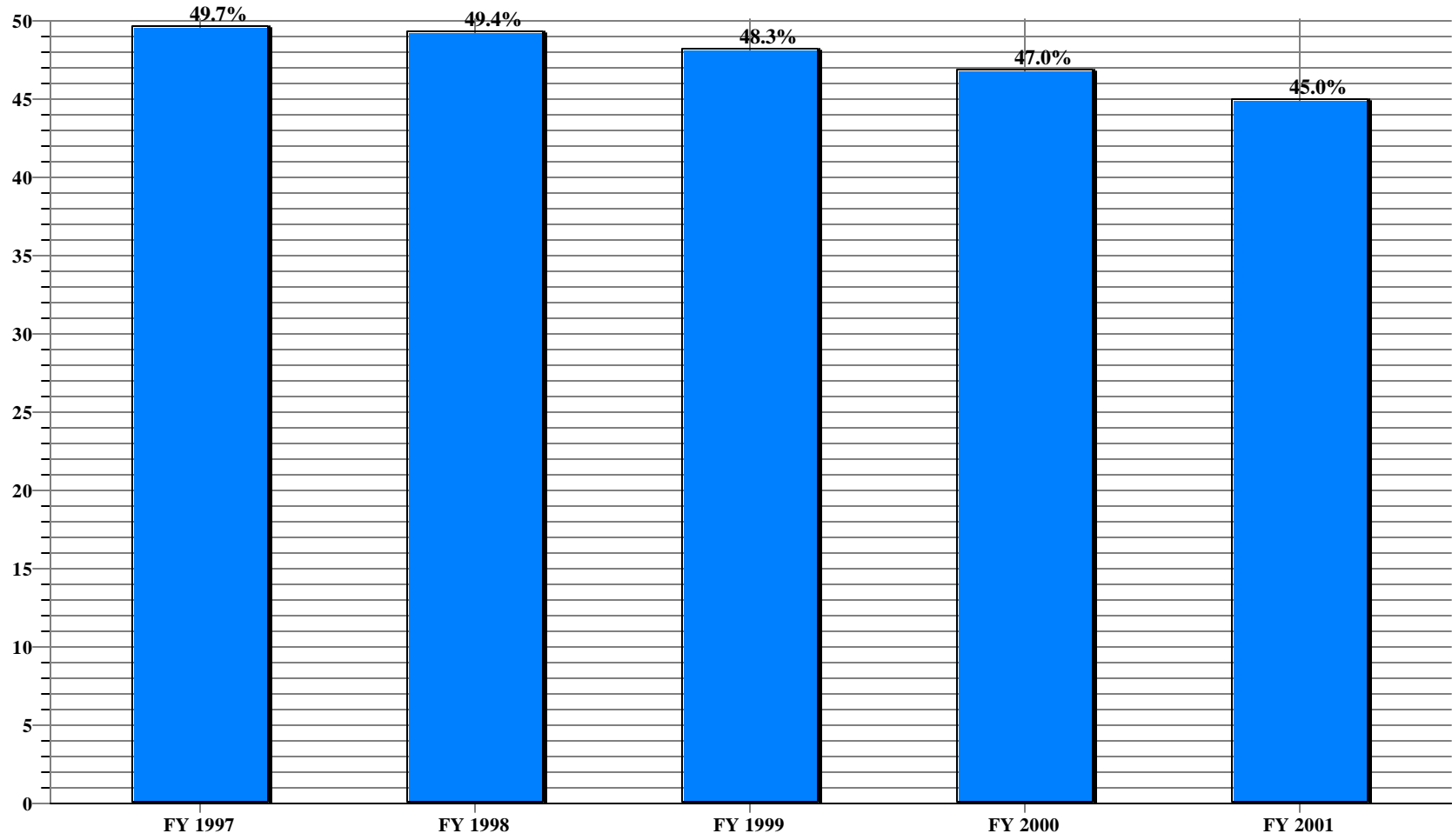
**US Department of Energy  
Total Functional Support  
EM Sites**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	<b>2,960,112</b>	<b>2,889,038</b>	<b>2,878,057</b>	<b>2,924,460</b>	<b>2,905,908</b>



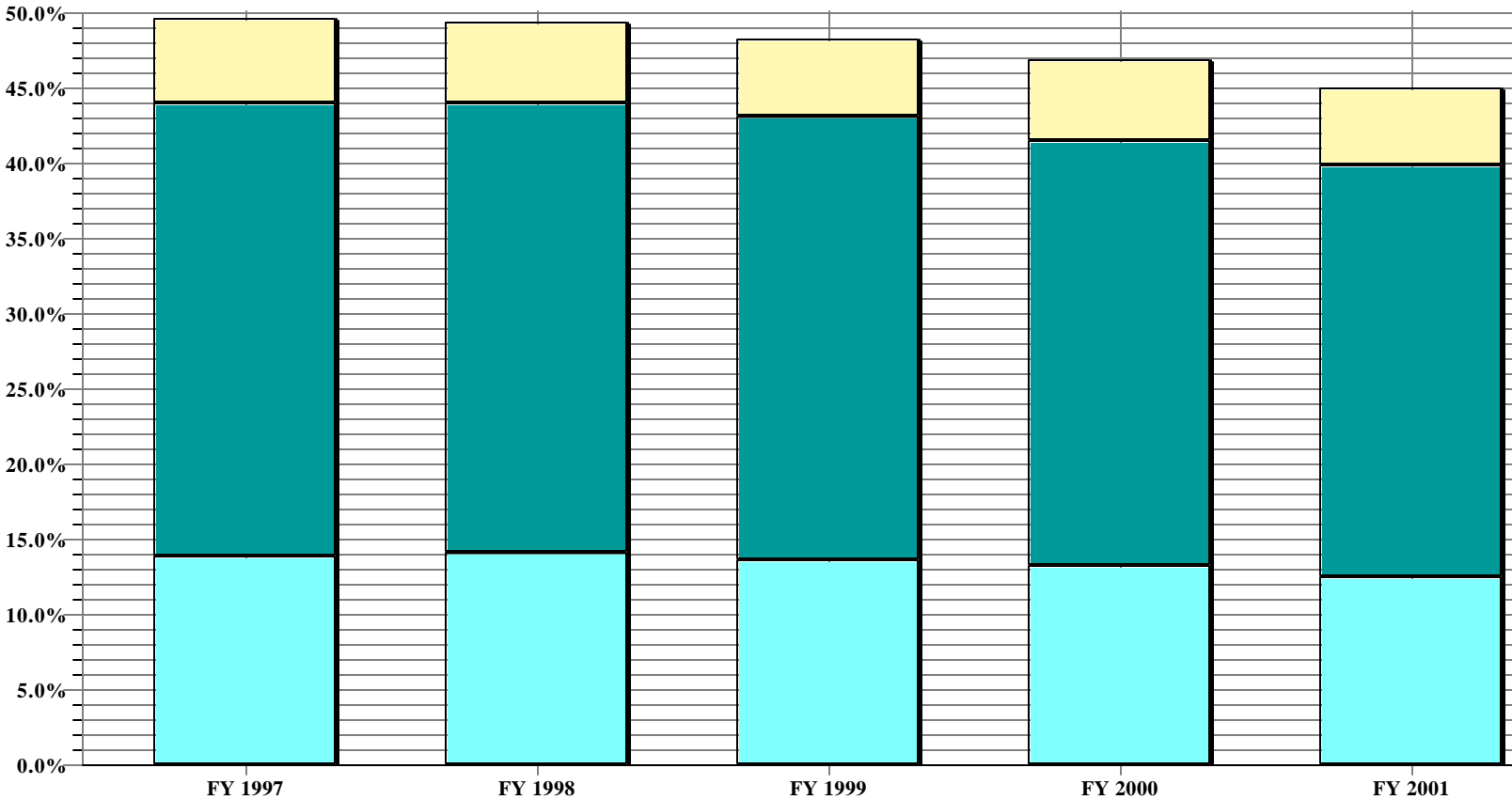
**US Department of Energy  
Total Functional Support as a % of Total Costs  
EM Sites**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	49.7%	49.4%	48.3%	47.0%	45.0%

**US Department of Energy  
Percent of Support Category to Total  
EM Sites**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.9%	14.2%	13.7%	13.3%	12.6%
<b>Mis Sup</b>	30.2%	29.8%	29.4%	28.2%	27.4%
<b>Site Specific</b>	5.6%	5.4%	5.2%	5.4%	5.1%

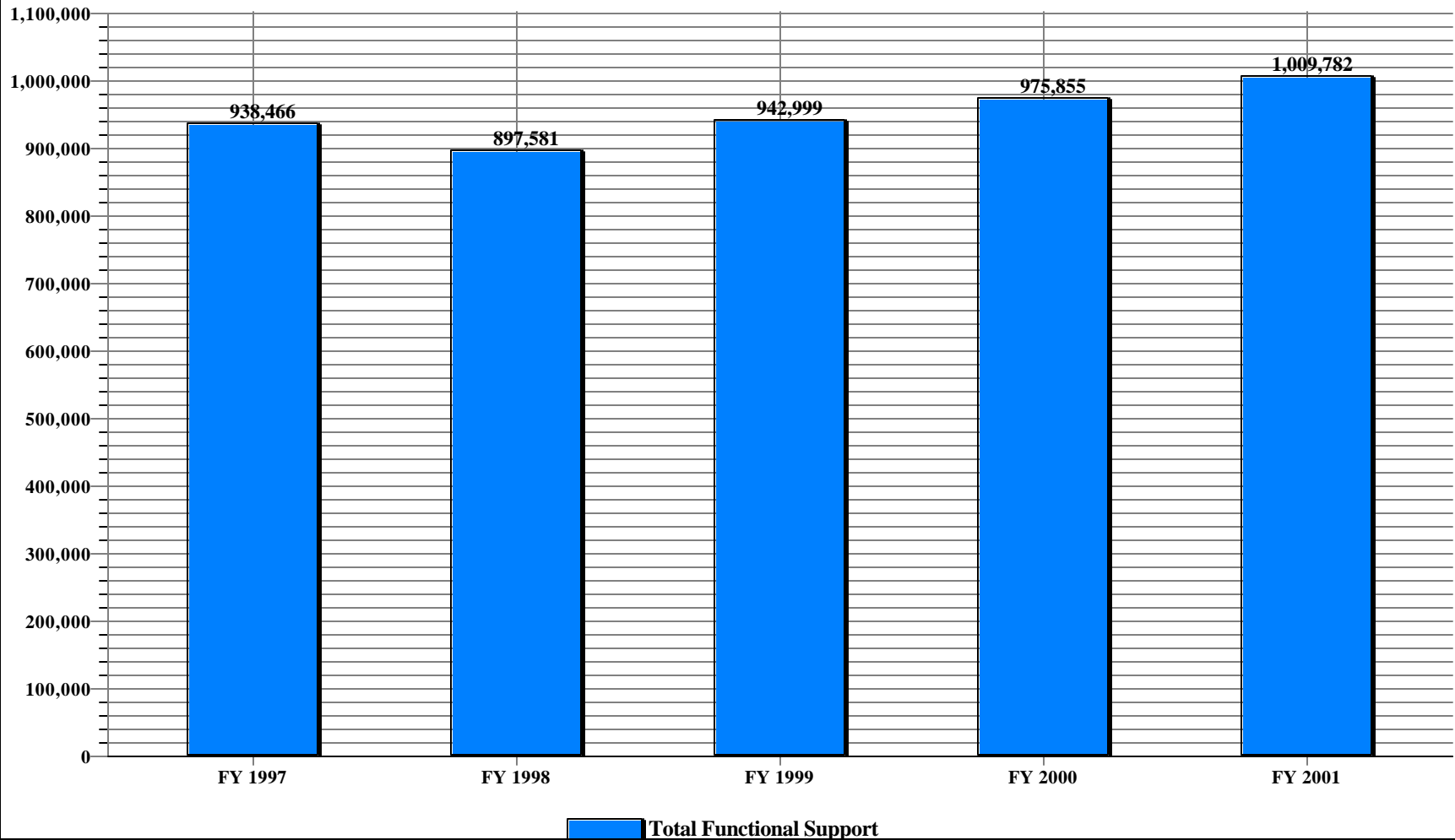
Total SC Sites

FY 2001

Trends in Total Functional Support Cost Categories

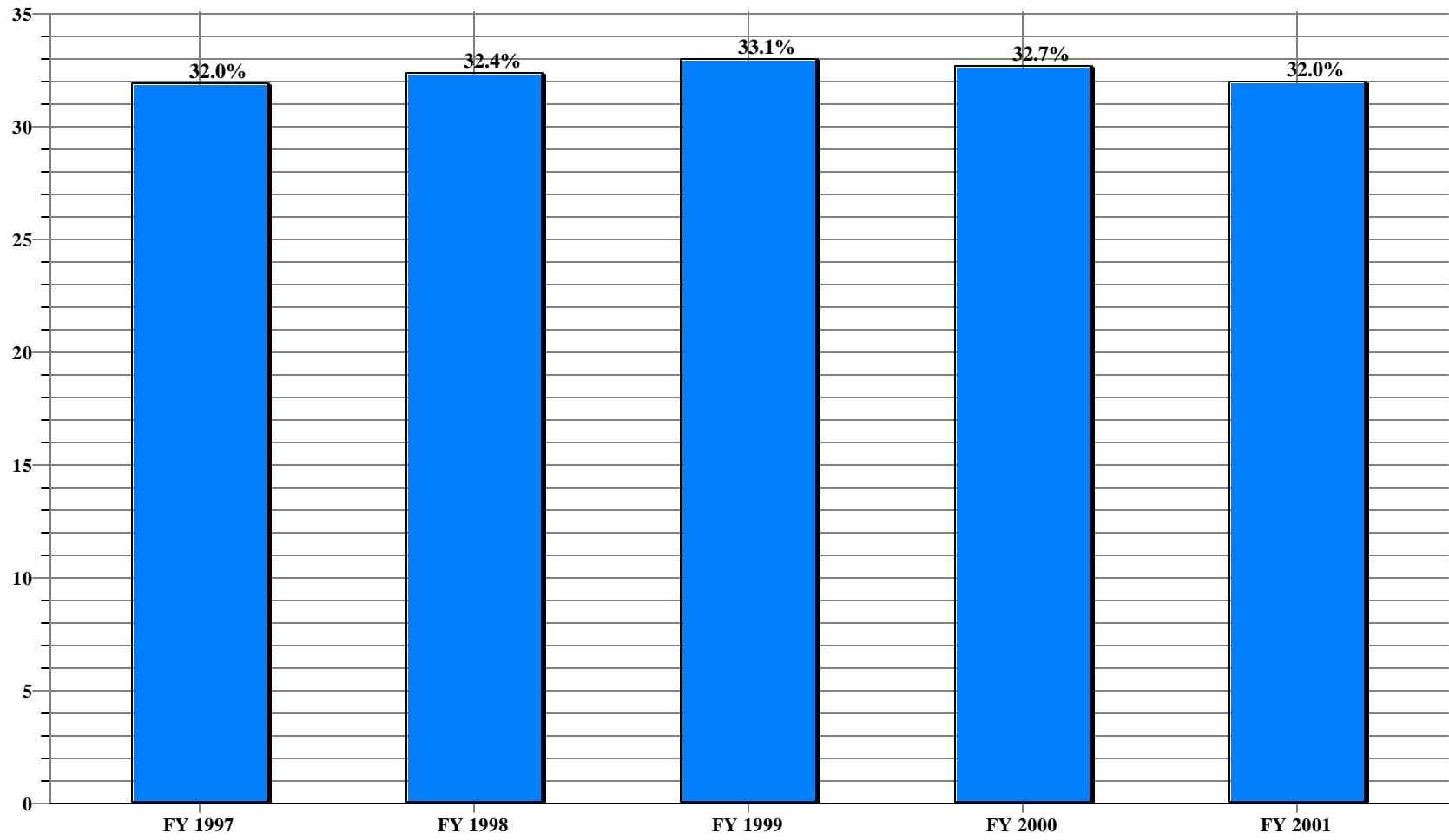
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	30,744	30,624	33,923	34,637	37,181	6,437	20.9%
HUMAN RESOURCES	25,843	24,783	26,399	26,262	27,209	1,366	5.3%
CFO	32,708	36,231	35,324	35,472	34,119	1,411	4.3%
PROCUREMENT	24,108	24,279	24,260	23,697	22,652	-1,456	-6.0%
LEGAL	7,870	8,597	9,633	9,393	11,842	3,972	50.5%
CENTRAL ADMIN SERVICES	32,247	28,071	27,799	32,592	33,803	1,556	4.8%
PROGRAM/PROJECT CONTROL	30,349	25,051	26,950	29,613	27,638	-2,711	-8.9%
INFORMATION OUTREACH	25,994	28,204	29,421	28,122	30,704	4,710	18.1%
INFORMATION SERVICES	89,313	90,076	103,647	115,768	122,761	33,448	37.5%
OTHER	38,057	32,535	26,212	29,660	32,785	-5,272	-13.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>337,233</b>	<b>328,451</b>	<b>343,568</b>	<b>365,216</b>	<b>380,694</b>	<b>43,461</b>	<b>12.9%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	22,975	17,003	20,229	23,093	27,230	4,255	18.5%
SAFETY AND HEALTH	89,266	98,920	95,838	101,852	102,956	13,690	15.3%
FACILITIES MANAGEMENT	42,006	44,730	48,021	50,717	60,613	18,607	44.3%
MAINTENANCE	140,474	134,688	154,008	153,052	147,679	7,205	5.1%
UTILITIES	93,895	83,179	88,299	90,011	100,244	6,349	6.8%
SAFEGUARDS AND SECURITY	39,210	38,134	29,382	34,480	34,033	-5,177	-13.2%
LOGISTICS SUPPORT	25,762	24,753	24,153	25,480	24,338	-1,424	-5.5%
QUALITY ASSURANCE	12,555	7,772	10,056	11,847	12,676	121	1.0%
LABORATORY/TECHNICAL SUPPOR	45,515	39,084	43,424	36,011	35,504	-10,011	-22.0%
<b>TOTAL MISSION SUPPORT</b>	<b>511,658</b>	<b>488,263</b>	<b>513,410</b>	<b>526,543</b>	<b>545,273</b>	<b>33,615</b>	<b>6.6%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	44,041	38,101	38,618	37,465	36,184	-7,857	-17.8%
TAXES	5,657	4,522	3,439	4,014	2,212	-3,445	-60.9%
LDRD	39,877	38,244	43,964	42,617	45,419	5,542	13.9%
<b>TOTAL SITE SPECIFIC</b>	<b>89,575</b>	<b>80,867</b>	<b>86,021</b>	<b>84,096</b>	<b>83,815</b>	<b>-5,760</b>	<b>-6.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>938,466</b>	<b>897,581</b>	<b>942,999</b>	<b>975,855</b>	<b>1,009,782</b>	<b>71,316</b>	<b>7.6%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	1,565,317	1,538,971	1,646,790	1,726,009	1,807,025	241,708	15.4%
Capital Construction	430,394	333,152	262,747	279,877	337,556	-92,838	-21.6%
<b>TOTAL MISSION DIRECT</b>	<b>1,995,711</b>	<b>1,872,123</b>	<b>1,909,537</b>	<b>2,005,886</b>	<b>2,144,581</b>	<b>148,870</b>	<b>7.5%</b>
<b>Total Costs</b>	<b>2,934,177</b>	<b>2,769,704</b>	<b>2,852,536</b>	<b>2,981,741</b>	<b>3,154,363</b>	<b>220,186</b>	<b>7.5%</b>
<b>Total Costs w/o Construction</b>	<b>2,503,783</b>	<b>2,436,552</b>	<b>2,589,789</b>	<b>2,701,864</b>	<b>2,816,807</b>	<b>313,024</b>	<b>11.1%</b>
General Support % Total Co	11.5%	11.9%	12.0%	12.2%	12.1%		0.6%
Mission Support % Total Cos	17.4%	17.6%	18.0%	17.7%	17.3%		-0.2%
Site Specific % Total Costs	3.1%	2.9%	3.0%	2.8%	2.7%		-0.4%
Total Support % Total Costs	32.0%	32.4%	33.1%	32.7%	32.0%		0.0%
Total Support % Total Costs w/o Construct	37.5%	36.8%	36.4%	36.1%	35.8%		-1.6%

**US Department of Energy  
Total Functional Support  
SC Sites**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	938,466	897,581	942,999	975,855	1,009,782

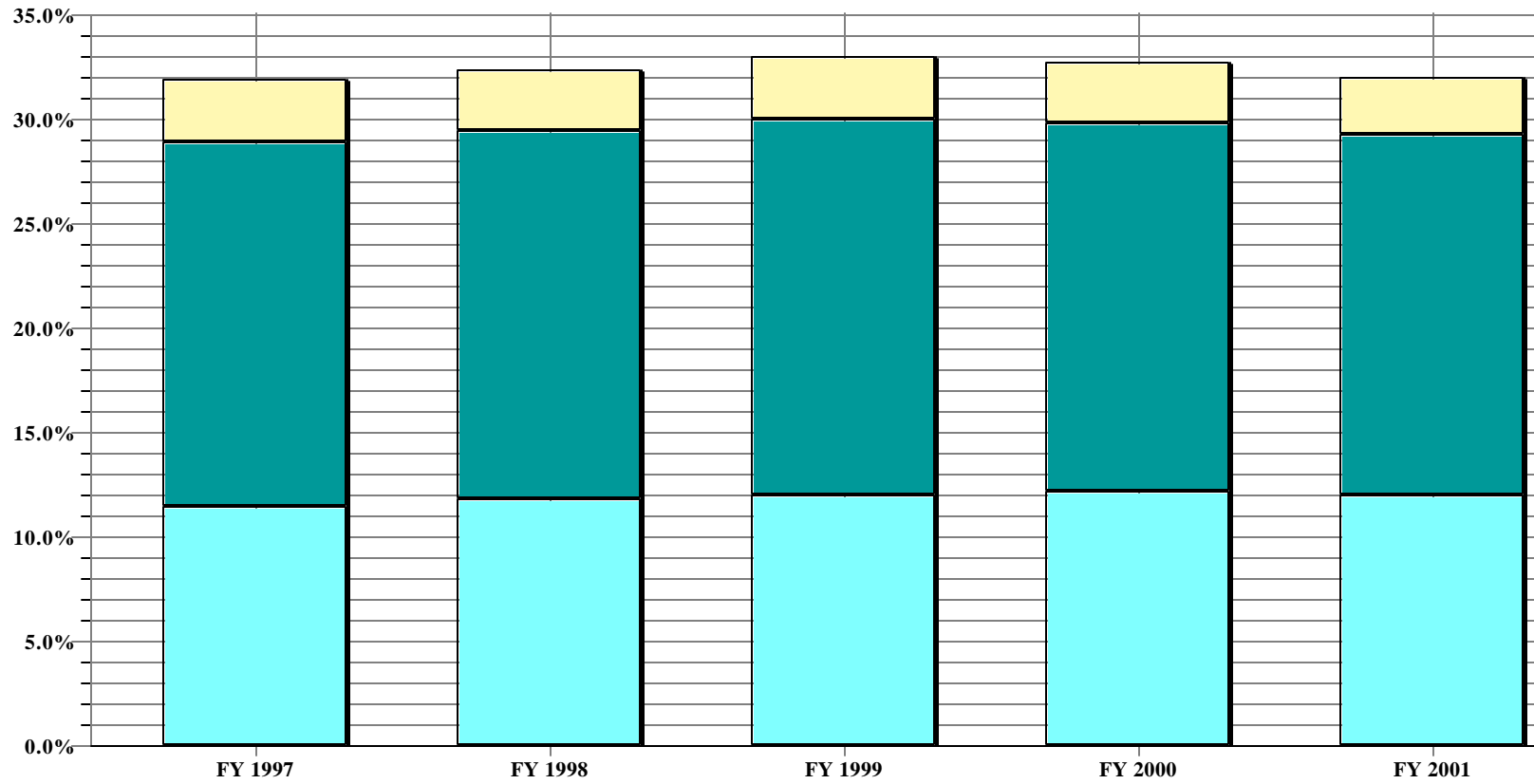
**US Department of Energy  
Total Functional Support as a % of Total Costs  
SC Sites**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	32.0%	32.4%	33.1%	32.7%	32.0%

**US Department of Energy  
Percent of Support Category to Total  
SC Sites**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	11.5%	11.9%	12.0%	12.2%	12.1%
<b>Mis Sup</b>	17.4%	17.6%	18.0%	17.7%	17.3%
<b>Site Specific</b>	3.1%	2.9%	3.0%	2.8%	2.7%

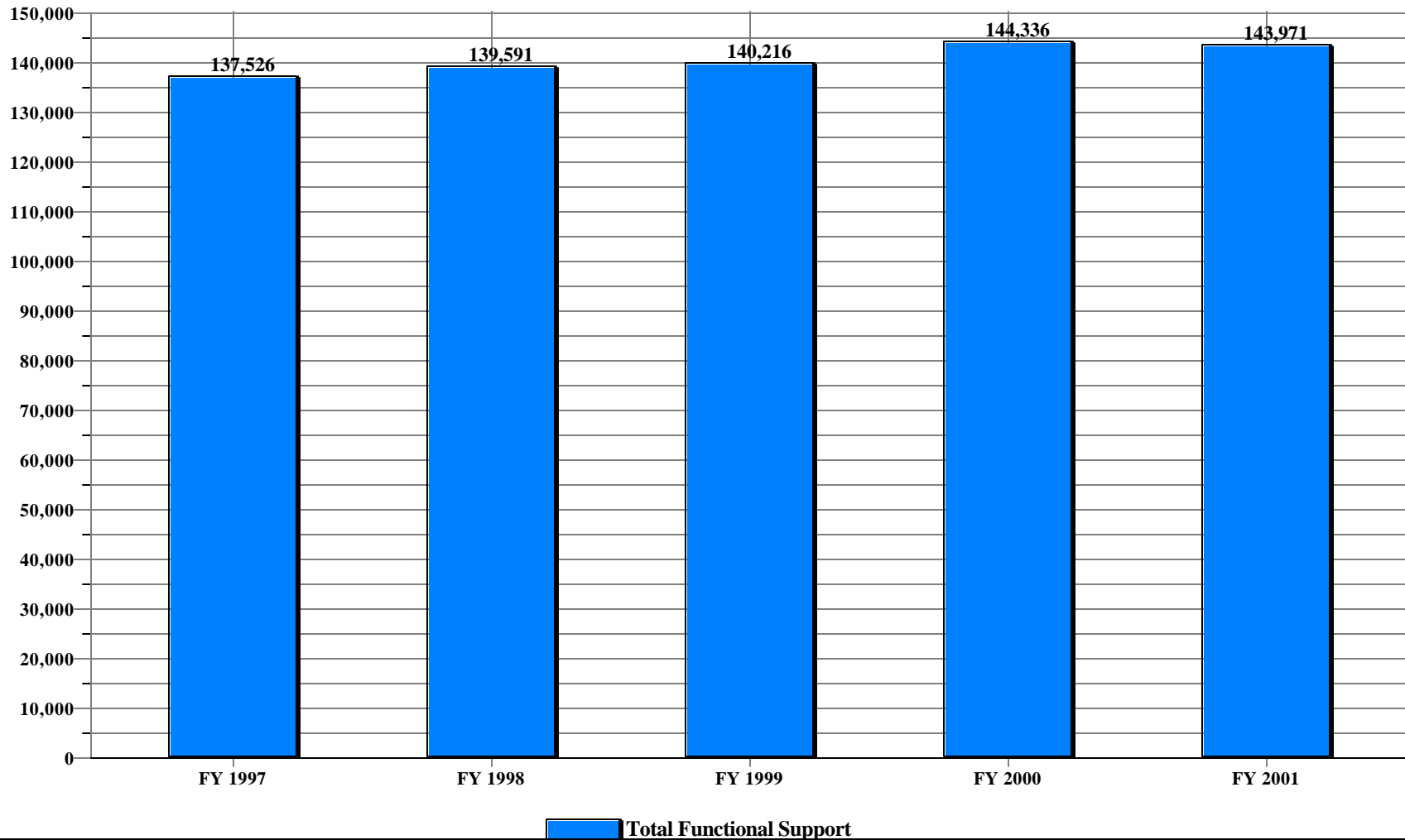
**Total Naval Reactors**

FY 2001

**Trends in Total Functional Support Cost Categories**

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	3,505	3,526	4,478	4,802	6,293	2,788	79.5%
HUMAN RESOURCES	4,054	4,366	5,743	6,698	6,440	2,386	58.9%
CFO	5,843	6,546	6,494	5,592	5,133	-710	-12.2%
PROCUREMENT	3,594	3,690	3,528	3,550	4,100	506	14.1%
LEGAL	263	263	573	1,489	522	259	98.5%
CENTRAL ADMIN SERVICES	2,913	2,776	2,816	2,431	2,429	-484	-16.6%
PROGRAM/PROJECT CONTROL	637	641	516	562	744	107	16.8%
INFORMATION OUTREACH	0	0	0	0	0	0	0.0%
INFORMATION SERVICES	17,854	18,400	19,723	19,270	17,675	-179	-1.0%
OTHER	0	0	0	0	0	0	0.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>38,663</b>	<b>40,208</b>	<b>43,871</b>	<b>44,394</b>	<b>43,336</b>	<b>4,673</b>	<b>12.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	6,715	6,785	8,122	8,574	10,535	3,820	56.9%
SAFETY AND HEALTH	21,417	21,852	22,096	22,961	23,294	1,877	8.8%
FACILITIES MANAGEMENT	7,105	7,202	7,468	8,081	8,527	1,422	20.0%
MAINTENANCE	19,605	19,506	18,982	19,647	17,257	-2,348	-12.0%
UTILITIES	4,409	4,691	4,365	4,932	5,699	1,290	29.3%
SAFEGUARDS AND SECURITY	10,138	9,913	10,037	10,790	12,020	1,882	18.6%
LOGISTICS SUPPORT	4,203	4,251	4,317	4,834	4,959	756	18.0%
QUALITY ASSURANCE	8,423	8,034	7,144	7,474	7,611	-812	-9.6%
LABORATORY/TECHNICAL SUPPOR	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>82,015</b>	<b>82,234</b>	<b>82,531</b>	<b>87,293</b>	<b>89,902</b>	<b>7,887</b>	<b>9.6%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	15,910	16,258	12,488	11,804	10,169	-5,741	-36.1%
TAXES	938	891	1,326	845	564	-374	-39.9%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>16,848</b>	<b>17,149</b>	<b>13,814</b>	<b>12,649</b>	<b>10,733</b>	<b>-6,115</b>	<b>-36.3%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>137,526</b>	<b>139,591</b>	<b>140,216</b>	<b>144,336</b>	<b>143,971</b>	<b>6,445</b>	<b>4.7%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	428,779	405,780	400,933	409,586	419,218	-9,561	-2.2%
Capital Construction	50,395	46,373	45,505	50,357	43,563	-6,832	-13.6%
<b>TOTAL MISSION DIRECT</b>	<b>479,174</b>	<b>452,153</b>	<b>446,438</b>	<b>459,943</b>	<b>462,781</b>	<b>-16,393</b>	<b>-3.4%</b>
<b>Total Costs</b>	<b>616,700</b>	<b>591,744</b>	<b>586,654</b>	<b>604,279</b>	<b>606,752</b>	<b>-9,948</b>	<b>-1.6%</b>
<b>Total Costs w/o Construction</b>	<b>566,305</b>	<b>545,371</b>	<b>541,149</b>	<b>553,922</b>	<b>563,189</b>	<b>-3,116</b>	<b>-0.6%</b>
General Support % Total Co	6.3%	6.8%	7.5%	7.3%	7.1%		0.9%
Mission Support % Total Cos	13.3%	13.9%	14.1%	14.4%	14.8%		1.5%
Site Specific % Total Costs	2.7%	2.9%	2.4%	2.1%	1.8%		-1.0%
Total Support % Total Costs	22.3%	23.6%	23.9%	23.9%	23.7%		1.4%
Total Support % Total Costs w/o Construct	24.3%	25.6%	25.9%	26.1%	25.6%		1.3%

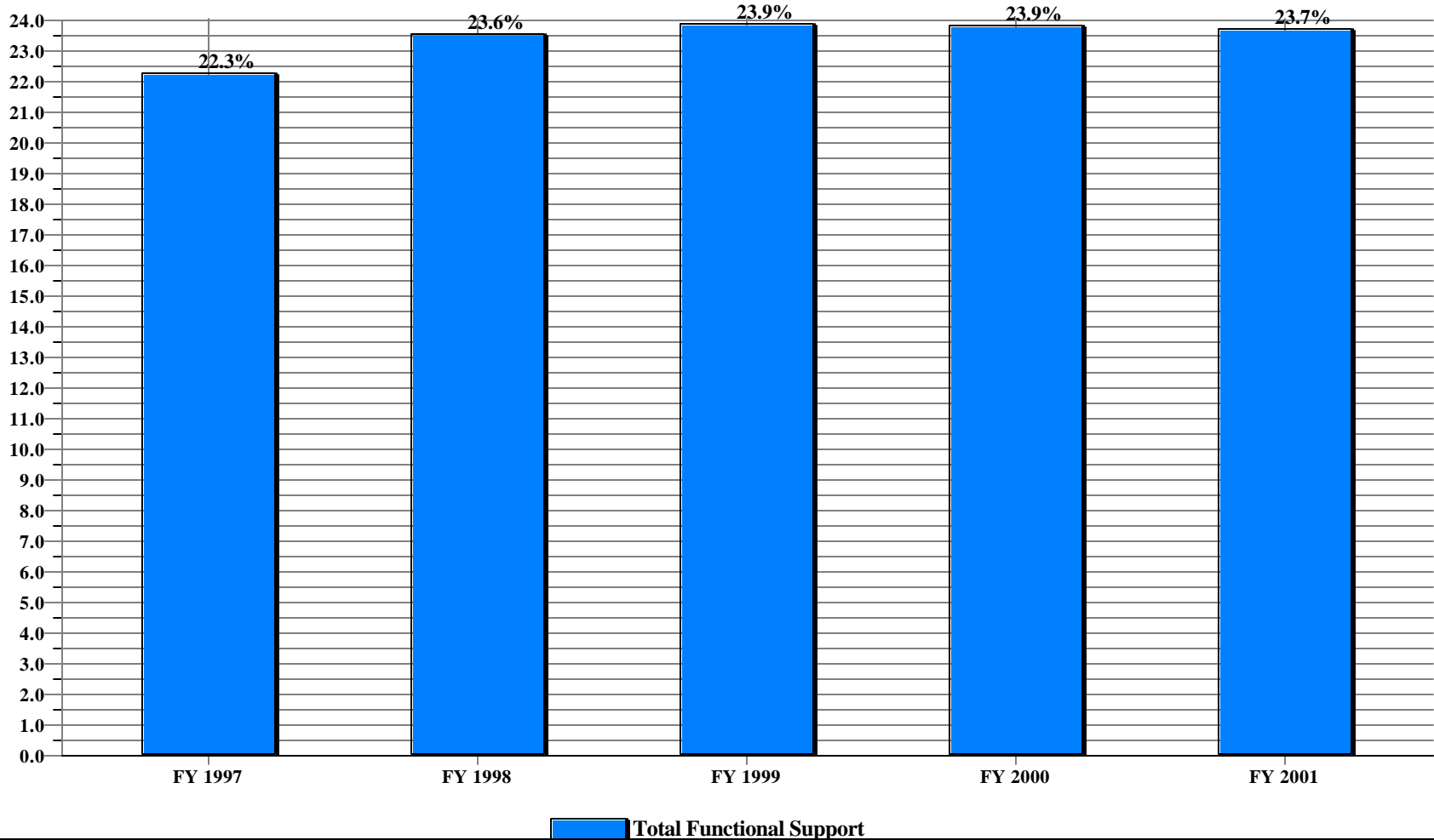
**US Department of Energy  
Total Functional Support  
Naval Reactors**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	137,526	139,591	140,216	144,336	143,971

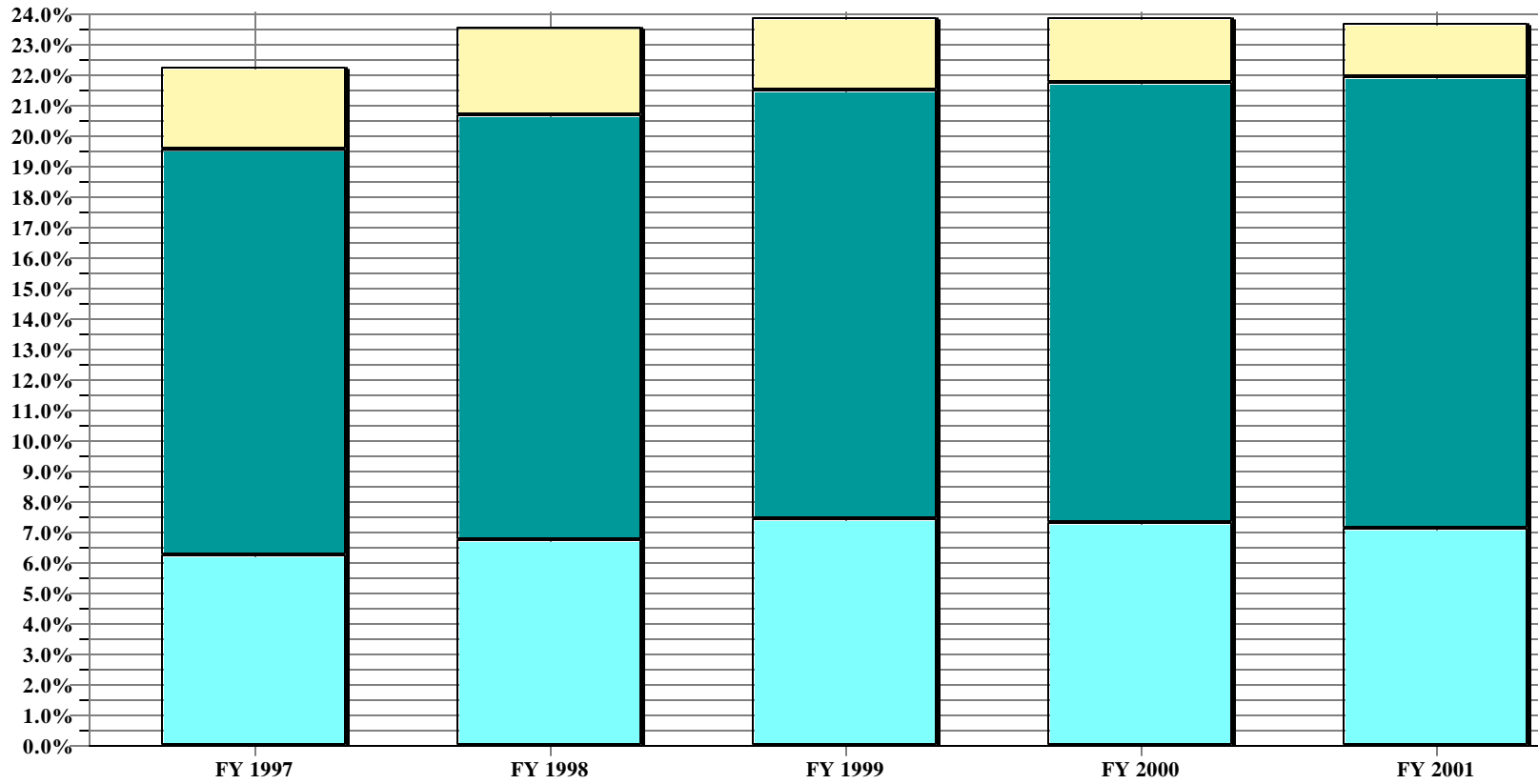


**US Department of Energy  
Total Functional Support as a % of Total Costs  
Naval Reactors**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	22.3%	23.6%	23.9%	23.9%	23.7%

**US Department of Energy  
Percent of Support Category to Total  
Naval Reactors**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	6.3%	6.8%	7.5%	7.3%	7.1%
<b>Mis Sup</b>	13.3%	13.9%	14.1%	14.4%	14.8%
<b>Site Specific</b>	2.7%	2.9%	2.4%	2.1%	1.8%

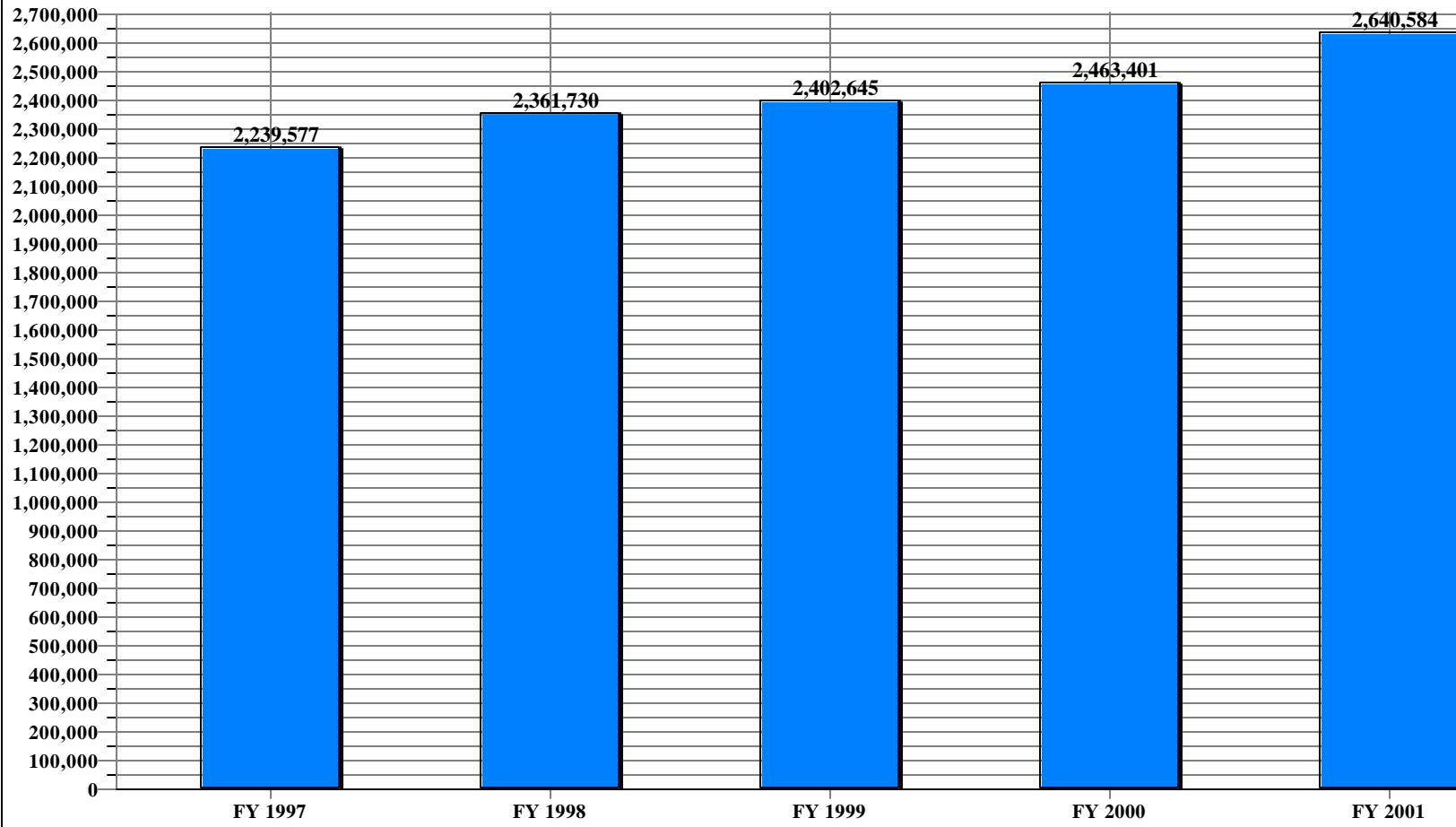
Total NNSA Sites

FY 2001

Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	49,965	48,064	58,781	66,915	76,710	26,745	53.5%
HUMAN RESOURCES	69,818	70,234	74,411	83,213	88,278	18,460	26.4%
CFO	52,812	51,138	51,400	53,351	52,690	-122	-0.2%
PROCUREMENT	52,830	51,257	52,691	52,681	55,128	2,298	4.3%
LEGAL	19,006	17,857	20,599	24,175	24,326	5,320	28.0%
CENTRAL ADMIN SERVICES	86,724	82,133	78,485	80,117	80,302	-6,422	-7.4%
PROGRAM/PROJECT CONTROL	32,392	46,720	51,139	48,715	47,484	15,092	46.6%
INFORMATION OUTREACH	54,043	63,238	57,267	53,923	56,990	2,947	5.5%
INFORMATION SERVICES	267,773	293,525	290,738	300,421	304,760	36,987	13.8%
OTHER	51,284	60,800	28,619	26,635	34,594	-16,690	-32.5%
<b>TOTAL GENERAL SUPPORT</b>	<b>736,647</b>	<b>784,966</b>	<b>764,130</b>	<b>790,146</b>	<b>821,262</b>	<b>84,615</b>	<b>11.5%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	75,151	80,610	78,349	77,307	73,969	-1,182	-1.6%
SAFETY AND HEALTH	195,328	190,718	221,787	236,405	239,448	44,120	22.6%
FACILITIES MANAGEMENT	95,987	100,906	101,124	176,295	210,956	114,969	119.8%
MAINTENANCE	332,478	365,962	365,012	323,468	322,556	-9,922	-3.0%
UTILITIES	129,219	160,879	160,553	157,610	185,633	56,414	43.7%
SAFEGUARDS AND SECURITY	216,326	197,072	231,095	265,612	279,663	63,337	29.3%
LOGISTICS SUPPORT	54,010	49,711	54,433	57,586	62,337	8,327	15.4%
QUALITY ASSURANCE	54,140	54,045	44,007	44,977	47,888	-6,252	-11.5%
LABORATORY/TECHNICAL SUPPOR	39,071	38,072	41,852	39,882	40,306	1,235	3.2%
<b>TOTAL MISSION SUPPORT</b>	<b>1,191,710</b>	<b>1,237,975</b>	<b>1,298,212</b>	<b>1,379,142</b>	<b>1,462,756</b>	<b>271,046</b>	<b>22.7%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	130,503	138,016	133,013	129,745	127,853	-2,650	-2.0%
TAXES	43,205	52,496	53,879	56,174	60,126	16,921	39.2%
LDRD	137,512	148,277	153,411	108,194	168,587	31,075	22.6%
<b>TOTAL SITE SPECIFIC</b>	<b>311,220</b>	<b>338,789</b>	<b>340,303</b>	<b>294,113</b>	<b>356,566</b>	<b>45,346</b>	<b>14.6%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>2,239,577</b>	<b>2,361,730</b>	<b>2,402,645</b>	<b>2,463,401</b>	<b>2,640,584</b>	<b>401,007</b>	<b>17.9%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	3,110,277	3,391,613	3,518,613	3,574,271	3,711,534	601,257	19.3%
Capital Construction	479,933	515,796	585,434	549,330	673,316	193,383	40.3%
<b>TOTAL MISSION DIRECT</b>	<b>3,590,210</b>	<b>3,907,409</b>	<b>4,104,047</b>	<b>4,123,601</b>	<b>4,384,850</b>	<b>794,640</b>	<b>22.1%</b>
<b>Total Costs</b>	<b>5,829,787</b>	<b>6,269,139</b>	<b>6,506,692</b>	<b>6,587,002</b>	<b>7,025,434</b>	<b>1,195,647</b>	<b>20.5%</b>
<b>Total Costs w/o Construction</b>	<b>5,349,854</b>	<b>5,753,343</b>	<b>5,921,258</b>	<b>6,037,672</b>	<b>6,352,118</b>	<b>1,002,264</b>	<b>15.8%</b>
General Support % Total Co	12.6%	12.5%	11.7%	12.0%	11.7%		-0.9%
Mission Support % Total Cos	20.4%	19.7%	20.0%	20.9%	20.8%		0.4%
Site Specific % Total Costs	5.3%	5.4%	5.2%	4.5%	5.1%		-0.3%
Total Support % Total Costs	38.4%	37.7%	36.9%	37.4%	37.6%		-0.8%
Total Support % Total Costs w/o Construct	41.9%	41.0%	40.6%	40.8%	41.6%		-0.3%

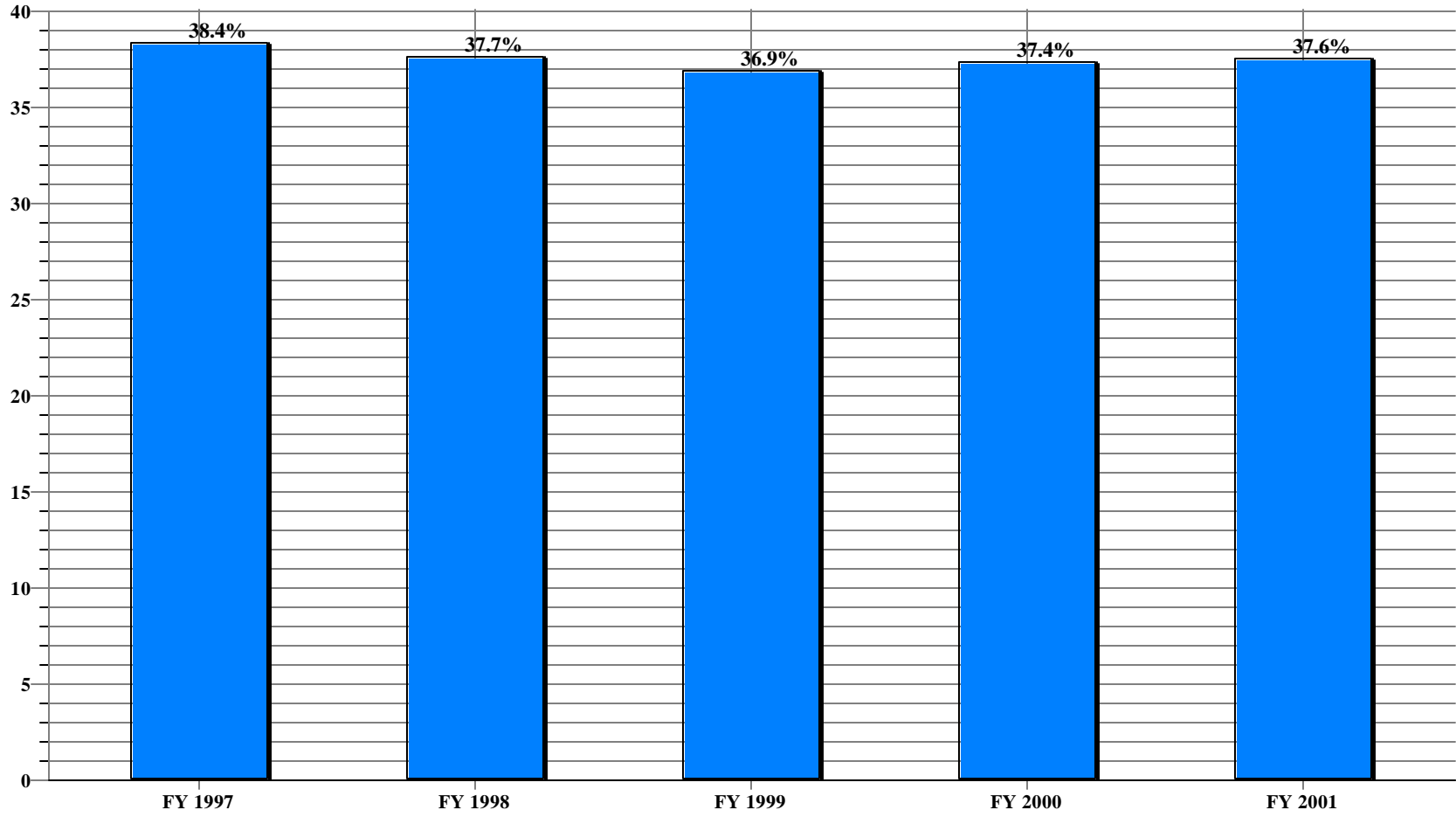
US Department of Energy  
Total Functional Support  
NNSA



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	2,239,577	2,361,730	2,402,645	2,463,401	2,640,584

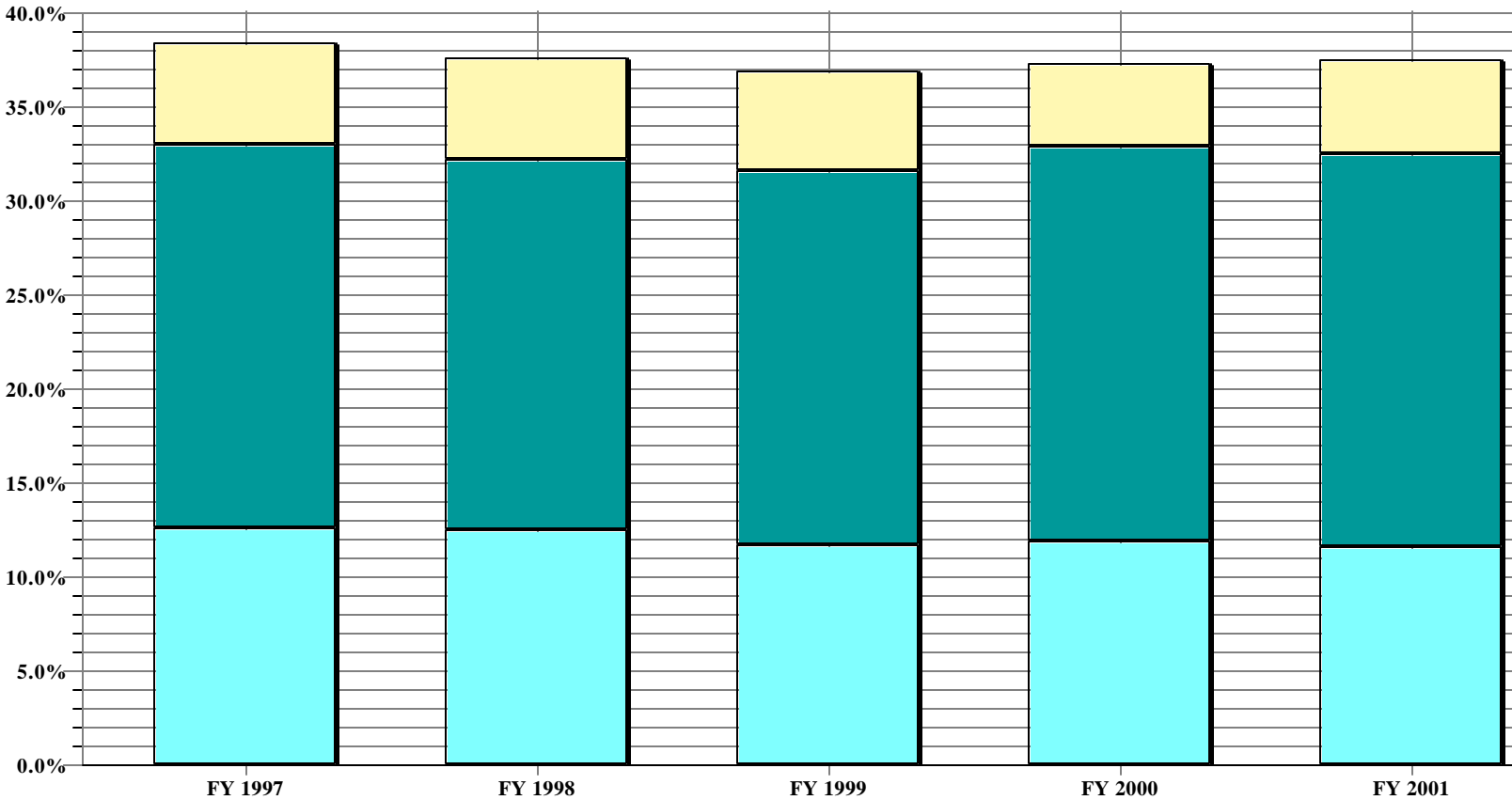
**US Department of Energy  
Total Functional Support as a % of Total Costs  
NNSA**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	38.4%	37.7%	36.9%	37.4%	37.6%

**US Department of Energy  
Percent of Support Category to Total  
NNSA**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.6%	12.5%	11.7%	12.0%	11.7%
<b>Mis Sup</b>	20.4%	19.7%	20.0%	20.9%	20.8%
<b>Site Specific</b>	5.3%	5.4%	5.2%	4.5%	5.1%

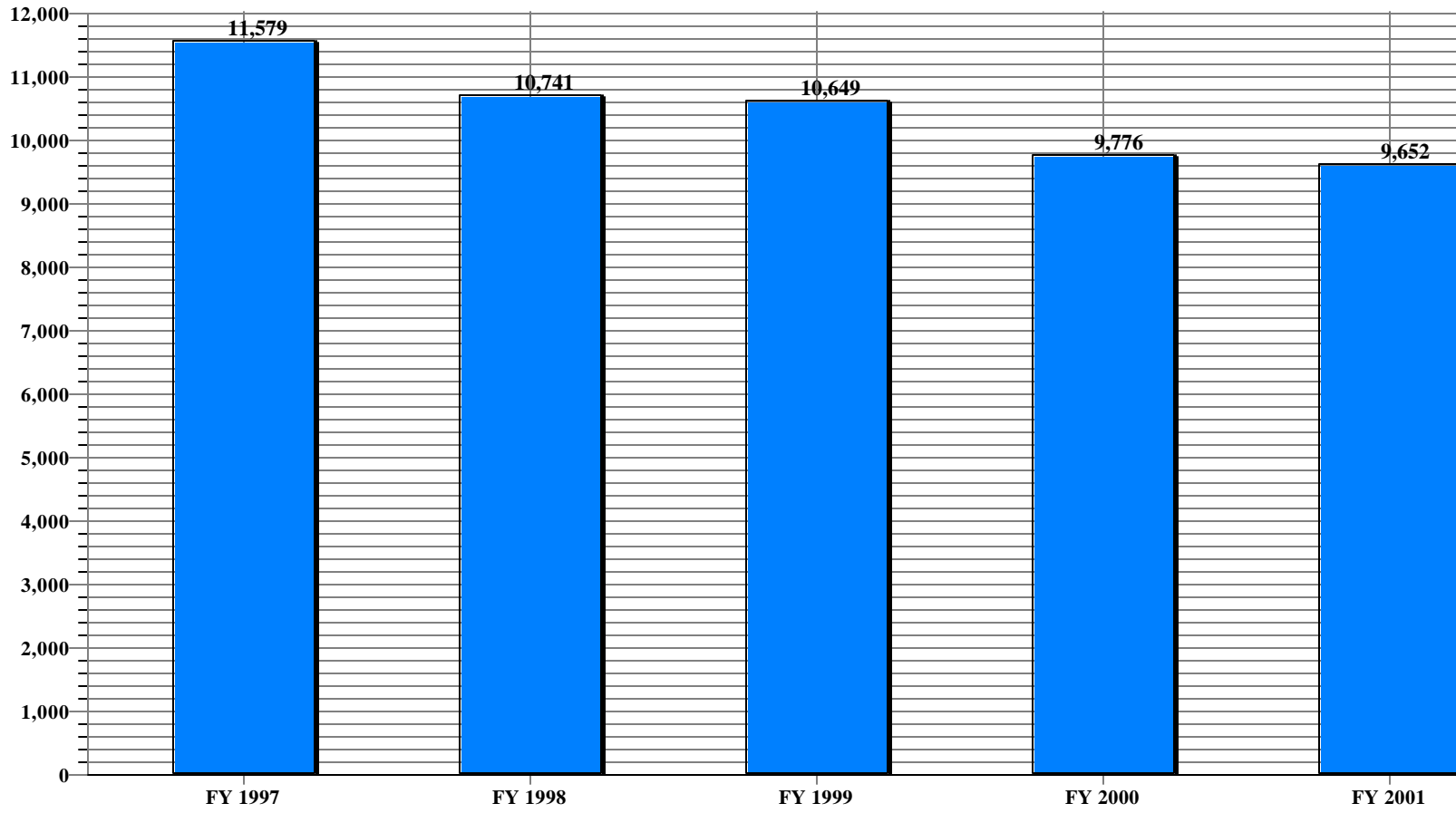
Ames

FY 2001

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	726	674	668	656	653	-73	-10.1%
HUMAN RESOURCES	253	234	232	235	243	-10	-4.0%
CFO	753	698	692	802	867	114	15.1%
PROCUREMENT	208	193	191	164	179	-29	-13.9%
LEGAL	0	0	0	0	0	0	0.0%
CENTRAL ADMIN SERVICES	261	242	240	209	186	-75	-28.7%
PROGRAM/PROJECT CONTROL	1,416	1,314	1,303	1,217	1,230	-186	-13.1%
INFORMATION OUTREACH	395	367	364	348	360	-35	-8.9%
INFORMATION SERVICES	1,078	1,000	992	843	843	-235	-21.8%
OTHER	-345	-320	-317	-143	-310	35	-10.1%
<b>TOTAL GENERAL SUPPORT</b>	<b>4,745</b>	<b>4,402</b>	<b>4,365</b>	<b>4,331</b>	<b>4,251</b>	<b>-494</b>	<b>-10.4%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	17	16	15	30	31	14	82.4%
SAFETY AND HEALTH	1,112	1,031	1,022	1,024	994	-118	-10.6%
FACILITIES MANAGEMENT	354	328	326	163	140	-214	-60.5%
MAINTENANCE	1,575	1,461	1,448	1,294	1,325	-250	-15.9%
UTILITIES	982	911	903	860	902	-80	-8.1%
SAFEGUARDS AND SECURITY	139	129	128	142	152	13	9.4%
LOGISTICS SUPPORT	329	306	303	289	299	-30	-9.1%
QUALITY ASSURANCE	64	59	59	58	59	-5	-7.8%
LABORATORY/TECHNICAL SUPPORT	1,123	1,041	1,032	711	656	-467	-41.6%
<b>TOTAL MISSION SUPPORT</b>	<b>5,695</b>	<b>5,282</b>	<b>5,236</b>	<b>4,571</b>	<b>4,558</b>	<b>-1,137</b>	<b>-20.0%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	971	901	893	858	843	-128	-13.2%
TAXES	0	0	0	0	0	0	0.0%
LDRD	168	156	155	16	0	-168	-100.0%
<b>TOTAL SITE SPECIFIC</b>	<b>1,139</b>	<b>1,057</b>	<b>1,048</b>	<b>874</b>	<b>843</b>	<b>-296</b>	<b>-26.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>11,579</b>	<b>10,741</b>	<b>10,649</b>	<b>9,776</b>	<b>9,652</b>	<b>-1,927</b>	<b>-16.6%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	14,928	13,850	13,730	13,056	12,498	-2,430	-16.3%
Capital Construction	2,927	2,715	2,692	2,066	1,654	-1,273	-43.5%
<b>TOTAL MISSION DIRECT</b>	<b>17,855</b>	<b>16,565</b>	<b>16,422</b>	<b>15,122</b>	<b>14,152</b>	<b>-3,703</b>	<b>-20.7%</b>
<b>Total Costs</b>	<b>29,434</b>	<b>27,306</b>	<b>27,071</b>	<b>24,898</b>	<b>23,804</b>	<b>-5,630</b>	<b>-19.1%</b>
<b>Total Costs w/o Construction</b>	<b>26,507</b>	<b>24,591</b>	<b>24,379</b>	<b>22,832</b>	<b>22,150</b>	<b>-4,357</b>	<b>-19.7%</b>
General Support % Total Co	16.1%	16.1%	16.1%	17.4%	17.9%		1.7%
Mission Support % Total Cos	19.3%	19.3%	19.3%	18.4%	19.1%		-0.2%
Site Specific % Total Costs	3.9%	3.9%	3.9%	3.5%	3.5%		-0.3%
Total Support % Total Costs	39.3%	39.3%	39.3%	39.3%	40.5%		1.2%
Total Support % Total Costs w/o Construct	43.7%	43.7%	43.7%	42.8%	43.6%		-0.1%

US Department of Energy  
Total Functional Support  
Ames

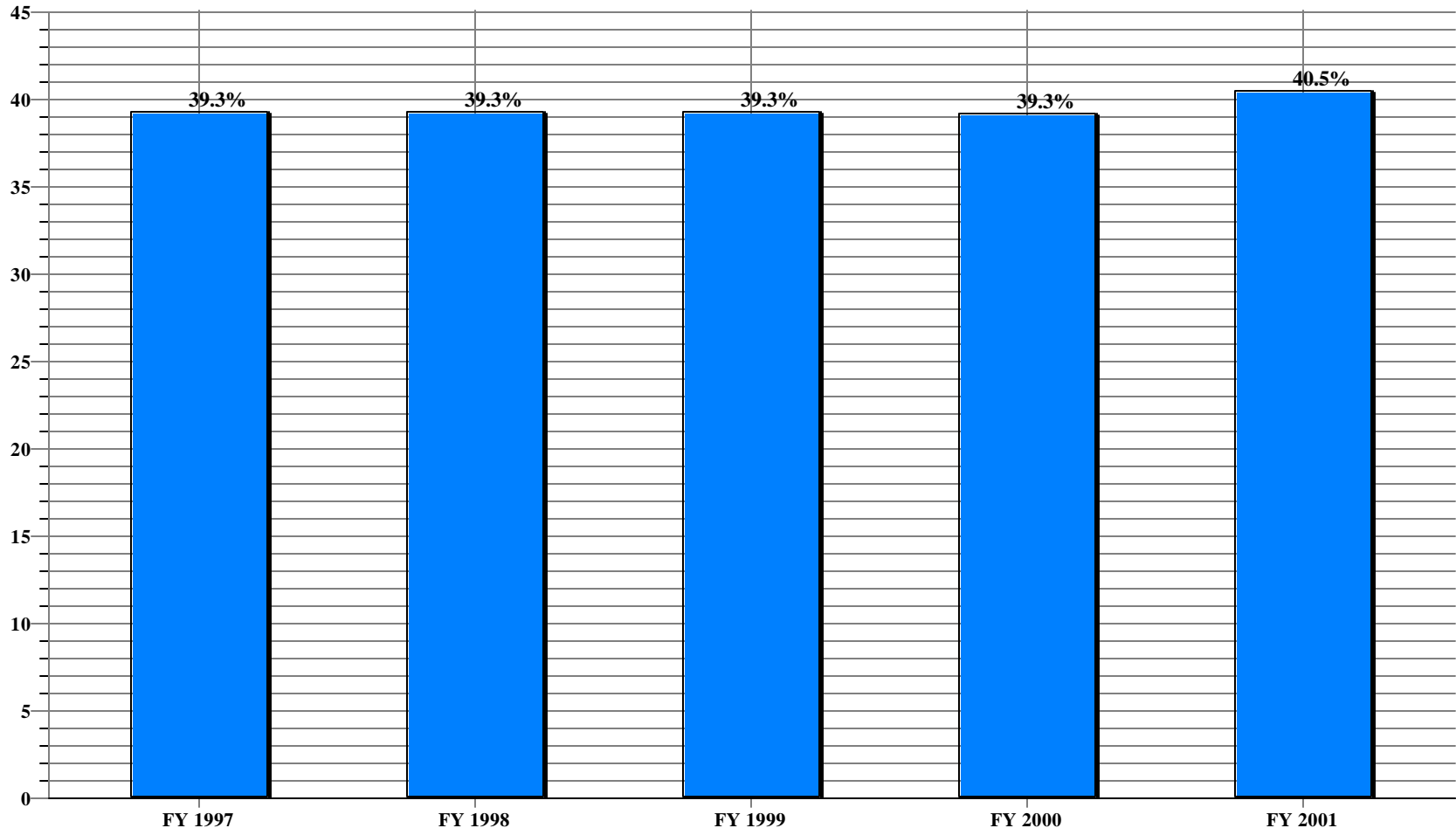


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	11,579	10,741	10,649	9,776	9,652



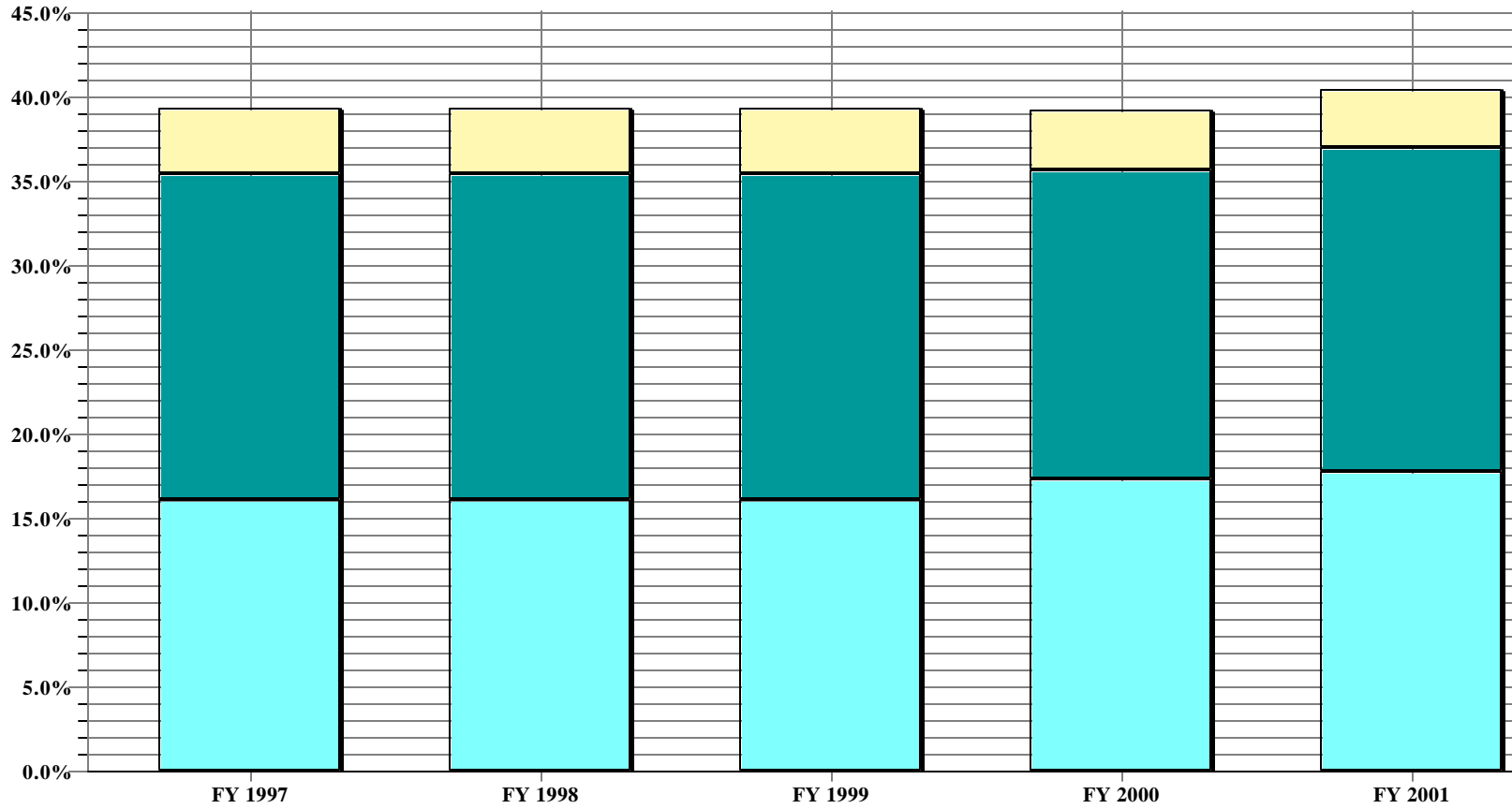
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Ames**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	39.3%	39.3%	39.3%	39.3%	40.5%

**US Department of Energy  
Percent of Support Category to Total  
Ames**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	16.1%	16.1%	16.1%	17.4%	17.9%
<b>Mis Sup</b>	19.3%	19.3%	19.3%	18.4%	19.1%
<b>Site Specific</b>	3.9%	3.9%	3.9%	3.5%	3.5%

## FUNTIONAL COST NARRATIVE

### SITE PROFILE - AMES LABORATORY

The organization that ultimately became the Ames Laboratory in 1947, originated as a part of the Office of Scientific Research and Development in the early days of the atomic energy program. Initial work at Ames involved the development of a process for the production of uranium metal in large quantities. Ames Laboratory now pursues much broader priorities in addition to the materials research that has given the Laboratory international recognition.

The Laboratory's mission is to conduct fundamental research in the physical, chemical, materials, and mathematical sciences and engineering which underlie energy generating, conversion, transmission and storage technologies, environmental improvement, and other technical areas essential to national needs. These efforts will be maintained so as to contribute to the achievement of the vision of the Department of Energy and, more specifically, to increase the general levels of knowledge and technical capabilities, to prepare engineering and physical sciences students for the future, and to develop new technologies and practical applications arising from our basic scientific programs. The Laboratory will approach all its operations with the safety and health of all workers as a constant objective and with genuine concern for the environment.

The Ames Laboratory site is located on approximately 10 acres of land owned by Iowa State University that is leased to the Federal government on a long-term (99 year) basis. DOE owned buildings include three research buildings; one building housing management, administration, and technical support groups; and several small auxiliary buildings housing material receiving areas, warehouse functions, and shop facilities. Some research space is also leased from Iowa State University. Ames Laboratory does not have a large noncost-recovery user facility, a nuclear criticality facility, or any production facilities. The Laboratory operates as a customer of the local utility providers and does not operate central heating/chilling/power plant operations, water supply/treatment facilities, or sewage systems. Nor does Ames have its own fire department, cafeteria, or library. Approximately 700 people (297 FTE's) worked at Ames Laboratory in FY2001. The Ames site is a single purpose laboratory with a diverse customer base (EE, EM, FE, NN, SC, and Work for Others).

### TRENDS

FY1995 through FY1998 were prorated based on the results of FY1999, per Chicago's instructions. Therefore, the following discussion addresses only the trends from FY1999 to FY2001.

Ames Laboratory's total costs dropped from \$27,070,443 in FY1999 to \$23,892,484 in FY2001. This was a decrease of 13.3%. The Laboratory's total functional support costs dropped from \$10,649,097 in FY1999 to \$9,658,883 in FY2001, a decrease of 10.3%.

Functional support costs as a percentage of total site costs:	FY1999 - 39.3%
	FY2000 - 39.3%
	FY2001 - 40.4%

## ANOMALIES IN COST DATA FROM FY1999 TO FY2001:

Chief Financial Officer – One position vacated in FY1999 was filled in FY2000. FY2001 costs reflect a normalized level of effort.

Procurement – Reflects the reduction of one FYE in FY2000.

Central Administrative Services – Reduction of one FTE in FY2000 due to a reduced demand for printing services. FY2001 reflects a full year of cost savings.

Program/Project Planning & Control – This functional category fluctuates relative to the funding levels of the Laboratory.

Information Services – FY1999 included gigabit components procured to upgrade the efficiency and speed of the network backbone. With the completion of this onetime upgrade in FY1999, FY2000 costs were reduced.

Other – This category includes the annual change in the Laboratory's accrued vacation liability costs. These costs are a factor resulting from the difference in the vacation earned and used by each individual employee in the laboratory and can vary significantly each year.

Environmental – EM-40 discontinued direct funding of certain activities related to environmental monitoring and stewardship. Those activities are now financed with the Laboratory's overhead funds in this functional category in FY2000, they had been included in EM mission direct in prior years.

Safety & Health – FY2000 includes one-time upgrades of radiation protection instrumentation (\$17K) and specifically targeted remediation efforts (unused fume ducts and removal of drains) in Wilhelm Hall were completed in FY2000 (\$29K).

Facilities Management – Includes space rental, which dropped from \$196,171 in FY1999 to \$31,800 in FY2000 to \$2,719 in FY2001.

Maintenance – In FY2000 the Facilities Services Group experienced a shortage of available man hours due to the turnover of several staff members. Therefore, maintenance efforts were reduced in FY2000 but returned to a more normalized level of effort in FY2001

Laboratory/Technical Support – Reductions in the need for Laboratory Technical Services parallel the reduction in research funding. The Electronic Engineers section in the Engineering Services Group was eliminated due to reduced demand for these services by the scientific community (reduction of approximately 2.5 FTE's).

LDRD – Due to declining research funds, Laboratory Management did not fund any LDRD activities in FY2000 or FY2001.

## COST SAVINGS INITIATIVES

Most, if not all, of the cost savings realized over the past five years has come as a result of the declining level of support that the Laboratory has received. Some cost saving initiatives include elimination of the

automobile pool, reduction in the number of guards, and reduction of various other support positions at the Laboratory. In FY2000 one position each was reduced in procurement and printing services. The Electronic Engineers section in the Engineering Services Group was eliminated due to reduced demand for these services by the scientific community (reduction of approximately 2.5 FTE's), as well as one administrative position in the Engineering Services Group. And finally, as research funds have declined, rented space has been closely scrutinized and significant efforts have been made to reduce the Laboratory's occupancy of non-owned space (note anomaly in the Functional Category – Facilities Management).

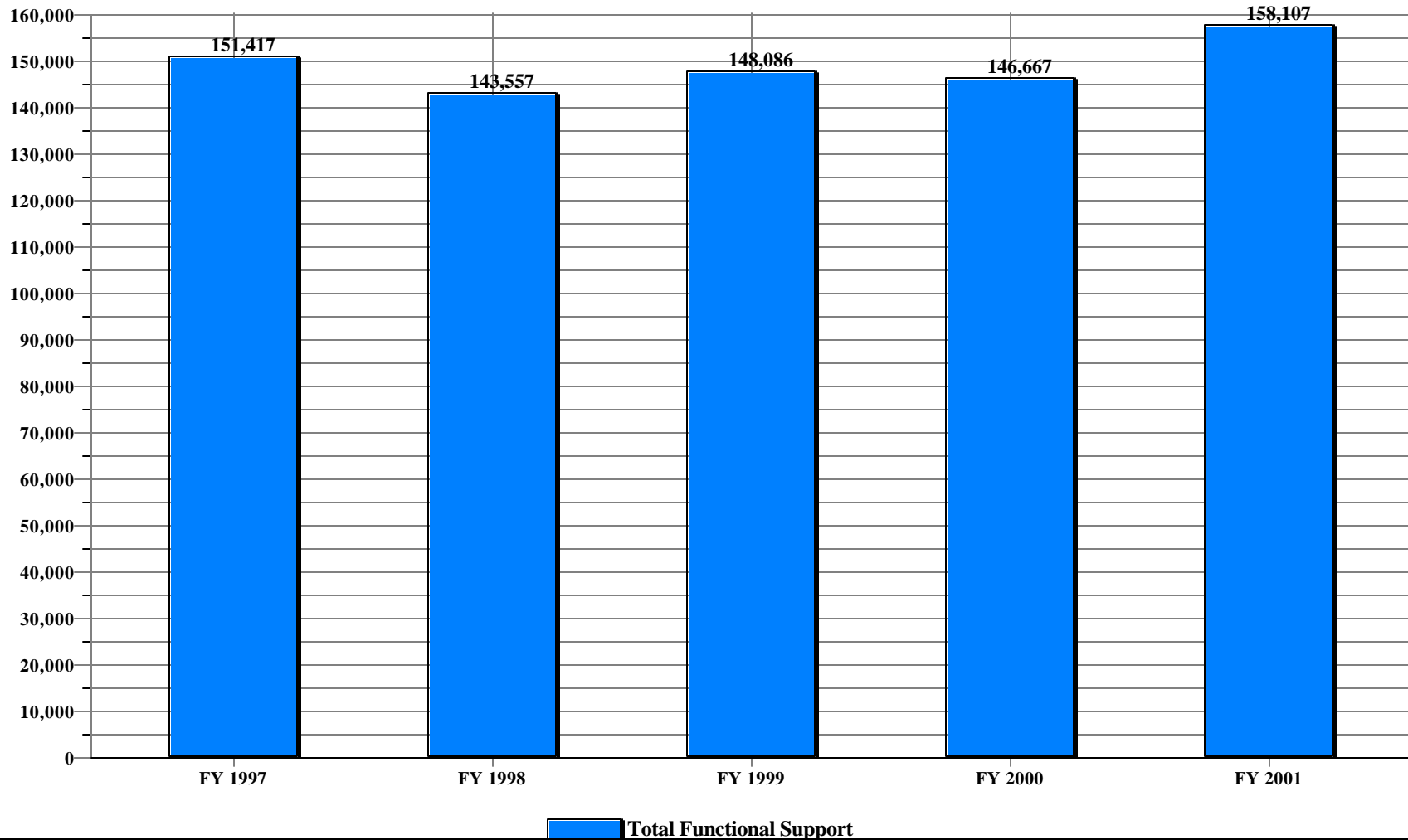
#### OTHER

Item	Value
Reimbursable Services Performed for Contractor	\$(609.5)K
Early Retirement Incentive Program, Accrued Vacation Liability Change, Disability, Law Suit Settlement	286.3
Workman's Compensation Refund	(6.7)
Lab residual (plug to balance)	14.0
<b>TOTAL</b>	<b>\$(315.9)K</b>

## Trends in Total Functional Support Cost Categories

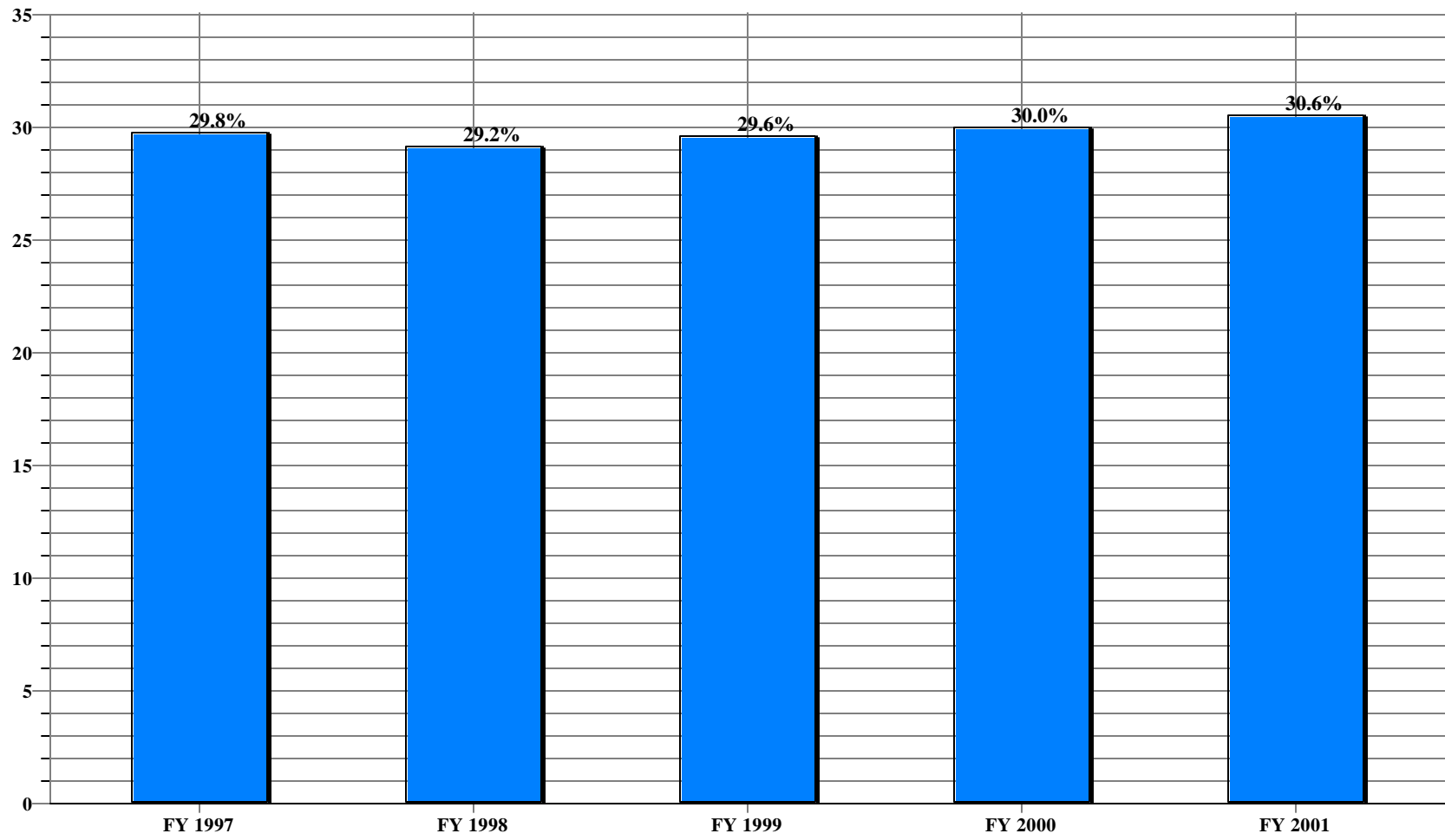
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	5,890	5,832	4,977	5,170	5,857	-33	-0.6%
HUMAN RESOURCES	4,139	4,084	4,106	4,131	4,171	32	0.8%
CFO	5,353	5,150	5,171	5,043	4,982	-371	-6.9%
PROCUREMENT	4,108	3,979	4,204	4,191	4,107	-1	0.0%
LEGAL	1,967	1,925	2,232	2,043	2,394	427	21.7%
CENTRAL ADMIN SERVICES	11,016	10,052	10,204	10,217	10,912	-104	-0.9%
PROGRAM/PROJECT CONTROL	785	772	785	787	797	12	1.5%
INFORMATION OUTREACH	4,236	4,316	4,296	4,233	4,102	-134	-3.2%
INFORMATION SERVICES	18,553	15,526	16,124	16,437	17,796	-757	-4.1%
OTHER	-438	-449	-34	-123	1,547	1,985	-453.2%
<b>TOTAL GENERAL SUPPORT</b>	<b>55,609</b>	<b>51,187</b>	<b>52,065</b>	<b>52,129</b>	<b>56,665</b>	<b>1,056</b>	<b>1.9%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	4,391	4,276	4,052	4,532	5,120	729	16.6%
SAFETY AND HEALTH	16,421	15,740	16,469	17,313	16,702	281	1.7%
FACILITIES MANAGEMENT	8,021	6,852	8,158	7,322	8,233	212	2.6%
MAINTENANCE	17,653	16,613	16,711	16,627	16,769	-884	-5.0%
UTILITIES	18,674	18,814	17,895	16,838	18,495	-179	-1.0%
SAFEGUARDS AND SECURITY	7,007	7,275	7,086	7,224	9,079	2,072	29.6%
LOGISTICS SUPPORT	5,646	5,104	5,098	5,336	5,665	19	0.3%
QUALITY ASSURANCE	465	468	518	414	366	-99	-21.3%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	121	121	100.0%
<b>TOTAL MISSION SUPPORT</b>	<b>78,278</b>	<b>75,142</b>	<b>75,987</b>	<b>75,606</b>	<b>80,550</b>	<b>2,272</b>	<b>2.9%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	7,200	6,730	6,795	5,998	5,419	-1,781	-24.7%
TAXES	30	30	0	0	0	-30	-100.0%
LDRD	10,300	10,468	13,239	12,934	15,473	5,173	50.2%
<b>TOTAL SITE SPECIFIC</b>	<b>17,530</b>	<b>17,228</b>	<b>20,034</b>	<b>18,932</b>	<b>20,892</b>	<b>3,362</b>	<b>19.2%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>151,417</b>	<b>143,557</b>	<b>148,086</b>	<b>146,667</b>	<b>158,107</b>	<b>6,690</b>	<b>4.4%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	320,580	324,033	322,432	322,621	329,642	9,062	2.8%
Capital Construction	35,864	24,503	29,402	19,045	29,182	-6,682	-18.6%
<b>TOTAL MISSION DIRECT</b>	<b>356,444</b>	<b>348,536</b>	<b>351,834</b>	<b>341,666</b>	<b>358,824</b>	<b>2,380</b>	<b>0.7%</b>
<b>Total Costs</b>	<b>507,861</b>	<b>492,093</b>	<b>499,920</b>	<b>488,333</b>	<b>516,931</b>	<b>9,070</b>	<b>1.8%</b>
<b>Total Costs w/o Construction</b>	<b>471,997</b>	<b>467,590</b>	<b>470,518</b>	<b>469,288</b>	<b>487,749</b>	<b>15,752</b>	<b>3.2%</b>
General Support % Total Co	10.9%	10.4%	10.4%	10.7%	11.0%		0.0%
Mission Support % Total Cos	15.4%	15.3%	15.2%	15.5%	15.6%		0.2%
Site Specific % Total Costs	3.5%	3.5%	4.0%	3.9%	4.0%		0.6%
Total Support % Total Costs	29.8%	29.2%	29.6%	30.0%	30.6%		0.8%
Total Support % Total Costs w/o Construct	32.1%	30.7%	31.5%	31.3%	32.4%		0.3%

US Department of Energy  
Total Functional Support  
Argonne



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	151,417	143,557	148,086	146,667	158,107

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Argonne**

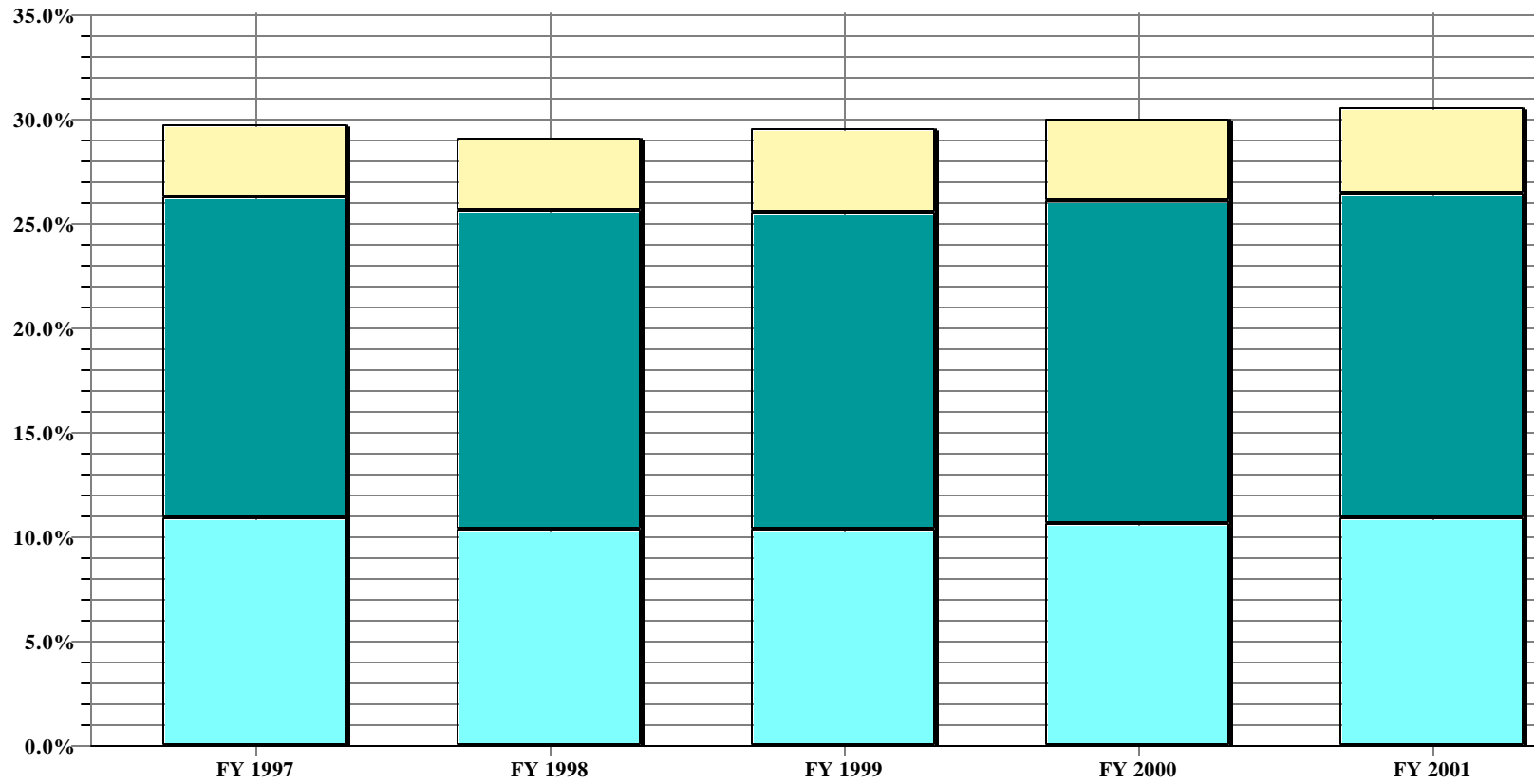


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	29.8%	29.2%	29.6%	30.0%	30.6%



**US Department of Energy  
Percent of Support Category to Total  
Argonne**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	10.9%	10.4%	10.4%	10.7%	11.0%
<b>Mis Sup</b>	15.4%	15.3%	15.2%	15.5%	15.6%
<b>Site Specific</b>	3.5%	3.5%	4.0%	3.9%	4.0%

## FY 2001 Site Profile For: Argonne

Background:

# America's first national laboratory

Argonne is one of the U.S. Department of Energy's largest research centers. It is also the nation's first national laboratory, chartered in 1946. Argonne is a direct descendant of the University of Chicago's Metallurgical Laboratory, part of the World War Two Manhattan Project to build the atomic bomb



Argonne's Illinois site

before the Nazis did. It was at the Met Lab where, on Dec. 2, 1942, Enrico Fermi and his band of about 50 colleagues created the world's first controlled nuclear chain reaction in a squash court at the University of Chicago. After the war, Argonne was given the mission of developing nuclear reactors for peaceful purposes. Over the years, Argonne's research expanded to include many other areas of science, engineering and technology -- some of which are highlighted in this virtual tour. Argonne is not and never has been a weapons laboratory.

Today, the laboratory has close to 4,000 employees, including about 1,400 scientists and engineers, of whom about 700 hold doctorate degrees. Argonne's annual operating budget of nearly \$485 million supports upwards of 200 research projects, ranging from studies of the atomic nucleus to global climate change research. Since 1990, Argonne has worked with more than 600 companies and numerous federal agencies and other organizations.

Argonne occupies two sites. The Illinois site is surrounded by forest preserve about 25 miles southwest of Chicago's Loop. About 3,200 of Argonne's 4,000 employees work on the site's 1,500 wooded acres. The site also houses the U.S. Department of Energy's Chicago Operations Office.

Argonne-West occupies about 900 acres about 50 miles west of Idaho Falls in the Snake River Valley. It is the home of most of Argonne's major nuclear reactor research facilities. About 800 of Argonne's employees work there.



Argonne-West, Idaho

Argonne research falls into four broad categories:

**Basic science** seeks solutions to a wide variety of scientific challenges. This includes experimental and theoretical work in materials science, physics, chemistry, biology, high-energy physics, and mathematics and computer science, including high-performance computing. Argonne's exciting, cutting-edge research brings value to society today by helping lay the foundation for tomorrow's technological breakthroughs.

**Scientific facilities** like Argonne's Advanced Photon Source help advance America's scientific leadership and prepare the nation for the future. The laboratory designs, builds and operates sophisticated research facilities that would be too expensive for a single company or university to build and operate. They are used by scientists from Argonne, industry, academia and other national laboratories, and often by scientists from other nations. The laboratory is also home to the Intense Pulsed Neutron Source, the Argonne Tandem Linear Accelerator System and other facilities.

**Energy resources** programs help insure a reliable supply of efficient and clean energy for the future. Argonne scientists and engineers are developing advanced batteries and fuel cells, as well as advanced electric power generation and storage systems. They are also working to improve the safety and longevity of both American and Soviet-designed nuclear reactors.

**Environmental management** includes work on managing and solving the nation's environmental problems and promoting environmental stewardship. Research in this area includes alternative energy systems; environmental risk and economic impact assessments; hazardous waste site analysis and remediation planning; electrometallurgical treatment to prepare spent nuclear fuel for disposal; and new technologies for decontaminating and decommissioning aging nuclear reactors.

Argonne is operated by the University of Chicago for the U.S. Department of Energy.

### **Specific Comments on Trends in Functional Support Costs, FY1996-FY2001**

Functional Support Costs averaged about 27.4% of total Laboratory Operating Expense in the period stretching from FY1996 through FY2001.

Laboratory Directed Research and Development (LDRD) increased from \$9.5M in FY1996 to \$15.5M in FY2001. This vital responsibility represents \$6.0M of the total \$7.0M increase in total functional support costs during the time span under review.

Utility costs increased from \$17.3M in FY1996 to \$18.2M in FY2001. Before FY2001, conservation efforts and fuel usage management had brought the expense down to \$16.8M in FY2000. Argonne was impacted by the extraordinary price increases experienced all across the country in FY2001.

Argonne controlled expenses and absorbed inflation of approximately 4% per year, which amounts to \$32.7M from FY1996 to the present. Argonne was able to control costs through cost savings measures identified below and at the same time increase the LDRD program by approximately \$6.0M as noted above.

### Some Cost Savings Initiatives:

ESH reorganized and span of control increased.

Custodial function reexamined needs of each building on site and increased efficiency.

Vacant space reduced via demolition / mothballing / occupancy resulting in a decrease in the overall cost of space in the Laboratory.

Vehicle Maintenance function analyzed and resulted in a large quantity of vehicles being reduced on site with resultant reduction in overall vehicle maintenance costs.

Mail delivery analyzed and reduced to once per day delivery and closing of a branch office.

Several other reorganizations of Operations functions creating efficiencies and economies of scale in administrative efforts.

Consistent application of scrubbing of one-time costs resulting in contributions toward absorbing cost escalation in the budgets.

Increased productivity and reduced overheads have resulted in enhanced research programs and to some degree offset the impact of fixed costs ( Allowances, Awards, etc.) in an era of relatively flat R&D budgets. Among these results, Argonne has been able to achieve a strengthened LDRD program by providing more funds and raising the percentage contribution of gross operating expenditures toward pursuing new and innovative scientific ideas.

### EXPLANATIONS of MAJOR CHANGES- FY2000 VS. FY2001

#### **Executive Direction**

Executive Direction increased from \$5170K in FY2000 to \$5857K in FY2001. This is due to the change in Laboratory Management, for which a directorate was formed with the addition of a Deputy Laboratory Director, Deputy to the Laboratory Director, and Assistant to the Laboratory Director.

#### **Central Administrative Services**

Central Administrative Services increased from \$10,217K in FY2000 to \$10,912K in FY2001. This category includes Information Publishing Services, a very labor-intensive area, for which inflationary (primarily merit) increases were 4% or \$408K, and purchased labor increased by \$75K. This category also includes travel fees and rebates, and in FY2001 the Laboratory decided that rather than accumulating all rebates here, it would instead apply rebates to each area that purchased the ticket immediately, therefore credits decreased by about \$212K.

#### **Information Services**

Information Services increased from \$16,437K in FY2000 to \$17,796K in FY2001. This category includes Central Computing Services, Telecommunications, and Management Information Services. Inflation (primarily merit increases) of 4% accounts for \$657K of the increase. The balance of the increase is attributable to cyber security expenditures.

**Other**

Other Expense increased from -\$123K in FY2000 to \$1547K in FY2001. This category includes miscellaneous expenses such as cleaning uniforms, postage, and other Argonne West Reactor Program Services' operations costs. It also includes Public Liability Insurance and Miscellaneous Income. The increase is due to the addition in FY2001 of Argonne West's charge from INEEL for the site-wide Fire Station \$1053K. The balance of the increase is due to Public Liability Insurance.

**Environmental**

Environmental expenses increased from \$4532K in FY2000 to \$5120K in FY2001. This category includes Environment and Quality Oversight and Waste Management Operations. Inflation (primarily merit payroll increases) accounts for approximately \$180K, and the balance of the increase is due to increased demand for Waste Management.

**Facilities Management**

Facilities Management expenses increased from \$7322K in FY2000 to \$8490K in FY2001. This category includes Facilities Engineering, Planning, and Conceptual Design; Child Care Facility operations; the Argonne Information Center operations; general Postage; and Wildlife Damage Management. This category also includes a portion of the increase in Fuel costs \$476K. Additionally, this includes Site Survey costs in FY2001 of approximately \$591K for Fire Protection, etc.

**Utilities**

Utilities expenses increased from \$16,838K in FY2000 to \$18,238K in FY2001. This category includes mainly natural gas, coal, and Lake Michigan water. The increase is due primarily to the extreme price increase in natural gas that was common throughout the Midwest area of the United States.

**Safeguards and Security**

Safeguards and Security expenses increased from \$7224K in FY2000 to \$9079K in FY2001. This increase is attributable to an increase in the protective forces at ANL West of four FTEs and also an increase of three FTEs associated with Counterintelligence. The increase at ANL East is for cost associated with cyber security and counterintelligence.

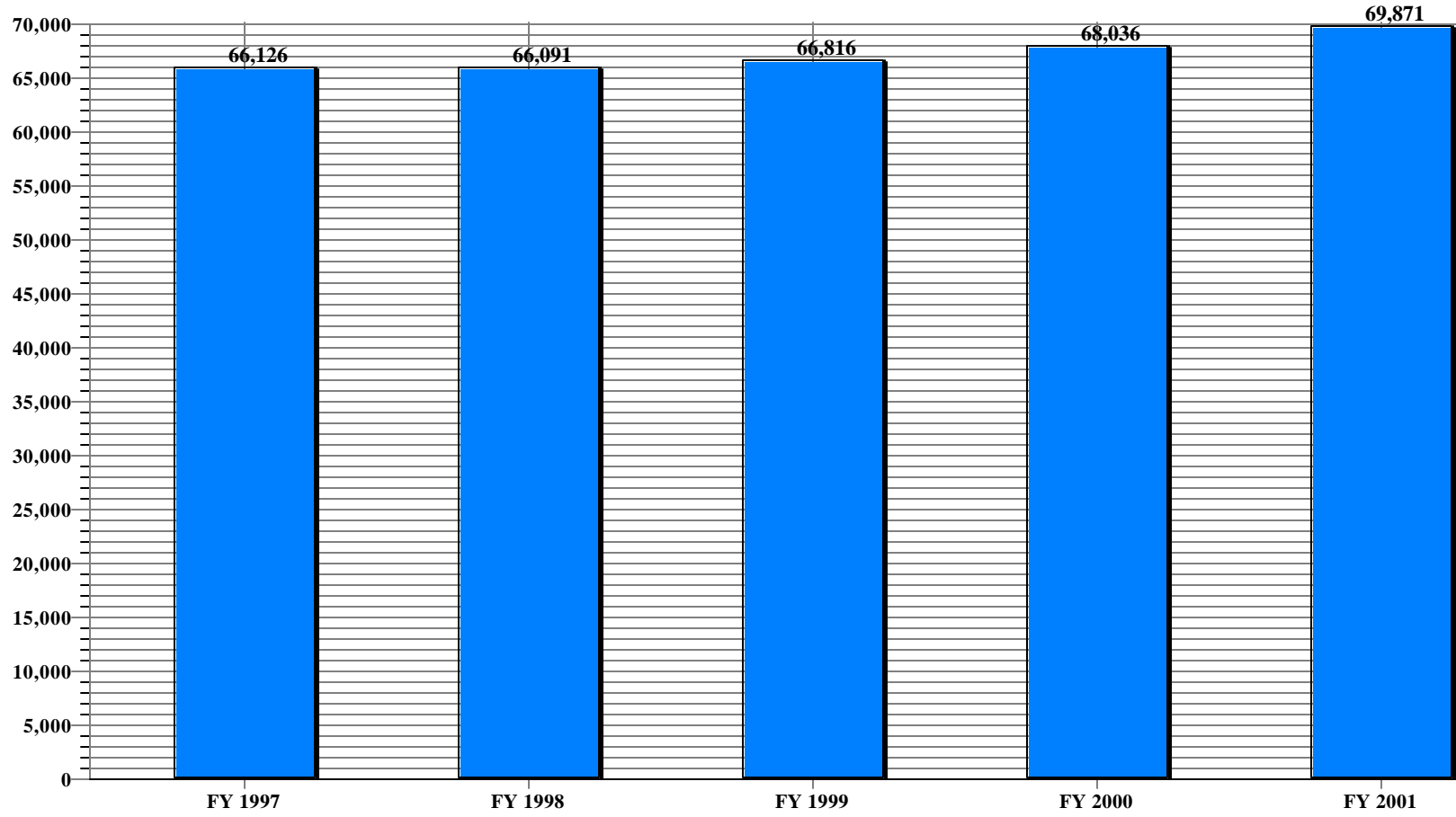
**Laboratory-Directed Research and Development (LDRD)**

LDRD increased from \$12,934K in FY2000 to \$15,473K in FY2001. LDRD includes numerous scientific projects that are developmental in nature, for example, the Advanced Photon Source began as an LDRD project. In FY 2001 Argonne's funding level for LDRD was 4.5% of their total operating budget.

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	2,305	2,326	2,978	3,002	3,193	888	38.5%
HUMAN RESOURCES	2,254	2,466	3,643	3,998	3,640	1,386	61.5%
CFO	2,043	2,646	2,694	1,892	2,233	190	9.3%
PROCUREMENT	1,794	1,790	1,728	1,850	2,100	306	17.1%
LEGAL	63	63	73	89	122	59	93.7%
CENTRAL ADMIN SERVICES	1,513	1,376	1,616	1,331	1,229	-284	-18.8%
PROGRAM/PROJECT CONTROL	337	341	316	262	444	107	31.8%
INFORMATION OUTREACH	0	0	0	0	0	0	0.0%
INFORMATION SERVICES	8,954	9,200	10,023	10,070	9,675	721	8.1%
OTHER	0	0	0	0	0	0	0.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>19,263</b>	<b>20,208</b>	<b>23,071</b>	<b>22,494</b>	<b>22,636</b>	<b>3,373</b>	<b>17.5%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	3,615	3,585	5,122	5,174	5,535	1,920	53.1%
SAFETY AND HEALTH	10,717	10,852	10,796	11,661	11,994	1,277	11.9%
FACILITIES MANAGEMENT	2,705	2,702	2,568	3,081	3,227	522	19.3%
MAINTENANCE	6,505	6,006	6,282	6,847	5,757	-748	-11.5%
UTILITIES	2,209	2,391	2,265	2,232	2,499	290	13.1%
SAFEGUARDS AND SECURITY	5,138	4,813	5,037	5,290	6,020	882	17.2%
LOGISTICS SUPPORT	2,503	2,451	2,017	2,134	2,459	-44	-1.8%
QUALITY ASSURANCE	4,723	4,234	4,144	4,374	4,411	-312	-6.6%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>38,115</b>	<b>37,034</b>	<b>38,231</b>	<b>40,793</b>	<b>41,902</b>	<b>3,787</b>	<b>9.9%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	8,310	8,458	4,988	4,504	5,069	-3,241	-39.0%
TAXES	438	391	526	245	264	-174	-39.7%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>8,748</b>	<b>8,849</b>	<b>5,514</b>	<b>4,749</b>	<b>5,333</b>	<b>-3,415</b>	<b>-39.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>66,126</b>	<b>66,091</b>	<b>66,816</b>	<b>68,036</b>	<b>69,871</b>	<b>3,745</b>	<b>5.7%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	240,079	219,680	213,733	234,986	240,518	439	0.2%
Capital Construction	19,995	20,173	24,605	24,057	20,663	668	3.3%
<b>TOTAL MISSION DIRECT</b>	<b>260,074</b>	<b>239,853</b>	<b>238,338</b>	<b>259,043</b>	<b>261,181</b>	<b>1,107</b>	<b>0.4%</b>
<b>Total Costs</b>	<b>326,200</b>	<b>305,944</b>	<b>305,154</b>	<b>327,079</b>	<b>331,052</b>	<b>4,852</b>	<b>1.5%</b>
<b>Total Costs w/o Construction</b>	<b>306,205</b>	<b>285,771</b>	<b>280,549</b>	<b>303,022</b>	<b>310,389</b>	<b>4,184</b>	<b>1.3%</b>
General Support % Total Co	5.9%	6.6%	7.6%	6.9%	6.8%		0.9%
Mission Support % Total Cos	11.7%	12.1%	12.5%	12.5%	12.7%		1.0%
Site Specific % Total Costs	2.7%	2.9%	1.8%	1.5%	1.6%		-1.1%
Total Support % Total Costs	20.3%	21.6%	21.9%	20.8%	21.1%		0.8%
Total Support % Total Costs w/o Construct	21.6%	23.1%	23.8%	22.5%	22.5%		0.9%

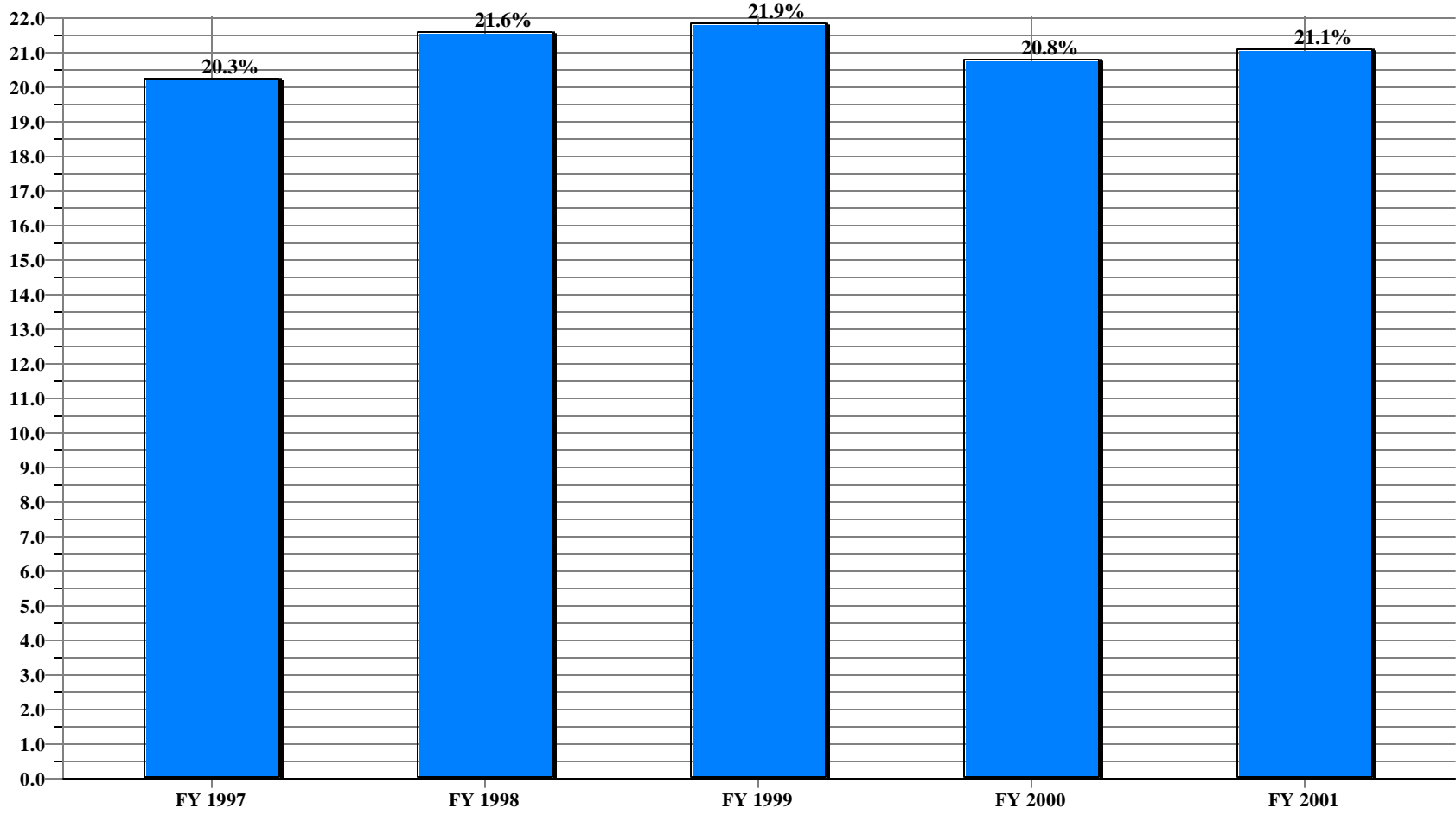
US Department of Energy  
Total Functional Support  
Bettis Lab



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	66,126	66,091	66,816	68,036	69,871

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Bettis Lab**

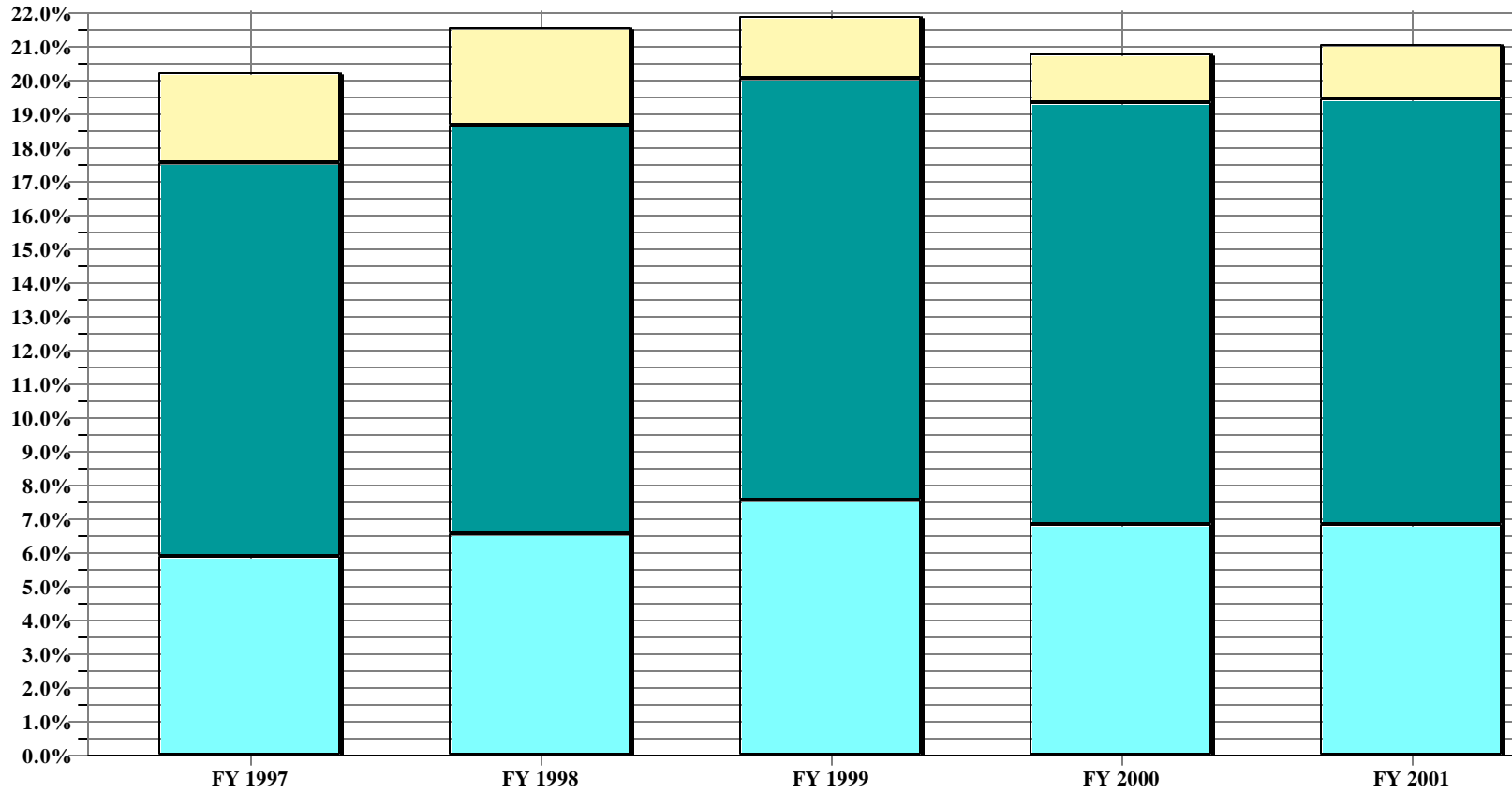


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	20.3%	21.6%	21.9%	20.8%	21.1%



**US Department of Energy  
Percent of Support Category to Total  
Bettis Lab**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	5.9%	6.6%	7.6%	6.9%	6.8%
<b>Mis Sup</b>	11.7%	12.1%	12.5%	12.5%	12.7%
<b>Site Specific</b>	2.7%	2.9%	1.8%	1.5%	1.6%

## **BETTIS ATOMIC POWER LABORATORY**

Bettis Laboratory is a research and development laboratory operated by Bechtel Bettis, Inc., a subsidiary of Bechtel National, Inc., for the Naval Nuclear Propulsion Program, a joint United States Navy-Department of Energy (DOE) organization. Bettis is primarily involved with the design, development, and operational follow of nuclear propulsion plants for naval vessels.

Bettis Laboratory is located in the Borough of West Mifflin, Pennsylvania, approximately 7.5 miles southeast of Pittsburgh, Pennsylvania. The Laboratory is situated on approximately 202 acres of land. All land and buildings on the site are the property of the Federal government.

The present site of the Bettis Laboratory was originally developed as Pittsburgh's first airfield. The Pittsburgh-McKeesport Airdrome opened there in August of 1925. A year later, the Airdrome was renamed Bettis Airfield in honor of Lieutenant Cyrus Bettis, a famous aviator who had died in a plane crash in central Pennsylvania. In 1940, most commercial traffic moved to the nearby Allegheny County Airport because the Bettis Airfield could not handle the increasingly larger, modern aircraft. Private aviators used the field until 1948.

The newly-formed Westinghouse Atomic Power Division bought the Airfield tract early in 1949 and purchased adjacent properties in 1952. The land was acquired according to a contract between Westinghouse and the Atomic Energy Commission (AEC) whereby Westinghouse was assigned certain responsibilities for engineering, design, procurement, and construction work on the prototype of the first naval nuclear propulsion plant. Later, in 1957, the AEC (now DOE) exercised its contractual option to purchase the site and has held title since then. Bechtel National, Inc. replaced Westinghouse Electric Company as the operating contractor on February 1, 1999.

The site evolved into a large-scale development, engineering, and design facility. The initial efforts of Bettis led to the development of the power plant for USS NAUTILUS, the world's first nuclear-powered submarine.

Since USS NAUTILUS, Bettis has worked on many aspects of the development of the nuclear navy. Advanced technology for submarine and surface ship nuclear propulsion plants has constituted a major portion of the work program. Bettis' work on the prototype nuclear propulsion plant for a surface ship, and successful operation of the prototype at the Naval Reactors Facility in Idaho Falls, Idaho, led to the development of the first nuclear-powered surface ship, the cruiser USS LONG BEACH, and the first nuclear-powered aircraft carrier, USS ENTERPRISE. Bettis currently provides design and engineering support for many of the Navy's operating propulsion plants including the propulsion plants in the NIMITZ class aircraft carriers and in the new SEAWOLF class of attack submarines, and is developing new technologies and designs for the Navy's future ships including the VIRGINIA class of submarines and the CVNX class of aircraft carriers.

Bettis laboratory has also played a role in the development of land-based nuclear reactor plants. Under DOE's office of Naval Reactors, Bettis worked on the design and development of the first United States full-scale nuclear power plant for civilian use, the Shippingport Atomic Power Station. Shippingport was also the site of the first light Water Breeder Reactor (LWBR) which was placed into operation in 1977 and operated until October 1982. This advanced reactor system was developed to improve significantly the utilization of fuel in light water reactors. The technology developed for the Shippingport program has been made available to industry for commercial application.

The broad spectrum of Bettis' activities has included work on core and component technology and design, thermal and hydraulic systems, materials, nuclear physics design, and training of naval personnel. Bettis currently employs approximately 3,000 people at all of its sites.

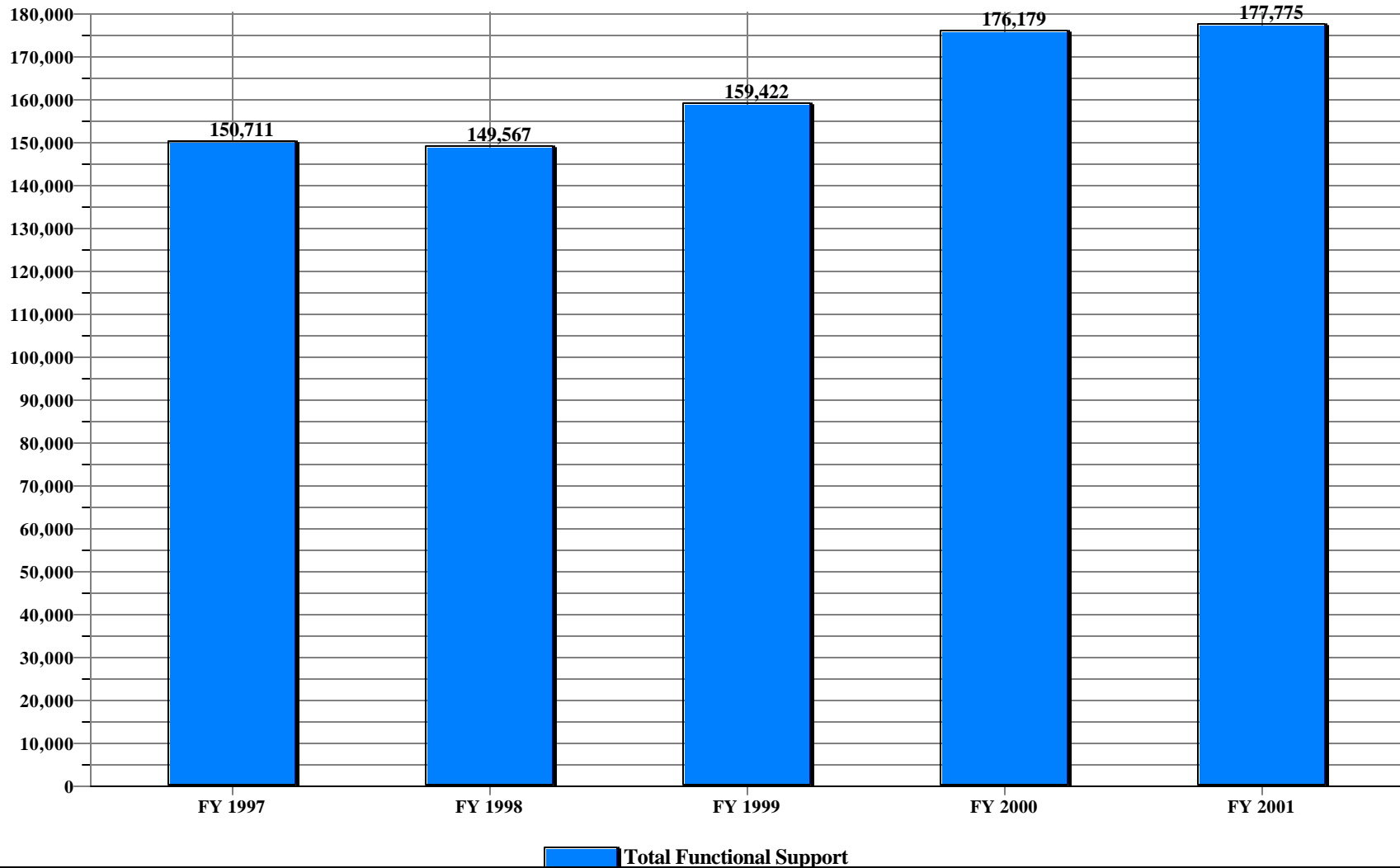
Brookhaven

FY 2001

Trends in Total Functional Support Cost Categories

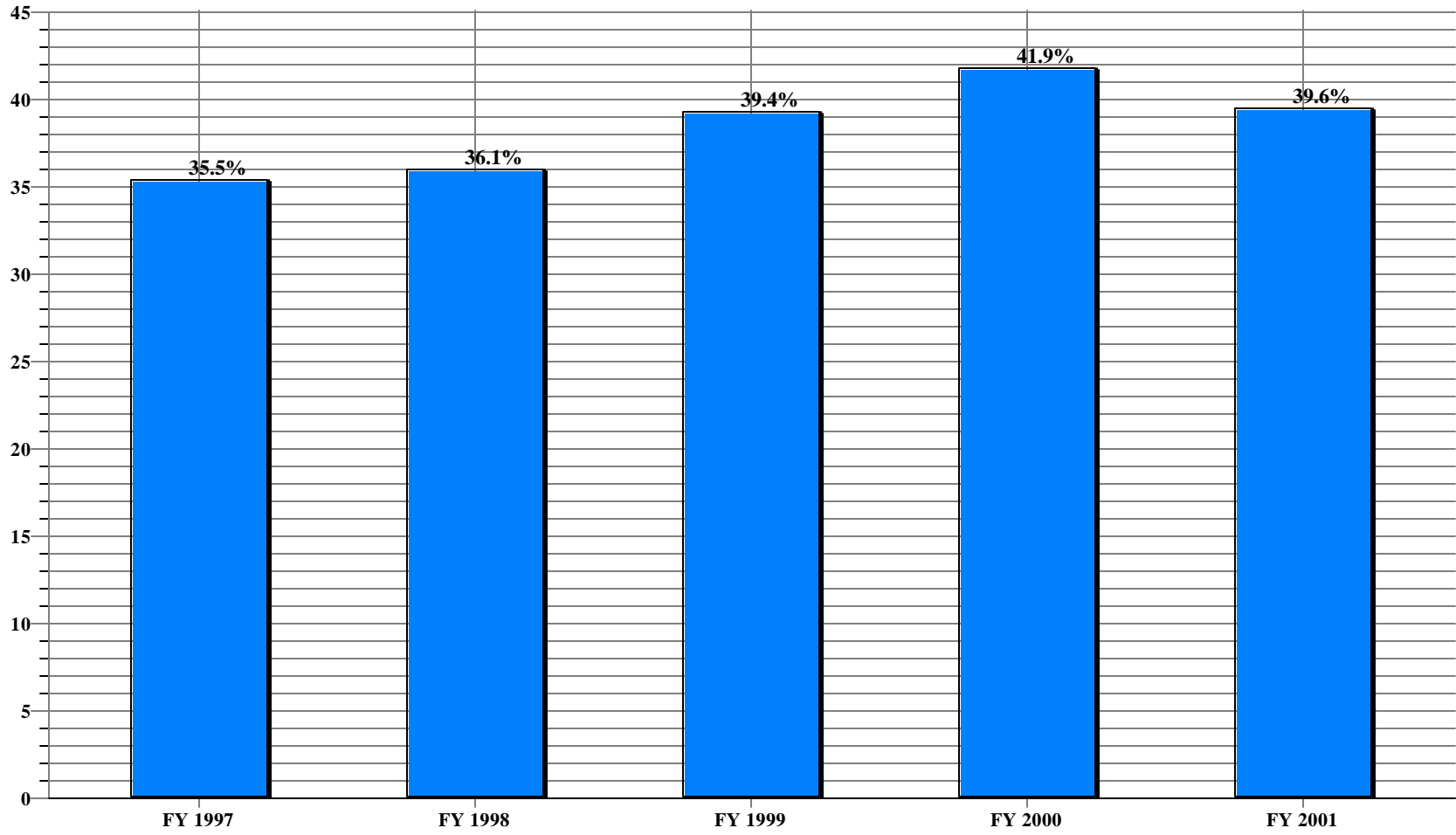
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	4,312	5,246	8,081	7,383	7,428	3,116	72.3%
HUMAN RESOURCES	3,705	3,836	3,662	3,706	3,974	269	7.3%
CFO	2,305	2,177	1,899	2,564	2,560	255	11.1%
PROCUREMENT	2,013	1,956	1,969	1,911	1,343	-670	-33.3%
LEGAL	299	512	655	535	912	613	205.0%
CENTRAL ADMIN SERVICES	3,119	3,403	3,112	4,969	5,367	2,248	72.1%
PROGRAM/PROJECT CONTROL	19,740	17,942	16,564	19,241	19,884	144	0.7%
INFORMATION OUTREACH	3,639	4,571	5,120	3,387	3,593	-46	-1.3%
INFORMATION SERVICES	10,183	10,477	15,215	17,657	16,052	5,869	57.6%
OTHER	3,713	73	-1,910	3,937	3,198	-515	-13.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>53,028</b>	<b>50,193</b>	<b>54,367</b>	<b>65,290</b>	<b>64,311</b>	<b>11,283</b>	<b>21.3%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	1,150	1,460	2,184	2,968	2,852	1,702	148.0%
SAFETY AND HEALTH	13,552	14,491	15,427	17,924	18,040	4,488	33.1%
FACILITIES MANAGEMENT	4,216	4,051	3,520	3,796	3,965	-251	-6.0%
MAINTENANCE	24,585	25,540	27,084	29,136	30,261	5,676	23.1%
UTILITIES	25,583	24,503	23,854	23,472	24,458	-1,125	-4.4%
SAFEGUARDS AND SECURITY	5,923	5,798	5,630	5,952	6,339	416	7.0%
LOGISTICS SUPPORT	3,149	3,007	3,544	3,218	3,233	84	2.7%
QUALITY ASSURANCE	375	410	304	298	485	110	29.3%
LABORATORY/TECHNICAL SUPPOR	12,564	11,556	12,655	12,237	12,290	-274	-2.2%
<b>TOTAL MISSION SUPPORT</b>	<b>91,097</b>	<b>90,816</b>	<b>94,202</b>	<b>99,001</b>	<b>101,923</b>	<b>10,826</b>	<b>11.9%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	3,800	6,633	6,549	6,791	6,428	2,628	69.2%
TAXES	0	0	890	890	907	907	100.0%
LDRD	2,786	1,925	3,414	4,207	4,206	1,420	51.0%
<b>TOTAL SITE SPECIFIC</b>	<b>6,586</b>	<b>8,558</b>	<b>10,853</b>	<b>11,888</b>	<b>11,541</b>	<b>4,955</b>	<b>75.2%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>150,711</b>	<b>149,567</b>	<b>159,422</b>	<b>176,179</b>	<b>177,775</b>	<b>27,064</b>	<b>18.0%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	175,105	173,351	193,743	210,940	227,687	52,582	30.0%
Capital Construction	98,893	91,733	51,469	33,396	43,491	-55,402	-56.0%
<b>TOTAL MISSION DIRECT</b>	<b>273,998</b>	<b>265,084</b>	<b>245,212</b>	<b>244,336</b>	<b>271,178</b>	<b>-2,820</b>	<b>-1.0%</b>
<b>Total Costs</b>	<b>424,709</b>	<b>414,651</b>	<b>404,634</b>	<b>420,515</b>	<b>448,953</b>	<b>24,244</b>	<b>5.7%</b>
<b>Total Costs w/o Construction</b>	<b>325,816</b>	<b>322,918</b>	<b>353,165</b>	<b>387,119</b>	<b>405,462</b>	<b>79,646</b>	<b>19.6%</b>
General Support % Total Co	12.5%	12.1%	13.4%	15.5%	14.3%		1.8%
Mission Support % Total Cos	21.4%	21.9%	23.3%	23.5%	22.7%		1.3%
Site Specific % Total Costs	1.6%	2.1%	2.7%	2.8%	2.6%		1.0%
Total Support % Total Costs	35.5%	36.1%	39.4%	41.9%	39.6%		4.1%
Total Support % Total Costs w/o Construct	46.3%	46.3%	45.1%	45.5%	43.8%		-2.4%

**US Department of Energy  
Total Functional Support  
Brookhaven**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	150,711	149,567	159,422	176,179	177,775

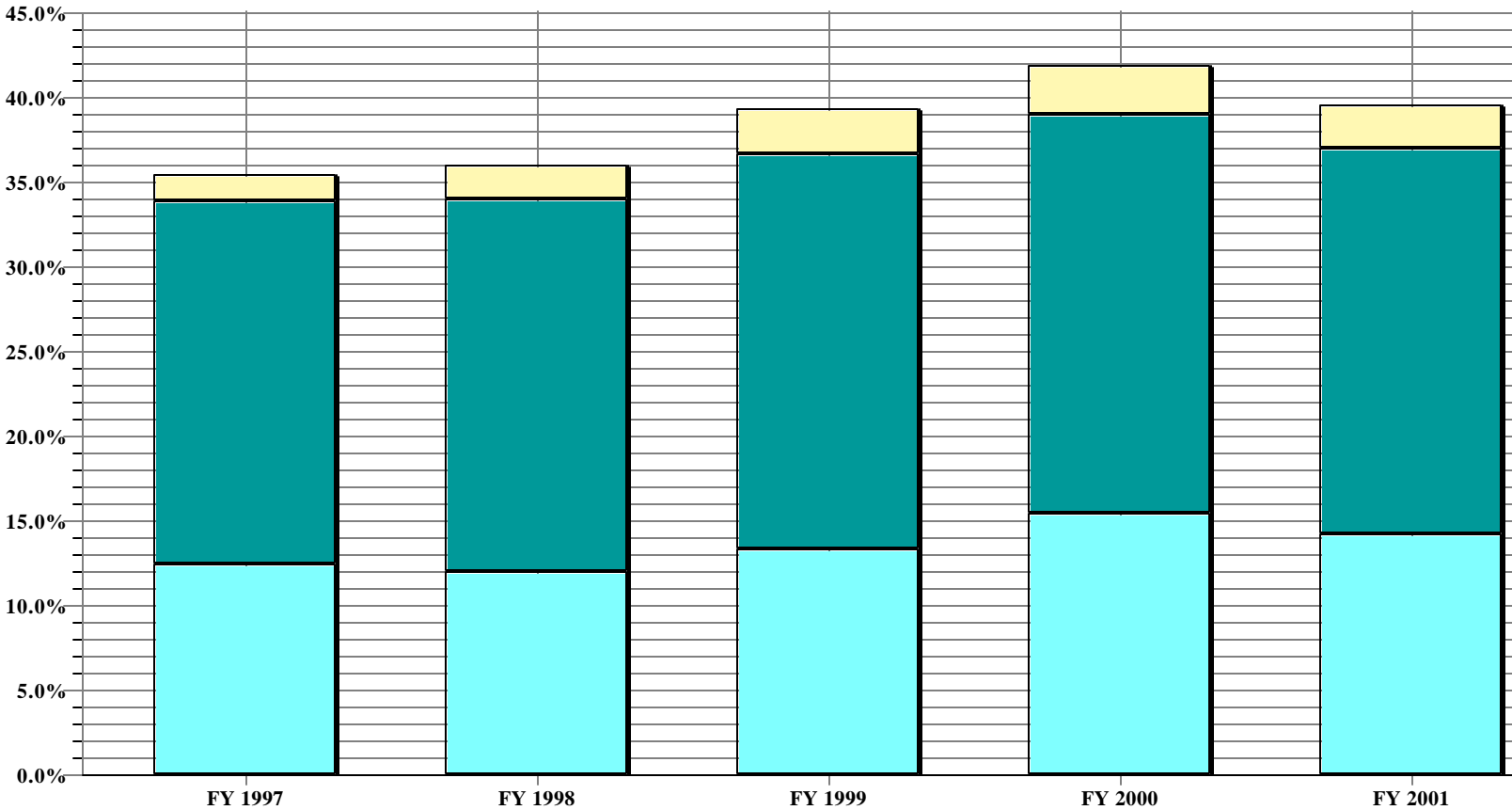
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Brookhaven**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	35.5%	36.1%	39.4%	41.9%	39.6%

**US Department of Energy  
Percent of Support Category to Total  
Brookhaven**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.5%	12.1%	13.4%	15.5%	14.3%
<b>Mis Sup</b>	21.4%	21.9%	23.3%	23.5%	22.7%
<b>Site Specific</b>	1.6%	2.1%	2.7%	2.8%	2.6%

**Brookhaven Science Associates**  
**BROOKHAVEN NATIONAL LABORATORY (BNL)**  
**Functional Cost Profile**

**MISSION**

Brookhaven National Laboratory (BNL) is a multi-program National Laboratory founded in 1947 and currently operated by Brookhaven Science Associates for the U.S. Department of Energy.

The Laboratory's broad mission is to produce excellent science in a safe, environmentally benign manner with the cooperation, support and appropriate involvement of our many communities.

Specifically, the mission of BNL, which supports the U.S. Department of Energy's strategic missions, is to:

- Conceive, design, construct and operate complex, "leading edge", user-oriented facilities in a safe and environmentally benign manner that is responsive not only to the DOE, but also to the needs of the users.
- Carry out basic and applied research in long-term programs at the frontier of science that supports DOE missions and the needs of the Laboratory's user community
- Develop advanced technologies that address national needs and initiate their transfer to other organizations and to the commercial sector.
- Disseminate technical knowledge to educate new generations of scientists and engineers.

**Large Research Facilities located at BNL:**

Alternating Gradient Synchrotron  
Relativistic Heavy Ion Collider  
National Synchrotron Light Source

**BioMedical Facilities located at BNL:**

Brookhaven Center for Imaging and Neuroscience  
Brookhaven Linear Isotope Production Facility  
Medical Radiation Facility  
Scanning Transmission Electron Microscope  
Transmission Electron Microscope

**Other Facilities and Centers located at BNL:**

Laser-Electron Accelerator Facility  
Tandem Van De Graaff Facility  
Accelerator Test Facility  
Center for Radiation Chemistry Research  
National Nuclear Data Center  
Booster Applications Facility (under development)  
Center for Accelerator Physics  
Center for Data Intensive Computing  
Center for Spectroscopy in Molecular Science  
Environmental and Waste Technology Center  
RIKEN BNL Research Center  
Free Air Carbon Enrichment Facilities



Brookhaven National Laboratory (BNL) is a U.S. Department of Energy (DOE) research facility located on Long Island, New York (which is east of New York City), on a 5,300-acre campus and about 30% of the total area is developed. BNL has approximately 3,000 employees.

Brookhaven Science Associates operate BNL for DOE, a partnership of the State University of New York at Stony Brook and the Battelle Memorial Institute.

BNL specializes in building and operating large research facilities that are used by our own staff and visiting scientists from academia, government and industry.

BNL has more than 600 research programs going on in fields ranging from high-energy physics to drug addiction to weapons nonproliferation.

More than 4,500 visiting scientists come from all over the world each year to do scientific research at our research facilities and work with our staff.

There are approximately 350 buildings in use with a total area of 4.1 million square feet. Approximately 78% of BNL's building space is over 30 years old, with one-third of that over 50 years old (World War II Army base structures).

Site-wide electrical, steam, sanitary sewer, storm sewer, and potable water utility systems serve the site. There are limited distribution chilled water and compressed air systems. The buildings served by these utilities are disbursed through out the campus site thereby requiring maintenance of an extensive distribution network.

Maintenance and energy costs for the older, wood frame buildings are higher than those for structures that are considered permanent. Retrofitting older facilities to comply with current ES&H standards is extremely costly.

The energy cost to operate the Laboratory in the northeast sector of the U.S. is significantly higher than other portions of the country. In addition, the large research facilities consume extraordinary amounts of electricity for their operation. Since the intent of this report is to include the electric power for large research machines with the traditional general use electric power, BNL's utility costs represent a significant percentage of the total costs. Many other labs do not have similar power costs for large research facilities and/or the high unit price of power that BNL experience. In addition, it is projected that the electric power related to run the large research machines would substantially increase as a result of the commissioning of the RHIC project.

BNL has a maintenance work force that supports the upkeep of the laboratory infrastructure. In addition, this workforce also performs programmatic work that is recharged to the final cost objective but is reported under maintenance on the functional cost report rather than programmatic direct.

The costs reported on the functional cost report reflect the direct charges to DOE programs (operating, capital equipment, AIP, GPP and line items), work for others (B&R 40xxxxxxx series), non-federal agencies (B&Rs in the 60xxxxxxx, 65xxxxxxx and WNxxxxxxx series), other DOE labs (B&R 82xxxxxxx) and indirect and other intermediate costs collected in B&R YN0100000 that are fully distributed.

The change in support costs incurred since FY 1998 reflects Laboratory management actions to move the Laboratory in a direction that provides excellent science along with excellent standards for safety, health and environment and infrastructure.

In addition, please be aware that BNL's Total cost includes \$890k in FY1999 and in FY2000 and \$769K in FY2001. This represents the PILT (Payment in lieu of Taxes) that the Chicago Operations Office will be handling on behalf of the Laboratory.

The Laboratory has over 500 employees who belong to local unions.

**Specific Comments Relating to Changes in Categories:**

The Human Resources functional cost category increased by 268k. This increase was caused by an expansion of the Diversity student programs, the reassignment of the Guest Information System, which tracks employee training requirements and the creation of the Office of Quality of Life, which addresses issues relating to the scientific staff that visit the Laboratory for varying periods of time.

The Procurement functional cost category decreased by 569k. This decrease was caused primarily by the merger of the Division of Contracts and Procurement (DCP) and the Supply and Material Group (SM). Key management personnel terminated from the SM group in FY 2000 and accumulated in a central administration account and distributed via an organizational burden rate. As a result, these costs are now appropriately reported under the Program Project Planning and Control functional cost category.

The Legal functional cost category increased by 377k. In FY 2000, all of the legal fees and settlements were erroneously reported under the "Other" functional cost category. This fiscal year, outside attorney fees are report under the Legal functional cost category and the legal settlements are reports under the Other functional cost category. In total, legal expenses decreased by approximately \$1M from FY00 to FY01.

The Central Administrative Services functional cost category increased by 398k. This increase is attributed to renovations to the cafeteria; including installation of new computers and a projection system, and new lobby furniture. In addition, in FY2001 the foreign travel function was transferred from a consolidated function within the Budget Office to its own office. Since these costs were originally integrated within the Budget Office, the foreign travel administration expense for FY 2000 was reported under the Program Project Planning and Control functional cost category.

The Information\Outreach Activities increased by 206k. This increase was caused by an increase in staff in the Technology Transfer area and the creation of an account to record costs associated with BNL's historian. In FY 2000, the historian's expenses were integrated in a Director's Office Account, which was reported under the Executive Direction functional cost category.

The Information Services Functional Cost Category decreased by 792k or 4.7%. This variance is under the 5% variance threshold selected for this analysis, however, it should be explained because it was caused by an error in the calculation of the telecommunication cost for FY 2000. The actual cost of this service for FY 2000 was overstated by approximately 900k.

The Other Functional Cost Category decreased by 1,549k. The change in this area is represented below:

	<b>FY 00</b>	<b>FY 01</b>	<b>Diff</b>
Housing	(287)	(700)	(413)
Y/E Variance	1,272	(342)	(1,614)
BD Software	812	56	(756)
Post Docs	1,347	1,986	639
LDRD Prog Develop	158	2,170	2,012
Legal Settlements	<u>1,446</u>	<u>29</u>	<u>(1,417)</u>
	<u>4,748</u>	<u>3,199</u>	<u>(1,549)</u>

The Safeguards & Security functional cost category increased by 387k. This increase was caused by an increase in the cyber security staff to include a Chief Cyber Security Officer and Deputy Chief Security Officer, creation of the Password Office, and an increase in the number of internal firewalls.

The Quality Assurance functional cost category increased by 186k. This increase was caused by a reorganization of the Quality Assurance Group so that they could provide a broader implementation of Quality Management principles to this multidisciplinary laboratory.

Counterintelligence program funding expanded by a factor of four during FY2001 – spending level reflects this increase.

Accelerated Production of Tritium (ATP) Program received final funding increment of 345k in FY2000. There were no new funds received for any DP programs in FY2001.

Transportation Sector program funding expanded during FY2001. Specific programs were the Natural Gas Storage Systems and Battery Materials: Structure and Characterization – spending level reflects these increases.

New program entitled Development of World Markal Model (B&R Code = TA) received initial Funding at the end of FY2000 and again in FY2002 – spending level reflects new funds received.

Funding level for the Biochemical Processes (B&R Code = AC) program reduced from 300k in FY2000 to 75k in FY2001 – spending level reflects decreased funding.

83k costed in FY2000 for Y2K Awards program. One-time deal. B&R Code = WM1026.

Continued expansion of the U.S. Russian Nuclear Safety (B&R Code = NN) program which has sustained steady growth since FY1999.

Bulk of the spending increase resulted from increased funding levels for two construction projects: the Booster Applications Facility, funded by NASA and the Spallation Neutron Source funded on an Inter-DOE Work Order with Oak Ridge National Laboratory.

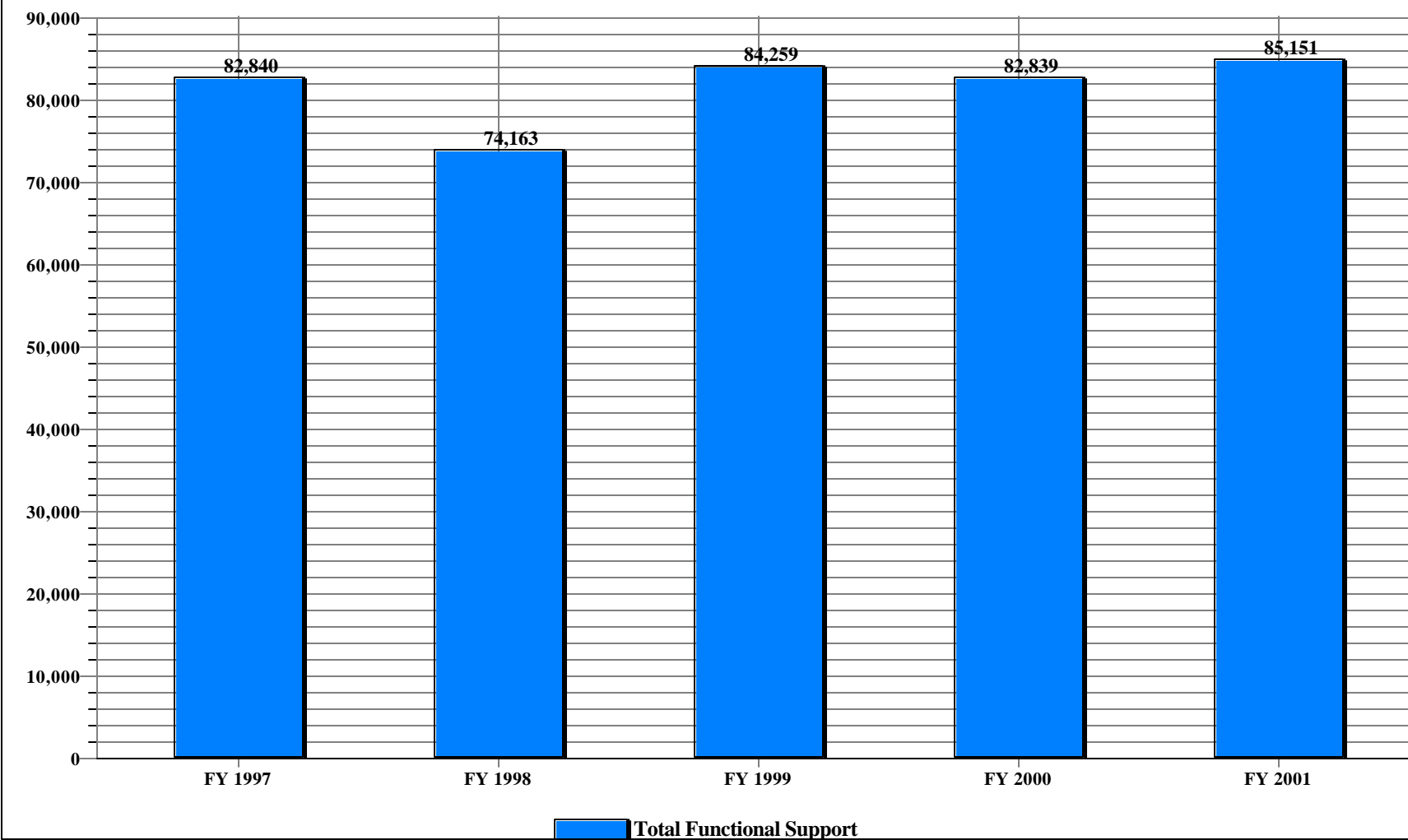
Fermi

FY 2001

## Trends in Total Functional Support Cost Categories

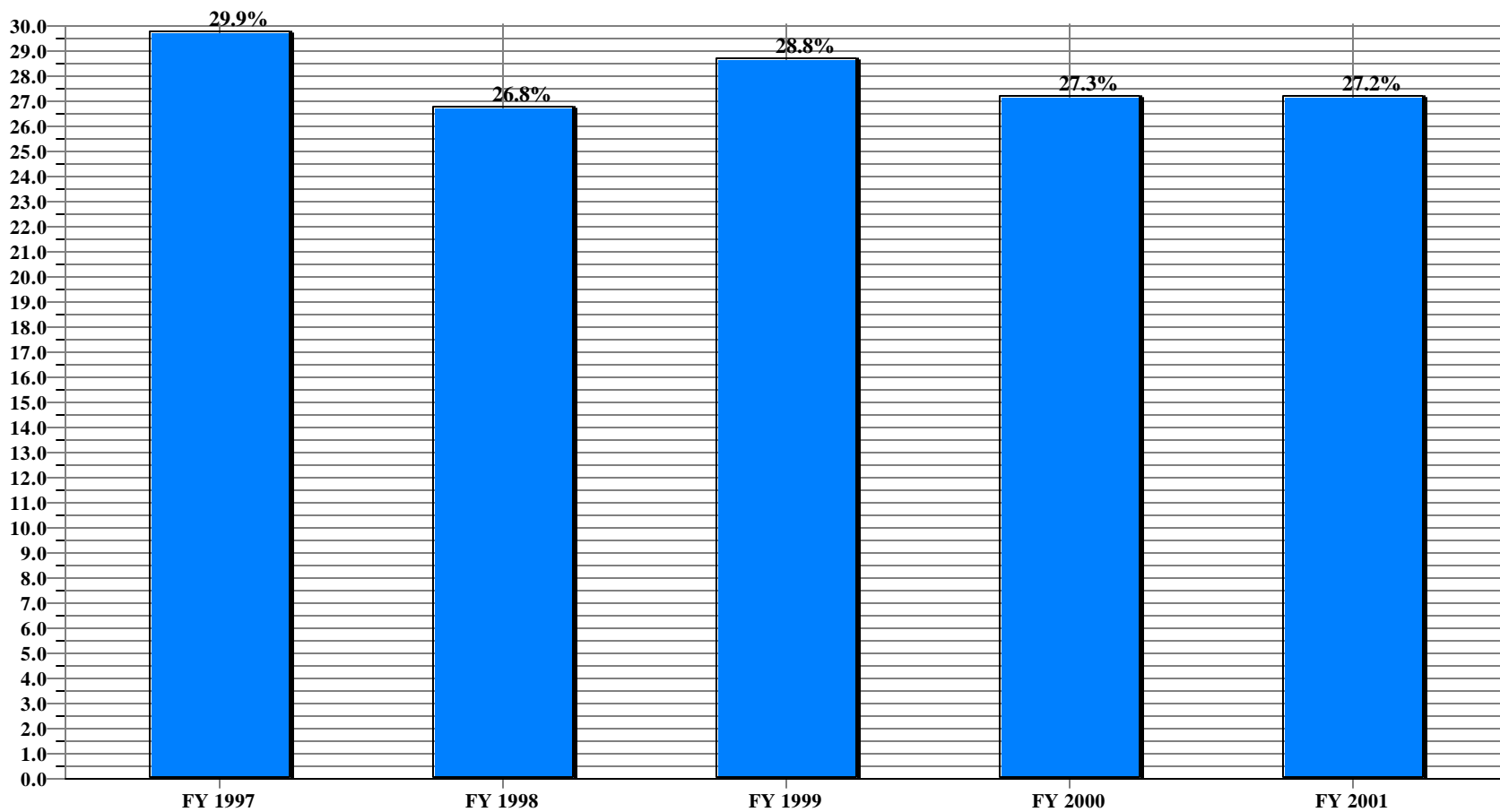
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	4,321	4,283	4,894	4,547	4,668	347	8.0%
HUMAN RESOURCES	2,130	2,405	2,426	2,589	2,880	750	35.2%
CFO	1,403	1,441	1,540	1,577	1,613	210	15.0%
PROCUREMENT	1,482	1,474	1,536	1,551	1,583	101	6.8%
LEGAL	434	463	374	418	451	17	3.9%
CENTRAL ADMIN SERVICES	1,903	1,661	1,774	1,938	2,090	187	9.8%
PROGRAM/PROJECT CONTROL	437	143	226	766	641	204	46.7%
INFORMATION OUTREACH	1,444	1,512	1,913	1,601	1,723	279	19.3%
INFORMATION SERVICES	7,777	7,902	8,819	11,164	10,991	3,214	41.3%
OTHER	127	63	18	-685	35	-92	-72.4%
<b>TOTAL GENERAL SUPPORT</b>	<b>21,458</b>	<b>21,347</b>	<b>23,520</b>	<b>25,466</b>	<b>26,675</b>	<b>5,217</b>	<b>24.3%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	1,862	2,160	2,181	2,464	2,137	275	14.8%
SAFETY AND HEALTH	7,798	9,155	9,835	8,532	8,726	928	11.9%
FACILITIES MANAGEMENT	1,167	1,182	1,504	1,735	1,466	299	25.6%
MAINTENANCE	14,523	15,757	16,307	16,825	17,063	2,540	17.5%
UTILITIES	21,680	9,819	14,791	15,673	15,915	-5,765	-26.6%
SAFEGUARDS AND SECURITY	1,972	1,840	1,815	1,750	2,420	448	22.7%
LOGISTICS SUPPORT	2,432	2,635	2,782	4,434	4,518	2,086	85.8%
QUALITY ASSURANCE	0	0	0	0	0	0	0.0%
LABORATORY/TECHNICAL SUPPORT	7,053	7,405	8,676	2,877	3,296	-3,757	-53.3%
<b>TOTAL MISSION SUPPORT</b>	<b>58,487</b>	<b>49,953</b>	<b>57,891</b>	<b>54,290</b>	<b>55,541</b>	<b>-2,946</b>	<b>-5.0%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	2,895	2,863	2,848	3,083	2,935	40	1.4%
TAXES	0	0	0	0	0	0	0.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>2,895</b>	<b>2,863</b>	<b>2,848</b>	<b>3,083</b>	<b>2,935</b>	<b>40</b>	<b>1.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>82,840</b>	<b>74,163</b>	<b>84,259</b>	<b>82,839</b>	<b>85,151</b>	<b>2,311</b>	<b>2.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	116,310	115,788	127,553	137,411	147,889	31,579	27.2%
Capital Construction	78,340	86,642	81,160	83,746	79,669	1,329	1.7%
<b>TOTAL MISSION DIRECT</b>	<b>194,650</b>	<b>202,430</b>	<b>208,713</b>	<b>221,157</b>	<b>227,558</b>	<b>32,908</b>	<b>16.9%</b>
<b>Total Costs</b>	<b>277,490</b>	<b>276,593</b>	<b>292,972</b>	<b>303,996</b>	<b>312,709</b>	<b>35,219</b>	<b>12.7%</b>
<b>Total Costs w/o Construction</b>	<b>199,150</b>	<b>189,951</b>	<b>211,812</b>	<b>220,250</b>	<b>233,040</b>	<b>33,890</b>	<b>14.5%</b>
General Support % Total Co	7.7%	7.7%	8.0%	8.4%	8.5%		0.8%
Mission Support % Total Cos	21.1%	18.1%	19.8%	17.9%	17.8%		-3.3%
Site Specific % Total Costs	1.0%	1.0%	1.0%	1.0%	0.9%		-0.1%
Total Support % Total Costs	29.9%	26.8%	28.8%	27.3%	27.2%		-2.6%
Total Support % Total Costs w/o Construct	41.6%	39.0%	39.8%	37.6%	36.5%		-5.1%

US Department of Energy  
Total Functional Support  
Fermi



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	82,840	74,163	84,259	82,839	85,151

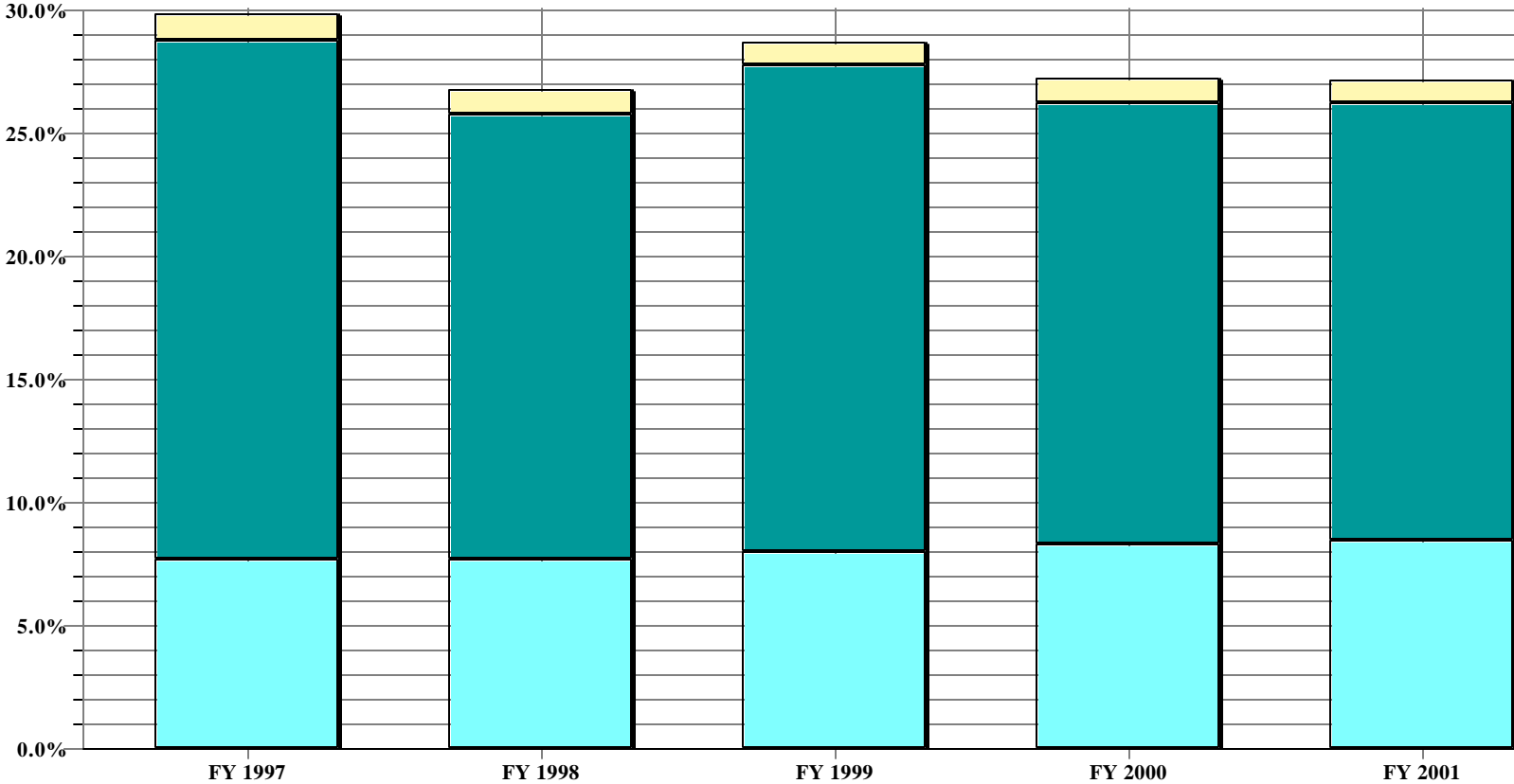
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Fermi**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	29.9%	26.8%	28.8%	27.3%	27.2%

**US Department of Energy  
Percent of Support Category to Total  
Fermi**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	7.7%	7.7%	8.0%	8.4%	8.5%
<b>Mis Sup</b>	21.1%	18.1%	19.8%	17.9%	17.8%
<b>Site Specific</b>	1.0%	1.0%	1.0%	1.0%	0.9%

**FERMI NATIONAL ACCELERATOR LABORATORY**  
**FUNCTIONAL SUPPORT COST REPORT**  
**SITE PROFILE**  
**FOR FISCAL YEARS 1997-2001**

**BACKGROUND:**

Fermilab is a single purpose Laboratory.

**Fermilab Mission Statement:**

“Fermi National Accelerator Laboratory advances the understanding of the fundamental nature of matter and energy by providing leadership and resources for qualified researchers to conduct basic research at the frontiers of high energy physics and related disciplines.”

Fermilab operates the world's highest-energy particle accelerator, the Tevatron. More than 2,200 scientists from 36 states and 20 countries use Fermilab's facilities to carry out research at the frontiers of particle physics.

Groundbreaking for the original linear accelerator was December, 1968. The site is 6,800 acres, or a little more than 10 square miles. Approximately 2,100 people are employed at the Lab.

Fermilab is operated by Universities Research Association, Inc. (URA), a consortium of 89 research universities.

**TRENDS:**

**Trend in Functional Support Costs from Fiscal Year 1997 to Fiscal Year 2001:**

General Support costs have remained relatively constant through Fiscal Year 2001, except for Fiscal Year 1999, when costs increased mainly in Information Services due to salaries and consultant costs. Mission Support costs also remained relatively constant except for a significant decrease in Fiscal Year 1998. This is due to power usage and is explained in “Major Anomalies, Utilities” below. The Fiscal Year 2000 decrease in the Technical Support category is also explained in “Major Anomalies”, below.

**Trend in Functional Support Costs as a percentage of Total Costs from Fiscal Year 1997 to Fiscal Year 2001:**

The percentage of Functional Support costs to Total Costs has ranged between 27.3 and 31.1 percent for the years 1997 to 2001. The lower rate for 1998 is due to the power usage (see below). The lower rate for Fiscal Year 2000 is due to cost containment efforts in areas categorized as functional support, and due to diminishing of operating projects in anticipation of RUN II.



Major Anomalies in year-to-year data:

Safeguards/Security

The increase of approximately \$600,000 in Fiscal Year 2001 was due to additional spending on Cyber-Security.

Laboratory/Technical Support

The decrease of over \$2 million from FY1999 to FY2000 is due to the completion of specially funded tooling and other technical support projects.

Utilities

Power expense fluctuates directly with the "up-time" of the accelerator. In Fiscal Year 1998 there were no normal accelerator operations, which explains the significantly lower amount (\$7 million) in this category for 1998.

Major Cost Drivers:

As discussed above, major cost drivers at Fermilab are power usage for the Accelerator (category Utilities), and current projects categorized as Mission Direct.

COST SAVINGS INITIATIVES:

During FY99 the Laboratory entered into an agreement with United Airlines to obtain a 10% reduction on all airfares booked on United. In addition steps were taken to reduce the amount of travel in order to meet the DOE travel target. These efforts are estimated to have avoided \$750,000. In addition work on the Fermilab Central Cooling Retrofit project under the DOE Utility Improvement Program was completed. The project began in May of 1998 and avoided \$5M in capital expenditures and will save a discounted amount of \$12.3M over the 25 year life of the new energy efficient equipment.

OTHER:

Table for Mission Support-Other category:

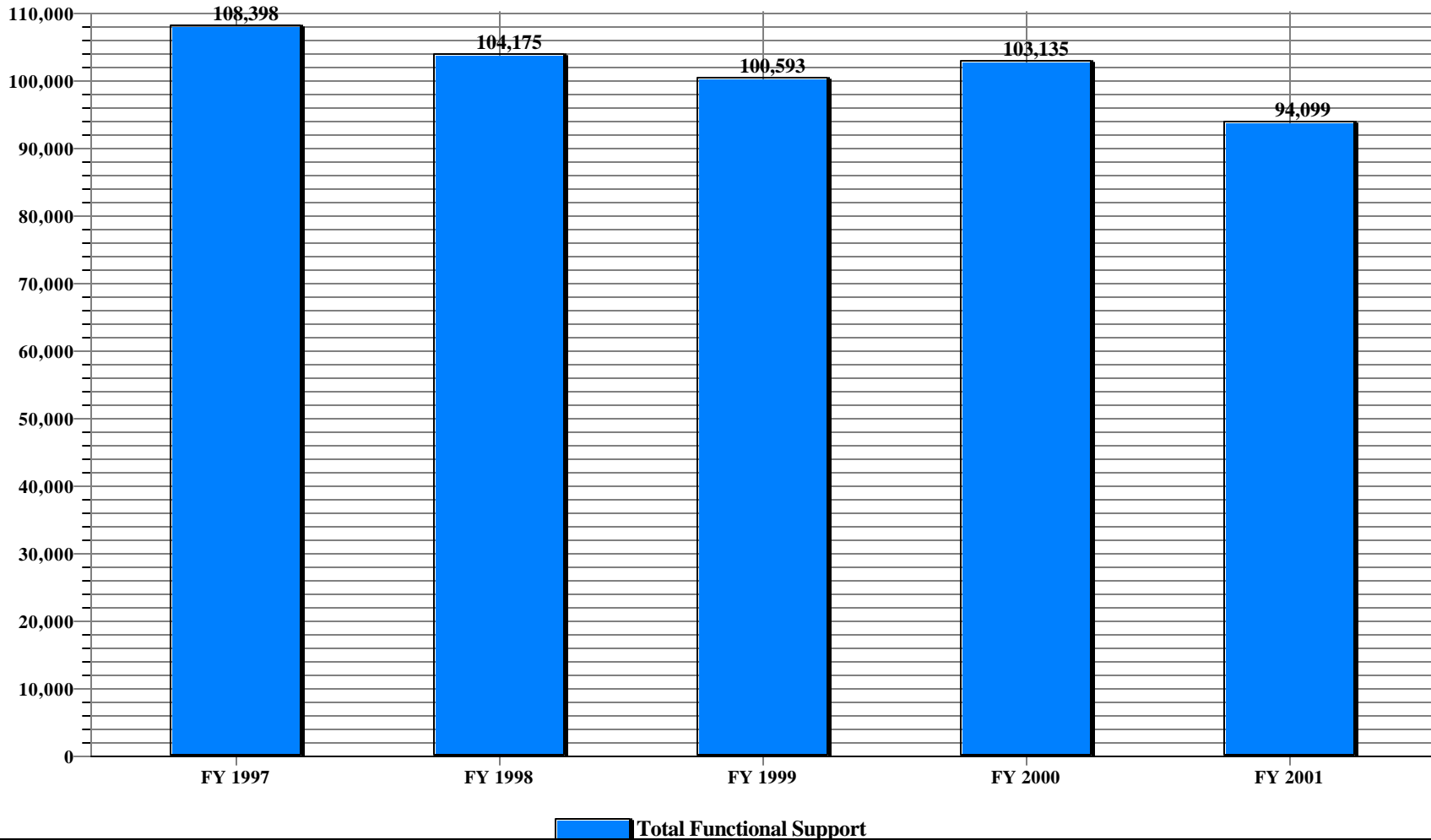
DESCRIPTION	2001	2000	1999	1998	1997
4XXQ G&A-LS-OTHER INSURANCE*	35425	63124	18143	63075	126639
Total:	35425	63124	18143	63075	126639

\*To cover the costs associated with general liability insurance. The costs fluctuate based on the level of claims in a given year.

## Trends in Total Functional Support Cost Categories

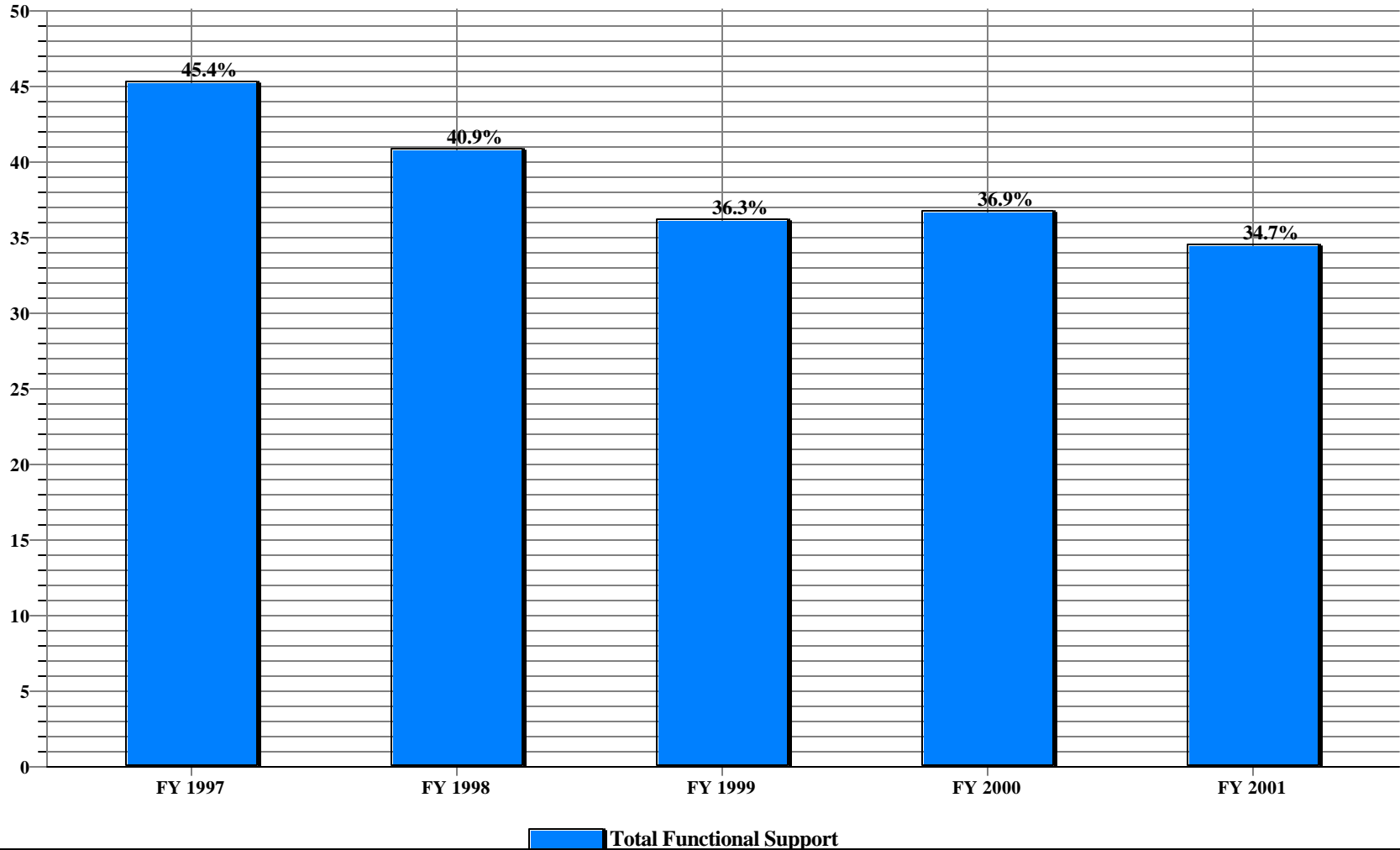
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	2,870	802	885	865	613	-2,257	-78.6%
HUMAN RESOURCES	3,387	5,089	5,691	5,397	4,962	1,575	46.5%
CFO	2,698	1,877	2,050	2,075	2,137	-561	-20.8%
PROCUREMENT	3,758	3,441	3,028	2,885	2,732	-1,026	-27.3%
LEGAL	1,987	2,243	1,389	928	-1,008	-2,995	-150.7%
CENTRAL ADMIN SERVICES	2,890	5,069	4,903	5,335	5,002	2,112	73.1%
PROGRAM/PROJECT CONTROL	6,861	6,105	5,914	5,572	5,164	-1,697	-24.7%
INFORMATION OUTREACH	3,173	3,147	2,484	3,399	2,491	-682	-21.5%
INFORMATION SERVICES	6,758	6,199	6,410	6,760	6,469	-289	-4.3%
OTHER	0	0	147	683	697	697	100.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>34,382</b>	<b>33,972</b>	<b>32,901</b>	<b>33,899</b>	<b>29,259</b>	<b>-5,123</b>	<b>-14.9%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	1,165	605	587	634	522	-643	-55.2%
SAFETY AND HEALTH	18,704	15,845	15,152	15,158	15,496	-3,208	-17.2%
FACILITIES MANAGEMENT	4,033	3,530	2,811	2,577	2,598	-1,435	-35.6%
MAINTENANCE	9,126	13,733	14,767	13,104	12,097	2,971	32.6%
UTILITIES	5,250	4,650	4,286	5,162	6,023	773	14.7%
SAFEGUARDS AND SECURITY	2,941	2,807	2,795	3,121	4,075	1,134	38.6%
LOGISTICS SUPPORT	2,242	2,221	2,450	2,068	1,458	-784	-35.0%
QUALITY ASSURANCE	5,548	4,796	4,965	5,220	5,135	-413	-7.4%
LABORATORY/TECHNICAL SUPPOR	4,784	5,277	4,310	4,167	4,371	-413	-8.6%
<b>TOTAL MISSION SUPPORT</b>	<b>53,793</b>	<b>53,464</b>	<b>52,123</b>	<b>51,211</b>	<b>51,775</b>	<b>-2,018</b>	<b>-3.8%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	18,942	15,490	14,500	17,636	11,830	-7,112	-37.5%
TAXES	1,281	1,249	1,069	389	1,235	-46	-3.6%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>20,223</b>	<b>16,739</b>	<b>15,569</b>	<b>18,025</b>	<b>13,065</b>	<b>-7,158</b>	<b>-35.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>108,398</b>	<b>104,175</b>	<b>100,593</b>	<b>103,135</b>	<b>94,099</b>	<b>-14,299</b>	<b>-13.2%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	130,260	150,349	176,681	176,485	177,383	47,123	36.2%
Capital Construction	0	0	199	0	0	0	0.0%
<b>TOTAL MISSION DIRECT</b>	<b>130,260</b>	<b>150,349</b>	<b>176,880</b>	<b>176,485</b>	<b>177,383</b>	<b>47,123</b>	<b>36.2%</b>
<b>Total Costs</b>	<b>238,658</b>	<b>254,524</b>	<b>277,473</b>	<b>279,620</b>	<b>271,482</b>	<b>32,824</b>	<b>13.8%</b>
<b>Total Costs w/o Construction</b>	<b>238,658</b>	<b>254,524</b>	<b>277,274</b>	<b>279,620</b>	<b>271,482</b>	<b>32,824</b>	<b>12.1%</b>
General Support % Total Co	14.4%	13.3%	11.9%	12.1%	10.8%		-3.6%
Mission Support % Total Cos	22.5%	21.0%	18.8%	18.3%	19.1%		-3.5%
Site Specific % Total Costs	8.5%	6.6%	5.6%	6.4%	4.8%		-3.7%
Total Support % Total Costs	45.4%	40.9%	36.3%	36.9%	34.7%		-10.8%
Total Support % Total Costs w/o Construct	45.4%	40.9%	36.3%	36.9%	34.7%		-10.8%

**US Department of Energy  
Total Functional Support  
Fernald**



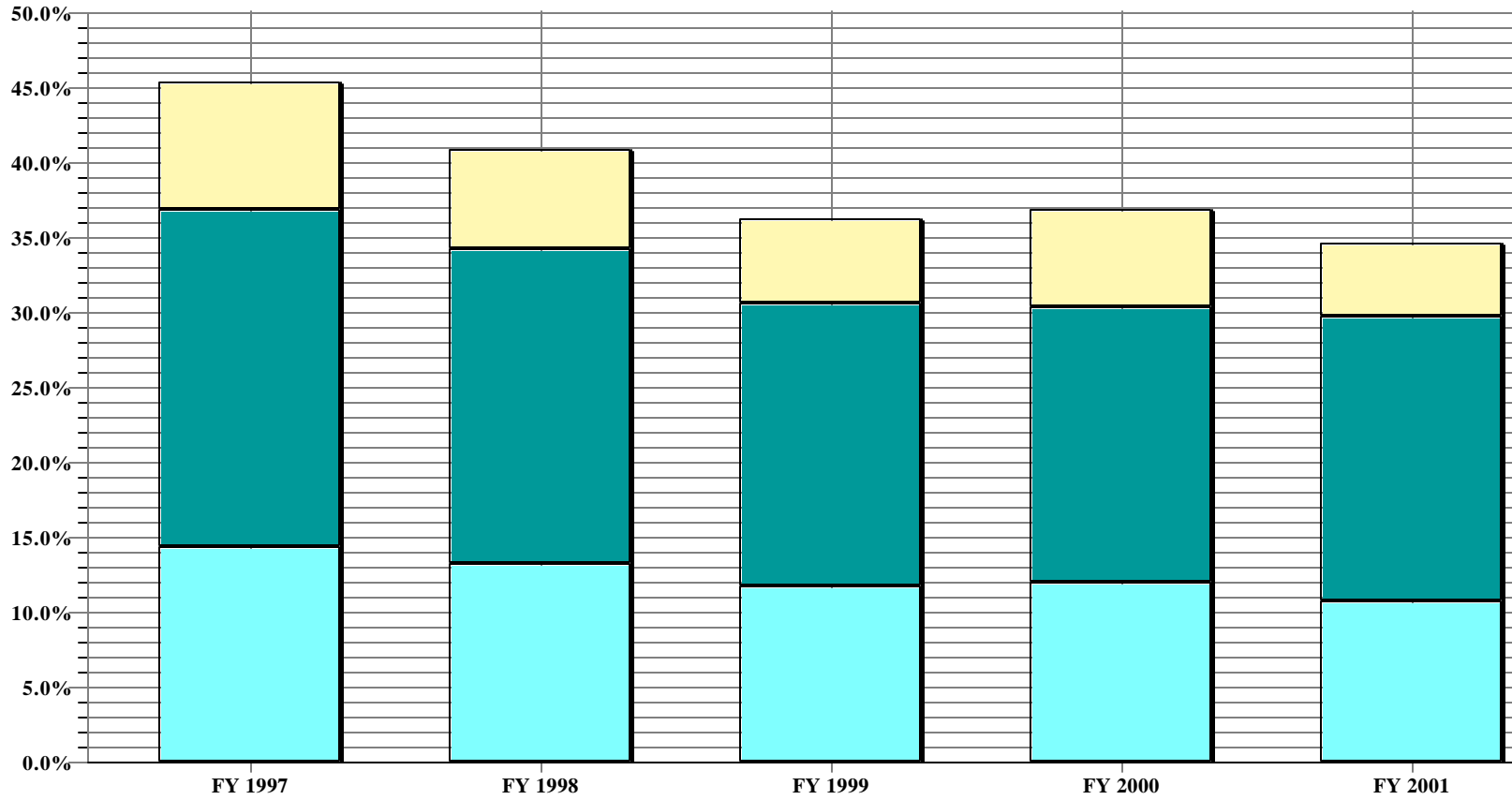
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	108,398	104,175	100,593	103,135	94,099

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Fernald**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	45.4%	40.9%	36.3%	36.9%	34.7%

**US Department of Energy  
Percent of Support Category to Total  
Fernald**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.4%	13.3%	11.9%	12.1%	10.8%
<b>Mis Sup</b>	22.5%	21.0%	18.8%	18.3%	19.1%
<b>Site Specific</b>	8.5%	6.6%	5.6%	6.4%	4.8%

## **Fernald Environmental Management Project (FEMP) Site Profile**

The uranium metal production operation at the FEMP was constructed to convert uranium ore into uranium metal, then fabricate the uranium metal into target elements for reactors that produced weapons-grade plutonium and tritium. Production operations spanned more than 36 years until they were suspended on July 10, 1989. Following necessary notification, the facility was formally shutdown on June 19, 1991. During the facility's production mission, over 500 million pounds of high-purity uranium products were yielded to support U.S. defense initiatives. In 1986, the United States Environmental Protection Agency (USEPA) and the United States Department of Energy (DOE) entered into a Federal Facility Compliance Agreement (FFCA) covering environmental impacts associated with site activities. The FEMP site was placed on the EPA's National Priorities List in 1989, and all remedial actions are being conducted in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 as amended by the Superfund Amendments Reauthorization Act. Also, EPA and DOE signed a Consent Agreement in 1990, which established five operable units on the FEMP site.

The FEMP encompasses 1,050 acres and employs approximately 2,000 persons. The FEMP site mission is now a closure facility and focused on environmental remediation consistent with the remedies defined in the Final Record of Decision (ROD) for each Operable Unit and the approved Federal Facilities Compliance Act. The project is approximately 52% complete, with a baseline site closure in 2009. The objective of the DOE Ohio Field Office and the DOE-FEMP is to accelerate the schedule for completion in 2006.

The Ohio Environmental Protection Agency (OEPA) is participating in the CERCLA process through direct involvement in review meetings, public meetings, and technical reviews of project documentation. The OEPA is the lead agency overseeing the treatment and disposal of hazardous wastes. Disposition of these wastes is conducted in compliance with the Resource, Conservation, and Recovery Act (RCRA).

Remediation at the FEMP occurs in four phases. These four phases are 1) investigative and study efforts leading to Records of Decision by the USEPA; 2) a preparation phase in which the facility is readied for massive remediation; 3) the actual performance of the remediation work; and 4) the closure of remaining support facilities, as well as the final closure of the site.

Major remediation activities included in the FEMP baseline through closure are the following: removal and treatment of contaminated perched groundwater located beneath the former plant area, surface waste runoff control and treatment system for the Waste Pit area, and an off-site groundwater migration control system in the Great Miami Aquifer; construction and operation of the On-Site Disposal Facility containing seven cells to house 2.5M cubic yards of soil and debris from the site; soil remediation which involves the excavation of contaminated soils; 208 complexes designated for decommissioning

and dismantlement; waste material from six waste pits to be excavated, treated by drying to meet waste acceptance criteria, and shipped by train to a commercial disposal facility; Silo 1 and 2 residues and Silo 3 cold metal oxides to be removed and treated; landlord activities; and administration and technical and oversight support.

Support costs are decreasing as the Operable Units progress through each remediation phase. All the Operable Units have a signed Record of Decision. Operable Units 1, 2, 3, and 5 are in the performance phase of the remediation work (Phase 3). Operable Unit 4 is in remediation phase (Phase 3), except for Silos 1 and 2 which are in the preparation phase (Phase 2).

Fluor Fernald Inc., the prime contractor, underwent a major organizational restructuring in mid-FY1997 to align the existing work scope with the remediation projects. Support costs are expected to continue to decrease through site closure. Management initiatives and austerity measures are ongoing to reduce support costs.

All sales/use tax is reported in the Functional Support Cost Report "Tax" category. Taxes are collected and reported in a separate coding structuring in the accounting system and transferred to the "Tax" category on the Functional Support Cost Report.

The "Other" Functional Support Cost Report category includes cost incurred for a Voluntary Separation Program.

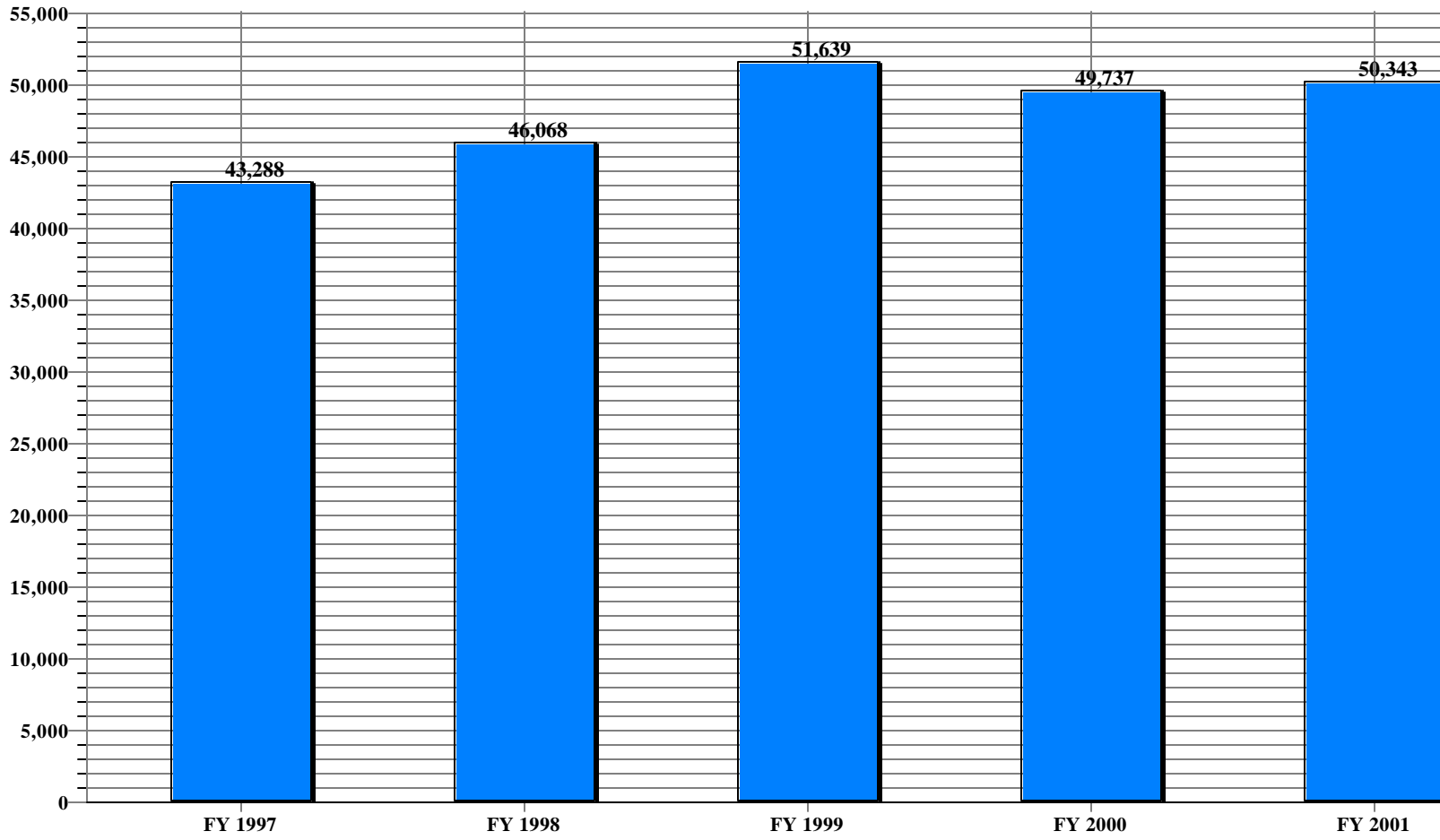
Per the current Fluor Fernald Inc. contract with the DOE, there are no indirect costs associated with the reported "actual cost of work performed" (ACWP).

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	1,843	1,458	1,420	2,362	3,051	1,208	65.5%
HUMAN RESOURCES	883	949	1,135	1,521	1,418	535	60.6%
CFO	1,265	1,164	1,379	1,732	1,659	394	31.1%
PROCUREMENT	1,683	1,874	1,936	2,169	2,166	483	28.7%
LEGAL	937	733	1,627	1,023	1,323	386	41.2%
CENTRAL ADMIN SERVICES	1,321	2,087	1,218	1,737	2,184	863	65.3%
PROGRAM/PROJECT CONTROL	1,458	2,637	799	791	1,840	382	26.2%
INFORMATION OUTREACH	5,773	5,010	9,926	10,307	9,589	3,816	66.1%
INFORMATION SERVICES	5,575	8,901	11,141	7,940	6,794	1,219	21.9%
OTHER	0	0	1,068	2,810	1,919	1,919	100.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>20,738</b>	<b>24,813</b>	<b>31,649</b>	<b>32,392</b>	<b>31,943</b>	<b>11,205</b>	<b>54.0%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	0	0	0	0	0	0	0.0%
SAFETY AND HEALTH	661	691	746	920	931	270	40.8%
FACILITIES MANAGEMENT	6,718	7,381	7,991	7,106	6,692	-26	-0.4%
MAINTENANCE	2,743	2,163	2,524	1,818	2,816	73	2.7%
UTILITIES	933	926	915	1,000	1,130	197	21.1%
SAFEGUARDS AND SECURITY	522	561	584	780	906	384	73.6%
LOGISTICS SUPPORT	949	517	823	387	408	-541	-57.0%
QUALITY ASSURANCE	0	0	466	535	579	579	100.0%
LABORATORY/TECHNICAL SUPPOR	0	0	0	238	272	272	100.0%
<b>TOTAL MISSION SUPPORT</b>	<b>12,526</b>	<b>12,239</b>	<b>14,049</b>	<b>12,784</b>	<b>13,734</b>	<b>1,208</b>	<b>9.6%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	7,010	7,085	4,423	4,561	4,666	-2,344	-33.4%
TAXES	0	0	0	0	0	0	0.0%
LDRD	3,014	1,931	1,518	0	0	-3,014	-100.0%
<b>TOTAL SITE SPECIFIC</b>	<b>10,024</b>	<b>9,016</b>	<b>5,941</b>	<b>4,561</b>	<b>4,666</b>	<b>-5,358</b>	<b>-53.5%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>43,288</b>	<b>46,068</b>	<b>51,639</b>	<b>49,737</b>	<b>50,343</b>	<b>7,055</b>	<b>16.3%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	138,677	148,159	137,130	131,973	151,803	13,126	9.5%
Capital Construction	6,521	9,986	11,677	4,523	5,361	-1,160	-17.8%
<b>TOTAL MISSION DIRECT</b>	<b>145,198</b>	<b>158,145</b>	<b>148,807</b>	<b>136,496</b>	<b>157,164</b>	<b>11,966</b>	<b>8.2%</b>
<b>Total Costs</b>	<b>188,486</b>	<b>204,213</b>	<b>200,446</b>	<b>186,233</b>	<b>207,507</b>	<b>19,021</b>	<b>10.1%</b>
<b>Total Costs w/o Construction</b>	<b>181,965</b>	<b>194,227</b>	<b>188,769</b>	<b>181,710</b>	<b>202,146</b>	<b>20,181</b>	<b>10.0%</b>
General Support % Total Co	11.0%	12.2%	15.8%	17.4%	15.4%		4.4%
Mission Support % Total Cos	6.6%	6.0%	7.0%	6.9%	6.6%		0.0%
Site Specific % Total Costs	5.3%	4.4%	3.0%	2.4%	2.2%		-3.1%
Total Support % Total Costs	23.0%	22.6%	25.8%	26.7%	24.3%		1.3%
Total Support % Total Costs w/o Construct	23.8%	23.7%	27.4%	27.4%	24.9%		1.1%



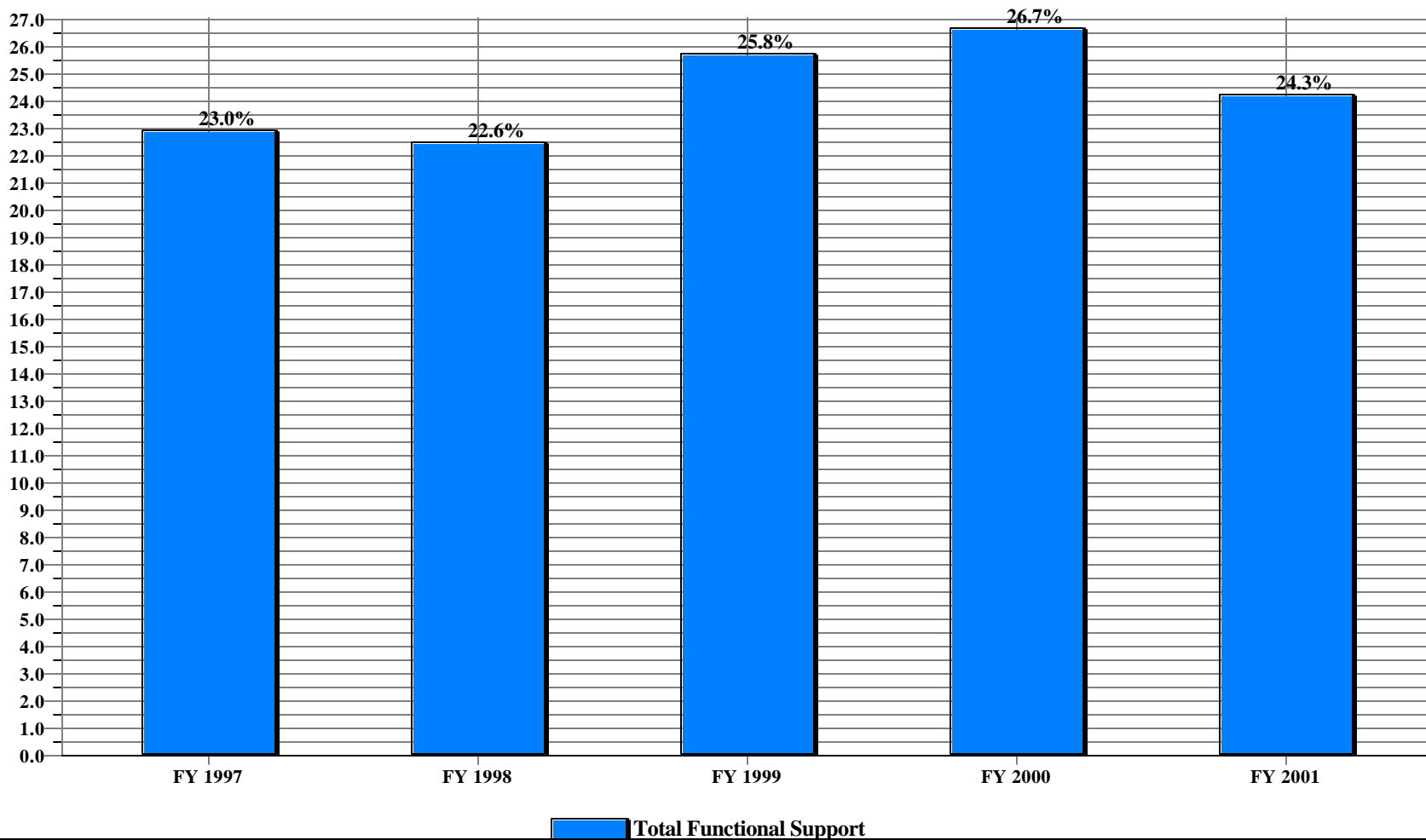
**US Department of Energy  
Total Functional Support  
Golden**



 Total Functional Support

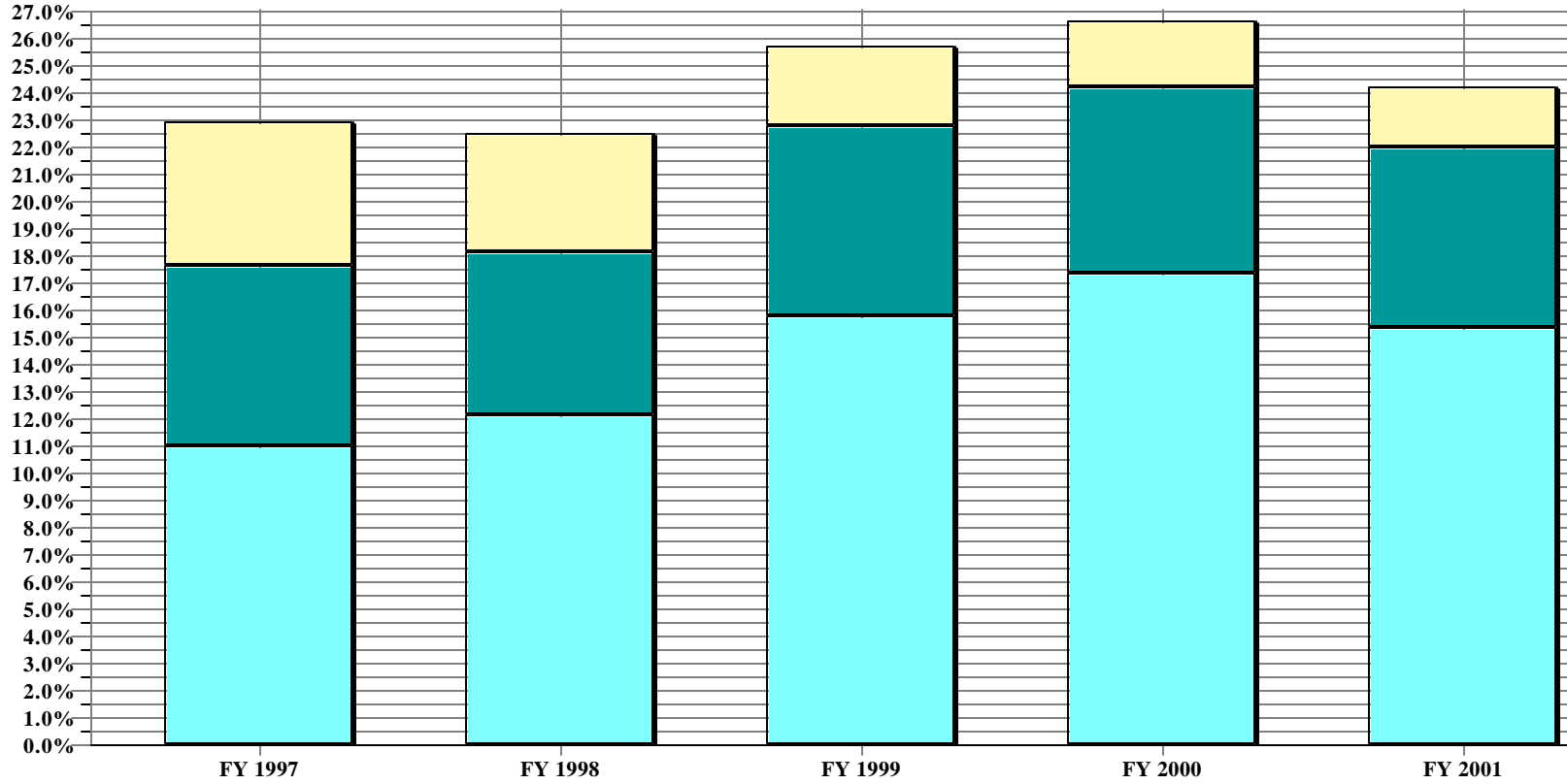
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	43,288	46,068	51,639	49,737	50,343

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Golden**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	23.0%	22.6%	25.8%	26.7%	24.3%

**US Department of Energy  
Percent of Support Category to Total  
Golden**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	11.0%	12.2%	15.8%	17.4%	15.4%
<b>Mis Sup</b>	6.6%	6.0%	7.0%	6.9%	6.6%
<b>Site Specific</b>	5.3%	4.4%	3.0%	2.4%	2.2%

## GOLDEN FUNCTIONAL COST SITE PROFILE

### Background

The National Renewable Energy Laboratory is the only “single program” laboratory in the federal complex of laboratories dedicated to supporting renewable energy and energy efficiency technologies. NREL operates in six separate locations; five are near Golden, Colorado, 8 miles west of Denver, and one in Washington, D.C. The Golden area locations consist of the DOE-owned South Table Mountain (STM) and National Wind technology Center (NWTC) sites incorporating 300 acres of land at the STM and 280 acres at the NWTC, 20 miles north of STM. Most of the 301,740 sq. ft. of research and support space is located in the three largest DOE-owned buildings. The remaining 258,805 sq. ft. of space is leased and houses basic administrative and support functions with less than 15,000 sq. ft. of laboratories. The cost of leased space is a significant contributor to NREL’s reported cost of facilities.

The majority of NREL’s funding comes from the Office of Energy Efficiency and Renewable Energy, with lesser amounts provided by Energy Research and other DOE and non-DOE sources. NREL’s major programs include:

- Photovoltaics
- Wind energy
- Solar Thermal Electric
- Solar Heat and Buildings
- Biomass Power
- Fuels Utilization
- Industrial Technologies
- Biofuels
- Analytic Studies

### Cost Trends

The figures submitted for fiscal years 1997 through 2001 indicate that support costs have remained essentially flat for the past 5 years. Restating these costs in constant dollars, the costs show a decline from \$50.1 million in FY 1998 to \$46.5 million in FY 2001. It should be noted that support costs in earlier years did not include the costs of NREL’s Technical Information or Information Services programs which are directly funded activities at NREL. These programs are now combined in NREL’s Information Outreach program and, even though it is directly funded, the costs of the program (\$2.4 million) are included as support costs. NREL’s efforts to modernize internal management systems and comply with Y2K requirements caused a temporary increase in costs associated with Information Services in FY 1999 and FY 2000.

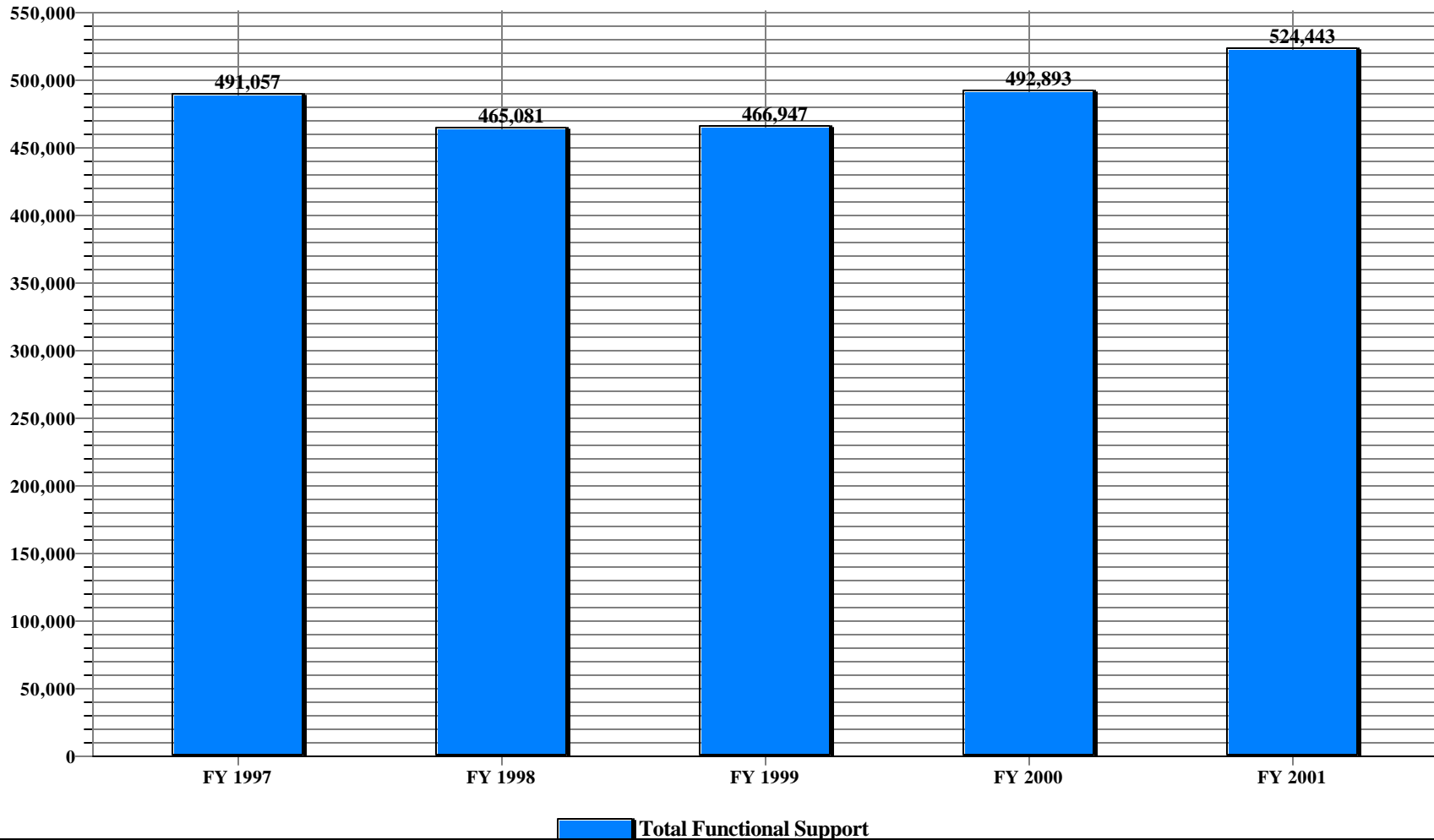
“Other” costs reported for FY 2001 represent the costs associated with the DDRD program and the management of that program. Those costs totaled \$1,919,000 for the year.

Environmental costs are included in Safety and Health category after FY 1996.

## Trends in Total Functional Support Cost Categories

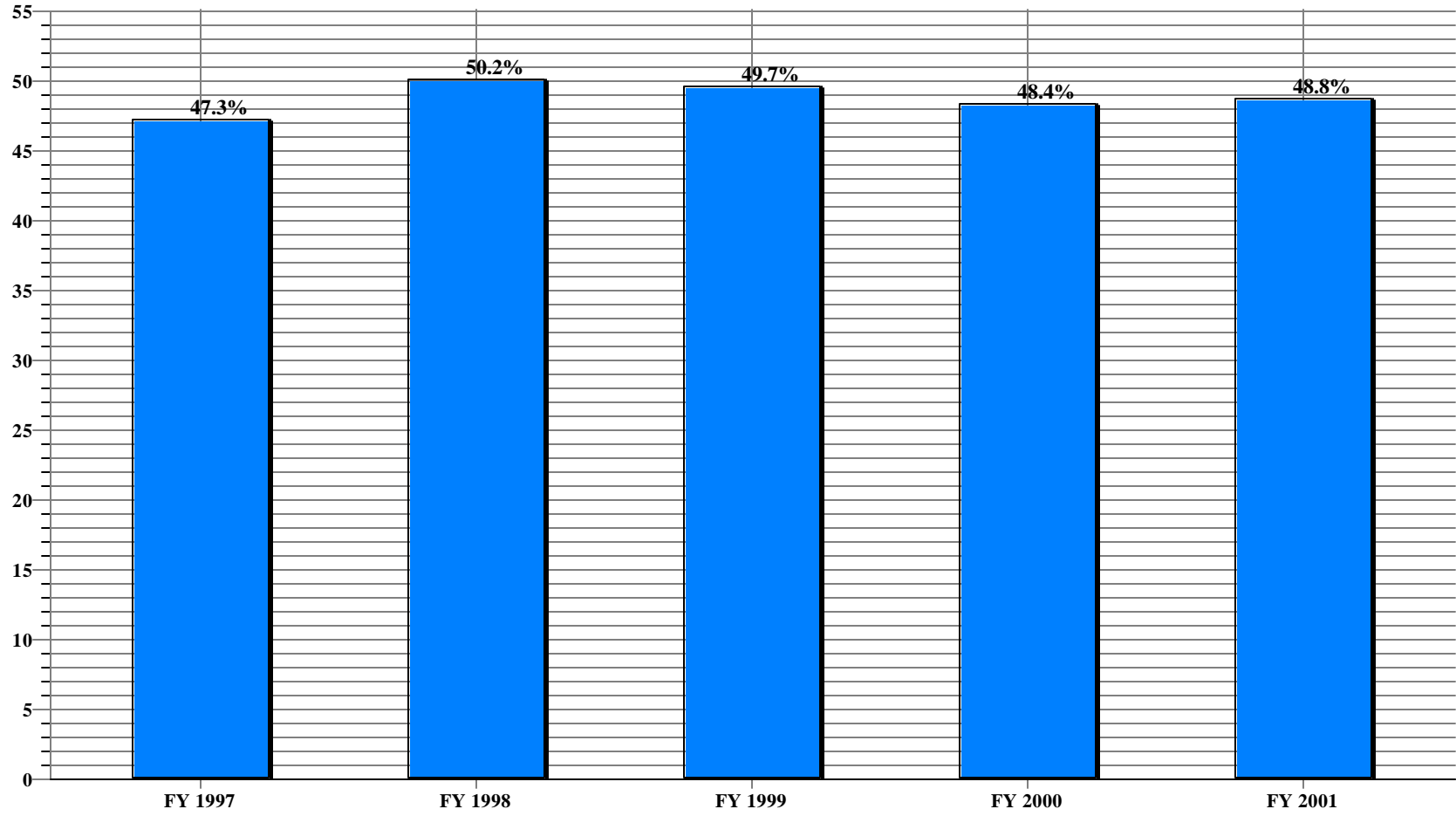
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	7,951	6,237	4,897	8,928	9,270	1,319	16.6%
HUMAN RESOURCES	16,154	15,013	17,111	16,020	15,790	-364	-2.3%
CFO	11,448	8,838	9,631	6,535	10,462	-986	-8.6%
PROCUREMENT	7,307	6,998	10,681	10,350	10,135	2,828	38.7%
LEGAL	1,852	968	2,316	3,992	3,647	1,795	96.9%
CENTRAL ADMIN SERVICES	26,302	20,495	13,284	10,327	10,407	-15,895	-60.4%
PROGRAM/PROJECT CONTROL	26,725	23,863	24,532	30,329	26,434	-291	-1.1%
INFORMATION OUTREACH	3,933	3,957	4,595	6,255	4,825	892	22.7%
INFORMATION SERVICES	50,997	61,091	47,551	43,016	43,614	-7,383	-14.5%
OTHER	6,762	3,565	1,719	58	1,955	-4,807	-71.1%
<b>TOTAL GENERAL SUPPORT</b>	<b>159,431</b>	<b>151,025</b>	<b>136,317</b>	<b>135,810</b>	<b>136,539</b>	<b>-22,892</b>	<b>-14.4%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	28,854	26,705	24,313	26,194	31,417	2,563	8.9%
SAFETY AND HEALTH	52,012	62,694	65,033	70,070	70,632	18,620	35.8%
FACILITIES MANAGEMENT	40,255	33,538	37,690	43,702	44,127	3,872	9.6%
MAINTENANCE	46,270	48,337	56,917	67,260	75,060	28,790	62.2%
UTILITIES	15,891	12,820	9,085	9,632	10,488	-5,403	-34.0%
SAFEGUARDS AND SECURITY	27,120	26,540	26,605	26,941	28,262	1,142	4.2%
LOGISTICS SUPPORT	15,123	15,583	16,732	19,041	20,513	5,390	35.6%
QUALITY ASSURANCE	5,236	6,094	11,054	7,473	7,772	2,536	48.4%
LABORATORY/TECHNICAL SUPPOR	31,016	24,323	26,398	23,358	23,890	-7,126	-23.0%
<b>TOTAL MISSION SUPPORT</b>	<b>261,777</b>	<b>256,634</b>	<b>273,827</b>	<b>293,671</b>	<b>312,161</b>	<b>50,384</b>	<b>19.2%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	63,247	51,283	49,151	61,683	64,107	860	1.4%
TAXES	6,602	6,139	7,652	1,729	11,636	5,034	76.2%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>69,849</b>	<b>57,422</b>	<b>56,803</b>	<b>63,412</b>	<b>75,743</b>	<b>5,894</b>	<b>8.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>491,057</b>	<b>465,081</b>	<b>466,947</b>	<b>492,893</b>	<b>524,443</b>	<b>33,386</b>	<b>6.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	405,387	369,673	390,438	452,715	433,091	27,704	6.8%
Capital Construction	142,381	91,810	82,834	73,000	116,676	-25,705	-18.1%
<b>TOTAL MISSION DIRECT</b>	<b>547,768</b>	<b>461,483</b>	<b>473,272</b>	<b>525,715</b>	<b>549,767</b>	<b>1,999</b>	<b>0.4%</b>
<b>Total Costs</b>	<b>1,038,825</b>	<b>926,564</b>	<b>940,219</b>	<b>1,018,608</b>	<b>1,074,210</b>	<b>35,385</b>	<b>3.4%</b>
<b>Total Costs w/o Construction</b>	<b>896,444</b>	<b>834,754</b>	<b>857,385</b>	<b>945,608</b>	<b>957,534</b>	<b>61,090</b>	<b>6.4%</b>
General Support % Total Co	15.3%	16.3%	14.5%	13.3%	12.7%		-2.6%
Mission Support % Total Cos	25.2%	27.7%	29.1%	28.8%	29.1%		3.9%
Site Specific % Total Costs	6.7%	6.2%	6.0%	6.2%	7.1%		0.3%
Total Support % Total Costs	47.3%	50.2%	49.7%	48.4%	48.8%		1.6%
Total Support % Total Costs w/o Construct	54.8%	55.7%	54.5%	52.1%	54.8%		0.0%

**US Department of Energy  
Total Functional Support  
Hanford**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	491,057	465,081	466,947	492,893	524,443

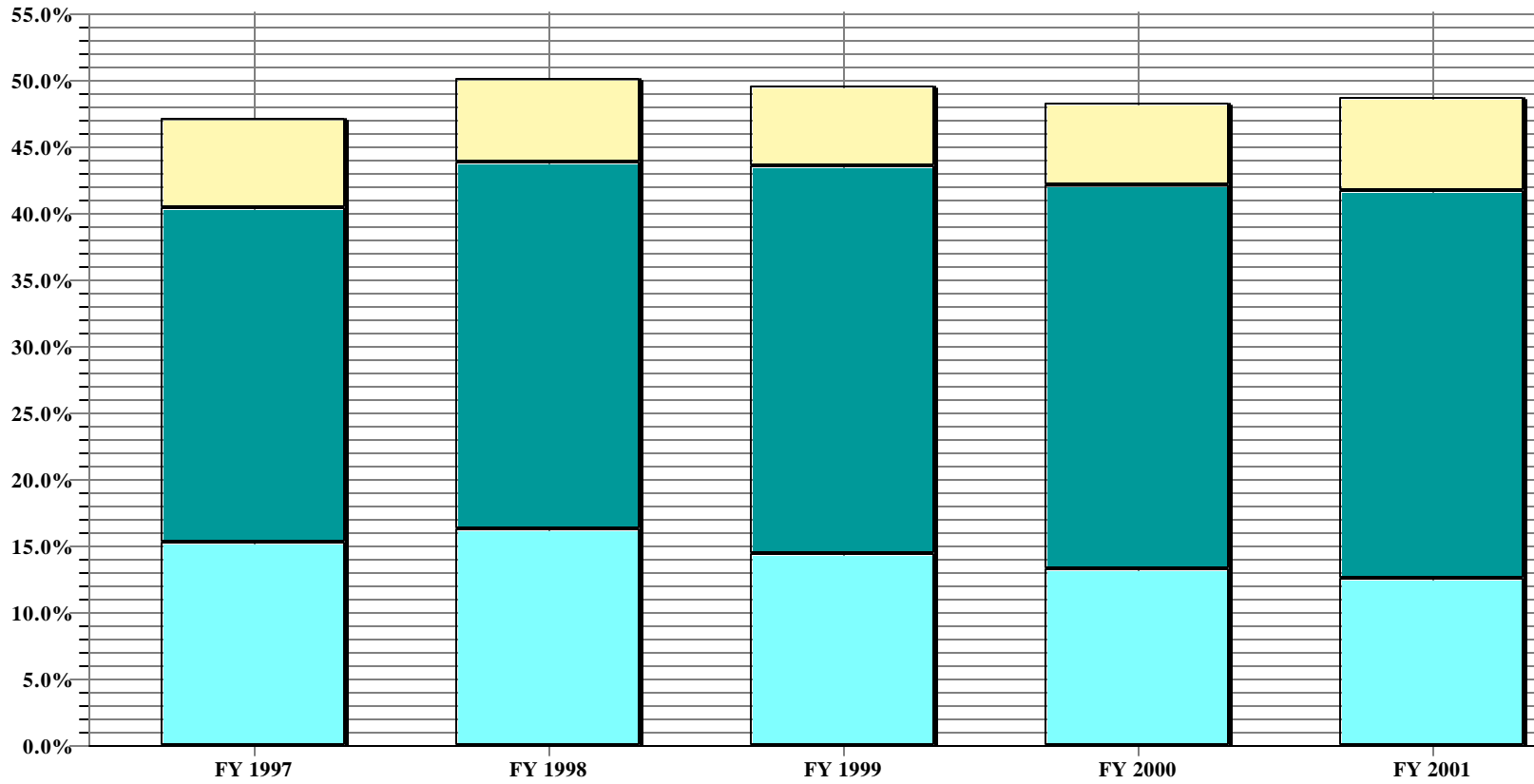
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Hanford**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	47.3%	50.2%	49.7%	48.4%	48.8%

**US Department of Energy  
Percent of Support Category to Total  
Hanford**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	15.3%	16.3%	14.5%	13.3%	12.7%
<b>Mis Sup</b>	25.2%	27.7%	29.1%	28.8%	29.1%
<b>Site Specific</b>	6.7%	6.2%	6.0%	6.2%	7.1%



## **FY 2001 Profile for Hanford:**

### **Background**

The Hanford submission includes three prime contracts in FY 2001 Project Hanford Management Contract (PHMC)/contractor: Fluor Daniel Hanford (FDH), Office of River Protection contract/contractor: CH2M Hill Hanford Group (CHG), and the Bechtel Hanford, Inc. (BHI) contract. In previous years, the Pacific Northwest National Laboratory was included in the combined Hanford submission. PNNL is now presented separately per DOE-HQ and DOE-SC request. The reason the submission was combined into one submission in prior years was to accurately reflect functional support cost information at the Hanford site. In reporting contractor submission separately, inconsistencies/subsidization occurs when the contractor performing a vast majority of infrastructure type activities for the entire site then allocates the cost to the other reporting contractors. Due to the requirement of reporting cost at point of first incurrence (prime cost), the charges would be included in the performing contractor thus overstating support costs in its total cost and understating the receiving contractor's support cost. Combining all contractors to one submission provides no subsidization and alleviates any misinterpretation of the Hanford site support cost information.

The Hanford site is a remote 560 square mile, multi-project site in eastern Washington State. The Hanford contractors employed slightly over 6,500 employees in FY 2001. The Hanford site contractors manage and maintain over 2,000 facilities, which include inactive reactor facilities, administrative facilities, labs, storage facilities, mobile offices, trailers, etc.

The PHMC and ORP contracts have two major missions. The Office of Environmental Management (EM) programs are associated with cleanup. The first is Tank Waste Remediation System (TWRS), which entails cleanup of Hanford Site high-level waste, and is managed by the DOE Office of River Protection (ORP). The second is Project Hanford, which entails cleanup of the remainder of the Hanford Site, and is managed by the DOE Richland Operations Office (RL). The PHMC contractor (FHI) is responsible for planning, integrating, managing, and executing its projects, services, and other activities at the Hanford Site. FHI is responsible for interfacing and coordinating with other Hanford Site Prime Contractors in the performance of its work. Where other Hanford Site Prime Contractors use infrastructure and services furnished by the Government through the PHMC, FHI is responsible for integrating their requirements into Project Hanford Management Contract (PHMC) requirements. FHI is responsible for conducting business in such a way as to be consistent with the following outcomes, which flow from the Hanford Strategic Plan:

Restore the River Corridor for multiple uses

Transition the Central Plateau to support long-term waste management

Use DOE assets to solve global problems.

Success in achieving these outcomes shall consider the following factors:

Protection of worker safety and health, public safety and health, and the environment

Leadership & management effectiveness (operations management)  
 Management responsiveness to customers (customer service)  
 Responsive communications with external and internal Hanford customers  
 Proficient partnering with other Hanford Site Prime Contractors.

The Environmental Restoration Contractor (ERC) is responsible for planning, managing, executing, and integrating the Environmental Restoration Program at the Hanford Site and is also managed by the DOE RL. The ERC, BHI performs or subcontracts program activities which include, but are not limited to, characterization and remediation of past practice waste sites, technology development program integration, application of innovative remediation technologies, N-Reactor deactivation, and decontamination and decommissioning activities.

**Management Discussion and Analysis**

Major trends in Functional Support Costs- Total Functional Support Costs continue consistent with FY2000.

	FY 2000	FY 2001
<b>Total Functional Support Costs as a % of Total Costs</b>	48.4%	48.8%

**Variance Analysis-(Explaining Variances Greater Than 10 Percent)**

**Chief Financial Officer (CFO)**

CFO costs increased 4.2M from FY2000 to FY2001 from four factors:  
 1.2M Sitewide Services (SWS) recategorization (see below).  
 .6M of for FFS contract closeout and BHI disputed costs.  
 1M increase due to addition of CHG accounting function.  
 1.4M of FH Home Office G&A payment and accrual.

Change in treatment of CFO Sitewide Services (SWS) accounting entries: CFO costs in FY2000 were reported net of <1.2M> assessments made to Other Hanford Contractors. The offsetting cost was reported partially as Work for Others and partially as cost of various other applicable functional categories. This treatment of the assessment credit understated the amount of CFO functional cost for prior years. Prior to FY2001, the amount of the assessment credit was much lower and was not material.

In FY2001, the assessment credit increased to \$<28>M because of the substantial amount of services provided to CHG. This large credit could not be reported functionally as in prior years, because this amount more than offsets all the CFO category. Therefore, we

have eliminated both the assessments and the credit offsets from the functional report. There is no net impact to the functional cost since the entries net to zero. However, the category impact is an increase of 1.2M in the CFO category and a decrease to the Work for Others and some other functional categories. This treatment better states the CFO and other category costs.

### **Program/Project Planning & Control**

There was a significant decrease in the Program/Project Control category. This decrease is primarily contributed to the elimination and/or completion of FY00 work scope as follows:

A \$2.5M decrease attributable to discontinuing the preparation of the Readiness to Proceed documentation due to the elimination of the privatization of the Waste Treatment Plant.

A \$1.3M decrease due to the phase 2 planning work scope of Project W314 being significantly completed in FY00.

A \$.7M decrease due to the one-time preparation of the FY00 critical path acceleration document.

### **Information/Outreach Activities**

Information/Outreach Activities decreased from FY2000 due to Indirect budget reductions and spending constraints.

### **Other**

The Other category consists of Workforce Restructuring / Reduction of Force costs. In FY2000, \$1.2M was spent for IROF costs, but was not reported in the Functional Cost Report because unique CACNs were not used for costing purposes. The apparent increase in Other costs in FY2001 is due to this omission in FY2000.

### **Environmental**

Significant increases in the Environmental area compared to FY2000 are related to the Thermal Treatment Demonstration Test and other subcontracts to ATG as directed by RL.

### **Maintenance**

Maintenance costs have increased partially due to the completion of several major facilities at Spent Fuel Project (e.g. canister storage building and cold vacuum drying facility). Prior year costs to build these facilities were in the Capital/Construction category. The facility is now in an operation mode requiring maintenance.

## **Taxes**

In prior years, the functional category "Taxes" represented only the B&O tax payments made, with Washington State Sales and Use Taxes being spread throughout all cost categories. Effective with FY01 reporting, the Sales and Use Taxes have now been pulled into the Taxes category, accounting for the majority of the delta between FY00 and FY01 reported values. To continue with past practices, the following represents Sales/Use Tax payments by year that were not reported by category:

FY95 \$3,992K

FY96 \$3,345K

FY97 \$2,436K

FY98 \$3,165K

FY99 \$2,544K

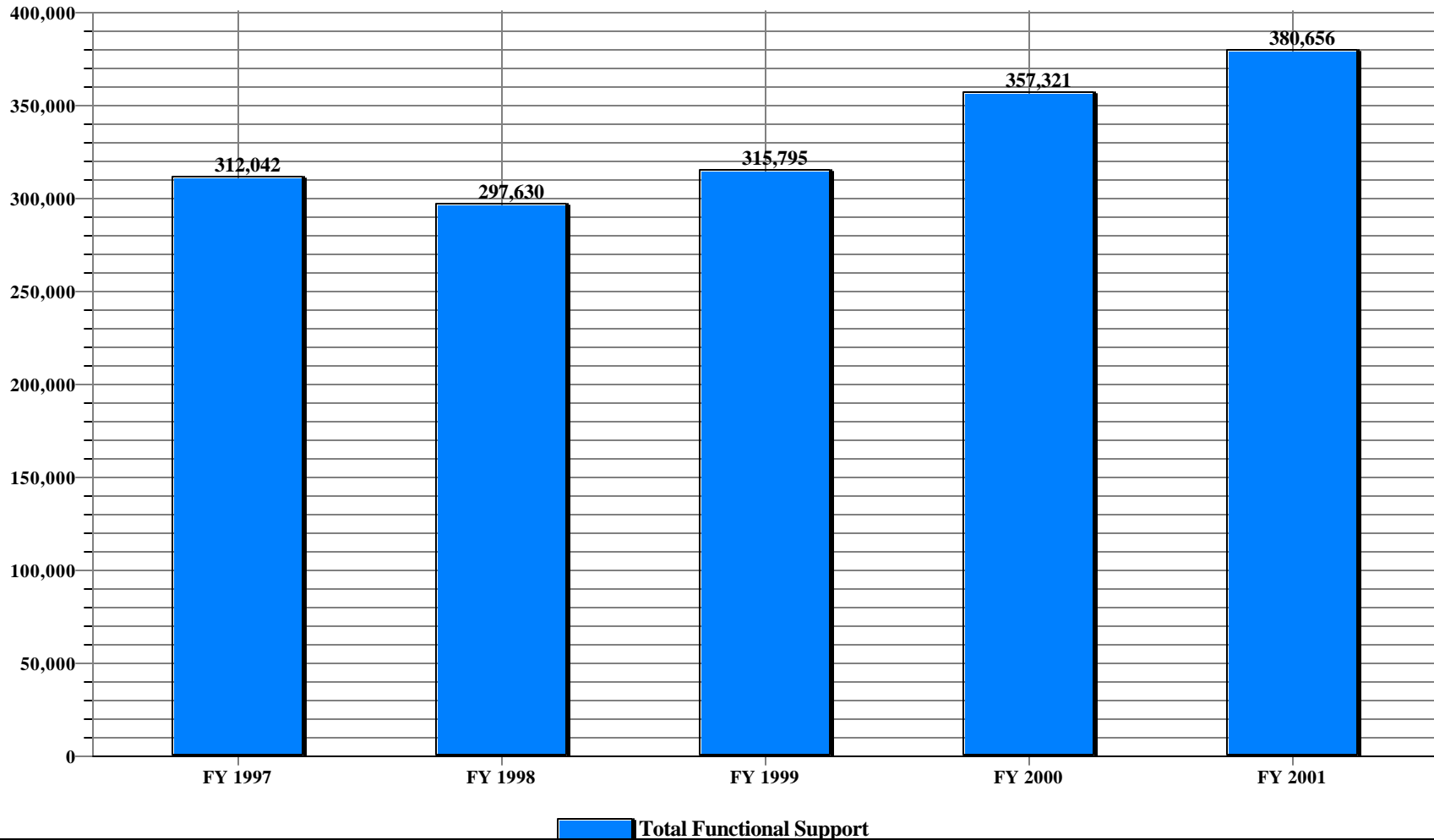
FY00 \$3,644K

FY01 \$1,781K (represents BHI taxes only, balance is included in Taxes support category)

## Trends in Total Functional Support Cost Categories

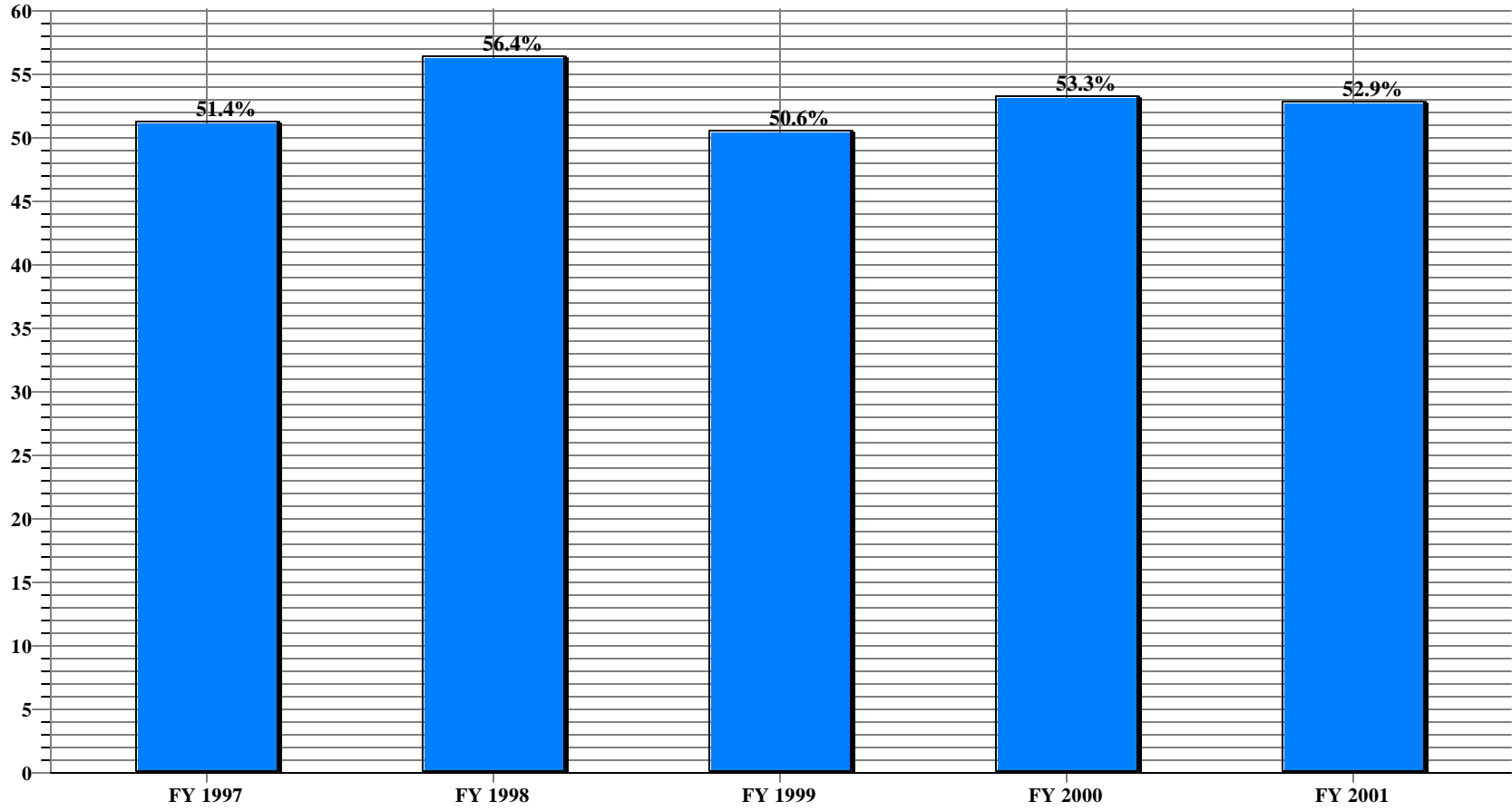
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	13,476	12,838	19,565	9,166	10,924	-2,552	-18.9%
HUMAN RESOURCES	7,634	7,460	6,393	10,936	10,127	2,493	32.7%
CFO	6,025	6,122	5,143	5,046	9,438	3,413	56.6%
PROCUREMENT	5,199	4,883	4,415	7,533	5,975	776	14.9%
LEGAL	1,280	2,857	4,280	7,681	9,479	8,199	640.5%
CENTRAL ADMIN SERVICES	12,867	11,376	12,829	17,846	17,145	4,278	33.2%
PROGRAM/PROJECT CONTROL	6,440	6,174	6,177	13,791	13,650	7,210	112.0%
INFORMATION OUTREACH	20,879	18,046	18,342	17,800	11,922	-8,957	-42.9%
INFORMATION SERVICES	30,158	28,887	28,096	31,932	34,431	4,273	14.2%
OTHER	323	301	10,598	162	-764	-1,087	-336.5%
<b>TOTAL GENERAL SUPPORT</b>	<b>104,281</b>	<b>98,944</b>	<b>115,838</b>	<b>121,893</b>	<b>122,327</b>	<b>18,046</b>	<b>17.3%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	12,359	12,419	10,336	10,383	10,107	-2,252	-18.2%
SAFETY AND HEALTH	37,465	37,976	44,803	50,497	46,354	8,889	23.7%
FACILITIES MANAGEMENT	13,185	12,942	13,617	19,217	18,927	5,742	43.5%
MAINTENANCE	49,356	45,468	49,015	61,416	63,443	14,087	28.5%
UTILITIES	11,517	12,700	12,000	8,911	8,413	-3,104	-27.0%
SAFEGUARDS AND SECURITY	20,736	19,733	20,280	22,364	21,693	957	4.6%
LOGISTICS SUPPORT	13,737	12,764	11,896	10,836	11,517	-2,220	-16.2%
QUALITY ASSURANCE	8,599	8,261	6,979	15,739	15,178	6,579	76.5%
LABORATORY/TECHNICAL SUPPOR	6,190	5,941	6,459	6,844	7,812	1,622	26.2%
<b>TOTAL MISSION SUPPORT</b>	<b>173,144</b>	<b>168,204</b>	<b>175,385</b>	<b>206,207</b>	<b>203,444</b>	<b>30,300</b>	<b>17.5%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	19,855	23,613	12,578	22,342	30,891	11,036	55.6%
TAXES	4,773	-1,562	1,260	2,640	3,375	-1,398	-29.3%
LDRD	9,989	8,431	10,734	4,239	20,619	10,630	106.4%
<b>TOTAL SITE SPECIFIC</b>	<b>34,617</b>	<b>30,482</b>	<b>24,572</b>	<b>29,221</b>	<b>54,885</b>	<b>20,268</b>	<b>58.5%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>312,042</b>	<b>297,630</b>	<b>315,795</b>	<b>357,321</b>	<b>380,656</b>	<b>68,614</b>	<b>22.0%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	254,466	196,074	260,589	281,047	308,202	53,736	21.1%
Capital Construction	40,658	33,730	47,107	31,823	30,673	-9,985	-24.6%
<b>TOTAL MISSION DIRECT</b>	<b>295,124</b>	<b>229,804</b>	<b>307,696</b>	<b>312,870</b>	<b>338,875</b>	<b>43,751</b>	<b>14.8%</b>
<b>Total Costs</b>	<b>607,166</b>	<b>527,434</b>	<b>623,491</b>	<b>670,191</b>	<b>719,531</b>	<b>112,365</b>	<b>18.5%</b>
<b>Total Costs w/o Construction</b>	<b>566,508</b>	<b>493,704</b>	<b>576,384</b>	<b>638,368</b>	<b>688,858</b>	<b>122,350</b>	<b>17.8%</b>
General Support % Total Co	17.2%	18.8%	18.6%	18.2%	17.0%		-0.2%
Mission Support % Total Cos	28.5%	31.9%	28.1%	30.8%	28.3%		-0.2%
Site Specific % Total Costs	5.7%	5.8%	3.9%	4.4%	7.6%		1.9%
Total Support % Total Costs	51.4%	56.4%	50.6%	53.3%	52.9%		1.5%
Total Support % Total Costs w/o Construct	55.1%	60.3%	54.8%	56.0%	55.3%		0.2%

**US Department of Energy  
Total Functional Support  
Idaho**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	312,042	297,630	315,795	357,321	380,656

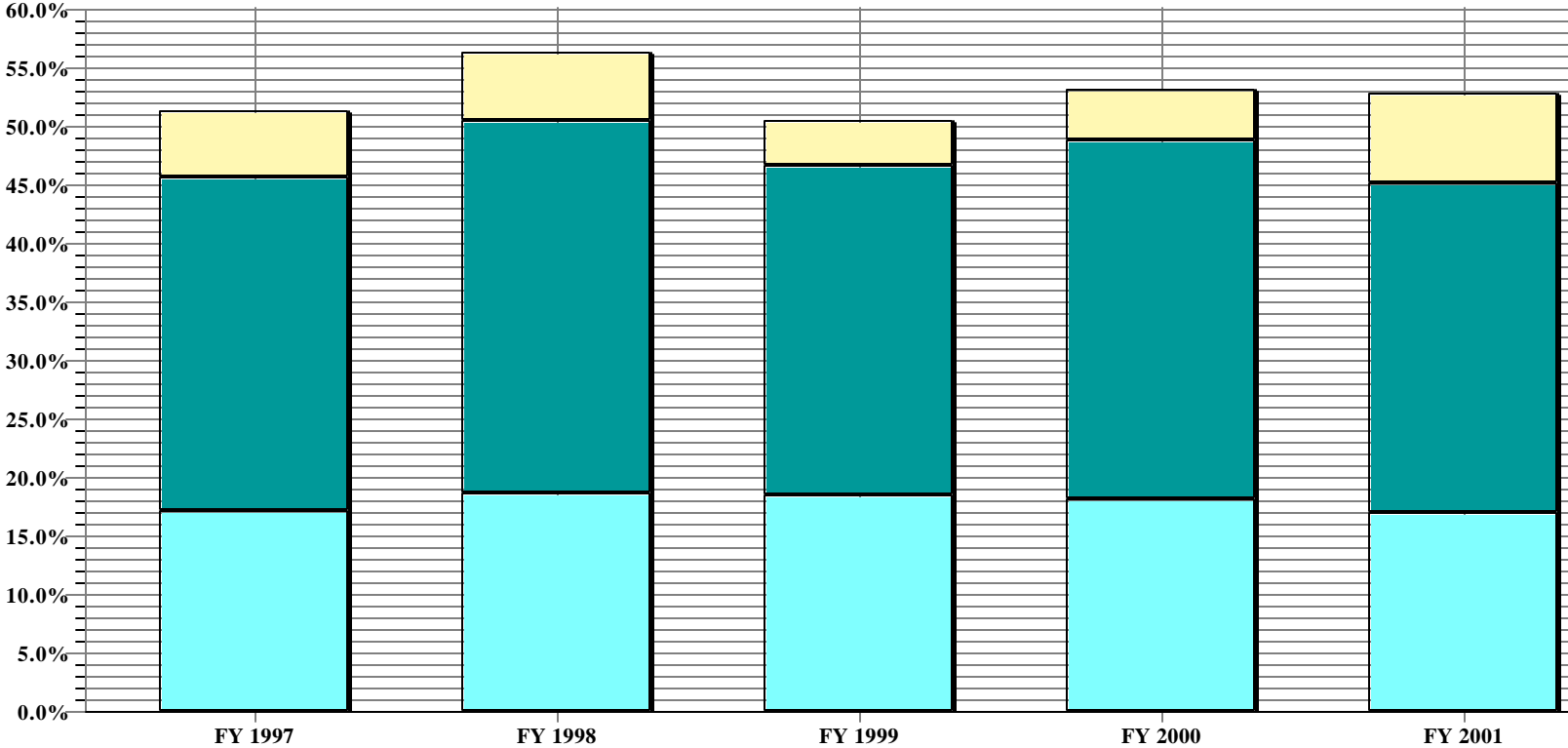
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Idaho**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	51.4%	56.4%	50.6%	53.3%	52.9%

**US Department of Energy  
Percent of Support Category to Total  
Idaho**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	17.2%	18.8%	18.6%	18.2%	17.0%
<b>Mis Sup</b>	28.5%	31.9%	28.1%	30.8%	28.3%
<b>Site Specific</b>	5.7%	5.8%	3.9%	4.4%	7.6%



## Idaho National Engineering and Environmental Laboratory

The Idaho National Engineering and Environmental Laboratory (INEEL) functional cost profile is a result of the many factors and characteristics associated with our operational missions. A comprehensive knowledge of site-specific characteristics (mission, diversity and complexity of work, duration of effort, regulatory drivers, geography, etc.) is required to fully understand and draw meaningful conclusions from this data. Some of the factors affecting the INEEL's functional cost profile include:

- INEEL is a multi-program FFRDC laboratory with a diverse customer base. (CR, DP, EE, EH, EM, SC, FE, NE, NN, PO, Other Federal Agencies, Commercial entities)
- The INEEL occupies 889 square miles with the associated logistics/infrastructure.
- There are 10 major "site" operating complexes and 5 facilities in the City of Idaho Falls which is 40 to 60 miles from the site. Approximately 2,700 people reside in town locations while 3,300 people reside in site locations.
- Provides support services of \$22M to other "on-site" government entities.
- Examples of operational missions include:
  - Environmental – Clean up of legacy environmental problems. Life cycle (estimated at 50 to 70 years) waste cleanup activities include the following items:

Transuranic Waste	High-Level Waste
Low-Level Waste	Mixed Low-Level Waste
Environmental Media Contamination	Spent Nuclear Fuel
  - Research and Development – The INEEL is involved in scientific research and development. Examples include bioprocessing, chemical separations, materials science, sensors, etc.
  - Nuclear Operations – Operation of the Advanced Test Reactor which provides material and fuel test results for the U.S. Navy and produces various isotopes.
  - Manufacturing – Production of tank armor for the U.S. Army.
- INEEL environmental operations are guided by the Idaho Settlement Agreement between the Department, the Navy, and the State of Idaho.
- The INEEL is one of the three largest employers in the state of Idaho.

### TRENDS

Compared to FY 2000, INEEL functional support costs have increased approximately \$23M. However, between FY 2000 and FY 2001 total cost increased \$49.3M resulting in the 0.4% support cost ratio reduction. Major increases were experienced in activities such as Management/Award/Incentive Fee, LDRD, Business Systems Improvement Project, PIT 9 litigation, and Strategic Investment Funding.

It should be noted that the INEEL is a multi-program site with a diversity of missions and as such work scope for one customer may be viewed as support while this same work scope represents direct mission for another. The analysis below highlights that in FY 2001 \$31M was categorized as support (by functional support cost standards) when it can also be viewed as direct mission work specifically requested by our non-EM customers.

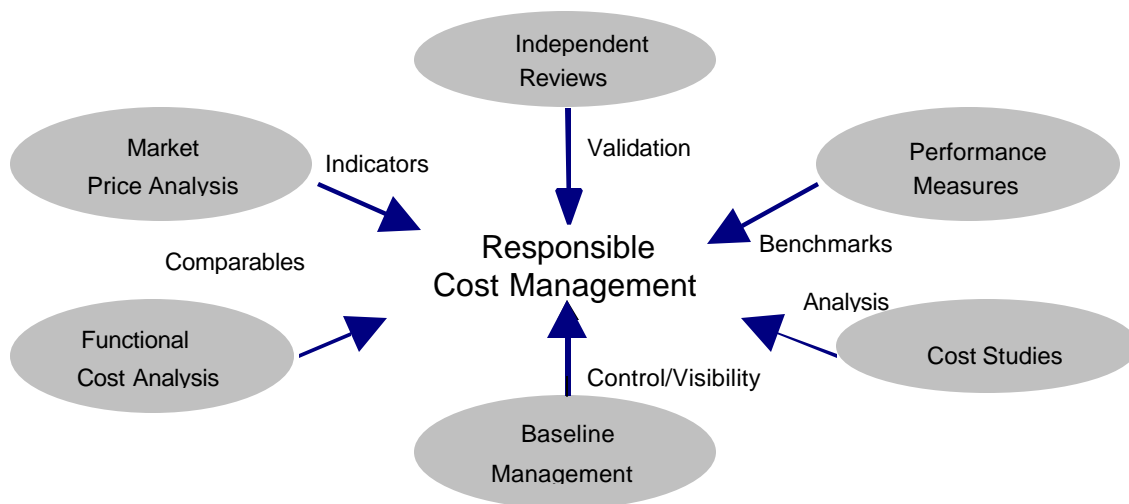
## Support Cost Ratios are Misleading

Total 2000 Support Costs	\$381M
Less: Non EM Direct Support	<u>(\$31M)</u>
Adjusted Support Costs	\$350M
Adjusted Support Cost Ratio: (\$350M/\$720M)	49%

Examples include national security activities, computer simulations development, computer modeling and analysis, human factors studies, etc. paid for as direct mission by our customers.

### COST SAVINGS INITIATIVES

## Achieving Cost Effectiveness



The INEEL continues to employ an integrated approach to cost management. Four processes are utilized to achieve this integration:

- Develop and implement innovative and effective contract structures and incentives.
- Utilize internal expertise to review and control cost through cost studies, analysis, and research. When possible, use outside experts to independently review and validate cost estimates.
- Utilize performance measures and benchmarks to provide overall indicators of cost efficiency.

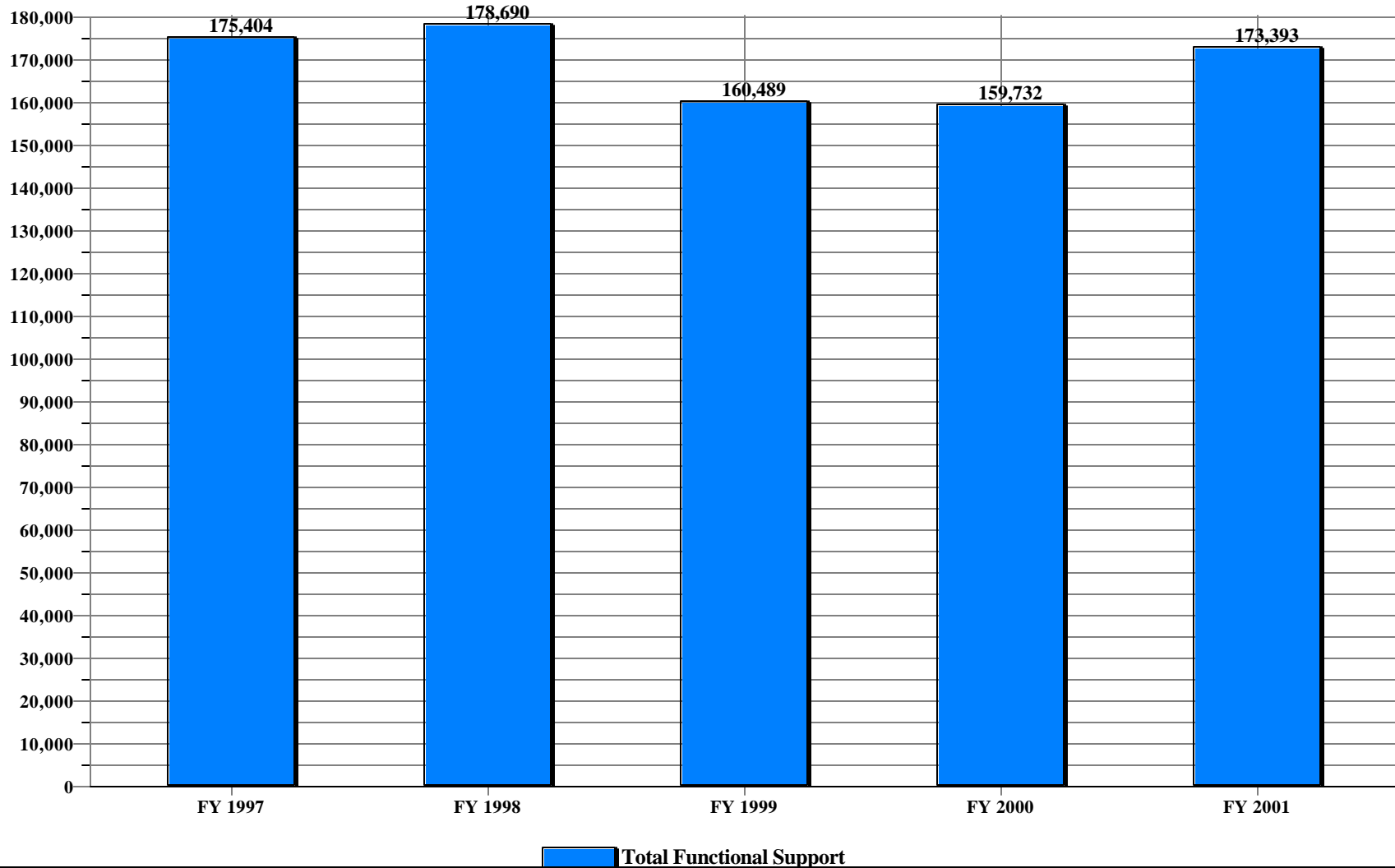
### Other

In FY 2001, the Other element amounted to -\$764.3K. This consisted of \$107.9K for General Liability Insurance and -\$872.2K for Contract Transition activities.

## Trends in Total Functional Support Cost Categories

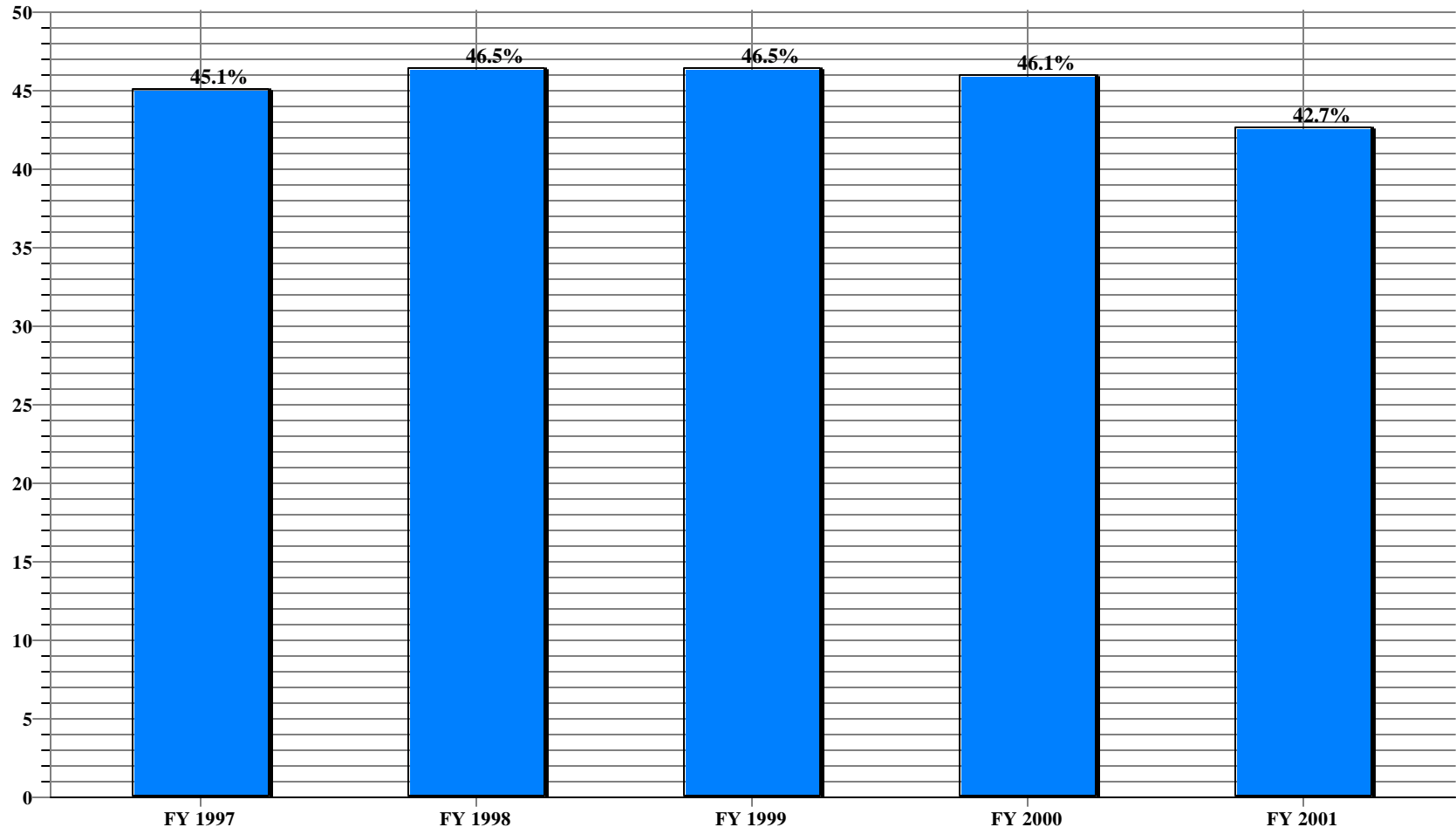
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	4,061	3,447	2,988	3,723	4,598	537	13.2%
HUMAN RESOURCES	4,555	4,302	4,066	4,320	4,947	392	8.6%
CFO	6,470	4,205	3,097	3,518	5,266	-1,204	-18.6%
PROCUREMENT	5,475	5,013	4,102	5,026	6,108	633	11.6%
LEGAL	508	423	538	620	1,238	730	143.7%
CENTRAL ADMIN SERVICES	2,035	1,812	1,486	1,007	209	-1,826	-89.7%
PROGRAM/PROJECT CONTROL	5,112	4,042	4,832	4,513	6,410	1,298	25.4%
INFORMATION OUTREACH	3,069	2,429	3,136	2,628	3,163	94	3.1%
INFORMATION SERVICES	24,983	26,731	26,402	28,250	29,926	4,943	19.8%
OTHER	-93	8,864	1,642	-12	-1,128	-1,035	1,112.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>56,175</b>	<b>61,268</b>	<b>52,289</b>	<b>53,593</b>	<b>60,737</b>	<b>4,562</b>	<b>8.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	5,450	7,398	5,967	5,776	5,131	-319	-5.9%
SAFETY AND HEALTH	4,217	3,825	3,768	3,304	4,344	127	3.0%
FACILITIES MANAGEMENT	7,985	7,245	6,762	5,483	6,727	-1,258	-15.8%
MAINTENANCE	37,182	40,606	32,251	34,685	36,135	-1,047	-2.8%
UTILITIES	13,858	14,209	13,869	11,203	12,898	-960	-6.9%
SAFEGUARDS AND SECURITY	8,085	7,567	6,923	7,279	8,721	636	7.9%
LOGISTICS SUPPORT	5,289	5,022	6,443	5,631	6,270	981	18.5%
QUALITY ASSURANCE	8,658	8,035	7,700	7,357	7,450	-1,208	-14.0%
LABORATORY/TECHNICAL SUPPORT	4,754	3,631	4,018	3,225	3,690	-1,064	-22.4%
<b>TOTAL MISSION SUPPORT</b>	<b>95,478</b>	<b>97,538</b>	<b>87,701</b>	<b>83,943</b>	<b>91,366</b>	<b>-4,112</b>	<b>-4.3%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	21,218	18,770	19,475	20,973	19,837	-1,381	-6.5%
TAXES	2,533	1,114	1,024	1,223	1,453	-1,080	-42.6%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>23,751</b>	<b>19,884</b>	<b>20,499</b>	<b>22,196</b>	<b>21,290</b>	<b>-2,461</b>	<b>-10.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>175,404</b>	<b>178,690</b>	<b>160,489</b>	<b>159,732</b>	<b>173,393</b>	<b>-2,011</b>	<b>-1.1%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	183,040	173,912	164,927	163,982	187,292	4,252	2.3%
Capital Construction	30,097	31,833	19,371	23,071	45,427	15,330	50.9%
<b>TOTAL MISSION DIRECT</b>	<b>213,137</b>	<b>205,745</b>	<b>184,298</b>	<b>187,053</b>	<b>232,719</b>	<b>19,582</b>	<b>9.2%</b>
<b>Total Costs</b>	<b>388,541</b>	<b>384,435</b>	<b>344,787</b>	<b>346,785</b>	<b>406,112</b>	<b>17,571</b>	<b>4.5%</b>
<b>Total Costs w/o Construction</b>	<b>358,444</b>	<b>352,602</b>	<b>325,416</b>	<b>323,714</b>	<b>360,685</b>	<b>2,241</b>	<b>0.6%</b>
General Support % Total Co	14.5%	15.9%	15.2%	15.5%	15.0%		0.5%
Mission Support % Total Cos	24.6%	25.4%	25.4%	24.2%	22.5%		-2.1%
Site Specific % Total Costs	6.1%	5.2%	5.9%	6.4%	5.2%		-0.9%
Total Support % Total Costs	45.1%	46.5%	46.5%	46.1%	42.7%		-2.4%
Total Support % Total Costs w/o Construct	48.9%	50.7%	49.3%	49.3%	48.1%		-0.9%

**US Department of Energy  
Total Functional Support  
KC**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	175,404	178,690	160,489	159,732	173,393

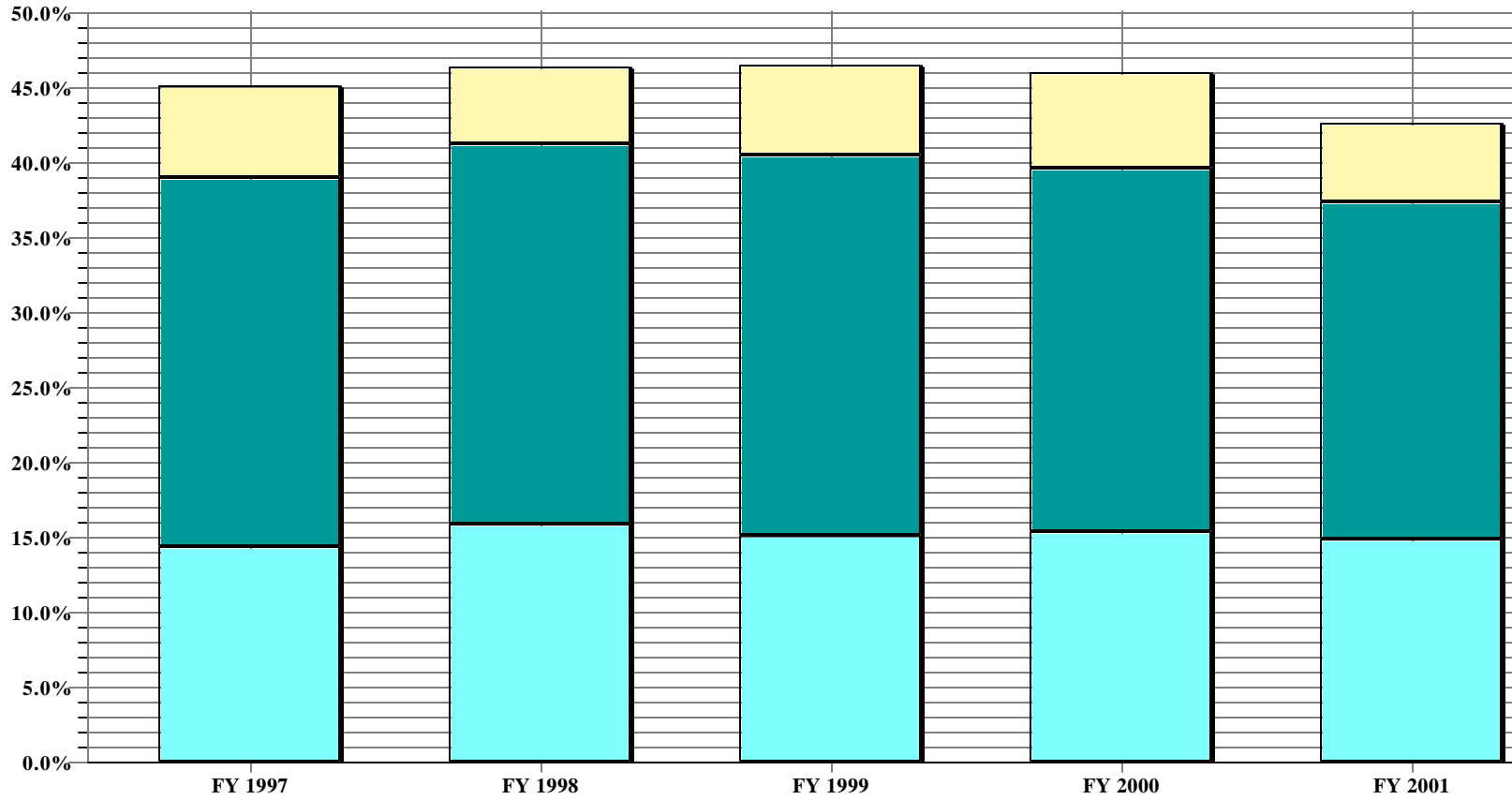
**US Department of Energy  
Total Functional Support as a % of Total Costs  
KC**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	45.1%	46.5%	46.5%	46.1%	42.7%

**US Department of Energy  
Percent of Support Category to Total  
KC**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.5%	15.9%	15.2%	15.5%	15.0%
<b>Mis Sup</b>	24.6%	25.4%	25.4%	24.2%	22.5%
<b>Site Specific</b>	6.1%	5.2%	5.9%	6.4%	5.2%

## **Kansas City Site Profile**

The Kansas City Plant (KCP) is operated by Honeywell, Federal Manufacturing & Technologies (FM&T). Our broad array of products and capabilities are closely linked with current and future efforts to ensure the safety and reliability of the stockpile. The plant produces over 85% of the components that constitute a nuclear weapon—more than 1,000 unique part types for over 40 product families. More than 60,000 product packages are shipped annually. Engineers are responsible for the full spectrum of products and technologies that perform weapon functions from access authorization to delivery of energy to the nuclear explosives package. These products include items such as radars, programmers, reservoirs, joint test assemblies, trajectory sensing signal generators, firesets, and mechanical cases. Other major initiatives the plant supports are: fabrication of telemetry systems to evaluate weapon systems, fabrication of Safeguards Transporters and program activities for the Office of Transportation Safeguards, warehousing and shipment of hardware for the Air Force's ongoing maintenance programs, and centralized procurement of Directed Stockpile Work production material.

The KCP includes property, assets and people located in Missouri, New Mexico and Arkansas. Current employment is approximately 3,000 people. The Kansas City facility resides on 141 acres including grounds and parking lots and currently utilizes approximately 2.9 million square feet of building space (primarily within one manufacturing building). The plant provides utility services to the South Kansas City Federal Complex which includes the plant and General Services Administration (GSA) space leased to other federal agencies. The plant bills GSA for their utilities. In October 1994, the FM&T division assumed responsibility for Kirtland Operations previously operated by EG&G. Kirtland Operations is situated on four separate sites in Albuquerque, New Mexico: 20.2 fenced acres owned by the U.S. Air Force and occupied under permit to the DOE, the Craddock Facility, the Air Park Facility, and the Coyote Canyon Facility. The Kirtland Operation also provides facility support and training for Fort Chaffee, Arkansas, which supports the Office of Transportation Safeguards, and engineering and technical support for Los Alamos, New Mexico. There are approximately 30,000 items of equipment at the combined facilities.

### Functional Support Cost Trends

#### General Support

FY2001 General Support costs represent a \$0.3 million (0.6%) decrease from the FY1997 level. Significant element trends within the General Support category reflect a \$5 million increase in Information Systems associated with the implementation, maintenance, and enhancements to an Enterprise Resource Planning (ERP) system; decreases in CFO-Finance (\$2.1 million), Central Administrative Services (\$1.8 million) and Other (\$4.1 million). The Information Systems ERP related costs represent software procurement, hardware/software maintenance contracts, and contracted support services. ERP is an information system (integrated engineering, manufacturing, distribution and financial) for identifying and planning the enterprise-wide resources needed to make, ship, and account for customer orders. ERP replaced approximately 60% of the legacy information systems avoiding significant year 2000 conversion costs while providing increased functionality. The decrease in CFO-Finance is primarily due to the reduction of 29 associates during the past 5 years. The decrease in Central Administrative Services reflects the outsourcing of the plant's cafeteria in FY2001.

The Other category reflects the recasting of the \$3.1 million Missouri Sales Tax rebate in FY1997 to comply with this year's instructions to include all taxes in Taxes. Legal proceedings were held during 1997 and it was determined that certain procurements were exempt from taxes and the rebate was received. Activities in the General Support - Other category are summarized in the following table:

General Support – Other	
	(\$ in 000s)
FY2001	
Bid & Proposal and Contract Transition Labor Costs Charged to Honeywell	(1,128)
FY2000	
Separation Costs (FY2000 RIF)	1,231
Bid & Proposal Labor Costs Charged to Honeywell	<u>(1,243)</u>
Total Other	(12)
FY1999	
Separation Costs (FY1999 RIF)	1,642
FY1998	
Separation Costs (1997 RIF)	8,864
FY1997	
Separation Costs (1997 RIF)	2,778
Miscellaneous Adjustments	<u>206</u>
Total Other	2,984

1997 Reduction in Force approximately 400 associates  
 1999 Reduction in Force approximately 60 associates  
 2000 Reduction in Force approximately 40 associates

#### Mission Support

The \$3.9 million decrease in Mission Support costs is primarily attributed to decreases in Facilities Management (-\$1.2M), Quality Assurance (-\$1.2M), and Laboratory/Technical Support (\$1.0M).

Multiple re-organizations through the fiscal years in the Facilities Management/Engineering and Maintenance functions have impacted trends; therefore, these functional cost categories have been consolidated to address those trends. The variances in expenses from year to year are primarily attributed to contract services related to roof refurbishment, asbestos abatement, and infrastructure refurbishment. FY2001 was impacted by the ongoing Beryllium sampling efforts. One element contributing to the fluctuation in maintenance expenditures is the receipt of Congressional Add-On funding to address infrastructure requirements. For example in FY1998, the plant received \$4 million in additional funds for roof refurbishment. Additional funding for infrastructure activities was not received in FY1999; consequently, FY1999 expenditures reflect a decline when compared to prior years. While plant census has reduced significantly over the years, the facility size



and quantity of equipment have remained relatively constant. As a result, required facility/maintenance costs continue to be a driver of the mission support cost category.

The level of Quality Assurance reflects the production mission at the Kansas City Plant. Support functions include quality engineering, purchased material inspection for electrical and mechanical parts, and field operations. The \$1.2 million decrease from FY1997 to FY2001 reflects a focus to integrate quality assurance functions within production operations through process based quality initiatives.

#### Site Specific

The change in site specific costs between FY1997 and FY2001 are attributed to a decrease in management/award incentive fees, an increase in Taxes due to the previously discussed recasting of the Missouri Sales Tax rebate, and the support of Program Directed Research and Development (PDRD) activities which were initiated in FY2001.

#### **Global Cost Drivers/Anomalies**

Since 1990, the plant census has been reduced by 48%. Workload and funding reductions have included early and regular retirements and have created a disproportionate amount of retirees to current associates. One source projects the average large company to have an employee to retiree ratio of 2.2:1. The employee to retiree ratio for the Kansas City Plant is approximately 1:1. This significant fixed expense for the plant is allocated to all cost categories.

#### Cost Savings Initiatives

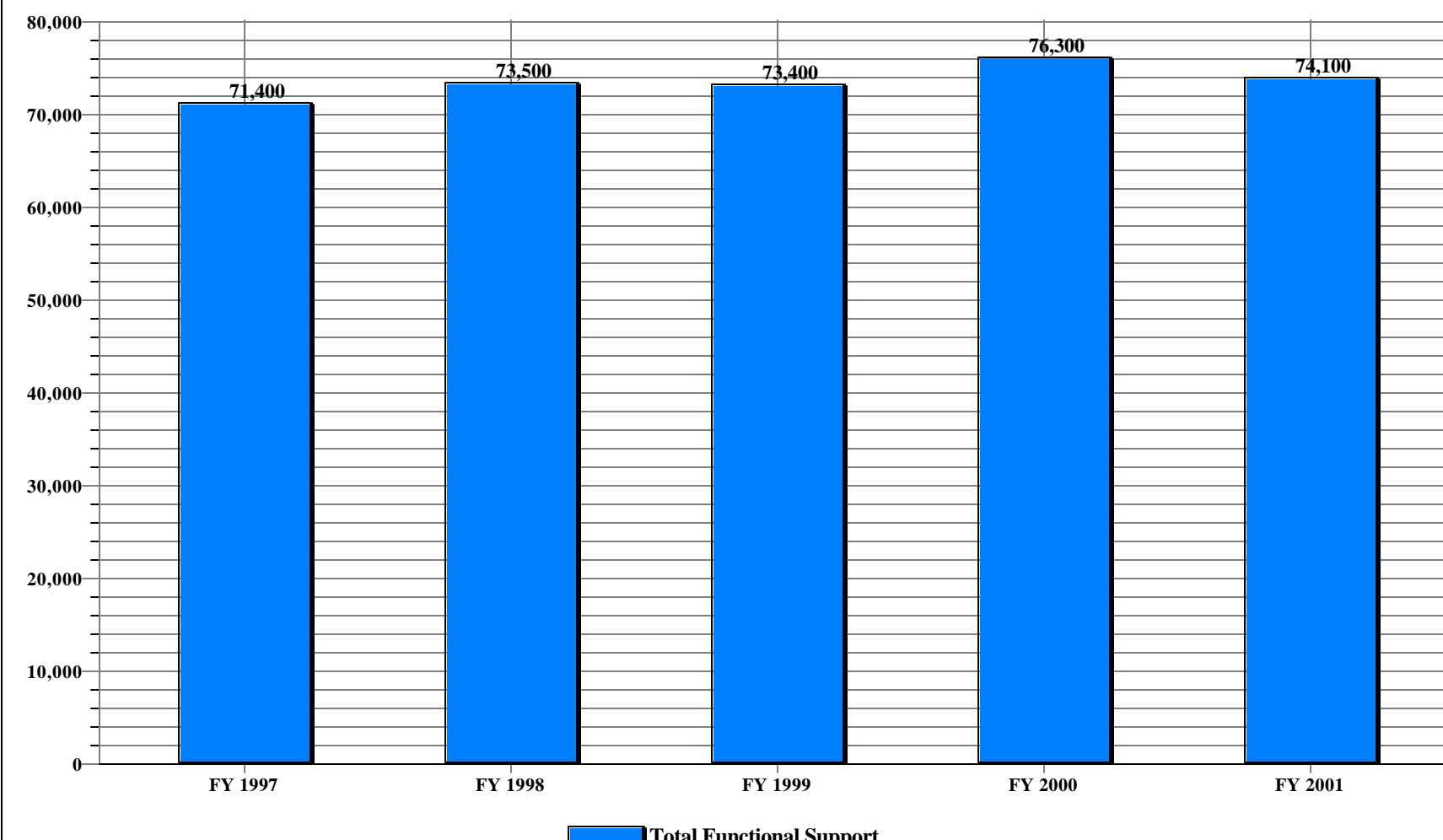
The plant has developed a downsizing plan under the Department's Stockpile Management Restructuring Initiative (SMRI) which received construction line item funding in FY1999 with completion scheduled for FY2005. The SMRI objective is to reduce the physical plant space resulting in a manufacturing facility that is more cost effective and compatible with the anticipated production needs of the future. Through the implementation of SMRI and other initiatives, total managed floor space will be reduced from 3.2 million square feet to 2.3 million square feet.

Honeywell, FM&T has developed a continuous improvement culture at the Kansas City Plant. With Total Quality Management principles as a foundation, improvement efforts have evolved to a Six-Sigma Plus process approach, which utilizes tools to improve processes and reduce variation, and to digitization initiatives. As a part of Kansas City Plant contract renewal, Honeywell is committed to achieving \$25 million in efficiency improvements over two years. Recent activities include sharing best practices with other sites. FM&T conducted a two and one-half day Green Belt training class on Six Sigma processes for 75 NNSA/AL customers, and provided Black Belt training for 25 Pantex personnel, as well as 23 Kansas City Plant associates.

## Trends in Total Functional Support Cost Categories

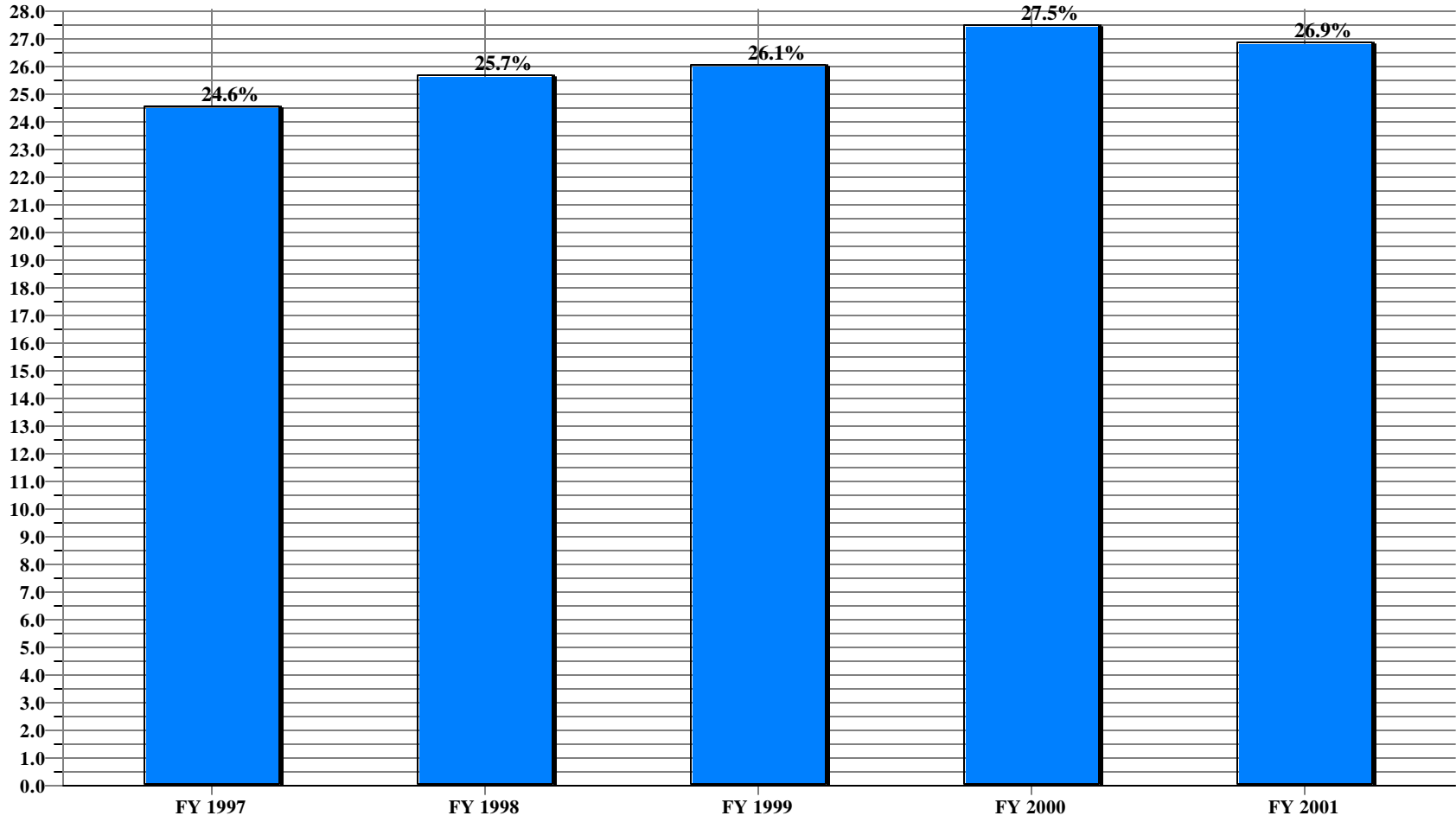
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	1,200	1,200	1,500	1,800	3,100	1,900	158.3%
HUMAN RESOURCES	1,800	1,900	2,100	2,700	2,800	1,000	55.6%
CFO	3,800	3,900	3,800	3,700	2,900	-900	-23.7%
PROCUREMENT	1,800	1,900	1,800	1,700	2,000	200	11.1%
LEGAL	200	200	500	1,400	400	200	100.0%
CENTRAL ADMIN SERVICES	1,400	1,400	1,200	1,100	1,200	-200	-14.3%
PROGRAM/PROJECT CONTROL	300	300	200	300	300	0	0.0%
INFORMATION OUTREACH	0	0	0	0	0	0	0.0%
INFORMATION SERVICES	8,900	9,200	9,700	9,200	8,000	-900	-10.1%
OTHER	0	0	0	0	0	0	0.0%
<b>TOTAL GENERAL SUPPORT</b>	19,400	20,000	20,800	21,900	20,700	1,300	6.7%
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	3,100	3,200	3,000	3,400	5,000	1,900	61.3%
SAFETY AND HEALTH	10,700	11,000	11,300	11,300	11,300	600	5.6%
FACILITIES MANAGEMENT	4,400	4,500	4,900	5,000	5,300	900	20.5%
MAINTENANCE	13,100	13,500	12,700	12,800	11,500	-1,600	-12.2%
UTILITIES	2,200	2,300	2,100	2,700	3,200	1,000	45.5%
SAFEGUARDS AND SECURITY	5,000	5,100	5,000	5,500	6,000	1,000	20.0%
LOGISTICS SUPPORT	1,700	1,800	2,300	2,700	2,500	800	47.1%
QUALITY ASSURANCE	3,700	3,800	3,000	3,100	3,200	-500	-13.5%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	43,900	45,200	44,300	46,500	48,000	4,100	9.3%
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	7,600	7,800	7,500	7,300	5,100	-2,500	-32.9%
TAXES	500	500	800	600	300	-200	-40.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	8,100	8,300	8,300	7,900	5,400	-2,700	-33.3%
<b>TOTAL FUNCTIONAL SUPPORT</b>	71,400	73,500	73,400	76,300	74,100	2,700	3.8%
<b>MISSION DIRECT</b>							
Mission Direct Operation	188,700	186,100	187,200	174,600	178,700	-10,000	-5.3%
Capital Construction	30,400	26,200	20,900	26,300	22,900	-7,500	-24.7%
<b>TOTAL MISSION DIRECT</b>	219,100	212,300	208,100	200,900	201,600	-17,500	-8.0%
<b>Total Costs</b>	290,500	285,800	281,500	277,200	275,700	-14,800	-5.1%
<b>Total Costs w/o Construction</b>	260,100	259,600	260,600	250,900	252,800	-7,300	-2.9%
General Support % Total Co	6.7%	7.0%	7.4%	7.9%	7.5%		0.8%
Mission Support % Total Cos	15.1%	15.8%	15.7%	16.8%	17.4%		2.3%
Site Specific % Total Costs	2.8%	2.9%	2.9%	2.8%	2.0%		-0.8%
Total Support % Total Costs	24.6%	25.7%	26.1%	27.5%	26.9%		2.3%
Total Support % Total Costs w/o Construct	27.5%	28.3%	28.2%	30.4%	29.3%		1.9%

**US Department of Energy  
Total Functional Support  
Knolls Lab**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	71,400	73,500	73,400	76,300	74,100

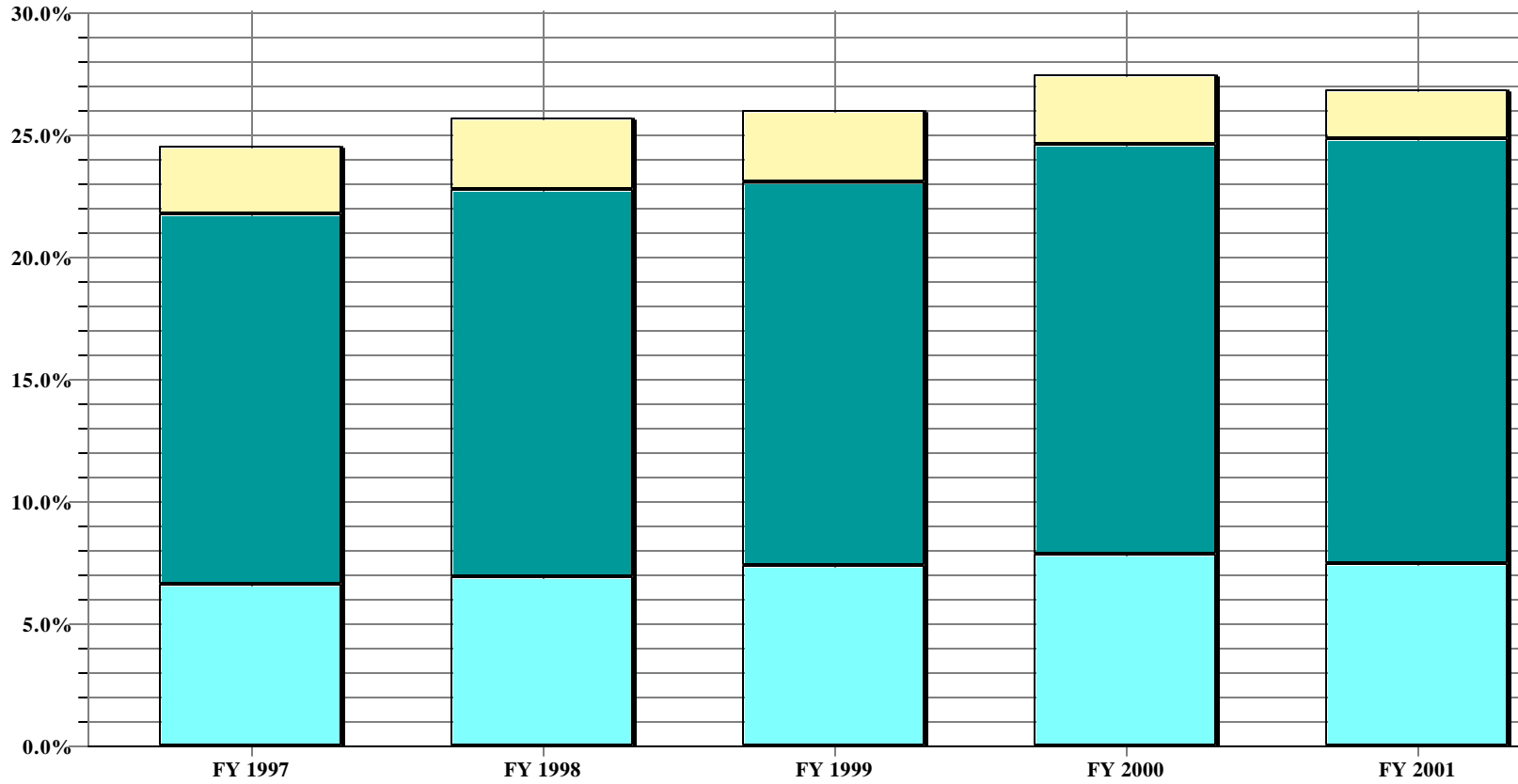
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Knolls Lab**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	24.6%	25.7%	26.1%	27.5%	26.9%

**US Department of Energy  
Percent of Support Category to Total  
Knolls Lab**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	6.7%	7.0%	7.4%	7.9%	7.5%
<b>Mis Sup</b>	15.1%	15.8%	15.7%	16.8%	17.4%
<b>Site Specific</b>	2.8%	2.9%	2.9%	2.8%	2.0%

## **KNOLLS ATOMIC POWER LABORATORY**

The Knolls Atomic Power Laboratory (KAPL) is operated for the Department of Energy by KAPL, Inc., a Lockheed Martin Company. It is KAPL's sole function to support the United States Naval Nuclear Propulsion Program through development of advanced reactor plant designs, while providing design agency support of the operating fleet and training nuclear propulsion plant operating personnel.

KAPL currently employs more than 2,600 people at two major sites, in Niskayuna, NY and in West Milton, NY. The Knolls Site in Niskayuna and the Kesselring Site in West Milton are situated on approximately 180 and 3,905 acres of land, respectively. KAPL field personnel also operate out of shipyards in New Hampshire, Connecticut, Virginia, Hawaii, Washington State and at the Naval Reactors Facility Site in Idaho.

KAPL was originally operated by the General Electric (GE) Company. GE received its initial research contract to establish KAPL from the Manhattan Engineering District in May of 1946. KAPL's mission was converted to a nuclear propulsion project in 1950. KAPL's initial efforts were spent developing a safe reactor small enough to operate inside a submarine. SeaWolf launched in 1955, represented the first KAPL designed reactor plant. Subsequently, KAPL designed reactors for the TRITON (SSN586), NARWHAL (SSN671), the research submarine NR-1, and the LOS ANGELES and VIRGINIA Class attack and Trident Class ballistic missile submarines.

KAPL currently maintains, supports and enhances the mission capability of LOS ANGELES class submarines and OHIO class ballistic missile submarines. KAPL also supports Electric Boat and Newport News in the test and construction of the VIRGINIA Class submarines and provides design and engineering support for the future CVNX class aircraft carriers.

KAPL's efforts focus on designing the world's most technologically advanced nuclear reactor plants for the U.S. Navy submarines. Fundamental research is conducted to develop improved materials, chemistry control systems and components for naval nuclear propulsion technology.

KAPL uses its theoretical knowledge, sophisticated testing capabilities and computational power to design new reactor and propulsion systems and components that will be used on existing and future Navy surface ships and submarines. Some additional areas KAPL focuses on are direct energy conversion, electric drive propulsion and advanced composite materials.

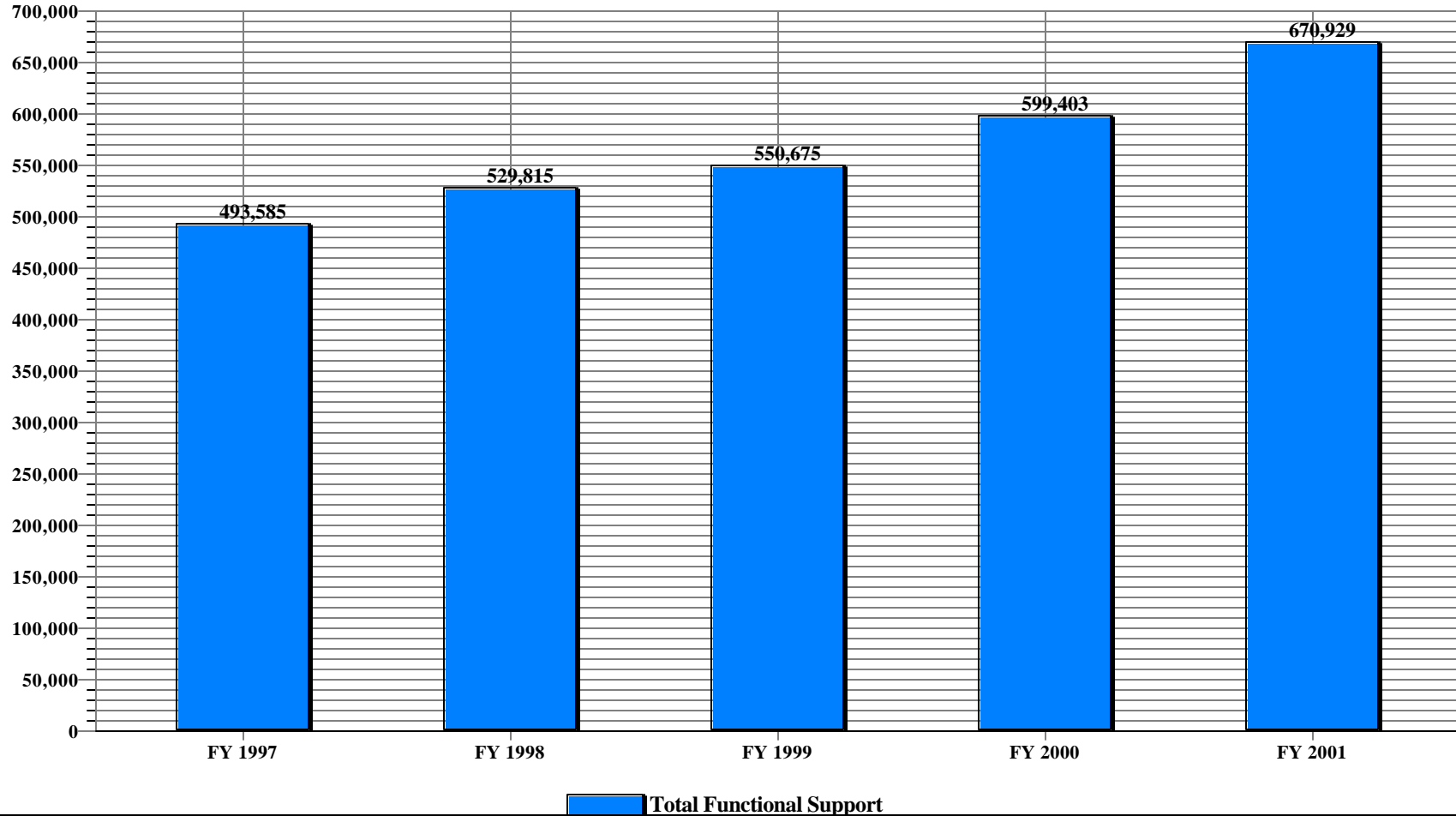
In addition, KAPL operates two prototype plants located at the Kesselring Site in West Milton, NY. The MARF and S8G prototypes commenced operation in 1976 and 1978, respectively, and are used for naval nuclear propulsion training. These plants are also used to test reactors, reactor plant systems, and reactor steam and electric plant components. Two other prototypes located at the site, the S3G and D1G prototypes, are currently undergoing inactivation. S3G and D1G, which started operation in 1958 and 1962, respectively, were operated for training and testing until their missions were completed in the 1990's. At that time, the plants were shutdown and inactivation was started as part of Naval Reactors' continuing commitment to ensure proper dismantlement and environmental remediation of formerly used facilities.

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	3,899	4,786	7,250	12,715	14,443	10,544	270.4%
HUMAN RESOURCES	14,015	14,741	16,179	19,971	20,831	6,816	48.6%
CFO	7,417	7,578	7,991	9,058	8,401	984	13.3%
PROCUREMENT	9,087	10,256	10,465	11,315	12,501	3,414	37.6%
LEGAL	7,916	7,297	7,618	8,826	10,040	2,124	26.8%
CENTRAL ADMIN SERVICES	26,515	27,745	30,637	27,581	26,572	57	0.2%
PROGRAM/PROJECT CONTROL	11,382	12,891	17,654	22,049	22,810	11,428	100.4%
INFORMATION OUTREACH	22,679	31,748	24,421	21,480	22,890	211	0.9%
INFORMATION SERVICES	58,266	64,636	72,927	76,532	82,755	24,489	42.0%
OTHER	5,439	19,662	4,052	6,181	13,719	8,280	152.2%
<b>TOTAL GENERAL SUPPORT</b>	166,615	201,340	199,194	215,708	234,962	68,347	41.0%
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	18,255	17,420	20,802	23,993	20,638	2,383	13.1%
SAFETY AND HEALTH	51,269	48,589	58,298	61,068	62,574	11,305	22.1%
FACILITIES MANAGEMENT	8,440	11,202	7,046	58,821	71,082	62,642	742.2%
MAINTENANCE	64,579	69,674	70,074	52,665	56,486	-8,093	-12.5%
UTILITIES	45,211	43,817	43,479	50,003	58,613	13,402	29.6%
SAFEGUARDS AND SECURITY	54,946	53,657	60,634	60,294	63,247	8,301	15.1%
LOGISTICS SUPPORT	6,532	6,329	6,563	6,478	6,934	402	6.2%
QUALITY ASSURANCE	7,220	6,959	8,765	9,652	8,602	1,382	19.1%
LABORATORY/TECHNICAL SUPPORT	2,173	1,882	1,076	2,070	2,104	-69	-3.2%
<b>TOTAL MISSION SUPPORT</b>	258,625	259,529	276,737	325,044	350,280	91,655	35.4%
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	14,566	14,213	14,600	18,122	19,356	4,790	32.9%
TAXES	0	0	0	0	0	0	0.0%
LDRD	53,779	54,733	60,144	40,529	66,331	12,552	23.3%
<b>TOTAL SITE SPECIFIC</b>	68,345	68,946	74,744	58,651	85,687	17,342	25.4%
<b>TOTAL FUNCTIONAL SUPPORT</b>	493,585	529,815	550,675	599,403	670,929	177,344	35.9%
<b>MISSION DIRECT</b>							
Mission Direct Operation	629,048	673,763	720,835	757,854	810,845	181,797	28.9%
Capital Construction	129,731	125,919	161,904	138,706	239,245	109,514	84.4%
<b>TOTAL MISSION DIRECT</b>	758,779	799,682	882,739	896,560	1,050,090	291,311	38.4%
<b>Total Costs</b>	1,252,364	1,329,497	1,433,414	1,495,963	1,721,019	468,655	37.4%
<b>Total Costs w/o Construction</b>	1,122,633	1,203,578	1,271,510	1,357,257	1,481,774	359,141	24.2%
General Support % Total Co	13.3%	15.1%	13.9%	14.4%	13.7%		0.3%
Mission Support % Total Cos	20.7%	19.5%	19.3%	21.7%	20.4%		-0.3%
Site Specific % Total Costs	5.5%	5.2%	5.2%	3.9%	5.0%		-0.5%
Total Support % Total Costs	39.4%	39.9%	38.4%	40.1%	39.0%		-0.4%
Total Support % Total Costs w/o Construct	44.0%	44.0%	43.3%	44.2%	45.3%		1.3%

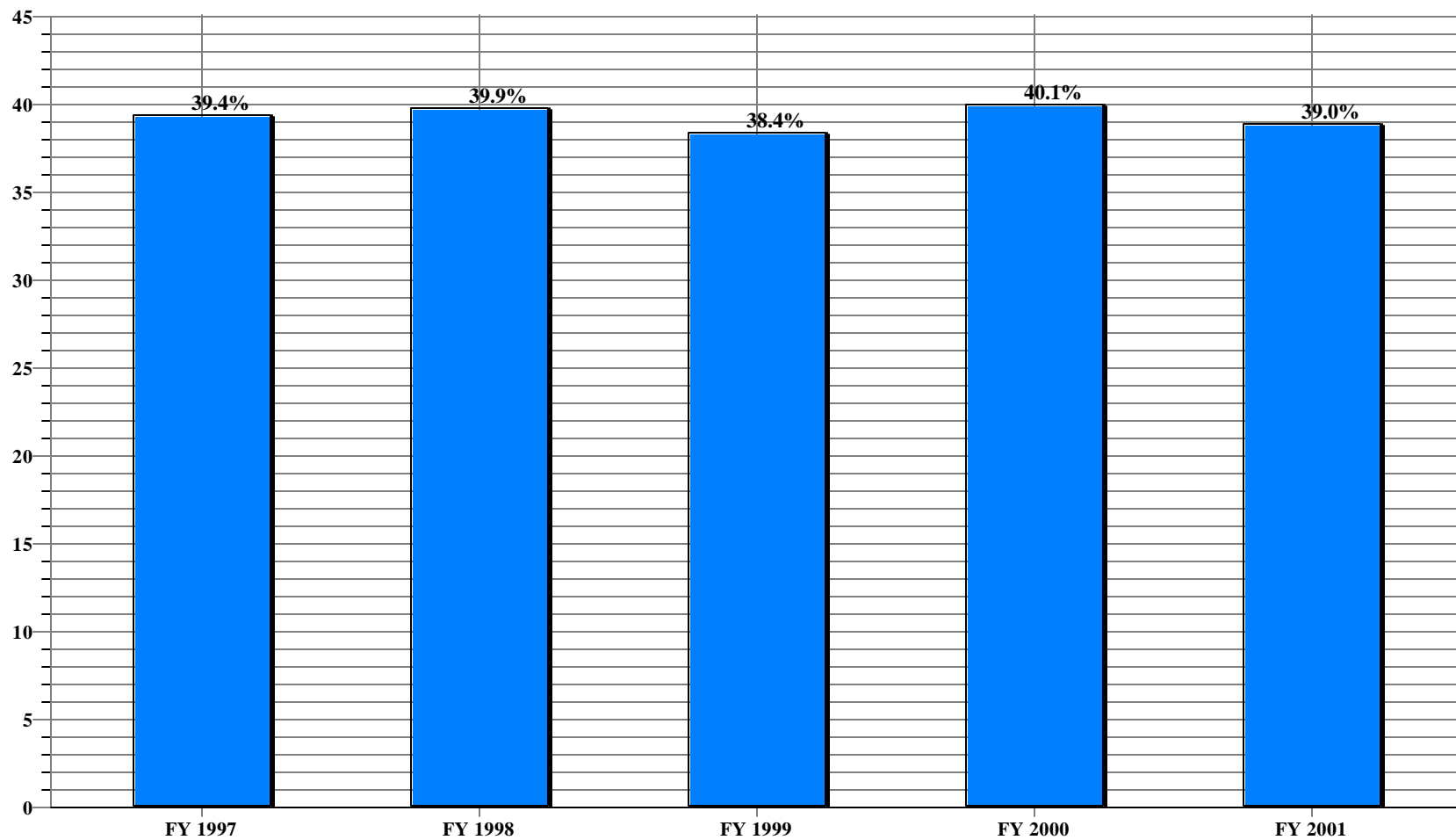


US Department of Energy  
Total Functional Support  
Los Alamos



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	493,585	529,815	550,675	599,403	670,929

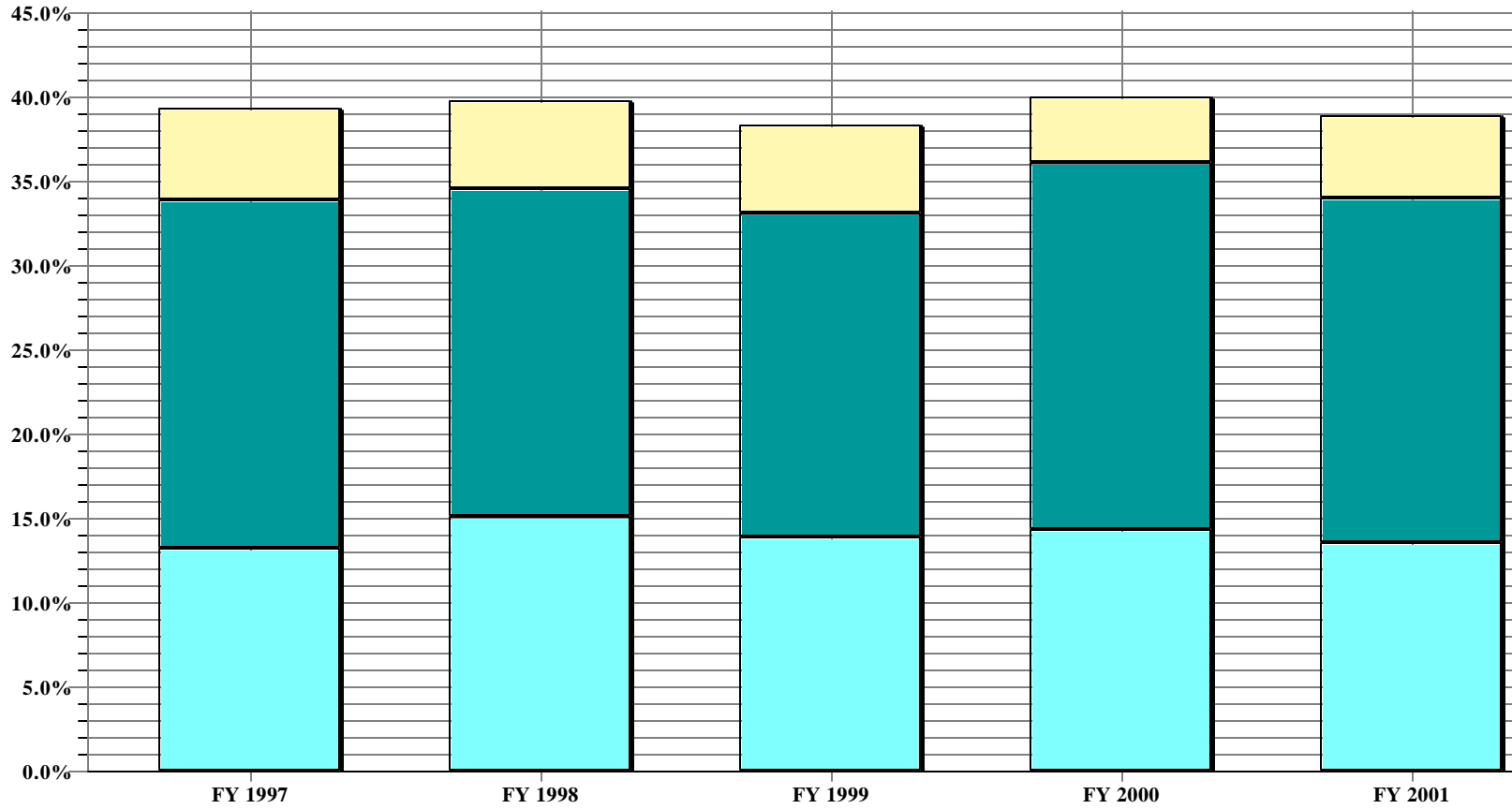
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Los Alamos**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	39.4%	39.9%	38.4%	40.1%	39.0%

**US Department of Energy  
Percent of Support Category to Total  
Los Alamos**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.3%	15.1%	13.9%	14.4%	13.7%
<b>Mis Sup</b>	20.7%	19.5%	19.3%	21.7%	20.4%
<b>Site Specific</b>	5.5%	5.2%	5.2%	3.9%	5.0%

## **Los Alamos National Laboratory Functional Cost Reporting System - Site Profile**

### Background

Los Alamos National Laboratory (LANL) occupies more than 43 square miles (approximately 27,800 acres) of mesas and canyons in northern New Mexico. These 43 square miles are divided into 50 technical areas with locations and spacing that reflect historical development patterns, topography, and functional relationships. As the largest institution and the largest employer in the area, LANL has approximately 7,500 University of California employees plus approximately 3,200 contractor personnel. The University of California has managed LANL since 1943, when the Laboratory was built as part of the Manhattan Project to develop the first atomic weapons during World War II.

### Mission

For more than 50 years, LANL's primary mission has been to apply science and technology to problems of national security. However, well before the end of the Cold War, this mission expanded to encompass energy, economic competitiveness, and other national problems. Today, the Laboratory focuses on reducing the global nuclear danger through the stewardship and management of the nation's nuclear stockpile, but also conducts large-scale, multidisciplinary research and development in hundreds of areas ranging from advanced manufacturing techniques to human genome studies and from alternative energy sources to new polymers. These efforts require a solid foundation in science and state-of-the-art technology. Partnering with universities and industry is critical to our success, and carefully selected civilian research and development programs complement our mission.

### Trends in Functional Support Costs

As detailed in the table below, LANL's Total Functional Support Costs have increased over the period FY97 - FY01 by \$177,344K, yet the percentage of Total Functional Support Costs to Total Site Costs has decreased from 39.4% to 39.0%. This reduction is due to the fact that Total Functional Support Costs have increased at a rate (35.9% from FY97 - FY01) that was lower than the Total Site Cost growth rate (37.4%) over the same period.

**LANL Functional Cost Summary: FY97 - FY01 Costs in \$K**

	<b>FY97</b>	<b>FY98</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>
General Support	166,615	201,340	199,194	215,708	234,962
Mission Support	258,625	259,529	276,737	325,044	350,280
Site Specific	68,345	68,946	74,744	58,651	85,687
<b>Total Functional Costs</b>	493,585	529,815	550,675	599,403	670,929
Mission Direct	629,048	673,763	720,835	757,854	810,845
Capital/Construction	129,731	125,919	161,904	138,706	239,245
Total Site Costs	1,252,364	1,329,497	1,433,414	1,495,963	1,721,019
<b>Total Functional Costs as % of Total Site Costs</b>	39.4%	39.9%	38.4%	40.1%	39.0%

The following paragraphs highlight the DOE functional support categories where a significant change occurred in the costs from FY00 to FY01. Each paragraph details the total costs for the functional area, the net change from the prior fiscal year, and a brief explanation of the change.

**General Support**

*Information Services* (\$82,755K) increased by \$6,223K primarily due to the initial implementation of an Enterprise Resource Planning (ERP) system. ERP is a computer-based system that will improve the way the Laboratory handles administrative functions, including financial records, time-and-effort reporting, project management and facility maintenance.

*Other* (\$13,719K) increased by \$7,538K primarily due to two legal settlements.

**Mission Support**

*Facilities Management* (\$71,082K) increased by \$12,261K primarily due to clean-up costs for a laboratory oil spill as well as new Appendix O Contract requirements that resulted in a new study of LANL's nuclear facilities. In addition, additional direct funding for the Readiness in Technical Base & Facilities Program (RTBF) increased expenditures for actions that meet the definition of facilities management.

*Utilities* (\$58,613K) increased by \$8,610K due to a one-time payment (\$5,300K) for the LANL steam plant and cost increases in commodities (primarily natural gas).

## **Site Specific**

*Laboratory Directed Research and Development (LDRD)* (\$66,331K) increased by \$25,802K as a result of the DOE ceiling percentage for LDRD being raised from 4% in FY00 to 6% in FY01.

## Major Cost Drivers

LANL costs that may appear to be out of line with “similar” sites are Safety and Health, Maintenance, Utilities, and Safeguards and Security. As described above, LANL is a very large research and development facility encompassing 43 square miles. In addition, LANL has special nuclear material facilities and plutonium facilities that contribute to total functional support costs.

## Cost Savings Initiatives

LANL Senior Management has aggressively managed the Laboratory’s Indirect portfolio over the past several years with the goal of reducing the cost of doing business at the Laboratory. For FY01, Senior Management took additional steps designed to further reduce the cost of doing business.

In May 2000, Laboratory Director John Browne issued a challenge to Senior Management to hold constant or reduce Indirect budgets for FY01. In a memorandum to Laboratory Leaders, Director Browne stated that the goal was “important to the long-term health of the Laboratory.” Senior Management responded to the challenge by informing their organizations that FY01 targets in all Indirect cost categories would remain constant with FY00 levels.

As part of Senior Management’s focus on Indirect costs, LANL initiated a process in FY00 in which specific areas of the Laboratory are selected each year for a comprehensive review of Indirect base budgets. These reviews continued in FY01.

In his State of the Laboratory Address in March 2001, Director Browne further addressed the cost of doing business by establishing an institutional goal to reduce the burden cost to technical staff by five percent. Senior Management selected the ratio of Indirect Costs to Total Cost as the metric to measure Laboratory performance for this goal, and took several immediate steps to address the goal:  
Established a review team to examine facility management processes and costs at the Laboratory,  
Initiated a thorough review of all non-management Technical Staff Members charging to Organizational Support overhead accounts, and  
Established aggressive Indirect target budgets for FY02.

**Other**

The *Other* category includes the following costs in \$K:

	<b>FY97</b>	<b>FY98</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>
Economic Development	559	0	278	0	0
Risk Management	1,006	1,283	1,117	1,247	827
Inst. Program Development	3,874	3,947	2,657	4,934	3,492
Lawsuit Settlement	0	13,000	0	0	9,400
Flood Damage	0	1,432	0	0	0
<b>Total Costs</b>	<b>5,439</b>	<b>19,662</b>	<b>4,052</b>	<b>6,181</b>	<b>13,719</b>

**Reconciliation to Management Analysis Reporting System**

Costs in \$K:

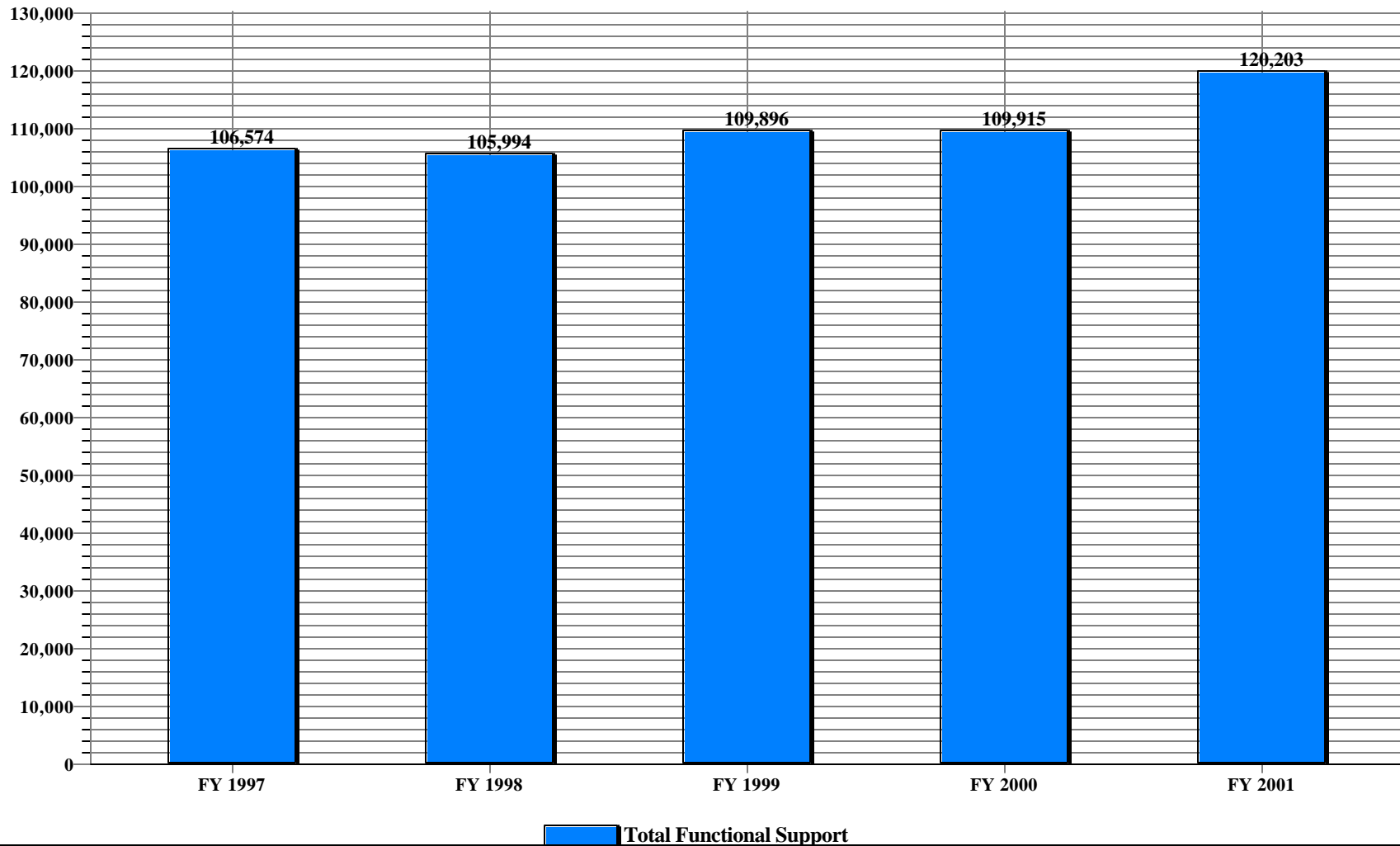
	<b>FY97</b>	<b>FY98</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>
Op. Costs Charged to DOE	1,249,262	1,327,449	1,431,457	1,492,930	1,717,987
UC Sponsored Research	2,481	1,634	1,419	900	704
Other Cash Reimbursements	621	414	538	2,132	2,328
<b>Total Costs</b>	<b>1,252,364</b>	<b>1,329,497</b>	<b>1,433,414</b>	<b>1,495,962</b>	<b>1,721,019</b>

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	3,052	2,857	3,435	3,701	4,199	1,147	37.6%
HUMAN RESOURCES	4,852	3,925	3,771	4,034	3,610	-1,242	-25.6%
CFO	4,089	4,792	3,928	4,309	4,743	654	16.0%
PROCUREMENT	2,530	2,260	2,504	4,033	3,506	976	38.6%
LEGAL	2,291	2,164	2,400	1,338	1,646	-645	-28.2%
CENTRAL ADMIN SERVICES	2,651	2,159	3,179	4,456	6,069	3,418	128.9%
PROGRAM/PROJECT CONTROL	0	0	0	0	0	0	0.0%
INFORMATION OUTREACH	2,942	3,104	2,788	3,204	3,004	62	2.1%
INFORMATION SERVICES	17,994	18,248	18,703	17,196	19,270	1,276	7.1%
OTHER	912	2,469	52	-3,196	-1,175	-2,087	-228.8%
<b>TOTAL GENERAL SUPPORT</b>	<b>41,313</b>	<b>41,978</b>	<b>40,760</b>	<b>39,075</b>	<b>44,872</b>	<b>3,559</b>	<b>8.6%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	2,232	1,922	1,943	2,829	5,127	2,895	129.7%
SAFETY AND HEALTH	7,205	7,880	7,900	8,175	7,068	-137	-1.9%
FACILITIES MANAGEMENT	9,894	10,002	11,217	12,068	14,556	4,662	47.1%
MAINTENANCE	15,587	15,652	18,640	16,905	15,527	-60	-0.4%
UTILITIES	4,653	4,060	4,584	4,313	5,918	1,265	27.2%
SAFEGUARDS AND SECURITY	1,134	854	1,437	1,590	2,590	1,456	128.4%
LOGISTICS SUPPORT	4,175	4,078	3,623	3,695	4,228	53	1.3%
QUALITY ASSURANCE	36	38	36	41	25	-11	-30.6%
LABORATORY/TECHNICAL SUPPOR	8,356	7,765	8,017	9,947	9,008	652	7.8%
<b>TOTAL MISSION SUPPORT</b>	<b>53,272</b>	<b>52,251</b>	<b>57,397</b>	<b>59,563</b>	<b>64,047</b>	<b>10,775</b>	<b>20.2%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	3,485	2,836	2,964	3,070	2,950	-535	-15.4%
TAXES	240	438	289	234	349	109	45.4%
LDRD	8,264	8,491	8,486	7,973	7,985	-279	-3.4%
<b>TOTAL SITE SPECIFIC</b>	<b>11,989</b>	<b>11,765</b>	<b>11,739</b>	<b>11,277</b>	<b>11,284</b>	<b>-705</b>	<b>-5.9%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>106,574</b>	<b>105,994</b>	<b>109,896</b>	<b>109,915</b>	<b>120,203</b>	<b>13,629</b>	<b>12.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	183,423	203,773	222,825	243,286	265,254	81,831	44.6%
Capital Construction	56,408	40,811	38,000	52,261	46,568	-9,840	-17.4%
<b>TOTAL MISSION DIRECT</b>	<b>239,831</b>	<b>244,584</b>	<b>260,825</b>	<b>295,547</b>	<b>311,822</b>	<b>71,991</b>	<b>30.0%</b>
<b>Total Costs</b>	<b>346,405</b>	<b>350,578</b>	<b>370,721</b>	<b>405,462</b>	<b>432,025</b>	<b>85,620</b>	<b>24.7%</b>
<b>Total Costs w/o Construction</b>	<b>289,997</b>	<b>309,767</b>	<b>332,721</b>	<b>353,201</b>	<b>385,457</b>	<b>95,460</b>	<b>24.8%</b>
General Support % Total Co	11.9%	12.0%	11.0%	9.6%	10.4%		-1.5%
Mission Support % Total Cos	15.4%	14.9%	15.5%	14.7%	14.8%		-0.6%
Site Specific % Total Costs	3.5%	3.4%	3.2%	2.8%	2.6%		-0.8%
Total Support % Total Costs	30.8%	30.2%	29.6%	27.1%	27.8%		-2.9%
Total Support % Total Costs w/o Construct	36.8%	34.2%	33.0%	31.1%	31.2%		-5.6%

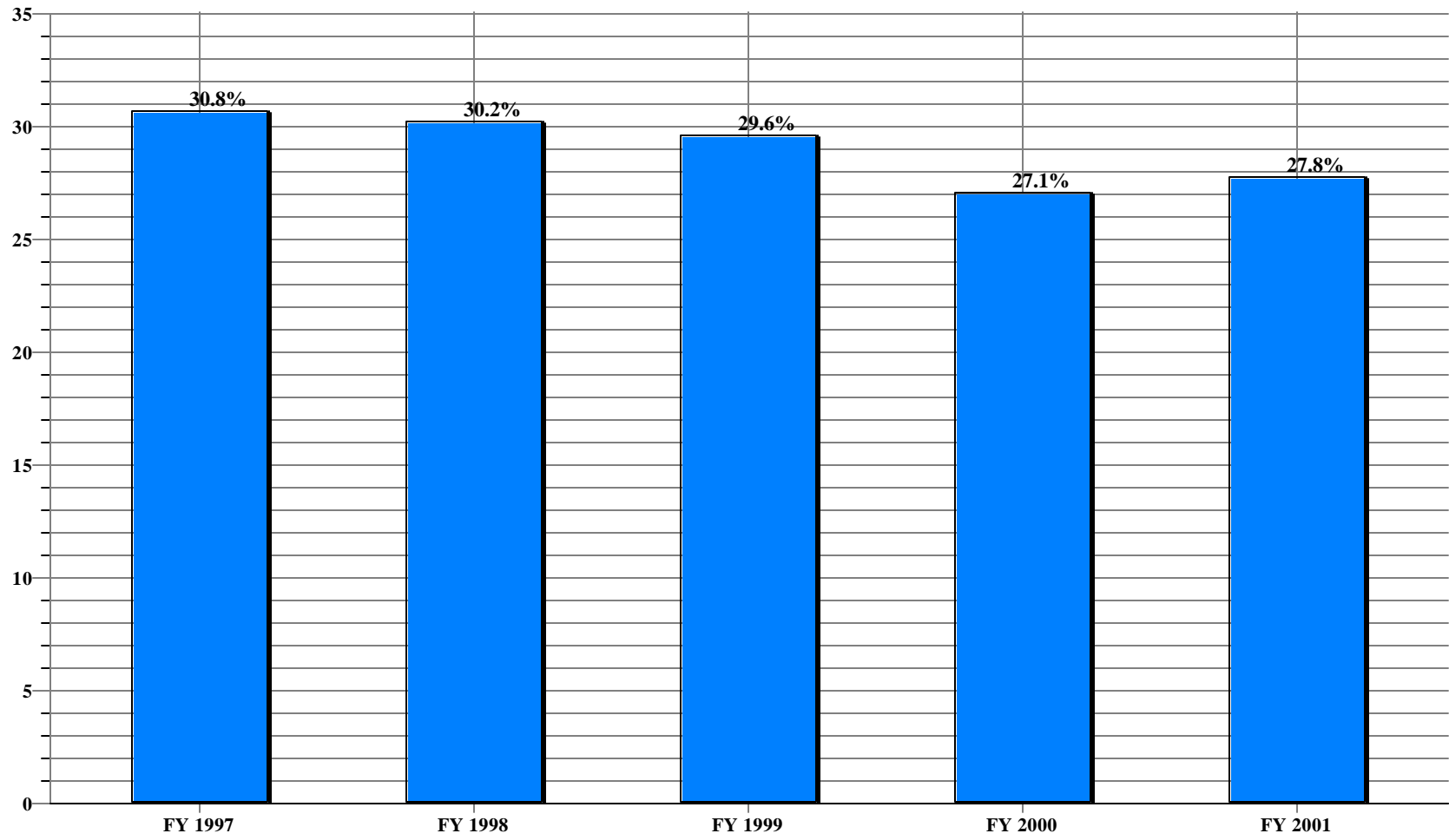


**US Department of Energy  
Total Functional Support  
Lawrence Berkeley**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	106,574	105,994	109,896	109,915	120,203

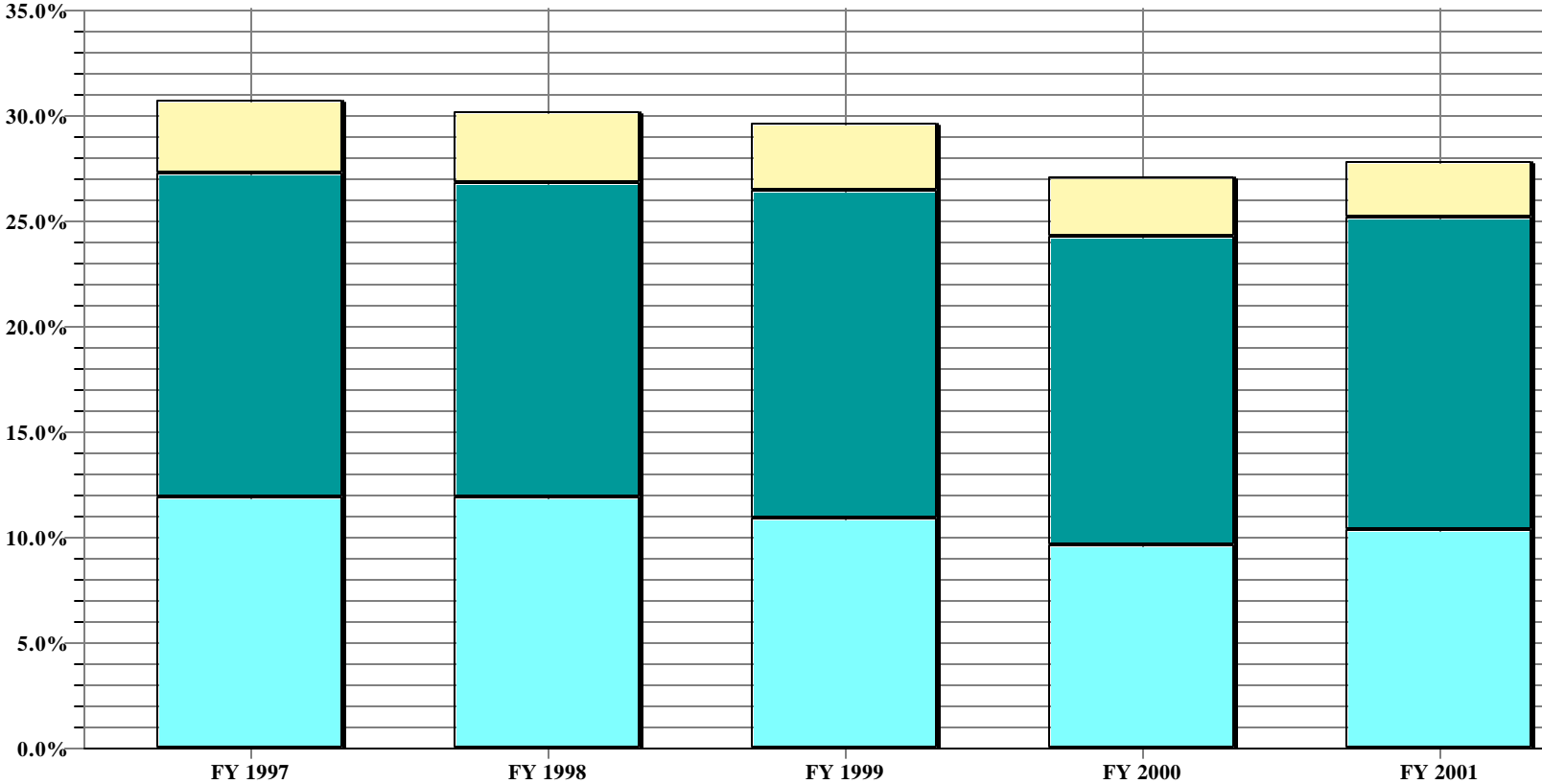
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Lawrence Berkeley**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	30.8%	30.2%	29.6%	27.1%	27.8%

**US Department of Energy  
Percent of Support Category to Total  
Lawrence Berkeley**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	11.9%	12.0%	11.0%	9.6%	10.4%
<b>Mis Sup</b>	15.4%	14.9%	15.5%	14.7%	14.8%
<b>Site Specific</b>	3.5%	3.4%	3.2%	2.8%	2.6%

Lawrence Berkeley National Lab (LBNL)  
FY2001 Functional Support Costs Site Profile

Contractor: Lawrence Berkeley National Lab (LBNL)  
Field Office: Oakland Operations Office

**I. Background:**

Lawrence Berkeley National Laboratory (LBNL) is a multi-program lab engaged in basic research in a wide variety of scientific disciplines. Major scientific achievements include 9 winners of the Nobel Prize and other world-class, competitive prizes. The Lab's core competencies are in Computational Science and Engineering; Particle and Photon Beams; Bio Science and Bio Technology; the Characterization, Synthesis, and Theory of Materials; Advanced Technologies for Energy Supply and Energy Efficiency; Chemical Dynamics, Catalysis, and Surface Science; Advanced Detector Systems; and Environmental Assessment and Remediation. The Berkeley Lab provides several unique national experimental user facilities for qualified investigators: the Advanced Light Source (ALS); the National Energy Research Scientific Computing Center (NERSC); Energy Sciences Network (ESnet); 88-Inch Cyclotron and the National Center for Electron Microscopy.

LBNL is managed by the University of California and is located in Berkeley, California. LBNL occupies 220 buildings and trailers on 200 acres. In FY 2001, the workforce consisted of approximately 3,900 people. LBNL's major DOE customer is Office of Science (SC), which provided 56% of total direct funding, followed by work for other Agencies (Federal and Non-Federal). Other DOE programs served are Energy Efficiency (EE), Environmental Management (EM), Fossil Energy (FE), Nonproliferation and National Security (NN) and Environment, Health, and Safety (EH).

## **II. Trends: (In \$000's)**

	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
General Support	\$41,312	\$41,978	\$40,761	\$39,075	\$44,872
Mission Support	53,272	52,250	57,396	59,561	64,047
Site Specific	<u>11,989</u>	<u>11,765</u>	<u>11,738</u>	<u>11,278</u>	<u>11,284</u>
Total Functional Support Costs (FSC)	106,573	105,993	109,896	109,914	120,203
Total Mission Direct	183,423	203,773	222,825	243,284	265,254
Capital/Construction	<u>56,408</u>	<u>40,811</u>	<u>38,000</u>	<u>52,261</u>	<u>46,568</u>
Total Site Costs	\$346,404	\$350,578	\$370,721	\$405,459	\$432,025
Total FSC as % of Total Site Costs	30.7%	30.2%	29.6%	27.1%	27.8%
Ratio of Mission Direct to FSC	1.72	1.92	2.03	2.21	2.21

LBNL's trend in Functional Support Costs (FSC) as a percent of Total Site Costs has been around 30% from FY97 to FY99. The percent decreased to 27.1% in FY00 and increased slightly to 27.8% in FY01. More importantly, LBNL's ratio of Mission Direct costs to FSC has become more favorable since FY97. In FY97, \$100 in Functional Support supported \$172 of Mission Direct. In FY01, the same \$100 FSC supported \$221 in Mission Direct; thus, support productivity as measured in dollars has increased by 28 percent. Since FY97, Mission Direct costs have increased 45 percent, while Functional Support costs have increased only 13 percent.

### **Major changes from FY97 to FY01:**

The implementation in FY98 of LBNL's new Financial Management System (FMS) enabled it to obtain complex data more accurately. The data for FY97 through FY01 are in accordance with the FY01 directives for the Functional Support Cost Report, which for cost classification/definition purposes essentially remained unchanged from FY99.

## **A. GENERAL SUPPORT:**

Category 1 - Executive Direction: From FY97 to FY98 decreased \$195K. Increased by \$578K in FY99 due to strategic planning activities. Inflationary increase of \$266K in FY00. In FY01, increased \$499K due to increased number of laboratory reviews and strategic planning initiatives.

Category 2 - Human Resources: In FY98, decreased by \$927K. The one-time acquisition costs of a new Human Resources system in FY97 did not recur. Decreased by \$154K in FY99 because of declining systems costs. Increased by \$263K in FY00 due to one-time systems cost. In FY01, decreased \$424K because of salary savings and non-recurrence of one-time systems costs.

Category 3 - Chief Financial Officer: Increased \$703K from FY97 to FY98 due to a one-time purchase of new software for accounts payable/receivable and installation of a new accounting system. Decreased by \$864K in FY99 with some positions unfilled. Increased by \$381K in FY00 to develop a new funding database system. Increased by \$433K in FY01 to fund a new accounts payable system that will be integrated with the current purchasing and receiving systems.

Category 4 - Procurement: From FY97 to FY98 decreased \$270K due to budget cuts. In FY99, increased \$244K to accommodate a one-time enhancement to the purchasing system. In FY00, increased \$1.5M primarily due to the re-categorization of \$800K in procurement system costs from Category 9 (Information Systems). In FY01, decreased by \$527K as the one-time systems cost in FY00 for Sponsored Projects did not recur.

Category 5 - Legal: After a decrease of \$127K from FY97 to FY98, increased \$236K in FY99 due to higher settlement costs. In FY00, decreased by \$1.1M primarily due to the re-categorization of \$840K in legal settlements to Category 10 (Other). In FY01, increased \$308K due to higher legal fees.

Category 6 - Central Administrative Services: From FY97 to FY98 decreased \$492K, primarily in graphics and publications. In FY99, increased \$1M to enhance the travel system and cover increased travel service fees. Increased by \$1.3M in FY00 due to the re-categorization of the payroll burden credit to Category 10 (Other). In FY01, increased \$1.6M due to the purchase of a new Travel system and improvements made in library and administrative services.

Category 8 - Information/Outreach Activities: After an increase of \$162K in FY98, decreased \$316K in FY99 due to declining costs of LBNL's Washington, DC office. Increased by \$416K in FY00 because of one-time moving expenses in the Washington DC office. In FY01, decreased \$200K as the one-time moving expenses in FY00 did not recur.

Category 9 - Information Services: From FY97 to FY98 increased by \$254K for hardware upgrades. In FY99, increased \$455K for strategic servers. Decreased by \$1.5M in FY00 due to decline in postage use, the re-categorization of \$800K to Category 4 (Procurement). In FY01, increased \$2.1M due to a major enhancement of the telephone system, improvements to LBNL's systems operations (UNIX) and additional support for Web development.

Category 10 – Other: From FY97 to FY98 increased \$1.6M due to large one-time legal settlements. From FY98 to FY99, decreased \$2.4M as no large legal settlements recurred. In FY00, decreased by \$3.2M due to a one-time credit of \$3.2M from general ledger accounts reconciliation, the re-categorizations of \$1.3M payroll burden credit from Category 6 (Central Administrative Services) and \$840K in legal settlement from Category 5 (Legal). In FY01, increased by \$2M as the one-time re-categorizations in FY00 did not recur and legal settlements increased by \$600K.

## **B. MISSION SUPPORT:**

Category 11 – Environmental: Relatively constant from FY96 to FY99. Increased by \$886K in FY00 due to upgrades to existing telemetry system. In FY01, increased by \$2.3M due to increased materials (uranium blocks) and vault characterization dispositions, tritium sampling stations and NEPA/CEQA requirements.

Category 12 – Safety and Health: From FY97 to FY98 increased \$675K with the expansion of the radiation control group. No significant change in FY99. Increased \$275K in FY00 due to the one-time institution of a new behavior based accident prevention program and improvements to industrial hygiene services. In FY01, decreased by \$1.1M as one time costs in FY00 did not recur.

Category 13 – Facilities Management: Increase of \$1.2M from FY98 to FY99 because of more demand for facilities and engineering work/job orders. Increased \$851K in FY00 due to costs of planning, condition determination and rental of the new Oakland Scientific Facility. Increased by \$2.5M in FY01 due to higher lease cost, increased work/job orders and additional costs to bring the Oakland Scientific Facility to full operation.

Category 14 – Maintenance: Costs remained steady from FY97 to FY98. Increased by \$3M in FY99 with more one time non-capital projects undertaken related to moves. Decreased by \$1.7M in FY00 and by \$1.4M in FY01 primarily due to decreased costs for one time non-capital projects. Ongoing general and preventive maintenance costs have remained relatively constant.

Category 15 – Utilities: From FY97 to FY98 decreased \$593K because of lower electricity rates. Increased by \$524K in FY99 due to increased demand. Lower demand resulted to a decrease of \$271K in FY00. Increased by \$1.6M in FY01 primarily caused by natural gas price increase.

Category 16 – Safeguards and Security: From FY97 to FY98 decreased \$280K because security service was outsourced. In FY99, increased \$583K to enhance cyber security. In FY00, increased \$153K and by \$1M in FY01 to further enhance the laboratory's computer security.

Category 17 – Logistics Support: From FY98 to FY99 decreased \$455K because of favorable on site fleet lease rates. No significant change in FY00. Increased by \$534K in FY01, mostly for a one-time inventory write-off.

Category 19 – Lab/Technical Support: From FY97 to FY98 decreased \$591K because of salary savings from engineering shops downsizing. In FY99, increased \$252K as more engineering infrastructure projects were undertaken. Increased by \$1.9M in FY00 because of one-time augmentations to engineering capabilities and infrastructure. One-time engineering augmentations in FY00 did not recur thereby decreasing cost by \$939K in FY01.

#### **C. SITE SPECIFIC:**

Category 20 – Management Award and Fees: One time decrease of \$649k from FY97 to FY98. Increased \$128K in FY99 and \$106K in FY00 because of increased management costs. Decreased by \$120K in FY01.

Category 21 – Taxes: From FY97 to FY98, increase of \$198K because of increased number of fabrication projects subject to state tax, per state legal regulations. Decreased by \$149K in FY99 with the reduction in fabrication projects. No significant change in FY00. Increased by \$114K in FY01 due to funding increase.

Category 22 – LDRD: Remained at about the same level in from FY97 through FY99. Decreased by \$513K in FY00 because of exemption of Environmental Management projects from LDRD recovery base. No significant change in FY01.

#### **D. MISSION DIRECT:**

Increased by 11.1% or \$20M in FY98 due to increased funding in Environmental Management (EM) and in Other (Other DOE Operations). Other DOE Operations increased \$9.6M due to requests from other DOE Labs to perform scientific work in the area of Nuclear Waste and the Sprint project in the National Energy Research Scientific Computer Center (NERSC).

From FY98 to FY99, increased 9.3% or \$19M because of increased funding in Energy Efficiency (EE), Office of Science (SC), Work for Others (Federal and Non-Federal) and Other DOE Operations. Increased funding in FY99 for Energy Efficiency (EE) was in the Building sector and for Office of Science (SC), in the Human Genome Project. Other DOE Operations increased resulting from expanded work scope on the Spallation Neutron Source.

Increased 9.2% or \$20M in FY00. Major increases are in Office of Science (SC), Energy Efficiency (EE) and Fossil Energy (FE). The increase in Office of Science is in Mathematics, Information and Computational Science area and in Biological and Environmental research. For Energy Efficiency, funding continued to increase in the Building sector. Fossil Energy received higher funding in gas research and development.



Continued to grow in FY01 at about the same rate of 9% or \$22M from FY00, most notably in Fossil Energy (FE), Nonproliferation and National Security (NN), Energy Efficiency (EE) and Office of Science (SC). The increase in work for other Agencies (WFO) is in National Institute of Health (NIH), state/local governments and non-profit organizations, NASA and the Department of Commerce.

**E. CAPITAL/CONSTRUCTION:**

From FY97 to FY98 construction funding declined \$15.6M. From FY98 to FY99, decreased by 6.9% or \$2.8M. In FY00, increased \$14M primarily in construction related to the Dual Axis Radiographic Hydro Test Facility (DARHT) project. Decreased by 11% or \$5.7M in FY01.

**III. Cost Savings Initiatives from FY97 to FY01:**

Over the past four years, LBNL has developed system and process improvements that not only decreased transaction costs in Payroll and Accounts Payable but also increased productivity in Travel.

The Laboratory anticipates future cost savings by continual process improvements, such as promoting increased utilization of the Electronic Data Interchange (EDI) and developing new systems e.g. Procurement / Receiving/Payables (PRP) system, Grants system and Travel system. The Laboratory also has quality employee training and development programs to improve work force efficiency, thereby realizing savings from streamlined operations.

**IV. Other:**

<u>Item</u>	<u>Description</u>	<u>Amount *</u>
General Ledger	One time accounts reconciliation	(\$3,253)
Misc. Adjustments	WFO Factor, etc.	( 184)
General Expenses	Miscellaneous	584
Legal	Settlements	1,295
Post Doc Support	Career development training	<u>383</u>
	Total	(\$1,175)

*\*In thousands*

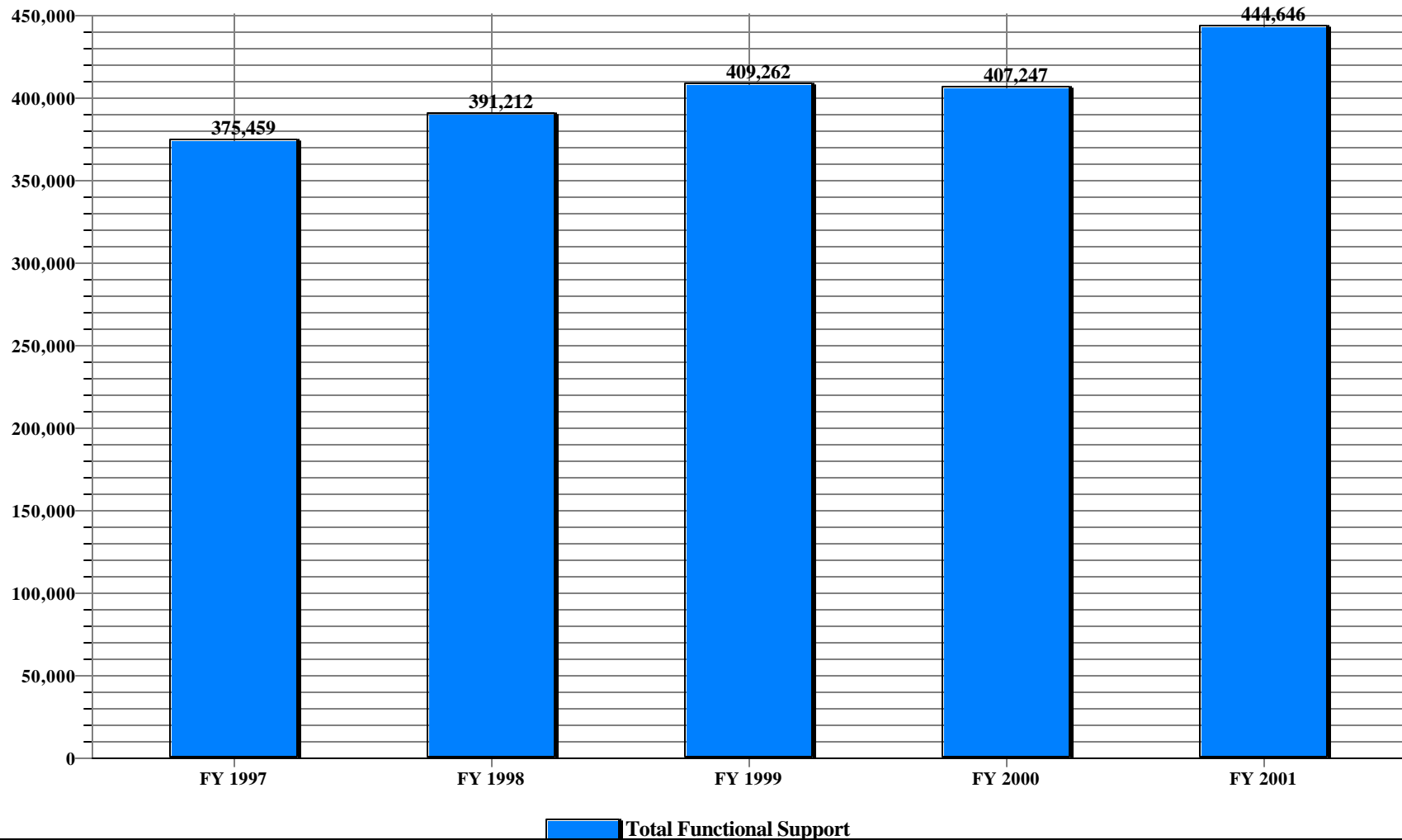
## L. Livermore

FY 2001

## Trends in Total Functional Support Cost Categories

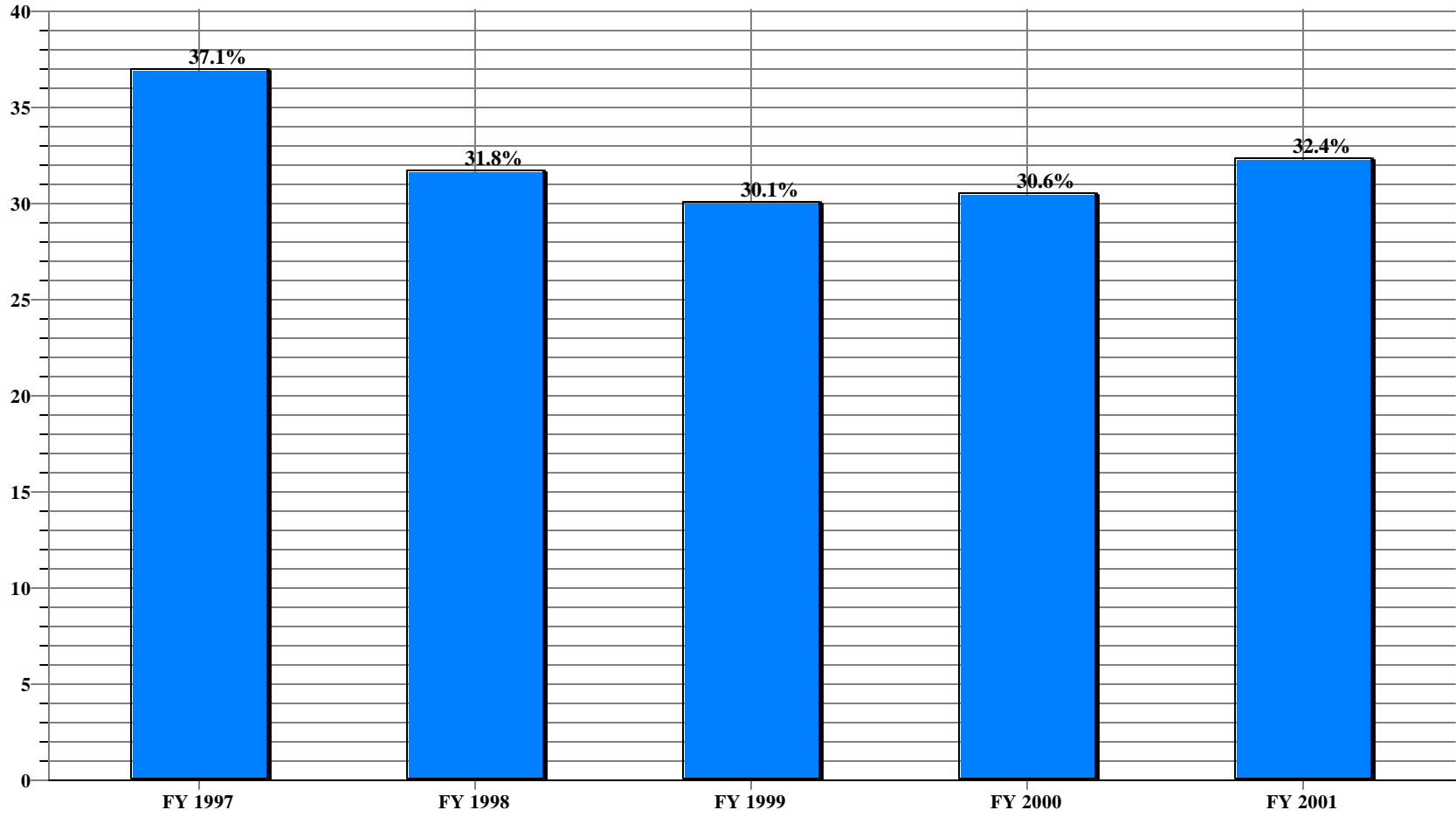
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	13,046	12,364	14,559	14,198	15,557	2,511	19.2%
HUMAN RESOURCES	15,133	14,834	16,310	16,493	17,093	1,960	13.0%
CFO	9,330	9,107	9,197	9,388	7,030	-2,300	-24.7%
PROCUREMENT	14,020	13,543	13,626	13,137	13,015	-1,005	-7.2%
LEGAL	2,604	2,461	2,882	3,456	3,280	676	26.0%
CENTRAL ADMIN SERVICES	18,547	18,332	16,418	17,586	18,834	287	1.5%
PROGRAM/PROJECT CONTROL	2,516	2,798	2,550	2,287	2,064	-452	-18.0%
INFORMATION OUTREACH	11,701	12,397	12,958	13,681	14,433	2,732	23.3%
INFORMATION SERVICES	36,559	36,325	33,497	28,382	38,090	1,531	4.2%
OTHER	-2,075	930	276	6,417	10,364	12,439	-599.5%
<b>TOTAL GENERAL SUPPORT</b>	<b>121,381</b>	<b>123,091</b>	<b>122,273</b>	<b>125,025</b>	<b>139,760</b>	<b>18,379</b>	<b>15.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	16,438	16,584	16,765	15,631	17,598	1,160	7.1%
SAFETY AND HEALTH	25,102	25,980	28,630	31,721	31,284	6,182	24.6%
FACILITIES MANAGEMENT	27,749	29,994	33,076	34,801	39,382	11,633	41.9%
MAINTENANCE	65,644	72,410	76,279	75,793	71,642	5,998	9.1%
UTILITIES	14,478	15,253	14,386	12,050	15,173	695	4.8%
SAFEGUARDS AND SECURITY	27,951	27,272	32,782	45,912	44,648	16,697	59.7%
LOGISTICS SUPPORT	9,687	9,572	10,009	9,895	10,831	1,144	11.8%
QUALITY ASSURANCE	5,107	4,870	5,415	6,097	5,866	759	14.9%
LABORATORY/TECHNICAL SUPPOR	12,071	12,595	15,613	13,078	12,585	514	4.3%
<b>TOTAL MISSION SUPPORT</b>	<b>204,227</b>	<b>214,530</b>	<b>232,955</b>	<b>244,978</b>	<b>249,009</b>	<b>44,782</b>	<b>21.9%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	11,783	11,523	11,631	11,578	13,929	2,146	18.2%
TAXES	99	221	338	743	212	113	114.1%
LDRD	37,969	41,847	42,065	24,923	41,736	3,767	9.9%
<b>TOTAL SITE SPECIFIC</b>	<b>49,851</b>	<b>53,591</b>	<b>54,034</b>	<b>37,244</b>	<b>55,877</b>	<b>6,026</b>	<b>12.1%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>375,459</b>	<b>391,212</b>	<b>409,262</b>	<b>407,247</b>	<b>444,646</b>	<b>69,187</b>	<b>18.4%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	542,223	686,062	724,709	707,424	714,873	172,650	31.8%
Capital Construction	95,146	152,412	225,064	217,878	213,526	118,380	124.4%
<b>TOTAL MISSION DIRECT</b>	<b>637,369</b>	<b>838,474</b>	<b>949,773</b>	<b>925,302</b>	<b>928,399</b>	<b>291,030</b>	<b>45.7%</b>
<b>Total Costs</b>	<b>1,012,828</b>	<b>1,229,686</b>	<b>1,359,035</b>	<b>1,332,549</b>	<b>1,373,045</b>	<b>360,217</b>	<b>35.6%</b>
<b>Total Costs w/o Construction</b>	<b>917,682</b>	<b>1,077,274</b>	<b>1,133,971</b>	<b>1,114,671</b>	<b>1,159,519</b>	<b>241,837</b>	<b>20.9%</b>
General Support % Total Co	12.0%	10.0%	9.0%	9.4%	10.2%		-1.8%
Mission Support % Total Cos	20.2%	17.4%	17.1%	18.4%	18.1%		-2.0%
Site Specific % Total Costs	4.9%	4.4%	4.0%	2.8%	4.1%		-0.9%
Total Support % Total Costs	37.1%	31.8%	30.1%	30.6%	32.4%		-4.7%
Total Support % Total Costs w/o Construct	40.9%	36.3%	36.1%	36.5%	38.3%		-2.6%

**US Department of Energy  
Total Functional Support  
Lawrence Livermore**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	375,459	391,212	409,262	407,247	444,646

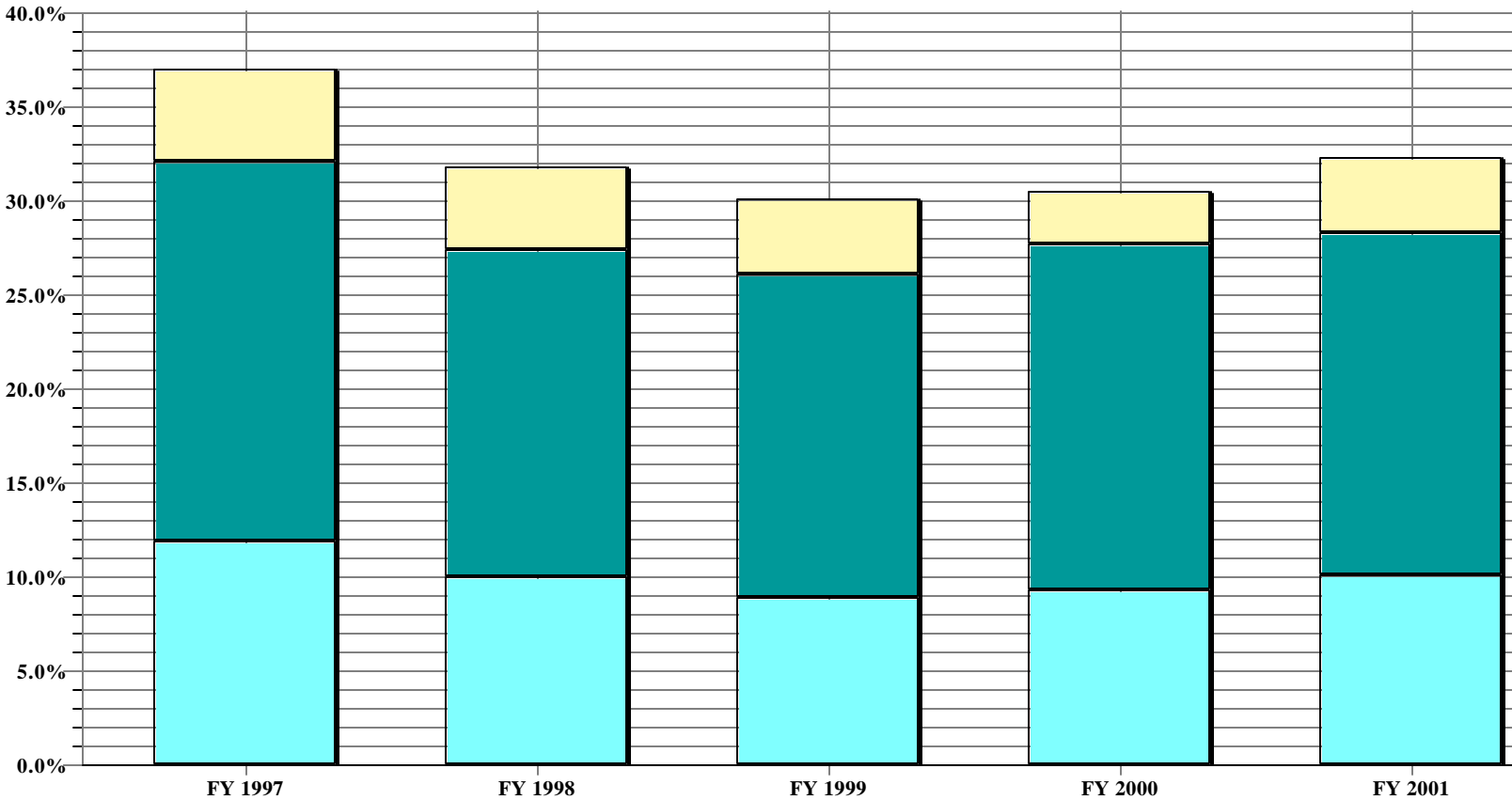
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Lawrence Livermore**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	37.1%	31.8%	30.1%	30.6%	32.4%

**US Department of Energy  
Percent of Support Category to Total  
Lawrence Livermore**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.0%	10.0%	9.0%	9.4%	10.2%
<b>Mis Sup</b>	20.2%	17.4%	17.1%	18.4%	18.1%
<b>Site Specific</b>	4.9%	4.4%	4.0%	2.8%	4.1%

**FY 2001 LLNL Functional Cost Report**  
**FY 2001 Profile for Lawrence Livermore National Laboratory**

**Background**

Established in 1952, Lawrence Livermore National Laboratory (LLNL) is a government-owned, contractor-operated R&D facility managed and operated by the University of California for the U.S. Department of Energy (DOE). LLNL is responsible for ensuring that the nation's nuclear weapons remain safe, secure, and reliable. In addition, the Laboratory also has a primary role in DOE's mission in the prevention of the spread and use of nuclear weapons, as well as other weapons of mass destruction. With its special capabilities, the Laboratory is also able to meet enduring national needs in conventional defense, energy, environment, biosciences, and basic science. LLNL has a diverse customer base with major efforts for DOE program offices (Defense Programs, Defense Nuclear Nonproliferation, Science, and Environmental Restoration and Waste Management) as well as considerable work for other federal and non-federal agencies.

LLNL is a world-class leader in technical research and development. LLNL is home of the Option White 12-teraflops supercomputer, the most powerful computer in the world, and will be home of the National Ignition Facility (NIF). NIF, now under construction, will be the world's most powerful laser and a cornerstone of the Stockpile Stewardship Program. LLNL's contributions to nonproliferation include the development of sensors to detect proliferation activities as well as fast, portable sensors for biological agent detection. Recent LLNL breakthroughs in science include the discovery of element 114, the creation of new forms of solid carbon dioxide, and receipt of the Gordon Bell Prize for best performance in the application of high-performance computers to scientific and engineering problems (i.e., an 8-billion-zone simulation of a shockwave passing through a fluid interface). Laboratory researchers have earned 85 "R&D 100 Awards" since 1978, which is indicative of LLNL's many other technical accomplishments.

LLNL has about 8,090 employees, including all workforce categories except contractors. LLNL's highly educated workforce includes about 1,627 doctorates, 1,110 masters, and 1,598 bachelor degrees. The primary LLNL site is located on one square mile, 40 miles southeast of San Francisco.

## Trends

LLNL's functional support costs as a percentage of total Laboratory costs have decreased from 37.1% in Fiscal Year (FY) 1997 to 33.2% in FY 2001. LLNL experienced an increase of 2.3% between FY 2000 and FY 2001, due to the increase in the DOE ceiling percentage for LDRD going from 4% in FY 2000 to 6% in FY 2001, as well as an increase in utility costs in FY 2001.

Please note that the Mission Direct Costs reflect raw costs and will not tie back to the funding assigned by the Assistant Secretary.

The following paragraphs highlight the DOE functional support categories where a significant change occurred in raw costs from FY 2000 to FY 2001. Each paragraph annotates the total raw costs for the functional area, the net change from the prior year, and a brief explanation of the change.

### General Support

*Executive Direction* (\$15,557K) increased by \$1,359K primarily as a result of one-time costs associated with the structural reorganization of LLNL and an increase in support staff for senior management.

*Chief Financial Officer* (\$7,030K) decreased by \$1,447K mainly due to a structural adjustment in FY 2001 in which software developers were reclassified to Information Services.

*Legal* (\$3,280K) decreased by \$176K primarily due to a decline in outside counsel services needed to address litigation. Costs also decreased due to a reduction in the number of filed and prosecuted patents in FY 2001.

*Program/Project Planning & Control* (\$2,064K) decreased by \$223K due to a structural adjustment in FY 2001 in which software developers were reclassified to Information Services.

*Information/Outreach Activities* (\$14,433K) increased by \$753K due to an increase in the number of Post-Docs supported in the Post-Doc Fellowship Program. FY 2001 also included additional labor costs as a result of vacant positions from FY 2000 being filled in FY 2001.

*Information Services* (\$38,089K) increased by \$6,733K primarily due to an increase in Multiprogrammatic and Institutional Computing (M&IC) activities. Costs also increased due to the implementation of the Integrated Desktop Model (IDM) project and a structural adjustment in FY 2001 in which software developers were reclassified to Information Services.

*Other* (\$10,364K) increased by \$3,947K primarily due to impacts resulting from the September 11, 2001, incident and Physics and Advanced Technologies Employees Between Assignments (EBAs) due to the structural reorganization of LLNL. Additional costs were incurred in FY 2001 due to an increased accrual for legal settlements.

#### Mission Support

*Environmental* (\$17,598K) increased by \$1,966K primarily as a result of the transfer of Building 251 from Physics to the Environmental Protection Department (EPD). Costs also increased due to additional quality assurance and career development training costs.

*Facilities Management* (\$39,382K) increased by \$4,581K in FY 2001 primarily due to Organizational Facility Charges (OFC) increasing as a result of the structural realignment of LLNL.

*Maintenance* (\$82,463K) increased by \$6,129K due to an escalation in Plant Engineering activities across the Laboratory. Additional costs were also attributed to an increase in Facility Points of Contacts (FPOC).

*Utilities* (\$15,173K) increased by \$3,123K primarily due to an increase in natural gas costs. In addition, a FY 2000 WAPA rebate of \$900K did not recur in FY 2001.

*Logistics Support* (\$10,831K) increased \$910K primarily because of a decline in credits from scrap recycling sales. Costs also rose due to an increase in Full Time Equivalents (FTEs) in Material Distribution and Mail Services.

#### Site Specific

*Management/Award Fee* (\$13,929K) increased \$2,350K primarily due to the creation of the University of California Vice President of Laboratory Management (VPLM) office.

*Taxes* (\$212K) decreased \$531K as a result of lower sales/use tax incurred in FY 2001. Sales/use tax was not incurred in FY 2001 on the operating lease for the sequencing machine that supports the Bio Production Sequencing Facility.

*Laboratory Directed Research and Development (LDRD)* (\$41,736K) increased \$16,813K as a result of the DOE ceiling percentage for LDRD going from 4% in FY 2000 to 6% in FY 2001.



## LLNL Functional Cost Summary

FY 1997 - FY 2001 (\$ in thousands not adjusted for inflation)

	FY97	FY98	FY99	FY00	FY01
General Support	121,383	124,335	122,839	127,593	139,760
Mission Support	204,226	214,266	232,391	246,179	259,729
Site Specific Support	49,851	53,591	54,034	37,244	55,876
Total Functional Support	375,459	392,192	409,263	411,016	455,365
Mission Direct Operating	541,941	688,163	723,929	704,543	706,541
Mission Direct Capital	95,428	152,879	225,843	216,991	211,037
Total Mission Direct	637,369	841,042	949,772	921,534	917,579
Total Site Costs	1,012,828	1,233,234	1,359,035	1,332,550	1,372,944
Total FSC as % of Total Site Costs	37.1%	31.8%	30.1%	30.8%	33.2%

Note: There may be minor variances due to rounding.

### Cost Saving Initiatives

LLNL continues to pursue institutional cost savings and efficiencies. Traditional G&A budgets have been reduced by 28%, adjusted for inflation, between FY 1993 and FY 2001 (excluding G&A “new investments” in FY 2001 for the health of the infrastructure). Examples of cost savings include:

- LLNL has dramatically reduced travel costs by outsourcing travel services and aggressively implementing good travel-management practices. The Laboratory is part of the State of California’s discount airfare program (YCal), which entails discounted airfares and saves an estimated \$2 million annually. About an additional \$2 million per year is saved through the use of non-refundable tickets for approximately 75% of domestic air travel for those destinations not covered by YCal airfare.
- Estimated cost savings in FY 2001 accrued through volume licensing and service agreements for computer hardware and software are \$25.9 million. Two new agreements this year are for a product, Radia, which was provided by Novadigm, which will greatly enhance the institution’s ability to manage and support desktop computing and a site license for particular Microsoft products.
- The telephone cost reduction program, now in its fourth year of operation, netted \$655K in savings this year alone. Savings since the implementation of the program exceed \$1.3 million. Outsourcing of our switch upgrade infrastructure this year resulted in an additional cost avoidance of \$380K.
- LLNL continues to develop and enhance Financial Management Systems that result in institutional productivity improvements and cost savings. Improvements in FY 2001 include implementation of Laboratory Institutional Time Entry (LITE) Adjustments, increased utilization of the Electronic Funds Transfer (EFT) process, and completion of the Revenue Management Systems enhancements project.

- Plant Engineering has aggressively adapted new business strategies and practices that have increased productivity as well as reduced costs. For example, by sound maintenance reinvestment practices and the installation of alarm/sensing equipment, Plant Engineering has been able to reduce its shift operations staffing by 15 man-year equivalents producing ongoing savings of \$1 million per year.

Other

As requested, a breakdown of the functional support cost “Other” is shown below:

LLNL Functional Cost Summary: FY 1997 to FY 2001

10. Other (\$ in thousands)	FY97	FY98	FY99	FY00	FY01
Misc Bus Exp/Credits – Accounting Adjustments	17	288	16	-5	-11
Misc Bus Exp/Credits – DCSP Procurement Variance	322	-256	-66	0	0
Misc Bus Exp/Credits – Self Insurance/Reserve	910	918	894	5,987	7,320
Misc Bus Exp/Credits – Bad Debt Allowance	295	0	-420	0	-200
Misc Bus Exp/Credits (w/o special items)	-59	-170	-148	-180	-208
Lasers Employees Between Assignments (EBAs)	0	0	0	615	0
PAT Employees Between Assignments (EBAs)	0	0	0	0	1,416
Vol Sep Incentive Prog (VSIP): G&A Portion	-6,558	0	0	0	0
Special Severance Pay (B&R GG06/GG08)	3,000	150	0	0	0
September 11 Institution Impacts	0	0	0	0	2,046
<b>Total</b>	<b>-2,073</b>	<b>930</b>	<b>276</b>	<b>6417</b>	<b>10,363</b>

Note: The (\$6,558) negative VSIP number in FY 1997 represents a transfer of funds between fiscal years. Thus, costs were paid by LLNL in FY 1996, but funding was not received from DOE until FY 1997 for the Voluntary Separation Incentive Program.

Taxes

As requested, the amounts previously identified as taxes have been reviewed. Additional taxes not previously reflected are shown below:

LLNL Functional Cost Summary: FY 1997 to FY 2001

21. Taxes (\$ in thousands)	FY 97	FY98	FY99	FY00	FY01
Sales/Use Taxes	0	0	0	29	0
Non-Sales/Use Taxes	0	0	0	0	0

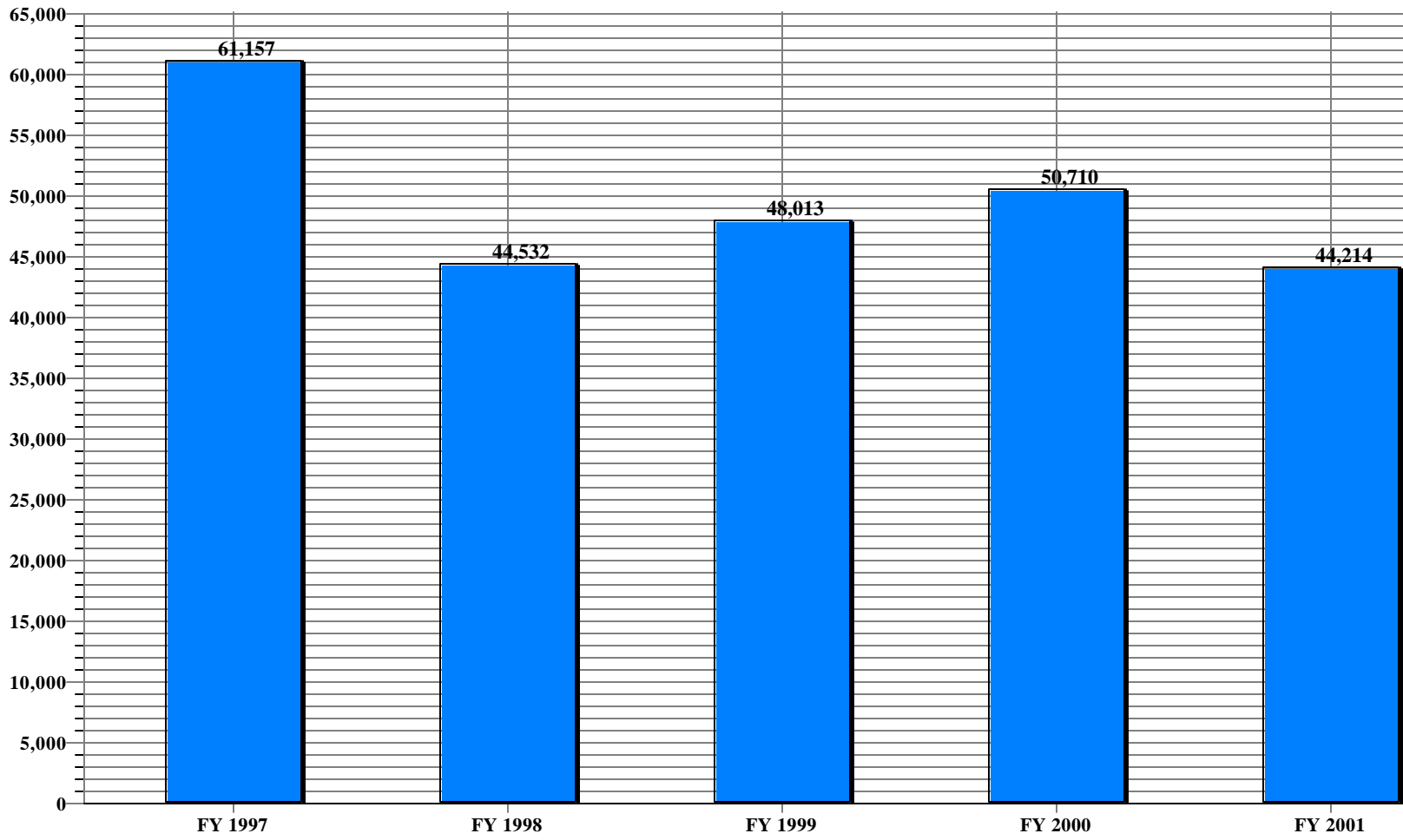
## Mound

FY 2001

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	1,000	657	672	800	1,022	22	2.2%
HUMAN RESOURCES	1,295	907	1,138	1,363	976	-319	-24.6%
CFO	2,236	1,706	2,553	2,689	2,281	45	2.0%
PROCUREMENT	856	404	689	799	771	-85	-9.9%
LEGAL	524	146	173	133	365	-159	-30.3%
CENTRAL ADMIN SERVICES	1,039	1,400	1,194	1,539	1,228	189	18.2%
PROGRAM/PROJECT CONTROL	0	2,171	1,835	1,628	1,055	1,055	100.0%
INFORMATION OUTREACH	286	205	164	162	146	-140	-49.0%
INFORMATION SERVICES	3,558	4,756	3,065	4,493	3,061	-497	-14.0%
OTHER	0	0	0	0	-762	-762	100.0%
<b>TOTAL GENERAL SUPPORT</b>	10,794	12,352	11,483	13,606	10,143	-651	-6.0%
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	4,391	1,353	1,163	1,132	1,240	-3,151	-71.8%
SAFETY AND HEALTH	13,756	6,384	8,031	9,387	7,647	-6,109	-44.4%
FACILITIES MANAGEMENT	3,259	1,389	1,400	1,101	1,032	-2,227	-68.3%
MAINTENANCE	9,145	6,269	6,794	5,010	4,496	-4,649	-50.8%
UTILITIES	6,684	2,379	1,863	2,590	2,607	-4,077	-61.0%
SAFEGUARDS AND SECURITY	4,018	3,708	3,885	3,676	3,664	-354	-8.8%
LOGISTICS SUPPORT	1,390	1,443	1,299	1,373	1,821	431	31.0%
QUALITY ASSURANCE	272	135	137	112	132	-140	-51.5%
LABORATORY/TECHNICAL SUPPOR	0	1,862	1,685	1,601	1,702	1,702	100.0%
<b>TOTAL MISSION SUPPORT</b>	42,915	24,922	26,257	25,982	24,341	-18,574	-43.3%
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	5,800	6,322	9,608	10,449	9,170	3,370	58.1%
TAXES	1,648	936	665	673	560	-1,088	-66.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	7,448	7,258	10,273	11,122	9,730	2,282	30.6%
<b>TOTAL FUNCTIONAL SUPPORT</b>	61,157	44,532	48,013	50,710	44,214	-16,943	-27.7%
<b>MISSION DIRECT</b>							
Mission Direct Operation	61,775	43,649	42,100	50,707	53,322	-8,453	-13.7%
Capital Construction	1,218	0	0	0	0	-1,218	-100.0%
<b>TOTAL MISSION DIRECT</b>	62,993	43,649	42,100	50,707	53,322	-9,671	-15.4%
<b>Total Costs</b>	124,150	88,181	90,113	101,417	97,536	-26,614	-21.4%
<b>Total Costs w/o Construction</b>	122,932	88,181	90,113	101,417	97,536	-25,396	-26.0%
General Support % Total Co	8.7%	14.0%	12.7%	13.4%	10.4%		1.7%
Mission Support % Total Cos	34.6%	28.3%	29.1%	25.6%	25.0%		-9.6%
Site Specific % Total Costs	6.0%	8.2%	11.4%	11.0%	10.0%		4.0%
Total Support % Total Costs	49.3%	50.5%	53.3%	50.0%	45.3%		-3.9%
Total Support % Total Costs w/o Construct	49.7%	50.5%	53.3%	50.0%	45.3%		-4.4%

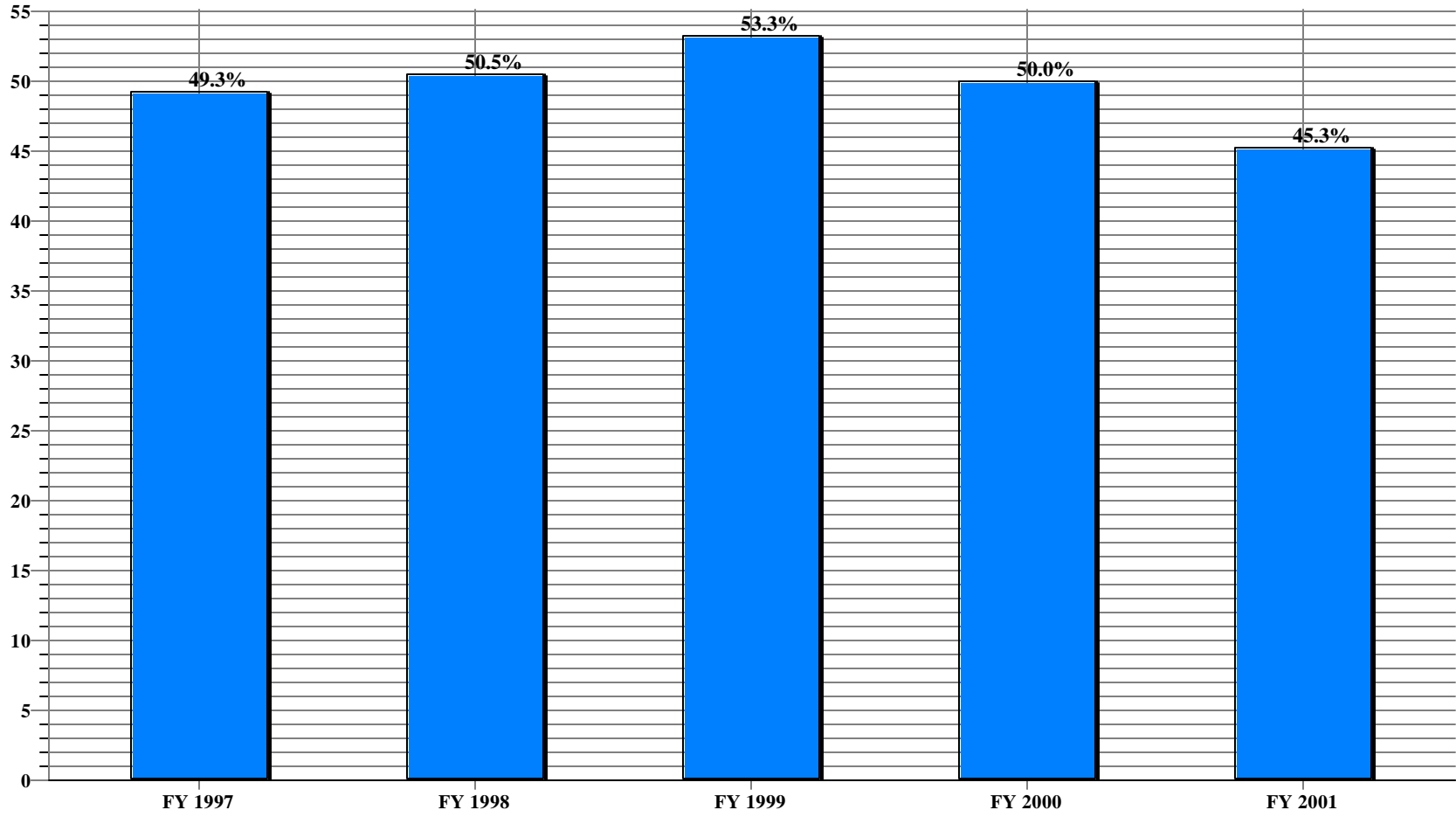
**US Department of Energy  
Total Functional Support  
Mound**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	61,157	44,532	48,013	50,710	44,214

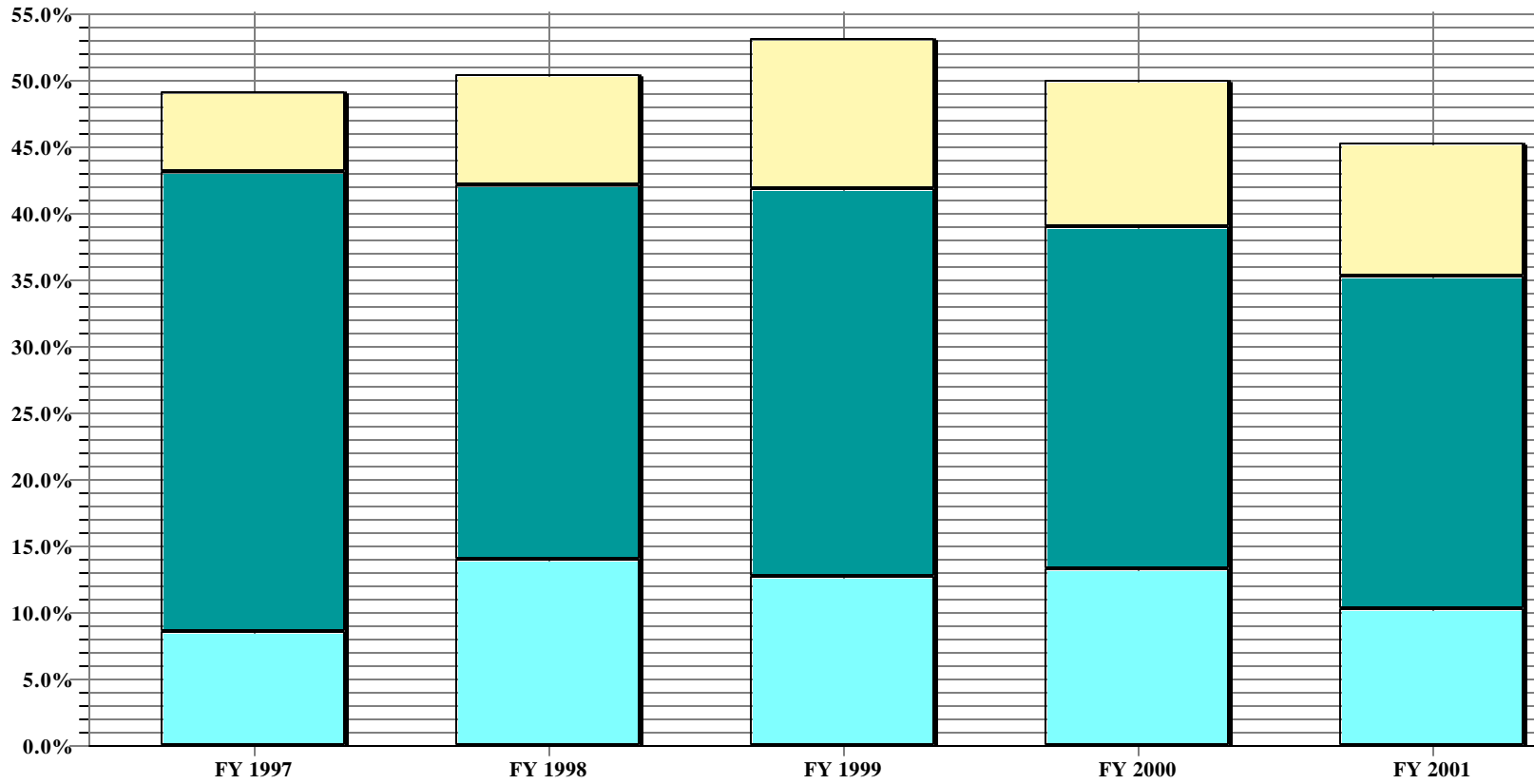
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Mound**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	49.3%	50.5%	53.3%	50.0%	45.3%

**US Department of Energy  
Percent of Support Category to Total  
Mound**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	8.7%	14.0%	12.7%	13.4%	10.4%
<b>Mis Sup</b>	34.6%	28.3%	29.1%	25.6%	25.0%
<b>Site Specific</b>	6.0%	8.2%	11.4%	11.0%	10.0%

## **Mound Site Profile Miamisburg, Ohio**

The Department of Energy's Miamisburg Environmental Management project at the Mound Plant in Miamisburg, Ohio, is located on 306 acres in the southwest section of the city. The plant occupies approximately 120 buildings including stand-alone power generating facilities, water supplies, and wastewater treatment facilities. The site also houses the Department of Energy Ohio Field Office, which began operations in October of 1994, as well as the DOE Miamisburg Environmental Management Project office. Total DOE employment is approximately 175. BWXT of Ohio (BWXTO), which is managing the environmental cleanup, employs approximately 510 employees; additionally, 28 seconded employees from BWXT Corporation, Weston, Washington Group, and Los Alamos Technical Associates manage the cleanup projects.

For over 40 years the Mound Site focused on integrated research, development and production. The primary mission was the process development, production engineering, manufacturing, surveillance, and evaluation of explosive components for the United States nuclear defense stockpile. Mound had secondary missions related to nuclear material safeguards, radioactive waste management and recovery, the building and testing of nuclear generators, and the purification of non-radioactive isotopes for medical, industrial and agricultural research.

In 1991, the Department of Energy initiated a reconfiguration process that called for the eventual closing of the Mound Plant and the relocation of equipment, materials, and production work to other DOE sites.

Mound was placed on the Superfund List in 1989 and a Federal Facility Agreement was reached among DOE, U.S. EPA, and Ohio EPA in 1993. Mound's focus is now on the environmental remediation of the buildings and grounds at the site. Work includes decontamination and decommissioning of the buildings and facilities; removal of volatile organic compounds from the site; and removal of radioactively contaminated soils from both on and off-plant site. As part of this effort, the City of Miamisburg formed the Miamisburg Mound Community Improvement Corporation to lay the groundwork and direct economic development at the site using available buildings, equipment and technology.

Commercialization of the site is underway with over 30 private companies already operating on the site. Work continues on the site to conduct safe shutdown of buildings for future commercial use, cleanup of the soil, and decontamination and decommissioning of facilities that are no longer needed.

BWXTO's approach to the comprehensive cleanup of the Mound Site focuses on a critical path approach to ensure timely completion of the project. Using this approach, BWXTO has developed a vision to successfully complete the project:

- a site remediated safely and quickly;
- a facility that has value to its tenants with useful economic infrastructure;
- a model for cost-effective DOE clean-up; and,
- a community and facility with a future independent of DOE support.

Nuclear energy programs have continued at the Mound Plant alongside the clean-up work and the commercialization process. This includes support of Radioisotopic Thermoelectric Generators (RTGs), or space batteries, in support of NASA Missions. These programs will remain at Mound independently for the foreseeable future.

Trend analysis for functional cost reporting is given from FY1998 forward as a new baseline was initiated in FY1998 with the arrival of a new Primary Contractor (BWXTO). Major changes in trend from FY1998 to FY2001 are:

The percent of spending for Functional Support has, and is, projected to decline each year from FY1999 (53% of total) through FY2001 (45% of total) as more funds are focused on Mission Direct projects and support budgets are trimmed. Additional reductions in future years are in the Dose Reconstruction and Large Scale Declassification programs.

Primary cost cutting initiatives undertaken in FY2001 by BWXTO include the reduction in force of 155 salaried employees (approximately 23% of the total Plant workforce). Realignment and reorganization will ensure a streamlined and cost-effective approach to the remaining cleanup activities at the site, while reducing significantly the functional costs associated with doing those activities.

One factor that will negatively impact BWXTO's ability to control functional costs is the rapidly skyrocketing medical costs that all sectors of both private industry and government contracting are continuing to face each year.

Spending for the Power Systems Technology program with NE funding is projected to rise from \$3.3M in FY1998 to \$5.4M in FY2002 with additional program contracts.

Waste Management Operations was reported in "Mission Direct – Other" in FY1999 (\$4.2M) but is direct funded as part of Waste Applications in "Mission Direct – Environmental Management (EM)" in FY2000 through FY2001.

Post Closure costs in "Mission Direct" include pension costs and severance costs previously included in labor fringe calculation and in site support costs that were spread throughout the Functional Support area prior to FY2000.



Items included in the “Mission Direct – Other” category includes:

	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Y2K Remedy		X	X	
Special Pay		X	X	X
Document Declassification (GD)	X	X	X	X
Counterintelligence (NT)	X	X	X	X
MMCIC (6003)	X	X	X	X
3161 Education (GG)	X	X	X	
Medical Displaced Workers (GG)	X	X	X	X
Waste Management Operations	X			
Post Closure Costs			X	X
EEOICPA				X
MMCIC Utilities Payments	X	X	X	X

Items included in the “General Support – Other” category include downtime (Plant Shutdown, Transition Center Labor, etc.) as well as transfers of costs to non-DOE work and the Nuclear Energy (NE) branch of the WBS. Prior to FY2001, these NE transfers were included in each functional cost area; in FY2001, the transfers were combined in one work package.

All taxes (greater than 90% level) for the Mound Plant are included under the “Site Specific – Taxes” category.

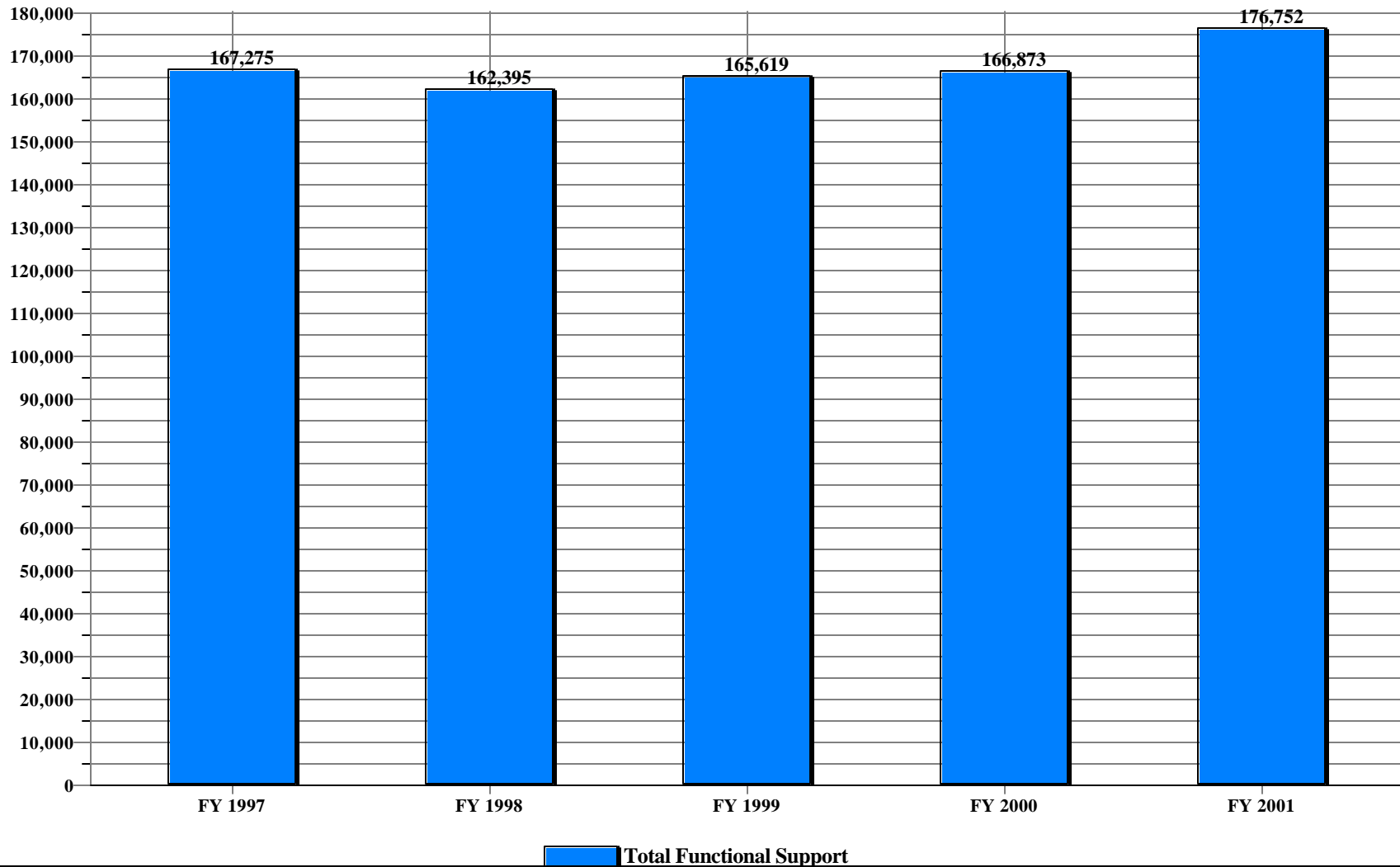
Nevada

FY 2001

## Trends in Total Functional Support Cost Categories

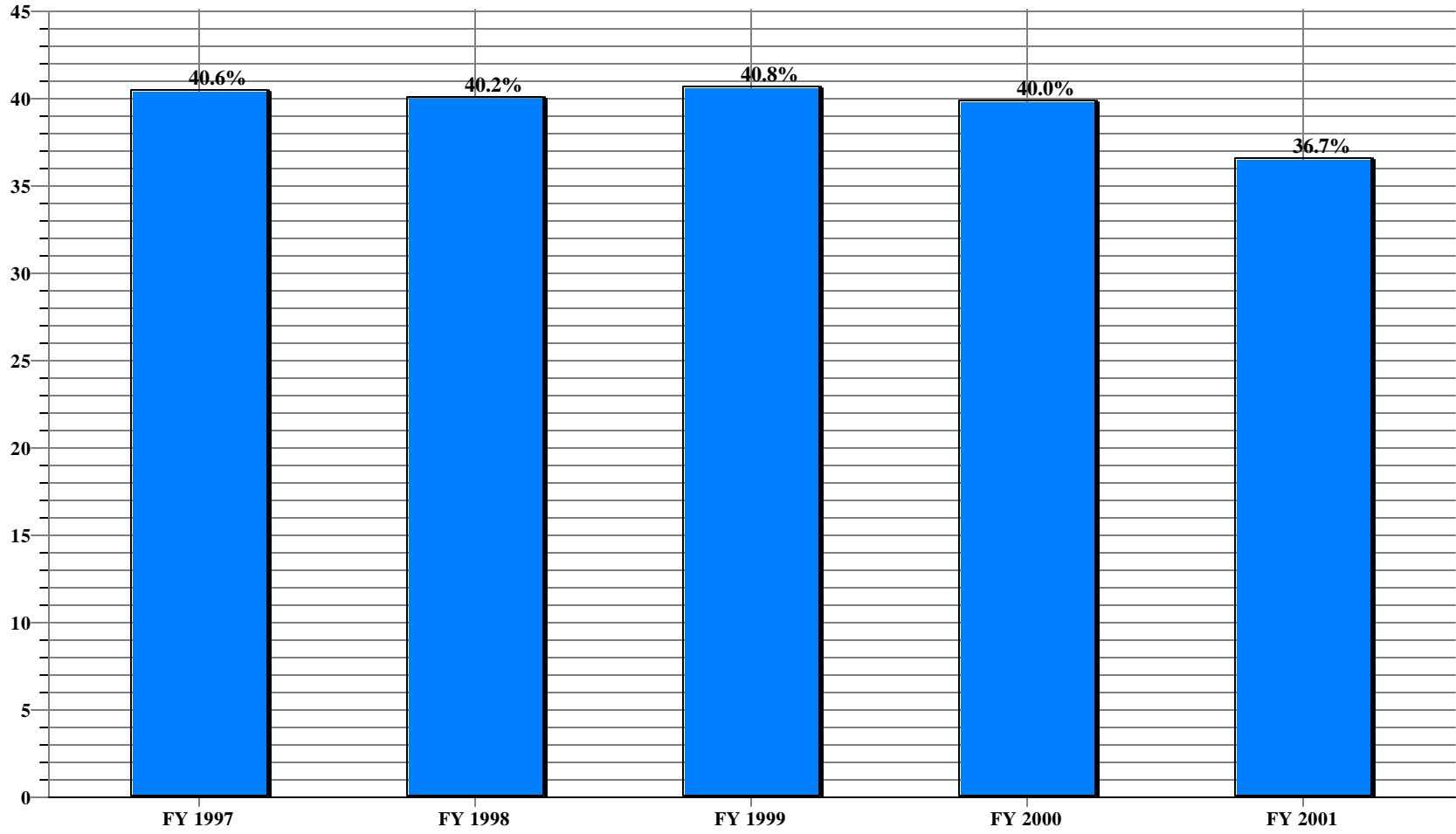
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	5,654	4,510	6,357	7,066	10,409	4,755	84.1%
HUMAN RESOURCES	3,791	3,451	3,285	3,229	3,302	-489	-12.9%
CFO	4,216	3,690	3,659	3,439	3,561	-655	-15.5%
PROCUREMENT	2,866	2,429	1,974	2,014	1,863	-1,003	-35.0%
LEGAL	1,358	832	919	996	865	-493	-36.3%
CENTRAL ADMIN SERVICES	9,245	9,610	7,249	7,470	8,114	-1,131	-12.2%
PROGRAM/PROJECT CONTROL	2,985	1,302	1,130	1,200	1,151	-1,834	-61.4%
INFORMATION OUTREACH	857	583	1,610	1,676	1,240	383	44.7%
INFORMATION SERVICES	21,271	18,275	15,452	16,107	17,378	-3,893	-18.3%
OTHER	6,375	6,377	750	1,776	1,021	-5,354	-84.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>58,618</b>	<b>51,059</b>	<b>42,385</b>	<b>44,973</b>	<b>48,904</b>	<b>-9,714</b>	<b>-16.6%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	3,198	3,345	4,218	3,079	930	-2,268	-70.9%
SAFETY AND HEALTH	13,362	11,632	13,229	13,992	14,956	1,594	11.9%
FACILITIES MANAGEMENT	6,446	5,172	6,077	5,131	6,815	369	5.7%
MAINTENANCE	22,364	23,571	24,645	23,033	23,013	649	2.9%
UTILITIES	8,759	8,284	6,814	7,397	10,499	1,740	19.9%
SAFEGUARDS AND SECURITY	17,897	21,341	23,630	24,611	24,995	7,098	39.7%
LOGISTICS SUPPORT	9,165	7,334	10,542	11,920	10,408	1,243	13.6%
QUALITY ASSURANCE	1,904	1,961	2,710	3,763	5,576	3,672	192.9%
LABORATORY/TECHNICAL SUPPORT	8,592	9,277	7,932	7,791	8,227	-365	-4.2%
<b>TOTAL MISSION SUPPORT</b>	<b>91,687</b>	<b>91,917</b>	<b>99,797</b>	<b>100,717</b>	<b>105,419</b>	<b>13,732</b>	<b>15.0%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	14,533	16,100	16,350	17,794	17,530	2,997	20.6%
TAXES	2,437	3,319	7,087	3,389	4,899	2,462	101.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>16,970</b>	<b>19,419</b>	<b>23,437</b>	<b>21,183</b>	<b>22,429</b>	<b>5,459</b>	<b>32.2%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>167,275</b>	<b>162,395</b>	<b>165,619</b>	<b>166,873</b>	<b>176,752</b>	<b>9,477</b>	<b>5.7%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	225,778	225,408	228,143	240,389	273,437	47,659	21.1%
Capital Construction	19,137	16,380	12,502	10,332	31,866	12,729	66.5%
<b>TOTAL MISSION DIRECT</b>	<b>244,915</b>	<b>241,788</b>	<b>240,645</b>	<b>250,721</b>	<b>305,303</b>	<b>60,388</b>	<b>24.7%</b>
<b>Total Costs</b>	<b>412,190</b>	<b>404,183</b>	<b>406,264</b>	<b>417,594</b>	<b>482,055</b>	<b>69,865</b>	<b>16.9%</b>
<b>Total Costs w/o Construction</b>	<b>393,053</b>	<b>387,803</b>	<b>393,762</b>	<b>407,262</b>	<b>450,189</b>	<b>57,136</b>	<b>12.7%</b>
General Support % Total Co	14.2%	12.6%	10.4%	10.8%	10.1%		-4.1%
Mission Support % Total Cos	22.2%	22.7%	24.6%	24.1%	21.9%		-0.4%
Site Specific % Total Costs	4.1%	4.8%	5.8%	5.1%	4.7%		0.5%
Total Support % Total Costs	40.6%	40.2%	40.8%	40.0%	36.7%		-3.9%
Total Support % Total Costs w/o Construct	42.6%	41.9%	42.1%	41.0%	39.3%		-3.3%

US Department of Energy  
Total Functional Support  
Nevada



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	167,275	162,395	165,619	166,873	176,752

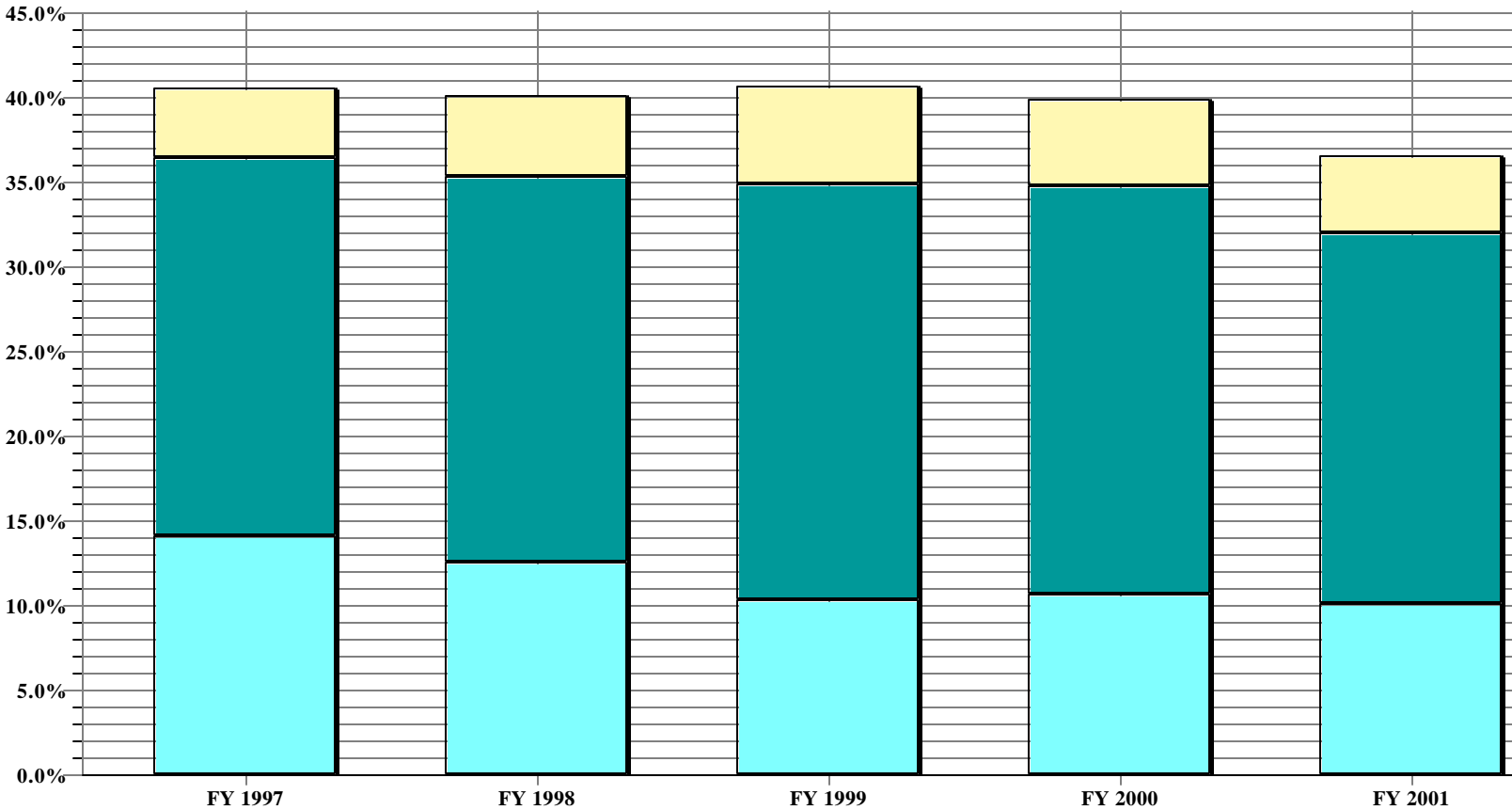
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Nevada**



 **Total Functional Support**

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	40.6%	40.2%	40.8%	40.0%	36.7%

**US Department of Energy  
Percent of Support Category to Total  
Nevada**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.2%	12.6%	10.4%	10.8%	10.1%
<b>Mis Sup</b>	22.2%	22.7%	24.6%	24.1%	21.9%
<b>Site Specific</b>	4.1%	4.8%	5.8%	5.1%	4.7%

Nevada Operations Office  
Site Profile

**1. Background:**

The Nevada Test Site, located 65 miles north of Las Vegas, is a massive outdoor laboratory and national experimental center. Larger than the state of Rhode Island, it is 1,375-square-miles, making it one of the largest secured areas in the United States. The remote site is surrounded by thousands of additional acres of land withdrawn from the public domain for use as a protected wildlife range and for a military gunnery range, creating an unpopulated land area comprising some 5,470 square miles. But, the test site is more than the 1,375-square-mile remote-testing site in southern Nevada. Satellite facilities and laboratories are also located in California, Maryland, Nevada, and New Mexico. Total test site and related employment is about 6,100. The arid desert climate allows for year-round operation.

Located within the boundaries of the Nevada Test Site, the base camp of Mercury has many of the amenities found in a typical small town. Housing, medical services, fire protection, law enforcement and security, and a cafeteria are all on site. There are 622 support buildings and laboratories with a replacement cost of \$843 million. There is housing for more than 350; offices, laboratories, warehouses, and training facilities; a hospital, post office, fire station, and sheriff's substation; and a large motor pool complete with repair facilities.

There are 400 miles of paved roads and 300 miles of unpaved roads, two airstrips, and 10 heliports, as well as several active water wells and an electric power transmission system. Programs are in place to ensure environmental protection and the safety and health of the work force.

Established as the Atomic Energy Commission's on-continent proving ground, the Nevada Test Site has seen more than four decades of nuclear weapons testing. Since the nuclear weapons testing moratorium in 1992, test site use has diversified into many other programs. DOE/NV's current missions are:

National Security - Support the Stockpile Stewardship Program through subcritical and other weapons physics experiments, test readiness, emergency management, training and demonstration for defense systems, advanced high hazard operations, and other national security experimental programs.

Environmental Management - Support environmental restoration, groundwater characterization, and low-level radioactive waste management.

Stewardship of the Nevada Test Site (NTS) - Manage the land and facilities at the NTS as a unique and valuable national resource.

Technology Diversification and Economic Diversification - support traditional and nontraditional departmental programs and commercial activities that are compatible with the Stockpile Stewardship Program.

## 2. Trend in Functional Support Costs:

Total Support costs increased by 6% from FY 2000 to FY 2001. However, overall site costs increased by 15% due to larger increases in the Mission Direct and Capital/Construction areas. This resulted in our support cost ratio decreasing from 40% in FY 2000 to 36.7% in FY 2001. Although increases in direct work scope contributed to some of the increase in supporting activities, the largest part of the support cost increase is related to a business systems development project costing an additional \$3M above last year and increased utility rates and usage amounting to \$3M. The reasons for significant increases/decreases for each line item are detailed in Note 3 below. A summary of the change in the various functional cost categories from FY 1997 to FY 2001 is as follows:

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change FY97-01
General Support	58,618	51,059	42,385	44,971	48,904	-17%
Mission Support	91,687	91,917	99,797	100,716	105,419	15%
Site Specific	16,970	19,419	23,437	21,183	22,429	32%
Total Support	167,275	162,395	165,619	166,870	176,752	6%
Mission Direct	225,778	225,408	228,143	240,389	273,437	21%
Capital/Constr	19,137	16,380	12,502	10,332	31,866	66%
Total Site	412,190	404,183	406,264	417,591	482,055	17%
Sppt Cost Ratio	40.6%	40.2%	40.8%	40.0%	36.7%	-10%

## 3. Major Anomalies in the Year-to-Year Data:

Significant changes in various specific line items from FY 2000 to 2001 are as follows:

Executive Direction. The increase resulted from business systems development. Bechtel Nevada is in the process of creating a Data Warehouse and updating its project and financial systems. Business systems development costs in FY01 were \$3M higher than last year.

Other. A detailed breakdown of the elements included in this line item is provided in Note 6 below.

Environmental. The decrease in environmental support activities is due to a change in reporting of the NTS Waste Operations organization. The amount of time that this

organization charges to environmental support activities has greatly decreased to the point that we now consider this organization to be primarily a mission direct activity.

Facilities Management. The increase resulted from additional support for Infrastructure.

Utilities. The increase resulted from higher vendor utility rates and higher usage.

Quality Assurance. The increase resulted from continued growth in ISM activities.

Taxes. The increase resulted from a 14% increase in the sales/use tax base. All contractor taxes, including all sales/use taxes, are reported in this line item.

Mission Direct. Work scope increased in almost all areas. The decrease in SO resulted from changes in HQ roles and responsibilities that caused Emergency Response activities to be reclassified to DP in FY01.

Capital/Construction. The increase resulted primarily from two line item projects relating to radio conversion and the renovation of test site roadways.

**Major Cost Drivers that may cause our site's costs to appear out of line with similar sites:**

The Safeguards and Security category may seem out of line with similar sites. However, the size and nature of work at the Nevada Test Site requires the complement of security currently in place. These requirements are programmatically driven.

**Cost Savings Initiatives:**

*For FY 2001, NNSA/NV completed a comprehensive review of all BN indirect costs and identified focus areas for BN to further examine requirement drivers and service levels in order to reduce the cost of doing business at the NTS. In addition, for FY 2002, NNSA/NV has established a performance measure to maintain/improve the direct to indirect cost ratio without a negative impact to service levels.*

**Other:**

Details of costs included in the other category are as follows:

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
	(in 000's)	(in 000's)	(in 000's)	(in 000's)	(in 000's)
3161 Displaced Worker	4,218	508	405	338	112
General Insurance		296	339	315	422
Legal Settlements	1,400	399	191	98	8
Transition Costs	174				
Worker's Comp. Health		3,198	(221)		
Elk Hills Retirement		109	579	755	627
Excess Property Sale			(653)	(102)	(508)
Other Adjustments	583	1,867	110	372	360
Total	<u>\$ 6,375</u>	<u>\$ 6,377</u>	<u>\$ 750</u>	<u>\$ 1,776</u>	<u>\$ 1,021</u>



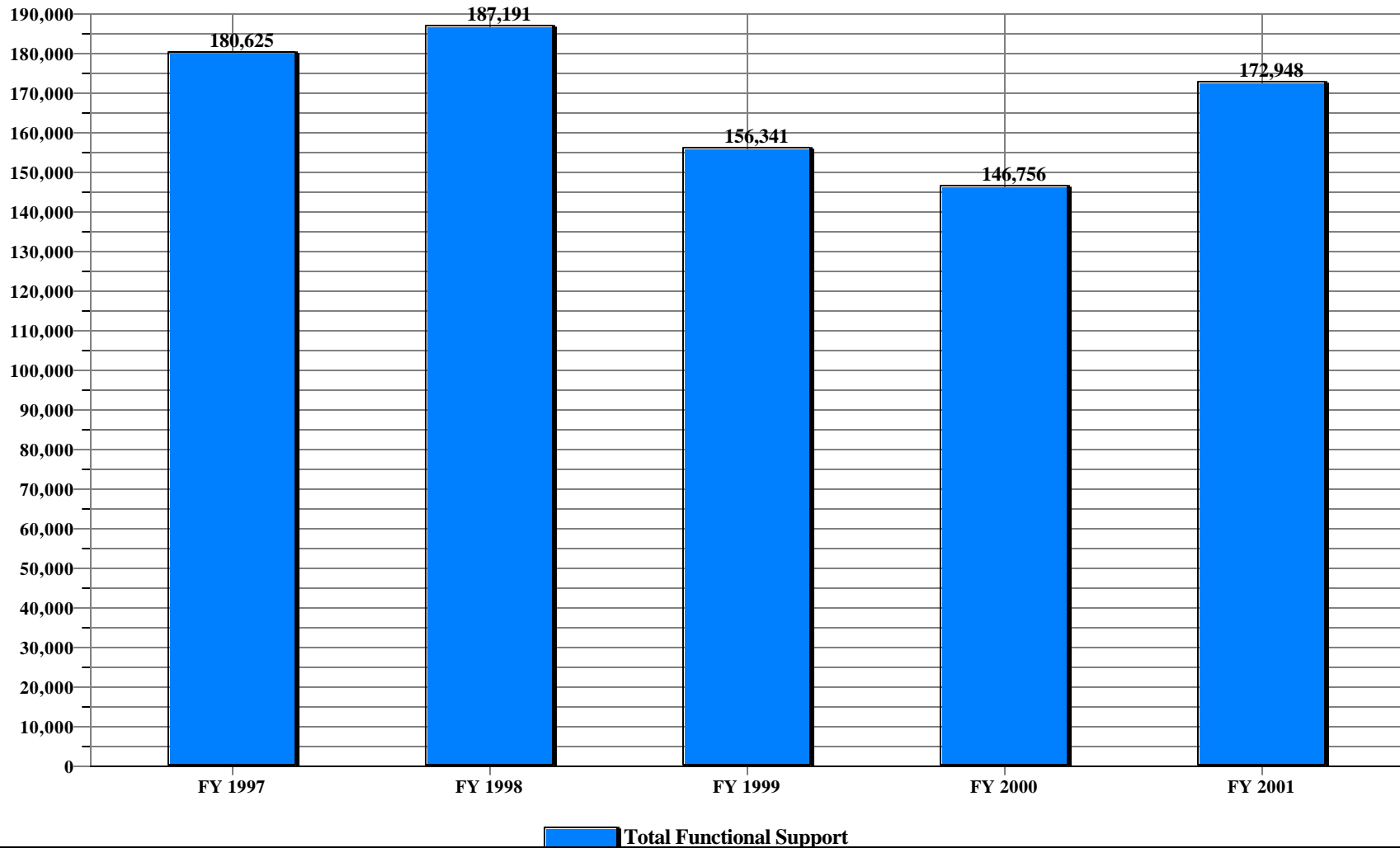
OREMEF

FY 2001

Trends in Total Functional Support Cost Categories

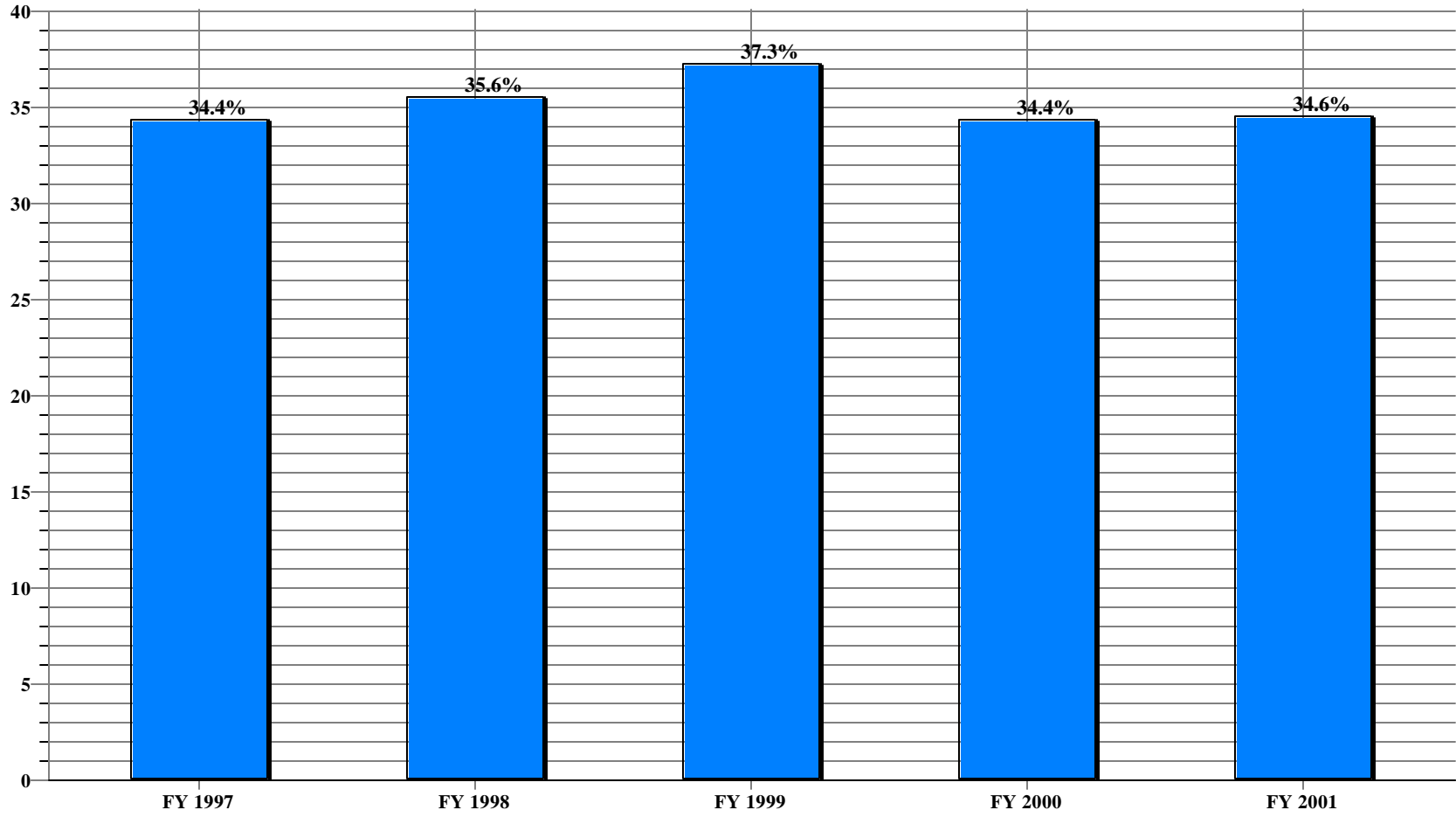
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	7,827	10,404	4,780	4,220	2,546	-5,281	-67.5%
HUMAN RESOURCES	3,124	5,609	4,959	5,635	7,630	4,506	144.2%
CFO	11,090	9,331	6,459	5,687	5,073	-6,017	-54.3%
PROCUREMENT	3,035	5,560	4,060	5,240	6,096	3,061	100.9%
LEGAL	425	1,174	680	909	1,353	928	218.4%
CENTRAL ADMIN SERVICES	5,035	4,285	6,885	6,188	7,172	2,137	42.4%
PROGRAM/PROJECT CONTROL	1,323	2,225	3,607	2,662	5,718	4,395	332.2%
INFORMATION OUTREACH	1,235	1,230	2,047	1,924	2,304	1,069	86.6%
INFORMATION SERVICES	15,063	21,632	12,785	13,597	20,597	5,534	36.7%
OTHER	-407	4,978	674	492	977	1,384	-340.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>47,750</b>	<b>66,428</b>	<b>46,936</b>	<b>46,554</b>	<b>59,466</b>	<b>11,716</b>	<b>24.5%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	5,073	3,348	7,286	6,289	4,725	-348	-6.9%
SAFETY AND HEALTH	19,936	22,307	25,760	27,851	44,309	24,373	122.3%
FACILITIES MANAGEMENT	8,609	7,206	1,885	898	911	-7,698	-89.4%
MAINTENANCE	21,105	23,130	20,349	13,446	12,623	-8,482	-40.2%
UTILITIES	32,338	23,643	16,305	13,858	12,160	-20,178	-62.4%
SAFEGUARDS AND SECURITY	11,334	10,413	10,617	12,964	12,007	673	5.9%
LOGISTICS SUPPORT	2,503	-84	2,392	1,728	2,471	-32	-1.3%
QUALITY ASSURANCE	8,122	5,346	4,397	3,378	4,751	-3,371	-41.5%
LABORATORY/TECHNICAL SUPPOR	12,069	7,751	1,664	2,365	1,330	-10,739	-89.0%
<b>TOTAL MISSION SUPPORT</b>	<b>121,089</b>	<b>103,060</b>	<b>90,655</b>	<b>82,777</b>	<b>95,287</b>	<b>-25,802</b>	<b>-21.3%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	10,014	16,347	18,985	17,346	19,933	9,919	99.1%
TAXES	1,772	1,356	-235	79	-1,738	-3,510	-198.1%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>11,786</b>	<b>17,703</b>	<b>18,750</b>	<b>17,425</b>	<b>18,195</b>	<b>6,409</b>	<b>54.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>180,625</b>	<b>187,191</b>	<b>156,341</b>	<b>146,756</b>	<b>172,948</b>	<b>-7,677</b>	<b>-4.3%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	315,117	323,369	253,602	264,547	299,851	-15,266	-4.8%
Capital Construction	29,330	15,880	8,748	15,623	27,400	-1,930	-6.6%
<b>TOTAL MISSION DIRECT</b>	<b>344,447</b>	<b>339,249</b>	<b>262,350</b>	<b>280,170</b>	<b>327,251</b>	<b>-17,196</b>	<b>-5.0%</b>
<b>Total Costs</b>	<b>525,072</b>	<b>526,440</b>	<b>418,691</b>	<b>426,926</b>	<b>500,199</b>	<b>-24,873</b>	<b>-4.7%</b>
<b>Total Costs w/o Construction</b>	<b>495,742</b>	<b>510,560</b>	<b>409,943</b>	<b>411,303</b>	<b>472,799</b>	<b>-22,943</b>	<b>-4.9%</b>
General Support % Total Co	9.1%	12.6%	11.2%	10.9%	11.9%		2.8%
Mission Support % Total Cos	23.1%	19.6%	21.7%	19.4%	19.0%		-4.0%
Site Specific % Total Costs	2.2%	3.4%	4.5%	4.1%	3.6%		1.4%
Total Support % Total Costs	34.4%	35.6%	37.3%	34.4%	34.6%		0.2%
Total Support % Total Costs w/o Construct	36.4%	36.7%	38.1%	35.7%	36.6%		0.1%

US Department of Energy  
Total Functional Support  
OREMEF



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	180,625	187,191	156,341	146,756	172,948

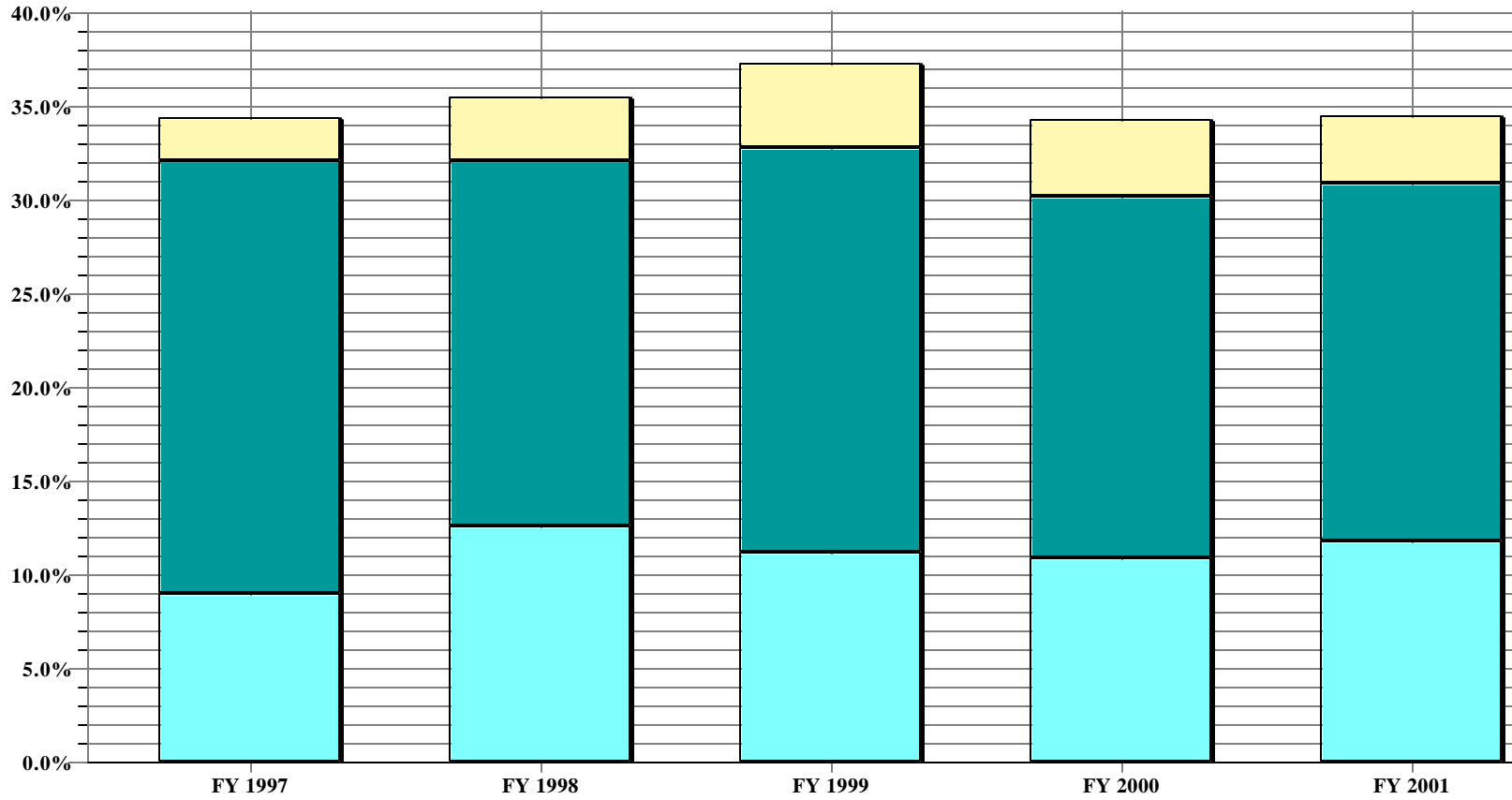
**US Department of Energy  
Total Functional Support as a % of Total Costs  
OREMEF**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	34.4%	35.6%	37.3%	34.4%	34.6%

**US Department of Energy  
Percent of Support Category to Total  
OREMEF**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	9.1%	12.6%	11.2%	10.9%	11.9%
<b>Mis Sup</b>	23.1%	19.6%	21.7%	19.4%	19.0%
<b>Site Specific</b>	2.2%	3.4%	4.5%	4.1%	3.6%

## OREMEF Site Profile

Site: ETTP  
Contractor: Bechtel Jacobs Company LLC (OREMEF Site)  
Field Office: Oak Ridge

### Background

Functional support costs for the ETTP site represent a compilation of the support costs at the Paducah, Kentucky site; the Portsmouth, Ohio site; and the East Tennessee Technology Park (ETTP) located in Oak Ridge, Tennessee. The mission is three-fold: environmental cleanup and waste management, management of depleted uranium hexafluoride, and reindustrialization of the ETTP. Physical characteristics of each site are as follows:

**ETTP:** Approximately 360 buildings covering 14 million square feet of space. Most buildings are over 30 years old and non-operational. Approximately 700 Bechtel Jacobs Company employees reside at the site with an additional 1,100 subcontractor and CROET tenants also physically located on the site.

**Portsmouth:** DOE is responsible for the maintenance and upkeep on approximately 72 buildings on the Portsmouth site. Bechtel Jacobs Company has 118 employees at the site and 275 additional subcontractors.

**Paducah:** Approximately 135 buildings on 3,556 acres of land with 748 acres inside the security fence. Bechtel Jacobs Company has 129 employees at the site as well and 255 additional subcontractors.

On April 1, 1998, Bechtel Jacobs Company LLC, a Managing and Integrating (M&I) contractor, replaced Lockheed Martin Energy Systems as the managing contractor for the ETTP, Paducah, and Portsmouth sites. The FY 1998 cost data reflect cost information from both contractors. As of the end of FY 2000, approximately 90% of the total Bechtel Jacobs workscope had been subcontracted. The subcontractors may support the missions functionally, which would be reflected in the appropriate functional category, or fixed price subcontracts may be utilized for specific scopes of work and would be reflected in the mission direct category. Approximately 11% of the Bechtel Jacobs subcontracted workscope continues to be performed by Lockheed Martin Energy Systems and UT-Battelle (formerly Lockheed Martin Energy Research Corporation). The United States Enrichment Corporation performs a significant amount of the workscope at Paducah and Portsmouth.

## Trends

The trend in total Functional Support Cost from FY 1995 to FY 2000 has decreased steadily over the period with a slight increase in FY 1998 and FY 2000. The increase in FY 1998 was due to the transition to a new contractor and the fact that there was some overlapping cost during this period. After a two-year decrease, functional support cost increased in FY 2001 primarily due to increased ES&H support required by the projects and information technology.

The trend of Total Support Costs as a percentage of Total Site Costs increased over the period until FY 2000 when the trend reversed. Support Costs consisted primarily of labor and material costs until FY 2000 when major functions such as RADCON, Maintenance, and Protective Forces were subcontracted. Contract requirements for workforce transition and subcontractor oversight in the areas of health, safety, and environmental compliance serve to minimize the reduction of support costs. Although support costs increased in FY 2001, support cost as a percentage of total cost stayed fairly constant.

Major year-to-year anomalies include the following:

**Executive Direction:** Cost increased \$2.6M in this category from FY 1997 to FY 1998. EMEF continued to pay a share of the SAP implementation cost to Lockheed Martin during FY 1998. In addition, the cost of the Transition Team is also included in this category. The cost reduced to a more reasonable level in FY 1999, and reduced again in FY 2000, as a result of right-sizing the management structure to fit the organization and completion of one-time transition activities. FY 2001 reduction is due to organization changes that combined organizational elements and reduced the number of managers.

**Human Resources:** Cost in this category increased \$1.5m from FY 1997 due to contractor transition. The new contractor incurred cost for its current employees while continuing to require support from the previous contractor. Cost decreased slightly from FY 1998 as a result of no longer requiring additional support from the previous contractor. The increase in FY 2000 was due to changing the costing methodology for Worker's Compensation, which moved the cost from fringe to site overheads. The FY 2001 increase is due to the addition of six FTE's over the course of the year to support training and organizational development as well as increases in the amount of training taken by employees.

**Chief Financial Officer:** Cost in this category decreased by almost \$3.0m from FY 1998 to FY 1999 as a result of no longer sharing accounting systems with the previous contractor while developing a new one. In addition, employment levels in the CFO organization decreased by 16% during FY 1999, with further cost efficiencies in FY 2000 and FY 2001.

Procurement: Cost in this category increased \$1.3m from FY 1997 due to contractor transition. The new contractor incurred cost for its current employees while continuing to require support from the previous contractor. Cost decreased in FY 1999 from FY 1998 due to a 10% reduction in Procurement employment levels during the fiscal year. However, due to the subcontracting effort, procurement costs increased in FY 2000 and FY 2001. With over 170 subcontracts to manage, incremental funding required additional procurement efforts in FY 2001.

Legal: Cost in this category increased \$.7m from FY 1997 due to contractor transition. The new contractor incurred cost for its current employees while continuing to require support from the previous contractor. This support was no longer required in FY 1999 and cost in this category reduced \$500K. In FY 2000, EH investigations at Paducah and Portsmouth resulted in additional support in this area to respond to FOIA requests. The increase in FY 2001 is due to the addition of four FTE's during the year to support environmental law, employment law, and management of legacy worker's compensation claims.

Central Administrative Services: Cost in this category increased \$2.6m from FY 1998 to FY 1999. Prior to mid-year FY 1998, there was not an administrative services-type organization and secretarial support, in particular, was not a cost that could be isolated. The cost increase is a result of the ability to isolate the cost in the current organization and accounting system. The FY 2001 increase is due to the addition of six FTE's to support increased records management requirements.

Program/Project Planning & Control: Increase in FY 2001 is due to a reorganization that shifted FTE's from executive direction to this functional category.

Information Services: Cost in this category increased \$6.5m from FY 1997 due to contractor transition. The new contractor incurred cost for its current employees while continuing to require support from the previous contractor. The cost decrease from FY 1998 of \$7m is a result of reducing the number of telephones, pagers, and cellular phones and reduced support from the previous contractor. The slight increase in FY 2000 is due to continued efforts to separate systems and additional telecommunications requirements. The increase in FY 2001 is due to continued network independence efforts and system upgrades.

Environmental: Cost in this category increased \$4.0m from FY 1998 to FY 1999. This is due to increased emphasis and required subcontractor oversight in the area of environmental compliance; however, efficiencies were more evident in FY 2000 and FY 2001.

Safety and Health: Cost in this category increased \$2.4m from FY 1997 due to contractor transition. The new contractor incurred cost for its current employees while continuing to require support from the previous contractor. Cost increased \$3.8m from FY 1998 due to increased emphasis and required subcontractor oversight in the safety and health area. Costs continue to increase during FY 2000 due to EH investigation support. FY 2001 increases are due to continued heightened emphasis on safety and additional Health Physics support required by the projects.

Facilities Management: Cost in this category decreased \$5.5m in FY 1999 due to the ability to better identify the type of engineering. Since the category definition requires facility engineering, only facility engineering was included as well as some engineering management and the facilities management organizations.

Maintenance: Costs in this category increased by \$1.8M due to office moves required during FY 1998. This was necessitated by the change in contractor and complete reorganizations that required former Lockheed Martin employees at other sites to move to ETTP and other moves within the site to locate employees with their new organizations. Since FY 1998, costs have decreased as subcontractors take over facilities, including the maintenance costs in their contracts.

Utilities: This category decreased by \$9M in FY 1998 because the responsibility for power and utility distribution ceased to be an ETTP responsibility on April 1, 1998. The employees associated with providing power and utilities were transferred to Y-12 (power) or OMI (utilities); therefore, costs reflected in this category reflect the reduction of this labor and show continued efficiencies in FY 1999, FY 2000, and FY 2001.

Logistics Support: This category decreased by \$2.5M from FY 1997 to FY 1998. This was due in part to a cost decrease of \$1M plus an increase in credits received from scrap metal sales, property sales, and cash discounts earned. Cost returned to reasonable levels in FY 1999. The increase in FY 2001 is due to reduced proceeds from property sales.

Quality Assurance: Increase in FY 2001 is due to emphasis placed on procedures and assessments.

Laboratory/Technical Support: Reorganizations and personnel reductions, due to decreasing work scope, reduced costs in this category by \$4.3M in FY 1998. The cost reduction from FY 1998 in this category reflects the effect of subcontracting major scopes of work so that the analytical support cost is included in the cost of the subcontract.



Management/Award/Incentive Fee: This category increased six million dollars from FY 1997 to FY 1998. This increase is due to a high score received by Lockheed Martin Energy Systems for its performance in FY 1998-1. In addition, the new contractor, Bechtel Jacobs Company LLC, received a fixed fee for the second half of the fiscal year. The increase from FY 1998 was due to a change in the fee structure to a performance-based fee structure. The performance measures were largely tied to the subcontracting and workforce transition efforts where the goals were accomplished.

Taxes: Credit balance in FY 2001 reflects a \$2.3M credit received for pollution tax credits. Listed at the end of the file are the sales and use tax paid for the past two years. Bechtel Jacobs does not operate with any direct pay permits and does not separately identify this cost in the accounting system.

Defense Programs: Costs in this category increased \$900k from FY 1997 to FY 1998. These costs are primarily in support of the Lithium Removal programs at ETTP and Portsmouth and are offset by credits received from the sale of the lithium. In FY 1998, additional support was provided to other defense programs caused the increase in cost.

Environmental Management: Increase in EM costs in FY 2001 reflects the decision to move the uranium programs to EM, resulting in –0- costs for Nuclear Energy (NE).

The Bechtel Jacobs Company contract with DOE contains requirements that may cause the site's costs to appear out of line with other costs. While Bechtel Jacobs Company is committed to subcontracting a significant portion of the scope of work, the employees inherited from the previous contractor were transitioned to these subcontractors with substantially equivalent benefits as they had received prior to transition. This necessitates significant efforts of the part of the Human Resources, Procurement, Executive Management, Legal, and Chief Financial Officer functions. The Human Resource function has spent a great deal of time negotiating new benefits packages with new carriers because the existing carrier could not handle the requirements, which also resulted in buying out the contract with the old carrier. In addition, the Procurement Function has been required to add special clauses to each subcontract to ensure that these personnel requirements are met. The Chief Financial Officer function has been involved in setting up a separate payroll system in order to pay the subcontractors so that accurate labor data can be maintained for benefits purposes. Therefore, due to the above-mentioned circumstances, the FY 1998 and FY 1999 functional costs may not compare favorably with those of other sites. Note that the FY 2000 functional costs have improved as the Managing and Integrating (M&I) Contractor process matures. As mentioned earlier, FY 2001 support costs as a percentage of total cost stayed fairly constant.

## Major Cost Saving Initiatives

The major cost saving initiative was implemented on April 1, 1998, when the management of the Environmental Management and Enrichment Facilities scope at ETTP, Paducah, and Portsmouth was transitioned from a Management & Operating contractor to a Managing and Integrating (M&I) contractor. The operating concept of an M&I is to subcontract a majority of the scope of work. This will result in cost savings through the use of fixed price subcontracts. Bechtel Jacobs Company has committed to saving \$100M over the life of the contract. Thus far, savings have amounted to \$450M. Other cost saving initiatives include the implementation of a cost model that is simple to implement, thereby saving processing and analysis costs. It is recognized that preciseness may be sacrificed for simplicity. Travel costs are also subject to cost savings by utilizing an outside travel agency to handle reservations and tickets. Employees may not use rental cars if they are staying in the same hotel as the meeting they are attending. The use of pagers and cellular phones has been reviewed and the numbers reduced. The hours that the computer helpline is available have also been reduced. The number of printers has been reduced, and better, faster printers were purchased to handle the increase throughput. The cafeteria was outsourced, which resulted in savings to site overhead.

## Other

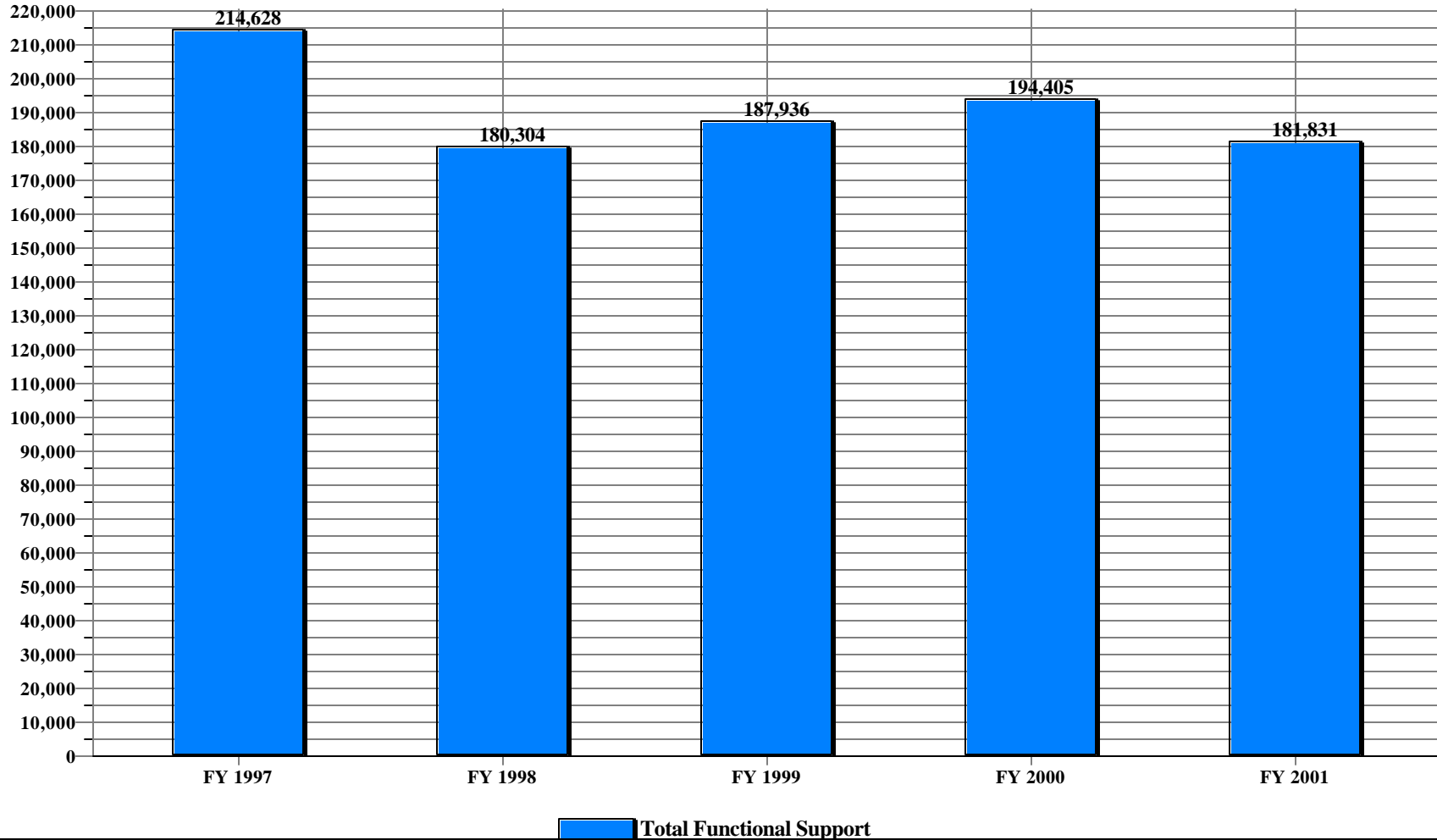
The Other functional category includes the following for FY 2001:

Inclement Weather/Meetings	133
Reservation Management/DOE Directed Support	823
Site Office Support	21
Total	\$ 977

## Trends in Total Functional Support Cost Categories

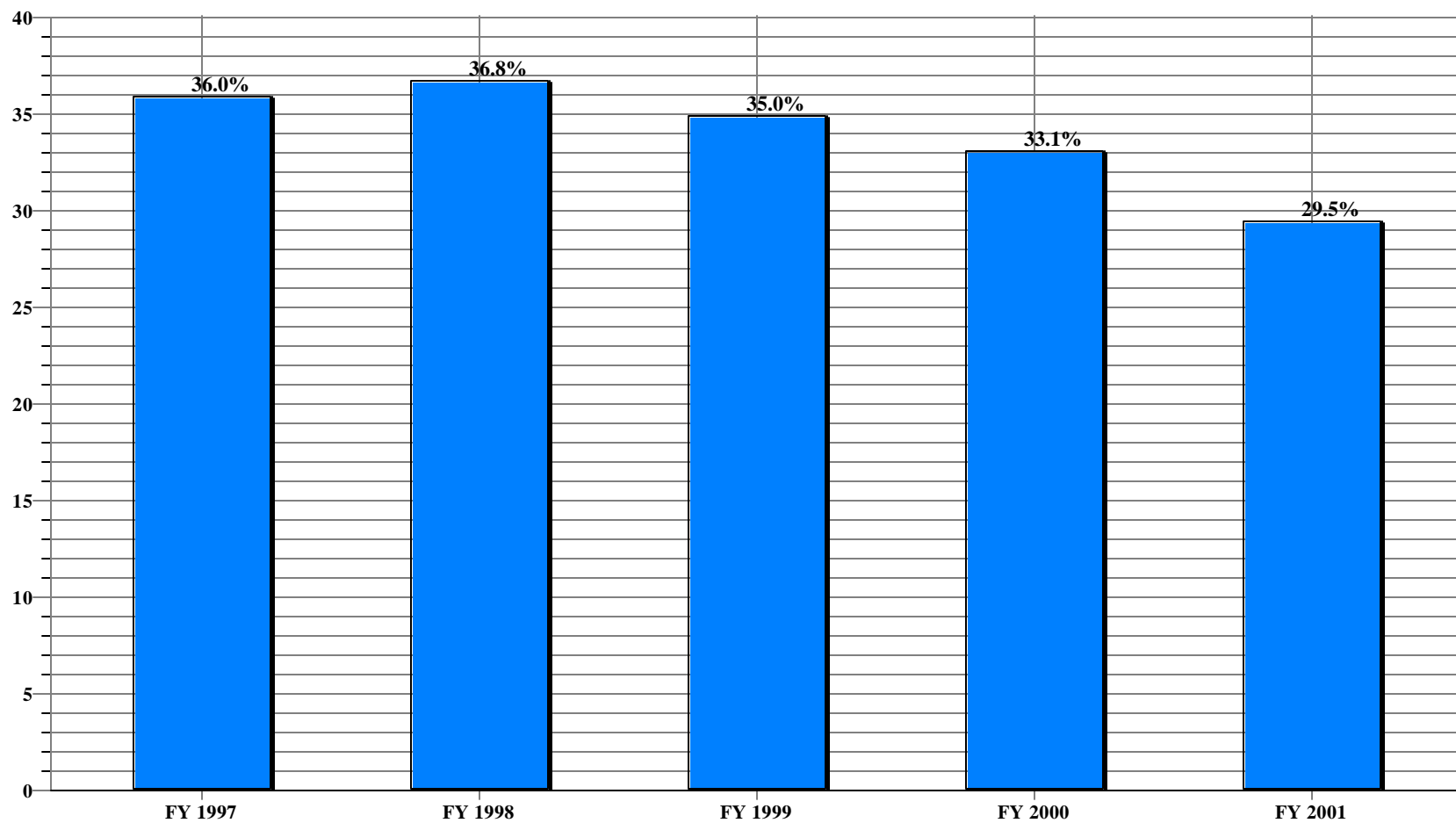
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	5,388	4,775	4,365	5,870	7,861	2,473	45.9%
HUMAN RESOURCES	5,121	3,897	4,922	4,147	4,497	-624	-12.2%
CFO	6,178	5,543	6,344	4,021	1,202	-4,976	-80.5%
PROCUREMENT	4,337	3,642	2,383	2,263	3,359	-978	-22.6%
LEGAL	1,417	1,923	2,311	3,164	4,467	3,050	215.2%
CENTRAL ADMIN SERVICES	8,677	6,272	4,745	6,127	4,658	-4,019	-46.3%
PROGRAM/PROJECT CONTROL	3,450	2,139	2,461	2,349	211	-3,239	-93.9%
INFORMATION OUTREACH	2,396	1,955	1,958	3,115	3,335	939	39.2%
INFORMATION SERVICES	14,961	12,656	16,060	22,576	24,737	9,776	65.3%
OTHER	9,534	9,962	7,780	6,918	5,950	-3,584	-37.6%
<b>TOTAL GENERAL SUPPORT</b>	<b>61,459</b>	<b>52,764</b>	<b>53,329</b>	<b>60,550</b>	<b>60,277</b>	<b>-1,182</b>	<b>-1.9%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	7,387	4,103	6,669	5,646	5,061	-2,326	-31.5%
SAFETY AND HEALTH	28,298	23,852	21,686	24,796	22,792	-5,506	-19.5%
FACILITIES MANAGEMENT	3,082	2,529	3,682	6,517	9,423	6,341	205.7%
MAINTENANCE	44,217	40,026	53,466	51,749	46,345	2,128	4.8%
UTILITIES	7,599	8,058	8,071	9,995	13,441	5,842	76.9%
SAFEGUARDS AND SECURITY	18,558	14,943	7,357	7,628	1,125	-17,433	-93.9%
LOGISTICS SUPPORT	6,381	5,362	4,966	4,935	2,453	-3,928	-61.6%
QUALITY ASSURANCE	8,271	4,193	4,608	4,315	4,423	-3,848	-46.5%
LABORATORY/TECHNICAL SUPPORT	8,463	7,045	6,423	3,409	2,486	-5,977	-70.6%
<b>TOTAL MISSION SUPPORT</b>	<b>132,256</b>	<b>110,111</b>	<b>116,928</b>	<b>118,990</b>	<b>107,549</b>	<b>-24,707</b>	<b>-18.7%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	10,863	9,243	9,573	7,745	6,450	-4,413	-40.6%
TAXES	1,022	635	-695	-558	287	-735	-71.9%
LDRD	9,028	7,551	8,801	7,678	7,268	-1,760	-19.5%
<b>TOTAL SITE SPECIFIC</b>	<b>20,913</b>	<b>17,429</b>	<b>17,679</b>	<b>14,865</b>	<b>14,005</b>	<b>-6,908</b>	<b>-33.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>214,628</b>	<b>180,304</b>	<b>187,936</b>	<b>194,405</b>	<b>181,831</b>	<b>-32,797</b>	<b>-15.3%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	342,041	291,028	332,158	343,728	358,128	16,087	4.7%
Capital Construction	39,687	18,969	17,111	48,323	77,134	37,447	94.4%
<b>TOTAL MISSION DIRECT</b>	<b>381,728</b>	<b>309,997</b>	<b>349,269</b>	<b>392,051</b>	<b>435,262</b>	<b>53,534</b>	<b>14.0%</b>
<b>Total Costs</b>	<b>596,356</b>	<b>490,301</b>	<b>537,205</b>	<b>586,456</b>	<b>617,093</b>	<b>20,737</b>	<b>3.5%</b>
<b>Total Costs w/o Construction</b>	<b>556,669</b>	<b>471,332</b>	<b>520,094</b>	<b>538,133</b>	<b>539,959</b>	<b>-16,710</b>	<b>-3.1%</b>
General Support % Total Co	10.3%	10.8%	9.9%	10.3%	9.8%		-0.5%
Mission Support % Total Cos	22.2%	22.5%	21.8%	20.3%	17.4%		-4.7%
Site Specific % Total Costs	3.5%	3.6%	3.3%	2.5%	2.3%		-1.2%
Total Support % Total Costs	36.0%	36.8%	35.0%	33.1%	29.5%		-6.5%
Total Support % Total Costs w/o Construct	38.6%	38.3%	36.1%	36.1%	33.7%		-4.9%

US Department of Energy  
Total Functional Support  
ORNL



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	214,628	180,304	187,936	194,405	181,831

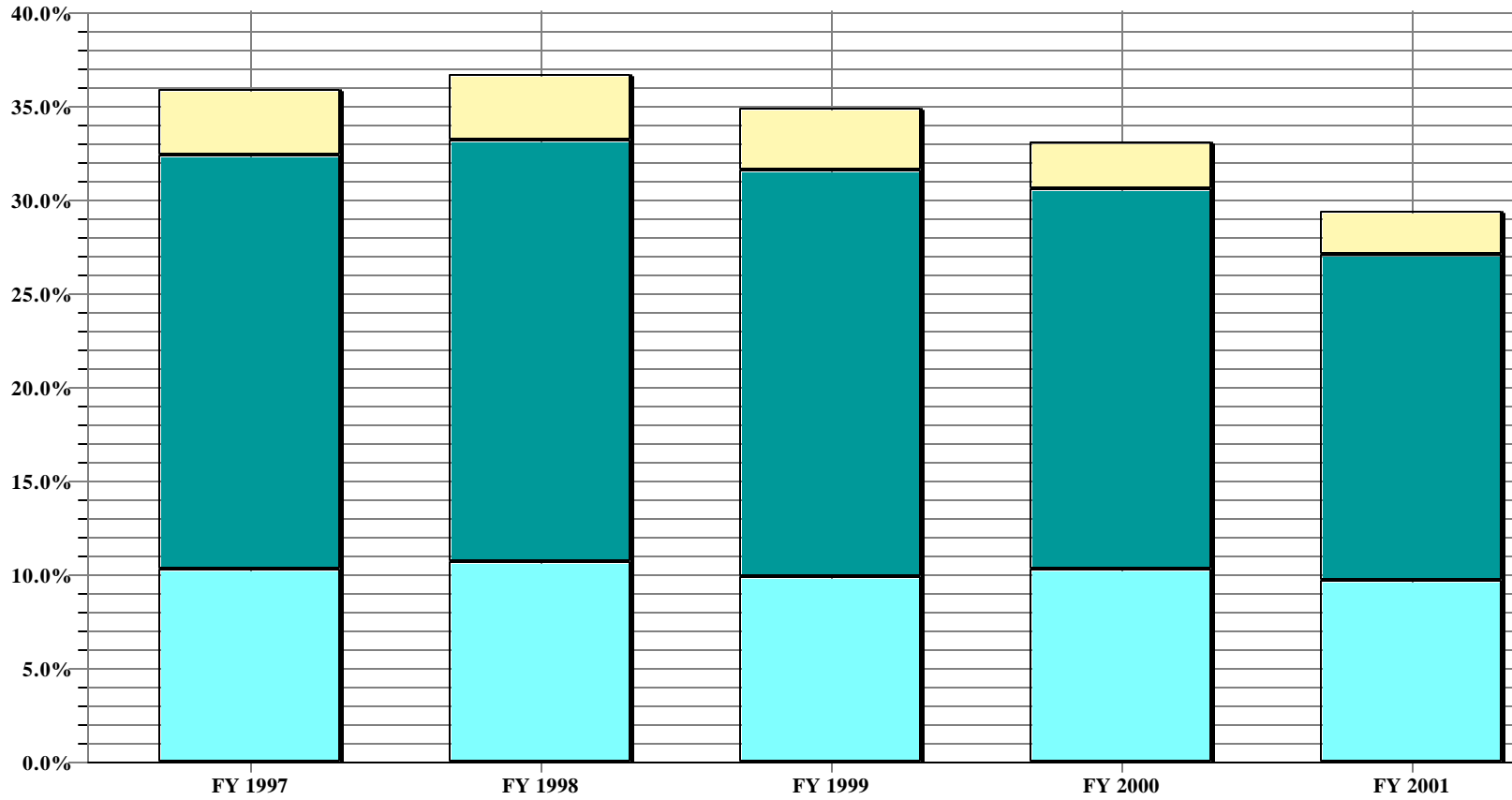
US Department of Energy  
Total Functional Support as a % of Total Costs  
ORNL



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	36.0%	36.8%	35.0%	33.1%	29.5%

**US Department of Energy  
Percent of Support Category to Total  
ORNL**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	10.3%	10.8%	9.9%	10.3%	9.8%
<b>Mis Sup</b>	22.2%	22.5%	21.8%	20.3%	17.4%
<b>Site Specific</b>	3.5%	3.6%	3.3%	2.5%	2.3%

## **Oak Ridge National Laboratory Site Profile FY2001**

### Background

ORNL is a multiprogram science and technology laboratory managed for the U.S. Department of Energy (DOE) by UT-Battelle, LLC. ORNL was established in 1943 as part of the Manhattan Project to pioneer a method for producing and separating plutonium for use in the development of the atomic bomb. The Graphite Reactor served as a pilot-scale plutonium production facility for much larger reactors built in Hanford, Washington. After World War II, material irradiation research was conducted at the Graphite Reactor. During the 1950s and 1960s, ORNL conducted research in several fields related to nuclear energy and built and operated several nuclear research reactors, in addition to performing important life sciences research. With the energy crises of the early 1970s and 1980s, ORNL's activities expanded to include multiprogram research and development in support of national DOE missions.

Major programs at ORNL include materials science and engineering, analytical and separations chemistry and chemical sciences, environmental sciences, fusion science and technology, instrumentation science and technology, nuclear physics and astrophysics with radioactive ion beams, neutron science, life sciences, high-performance computing, social sciences, energy-efficient technologies for buildings, biomass energy, fossil energy, nuclear technology and safety, environmental management science, environmental technology development, life-cycle analysis and health and environmental risk assessment.

ORNL has a staff of approximately 3,800 contractor employees. The ORNL main site encompasses approximately 1100 acres in the Bethel and Melton valleys, approximately 10 miles southwest of the center of the city of Oak Ridge, Tennessee, with additional facilities located on the adjacent Copper Ridge. ORNL also occupies space at the Oak Ridge Y-12 Plant and leases some space off-site. The ORNL main site currently has 461 buildings, 89 trailers, with approximately 3.4 million square feet of building space.

### Trends

Functional Support Costs have decreased over the period from FY 1995 to FY 2001 from a high of \$226.6M in FY 1995 and FY 1996 to \$182M in FY 2001. This decrease is due mainly to the shift of Environmental funding from the ORNL contract to the Bechtel Jacobs Corporation. Over this same time period the percentage of Functional Support costs to total costs has held steady from 37% to 30%.

There is an increase in construction funding due to the Spallation Neutron Source (SNS) project. Costs for SNS will peak in FY02 and the project is scheduled for completion in 2006, with a total expenditure estimated at \$1.4B.

**Taxes:** The estimation of sales and use taxes for fiscal years 95 - 01 is as follows (in 000's):

FY 95: \$7,876	FY 97: \$6,466	FY 99: \$7,563	FY 01: \$7,457
FY 96: \$6,860	FY 98: \$7,618	FY 00: \$7,130	

In reviewing the tax information for trending purposes, we discovered that the reporting of tax was duplicated for years FY 95 and FY 96. The tax dollars were included in the material cost that was part of each of the other Support/Direct categories. These same tax dollars were also included in the "Taxes" category because they were part of an allocation from Central.

#### Cost Savings Initiatives

The Oak Ridge National Laboratory (ORNL) reduced overhead by \$13M in FY01 and has a \$8M cost reduction initiative for FY2002. ORNL staff was reduced by a total of 375 employees in FY00 and FY01.

#### Other Functional Support Cost Trends

In comparing the Functional Support Categories for FY 2001 to FY 2000 there are some increases that are related to the contract transition and the continued separation of shared systems between ORNL and Y12.

FY 2001 Functional Support to total costs is artificially low due to the increased construction line item amount that is related to SNS in Mission Direct. The line item construction related costs would continue for 2-3 years before we see them return to a normal level. However, while total costs between FY 2000 and FY 2001 increased 5.2%; Functional Support between FY 2000 and FY 2001 decreased 3.7%.

Executive Direction – Increase of \$1,991K is due to costs associated with UTB transition and liaison related costs.

Program/Project Control - The decline was primarily related to the completion of projects, reorganization changes, and accounting system changes that occurred in FY 2001. Reorganization and accounting system changes resulted in many of the items being in support of mission direct activities.

Information Services – Increase of \$2,161K is due to costs associated with Data Systems Applications and costs related to imaging and reproduction.

Safety & Health – Decrease of 2,004K is due to overhead reductions in this area.



Facilities Management – Increase of \$2,905K is due to costs associated with revitalization. There are costs in FY 2001 related to asbestos cleanup and removal, traffic engineering, and building relocations and office moves associated with the facilities “revitalization”.

Utilities – Increase of \$3,445K is due to increased costs associated with higher than normal utility consumption.

CFO – Decrease of \$2,819K is due impart to more control over variances and infrastructure related costs.

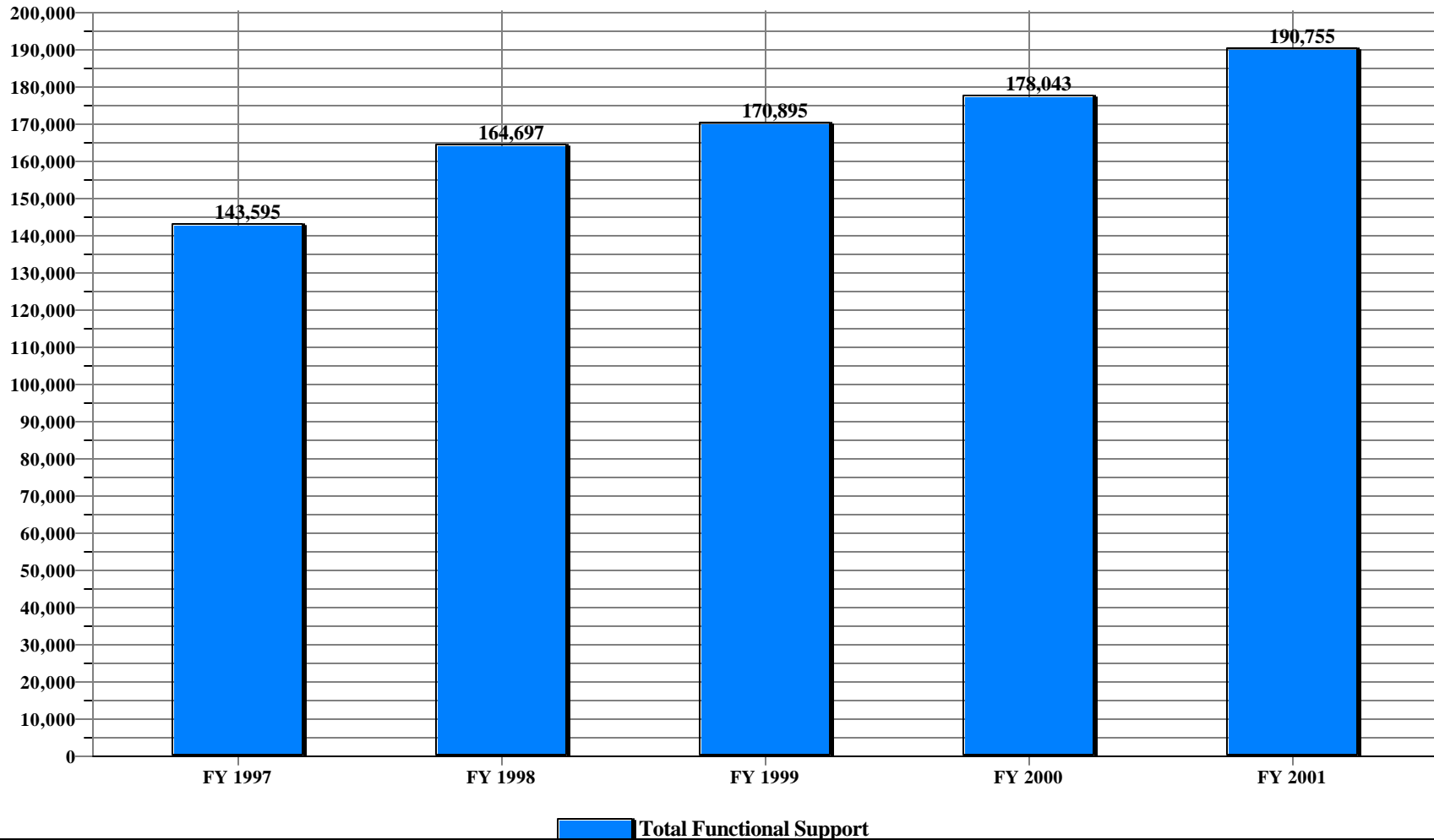
Central Administrative Services – Decrease of \$1,469K is due to decreased costs related to food services, library operations, graphics, and publishing.

Safeguards / Security- Decrease of \$6,503K is due to much of the cost related to S&S becoming a direct mission program through Program FS (Field Security).

## Trends in Total Functional Support Cost Categories

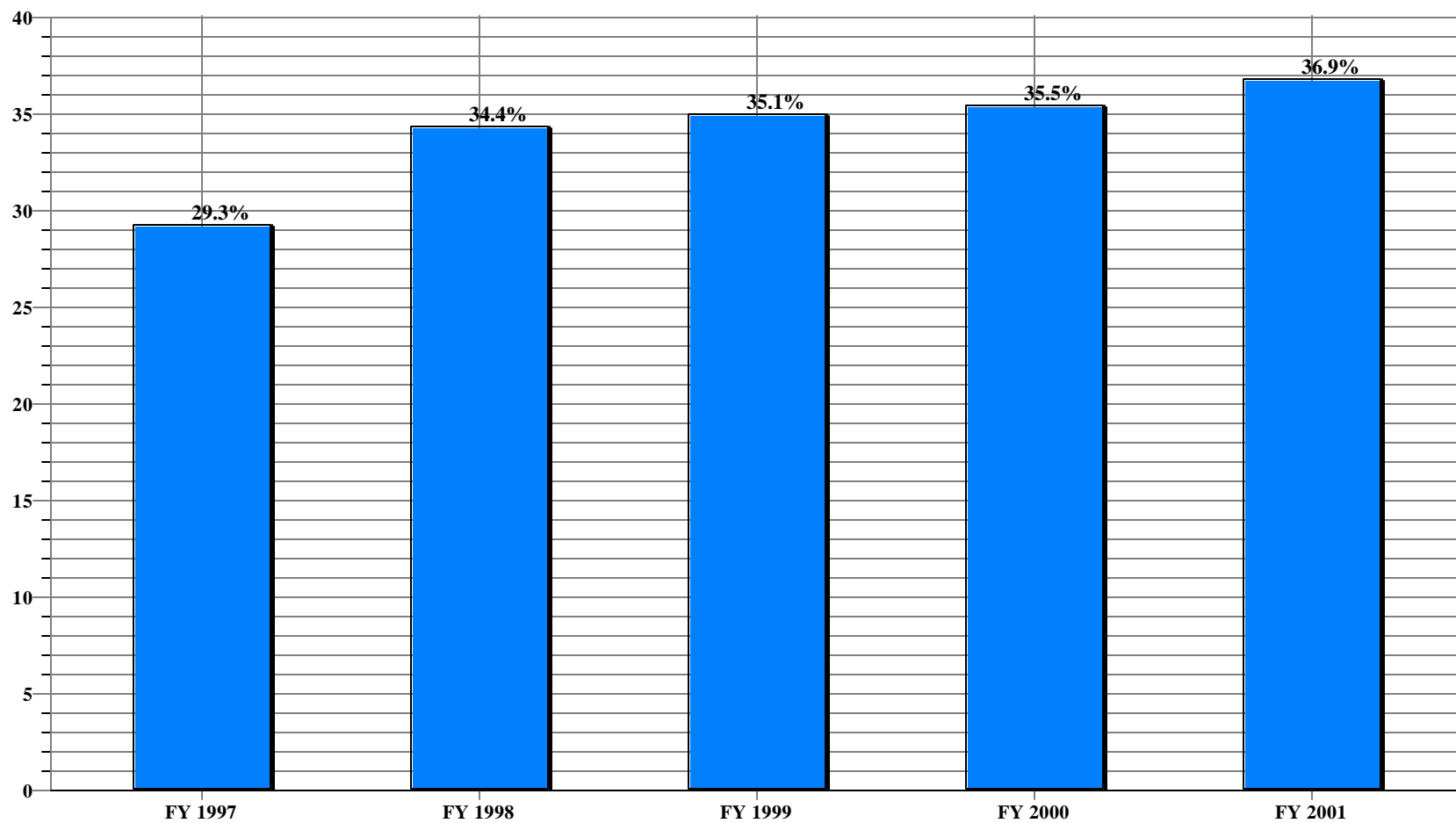
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	3,873	3,862	4,186	3,818	2,803	-1,070	-27.6%
HUMAN RESOURCES	3,015	3,893	4,635	4,622	4,815	1,800	59.7%
CFO	7,620	11,541	11,242	12,287	13,424	5,804	76.2%
PROCUREMENT	6,665	8,262	8,983	6,992	6,056	-609	-9.1%
LEGAL	1,365	1,519	1,571	1,805	1,843	478	35.0%
CENTRAL ADMIN SERVICES	3,868	3,573	3,714	3,666	3,553	-315	-8.1%
PROGRAM/PROJECT CONTROL	2,804	1,214	4,063	3,457	3,012	208	7.4%
INFORMATION OUTREACH	6,956	7,790	8,461	7,380	9,597	2,641	38.0%
INFORMATION SERVICES	12,064	16,793	18,614	21,339	23,215	11,151	92.4%
OTHER	19,341	19,906	19,379	20,589	20,491	1,150	5.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>67,571</b>	<b>78,353</b>	<b>84,848</b>	<b>85,955</b>	<b>88,809</b>	<b>21,238</b>	<b>31.4%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	3,559	765	759	1,858	2,970	-589	-16.5%
SAFETY AND HEALTH	9,135	20,799	17,180	16,725	20,718	11,583	126.8%
FACILITIES MANAGEMENT	11,266	16,013	15,707	15,063	18,116	6,850	60.8%
MAINTENANCE	8,595	10,102	8,886	8,300	7,313	-1,282	-14.9%
UTILITIES	4,162	6,282	9,039	8,600	9,027	4,865	116.9%
SAFEGUARDS AND SECURITY	2,650	5,283	3,848	7,800	9,583	6,933	261.6%
LOGISTICS SUPPORT	1,272	2,034	1,577	1,075	1,287	15	1.2%
QUALITY ASSURANCE	2,584	2,058	3,938	6,153	6,638	4,054	156.9%
LABORATORY/TECHNICAL SUPPORT	7,263	3,441	5,703	5,747	6,389	-874	-12.0%
<b>TOTAL MISSION SUPPORT</b>	<b>50,486</b>	<b>66,777</b>	<b>66,637</b>	<b>71,321</b>	<b>82,041</b>	<b>31,555</b>	<b>62.5%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	11,842	6,495	6,586	7,510	8,749	-3,093	-26.1%
TAXES	4,365	3,419	2,955	3,448	669	-3,696	-84.7%
LDRD	9,331	9,653	9,869	9,809	10,487	1,156	12.4%
<b>TOTAL SITE SPECIFIC</b>	<b>25,538</b>	<b>19,567</b>	<b>19,410</b>	<b>20,767</b>	<b>19,905</b>	<b>-5,633</b>	<b>-22.1%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>143,595</b>	<b>164,697</b>	<b>170,895</b>	<b>178,043</b>	<b>190,755</b>	<b>47,160</b>	<b>32.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	298,340	299,383	304,638	315,815	313,608	15,268	5.1%
Capital Construction	47,730	14,557	11,913	7,218	12,715	-35,015	-73.4%
<b>TOTAL MISSION DIRECT</b>	<b>346,070</b>	<b>313,940</b>	<b>316,551</b>	<b>323,033</b>	<b>326,323</b>	<b>-19,747</b>	<b>-5.7%</b>
<b>Total Costs</b>	<b>489,665</b>	<b>478,637</b>	<b>487,446</b>	<b>501,076</b>	<b>517,078</b>	<b>27,413</b>	<b>5.6%</b>
<b>Total Costs w/o Construction</b>	<b>441,935</b>	<b>464,080</b>	<b>475,533</b>	<b>493,858</b>	<b>504,363</b>	<b>62,428</b>	<b>12.4%</b>
General Support % Total Co	13.8%	16.4%	17.4%	17.2%	17.2%		3.4%
Mission Support % Total Cos	10.3%	14.0%	13.7%	14.2%	15.9%		5.6%
Site Specific % Total Costs	5.2%	4.1%	4.0%	4.1%	3.8%		-1.4%
Total Support % Total Costs	29.3%	34.4%	35.1%	35.5%	36.9%		7.6%
Total Support % Total Costs w/o Construct	32.5%	35.5%	35.9%	36.1%	37.8%		5.3%

**US Department of Energy  
Total Functional Support  
PNNL**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	143,595	164,697	170,895	178,043	190,755

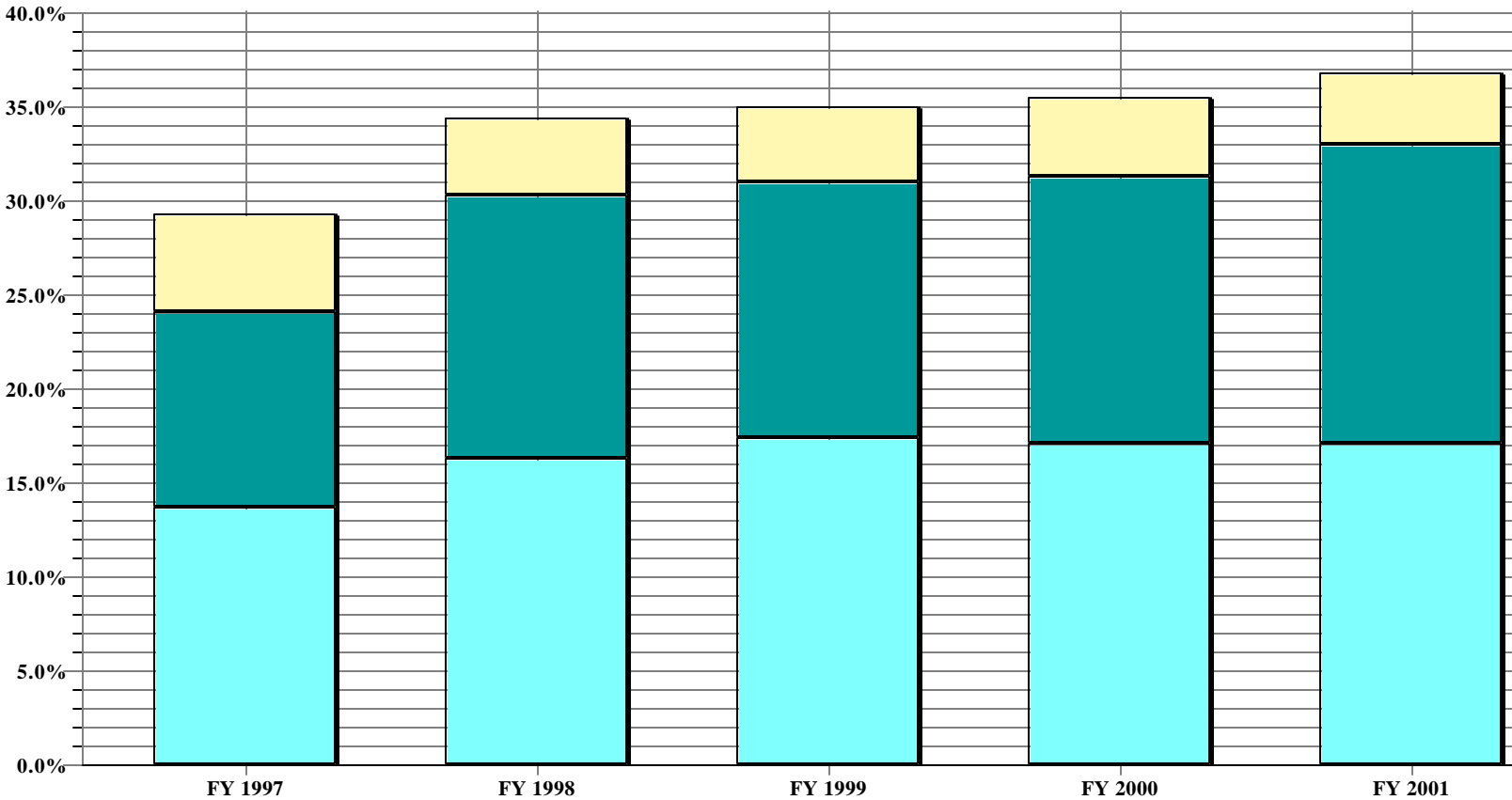
**US Department of Energy  
Total Functional Support as a % of Total Costs  
PNNL**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	29.3%	34.4%	35.1%	35.5%	36.9%

**US Department of Energy  
Percent of Support Category to Total  
PNNL**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.8%	16.4%	17.4%	17.2%	17.2%
<b>Mis Sup</b>	10.3%	14.0%	13.7%	14.2%	15.9%
<b>Site Specific</b>	5.2%	4.1%	4.0%	4.1%	3.8%

# **Pacific Northwest National Laboratories**

## **Functional Cost Site Profile**

### Background:

#### History:

Battelle Memorial Institute operates the Pacific Northwest National Laboratory for DOE. In 1965, Battelle Memorial Institute assumed management and operation of the federal government's Hanford Laboratories in southeastern Washington State. At the same time, the research facility was separated from Hanford site operations and renamed the Pacific Northwest Laboratory. Battelle has invested greater than \$101M in private research facilities and equipment adjacent to the government laboratory.

#### Mission:

The Pacific Northwest National Laboratory's (PNNL) core mission is to deliver environmental science and technology to meet critical national needs and solve major environmental challenges. The Laboratory is an outgrowth of the Manhattan Project Hanford Works that focused on materials science, nuclear technology, and health studies. Strengths in molecular and measurement science, process science and engineering, computational science, information visualization, materials science and engineering, and nuclear science and technology underpin our research programs. We operate the Environmental Molecular Sciences Laboratory, a national scientific user facility with advanced resources for fundamental research on the physical, chemical and biological processes. Our life science research focuses on the molecular basis of health effects from environmental pollutants. We solve legacy environmental problems with cost-effective cleanup solutions and technologies that prevent pollution and minimize waste. Our scientists identify technology to characterize and mitigate the consequences of pollution, climate change, and other environmental impacts as the basis for sound policy decisions. We develop clean energy and industrial processes, lightweight materials and advanced power systems for transportation, and efficient building technologies for DOE's national security mission. The Laboratory strives for excellence in management and safe operations, thereby enabling efficient and cost-effective research while protecting our workers, the public, and the environment. Our staff is broadly engaged in local economic development, education and other community programs.

Consistent with our mission, a significant portion, of the Laboratory's work is in environmental science, environmental technology, or both. Further, our projects in support of DOE's national security and energy missions often draw heavily upon capabilities we have developed in support of our environmental mission.

Some of the factors affecting the PNNL's functional cost profile include:

- 1). PNNL is a multi-program laboratory with a diverse customer base: DP, EE, EH, EM, ER, FE, NE, NN, PO, RW, and Work For Others.
- 2). Also, one of the provisions of Battelle's contract with DOE is a unique agreement called a Use Permit. This agreement combines Battelle and government-owned facilities in a consolidated laboratory where Battelle can conduct work for DOE as well as other government agencies and private businesses on a cost-reimbursable basis. The physical resources of the consolidated laboratory are valued at approximately \$650 million.
- 3). We actively occupy 98 buildings and another 29 buildings in standby mode.
- 4). FY2001 year-end headcount was 3572.

Trends:

The Functional Support Costs to Total Costs ratio increased slightly from FY 2000.

	FY 2000	FY 2001
Total Functional Support Costs as a % of Total Costs	36%	37%

Variance analysis (Explaining variances from prior year greater than 10 percent)

- a). Executive Direction cost is down in this category because of costs associated with our private business that did not reoccur in FY01 such as relocation costs for the executive staff going to UT Battelle were accrued in FY00 and reimbursed in FY01. In addition, there was a staff member transferred out in FY01 driving our costs down.
- b). Procurement costs are down due to the reorganization of this group and FTE reductions.
- c). Program/Project Planning & Control is down due to FTE reductions from the demand for project management specialists falling off slightly on our direct work.
- d). Information/Outreach Activities increased due to furthering both government funded and contractor-funded technology programs.
- e). Environmental costs increased due to emphasis on pollution prevention, greening of our cleaning chemicals and the IOP's program.
- f). Safety and Health costs have increased due to conscious management investments in this area concerning VPP program, hazard analysis, the chemical management system the electrical safety assessment.

g). Facilities Management increased in FY 01 due to the addition of two leased buildings Sigma II and the User Housing Facility as well as the cost associated with furnishings and modifications to occupy the Sigma II building. Each time a building is added there is the increased costs for building management and other costs associated with the operation of the building. Also, PNNL is making a conscious effort to pay down the mortgage associated with our energy savings performance contract; roughly \$1M was expended in FY01 towards this end.

h). Maintenance costs are showing a modest reduction through our continuing focused efforts to decrease our maintenance cost. More of our maintenance is preventive and less is routine or emergency. PNNL is resolving maintenance issues before they result in problems. In addition, a building was demolished that was included in this category in FY00. This was a non-recurring cost. Grounds maintenance has made great strides in reducing cost by removing labor intensive landscaping and replacing it with natural grasses, revising mowing and fertilization procedures to help with reducing water consumption.

i). Safeguards and Security cost increase was driven by new direct funding/workscope authorized the Laboratory due to the heightened concern surrounding security issues.

j). Logistics support increase was based upon increased usage in the Vehicle pool, transportation costs in B&U and the relocations service center.

k). Laboratory/Technical support increase is due to increased demand and the usage on several service centers increased.

l). Management/Award/Incentive Fee- PNNL earned an outstanding performance rating in FY01 plus booked \$700K of associated fee from FY00.

m). Taxes – In CY97, PNNL accrued \$850K for the estimated tax liability due to the State of New Mexico for gross tax receipts. In FY01, BMI confirmed that they would not pass the cost on to PNNL and the accrual was reversed. Also, in FY00 a refund request for an R&D credit for the Washington state Business and Occupation tax was requested. Washington State paid a partial refund of \$231K in FY01. PNNL is continuing to appeal business and occupation tax credits for the years 1995 to 1999 and we are hopeful we will continue to get additional credits. In addition, the FY00 tax was inadvertently overstated due to the omission of the business occupation tax credit of \$1.5M. PNNL’s taxes should have been shown at \$1,940.9 in FY00.

n). The other category is itemized below:

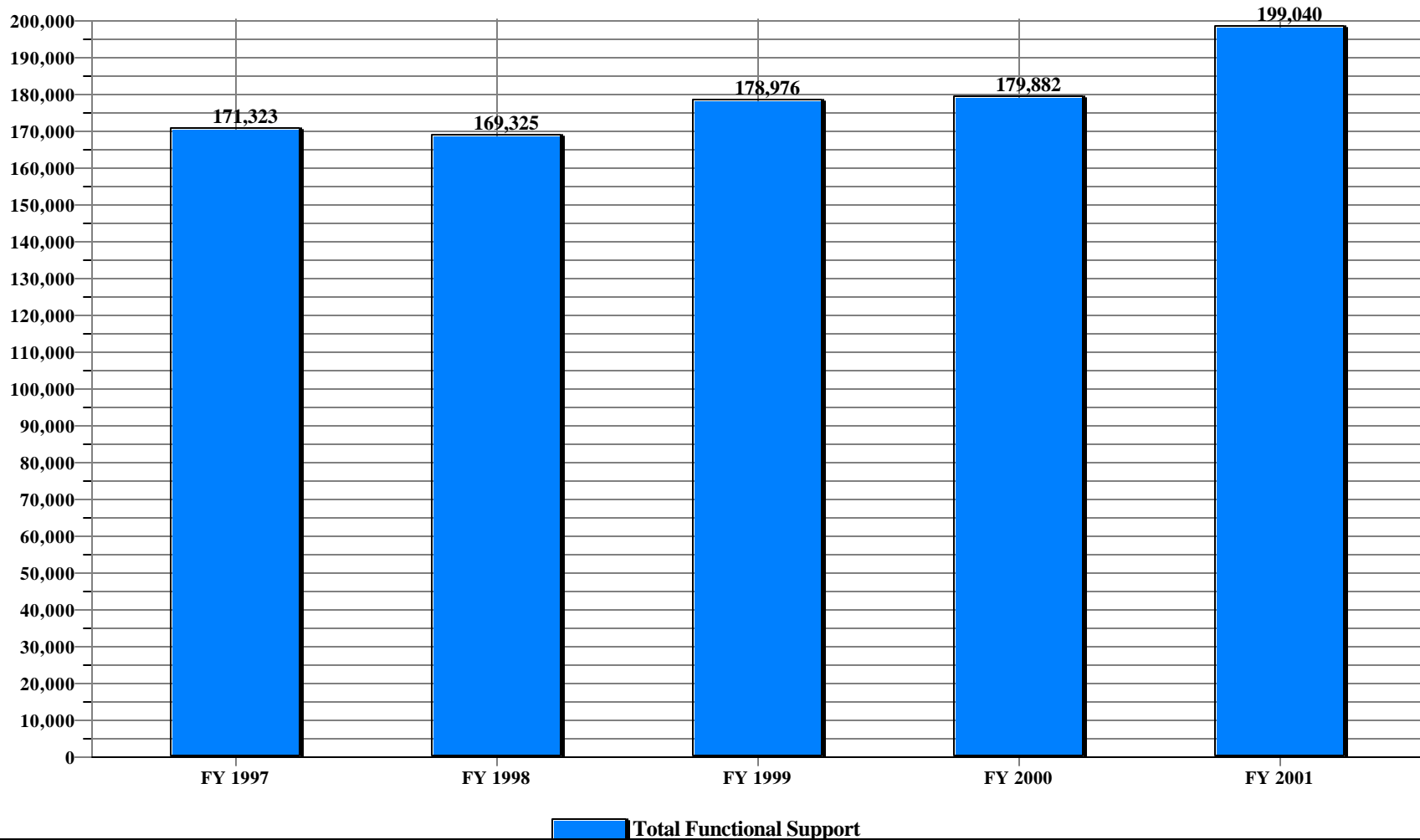
Other	FY00	FY01
Program Development & Mgmt	\$20,027	\$19,703
Insurance	281	394
	<u>\$20,308</u>	<u>\$20,097</u>



## Trends in Total Functional Support Cost Categories

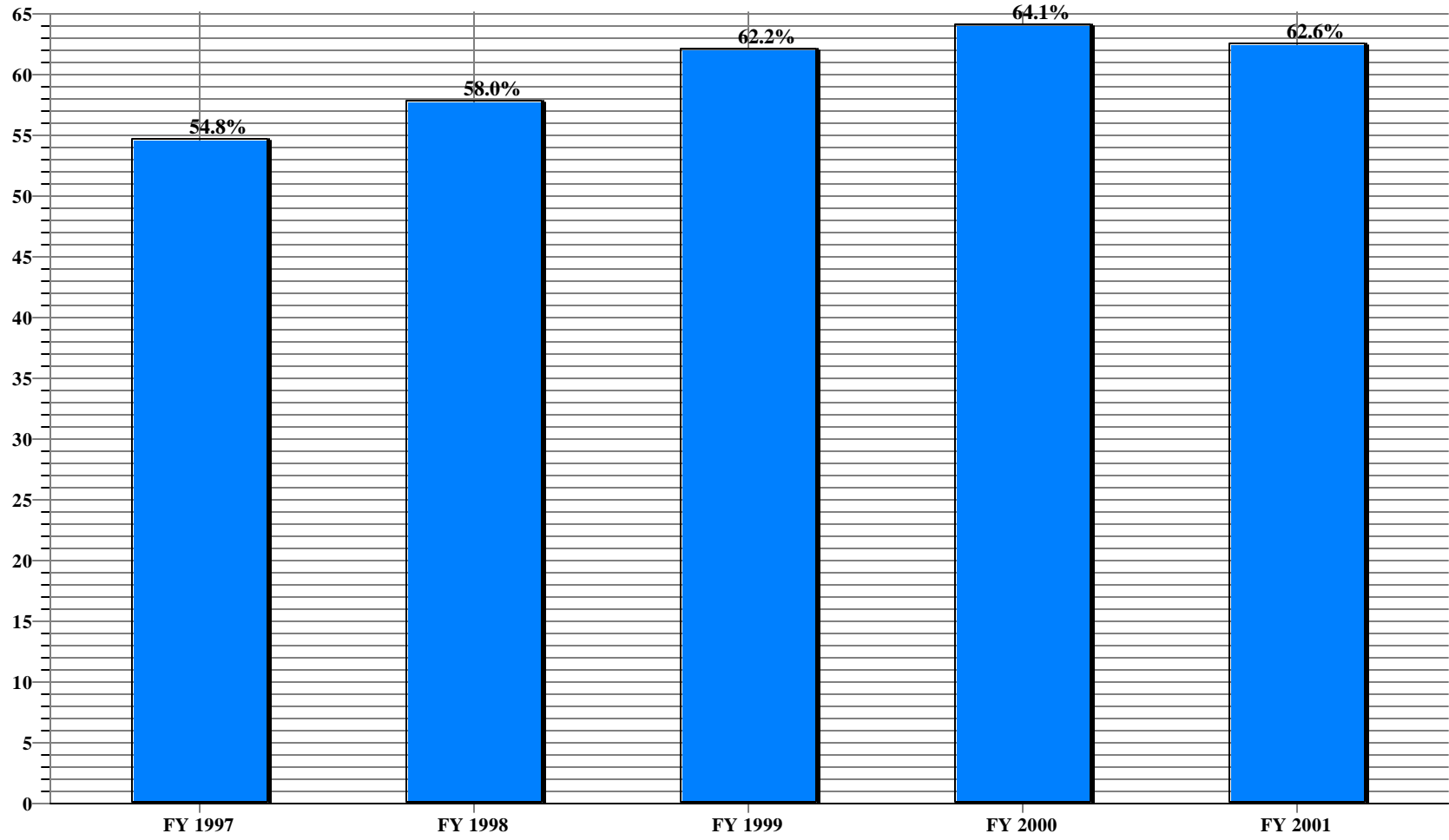
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	1,655	1,863	1,841	1,232	1,015	-640	-38.7%
HUMAN RESOURCES	5,057	5,038	5,019	4,863	4,525	-532	-10.5%
CFO	1,975	3,191	3,783	2,835	2,763	788	39.9%
PROCUREMENT	2,597	2,493	2,702	2,296	2,745	148	5.7%
LEGAL	1,135	1,205	1,145	1,342	1,014	-121	-10.7%
CENTRAL ADMIN SERVICES	2,844	3,403	2,838	2,767	2,848	4	0.1%
PROGRAM/PROJECT CONTROL	803	789	994	988	1,521	718	89.4%
INFORMATION OUTREACH	1,297	992	825	421	444	-853	-65.8%
INFORMATION SERVICES	10,390	13,548	8,230	7,621	8,819	-1,571	-15.1%
OTHER	9,981	3,324	254	194	5,593	-4,388	-44.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>37,734</b>	<b>35,846</b>	<b>27,631</b>	<b>24,559</b>	<b>31,287</b>	<b>-6,447</b>	<b>-17.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	7,864	9,754	9,429	9,299	9,576	1,712	21.8%
SAFETY AND HEALTH	19,823	17,280	26,479	29,638	30,681	10,858	54.8%
FACILITIES MANAGEMENT	6,911	11,001	11,848	10,259	12,206	5,295	76.6%
MAINTENANCE	35,943	41,245	37,510	37,649	37,621	1,678	4.7%
UTILITIES	7,519	6,566	6,401	7,173	9,516	1,997	26.6%
SAFEGUARDS AND SECURITY	33,072	23,851	39,406	42,143	43,940	10,868	32.9%
LOGISTICS SUPPORT	4,373	5,732	4,547	3,953	7,188	2,815	64.4%
QUALITY ASSURANCE	3,130	1,765	1,232	1,202	2,520	-610	-19.5%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>118,635</b>	<b>117,194</b>	<b>136,852</b>	<b>141,316</b>	<b>153,248</b>	<b>34,613</b>	<b>29.2%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	14,857	16,219	14,220	13,438	13,898	-959	-6.5%
TAXES	97	66	273	569	607	510	525.8%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>14,954</b>	<b>16,285</b>	<b>14,493</b>	<b>14,007</b>	<b>14,505</b>	<b>-449</b>	<b>-3.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>171,323</b>	<b>169,325</b>	<b>178,976</b>	<b>179,882</b>	<b>199,040</b>	<b>27,717</b>	<b>16.2%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	116,868	103,766	92,787	92,602	104,797	-12,071	-10.3%
Capital Construction	24,664	18,940	15,794	7,950	14,021	-10,643	-43.2%
<b>TOTAL MISSION DIRECT</b>	<b>141,532</b>	<b>122,706</b>	<b>108,581</b>	<b>100,552</b>	<b>118,818</b>	<b>-22,714</b>	<b>-16.0%</b>
<b>Total Costs</b>	<b>312,855</b>	<b>292,031</b>	<b>287,557</b>	<b>280,434</b>	<b>317,858</b>	<b>5,003</b>	<b>1.6%</b>
<b>Total Costs w/o Construction</b>	<b>288,191</b>	<b>273,091</b>	<b>271,763</b>	<b>272,484</b>	<b>303,837</b>	<b>15,646</b>	<b>5.1%</b>
General Support % Total Co	12.1%	12.3%	9.6%	8.8%	9.8%		-2.2%
Mission Support % Total Cos	37.9%	40.1%	47.6%	50.4%	48.2%		10.3%
Site Specific % Total Costs	4.8%	5.6%	5.0%	5.0%	4.6%		-0.2%
Total Support % Total Costs	54.8%	58.0%	62.2%	64.1%	62.6%		7.9%
Total Support % Total Costs w/o Construct	59.4%	62.0%	65.9%	66.0%	65.5%		6.1%

**US Department of Energy  
Total Functional Support  
Pantex**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	171,323	169,325	178,976	179,882	199,040

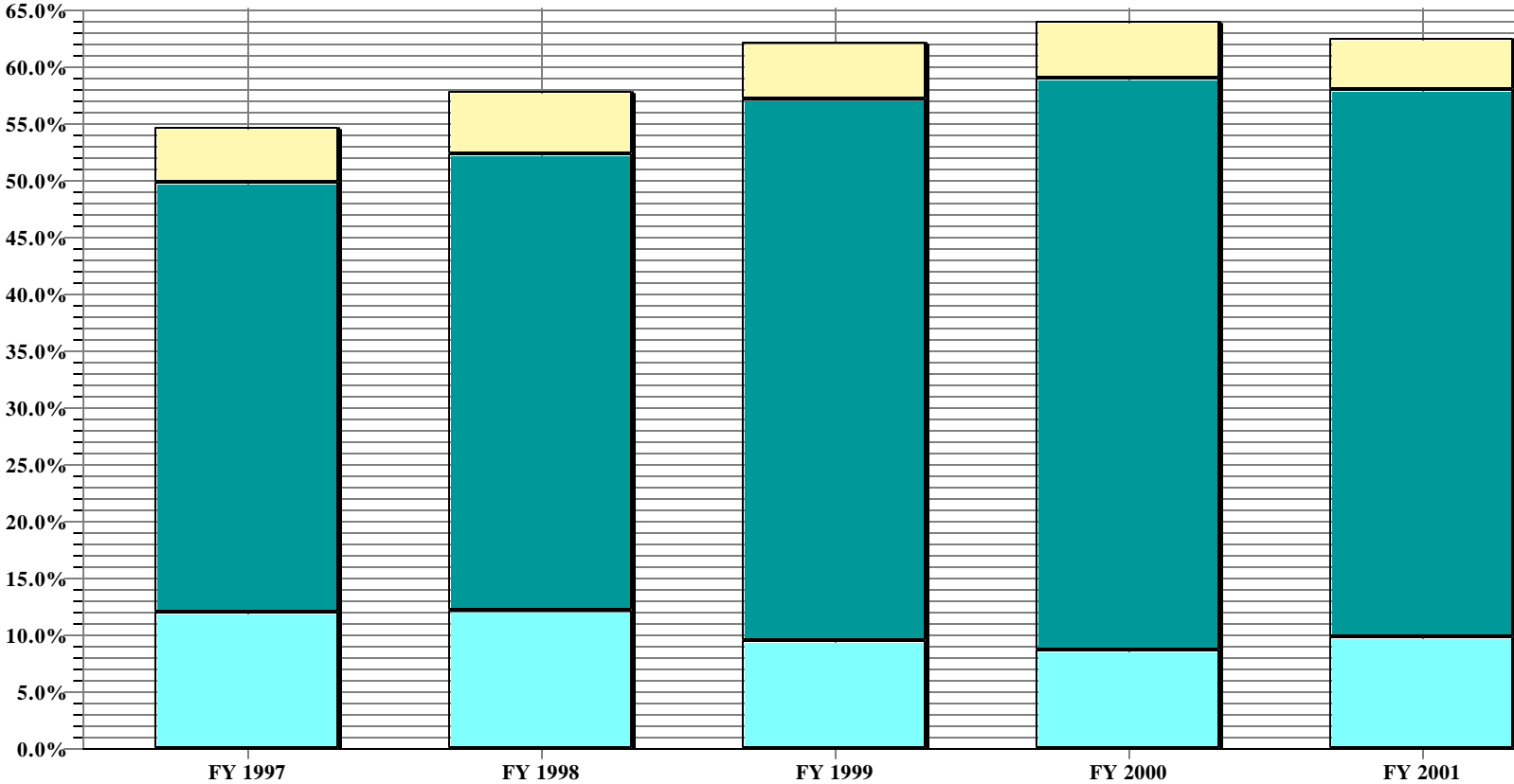
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Pantex**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	54.8%	58.0%	62.2%	64.1%	62.6%

**US Department of Energy  
Percent of Support Category to Total  
Pantex**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.1%	12.3%	9.6%	8.8%	9.8%
<b>Mis Sup</b>	37.9%	40.1%	47.6%	50.4%	48.2%
<b>Site Specific</b>	4.8%	5.6%	5.0%	5.0%	4.6%

**FY2001 Functional Support Cost Site Profile**  
**(\$000's)**

Contractor: BWXT Pantex, LLC  
Mason & Hanger Corporation / Pantex Plant  
Field Office: USDOE, Office of Amarillo Site Operations (OASO)

**Background:**

Pantex Plant is located on 16,000 acres northeast of Amarillo, Texas. The site houses approximately 690 building containing approximately 3 million square feet and employs over 3,000 people. Constructed by the U.S. Army in 1942 as a conventional bomb plant, Pantex was decommissioned after World War II and sold to Texas Tech University as excess government property. In 1951, the Atomic Energy Commission reclaimed 10,000 acres of the site for nuclear weapons work. The remaining 6,000 acres were reclaimed by 1989 and are leased from Texas Tech.

Pantex assumed responsibility for weapons maintenance and modification in the mid-1960s when plants that had been performing those tasks closed. With the closure of the AEC Burlington Plant in Iowa in 1975, Pantex became the nation's only assembly and disassembly point for nuclear weapons.

The Pantex Plant mission functions include the fabrication of chemical explosives; development work in support of the design laboratories; pit storage; and nuclear weapons assembly, disassembly, testing, quality assurance, repair, retirement and disposal.

- Assembly/Disassembly – Pantex is the only facility in the DP complex where quantity assembly/disassembly of nuclear weapons is performed.
- Plutonium Pit Storage – Pantex provides the location for strategic reserve pit storage and the storage location for surplus pits pending disposition.
- Other – Pantex fabricates high explosives used in nuclear weapons and performs modifications and surveillance of nuclear weapons that are scheduled to remain in the stockpile. Pantex is participating with other Defense plants and laboratories in the Enhanced Surveillance Program to better predict component and material lifetimes, a critical element of the Stockpile Life Extension Program. Pantex also participates in the Advanced Design and Production Technologies (ADAPT) Campaign to provide the manufacturing complex with advanced capabilities for designing, developing and certifying components and systems, and for producing, assembling, and delivering components and systems products.

**Trends:**

	<u>FY1997</u>	<u>FY1998</u>	<u>FY1999</u>	<u>FY2000</u>	<u>FY2001</u>
General Support	37,734	35,846	27,631	24,559	31,287
Mission Support	118,635	117,194	136,852	141,316	153,248
Site Specific	<u>14,954</u>	<u>16,285</u>	<u>14,493</u>	<u>14,007</u>	<u>14,505</u>
Total	171,323	169,325	178,976	179,882	179,882
Total Site Costs	312,855	292,031	287,557	280,434	317,858
Total (FSC) as a % of Total	55%	58%	62%	64%	63%

**Trends – Continued:**Major Anomalies:

## General Support FY1997

A Voluntary Separation Incentive Package (VSIP) was paid out in FY1997 at a cost of \$9M, causing General Support to spike uncharacteristically high that year.

## General Support FY1998

Cost was inflated again in FY1998 due to a Franchise Fee Liability in the amount of \$3 million and a big effort by Information Services to become Y2K compliant.

## General Support FY1999 – FY2000

As a result of VSIP costs coming to an end and the absence of any large liabilities, FY1999 and FY2000 General Support costs experienced a decline.

## General Support FY2001

General Support costs spiked again in FY2001 due to unique occurrences that could not be avoided. A mid-year change in contractor required Senior Management from both BWXT and MHC to work together for several months in an effort to transition Pantex over as efficiently and effectively as possible. As a result of the September 11<sup>th</sup> attack on our nation, Pantex was closed for 8 days with only essential personnel reporting to work.

## Mission Support FY1998 - FY2000

The increases from FY1998 through FY2000 reflect a change in planning/tracking strategy. Effort previously reported as Mission Direct, such as Security and Safety, can be isolated more easily and separated from the overall project cost. The increase found in this area is offset by a decrease in Mission Direct. It should be noted that this is not intended to imply a decrease in Mission Direct work. In most cases, the effort reported for Mission Support categories is tied directly to a particular weapon program.

### Mission Support FY2001

The ability to pull cost out and apply it to Functional Cost category increases each year as work is defined at lower and lower levels within our Work Authorization Control System. In addition to this trend; however, there were other occurrences in FY2001 that drove cost higher for this category than in years past. The spike in utilities cost experienced around the country inflated our Utility cost by more than \$2 million. The September 11<sup>th</sup> attack drove Security costs up through a heightened security stance. The increases evident in other areas within Mission Support are a direct reflection of the increase in Mission work that Pantex was able to achieve for FY2001.

### Site Specific FY1997 and FY1998

The variances from year to year within the Site Specific category are a reflection of our Management/Award Fee/Incentive Fee. The number of incentivized projects increased in FY1997 and FY1998, resulting in an increase in fee earned by the plant.

### Major Cost Drivers:

When comparing Pantex with other sites, it is important to note that the costs for the Safeguards and Security program at Pantex are directly related to the quantity, configuration and multiple locations of nuclear material, including Category 1A, on site. All security planning, analysis and program execution is driven by a mandated denial strategy and is more resource intensive than a containment strategy.

Due to a change in contractor in February of FY2001, the organizational structure at the plant was changed. Departments were created, deleted and combined to fit Management's vision of how the work should be done. The result is a slightly different roll-up of cost in many of the individual categories within each section.

### **Cost Savings Initiatives:**

Over the past several years, the requirements to support the Pantex mission have increased. Additionally, the Enhanced Surveillance Program and the Advanced Design and Production Technologies Program have been added to achieve the objectives of stockpile stewardship. Safety enhancements continue to be identified and implemented, and plant infrastructure support is a continuing need. Pantex has supported this increased work scope in part through cost savings achieved from efficiency gains. BWXT Pantex has committed to \$25 million in productivity improvements for FY2002, which will allow the site to perform an equivalent amount of unplanned work. Examples of past efficiencies achieved by the plant include reductions in travel cost due to a new policy implemented in FY 1998. That same year, a sick-leave buy back plan was initiated that has resulted in an increase in productivity. More recent examples include BWXT's ability to maintain a repackaging rate of more than 200 pits per month since April 2001. This is a dramatic improvement over the previous year, when we averaged only 76 per month. The entire SI repackaging process has been reviewed, with efficiencies identified that should continue to significantly reduce cost in this area. In addition, fifty Six Sigma Black Belt candidates were trained in FY2001 and each one of them

had a project oriented to efficiencies and/or cost savings assigned to them. Procurement has experienced a cost savings as a result of their Procurement specialist initiative. The purchase of a disintegrator system has enabled the plant to destroy classified and sensitive media in a more efficient manner, thereby cutting the manpower required for that effort. Additional savings are anticipated based on a decreased need for shredder replacements throughout the plant. From a Corporate stand-point, BWXT Pantex contributed approximately \$500k in corporate funds to get a jump start on addressing critical site needs. An additional \$500k will be spent on these Corporate AIM teams (Assess, Improve, Modernize) in FY2002.

**Other**

<u>General Supt-Other</u>	<u>FY1997</u>	<u>FY1998</u>	<u>FY1999</u>	<u>FY2000</u>	<u>FY2001</u>
VSIP	9,828	191	84	63	8
Franchise Fee Liability		2,998			
Transition Cost					2,347
Plant Close due to 9/11					3,082
Sandia/Tri-Lab	13	30	18	15	12
OASO Misc Expenses	<u>140</u>	<u>105</u>	<u>152</u>	<u>116</u>	<u>141</u>
Total Other	9,981	3,324	254	194	5,590

VSIP – Voluntary Separation Incentive Package was offered in FY1997 in an effort to downsize. This resulted in a reduction in force of approximately 350 people.

Franchise Fee Liability – Accrued cost resulting from a Texas Franchise Tax Audit covering report years FY1991-FY1994.

Transition Cost – Mason & Hanger Corp. lost the contract at the Pantex Plant in FY2000 and was forced to remove most of the Senior Management. The transition period was lengthy and during the process, senior management from both companies were actively preparing for the change.

September 11<sup>th</sup> Attack – The plant was closed to non-essential personnel for 8 days, resulting in a sizeable loss in work time. The pay received by employees during that time was captured as Plant Close versus authorized work initiatives and cannot be assigned to a specific functional cost category. The increased effort by Security as a result of the attack is reported as Safeguards & Security under Mission Support.

Sandia/Tri-Lab – Personnel from other sites are housed on-site in an oversight/support capacity. The costs associated with them are for miscellaneous supplies provided by Pantex.

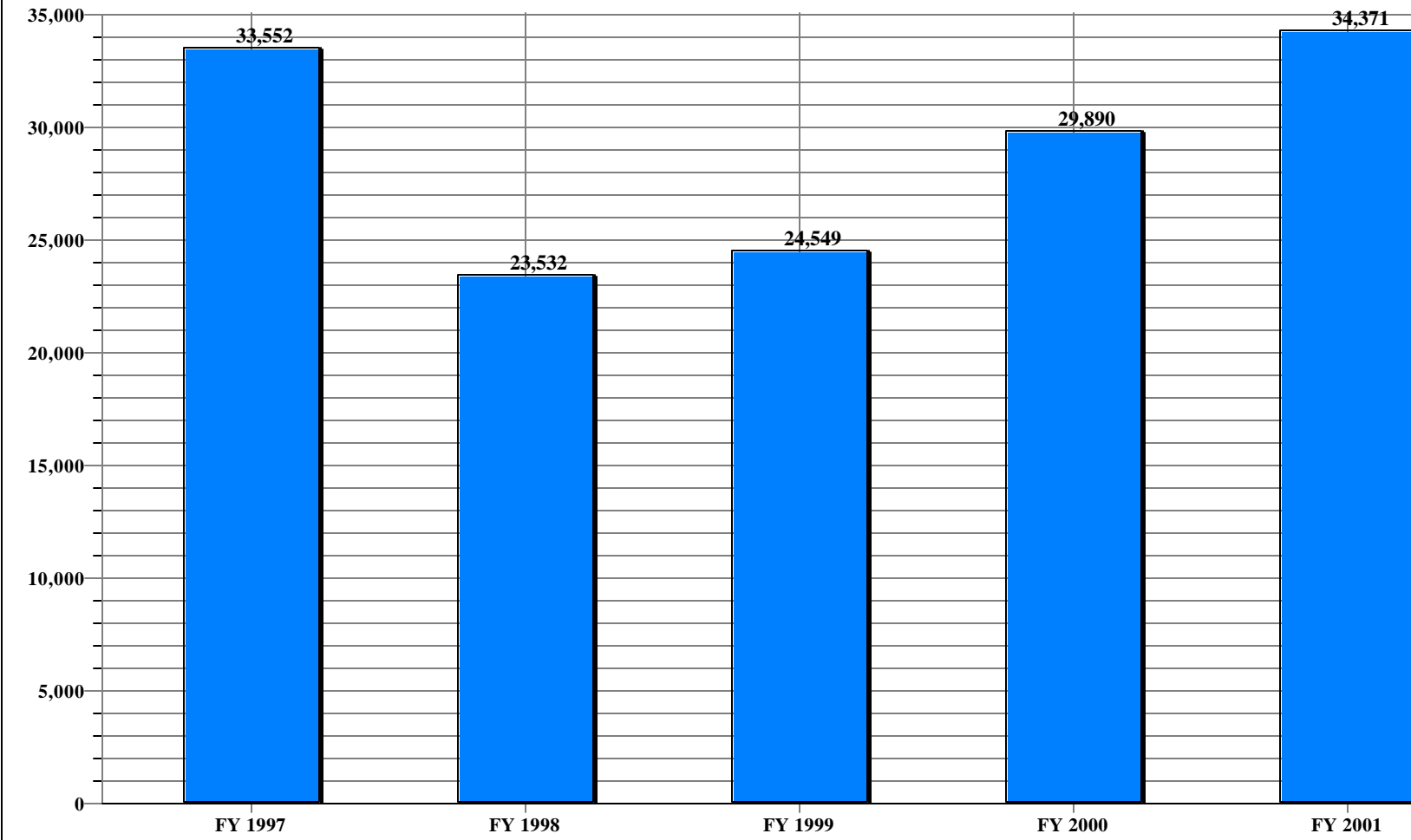
OASO Miscellaneous Expenses – cost incurred by USDOE, Office of Amarillo Site Operations through the contractor’s financial system for items such as software training and supplies from General Stores.



## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	934	972	840	814	757	-177	-19.0%
HUMAN RESOURCES	770	786	821	989	1,037	267	34.7%
CFO	975	1,025	1,007	1,176	1,225	250	25.6%
PROCUREMENT	507	471	483	551	601	94	18.5%
LEGAL	12	6	2	0	35	23	191.7%
CENTRAL ADMIN SERVICES	173	158	176	193	232	59	34.1%
PROGRAM/PROJECT CONTROL	860	617	630	663	692	-168	-19.5%
INFORMATION OUTREACH	2,085	2,641	2,681	2,843	2,908	823	39.5%
INFORMATION SERVICES	2,307	2,285	2,543	2,695	3,155	848	36.8%
OTHER	2,813	-969	-1,156	-383	224	-2,589	-92.0%
<b>TOTAL GENERAL SUPPORT</b>	11,436	7,992	8,027	9,541	10,866	-570	-5.0%
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	260	135	128	433	1,214	954	366.9%
SAFETY AND HEALTH	1,384	1,325	1,510	2,275	2,711	1,327	95.9%
FACILITIES MANAGEMENT	2,671	2,674	2,611	2,522	2,580	-91	-3.4%
MAINTENANCE	8,336	4,446	4,851	6,117	7,100	-1,236	-14.8%
UTILITIES	3,813	1,909	2,185	3,335	3,899	86	2.3%
SAFEGUARDS AND SECURITY	798	798	859	957	1,055	257	32.2%
LOGISTICS SUPPORT	634	637	664	772	760	126	19.9%
QUALITY ASSURANCE	542	385	386	445	518	-24	-4.4%
LABORATORY/TECHNICAL SUPPORT	693	831	918	1,083	1,258	565	81.5%
<b>TOTAL MISSION SUPPORT</b>	19,131	13,140	14,112	17,939	21,095	1,964	10.3%
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	2,985	2,400	2,410	2,410	2,410	-575	-19.3%
TAXES	0	0	0	0	0	0	0.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	2,985	2,400	2,410	2,410	2,410	-575	-19.3%
<b>TOTAL FUNCTIONAL SUPPORT</b>	33,552	23,532	24,549	29,890	34,371	819	2.4%
<b>MISSION DIRECT</b>							
Mission Direct Operation	28,752	25,078	26,018	31,447	35,997	7,245	25.2%
Capital Construction	2,856	8,135	6,767	7,008	5,729	2,873	100.6%
<b>TOTAL MISSION DIRECT</b>	31,608	33,213	32,785	38,455	41,726	10,118	32.0%
<b>Total Costs</b>	65,160	56,745	57,334	68,345	76,097	10,937	16.8%
<b>Total Costs w/o Construction</b>	62,304	48,610	50,567	61,337	70,368	8,064	11.5%
General Support % Total Co	17.6%	14.1%	14.0%	14.0%	14.3%		-3.3%
Mission Support % Total Cos	29.4%	23.2%	24.6%	26.2%	27.7%		-1.6%
Site Specific % Total Costs	4.6%	4.2%	4.2%	3.5%	3.2%		-1.4%
Total Support % Total Costs	51.5%	41.5%	42.8%	43.7%	45.2%		-6.3%
Total Support % Total Costs w/o Construct	53.9%	48.4%	48.5%	48.7%	48.8%		-5.0%

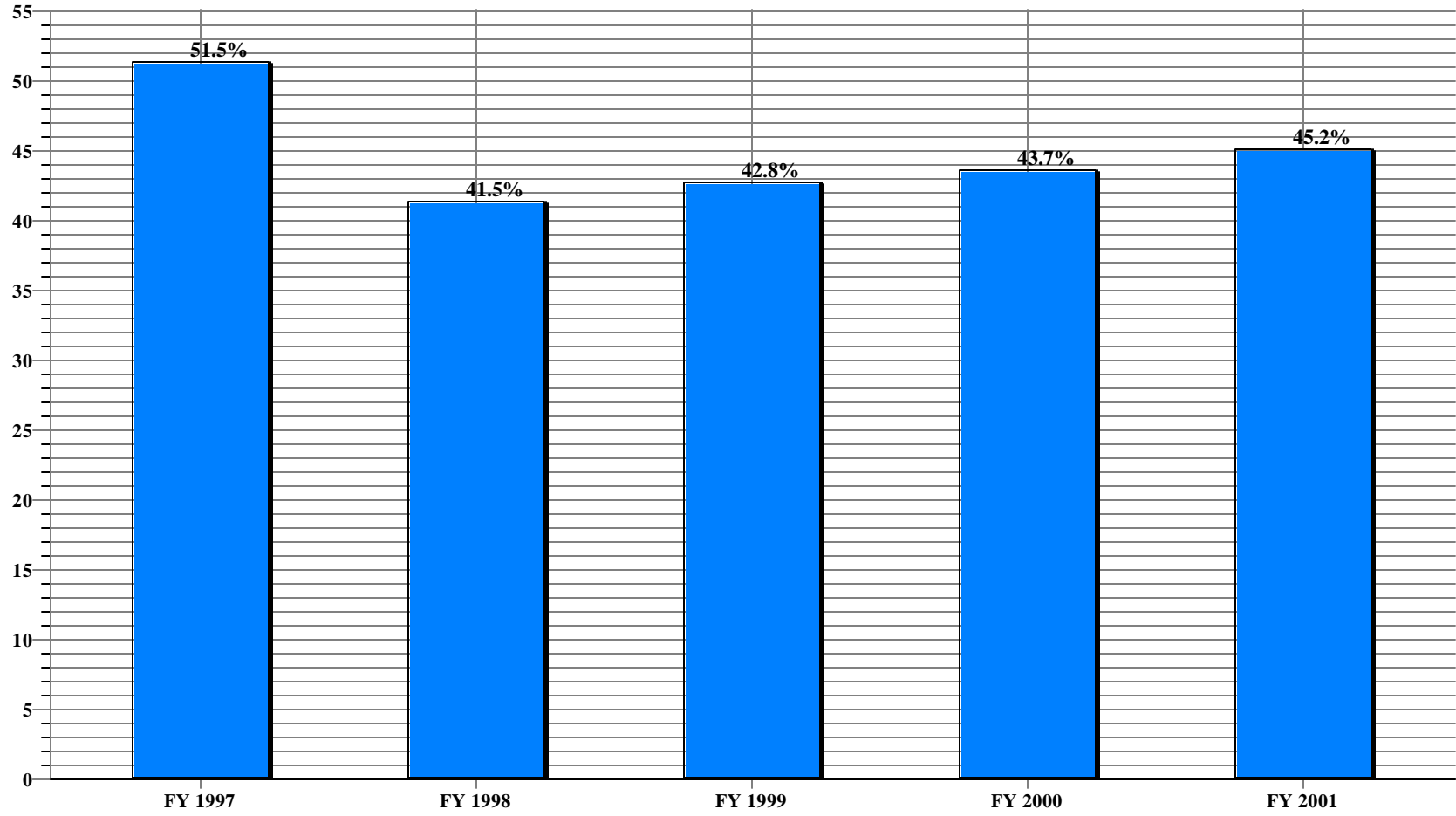
US Department of Energy  
Total Functional Support  
Princeton



Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	33,552	23,532	24,549	29,890	34,371

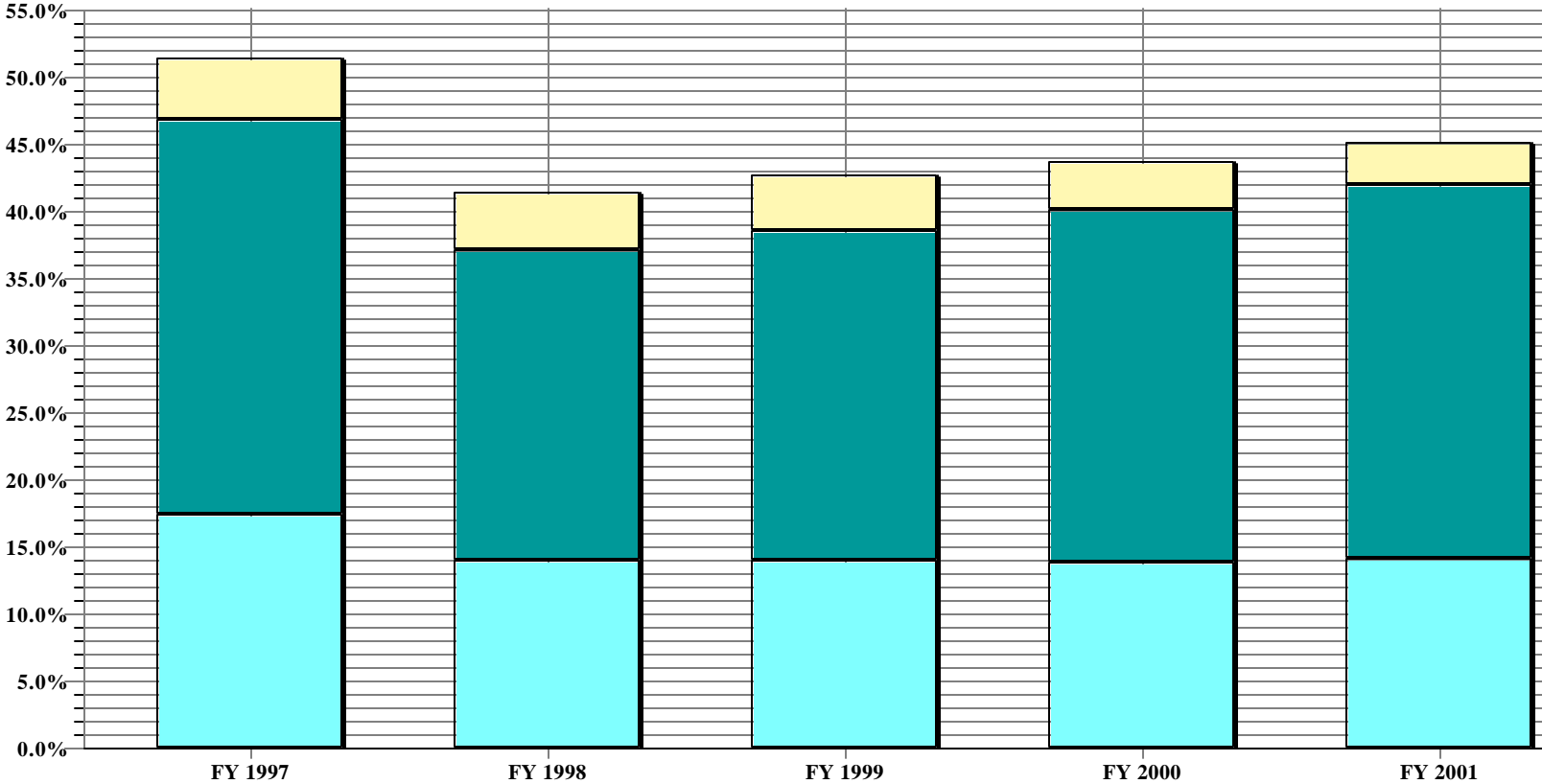
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Princeton**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	51.5%	41.5%	42.8%	43.7%	45.2%

**US Department of Energy  
Percent of Support Category to Total  
Princeton**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	17.6%	14.1%	14.0%	14.0%	14.3%
<b>Mis Sup</b>	29.4%	23.2%	24.6%	26.2%	27.7%
<b>Site Specific</b>	4.6%	4.2%	4.2%	3.5%	3.2%

**PRINCETON PLASMA PHYSICS LABORATORY  
FY 2001 FUNCTIONAL SUPPORT COST REPORT  
SITE PROFILE**

Background

The Princeton Plasma Physics Laboratory (PPPL) is a Collaborative National Center for plasma and fusion science. Its primary mission is to develop the scientific understanding and key innovations which will lead to an attractive fusion energy source. This research program is carried out in close collaboration with other national and international institutions. Associated missions at PPPL include conducting world-class research along the broad frontier of plasma science and providing the highest quality of scientific education.

PPPL is managed by Princeton University. The Laboratory is sited on 88 acres of Princeton University's James Forrestal Campus, about four miles from the main campus. There are two sites at the Laboratory: C-Site that houses most of the Laboratory's workforce and the smaller experimental devices; and D-Site which is the site of the National Spherical Torus Experiment (NSTX) that began operations in FY 1999. D-Site was initially constructed for the Tokamak Fusion Test Reactor (TFTR) that ceased operations in FY 1997. TFTR is now in the process of being decommissioned over a three-year period that began in FY 2000.

PPPL's FY 2001 funding was \$75 million, of which \$71 million was provided from the Office of Fusion Energy Sciences, \$3 million from other DOE programs (primarily Safeguards and Security), and \$1 million from other federal agencies, non-federal sponsors and other DOE laboratories. The Laboratory costed approximately \$76 million which included \$1 million of carryover from FY 2000. The number of regular employees at PPPL is approximately 400; not included are approximately 90 limited duration employees and 80 subcontractors, graduate students and visiting research staff.

Functional Support Costs – Trends

The reduction in functional costs from FY 1997 to FY 1998 is primarily due to the termination of experimental operations on the Tokamak Fusion Test Reactor in April 1997. The "Other" General Support category includes expenses arising from the termination of this program. In FY 1997 \$2.6 million was accrued for termination costs relating to the reduction-in-force in June/July 1997 following the shutdown of TFTR. Actual termination costs were less than the costs accrued and appear as cost credits in subsequent fiscal years.

The increase in total Laboratory costs from FY 1999 to FY 2001 is primarily due to the decontamination and decommission of TFTR which began in FY 2000 and for which approximately \$10 million in funding was provided by Fusion Energy Sciences in FY 2000 and \$15 million in FY 2001. Functional support costs (excluding severance costs) increased by \$4.5 million from FY 1999 to FY 2000 and \$4.3 million from FY 2000 to FY 2001. The increase by functional support category (excluding severance costs) is summarized below:

Total Functional Support Costs – FY 2000	\$30.2M
Total Functional Support Costs – FY 1999	<u>\$25.7M</u>
Increase	\$ 4.5M

Reconciliation

- Inflation Increase at approximately 3.5%	\$ .8M
- Environmental/Safety & Health	1.0M
- Maintenance	1.1M
- Utilities	1.1M
- All Other	<u>.5M</u>
Total	\$ 4.5M

Total Functional Support Costs – FY 2001	\$34.5M
Total Functional Support Costs – FY 2000	<u>\$30.2M</u>
Increase	\$ 4.3M

Reconciliation

- Inflation Increase at approximately 5.4%	\$ 1.4M
- Environmental/Safety & Health	1.1M
- Maintenance	.8M
- Information Services	.4M
- All Other	<u>.6M</u>
Total	\$ 4.3M

The majority of these increases from FY 1999 to FY 2001, other than inflation, can be attributed to the following:

- The TFTR D&D activity increased the Laboratory's need for additional resources for support activities, primarily in the Environmental and Safety and Health categories. These additional resources account for the \$1.0 million increase in the Environmental/Safety and Health support costs from FY 1999 to FY 2000 and the \$1.1 million increase from FY 2000 to FY 2001.
- The NSTX project operated for a full year in FY 2000, as compared to half a year in FY 1999, contributing approximately \$.9M to the increase in costs for maintenance and utilities from FY 1999 to FY 2000. These costs increased an additional \$.3 million from FY 2000 to FY 2001 due to operation of the neutral beam systems that began in FY2001 and significant coil repairs.
- FY 1999 utility costs include a credit adjustment from PSE&G of \$.7 million.
- Additional D-Site Caretaking activities (transformer repairs, breaker/cubicle modifications, and HVAC work) contributed approximately \$.5 million to the increase in maintenance support costs from FY 2000 to FY 2001.
- PPPL is upgrading its business computing systems. This project commenced in FY 2001. FY 2001 costs for Information Services include \$.3 million for this effort.

PPPL's Functional Support Costs as a percentage of total site costs for FY 1997 – FY 2001 are as follows:

General	<u>Support</u>	General Support Excluding <u>Termination Costs</u>	Mission <u>Support</u>	Site <u>Specific</u>
FY 1996	14.1%	14.6%	26.0%	5.0%
FY 1997	17.6%	14.1%	29.4%	5.1%
FY 1998	14.1%	15.4%	23.2%	4.9%
FY 1999	14.0%	15.7%	24.6%	5.0%
FY 2000	14.0%	14.3%	26.2%	4.2%
FY 2001	14.3%	14.4%	27.7%	3.2%

Excluding termination costs, the percentage of General Support Costs to Total Costs remains relatively constant over this five-year period. However, General Support Costs include a number of activities that may be considered “fixed” expenses, such as the Office of the Laboratory Director, and will not fluctuate from year to year regardless of the Laboratory's total costs. Mission Support Costs include both infrastructure costs and costs that are determined by PPPL's experimental program, such as electricity costs for operating experimental devices. Therefore, the percentage of Mission Support Costs to total costs may fluctuate from one fiscal year to the next primarily as a result of the nature of the research program being conducted in each fiscal year.

In years 1998 through 2001, the termination amounts excluded were credits, which explains why the percentage in column 2 is higher for those years. The reason there was credit Termination/Severance costs in 1998 through 2001 is that in 1997, the lab booked \$2,636 for termination/severance, of which a large portion was an accrual for anticipated legal action. Much of that anticipated legal action did not materialize, so the accruals were reversed in 1998, 1999, 2000, and 2001.

The Mission Direct costs reflect the transfer of Waste Management activities from Environmental Management (EM) to the Office of Science (SC) in FY 2001. Although Safeguards and Security became a direct funded program in FY 2001, these costs are reported in the S&S mission support category.

### Cost Savings Initiatives FY 1997 – FY 2001

Specific initiatives that have been implemented during this period that have resulted in support cost savings are as follows:

- Leveraging of Princeton University resources to benefit Laboratory operations – development of an improved time reporting system for biweekly and hourly staff and implementation of a PeopleSoft human resource system
- Aggressive Make or Buy analyses – PPPL performed comprehensive “Make or Buy” analyses for twelve functional areas during the past five years resulting in lower costs/improved services in four functional areas
- Aggressive/imaginative management of travel costs. Examples are:
  - Contracts were negotiated with airlines to provide reduced fares on specific city pairs
  - Extra effort has been made in using “alternative” sources to purchase airline tickets (i.e. consolidators) reducing the costs of last minute trips
  - Group travel has been arranged, wherever feasible, resulting in cost savings
- Implementation of a credit card procurement system
- Implementation of an electronic time reporting system for all Laboratory staff
- Increased use of computerization to eliminate routine manual tasks
- Elimination of low-value/no-value-added tasks
- Streamlining internal processes in order to reduce costs while continuing to satisfy DOE requirements



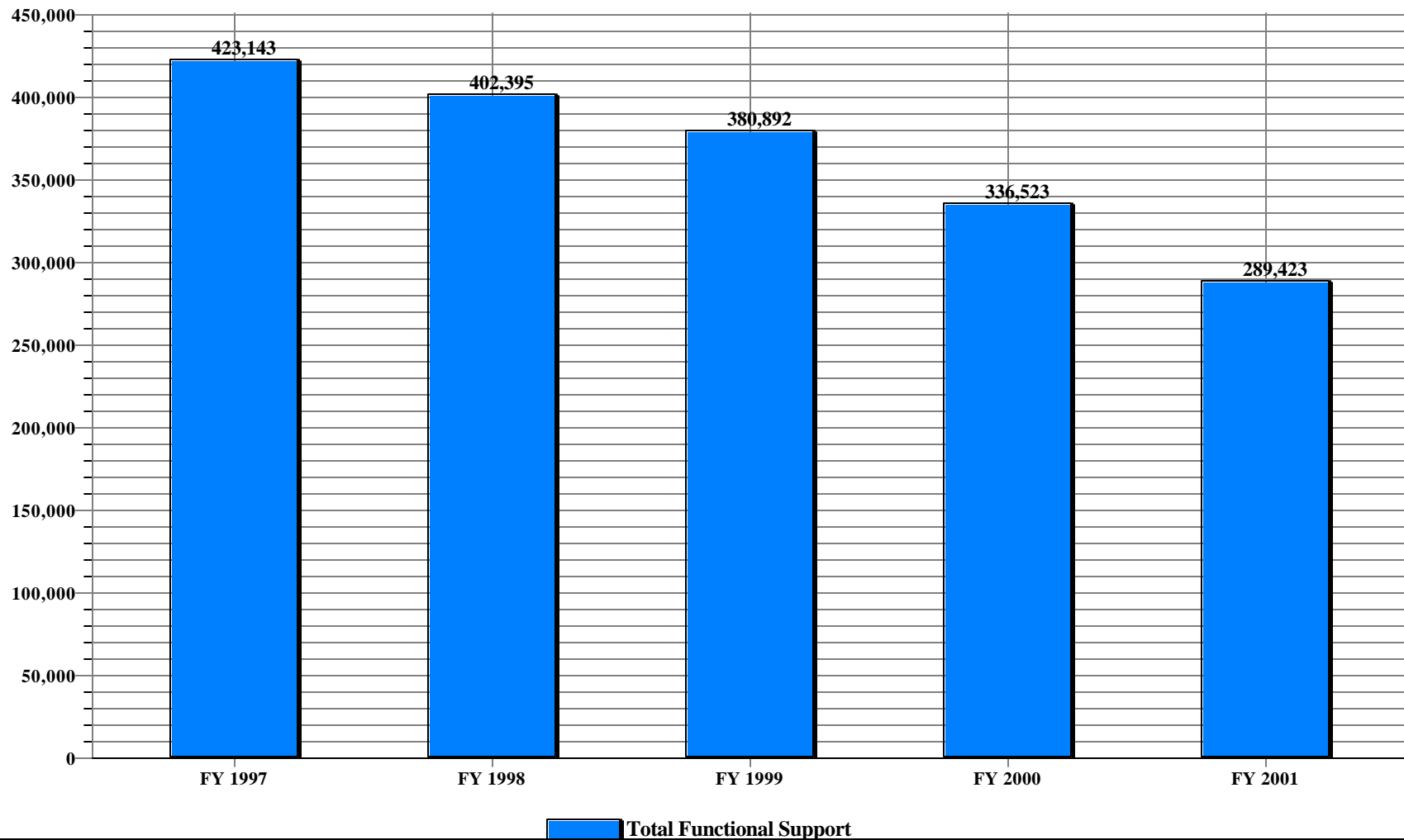
## Rocky Flats

FY 2001

## Trends in Total Functional Support Cost Categories

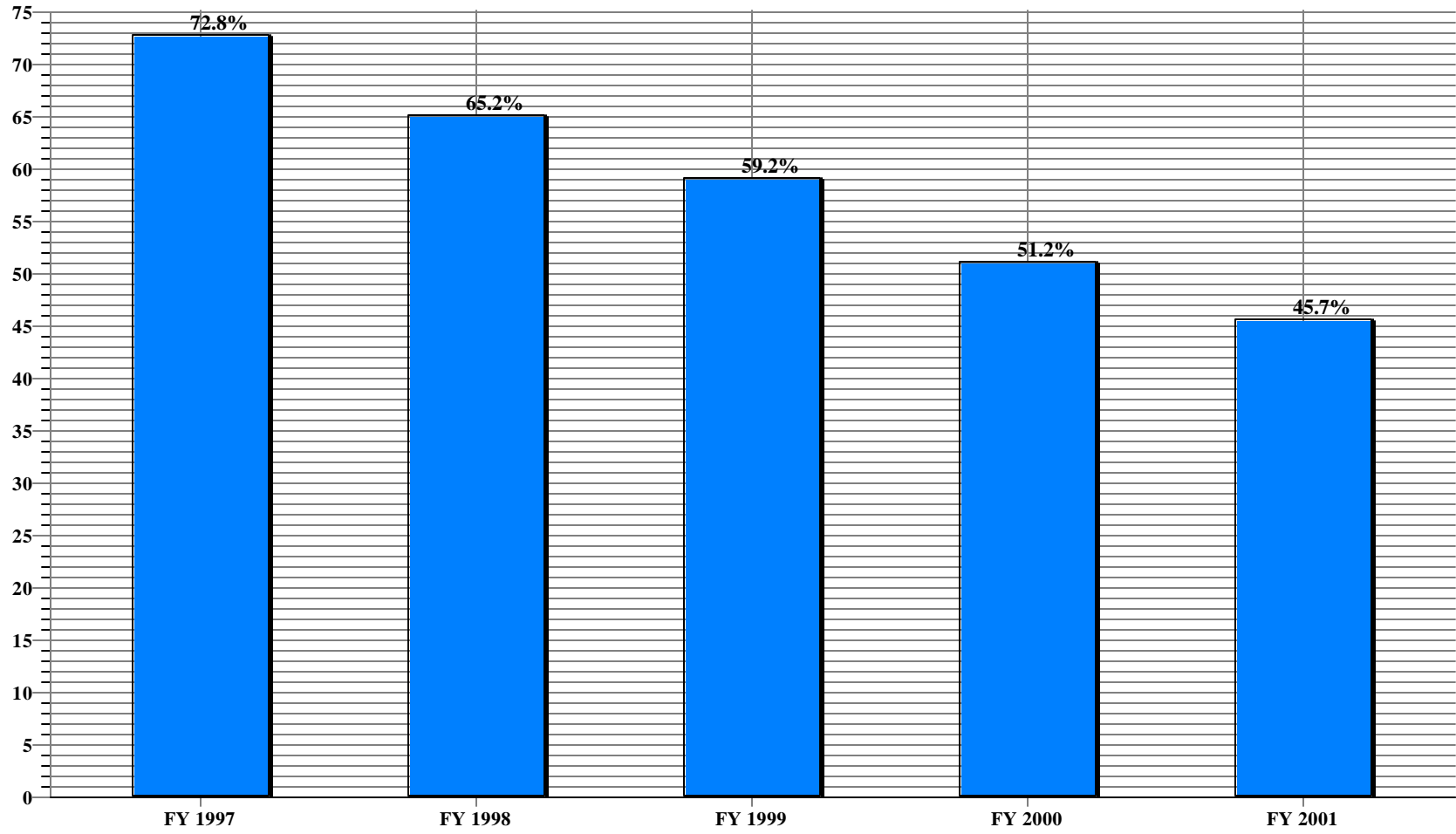
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	7,329	6,129	5,105	8,554	3,910	-3,419	-46.7%
HUMAN RESOURCES	7,723	7,266	7,634	7,988	3,493	-4,230	-54.8%
CFO	26,762	22,148	15,512	6,033	9,935	-16,827	-62.9%
PROCUREMENT	4,026	4,675	2,900	2,375	3,291	-735	-18.3%
LEGAL	1,034	1,434	1,583	875	1,160	126	12.2%
CENTRAL ADMIN SERVICES	4,591	4,022	4,864	3,970	3,397	-1,194	-26.0%
PROGRAM/PROJECT CONTROL	12,962	15,498	18,448	6,569	6,562	-6,400	-49.4%
INFORMATION OUTREACH	1,046	1,892	1,427	1,549	1,618	572	54.7%
INFORMATION SERVICES	14,301	16,432	22,571	17,920	15,830	1,529	10.7%
OTHER	12,075	13,905	9,193	22,149	10,317	-1,758	-14.6%
<b>TOTAL GENERAL SUPPORT</b>	<b>91,849</b>	<b>93,401</b>	<b>89,237</b>	<b>77,982</b>	<b>59,513</b>	<b>-32,336</b>	<b>-35.2%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	20,416	17,382	18,743	13,181	14,902	-5,514	-27.0%
SAFETY AND HEALTH	76,897	68,227	64,869	38,735	47,149	-29,748	-38.7%
FACILITIES MANAGEMENT	63,556	62,425	62,747	32,496	32,462	-31,094	-48.9%
MAINTENANCE	31,020	32,274	31,101	31,257	33,587	2,567	8.3%
UTILITIES	16,638	13,255	11,429	10,902	9,840	-6,798	-40.9%
SAFEGUARDS AND SECURITY	36,257	37,055	38,181	39,217	44,055	7,798	21.5%
LOGISTICS SUPPORT	7,919	7,891	9,202	9,645	9,118	1,199	15.1%
QUALITY ASSURANCE	6,378	7,689	6,564	2,942	1,455	-4,923	-77.2%
LABORATORY/TECHNICAL SUPPORT	20,050	16,676	12,801	19,190	13,376	-6,674	-33.3%
<b>TOTAL MISSION SUPPORT</b>	<b>279,131</b>	<b>262,874</b>	<b>255,637</b>	<b>197,565</b>	<b>205,944</b>	<b>-73,187</b>	<b>-26.2%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	51,234	44,880	35,087	60,934	23,966	-27,268	-53.2%
TAXES	929	1,240	931	42	0	-929	-100.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>52,163</b>	<b>46,120</b>	<b>36,018</b>	<b>60,976</b>	<b>23,966</b>	<b>-28,197</b>	<b>-54.1%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>423,143</b>	<b>402,395</b>	<b>380,892</b>	<b>336,523</b>	<b>289,423</b>	<b>-133,720</b>	<b>-31.6%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	116,522	175,292	239,273	310,012	341,741	225,219	193.3%
Capital Construction	41,247	39,044	22,708	10,279	2,173	-39,074	-94.7%
<b>TOTAL MISSION DIRECT</b>	<b>157,769</b>	<b>214,336</b>	<b>261,981</b>	<b>320,291</b>	<b>343,914</b>	<b>186,145</b>	<b>118.0%</b>
<b>Total Costs</b>	<b>580,912</b>	<b>616,731</b>	<b>642,873</b>	<b>656,814</b>	<b>633,337</b>	<b>52,425</b>	<b>9.0%</b>
<b>Total Costs w/o Construction</b>	<b>539,665</b>	<b>577,687</b>	<b>620,165</b>	<b>646,535</b>	<b>631,164</b>	<b>91,499</b>	<b>14.5%</b>
General Support % Total Co	15.8%	15.1%	13.9%	11.9%	9.4%		-6.4%
Mission Support % Total Cos	48.1%	42.6%	39.8%	30.1%	32.5%		-15.5%
Site Specific % Total Costs	9.0%	7.5%	5.6%	9.3%	3.8%		-5.2%
Total Support % Total Costs	72.8%	65.2%	59.2%	51.2%	45.7%		-27.1%
Total Support % Total Costs w/o Construct	78.4%	69.7%	61.4%	52.1%	45.9%		-32.6%

**US Department of Energy  
Total Functional Support  
Rocky**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	423,143	402,395	380,892	336,523	289,423

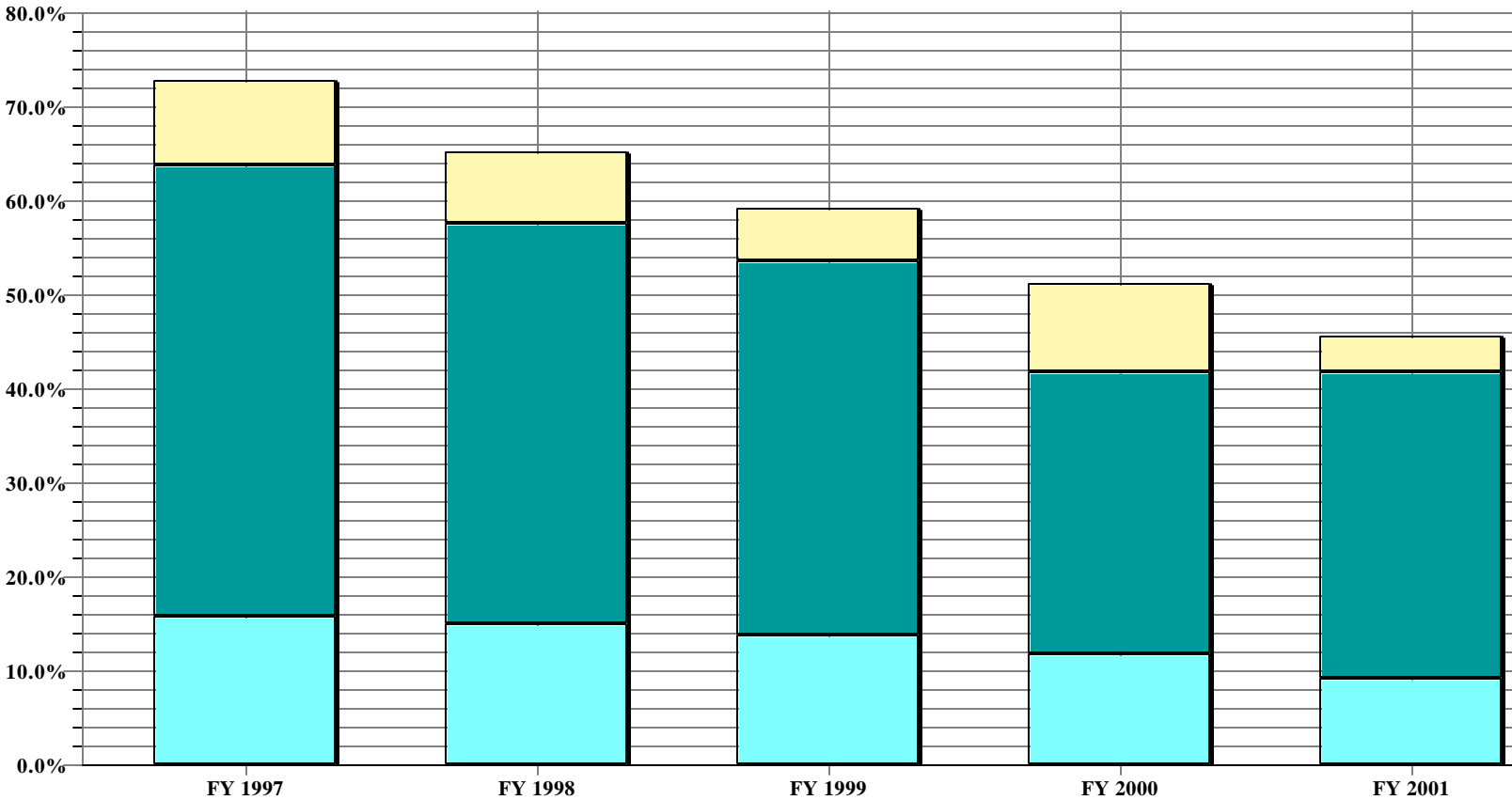
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Rocky**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	72.8%	65.2%	59.2%	51.2%	45.7%

**US Department of Energy  
Percent of Support Category to Total  
Rocky**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	15.8%	15.1%	13.9%	11.9%	9.4%
<b>Mis Sup</b>	48.1%	42.6%	39.8%	30.1%	32.5%
<b>Site Specific</b>	9.0%	7.5%	5.6%	9.3%	3.8%

# Rocky Flats Environmental Technology Site Functional Support Cost Reporting System FY01 Site Profile

**Contractor:** Kaiser-Hill Company, LLC

## Site Background and Current Mission

The Rocky Flats Environmental Technology Site (RFETS) is a former nuclear weapons production site that is now in the process of environmental cleanup and closure. The 6300-acre site, 15 miles from downtown Denver, was originally constructed in the 1950's to manufacture nuclear weapons components. Plutonium manufacturing operations were suspended in 1989 due to safety and environmental concerns, and then terminated in early 1992. In 1995 the DOE released a report that identified five RFETS facilities (Buildings 771, 776, 779, 707, and 371) on a list of the fourteen most dangerous facilities within the entire DOE complex regarding environmental, safety, and health vulnerabilities.

The Site Contractor for RFETS, Kaiser-Hill Company, L.L.C. (Kaiser-Hill), assumed site management in July 1995. Kaiser-Hill was awarded a new closure contract in February 2000. This new closure contract provides for Kaiser-Hill to achieve Site closure safely, and to close the Site by December 2006 at a cost of less than \$3.963 billion. Kaiser-Hill's Team, with approximately 5000 employees and subcontractors, is converting the legacy weapons production waste materials into forms that can be shipped offsite, and is deactivating, decommissioning and dismantling facilities. Since 1995 extraordinary increases have been achieved in waste shipments, plutonium components shipments, plutonium solutions processing, plutonium oxide and residue stabilization, beryllium shipments, chemical disposal, and property and document disposition. The site now has a single mission – the Site Closure Project, which is currently planned for accomplishment by 2006.

## Components of Functional Costs at RFETS

Dollars in Millions

	FY95	FY96	FY97	FY98	FY99	FY00	FY01
	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>	<u>Actual</u>
Functional Support:							
General Support	144.0	116.1	91.9	93.4	89.2	78.0	59.5
Mission Support	312.6	251.1	279.1	262.8	255.6	197.6	205.9
Site Specific	<u>15.0</u>	<u>52.4</u>	<u>52.1</u>	<u>46.0</u>	<u>36.0</u>	<u>61.0</u>	<u>24.0</u>
Subtotal	471.6	419.6	423.1	402.3	380.9	336.5	289.4
% of Total	71.6%	74.5%	73.3%	66.1%	59.2%	51.2%	45.7%
Mission Direct:	186.7	143.6	154.0	206.2	262.0	320.3	343.9
% of Total	28.4%	25.5%	26.7%	33.9%	40.8%	48.8%	54.3%
Total Site Cost	<u>658.3</u>	<u>563.2</u>	<u>577.1</u>	<u>608.5</u>	<u>642.9</u>	<u>656.8</u>	<u>633.3</u>

### Analysis of Functional Costs at RFETS

**General Support** – This category captures the corporate infrastructure required to manage the site operations from a business perspective. The Site Contractor, Kaiser-Hill, and its major subcontractors' management requirements are included in this category. This infrastructure is driven by both the type of contractual relationship that Kaiser-Hill has with DOE (FAR based) and by the objectives of the Site Closure Project (management systems supporting the project objectives). Between FY95 and FY01 a \$83.8 million reduction in annual General Support costs has been achieved, primarily by running the site like a business using commercial practices, challenging costs, outsourcing services, and re-engineering numerous business practices. Between FY00 and FY01 the significant changes were: a) Executive Direction decreased \$4.6 million as projected due to efficiencies planned and realized, b) CFO increased \$3.9 million due to the lost time associated with the September 11<sup>th</sup> terrorist attacks (the CFO work breakdown structure element was used to capture these lost time costs), and c) Human Resources decreased \$4.5 million as projected due to efficiencies planned and realized.

**Mission Support** – This category captures the programmatic infrastructure required to accomplish the Site Closure Project mission objective. The primary driver for the scope of work included in Mission Support is the maintenance of the safety and security envelope for each of the site facilities. This infrastructure is required to be large during the early years of the Closure Project due to the age of the facilities and the configuration of the nuclear waste, including operations management, process and facility maintenance, compliance surveillance, technical support, and development of building authorization bases. Between FY95 and FY01 a \$107 million reduction in annual Mission Support Costs has been achieved. Between FY00 and FY01 the significant changes were: a) Safety & Health increased \$8.4 million due to increased oversight to ensure the safe conduct of closure work, b) Safeguards and Security increased \$4.8 million due to increased overtime caused by attrition from the guard force in anticipation of reduction of the Protected Area, and c) Laboratory/Technical Support decreased \$5.8 million due to a reduction in analyses associated with residue stabilization and waste characterization.

**Site Specific** - This category includes the site use taxes, and the Base and Performance Incentive Fee for Kaiser-Hill and its major subcontractors. The new Kaiser-Hill contract is based on safe closure of the site by December 2006, at a cost of less than \$3.963 billion. Safe closure prior to December 2006, or at a cost of less than \$3.963 billion will result in Kaiser-Hill earning more fee. Between FY00 and FY01 a large decrease in Fee of \$37 million is shown due to fee being earned by Kaiser-Hill and its subcontractors in association with the transition from the old performance based contract to the new closure contract in FY00.

**Mission Direct** – This category includes only the specific direct work activities that stabilize nuclear material, move and ship waste, tear down facilities, and clean the site. Between FY00 and FY01 the \$32 million increase is a result of increased waste shipments off site, stabilization of plutonium metals and oxides, deactivation of nuclear buildings, and dismantlement and decommissioning of non-nuclear buildings.

### Cost Efficiencies implemented by Kaiser-Hill since FY95

From 1995 to 2001 \$182 million in total Functional Support cost reductions were achieved, as shown in the above Functional Cost summary. This is a result of formal Cost Reduction and Re-engineering initiatives; implementation of management and business systems designed specifically to support the Site Closure Project; and negotiation and implementation of the new closure contract. The most significant savings were in:

- Chief Financial Officer – Staff reductions as process streamlined and a new financial system implemented
- Central Administrative Services – Subcontracting and outsourcing document control activities, and elimination of cafeterias and other services
- Information/Outreach – Improved stakeholder communication
- Information Services – Subcontracted computer operations and services, and migration to the client server environment
- Environmental – Reduced effluent sampling and monitoring, and clean-up of contaminated areas
- Safety & Health – Streamlined radiological controls and protection procedures, graded approach to building Authorization Basis, removal of hazardous chemicals and materials from the site
- Facilities Management and Maintenance – Implementation of a new union labor agreement, improved property management, implementation of commercial maintenance practices, reduction in the site mortgage “footprint”, demolition of numerous storage tanks and facilities
- Safeguards & Security – Closure of numerous Material Access Areas, automation of site and protected areas access, shipment of classified materials off site, significant staff reductions
- Logistics – Removal of over 50,000 pieces of excess property and 700,000 pounds of scrap metal
- Quality Assurance – Streamlined site-wide procedures, and integrated the independent assessment programs across the site

Comparison of RFETS with other similar DOE sites

We believe functional costs at Rocky Flats compare favorably to those at other sites.

Composition of the "Other" Functional Cost Category

The following activities are included in the "Other" functional category:

	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
<u>Actual Costs in "Other" (\$M):</u>							
Workforce Restructuring Costs	43.5	26.9	8.3	7.7	3.2	2.1	2.7
Contractor Controlled Insurance	2.7	6.5	2.7	5.8	6.0	4.3	7.6
Accrual for Contract Close Out	0.0	0.0	0.0	0.0	0.0	15.7	0.0
Prev. Contractor Govt Rating Plan*	<u>0.0</u>	<u>0.0</u>	<u>1.1</u>	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Other	46.2	33.4	12.1	13.9	9.2	22.1	10.3

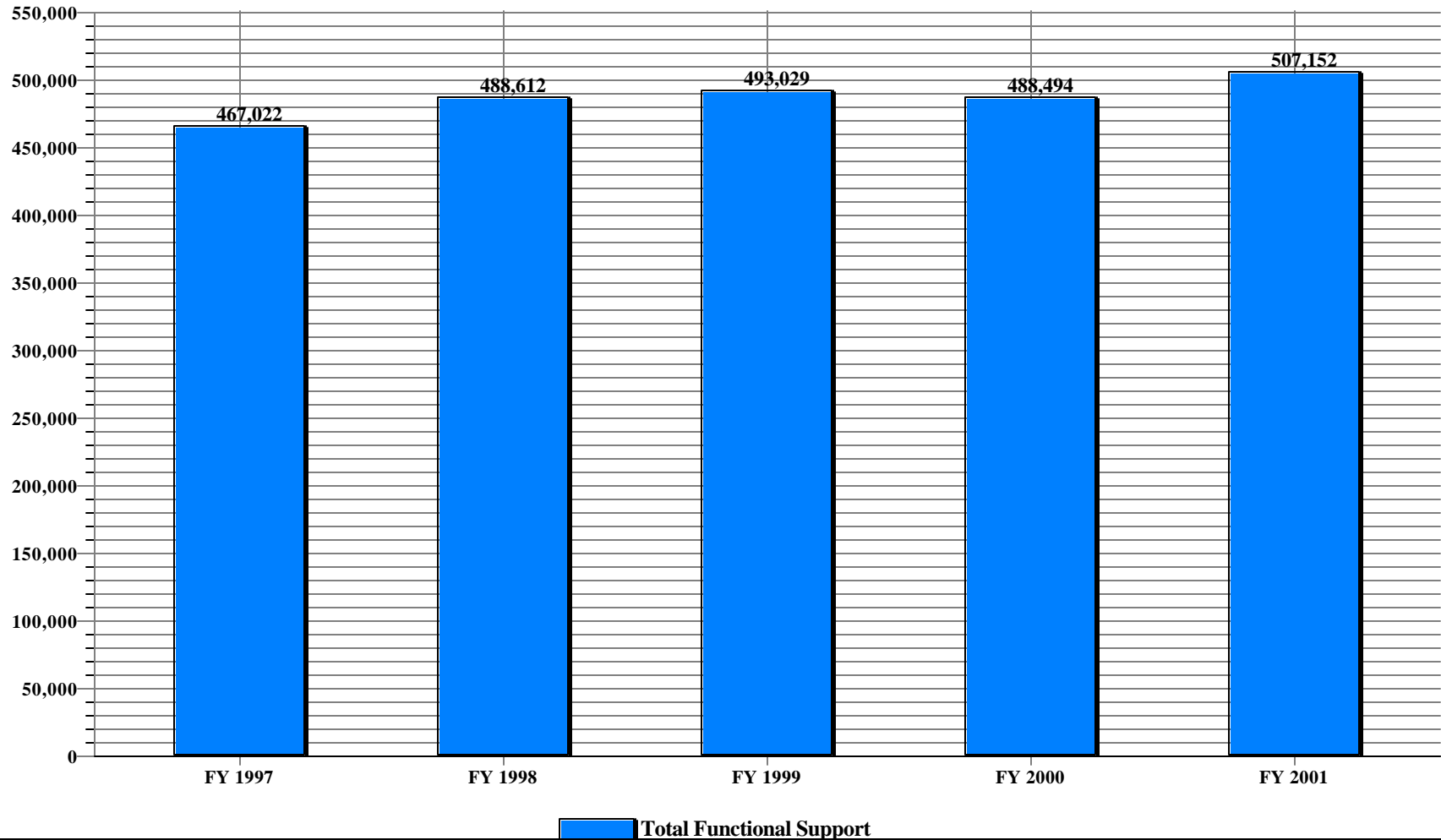
\*These legacy Workers Comp costs were included in Mission Support and Mission Direct as allocations in FY97 and FY98. In FY 99 these costs follow labor costs to the appropriate categories.



## Trends in Total Functional Support Cost Categories

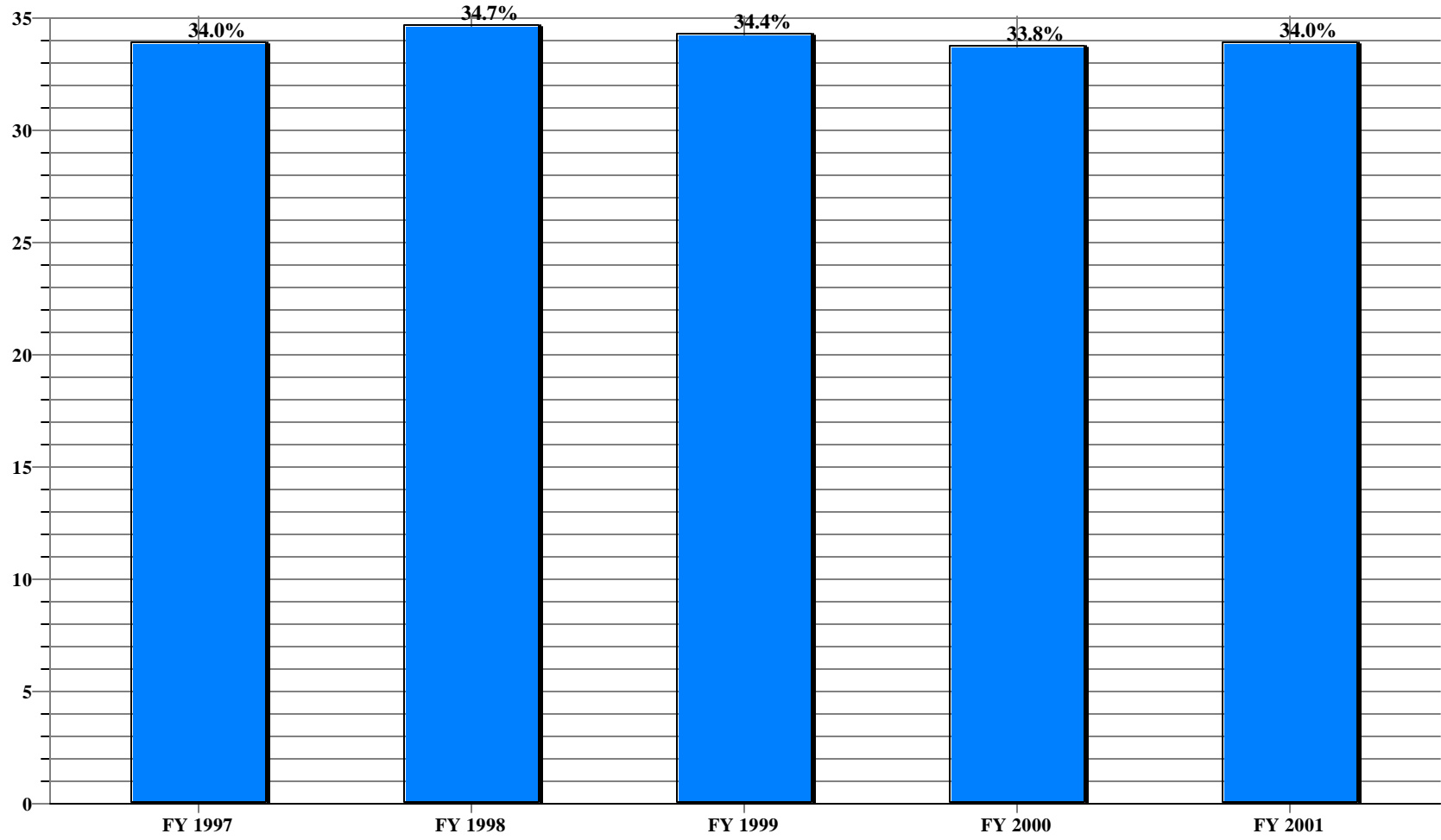
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	13,374	14,435	17,252	18,071	19,759	6,385	47.7%
HUMAN RESOURCES	18,013	18,341	17,958	21,044	24,356	6,343	35.2%
CFO	9,947	9,415	8,636	9,785	10,384	437	4.4%
PROCUREMENT	13,312	12,435	12,900	12,099	11,650	-1,662	-12.5%
LEGAL	4,665	4,591	5,460	5,557	5,385	720	15.4%
CENTRAL ADMIN SERVICES	17,210	12,419	11,416	14,211	13,997	-3,213	-18.7%
PROGRAM/PROJECT CONTROL	6,931	22,231	21,338	14,902	6,788	-143	-2.1%
INFORMATION OUTREACH	12,231	13,878	13,107	12,590	13,359	1,128	9.2%
INFORMATION SERVICES	75,168	92,949	88,507	94,440	81,025	5,857	7.8%
OTHER	28,972	11,568	17,431	6,305	2,918	-26,054	-89.9%
<b>TOTAL GENERAL SUPPORT</b>	<b>199,823</b>	<b>212,262</b>	<b>214,005</b>	<b>209,004</b>	<b>189,621</b>	<b>-10,202</b>	<b>-5.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	11,690	14,326	3,011	1,928	1,014	-10,676	-91.3%
SAFETY AND HEALTH	27,832	30,008	32,739	32,427	29,772	1,940	7.0%
FACILITIES MANAGEMENT	24,455	22,886	21,043	46,143	60,077	35,622	145.7%
MAINTENANCE	34,739	43,108	51,914	29,540	30,605	-4,134	-11.9%
UTILITIES	19,438	20,455	20,036	18,422	21,793	2,355	12.1%
SAFEGUARDS AND SECURITY	36,159	24,551	27,825	32,363	33,111	-3,048	-8.4%
LOGISTICS SUPPORT	9,622	9,182	9,135	11,405	12,683	3,061	31.8%
QUALITY ASSURANCE	1,850	319	-1	0	0	-1,850	-100.0%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>165,785</b>	<b>164,835</b>	<b>165,702</b>	<b>172,228</b>	<b>189,055</b>	<b>23,270</b>	<b>14.0%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	14,873	15,747	17,122	17,078	16,788	1,915	12.9%
TAXES	40,777	44,071	44,998	47,442	51,168	10,391	25.5%
LDRD	45,764	51,697	51,202	42,742	60,520	14,756	32.2%
<b>TOTAL SITE SPECIFIC</b>	<b>101,414</b>	<b>111,515</b>	<b>113,322</b>	<b>107,262</b>	<b>128,476</b>	<b>27,062</b>	<b>26.7%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>467,022</b>	<b>488,612</b>	<b>493,029</b>	<b>488,494</b>	<b>507,152</b>	<b>40,130</b>	<b>8.6%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	833,347	856,131	869,885	872,149	909,630	76,283	9.2%
Capital Construction	74,643	62,949	71,652	84,943	75,723	1,080	1.4%
<b>TOTAL MISSION DIRECT</b>	<b>907,990</b>	<b>919,080</b>	<b>941,537</b>	<b>957,092</b>	<b>985,353</b>	<b>77,363</b>	<b>8.5%</b>
<b>Total Costs</b>	<b>1,375,012</b>	<b>1,407,692</b>	<b>1,434,566</b>	<b>1,445,586</b>	<b>1,492,505</b>	<b>117,493</b>	<b>8.5%</b>
<b>Total Costs w/o Construction</b>	<b>1,300,369</b>	<b>1,344,743</b>	<b>1,362,914</b>	<b>1,360,643</b>	<b>1,416,782</b>	<b>116,413</b>	<b>8.2%</b>
General Support % Total Co	14.5%	15.1%	14.9%	14.5%	12.7%		-1.8%
Mission Support % Total Cos	12.1%	11.7%	11.6%	11.9%	12.7%		0.6%
Site Specific % Total Costs	7.4%	7.9%	7.9%	7.4%	8.6%		1.2%
Total Support % Total Costs	34.0%	34.7%	34.4%	33.8%	34.0%		0.0%
Total Support % Total Costs w/o Construct	35.9%	36.3%	36.2%	35.9%	35.8%		-0.1%

**US Department of Energy  
Total Functional Support  
Sandia**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	467,022	488,612	493,029	488,494	507,152

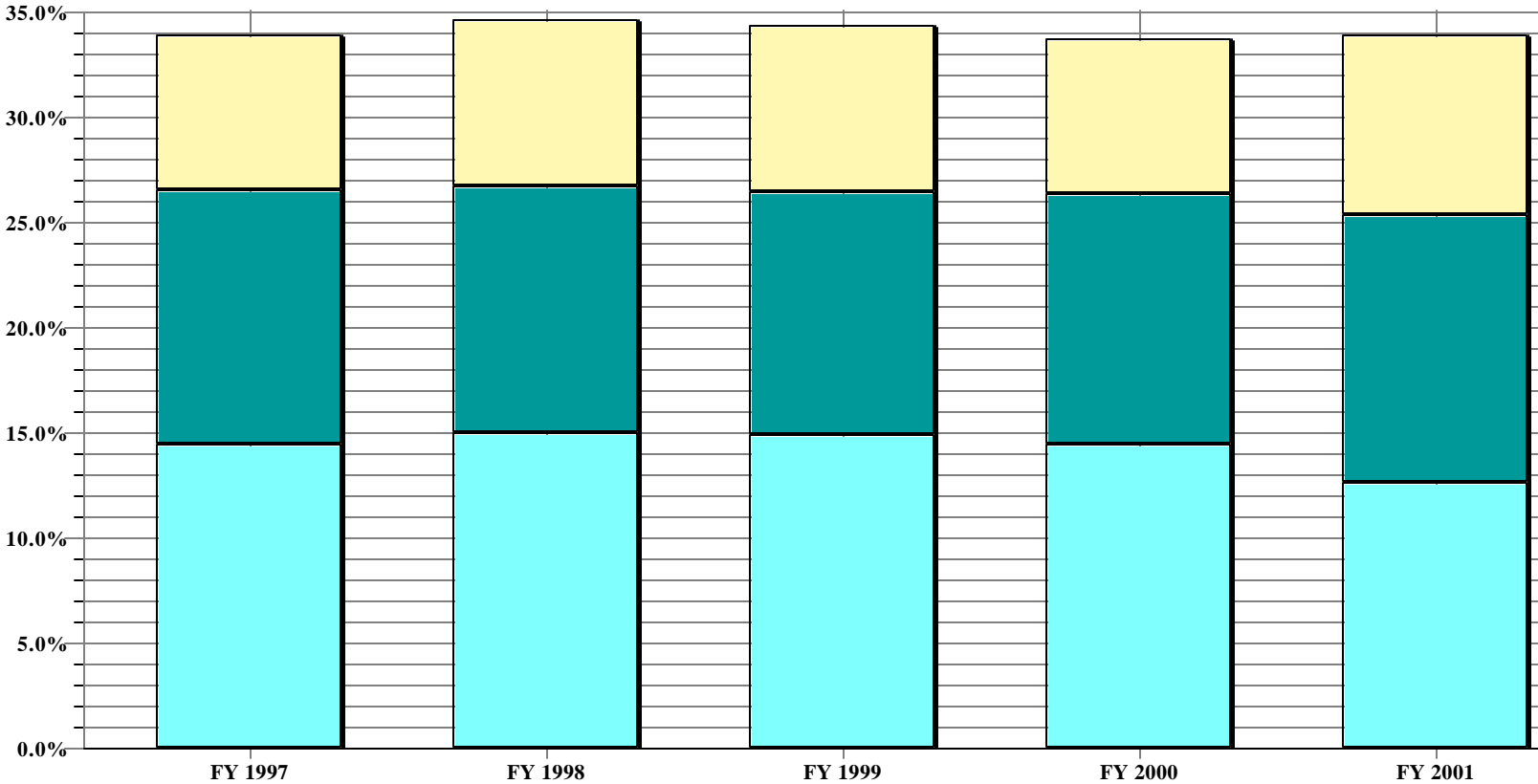
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Sandia**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	34.0%	34.7%	34.4%	33.8%	34.0%

**US Department of Energy  
Percent of Support Category to Total  
Sandia**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.5%	15.1%	14.9%	14.5%	12.7%
<b>Mis Sup</b>	12.1%	11.7%	11.6%	11.9%	12.7%
<b>Site Specific</b>	7.4%	7.9%	7.9%	7.4%	8.6%

# **Sandia National Laboratory**

Sandia is a National Security Laboratory operated for the U.S. Department of Energy by the Sandia Corporation, a Lockheed Martin Company. We design all non-nuclear components for the nation's nuclear weapons, perform a wide variety of energy research and development projects, and work on assignments that respond to national security threats -- both military and economic. We encourage and seek partnerships with appropriate U.S. industry and government groups to collaborate on emerging technologies that support our mission.

## **Mission Statement**

Sandia National Laboratories provides scientific and engineering solutions to meet national needs in nuclear weapons and related defense systems, energy security, and environmental integrity, and to address emerging national challenges for both government and industry. As a Department of Energy National Laboratory, Sandia works in partnership with universities and industry to enhance the security, prosperity, and well being of the nation.

## **Attributes of SNL – FY01 approximations**

4 major sites (Albuquerque, NM; Livermore, CA; Tonopah Test Range, NV; Kauai Test Range, HI)

Acres of land – 344,771

Number of buildings - 809

Building square footage – 6,223,461

Number of buildings leased – 14

Leased building square footage – 196,644

Employees - 7,686

## **Trends - Functional Support Costs**

In FY00 Sandia National Laboratories fully implemented a Commercial-Off-The-Shelf (COTS) software package (Oracle). During the implementation process, all functional cost elements were re-visited according to the existing functional cost documentation. Under Oracle, projects were consolidated and re-aligned for business management purposes. In FY01, we continued to make adjustments and implemented a significant COTS upgrade. As a result, certain elements may be presented differently.

For the trend analysis below, we have provided the FY97-01 amounts. In addition we have attempted to highlight the areas where material changes have taken place from FY00 to FY01.

	FY97	FY98	FY99	FY00	FY01
Total Functional Support Costs	\$467 M	\$489 M	\$493 M	\$488 M	\$507 M
Total Functional Support Costs as a % of total site costs	33.96 %	34.71 %	34.37 %	33.79 %	33.98 %

### Human Resources

Sandia made a commitment in FY00 to address its future business needs and has continued this commitment in FY01. As a result of this commitment, the Critical Skills Retraining program was instituted to identify existing personnel that could be retrained in technical areas. In addition, Sandia has also placed more emphasis on Corporate Training and Development both in NM and CA. With an increased focus on attracting more mission critical talent to the Laboratories, Sandia spent more resources on relocation in FY01. As a result of these changes, Human Resources increased in FY01 by \$3,312K.

### Program/Project Planning & Control

The \$8,114K decrease in Program/Project Planning & Control in FY01 reflects a continuation of the trend from FY99 to FY00.

### Information Services

During Sandia's conversion to COTS, significant non-recurring implementation costs were incurred in FY98, FY99, and FY00. Since these types of costs were not incurred in FY01, Information Services was reduced by \$13,415K.

### Other

The decrease of \$3,387K in FY01 is primarily due to reductions in contract closeout variances.

### Environmental

The \$914K decrease in Environmental in FY01 reflects a continuation of the trend from FY98 to FY00.

### Facilities Management

The \$13,934K increase in Facilities Management in FY01 is primarily due to increased work load for space modifications and management of new construction.

### Utilities

The \$3,371K increase in Utilities in FY01 is primarily due to increased fuel prices.

### LDRD

The LDRD increase of \$17,778 in FY01 is due to an increase in the allowable LDRD amount and an increase in total Sandia costs.

### Cost Savings Initiatives

Sandia is committed to the reduction of indirect costs as evidenced by SNL's Curtis Commitment through FY00. In May 1995, SNL made a commitment to then DOE undersecretary, Charles Curtis, to achieve cumulative indirect cost savings of \$250M over 5 years (FY96-FY00). This commitment is included in our Lab Objectives and DOE Performance Appraisal and is used to manage and reduce indirect costs. Functional support costs are not used to manage the Labs. In FY01 and beyond, Sandia is reporting cost savings under a corporate program called LM21. The savings initiatives under LM21 are not as aggressive as the Curtis Commitment, but are significant and reportable to Lockheed Martin corporation.

It should be noted that the Curtis savings are based only on activities funded through indirect (overhead, overhead sponsored service centers, organizational burden and program direction). In contrast, the Functional Support Cost Report also includes non-controllable costs such as M&O Management Fee and New Mexico Gross Receipts Taxes, as well as direct-funded functional support costs. For these reasons, it is not possible to make direct comparisons between the Curtis Commitment indirect cost savings and Functional Support Cost reductions.

Other

The table below itemizes the amount in the Other functional cost category:

Program/Project	Amount
Oracle Trans/upgrade (INV)	2,224,120.84
Brain Imaging (UNM)	11,665.01
Corporate Fees/Rebates	(59,905.61)
Contract Variance	156,273.57
Administration	585,647.34
Total	2,917,801.15



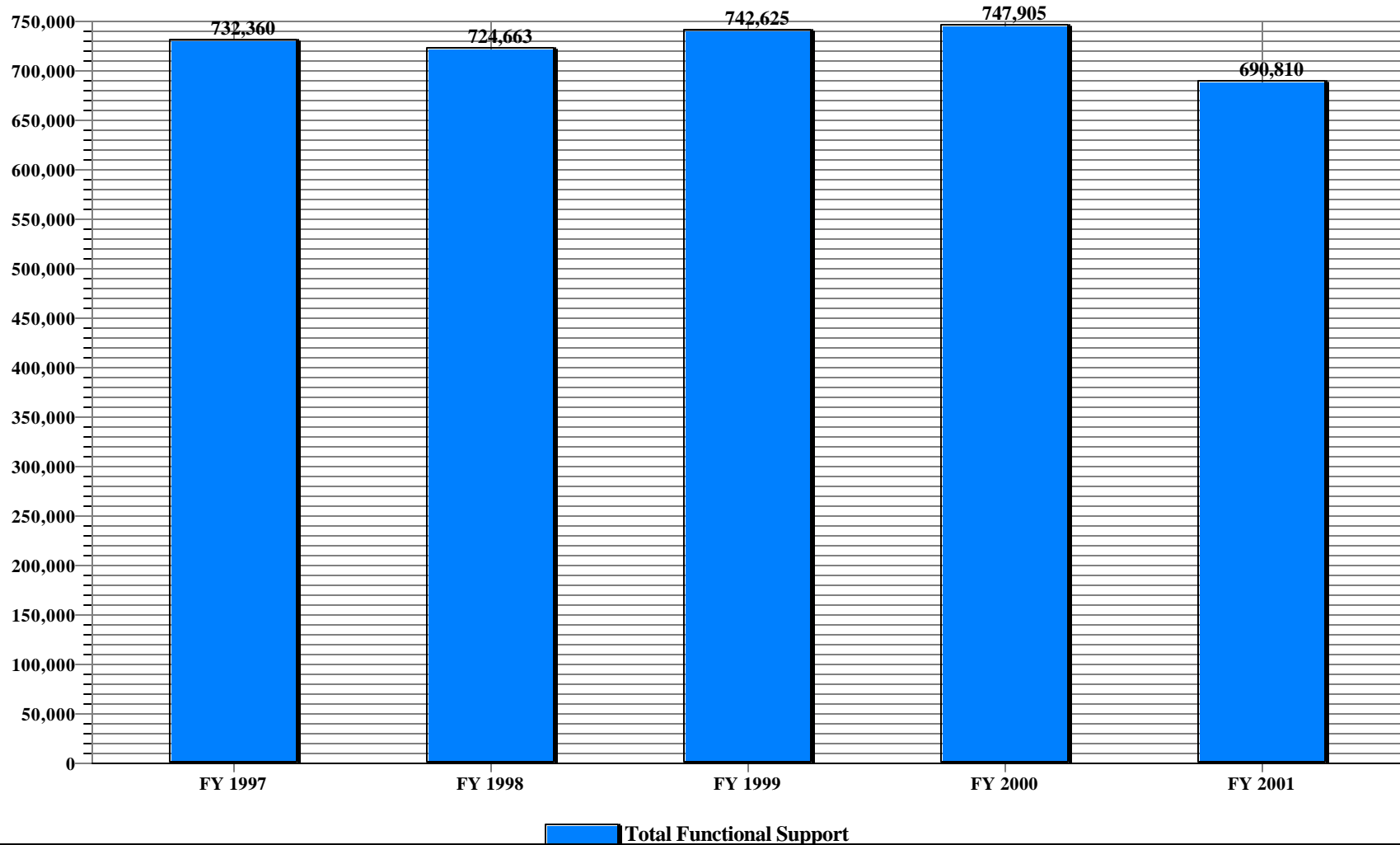
## Savannah River

FY 2001

## Trends in Total Functional Support Cost Categories

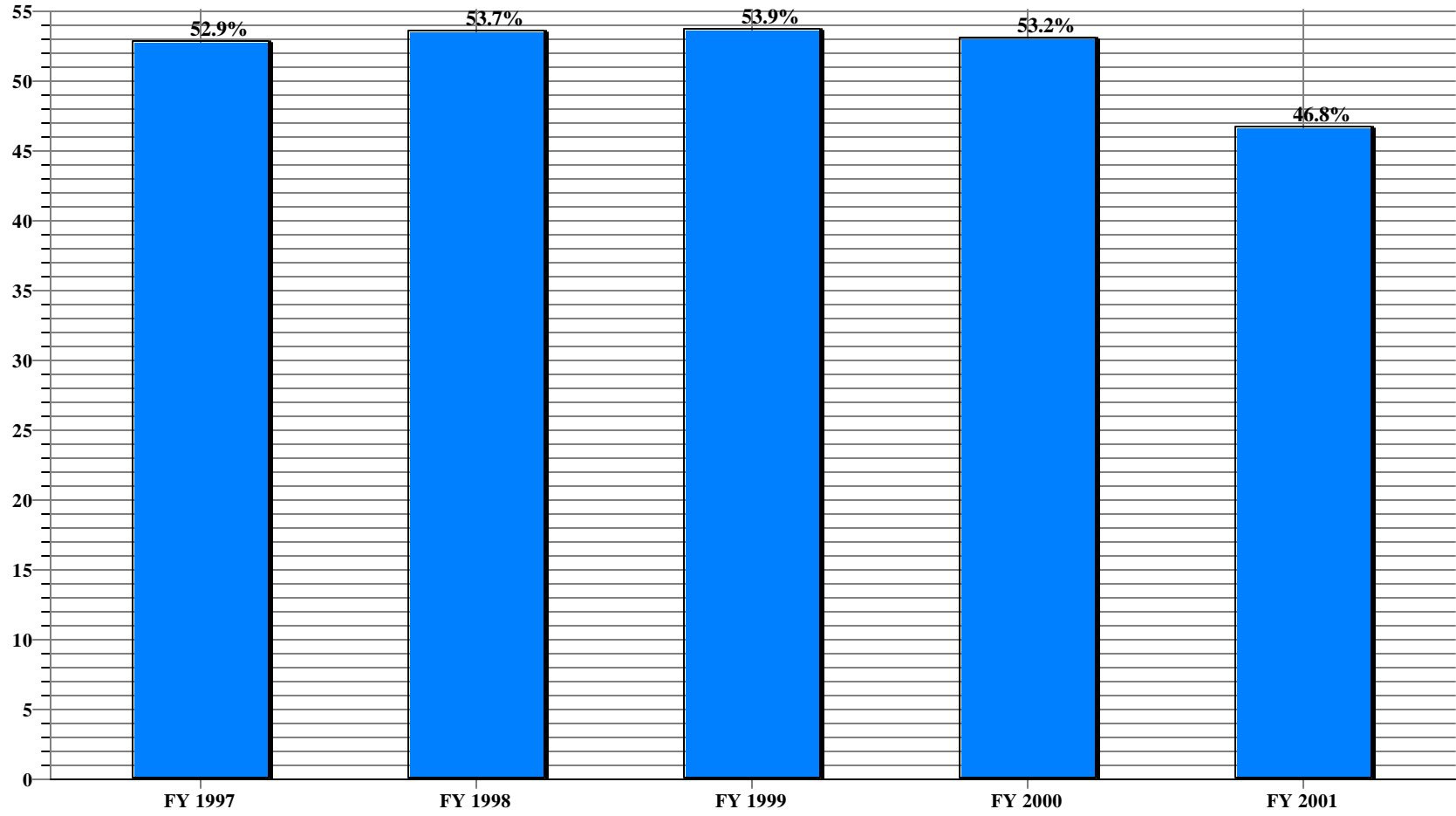
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	5,649	5,986	6,054	6,473	7,039	1,390	24.6%
HUMAN RESOURCES	14,371	14,867	13,298	13,942	13,096	-1,275	-8.9%
CFO	13,702	13,497	13,760	13,648	13,306	-396	-2.9%
PROCUREMENT	13,001	12,601	13,111	12,501	13,299	298	2.3%
LEGAL	2,145	4,031	11,662	8,470	5,742	3,597	167.7%
CENTRAL ADMIN SERVICES	23,383	17,606	18,942	18,058	17,793	-5,590	-23.9%
PROGRAM/PROJECT CONTROL	28,955	30,044	33,491	32,563	35,743	6,788	23.4%
INFORMATION OUTREACH	5,142	5,462	4,978	5,094	5,344	202	3.9%
INFORMATION SERVICES	61,795	79,863	76,814	74,037	55,758	-6,037	-9.8%
OTHER	18,402	786	824	5,489	-8	-18,410	-100.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>186,545</b>	<b>184,743</b>	<b>192,934</b>	<b>190,275</b>	<b>167,112</b>	<b>-19,433</b>	<b>-10.4%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	12,962	18,892	20,384	25,477	26,126	13,164	101.6%
SAFETY AND HEALTH	94,070	94,785	98,618	107,777	116,805	22,735	24.2%
FACILITIES MANAGEMENT	32,365	37,235	37,581	37,276	33,894	1,529	4.7%
MAINTENANCE	180,280	159,907	158,292	148,882	105,434	-74,846	-41.5%
UTILITIES	51,254	51,540	42,552	41,799	42,828	-8,426	-16.4%
SAFEGUARDS AND SECURITY	49,658	51,135	52,623	60,495	64,791	15,133	30.5%
LOGISTICS SUPPORT	15,139	17,418	15,176	17,240	19,665	4,526	29.9%
QUALITY ASSURANCE	25,202	28,473	30,643	28,544	27,658	2,456	9.7%
LABORATORY/TECHNICAL SUPPORT	18,094	23,323	23,342	23,578	24,632	6,538	36.1%
<b>TOTAL MISSION SUPPORT</b>	<b>479,024</b>	<b>482,708</b>	<b>479,211</b>	<b>491,068</b>	<b>461,833</b>	<b>-17,191</b>	<b>-3.6%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	62,366	55,736	68,754	64,819	61,894	-472	-0.8%
TAXES	4,425	1,476	1,726	1,743	-29	-4,454	-100.7%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>66,791</b>	<b>57,212</b>	<b>70,480</b>	<b>66,562</b>	<b>61,865</b>	<b>-4,926</b>	<b>-7.4%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>732,360</b>	<b>724,663</b>	<b>742,625</b>	<b>747,905</b>	<b>690,810</b>	<b>-41,550</b>	<b>-5.7%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	498,172	486,779	491,292	506,026	589,551	91,379	18.3%
Capital Construction	154,166	137,734	144,811	152,395	196,684	42,518	27.6%
<b>TOTAL MISSION DIRECT</b>	<b>652,338</b>	<b>624,513</b>	<b>636,103</b>	<b>658,421</b>	<b>786,235</b>	<b>133,897</b>	<b>20.5%</b>
<b>Total Costs</b>	<b>1,384,698</b>	<b>1,349,176</b>	<b>1,378,728</b>	<b>1,406,326</b>	<b>1,477,045</b>	<b>92,347</b>	<b>6.7%</b>
<b>Total Costs w/o Construction</b>	<b>1,230,532</b>	<b>1,211,442</b>	<b>1,233,917</b>	<b>1,253,931</b>	<b>1,280,361</b>	<b>49,829</b>	<b>3.9%</b>
General Support % Total Co	13.5%	13.7%	14.0%	13.5%	11.3%		-2.2%
Mission Support % Total Cos	34.6%	35.8%	34.8%	34.9%	31.3%		-3.3%
Site Specific % Total Costs	4.8%	4.2%	5.1%	4.7%	4.2%		-0.6%
Total Support % Total Costs	52.9%	53.7%	53.9%	53.2%	46.8%		-6.1%
Total Support % Total Costs w/o Construct	59.5%	59.8%	60.2%	59.6%	54.0%		-5.6%

**US Department of Energy  
Total Functional Support  
Savannah**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	732,360	724,663	742,625	747,905	690,810

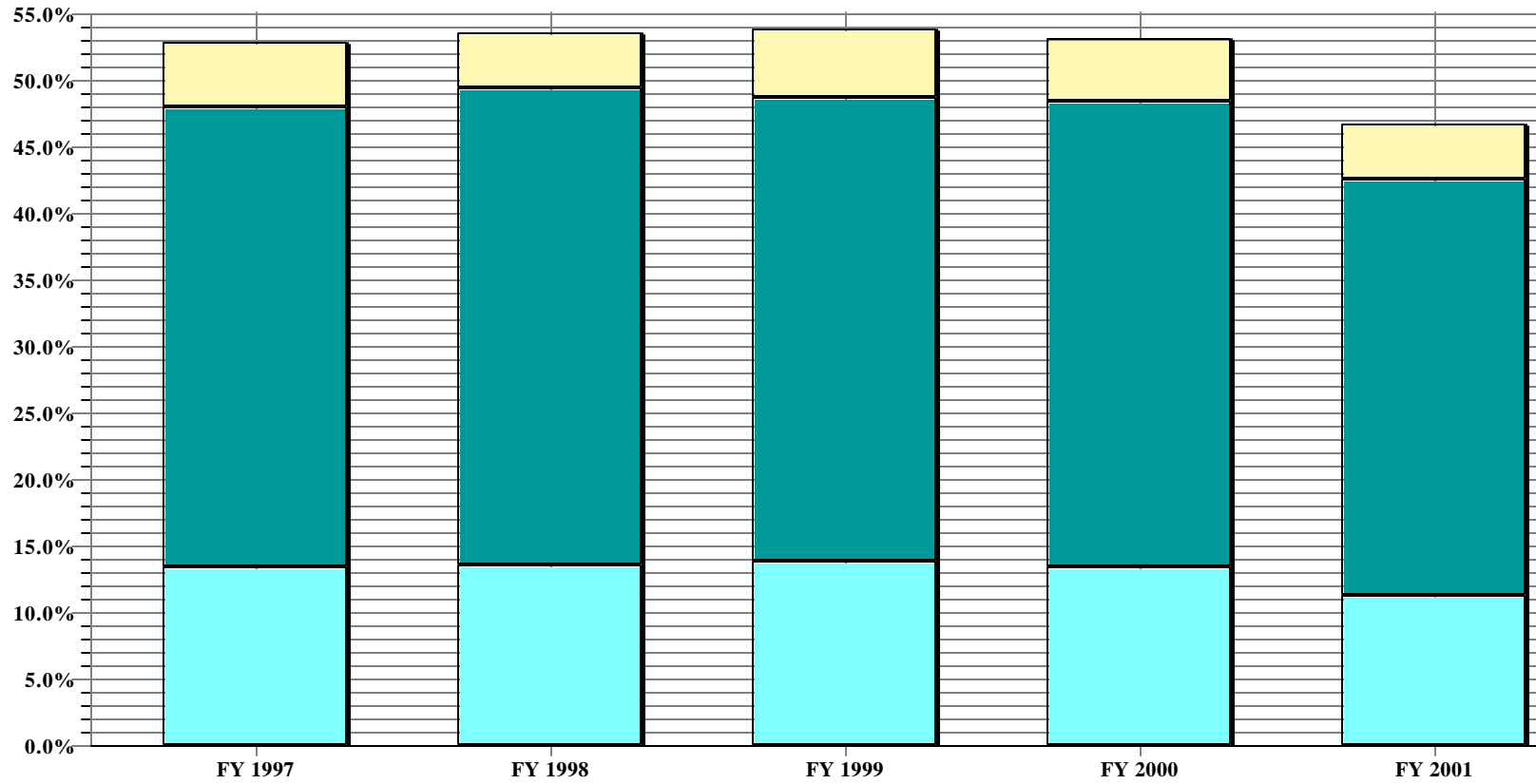
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Savannah**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	52.9%	53.7%	53.9%	53.2%	46.8%

**US Department of Energy  
Percent of Support Category to Total  
Savannah**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	13.5%	13.7%	14.0%	13.5%	11.3%
<b>Mis Sup</b>	34.6%	35.8%	34.8%	34.9%	31.3%
<b>Site Specific</b>	4.8%	4.2%	5.1%	4.7%	4.2%

## **FY2001 Profile for Savannah River Site**

### **I. Background**

The Savannah River Site (SRS) continues to focus on the following stewardship and mission areas:

Nuclear Weapons Stockpile Stewardship  
Nuclear Materials Stewardship  
Environmental Stewardship

While the changing world has caused a downsizing of the site's original defense mission, the new vision of SRS is to be a modernized DOE site, recognized for performance and excellence in support of our national security and as a responsible steward of the environment. We will continue to provide tritium recycling and storage, while constructing and operating a new facility for the extraction of tritium to support the nuclear weapons stockpile. We will also construct and operate several new facilities to store and dispose of surplus plutonium as part of the nation's nuclear nonproliferation efforts. In addition, SRS will play an increasingly larger role in advancing nuclear materials protection, control, and accounting.

The complex covers 198,344 acres, or 310 square miles in three counties in South Carolina, bordering the Savannah River. The Savannah River Site is an operating site, currently maintaining operations in nineteen (19) Class 2 Nuclear Facilities. The site was constructed during the early 1950's to produce basic materials used in nuclear weapons, primarily tritium and plutonium-239. Five reactors were built to produce nuclear materials by irradiating target materials with neutrons. Also built were support facilities including two chemical separations plants, a heavy water extraction plant, a nuclear fuel and target fabrication facility and waste management facilities.

Major Line Item activity in recent years includes the completion of the Defense Waste Processing Facility (DWPF) which immobilizes high-level waste sludge and the precipitate by vitrifying it into a solid glass waste form, and the Replacement Tritium Facility (RTF) which established state-of-the-art technologies for loading and unloading tritium gas as well as the purification of the recycled gas.

In addition, current Line Item activity includes the following:

- Tritium Extraction Facility (TEF) – will provide for extraction capabilities for both the commercial Light Water Reactor and Accelerated Production of Tritium concepts. (Line Item 98-D-125)
- FB Line Plutonium Packaging and Stabilization project – will provide thermal stabilization and packaging capability in 221-FB Line to meet DOE-STD-3013. The project includes replacement of existing furnaces with higher temperature furnaces, installation of an outer can welder and leak detector, and associated modification and/or upgrades to existing support equipment, systems and services. These modifications and upgrades will be minimum essential necessary to support thermal stabilization and

- packaging processing including, but not necessarily limited to, Safeguards & Securities, ventilation, cooling, fire detection, nuclear incident monitoring, and material storage.
- Chlorofluorocarbon HVAC/Chiller Retrofit – provides for the elimination of the use of ozone-depleting chlorofluorocarbon and hydrochlorofluorocarbon-22 to ensure compliance with the EPA Clean Air Act. (Line Item 96-D-471)
  - Regulatory Monitoring and Bioassay Laboratory – provides a new laboratory for essential environmental monitoring and personnel bioassay analyses capabilities. (Line Item 97-D-470)
  - Highly Enriched Uranium Blend Down – provides for the blending down of highly enriched uranium to low-enriched uranium and recovering its economic value by using it as a fuel in power reactors. This is in support of a Memorandum of Understanding between DOE and the Tennessee Valley Authority. (Line Item 01-D-407)
  - Tritium Facility Modernization and Consolidation – provides for the relocation of several process systems and functions from Building 232-H to other locations in the Tritium Facility. This serves to reduce the footprint while enhancing several of the processes. (Line Item 98-D-123)
  - High-Level Waste Removal from Filled Waste Tanks – provides for the removal of high-level waste inventory from underground storage tanks, to include equipment and infrastructure required as necessary for specific tanks. (Line Item 93-D-187)

## II. Functional Support Cost Report Changes

The SRS Functional Support Cost Report combines both Westinghouse Savannah River Company (WSRC) and Wackenhut Services, Incorporated (WSI) costs into an integrated report.

Since FY1995, WSRC has continuously applied refinements to our categorization process. Overall, the FY01 Actuals are in line with projections provided in the FY2000 Functional Cost deliverable. In FY01, significant cost savings were achieved due to the maintenance re-engineering effort that began in FY00. These savings exceeded the initial expectation and produced a reduction of \$43.4M from FY00 to FY01. The following trend analysis is based on the recast changes:

## III. Trends

### General Support

Most of the categories in General Support represent a downward trend from FY95 to FY01 resulting from our continuous emphasis on cost effectiveness. The outyear reflects growth primarily for escalation and specific indirect projects in these categories. The cost of the Y2K effort in Information Services resulted in higher costs in FY98 and FY99; however, the Replacement Telephone System (RTS) lease term ended in FY00, thereby reflecting lower costs forecast for FY01. Also, Legal has increased expenditures due to a major class action lawsuit which dominated FY99 and FY00 and continued into FY01. Following are explanations for categories with significant changes:

1. Human Resources (-\$11.4M) – As the site personnel decreased from FY95 to FY01, HR staff decreased accordingly. HR staffing decreased from 166 in 1995 to 121 in 2001, a decrease of 45 personnel. Several reengineering efforts supported this decrease as well.
2. Chief Financial Officer (-\$11.0M) – As a result of site funding decreases, cost efficiencies and productivity improvements, CFO decreased staffing from 370 in FY95 to 203 in FY01, a total of 161 personnel. Technological advances in computer hardware and software and resulting productivity improvements have decreased the CFO personnel requirements.
3. Information/Outreach (-\$6.2M) – With the reduction in staffing site-wide, staffing related to Outreach activities decreased from FY95 to FY01. This resulted in a reduction in the amount of work funded for community outreach activities.

### Mission Support

Mission Support from FY95 to FY01 again reflects the site's emphasis on cost effectiveness and productivity improvement initiatives (-\$131.4M). Overall, the primary areas reflecting reductions are Maintenance and Utilities. A significant reduction in Maintenance (-\$117.5M) resulted from workforce reductions, reengineering efforts, and refinement of our categorization process. These cost savings initiatives along with usage of work order historical data via PASSPORT software has contributed to the decline. Utilities (-\$48.3M) decrease resulted from the privatization of the power facilities along with reengineering efforts to transition from nuclear to commercially-based operations. These decreases were slightly offset by increases in some of the other categories. Following are explanations for other categories with significant changes:

1. Environmental (+\$11.2M) – Increase resulted from more focus on federal and state required environmental compliance and monitoring.
2. Facilities Management (+7.9M) – This increase is a result of continued refinement in the classification of costs. The FY99 effort to increase the accuracy of the Functional Support Cost Reporting resulted in a reclassification of costs out of both Maintenance and Logistics into Facilities Management. Even though recasting was performed for all years, the data for the early years is not as detailed as recent years.
3. Logistics Support (-\$2.8M) – In addition to refinements in the classification of activities, WSRC materials management and warehousing activities between Construction and Operations were consolidated resulting in the elimination of duplicate effort and a reduction of personnel. The slight upturn in FY01 resulted from a reorganization that identified material handlers previously embedded in other categories. This effort resulted in an overall site savings through consolidation and elimination of lower value tasks.

## Site Specific

The increase in the Award Fee category is a direct result of the new contract with DOE beginning in FY97 which included numerous additional contractor risks, and therefore, higher award fees and incentive/performance fees to compensate for these increased risks. In addition, the accounting structure in place for FY95 distributed the Bechtel Savannah River, Inc. (BSRI) award fee as part of their division overhead. In FY96, this fee became part of the Site Overhead costs, and therefore identifiable as Award Fee, resulting in the increase. Also, minor fluctuations occur as a result of the Cost Reduction Incentive Program (CRIP) included in this category. In FY01, credit adjustments from FY00 estimates reduced the overall expense in FY01 by \$3.3M. The taxes category also incurred an adjusting entry in FY01 of (\$1.6M) from FY00 estimate. This adjustment resulted from the WSRC's parental corporate financial position at that time.

### IV. Cost Savings Initiatives

The Site continues to implement cost-effective commercial practices to the fullest extent possible in the non-nuclear business and technical support areas. These reductions have been able to be obtained through programs like: Individuals Developing Effective Alternative Solutions (IDEAS), Productivity and Cost Effectiveness (PACE), and Cost Reduction Implementation Team (CRIT).

In FY01, some of the cost savings/efficiency initiatives completed included:

1. Effort to decrease training cost by reducing, consolidating or eliminating the number of classes offered and/or cost of training, as well as utilizing video capabilities, in house training, and vendor supported training resulted in a \$3.9M FY01 savings and \$4.5M projected savings.
2. Streamlined Packaging and Stabilization of Plutonium bearing materials for the Nuclear Materials Management Division produced a cost savings of \$25.5M in FY01 and \$13.4M projected savings in FY02.
3. Relocation of TNX Laboratory and offices to the Aiken County Technical Laboratory resulted in a savings of \$3.0M for FY01 and \$134K projected for FY02.
4. Strategic specification, purchase, and use of waste bags initiative was achieved by the Solid Waste Division which resulted in a \$0.3M savings in FY01 and through the outyears.
5. Eliminated non-standard desktops to reduce specialized upgrade requirements and maintenance support which reduced FY01 budget needs by \$0.2M and \$0.4M in FY02.
6. Simplified purchase agreement with the Government Printing Office (GPO) that produced a savings for FY01 of \$0.4M and \$0.4M for FY02.
7. Non-Nuclear Reconfiguration (NNR) project achieved savings in Other Project Costs (OPC) due to early completion of start-up testing resulting in FY01 savings of \$0.5M.
8. Streamlined tasks and effective utilization of database systems to support staffing reductions within the Chief Financial Officer Division produced savings of \$0.9M in FY01 and projected savings of \$0.8M in FY02.



WSRC continues to pursue cost effectiveness initiatives in an effort to balance site needs with shrinking budgets. Some of these initiatives are in the operation areas and have the potential to drive mission direct costs down, which may have a negative impact on the functional support cost ratio. However, continued success in reducing functional support costs is dependent upon delivering necessary support activities in the most cost effective manner and effort continues in this arena. A sample of the anticipated cost saving initiatives for FY02 follows:

1. New procurement strategy for purchasing gloveport assemblies for the Tritium Extraction Facility project estimated at \$1.0M.
2. The F-Area management objective for the 772-F Facility was to decontaminate CLAB Shielded Areas A, B, C, Filter Room and Fan Room. Facility Management requested, due to continued cost and technical issues, an assessment to be conducted by Analytical Laboratories Engineers (ALE) associated with Shielded Area Restoration. ALE performed that assessment, TSD-ALE-2001-00007, on entry and HEPA filter replacement cycles. The assessment concluded that the frequency for entry and filter changes were not an economical advantage to the facility for the shielded areas A, B, C and the filter room. As a result of the facility assessment the Total Project Cost (TPC) was affected by \$5.6M for FY02.
3. Acceleration of Microsoft Lease payment to FY01 resulting in FY02 savings of \$2.0M.
4. The Vendor Technical Manual (VTM) program, currently required by Manual 7E, Pr. 2.04, should be made optional based on a facility's usage of vendor information resulting in a savings potential of \$0.2M per year.
5. Benzene has been removed from the benzene laden waste that was stored in Tank 49 by the addition of copper catalyst. This has eliminated the need to keep the tank vapor space inert and thus the ongoing cost of nitrogen for this tank, thus producing a savings of \$0.4M in FY02.
6. Develop a quantitative safety-equivalence approach to Onsite Safety Assessments (OSAs), pilot that approach to demonstrate new concept and obtain DOE-SR approval to proceed resulting in an FY02 savings of \$0.9M.

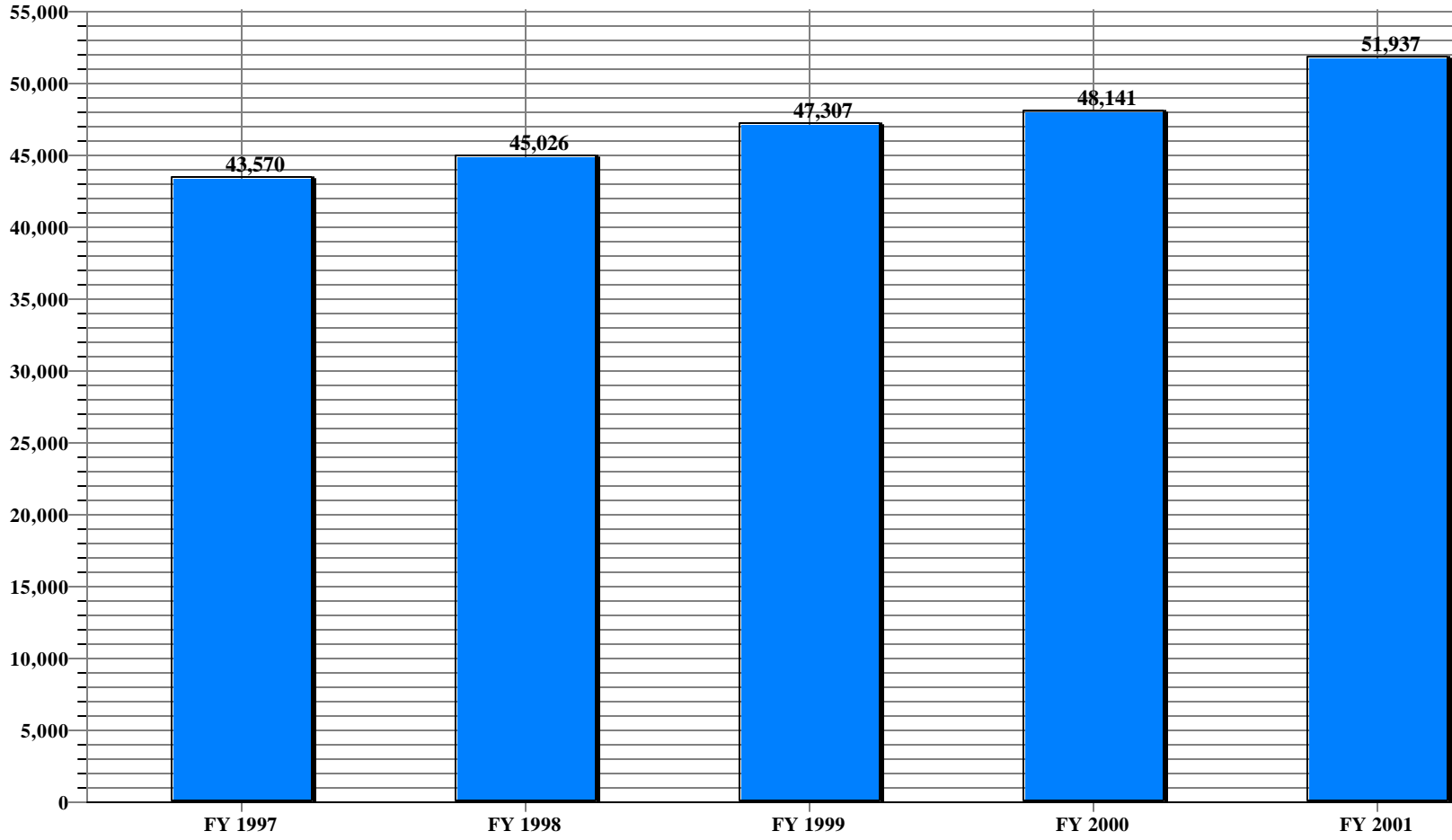
V. Other

	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Workforce Restructuring	63,000	3,240	16,985	0	423	730	487
Insurance	0	0	267	52	360	42	37
Savings Awards due to Terminated employees	0	0	0	676	0	0	0
Legal settlements	0	0	273	0	0	57	(314)
Inventory Writeoff	8,107	0	960	0	0	4,606	(212)
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Total WSRC	71,107	3,240	18,485	728	783	5,435	(2)
Workforce Restructuring	2,788	706	(109)	(18)	0	0	
Legal	3,254	0	0	0	0	0	
Insurance	24	41	26	76	41	54	(6)
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Total WSI	6,066	747	(83)	58	41	54	(6)
TOTAL OTHER	77,173	3,987	18,402	786	824	5,489	(8)

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	2,248	2,123	2,477	2,678	2,955	707	31.5%
HUMAN RESOURCES	1,858	1,723	1,824	1,809	1,982	124	6.7%
CFO	4,032	3,864	3,501	3,693	3,503	-529	-13.1%
PROCUREMENT	2,258	2,042	2,007	2,041	1,918	-340	-15.1%
LEGAL	85	85	88	90	94	9	10.6%
CENTRAL ADMIN SERVICES	579	551	655	817	736	157	27.1%
PROGRAM/PROJECT CONTROL	857	910	918	1,133	1,171	314	36.6%
INFORMATION OUTREACH	1,901	1,948	1,840	2,011	2,082	181	9.5%
INFORMATION SERVICES	4,396	5,189	6,577	5,861	6,702	2,306	52.5%
OTHER	2,400	1,800	2,400	2,746	2,825	425	17.7%
<b>TOTAL GENERAL SUPPORT</b>	<b>20,614</b>	<b>20,235</b>	<b>22,287</b>	<b>22,879</b>	<b>23,968</b>	<b>3,354</b>	<b>16.3%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	2,117	2,166	2,298	2,333	2,718	601	28.4%
SAFETY AND HEALTH	4,361	4,647	4,809	5,088	5,205	844	19.4%
FACILITIES MANAGEMENT	1,335	1,099	1,296	1,531	2,134	799	59.9%
MAINTENANCE	5,403	5,091	6,615	6,099	5,976	573	10.6%
UTILITIES	6,749	8,823	6,977	6,925	8,189	1,440	21.3%
SAFEGUARDS AND SECURITY	1,029	1,214	1,222	1,437	1,690	661	64.2%
LOGISTICS SUPPORT	1,744	1,590	1,596	1,726	1,895	151	8.7%
QUALITY ASSURANCE	218	161	207	123	162	-56	-25.7%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>22,956</b>	<b>24,791</b>	<b>25,020</b>	<b>25,262</b>	<b>27,969</b>	<b>5,013</b>	<b>21.8%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	0	0	0	0	0	0	0.0%
TAXES	0	0	0	0	0	0	0.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>43,570</b>	<b>45,026</b>	<b>47,307</b>	<b>48,141</b>	<b>51,937</b>	<b>8,367</b>	<b>19.2%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	85,838	92,687	103,693	107,705	116,322	30,484	35.5%
Capital Construction	67,689	45,087	24,233	26,814	41,414	-26,275	-38.8%
<b>TOTAL MISSION DIRECT</b>	<b>153,527</b>	<b>137,774</b>	<b>127,926</b>	<b>134,519</b>	<b>157,736</b>	<b>4,209</b>	<b>2.7%</b>
<b>Total Costs</b>	<b>197,097</b>	<b>182,800</b>	<b>175,233</b>	<b>182,660</b>	<b>209,673</b>	<b>12,576</b>	<b>6.4%</b>
<b>Total Costs w/o Construction</b>	<b>129,408</b>	<b>137,713</b>	<b>151,000</b>	<b>155,846</b>	<b>168,259</b>	<b>38,851</b>	<b>23.1%</b>
General Support % Total Co	10.5%	11.1%	12.7%	12.5%	11.4%		1.0%
Mission Support % Total Cos	11.6%	13.6%	14.3%	13.8%	13.3%		1.7%
Site Specific % Total Costs	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
Total Support % Total Costs	22.1%	24.6%	27.0%	26.4%	24.8%		2.7%
Total Support % Total Costs w/o Construct	33.7%	32.7%	31.3%	30.9%	30.9%		-2.8%

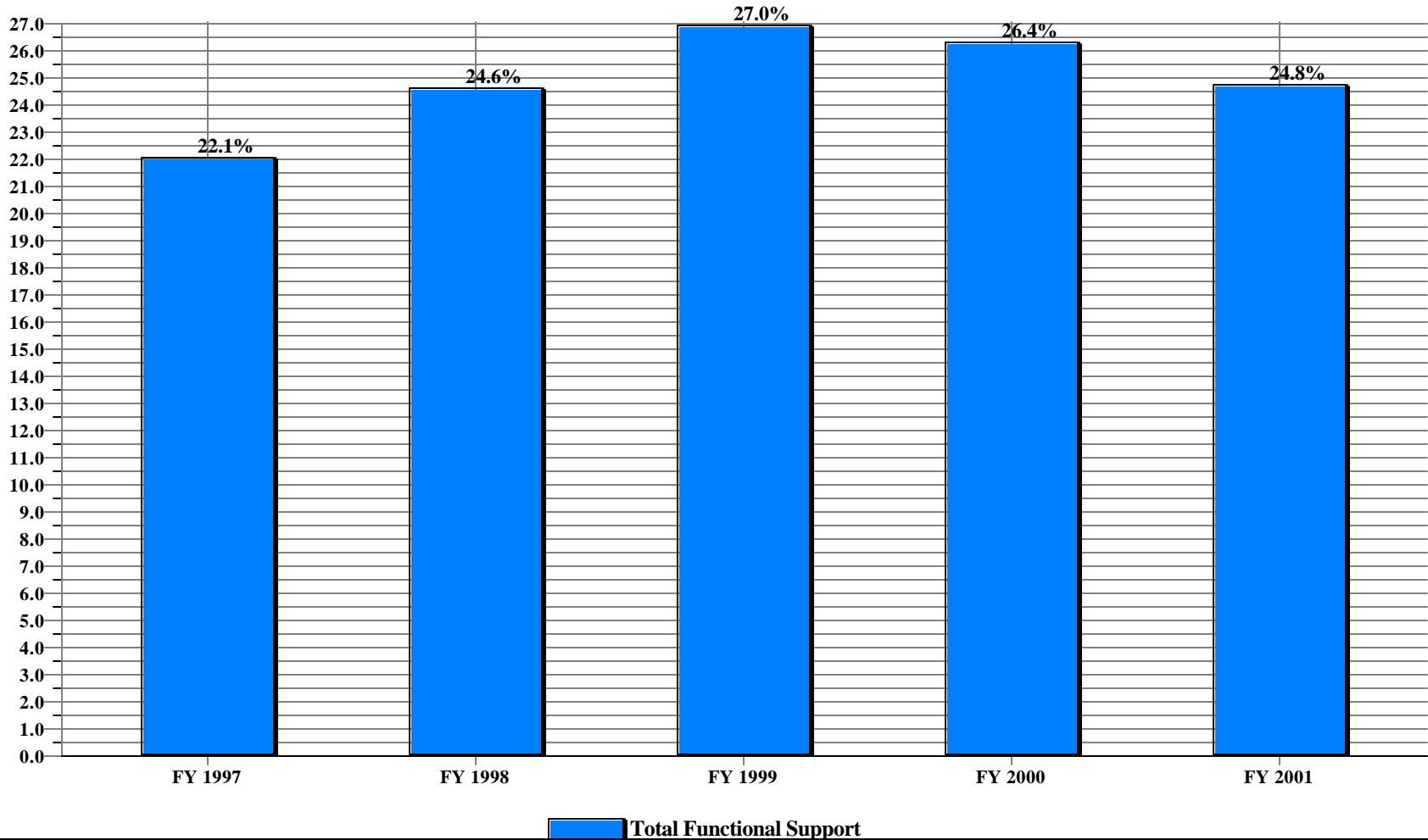
**US Department of Energy  
Total Functional Support  
Stanford**



 Total Functional Support

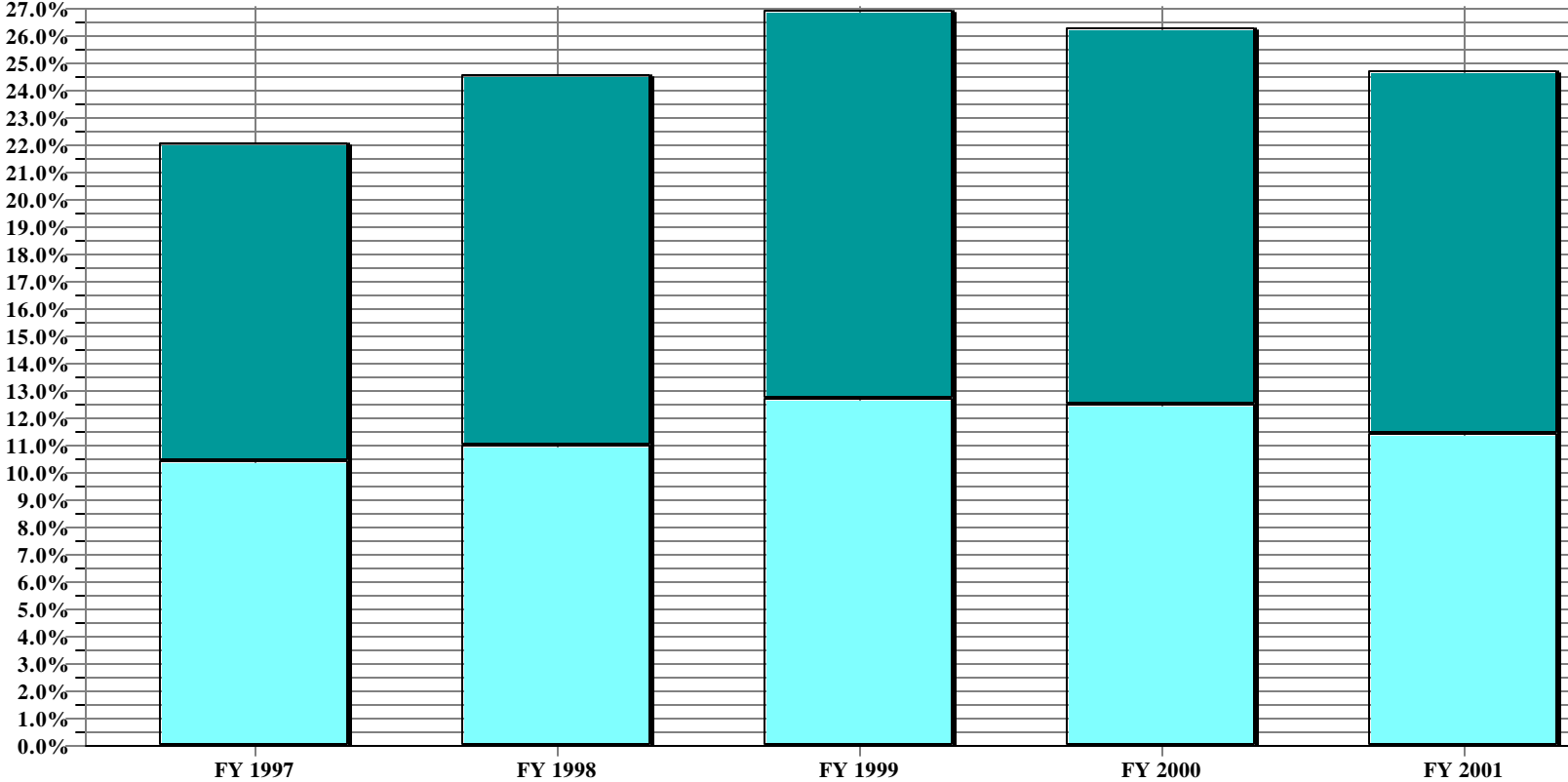
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	43,570	45,026	47,307	48,141	51,937

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Stanford**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	22.1%	24.6%	27.0%	26.4%	24.8%

**US Department of Energy  
Percent of Support Category to Total  
Stanford**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	10.5%	11.1%	12.7%	12.5%	11.4%
<b>Mis Sup</b>	11.6%	13.6%	14.3%	13.8%	13.3%
<b>Site Specific</b>	0.0%	0.0%	0.0%	0.0%	0.0%

## Stanford Linear Accelerator Center

The Stanford Linear Accelerator Center was founded in 1962 as a national user facility for high energy physics using electron beams in a two-mile linear accelerator. SLAC is a single program laboratory dedicated to research in high energy physics , accelerator physics, and in allied fields that can make use of its synchrotron radiation facilities. It is a major center of support for U.S. physics research and for training next generation scientists. 1300 users from around the world participate in the high energy physics program. 1600 scientists from universities, industry, and other research institutions are active in the synchrotron radiation program. SLAC is operated on behalf of the DOE by Stanford University.

SLAC is located on the San Francisco Peninsula in Menlo Park, California, west of the main Stanford campus. The SLAC site occupies 426 acres leased by DOE from Stanford University. In FY2001 SLAC had a staff of about 1400.

SLAC's major facilities include:

- The world's largest linear accelerator, delivering 50 billion volts (50 GeV) electron (including polarized electron) and positron beams.
- The B Factory, a state-of-the-art asymmetric electron-positron collider and associated particle detector for the production and research of B mesons
- A 3 GeV electron storage ring (SPEAR) for production of ultraviolet and x-ray for use in synchrotron radiation research
- A large concrete shielded building for experiments with stationary targets
- Two major accelerator physics R&D facilities to test subsystems and features of future accelerators

### Operational Mission

The DOE Office of Science provides almost all of SLAC's funding.

SLAC is the leader in design and construction of linear accelerators and storage rings that deliver intense, energetic, and extremely bright beams of electrons and photons for use in particle physics, material science, molecular biology, environmental science, medicine, and other scientific research fields.

The program mission can be summarized as follows:

- Perform and support world-class research in high-energy physics, particle astrophysics and disciplines using synchrotron radiation.
- Provide accelerators, detectors, instrumentation, and support for national and international research programs in particle physics and scientific disciplines that use synchrotron radiation.
- Advance the art of accelerators, and accelerator-related technologies and devices through the development of new sources of high-energy particles and synchrotron radiation, plus new techniques for their scientific utilization.
- Transfer practical knowledge and innovative technology to the private sector.
- Contribute to the education of the next generation of scientists and engineers, and to the scientific awareness of the public.

Trends ( in Thousands of Dollars )

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>FY 97 to FY 01</u>	
						<u>\$ Change</u>	<u>% Change</u>
General Support	20,614	20,235	22,299	22,958	23,968	3,354	16%
Mission Support	22,956	24,786	25,007	25,185	27,968	5,012	22%
<b>Functional Support Total</b>	<b>43,570</b>	<b>45,021</b>	<b>47,306</b>	<b>48,143</b>	<b>51,936</b>	<b>8,366</b>	<b>19%</b>
Mission Direct	86,107	92,687	103,693	107,705	116,322	30,215	35%
Capital/Construction	67,689	45,087	24,233	26,814	41,414	(26,275)	-39%
<b>Total SLAC Site Costs</b>	<b>197,366</b>	<b>182,795</b>	<b>175,232</b>	<b>182,662</b>	<b>209,672</b>	<b>12,306</b>	<b>6%</b>
Functional Support as a % of Total Site Costs	22.1%	24.6%	27.0%	26.4%	24.8%	2.7%	
Mission Direct to Functional Support Ratio	1.98	2.06	2.19	2.24	2.24		

Functional Support costs increased 19% between FY97 and FY01. As a percentage of total cost, support costs rose slightly in FY98 and FY99 due to the completion of the B Factory line item construction project in FY 98. However, it is important to note that the support costs percentages have been going down since FY00. It is also important to note that the ratio of Mission Direct to Functional Support costs increased each year between FY97 and FY01. The major contributor of the functional support costs increase in FY01 is higher utilities costs, specially for electrical power.

Major Changes

Category 1, Executive Direction: increased \$707K from FY97 to FY01 and \$277K from FY00 to FY01. This is due to transitional costs associated with the changeover of the SLAC directorship in September 1999 and the setting up of the new director's office. In FY01, the Deputy Director position which was vacant since 1997 was filled.

Category 2, Human Resources: increased \$124K from FY97 to FY01 and \$173K from FY 00 to FY 01. The increase in the past year was due to filling positions made vacant by retirements.



Category 3, C.F.O.: declined \$529K from FY97 to FY01 and declined \$190K from FY00 to FY01. The decreases in FY98 and FY99 were due to one-time costs associated with the initial implementation of the Business Information System (BIS). The decrease in FY01 was due to unfilled positions as a result of staff turnover in the BIS area.

Category 4, Procurement: declined \$340K from FY97 to FY01 and declined \$123K from FY00 to FY01. The decrease in FY98 was due to completion of construction activity associated with the PEP II B Factory construction project. The decrease in FY01 was due to the retirement of several employees whose positions were not filled until FY02.

Category 6, Central Administration Services: increased \$157K from FY97 to FY01, but declined \$13K from FY00 to FY01. The increase since FY99 is due mainly to a program to replace old copiers.

Category 7, Program/Project Planning & Control: increased \$313K from FY97 to FY01 but only \$38K from FY00 to FY01. The increase since FY97 was due to changes in categorization in FY00. Some costs captured as Mission Direct, Category 23, in FY97 through FY99, more appropriately fit into this category.

Category 9, Information Services: increased \$2,306K from FY97 to FY01 and \$694K from FY00 to FY01. There was increased support for desktops on site, local area network and telecommunications.

Category 10, Other: Costs in FY98 were lower by \$600K because of an adjustment resulting from overaccruals in prior years. The only costs captured in this category are Stanford University Indirect Costs which are negotiated by DOE.

Category 11, Environment: Costs increased \$601K from FY97 to FY01 and \$384K from FY00 to FY01. The increase in FY01 is due to permit fees, hazardous waste disposal, and corrections of storm drain connections.

Category 13, Facilities Management: increase \$799K from FY97 to FY01 and \$534K between FY00 and FY01. The increase in FY01 is primarily due to recategorization of costs previously captured as Mission Direct Category 23, and the addition of a staff to coordinate space utilization.

Category 14, Maintenance: Maintenance costs peaked significantly in FY99 primarily due to the completion of a number of one-time non-capital items in the large volume of SLAC maintenance backlog, including the repainting and other general maintenance of buildings, and repaving of various roads and parking lots. However, due to the budgetary constraints in FY00 and FY01, SLAC was unable to continue to fund maintenance at the same level.

Category 15, Utilities: Utilities increased \$1,440K between FY97 and FY01 and \$1,264K between FY00 and FY01. The large annual fluctuation of utility costs is due to the changes in the High Energy Physics experimental program operations schedule which is highly dependent on the budget. The dominant component (about 90% in FY01) of utility costs is electrical power to operate the accelerators and experimental facilities for the high energy physics and synchrotron radiation experiments. In FY01, the California electrical power crisis resulted in \$1 million higher electrical power costs to SLAC. Natural gas, although a small fraction of utilities at SLAC, in FY01 doubled in costs and accounts for \$186K of the increase in utilities.

Category 16, Safeguards & Security: increased \$605K from FY97 to FY01 and \$345K between FY00 and FY01. This is primarily due to the capturing of staffing costs of cyber security beginning in FY00 and upgrade of network security for part of the SLAC site in FY01.

Category 23, Mission Direct: increased \$30.7M from FY97 to FY01, and \$9.1M from FY00 to FY01. Operating costs increased as SLAC completed the PEP-II B Factory construction and began operation in FY98 for the High Energy Physics program.

Category 24, Capital/Construction: Costs decreased \$26.3M from FY97 to FY01 but increased \$14.6M from FY00 to FY01. Costs began decreasing in FY98 and continued through FY 00 due to the completion of the PEP-II B Factory construction line item project in FY98. Costs increased in FY01 due to the Research Office Building construction project, the SPEAR 3 and SSRL Beam Line upgrades jointly funded by the National Institutes of Health and the DOE.

Cost Savings Initiatives:

SLAC has been, and continues to be, very responsible in managing its business and administrative functions. In recent years we have taken numerous actions to streamline administrative functions, procedures and practices resulting in cost avoidance and reduction. In FY97, SLAC invested in a new business information system which consists of a suite of integrated software packages for human resources management, payroll, accounting, purchasing, asset management, and inventory. The Laboratory expects future cost savings through continual process improvements and increased use of electronic transaction/ information processing.

Other

Category 10, Other general support costs

<u>Other</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>
Stanford University Indirect Costs	2,400	1,800	2,400	2,746	2,825

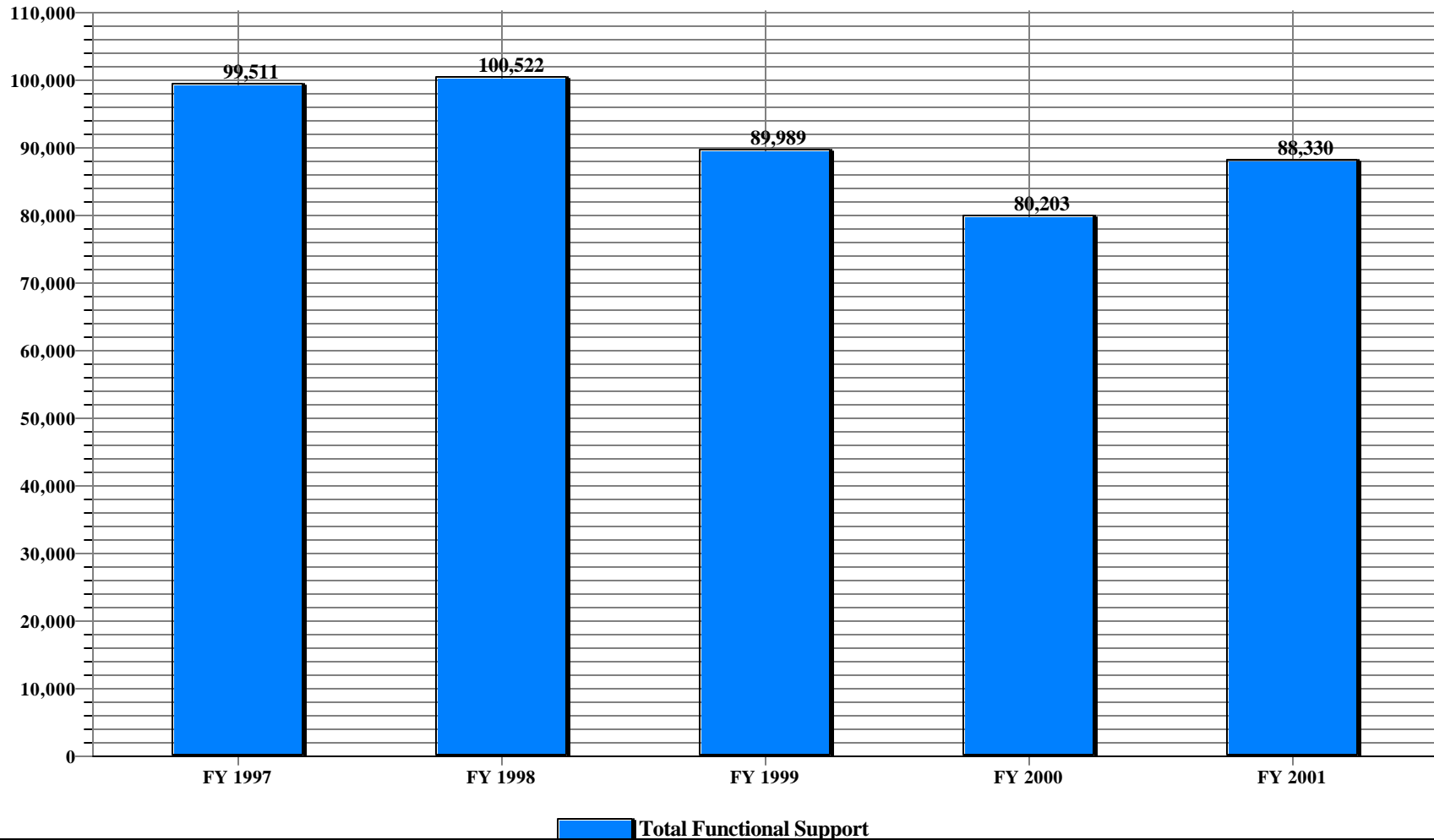
## Strategic Reserve

FY 2001

## Trends in Total Functional Support Cost Categories

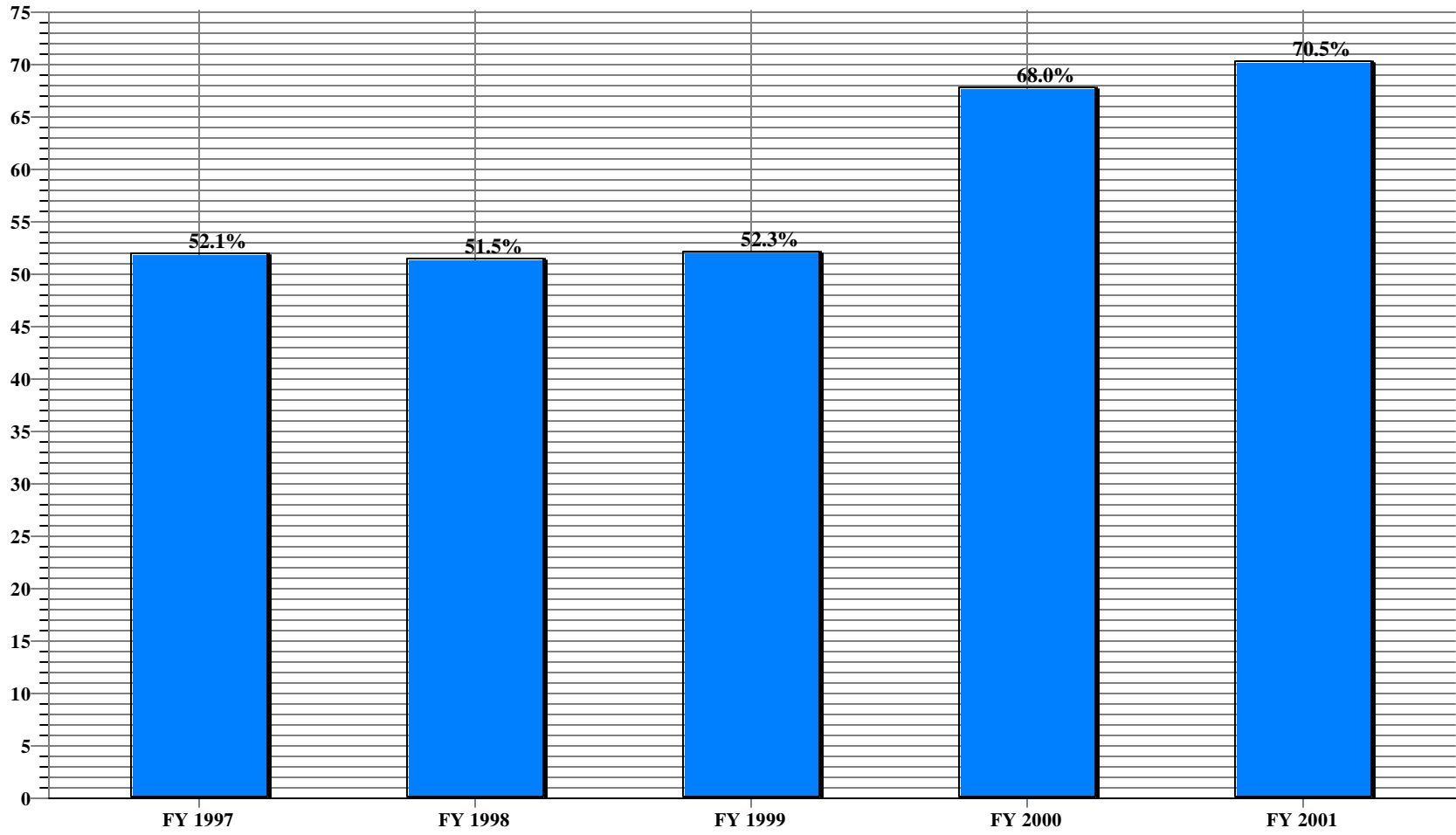
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	1,300	1,342	1,164	560	294	-1,006	-77.4%
HUMAN RESOURCES	1,691	1,745	1,514	2,030	1,336	-355	-21.0%
CFO	2,064	2,131	1,848	1,823	1,969	-95	-4.6%
PROCUREMENT	2,242	2,314	2,007	1,780	1,918	-324	-14.5%
LEGAL	714	737	639	1,485	754	40	5.6%
CENTRAL ADMIN SERVICES	1,872	1,932	1,676	1,474	993	-879	-47.0%
PROGRAM/PROJECT CONTROL	6,373	6,577	5,705	5,468	4,748	-1,625	-25.5%
INFORMATION OUTREACH	1,867	1,927	1,672	1,790	2,362	495	26.5%
INFORMATION SERVICES	13,103	13,523	11,730	9,108	11,357	-1,746	-13.3%
OTHER	0	0	0	0	0	0	0.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>31,226</b>	<b>32,228</b>	<b>27,955</b>	<b>25,518</b>	<b>25,731</b>	<b>-5,495</b>	<b>-17.6%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	2,513	2,593	2,250	2,078	2,213	-300	-11.9%
SAFETY AND HEALTH	2,702	2,788	2,419	2,545	3,138	436	16.1%
FACILITIES MANAGEMENT	802	828	718	809	716	-86	-10.7%
MAINTENANCE	33,857	34,944	30,311	25,835	29,464	-4,393	-13.0%
UTILITIES	2,330	2,405	2,086	2,036	2,903	573	24.6%
SAFEGUARDS AND SECURITY	12,050	12,437	10,788	10,742	11,824	-226	-1.9%
LOGISTICS SUPPORT	4,032	4,162	3,610	2,856	3,679	-353	-8.8%
QUALITY ASSURANCE	2,105	2,172	1,884	1,744	1,659	-446	-21.2%
LABORATORY/TECHNICAL SUPPORT	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>60,391</b>	<b>62,329</b>	<b>54,066</b>	<b>48,645</b>	<b>55,596</b>	<b>-4,795</b>	<b>-7.9%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	7,894	5,965	7,968	6,040	7,003	-891	-11.3%
TAXES	0	0	0	0	0	0	0.0%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>7,894</b>	<b>5,965</b>	<b>7,968</b>	<b>6,040</b>	<b>7,003</b>	<b>-891</b>	<b>-11.3%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>99,511</b>	<b>100,522</b>	<b>89,989</b>	<b>80,203</b>	<b>88,330</b>	<b>-11,181</b>	<b>-11.2%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	91,635	94,575	82,037	37,791	37,040	-54,595	-59.6%
Capital Construction	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION DIRECT</b>	<b>91,635</b>	<b>94,575</b>	<b>82,037</b>	<b>37,791</b>	<b>37,040</b>	<b>-54,595</b>	<b>-59.6%</b>
<b>Total Costs</b>	<b>191,146</b>	<b>195,097</b>	<b>172,026</b>	<b>117,994</b>	<b>125,370</b>	<b>-65,776</b>	<b>-34.4%</b>
<b>Total Costs w/o Construction</b>	<b>191,146</b>	<b>195,097</b>	<b>172,026</b>	<b>117,994</b>	<b>125,370</b>	<b>-65,776</b>	<b>-52.5%</b>
General Support % Total Co	16.3%	16.5%	16.3%	21.6%	20.5%		4.2%
Mission Support % Total Cos	31.6%	31.9%	31.4%	41.2%	44.3%		12.8%
Site Specific % Total Costs	4.1%	3.1%	4.6%	5.1%	5.6%		1.5%
Total Support % Total Costs	52.1%	51.5%	52.3%	68.0%	70.5%		18.4%
Total Support % Total Costs w/o Construct	52.1%	51.5%	52.3%	68.0%	70.5%		18.4%

**US Department of Energy  
Total Functional Support  
Strategic Resv**



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Total Functional Support</b>	99,511	100,522	89,989	80,203	88,330

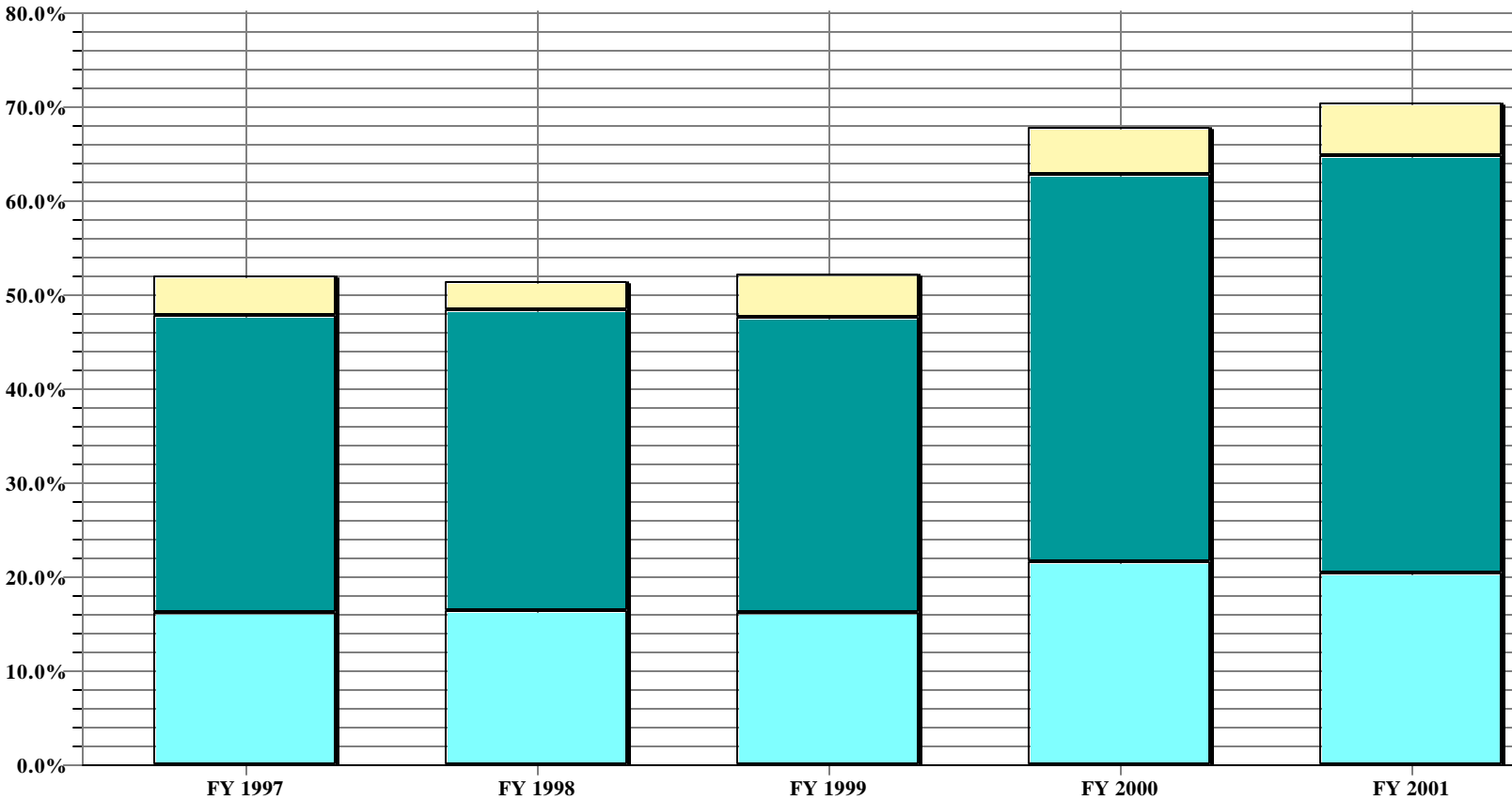
**US Department of Energy  
Total Functional Support as a % of Total Costs  
Strategic Resv**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	52.1%	51.5%	52.3%	68.0%	70.5%

**US Department of Energy  
Percent of Support Category to Total  
Strategic Resv**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	16.3%	16.5%	16.3%	21.6%	20.5%
<b>Mis Sup</b>	31.6%	31.9%	31.4%	41.2%	44.3%
<b>Site Specific</b>	4.1%	3.1%	4.6%	5.1%	5.6%

## **Strategic Petroleum Reserve DynMcDermott Petroleum Operations Company Site Profile**

The Strategic Petroleum Reserve (SPR) was established in 1975 in response to the 1973 Arab oil embargo. It is authorized by the Energy Policy and Conservation Act (EPCA) (Public Law 94-463), and by the comprehensive energy plans of all Administrations since 1975, in recognition of the long-term dependence of the United States on imported crude oil and petroleum products.

The United States (U. S.) is a member of the International Energy Agency (IEA), which requires member nations to maintain stocks of crude oil in the public and private sectors. The U. S. relies on a combination of oil in the SPR and private stocks to meet its oil storage obligations to the IEA.

Our mission is to maintain a state of readiness to respond to a Presidential order to drawdown the SPR emergency crude oil stockpile. The SPR maintains a goal of being drawdown ready within 15 days of notification. The SPR has stockpiled 545 million barrels of oil and is currently filling the SPR with Royalty-in-Kind oil, which is being diverted to increase the inventory. The current inventory amounts to 60 days of net imports, based on the U. S. net import rate for crude oil in 1999.

The SPR's Operating and Maintenance contractor has one project management office and four operation and maintenance sites. The operation and maintenance sites are listed below.

- Bryan Mound located in east Texas near the city of Freeport.
  - 232 million barrels of crude oil can be stored in the site's 20 caverns.
  - 91 people are employed at the site as of October 2001.
  - The site contains 213 million barrels of oil in storage as September 30, 2001.
  - The site consists of 37 buildings.
  
- Big Hill is located in east Texas near the city of Beaumont.
  - 170 million barrels of crude oil can be stored in the site's 14 caverns.
  - 88 people are employed at the site as of October 2001.
  - The site contains 93 million barrels of oil in storage as September 30, 2001.
  - The site consist of 29 buildings
  
- Bayou Choctaw is located in central Louisiana near the city of Baton Rouge.
  - 76 million barrels of crude oil can be stored in the site's 6 caverns.
  - 62 people are employed at the site as of October 2001.
  - The site contains 72 million barrels of oil in storage as September 30, 2001.
  - The site consist of 25 buildings

- West Hackberry is in Southwest Louisiana near Lake Charles.
  - 222 million barrels of crude oil can be stored in the site's 22 caverns.
  - 102 people are employed at the site as of October 2001 including a traveling workover crew.
  - The site contains 166 million barrels of oil in storage as September 30, 2001.
  - The site consist of 27 buildings

### **Deviation Explanations**

#### FY 1997 vs. FY 1998

- The Life Extension program was being implemented during both FYs. FY 1997 was \$61.7M and FY 1998 was \$73.2M.

#### FY 1998 vs. FY 1999

- The Life Extension program was in the final stages of implementation in FY 1999. The activities in FY 1999 were significantly reduced from that of FY 1998. FY 1998 was \$73.2M and FY 1999 was \$51.8M.
- The DM labor headcount and subcontracted labor to support Life Extension was being reduced. FY 1998 was \$33.5M and FY 1999 was \$32.3M.

#### FY 1999 vs. FY 2000

- The Life Extension program was basically completed during FY 1999. FY 1999 was \$51.8M and FY 2000 was \$10.9M.
- The DM labor headcount was being reduced. FY 1999 was \$32.3M and FY 2000 was \$30.5M.
- Employees were being trained in the operational capability of the Life Extension equipment. FY 1999 was \$.6M and FY 2000 was \$.8M.
- Several Life Extension subcontractor claims were settled during FY 2000. FY 1999 was \$0M and FY 2000 was \$.9M.

#### FY 2000 vs. FY 2001

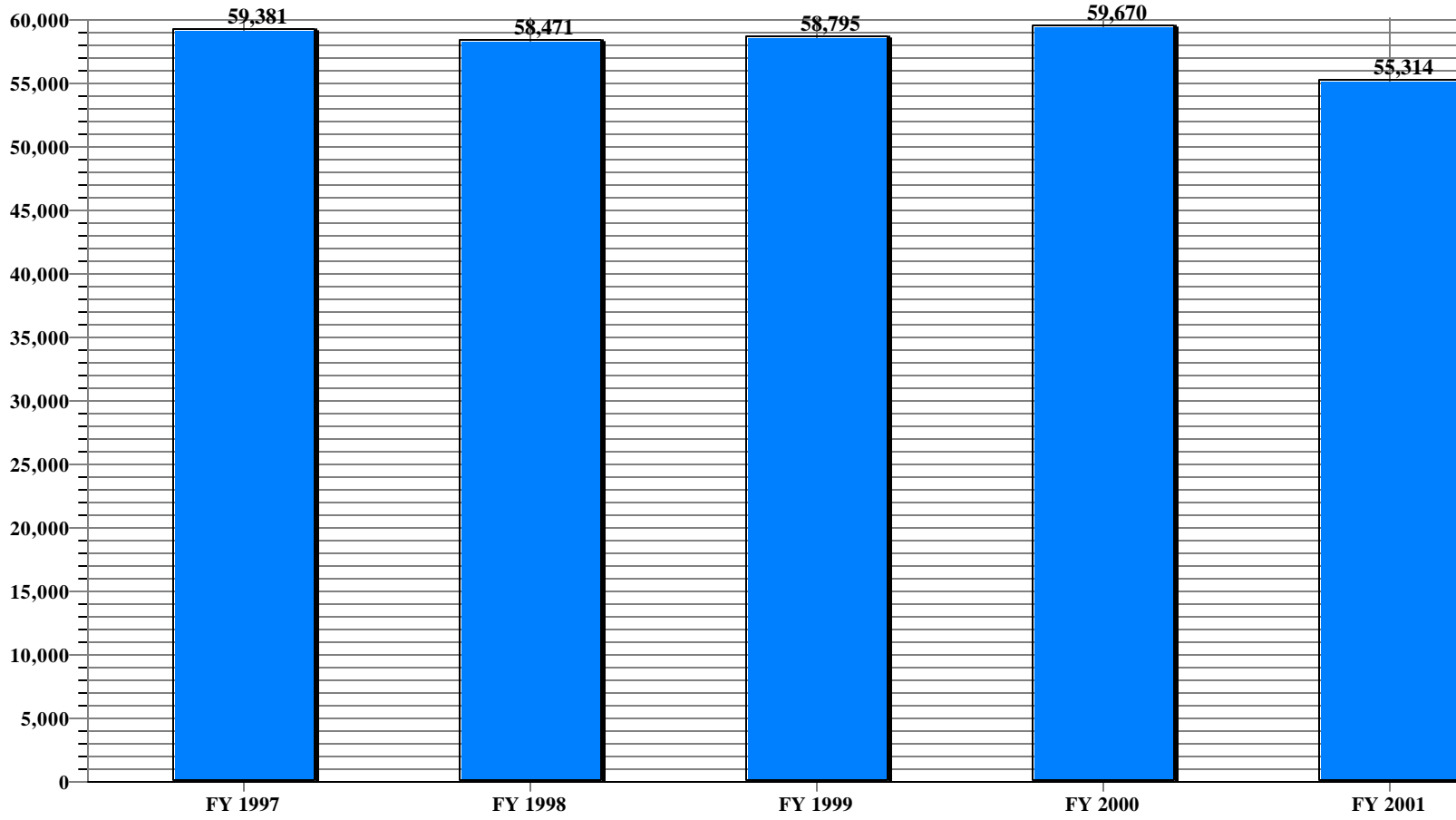
- Major Maintenance was expanded for repairs and modification to existing facilities and equipment. FY 2000 was \$2.8M and FY 2001 was \$4.0M.
- The DM headcount continues to be reduced. FY 2000 was \$30.5M and FY 2001 was \$30.3M.
- Computer software programs continue to be expanded and maintained. FY 2000 was \$9.1M and FY 2001 was \$11.4M.
- The crude oil exchange program continued. FY 2000 was \$0M and FY 2001 was \$.2M.
- Enhanced security was implemented. FY 2000 was \$0M and FY 2001 was \$2.7M.



## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	637	570	823	694	939	302	47.4%
HUMAN RESOURCES	3,335	2,843	2,792	3,523	4,121	786	23.6%
CFO	1,686	2,039	2,090	1,992	2,648	962	57.1%
PROCUREMENT	1,513	1,393	1,341	1,210	1,421	-92	-6.1%
LEGAL	369	208	309	395	1,084	715	193.8%
CENTRAL ADMIN SERVICES	4,941	4,894	4,014	4,345	3,303	-1,638	-33.2%
PROGRAM/PROJECT CONTROL	1,768	1,794	1,820	1,930	2,118	350	19.8%
INFORMATION OUTREACH	2,318	2,610	2,836	2,806	2,911	593	25.6%
INFORMATION SERVICES	3,166	3,491	4,338	4,445	4,127	961	30.4%
OTHER	949	0	0	0	0	-949	-100.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>20,682</b>	<b>19,842</b>	<b>20,363</b>	<b>21,340</b>	<b>22,672</b>	<b>1,990</b>	<b>9.6%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	3,991	2,102	2,316	2,436	2,075	-1,916	-48.0%
SAFETY AND HEALTH	6,532	6,286	5,926	5,426	3,711	-2,821	-43.2%
FACILITIES MANAGEMENT	3,644	3,581	3,217	3,035	1,487	-2,157	-59.2%
MAINTENANCE	5,334	7,385	6,936	7,132	6,457	1,123	21.1%
UTILITIES	1,642	1,428	1,292	1,000	195	-1,447	-88.1%
SAFEGUARDS AND SECURITY	1,715	1,671	1,932	2,036	2,571	856	49.9%
LOGISTICS SUPPORT	1,631	1,444	1,244	1,272	1,413	-218	-13.4%
QUALITY ASSURANCE	1,954	2,248	2,012	2,057	1,990	36	1.8%
LABORATORY/TECHNICAL SUPPORT	0	466	984	439	518	518	100.0%
<b>TOTAL MISSION SUPPORT</b>	<b>26,443</b>	<b>26,611</b>	<b>25,859</b>	<b>24,833</b>	<b>20,417</b>	<b>-6,026</b>	<b>-22.8%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	7,801	7,232	8,085	7,862	6,679	-1,122	-14.4%
TAXES	4,455	4,786	4,488	5,635	5,546	1,091	24.5%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>12,256</b>	<b>12,018</b>	<b>12,573</b>	<b>13,497</b>	<b>12,225</b>	<b>-31</b>	<b>-0.3%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>59,381</b>	<b>58,471</b>	<b>58,795</b>	<b>59,670</b>	<b>55,314</b>	<b>-4,067</b>	<b>-6.8%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	25,546	27,125	29,852	36,113	50,603	25,057	98.1%
Capital Construction	5,452	4,875	4,533	6,806	7,018	1,566	28.7%
<b>TOTAL MISSION DIRECT</b>	<b>30,998</b>	<b>32,000</b>	<b>34,385</b>	<b>42,919</b>	<b>57,621</b>	<b>26,623</b>	<b>85.9%</b>
<b>Total Costs</b>	<b>90,379</b>	<b>90,471</b>	<b>93,180</b>	<b>102,589</b>	<b>112,935</b>	<b>22,556</b>	<b>25.0%</b>
<b>Total Costs w/o Construction</b>	<b>84,927</b>	<b>85,596</b>	<b>88,647</b>	<b>95,783</b>	<b>105,917</b>	<b>20,990</b>	<b>19.8%</b>
General Support % Total Co	22.9%	21.9%	21.9%	20.8%	20.1%		-2.8%
Mission Support % Total Cos	29.3%	29.4%	27.8%	24.2%	18.1%		-11.2%
Site Specific % Total Costs	13.6%	13.3%	13.5%	13.2%	10.8%		-2.7%
Total Support % Total Costs	65.7%	64.6%	63.1%	58.2%	49.0%		-16.7%
Total Support % Total Costs w/o Construct	69.9%	68.3%	66.3%	62.3%	52.2%		-17.7%

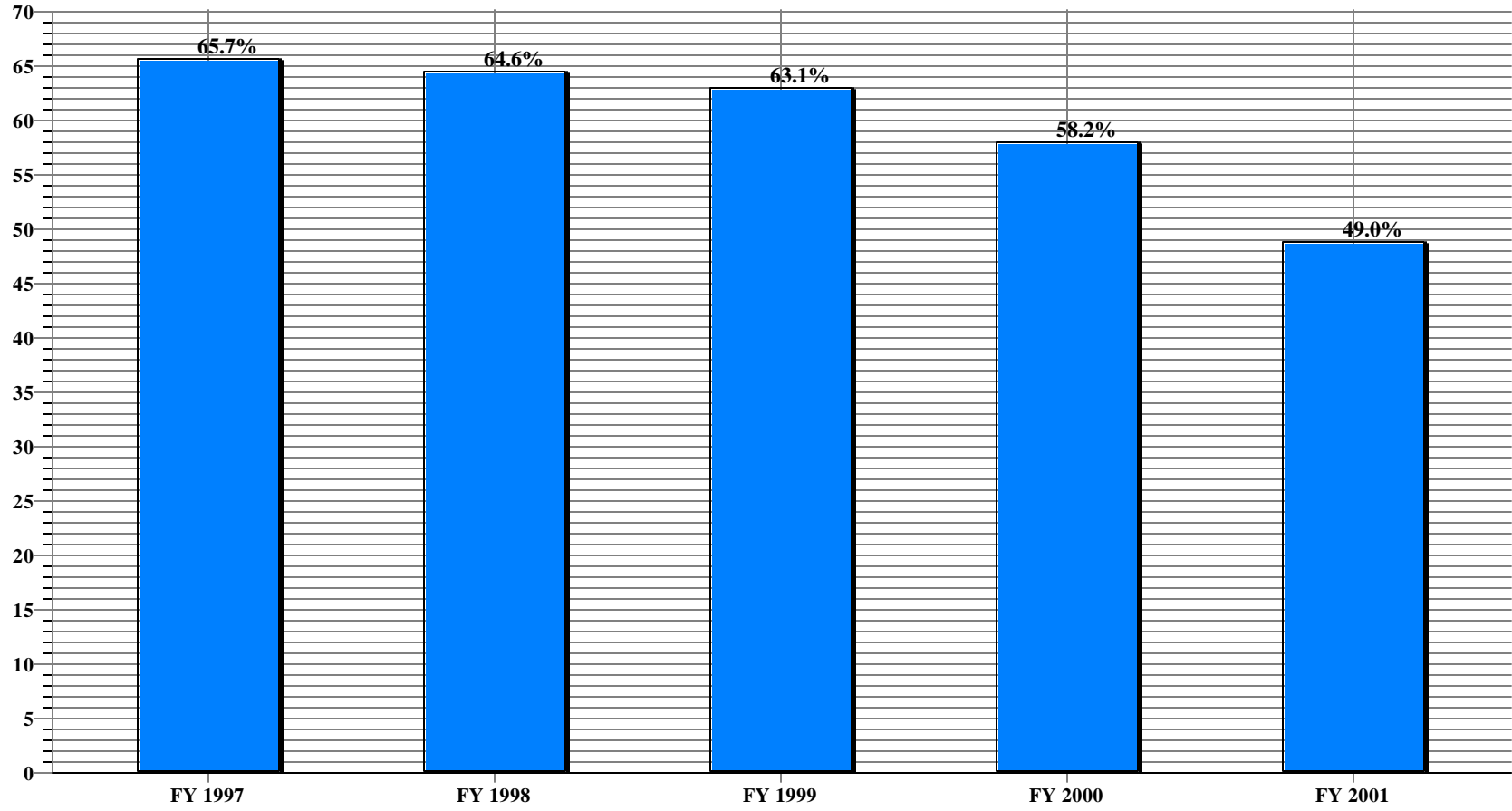
**US Department of Energy  
Total Functional Support  
WIPP**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	59,381	58,471	58,795	59,670	55,314

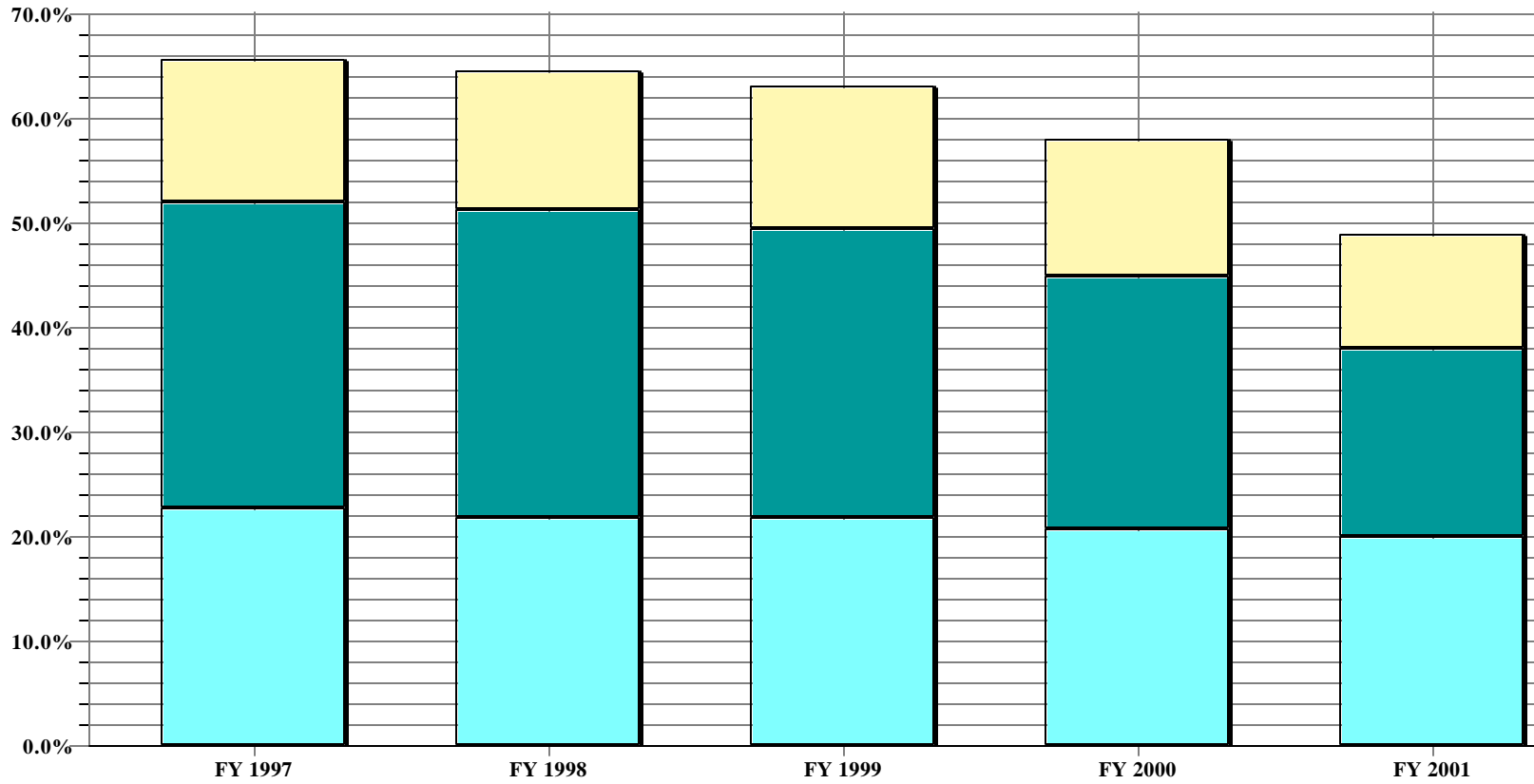
**US Department of Energy  
Total Functional Support as a % of Total Costs  
WIPP**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	65.7%	64.6%	63.1%	58.2%	49.0%

**US Department of Energy  
Percent of Support Category to Total  
WIPP**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	22.9%	21.9%	21.9%	20.8%	20.1%
<b>Mis Sup</b>	29.3%	29.4%	27.8%	24.2%	18.1%
<b>Site Specific</b>	13.6%	13.3%	13.5%	13.2%	10.8%

## **WIPP**

### **FY 2001 Functional Support Cost Profile**

#### Background:

The WIPP is designed to permanently dispose of TRU waste generated by defense-related activities. It is located in southeastern New Mexico, 26 miles east of Carlsbad. Project facilities include disposal rooms excavated 2,150 feet underground (about a half-mile) in an ancient, stable salt formation. TRU waste consists primarily of tools, gloves, clothing and other such items contaminated with trace amounts of radioactive elements, mostly plutonium. Westinghouse TRU Solutions (WTS) mission is to dispose of transuranic waste in an environmentally sound and safe manner while meeting the mandate to reduce cost. There are 27 DOE TRU waste sites, each having the similar goal of removal of TRU wastes from its facility. The total volume of TRU waste currently managed by the DOE (stored and projected) is estimated to be 171,439 m<sup>3</sup> of which 167,412 m<sup>3</sup> is CH TRU and 4,027 m<sup>3</sup> is RH TRU waste. A portion of this waste will be treated or repackaged prior to disposal, and the reported volumes may change depending on the selected treatment or repackaging methodology. The volume to be disposed of at WIPP is 108,439 m<sup>3</sup>, of which 106,623 m<sup>3</sup> is CH TRU, and 1,816 m<sup>3</sup> is RH TRU waste. WIPP's total capacity for both CH TRU waste and RH TRU waste is set at 175,600 m<sup>3</sup> by the Land Withdrawal Act, with the total volume of RH TRU waste not exceeding 7,080 m<sup>3</sup>. WTS opened and began receiving waste March 25, 1999. At the end of FY01, WIPP had emplaced 2,425 cubic meters of TRU Waste, which was a result of 381 shipments.

At the direction of CBFO, Westinghouse TRU Solution was tasked during FY01 to develop and implement a new stand alone "Central Characterization Project (CCP)", that would be able to deploy equipment and personnel to identified generator sites to perform waste characterization activities of TRU waste. The new stand-alone program functions independently of other WIPP Site activities and requirements. The program required the development of new program and project level documentation, which complied with all RCRA permits requirements for waste characterization and disposal.

The concept behind the development of the CCP was that once the program was certified, the program and project level documentation would be deployed and accepted at the next generator site that had been targeted for clean up. The Department of Energy will save significant amounts of money resulting from standardization of programs, equipment and procedures.

The CCP effort has extended beyond the boundaries of WTS by partnering with Los Alamos National Laboratories and Sandia National Laboratories to organize a team of experts in the fields of Non-Destructive Assay, Non-Destructive Examination, Head Space Gas Analysis, Acceptable Knowledge and Transportation. The teaming concept will more effectively utilize the resources of the Department of Energy in its effort to clean up and close generator sites across the complex.

CCP has developed and implemented an aggressive, fast-paced program to accelerate the cleanup of stored CH-TRU waste at those facilities across the country that only have small quantities of waste that will come to WIPP, and that are designated as small quantity sites (SQS). Processes were designed, procedures, developed, personnel hired and trained, mobile vendors selected, equipment deployed, and start-up activities initiated at three sites, with characterization started at one of the sites. Standardization, a cornerstone of CCP, will help drive down the cost-per-drum for characterization.

WTS has developed the NTP Integrated Schedule – the complex-wide schedule is a management tool that shows interdependency of activities among the complex, and tracks progress toward the major milestones identified in NTWMP.

The WIPP operating costs are within one fund type (with minor exceptions). Other sites having multiple missions with multiple appropriation funding sources may view what classifies as support costs differently.

Trends:

WTS continues to reduce support costs each year.

	FY96	FY97	FY98	FY99	FY00	FY01
Total Functional Support Costs as a Percentage of Total Costs	69.37%	65.70%	64.63%	63.20%	58.16%	48.98%

WTS’s support costs continue to rapidly decrease.

The WTS mission has moved from preparation for opening with emphasis on design, environmental compliance and permitting activities into an operating mode. This shift from information based (preparing to open) tasks to hands on (operating) tasks have resulted in a steady shift to mission direct efforts and away from support functions. The WIPP site mission is singular in nature (disposal of TRU waste). Its total infrastructure is charged to one mission; therefore, support functions lack the economies of scale that results from spreading these costs across missions. WTS is the M&O contractor and our submittal contains only a portion of the total WIPP budget. Because WIPP is a one of a kind 10,000-year facility in a remote location, it has unique human resource, records management, and outreach efforts. Legal activities have increase due to increase support for RCRA permitting. The opening of WIPP in March of 1999 and the continued increase in waste receipt throughput have resulted in a continued downward trend in support costs. In 2001, WTS was awarded the WIPP M&O contract. This resulted in significant cost savings in support cost areas. The FY01 Functional Support Cost percentage is 9.2% less than FY00, is over 8% less than what was projected in last years submittal, and shows a five year reduction of 20%.

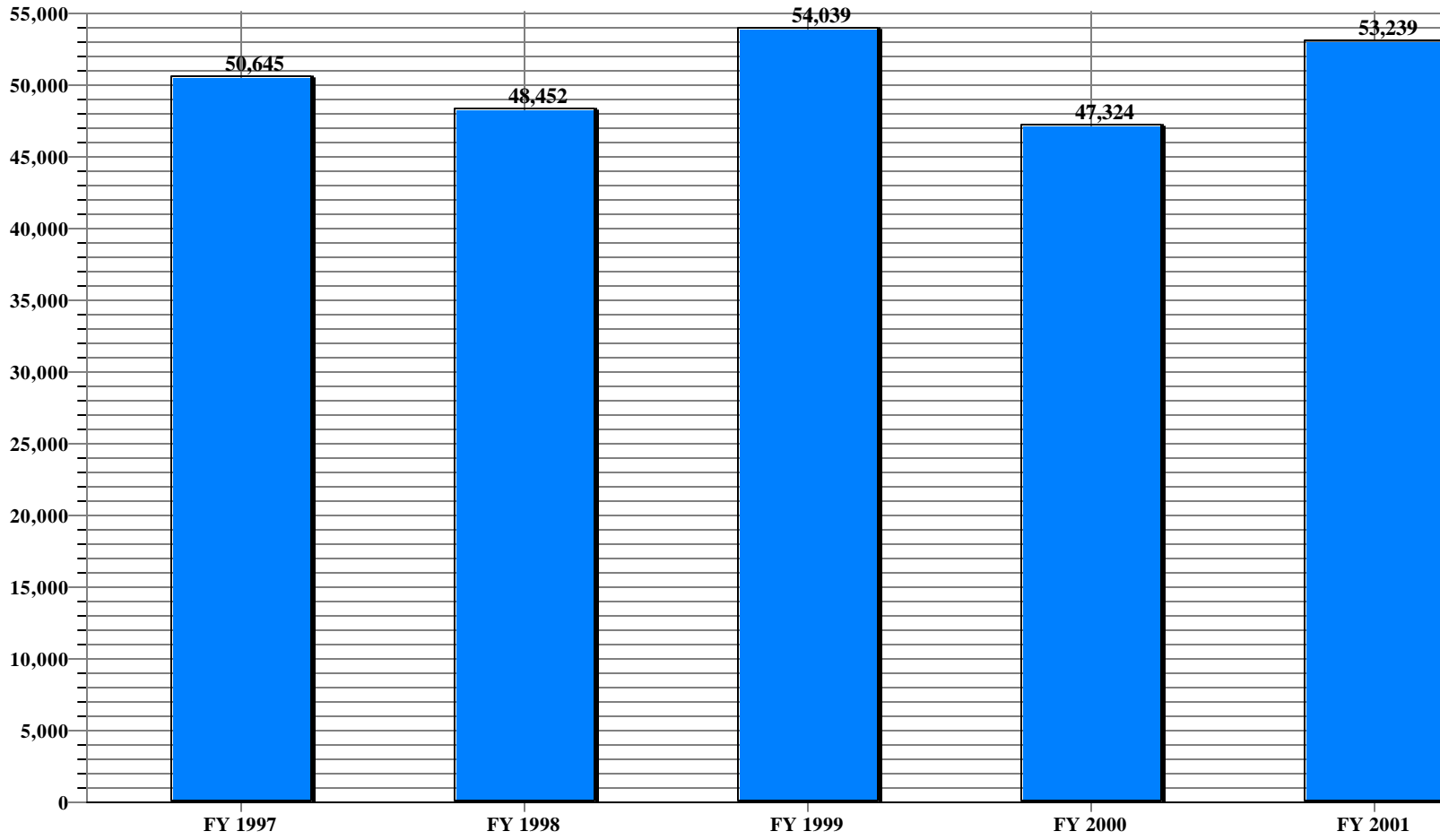
Cost Savings Initiatives:

WTS has committed to achieve in excess of \$80M in cost savings over their 5 year contract with the DOE. During first year, \$40.15M of savings has been identified. Performance objectives to demonstrate effective project and operational management were established which resulted in significant improvements in plant efficiency, better coordination with waste generator sites, and completion of critical work scope within budget and schedule.

## Trends in Total Functional Support Cost Categories

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	536	670	502	601	723	187	34.9%
HUMAN RESOURCES	1,657	2,170	1,953	2,028	2,029	372	22.5%
CFO	681	991	933	1,029	1,274	593	87.1%
PROCUREMENT	1,780	1,507	1,297	1,373	1,276	-504	-28.3%
LEGAL	183	188	176	346	328	145	79.2%
CENTRAL ADMIN SERVICES	1,645	1,705	1,711	1,464	1,189	-456	-27.7%
PROGRAM/PROJECT CONTROL	1,298	1,087	1,007	1,104	1,157	-141	-10.9%
INFORMATION OUTREACH	355	446	470	879	1,143	788	222.0%
INFORMATION SERVICES	2,764	5,665	6,260	6,036	4,683	1,919	69.4%
OTHER	5,200	0	7,137	0	5,396	196	3.8%
<b>TOTAL GENERAL SUPPORT</b>	<b>16,099</b>	<b>14,429</b>	<b>21,446</b>	<b>14,860</b>	<b>19,198</b>	<b>3,099</b>	<b>19.2%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	1,237	1,509	1,711	1,931	1,851	614	49.6%
SAFETY AND HEALTH	5,905	7,341	7,283	7,559	7,181	1,276	21.6%
FACILITIES MANAGEMENT	2,087	1,952	1,942	2,262	1,786	-301	-14.4%
MAINTENANCE	4,088	3,708	3,782	3,890	4,025	-63	-1.5%
UTILITIES	2,643	2,486	2,007	1,995	3,037	394	14.9%
SAFEGUARDS AND SECURITY	1,128	1,161	1,100	1,138	1,484	356	31.6%
LOGISTICS SUPPORT	663	680	760	817	1,031	368	55.5%
QUALITY ASSURANCE	1,853	1,905	1,695	1,659	1,646	-207	-11.2%
LABORATORY/TECHNICAL SUPPORT	2,764	2,458	2,297	1,824	1,755	-1,009	-36.5%
<b>TOTAL MISSION SUPPORT</b>	<b>22,368</b>	<b>23,200</b>	<b>22,577</b>	<b>23,075</b>	<b>23,796</b>	<b>1,428</b>	<b>6.4%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	11,278	9,516	9,143	9,389	10,026	-1,252	-11.1%
TAXES	900	1,307	873	0	219	-681	-75.7%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>12,178</b>	<b>10,823</b>	<b>10,016</b>	<b>9,389</b>	<b>10,245</b>	<b>-1,933</b>	<b>-15.9%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>50,645</b>	<b>48,452</b>	<b>54,039</b>	<b>47,324</b>	<b>53,239</b>	<b>2,594</b>	<b>5.1%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	57,137	65,903	53,396	64,537	58,800	1,663	2.9%
Capital Construction	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION DIRECT</b>	<b>57,137</b>	<b>65,903</b>	<b>53,396</b>	<b>64,537</b>	<b>58,800</b>	<b>1,663</b>	<b>2.9%</b>
<b>Total Costs</b>	<b>107,782</b>	<b>114,355</b>	<b>107,435</b>	<b>111,861</b>	<b>112,039</b>	<b>4,257</b>	<b>3.9%</b>
<b>Total Costs w/o Construction</b>	<b>107,782</b>	<b>114,355</b>	<b>107,435</b>	<b>111,861</b>	<b>112,039</b>	<b>4,257</b>	<b>3.8%</b>
General Support % Total Co	14.9%	12.6%	20.0%	13.3%	17.1%		2.2%
Mission Support % Total Cos	20.8%	20.3%	21.0%	20.6%	21.2%		0.5%
Site Specific % Total Costs	11.3%	9.5%	9.3%	8.4%	9.1%		-2.2%
Total Support % Total Costs	47.0%	42.4%	50.3%	42.3%	47.5%		0.5%
Total Support % Total Costs w/o Construct	47.0%	42.4%	50.3%	42.3%	47.5%		0.5%

**US Department of Energy  
Total Functional Support  
West Valley**

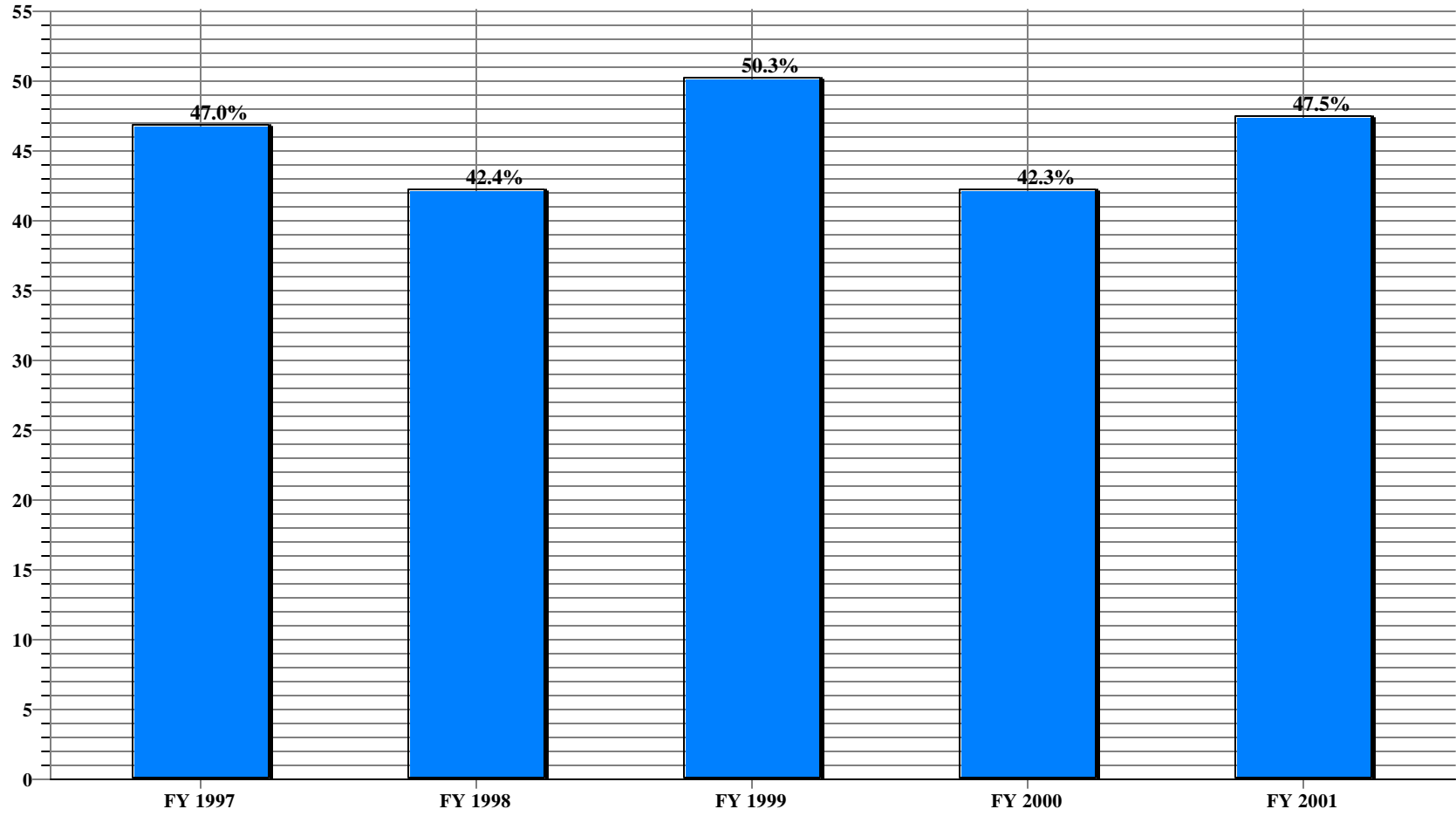


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	50,645	48,452	54,039	47,324	53,239



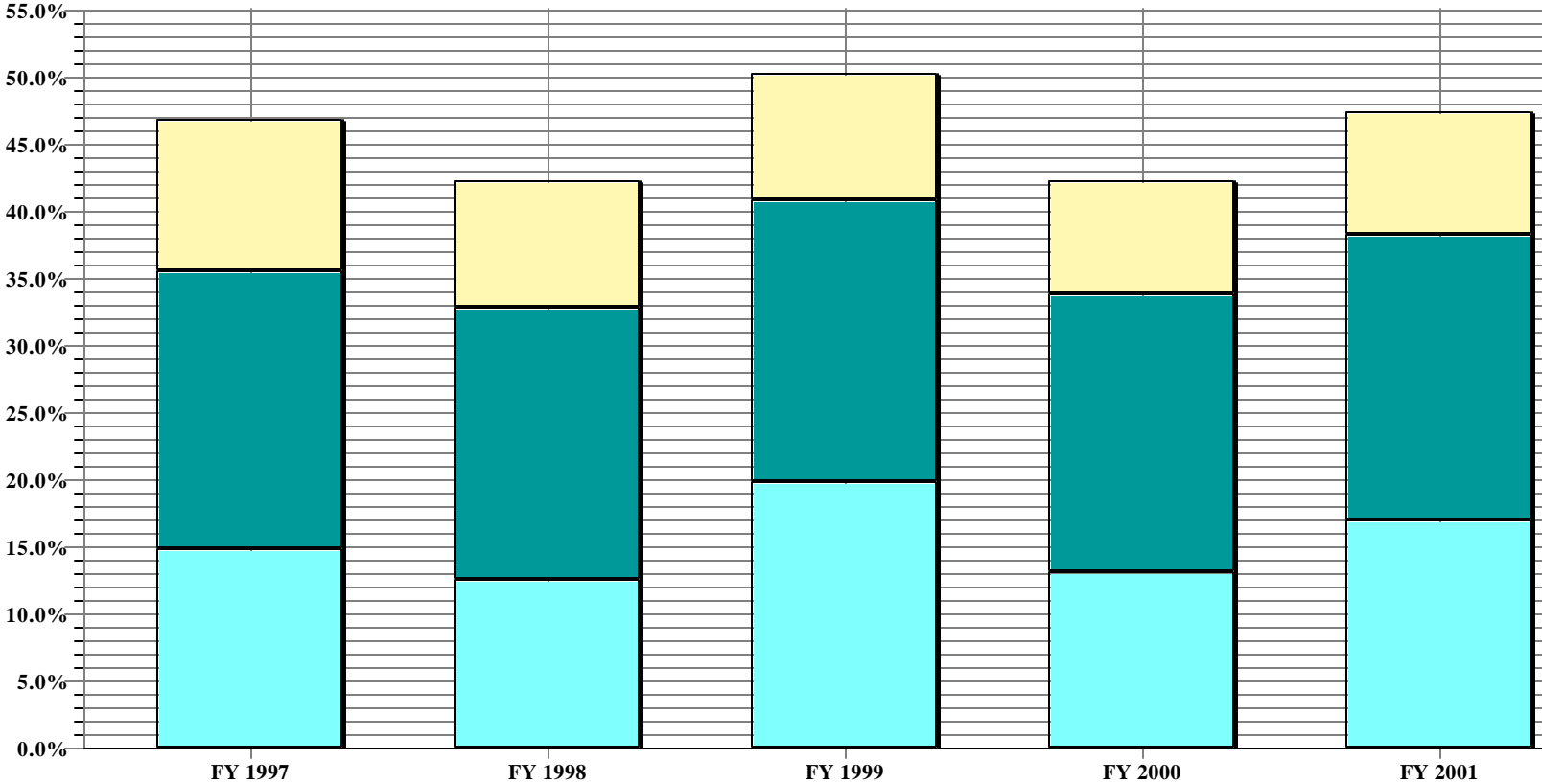
**US Department of Energy  
Total Functional Support as a % of Total Costs  
West Valley**



 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	47.0%	42.4%	50.3%	42.3%	47.5%

**US Department of Energy  
Percent of Support Category to Total  
West Valley**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	14.9%	12.6%	20.0%	13.3%	17.1%
<b>Mis Sup</b>	20.8%	20.3%	21.0%	20.6%	21.2%
<b>Site Specific</b>	11.3%	9.5%	9.3%	8.4%	9.1%

## **West Valley Project Background**

The purpose of the West Valley Demonstration Project (WVDP) is to solidify liquid high level waste (HLW), decontaminate and decommission the facilities and equipment used during this process, and dispose of low-level and transuranic wastes generated from Project activities at the Western New York Nuclear Service Center (WNYNSC). The site is owned by New York State (NYS) and administered through its agency, New York State Energy Research and Development Authority (NYSERDA). The WNYNSC is a 3,300 acre site located approximately 30 miles south of Buffalo, New York. A commercial spent nuclear fuel reprocessing facility operated at the site from 1966 until 1972. This reprocessing facility occupied about 230 acres of the entire 3,300 acre tract. During its operational years, the facility was used to reprocess uranium and plutonium from spent nuclear fuel (SNF), 60% of which originated from defense facilities. Reprocessing operations resulted in approximately 600,000 gallons of liquid HLW stored in underground tanks, which requires processing, storage and ultimate disposal.

In 1980, the United States Congress passed the West Valley Demonstration Project Act (Public Law 96-368), which authorized DOE to conduct a technology demonstration project to solidify the liquid HLW. A subsequent decision was made by DOE to develop vitrification technology as the process to solidify the liquid HLW. According to the terms and conditions prescribed by the WVDP Act, DOE also has responsibility for developing containers suitable for the permanent disposal of the solidified HLW at an appropriate Federal repository; transporting the HLW containers to an appropriate Federal repository; disposing of low level waste (LLW) and transuranic (TRU) waste resulting from HLW solidification; and decontaminating and decommissioning facilities used for HLW solidification. DOE also has responsibility for 125 spent nuclear fuel (SNF) assemblies stored at the site.

HLW Solidification is being performed according to a Memorandum of Understanding between the DOE and the U.S. Nuclear Regulatory Commission and a Cooperative Agreement between DOE and NYSERDA. NYSERDA cooperates in the WVDP and contributes ten percent of WVDP's costs. NYS holds title to the WNYNSC and the NRC license to operate the site. During performance of the requirements of the WVDP Act, DOE has exclusive use and possession of the WVDP premises (i.e., 230 acres), and is responsible for maintaining these premises, managing environmental risk, ensuring site worker and public safety, and accomplishing the scope of the WVDP Act as mandated by its implementing agreements.

An Environmental Impact Statement (EIS) is under development to evaluate alternatives for Project completion by the DOE and NYS, and will provide the basis for a Record of Decision (ROD) regarding WVDP completion, including disposal of the LLW, and decontamination of facilities used for HLW solidification. The DOE has formulated a Vision for Project Completion, however the joint decision on a Preferred Alternative between DOE and NYS has yet to be finalized.

## **Mission**

The management and operating prime contractor for the WVDP is West Valley Nuclear Services Company (WVNS), which manages the facility according to a performance based contract. During the time period encompassed by the Functional Cost Report (FY1995 to FY2001), the Project will have evolved from engineering/construction/start-up, to the current HLW final treatment/vitrification processing and waste management phase, and is in transition to facility deactivation, decontamination and waste management activities. There are significant challenges being managed in order to assure the Project has the required disciplines to support this evolutionary process.

## **Trends and Cost**

The WV total functional cost increased from \$47.3M in FY2000 to \$53.2M in FY2001. The increase in FY2001 is primarily due to a one-time charge of \$5.4M for the settlement of the prior year New York State (NYS) sales tax case liability. The subcategory totals also include the impact of \$1.9M of current year NYS sales tax payments which are reported in the applicable functional categories. Without the NYS Sales tax, the WV Functional cost total for FY2001 would have been approximately \$47.2M (approximately 600K of NYS Sales Tax included in support categories).

The functional cost data are not adjusted for the impacts of inflation over the reporting period (FY1995-FY2001). The actual current year dollars spent for functional costs decreased slightly from \$47.5M in FY95 to \$47.2 in FY01, when adjusted for the deletion of the AOther@category (NYS Sales Tax) which is used on an exception basis. When the functional cost trend totals are adjusted to FY01 dollars, the overall cost trend decreases by approximately 11%, from \$52.8M Aadjusted@(\$47.5M FY95 dollars escalated to FY2001 basis) to \$47.2M in FY01. As the work scope has evolved during the functional cost reporting period from waste processing systems / facilities construction to HLW waste processing to post operations decontamination/cleanup scopes, the site has experienced a significant decrease in non-labor Mission related expenditures primarily due to completion of vitrification facility construction, facility/system modifications and required infrastructure upgrades. Direct employment levels have decreased over this period from 965 FTEs to 695 FTEs. In addition, overall funding reductions from \$126.1M in FY95 to \$107.1M in FY2001 have been managed without incurring employee termination costs.

## **Cost Savings Initiatives**

Cost savings at the WVDP has been an area of significant achievement. Several programs, such as re-engineering and the Ideas for Excellence (IFE) programs, contribute to cost effectiveness at the Project. The Productivity and Cost Effectiveness (PACE) program formally generated and tracked cost savings commitments. Total savings/avoidance reported through the PACE program in FY2001 were \$18.6M, which exceeded the goal of \$10.0M. Hard dollar savings available for return through change control was \$6.3M. The hard dollar savings were redeployed directly into the Project to support acceleration of additional work into the fiscal year.

## **Other**

The New York State (NYS) Sales Tax case, a long-running outstanding issue, was resolved during FY2001.

In the FY1997 WVDP Functional Cost Report, \$5.2M was accrued in the General Support subcategory **Other** to offset a portion of the potential NYS Sales Tax liability that was in litigation at the time. The FY99 WVDP Functional Cost Report reported an additional offset of \$3.6M to that liability in the same category while continuing legal action was being pursued.

In August 2000, the NYS Court of Appeals denied a WVNS motion to appeal the case to the Appellate Division. Consequently, the Project is required to pay NYS Sales Tax on materials and services subject to the tax. Since September 2000, the tax has been paid on applicable items.

An evaluation by the NYS Tax Department was performed to assess the liability for the period from March 1990 to August 2000. The range of the **Aprior liability** was estimated to be between \$20-30M. The balance of the **Aprior liability** settlement was negotiated at \$5.4M, which was costed in FY2001 and reported in the **Other** Functional Cost category as a one-time charge.

During FY2001, the current year NYS sales tax cost the Project \$1.9M. As NYS sales tax is now considered part of the cost of doing business at the site, the sales tax is included as paid on the applicable taxable items in each of the Functional Cost categories.

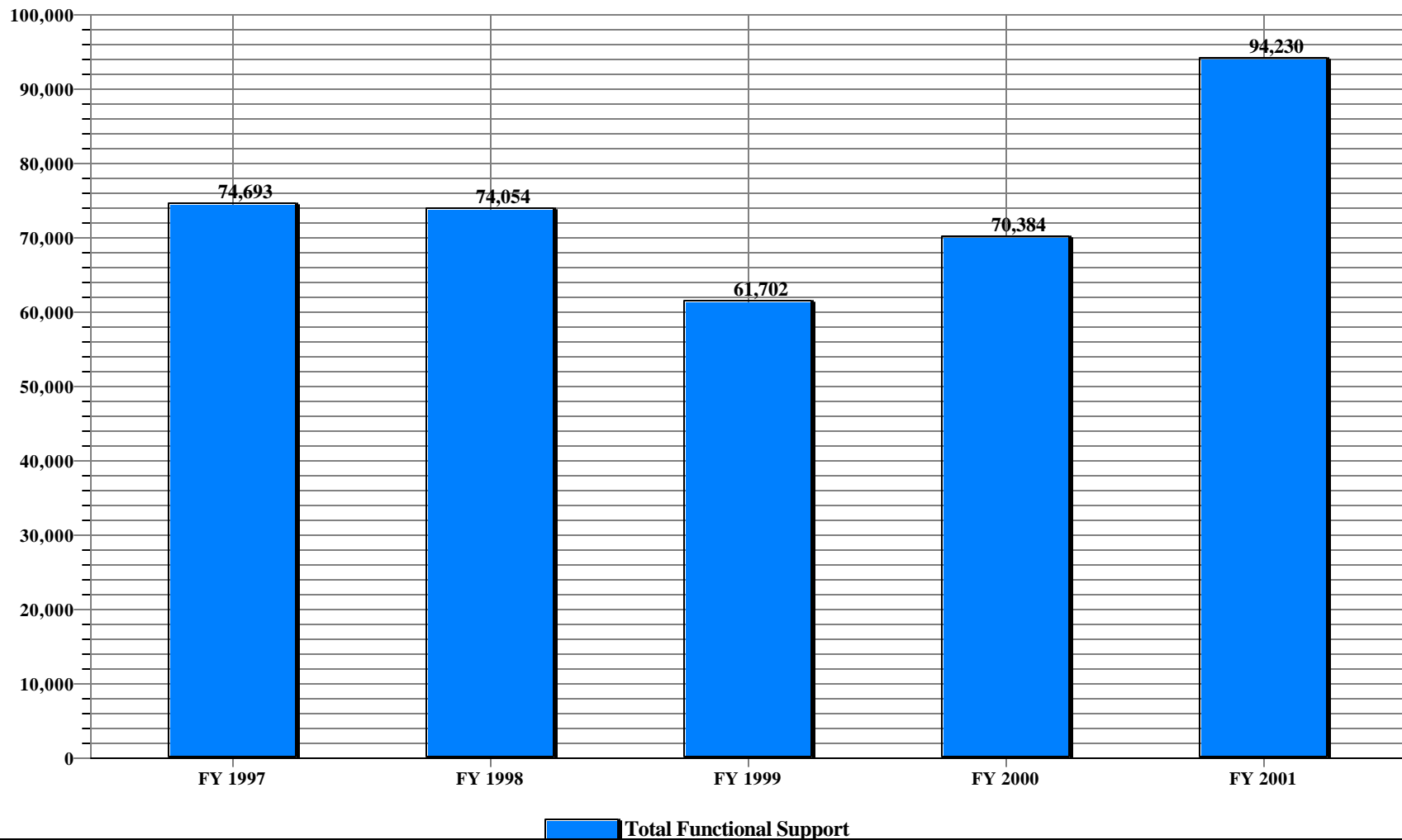
Yucca Mountain

FY 2001

Trends in Total Functional Support Cost Categories

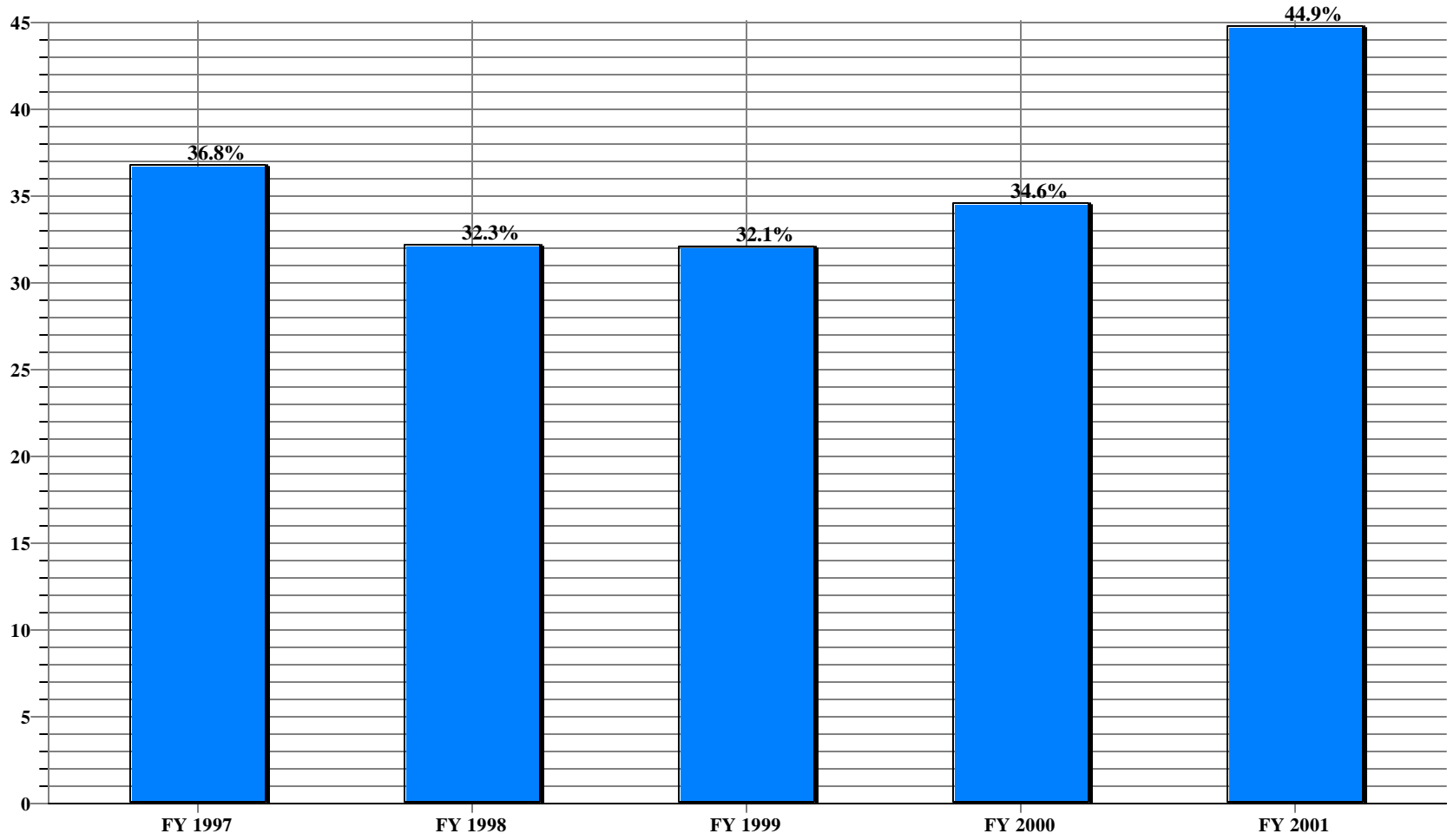
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	3,412	3,246	2,241	2,560	3,320	-92	-2.7%
HUMAN RESOURCES	1,824	1,860	1,633	1,835	6,136	4,312	236.4%
CFO	1,484	1,526	1,614	2,060	3,590	2,106	141.9%
PROCUREMENT	1,755	2,020	2,111	2,228	2,480	725	41.3%
LEGAL	1,015	1,313	1,433	394	113	-902	-88.9%
CENTRAL ADMIN SERVICES	3,134	3,833	3,274	4,267	9,091	5,957	190.1%
PROGRAM/PROJECT CONTROL	7,869	8,861	6,051	8,738	7,326	-543	-6.9%
INFORMATION OUTREACH	3,096	3,638	3,318	3,932	2,915	-181	-5.8%
INFORMATION SERVICES	12,998	15,494	10,781	14,336	13,771	773	5.9%
OTHER	0	0	0	0	2,040	2,040	100.0%
<b>TOTAL GENERAL SUPPORT</b>	<b>36,587</b>	<b>41,791</b>	<b>32,456</b>	<b>40,350</b>	<b>50,782</b>	<b>14,195</b>	<b>38.8%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	8,366	7,731	6,872	6,621	3,583	-4,783	-57.2%
SAFETY AND HEALTH	3,900	3,537	2,454	3,064	5,487	1,587	40.7%
FACILITIES MANAGEMENT	9,010	8,315	7,857	7,459	8,279	-731	-8.1%
MAINTENANCE	1,011	736	453	609	2,095	1,084	107.2%
UTILITIES	0	0	13	0	17	17	100.0%
SAFEGUARDS AND SECURITY	413	433	335	450	491	78	18.9%
LOGISTICS SUPPORT	473	909	947	949	2,139	1,666	352.2%
QUALITY ASSURANCE	6,375	195	0	0	6,160	-215	-3.4%
LABORATORY/TECHNICAL SUPPOR	0	0	0	0	0	0	0.0%
<b>TOTAL MISSION SUPPORT</b>	<b>29,548</b>	<b>21,856</b>	<b>18,931</b>	<b>19,152</b>	<b>28,251</b>	<b>-1,297</b>	<b>-4.4%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	8,237	10,103	10,095	10,867	15,068	6,831	82.9%
TAXES	321	304	220	15	129	-192	-59.8%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>8,558</b>	<b>10,407</b>	<b>10,315</b>	<b>10,882</b>	<b>15,197</b>	<b>6,639</b>	<b>77.6%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>74,693</b>	<b>74,054</b>	<b>61,702</b>	<b>70,384</b>	<b>94,230</b>	<b>19,537</b>	<b>26.2%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	128,264	155,334	130,413	132,891	114,799	-13,465	-10.5%
Capital Construction	0	0	0	0	944	944	100.0%
<b>TOTAL MISSION DIRECT</b>	<b>128,264</b>	<b>155,334</b>	<b>130,413</b>	<b>132,891</b>	<b>115,743</b>	<b>-12,521</b>	<b>-9.8%</b>
<b>Total Costs</b>	<b>202,957</b>	<b>229,388</b>	<b>192,115</b>	<b>203,275</b>	<b>209,973</b>	<b>7,016</b>	<b>3.5%</b>
<b>Total Costs w/o Construction</b>	<b>202,957</b>	<b>229,388</b>	<b>192,115</b>	<b>203,275</b>	<b>209,029</b>	<b>6,072</b>	<b>2.9%</b>
General Support % Total Co	18.0%	18.2%	16.9%	19.8%	24.2%		6.2%
Mission Support % Total Cos	14.6%	9.5%	9.9%	9.4%	13.5%		-1.1%
Site Specific % Total Costs	4.2%	4.5%	5.4%	5.4%	7.2%		3.0%
Total Support % Total Costs	36.8%	32.3%	32.1%	34.6%	44.9%		8.1%
Total Support % Total Costs w/o Construct	36.8%	32.3%	32.1%	34.6%	45.1%		8.3%

US Department of Energy  
Total Functional Support  
Yucca



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	74,693	74,054	61,702	70,384	94,230

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Yucca**

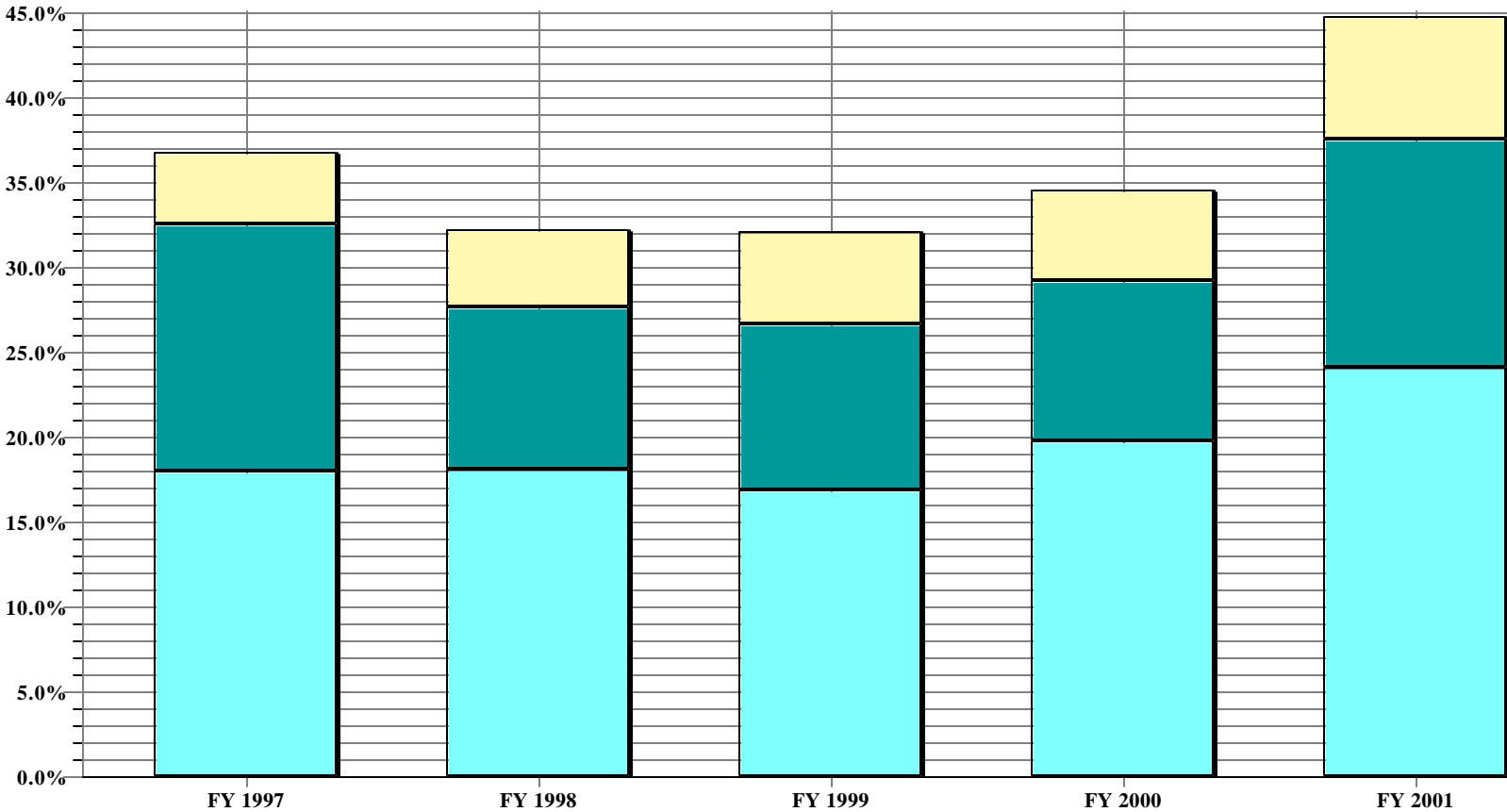


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	36.8%	32.3%	32.1%	34.6%	44.9%



**US Department of Energy  
Percent of Support Category to Total  
Yucca**



■ Gen Sup    
 ■ Mis Sup    
 ■ Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	18.0%	18.2%	16.9%	19.8%	24.2%
<b>Mis Sup</b>	14.6%	9.5%	9.9%	9.4%	13.5%
<b>Site Specific</b>	4.2%	4.5%	5.4%	5.4%	7.2%

## **Yucca Mountain Site Characterization Project Site Profile**

### **1. Background**

Yucca Mountain is the Department of Energy's potential geologic repository designed to accept spent nuclear fuel and other high-level radioactive waste. If approved, the site would be the nation's first geological repository for permanent disposal of this type of radioactive waste.

Yucca Mountain is located in Nye County, Nevada, about 100 miles northwest of Las Vegas on federally owned land on the western edge of the Department of Energy's Nevada Test Site. If approved, the repository will be built approximately 1,000 feet below the top of the mountain and 1,000 feet above the ground water.

Spent nuclear fuel and high level radioactive waste make up most of the material to be disposed at Yucca Mountain. Approximately 90 percent of the waste proposed for disposal is from commercial nuclear power plants, with the remainder coming from defense programs.

The project involves extensive scientific study on Yucca Mountain's geology, hydrology, biology, and climate. If found suitable, Yucca Mountain could be part of the nation's first long-term solution to a compelling environmental problem.

Customers who use nuclear power pay for the disposal of spent fuel. The federal government collects a fee of one mil (one-tenth of a cent) per kilowatt-hour of nuclear-generated electricity from utilities. This money goes into the Nuclear Waste Fund. In addition, the federal government will pay the fund for disposal of high-level radioactive waste generated by Department of Defense programs.

The Nuclear Waste Fund pays for a majority of the U.S. nuclear waste management program. DOE, the state of Nevada, and local governments that could be affected by the potential repository receive money from the Nuclear Waste Fund through congressional appropriations. The General Accounting Office, an arm of the U.S. Congress, oversees expenditures from the fund. In addition, the Nuclear Waste Fund is audited annually by a public accounting firm.

Additional project information about Yucca Mountain can be viewed on the official OCRWM Web Site:  
<http://www.ymp.gov>

## **2. Trend in Functional Support Costs**

Total Support costs increased by 34 percent from FY 2000 to FY 2001. The increase resulted primarily from the transition to a new contractor who made significant changes in how the work is performed and costs are reported. Details of the contractor transition and the reasons for significant increases/decreases for each line item are detailed in Note 3 below. A summary of the change in various functional cost categories from FY 1997 to FY 2001 is as follows:

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change FY97-01
General Support	\$ 36,587	\$ 41,791	\$ 32,456	\$ 40,350	\$ 50,782	39%
Mission Support	29,548	21,856	18,931	19,152	28,251	-4%
Site Specific	8,558	10,407	10,315	10,882	15,197	78%
Total Support	\$ 74,693	\$ 74,054	\$ 61,702	\$ 70,384	\$ 94,230	26%
Mission Direct	128,264	155,334	130,413	132,891	114,799	-10%
Capital/Constr.	-	-	-	-	944	
Total Site	\$ 202,957	\$ 229,388	\$ 192,115	\$ 203,275	\$ 209,973	3%
Sppt Cost Ratio	36.8%	32.3%	32.1%	34.6%	44.9%	22%

## **3. Major Anomalies in the Year-to-Year Data:**

In December 2000, Yucca Mountain began to transition its contract from TRW Environmental Safety Systems, Incorporated (TESS), including several of TESS's major subcontracts, to Bechtel/SAIC Company (BSC). BSC took over the contract in February 2001. The changes in the functional support costs result primarily from major differences in how work is structured under the new contract and how BSC accounts for costs. TESS subcontracted many activities that BSC has brought in-house. This resulted in a large increase in the contractor workforce from 416 TESS employees to 1,170 BSC employees with a corresponding decrease in subcontract activity. For functional cost purposes, TESS was not able to separately identify the support activities from the direct activities in individual subcontracts and so most subcontract costs were included in their entirety in the line item that most closely represented the work performed. There is currently no requirement to breakdown subcontracted effort into the separate functional cost categories. As a result, activities such as Quality Assurance and Capital Equipment that were previously reported in the single Mission Direct RW line item under TESS can now be identified and reported separately by BSC in the appropriate functional line item. Also, other support costs such as Human Resources and Administrative Support are now reported in total on the appropriate functional cost line where previously only the TESS portion could be identified and reported separately.

Details of how these changes impacted the specific line items and other reasons for any significant changes from FY 2000 to 2001 are as follows:

- Executive Direction. The increase resulted from the development of project, engineering, and program integration management activities that are new in FY 2001.
- Human Resources. The increase resulted from the development of a Benefits Administration office and the need to support a much larger workforce.
- Chief Financial Officer. The increase resulted from the need to support a much larger workforce and increased in-house activity.
- Administrative Support. The increase resulted from inclusion of the Technical Information Center that was previously included in the Mission Direct RW line item and the overall need to support a much larger workforce.
- Other. The costs included in this category generally were in support of the contract transition. A detailed breakdown of the elements included in this line item is provided in Note 5 below.
- Safety and Health. The increase resulted from implementation of additional safety and health initiatives such as the Zero Accident Philosophy program and increases in the employee base.
- Maintenance. The increase is attributable to the space planning and many facility moves that occurred during the initial stage of the contract.
- Utilities. These costs were not separately identifiable under the TESS contract but included in the Mission Direct RW line item.
- Logistics Support. The increase resulted from the development of a new activity for Life Cycle Asset Management and inclusion of the Site Motor Vehicle pool that was not separately identifiable under the TESS contract but included in the Mission Direct RW line item.
- Quality Assurance. These costs were not separately identifiable under the TESS contract but included in the Mission Direct RW line item.
- Management/Award/Incentive Fee. The increase resulted from a change in the basis for earning fee under the new contract.
- Taxes. The increase is generally due to the increased liability for the Business Tax return that is based on the number of full-time employees. As stated previously, BSC has about three times the number of employees as TESS.  
Additional tax information requested in the guidance: DOE makes payments equal to taxes directly to the state of Nevada. As a result, BSC is exempt from paying Nevada sales/use taxes. BSC incurred \$26K in Virginia sales/use taxes that were reported in Information Services, Taxes, and RW line items. All other taxes are reported within the Taxes line item.
- Mission Direct RW. The decrease is primarily a result of job costing differences between TESS and BSC. BSC implemented a more detailed job costing system and is therefore better able to identify support costs.

**4. Major Cost Drivers that may cause our site's costs to appear out of line with similar sites:**

In 1987, Congress amended the Nuclear Waste Policy Act and directed DOE to study only Yucca Mountain. As a result, Yucca Mountain's activities are unique within the Department.

**5. Other:**

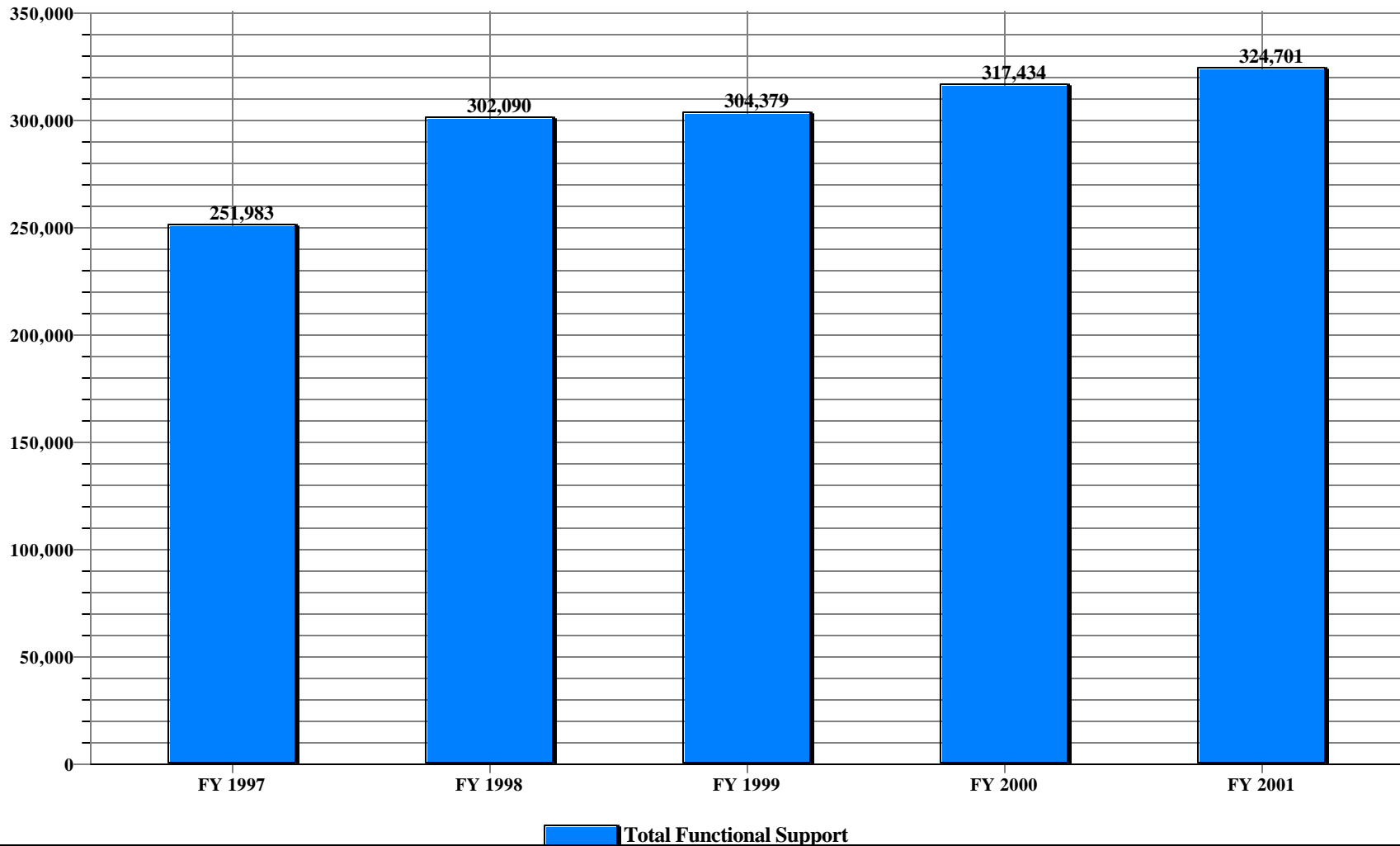
Details of costs included in the other category are as follows:

<u>Description</u>	<u>FY 2001 (in 000's)</u>
Transition Costs	\$1,700
Insurance	247
All-Hands Meetings	77
Lay-Off/Job Search/Interviews	15
Miscellaneous	1
Total	<u>\$2,040</u>

## Trends in Total Functional Support Cost Categories

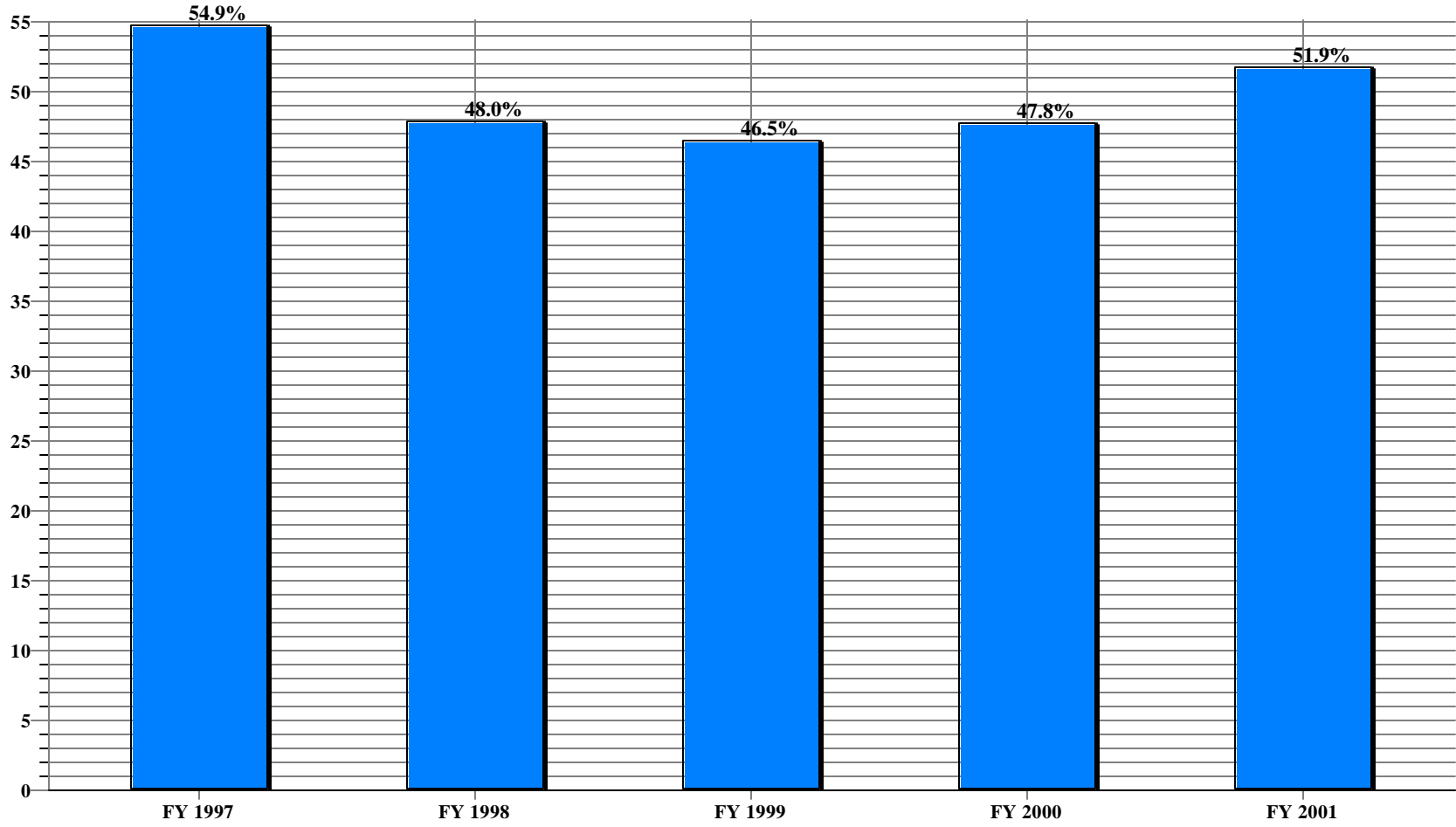
	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	Change 1997 to FY2001	
<b>GENERAL SUPPORT</b>							
EXECUTIVE DIRECTION	4,771	3,133	4,056	5,108	4,636	-135	-2.8%
HUMAN RESOURCES	5,200	5,161	5,851	6,595	6,784	1,584	30.5%
CFO	7,614	7,406	8,543	9,736	10,152	2,538	33.3%
PROCUREMENT	1,879	1,398	3,394	3,244	3,146	1,267	67.4%
LEGAL	557	785	1,464	1,889	1,982	1,425	255.8%
CENTRAL ADMIN SERVICES	7,415	6,036	5,625	7,064	7,299	-116	-1.6%
PROGRAM/PROJECT CONTROL	2,026	2,026	2,125	2,214	5,996	3,970	196.0%
INFORMATION OUTREACH	2,209	1,211	1,210	1,447	1,461	-748	-33.9%
INFORMATION SERVICES	23,282	22,661	26,000	29,819	29,092	5,810	25.0%
OTHER	2,685	10,075	4,214	5,774	2,107	-578	-21.5%
<b>TOTAL GENERAL SUPPORT</b>	<b>57,638</b>	<b>59,892</b>	<b>62,482</b>	<b>72,890</b>	<b>72,655</b>	<b>15,017</b>	<b>26.1%</b>
<b>MISSION SUPPORT</b>							
ENVIRONMENTAL	5,541	4,998	10,035	9,027	8,547	3,006	54.3%
SAFETY AND HEALTH	32,306	31,552	36,548	41,294	42,543	10,237	31.7%
FACILITIES MANAGEMENT	6,896	6,204	7,804	7,576	6,140	-756	-11.0%
MAINTENANCE	52,422	55,842	53,357	50,456	49,797	-2,625	-5.0%
UTILITIES	15,547	47,604	51,203	46,430	51,442	35,895	230.9%
SAFEGUARDS AND SECURITY	28,078	28,920	29,858	42,220	48,981	20,903	74.4%
LOGISTICS SUPPORT	5,139	2,289	2,877	3,470	3,064	-2,075	-40.4%
QUALITY ASSURANCE	17,848	22,102	11,042	9,432	10,263	-7,585	-42.5%
LABORATORY/TECHNICAL SUPPORT	11,481	10,687	13,213	13,718	13,700	2,219	19.3%
<b>TOTAL MISSION SUPPORT</b>	<b>175,258</b>	<b>210,198</b>	<b>215,937</b>	<b>223,623</b>	<b>234,477</b>	<b>59,219</b>	<b>33.8%</b>
<b>SITE SPECIFIC</b>							
MANAGEMENT/INCENTIVE FEE	22,763	29,186	27,127	18,958	16,346	-6,417	-28.2%
TAXES	-3,676	2,814	-1,167	1,963	1,223	4,899	-133.3%
LDRD	0	0	0	0	0	0	0.0%
<b>TOTAL SITE SPECIFIC</b>	<b>19,087</b>	<b>32,000</b>	<b>25,960</b>	<b>20,921</b>	<b>17,569</b>	<b>-1,518</b>	<b>-8.0%</b>
<b>TOTAL FUNCTIONAL SUPPORT</b>	<b>251,983</b>	<b>302,090</b>	<b>304,379</b>	<b>317,434</b>	<b>324,701</b>	<b>72,718</b>	<b>28.9%</b>
<b>MISSION DIRECT</b>							
Mission Direct Operation	151,194	266,791	316,394	330,285	291,442	140,248	92.8%
Capital Construction	56,120	60,990	33,642	16,093	9,945	-46,175	-82.3%
<b>TOTAL MISSION DIRECT</b>	<b>207,314</b>	<b>327,781</b>	<b>350,036</b>	<b>346,378</b>	<b>301,387</b>	<b>94,073</b>	<b>45.4%</b>
<b>Total Costs</b>	<b>459,297</b>	<b>629,871</b>	<b>654,415</b>	<b>663,812</b>	<b>626,088</b>	<b>166,791</b>	<b>36.3%</b>
<b>Total Costs w/o Construction</b>	<b>403,177</b>	<b>568,881</b>	<b>620,773</b>	<b>647,719</b>	<b>616,143</b>	<b>212,966</b>	<b>34.6%</b>
General Support % Total Co	12.5%	9.5%	9.5%	11.0%	11.6%		-0.9%
Mission Support % Total Cos	38.2%	33.4%	33.0%	33.7%	37.5%		-0.7%
Site Specific % Total Costs	4.2%	5.1%	4.0%	3.2%	2.8%		-1.3%
Total Support % Total Costs	54.9%	48.0%	46.5%	47.8%	51.9%		-3.0%
Total Support % Total Costs w/o Construct	62.5%	53.1%	49.0%	49.0%	52.7%		-9.8%

US Department of Energy  
Total Functional Support  
Y-12



	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	251,983	302,090	304,379	317,434	324,701

**US Department of Energy  
Total Functional Support as a % of Total Costs  
Y-12**

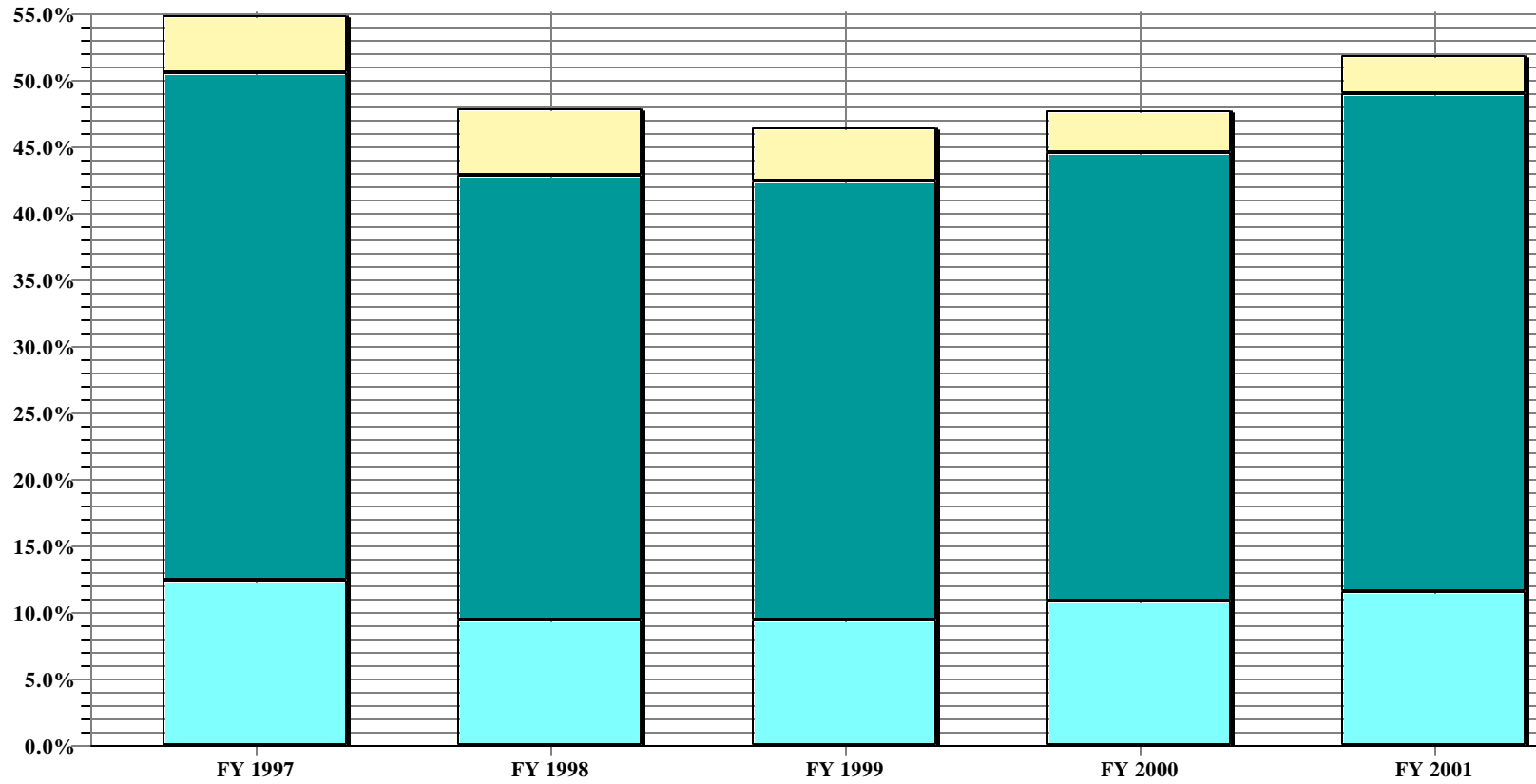


 Total Functional Support

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Total Functional Support	54.9%	48.0%	46.5%	47.8%	51.9%



**US Department of Energy  
Percent of Support Category to Total  
Y-12**



Gen Sup
  Mis Sup
  Site Specific

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
<b>Gen Sup</b>	12.5%	9.5%	9.5%	11.0%	11.6%
<b>Mis Sup</b>	38.2%	33.4%	33.0%	33.7%	37.5%
<b>Site Specific</b>	4.2%	5.1%	4.0%	3.2%	2.8%

## **FY 2001 Site Profile for Y-12:**

### **Background**

The BWXT Y-12 mission within the National Nuclear Security Administration includes manufacturing and reworking nuclear weapons components, dismantling nuclear weapon components returned from the national arsenal, serving as the nation's storehouse of special nuclear materials, and providing special production support. Another mission of long standing is the support of other federal agencies through the Work for Others (WFO) Program. This additional work helps maintain the Y-12 critical skills and reduces the overhead cost to Defense Programs. A portion of the WFO is implemented through the Oak Ridge Centers for Manufacturing and Materials Sciences (ORCMMS). ORCMMS's focus is to apply unique expertise, initially developed for highly specialized military purposes, to a wide range of manufacturing problems to support the capabilities of the U. S. industrial base.

#### Y-12 Plant Site Characteristics:

- 800 acres, spanning 2.5 miles
- 582 buildings
- 292 trailers (~217,000 square feet)
- 4,320 employees

### **Trend in Total Functional Support Costs from FY 1997 to FY 2001**

In looking at raw data, it appears that the functional cost at the Y-12 plant has increased by approximately \$75M. These cost increases are driven by changes in the contractual arrangements with the DOE/NNSA and changes in priorities that are supported by both the contractor and DOE/NNSA. The most significant of these changes are:

#### Contract Changes:

In FY 1998, the DOE modified the Y-12 contract to include management and administration of the power operations switchyard that feeds the entire Oak Ridge Reservation. Y-12 continues to operate the Oak Ridge power operations switchyard and therefore continues to include the electricity and natural gas cost that feeds the three large DOE contractors located in the Oak Ridge Area. Change resulted in an increase of \$30M to Y-12's functional cost.

Beginning in FY 1997, the DOE began to separate the three large Oak Ridge contracts (Y-12, ORNL, and ETTP) from being managed by a single contractor to being managed by three separate contractors. When all three facilities were managed by a single contractor, much of the fixed cost of information systems was shared by the three sites. As the three separate contractors began to "stand up" their own information systems, the

opportunity to share fixed costs went away and the total costs of these systems to Y-12 increased. Areas specifically impacted by this change in the business environment were Chief Financial Officer (\$2M), Human Resources (\$1M), and Information Services (\$6M).

#### Changes in Priorities:

Over the last few years, Y-12 has more and more emphasis into integrating safety into every activity that takes place at the facility. With such an emphasis on Health and Safety activities, more resources are identified as being safety related and therefore are being classified as Health and Safety as opposed to Mission Direct in regards to functional cost reporting. In addition, increased efforts to resolve deficiencies in the Fire Protection area have driven Safety and Health costs higher. This increased emphasis has generated a \$10M increase in the Health & Safety category since 1997.

Fiscal Years 2000 and 2001 have seen significant changes in the area of Safeguards and Security. First, a decision was made in Oak Ridge to subcontract security activities to Wackenhut Services Inc. (WSI). This is significant from a functional cost perspective in that all cost incurred by WSI are considered security cost. In the past, some of these costs necessary to execute the security function may have been incurred on other functional cost lines like CFO, Quality, Executive Direction, Fee, etc. A second significant change in the area of Safeguards and Security is the decision to direct fund the safeguards and security scope of work. With Safeguards and Security having direct funding status, many of the critical unfunded needs in this area are receiving attention and consideration of funding. This environment is adding scope to the safeguards and security area and therefore costs are increasing. Combined impact of changes in the Safeguards and Security area are an increase of \$20M.

One of the major components of the BWXT management plan was the creation of a strong planning and integration function. At the beginning of FY 2001, 23 employees were aligned with the Program/Project Planning & Control (PPPC) functional cost activity. At the end of FY 2001, 119 employees were aligned with the PPPC functional area. While this strategy does reflect an increase in total functional cost, it is recognized by BWXT Y-12 and the NNSA Y-12 Area Office that a strong PPPC function enhances both the contractor and the governments ability to manage the work that is being performed at Y-12. The implementation of this strategy has caused the PPPC functional category to be increased by \$3.5M.

## **Trend in Total Functional Support Cost as a Percentage of Total Cost FY 1997 – FY 2001**

The trend line from FY 1997 through FY 2001 reveals a reduction in the total functional cost as a percent of total from 54.9% to 47.8% during the years FY 1997 to FY 2000 with an increase in the percentage to 51.9% in FY 2001. The increase in the percentage is driven by increases in functional cost (as described above) and a decrease in the Mission Direct cost values. The reasons for a decrease in the Mission Direct costs are:

A conscience decision by BWXT Y-12 management to curtail work on capital projects. This was done so the new project management team could have a chance to evaluate all cost estimates and schedules associated with capital projects. Project execution and related Mission Direct base dollars will begin to increase beginning in FY 2002.

Loss in Work for Others (WFO) revenues. Several long-standing WFO projects and programs came to closure during FY 2000 and FY 2001. BWXT Y-12 is re-aligning it's focus on WFO with a renewed emphasis on developing WFO that is complementary to the core Defense Programs mission that is performed at Y-12.

### **Functional Area Trends**

Executive Direction – \$472K decrease from FY 2000. Change in management structure brought about by new contractor generated a decrease in cost reported.

Chief Financial Officer –\$416K increase from FY 2000. Since 1997, Y-12 has been sharing fewer services with the other two large contractors in Oak Ridge. Fixed costs of systems in the areas of payroll, benefits accounting, etc. are now being allocated 100% to Y-12. Additionally, FY 2000 was the last year any audit services were sold to ORNL. These resources are now being allocated to workscope within Y-12.

Legal – Very little change from FY 2000 to FY 2001. Increased costs due to increased litigation and settlements have caused this cost to increase \$1.5M since FY 1997.

Program/Project Planning & Control - Increase of \$3.5M from FY 2000 to FY 2001. One of the major components of the BWXT management plan was the creation of a strong planning and integration function. At the beginning of FY 2001, 23 employees were aligned with the Program/Project Planning & Control (PPPC) functional cost activity. At the end of FY 2001, 119 employees were aligned with the PPPC functional area. While this strategy does reflect an increase in total functional cost, it is recognized by BWXT Y-12 and the NNSA Y-12 Area Office that a strong PPPC function enhances both the contractor and the governments ability to manage the work that is being performed at Y-12. The implementation of this strategy has caused the PPPC functional category to be increased by \$3.5M.

Information Services – FY 99 marked the last year that any significant amount of shared systems costs were allocated to either ORNL or ETTP. Fixed systems costs that were once shared by Y-12, ETTP, and ORNL are now being allocated 100% to Y-12. This has resulted in a cost increase to Y-12 of approximately \$6.0M since FY 1997. Costs are leveling off beginning in FY 01.

Program/Project Planning & Control - Increase of \$3.5M from FY 2000 to FY 2001. One of the major components of the BWXT management plan was the creation of a strong planning and integration function. At the beginning of FY 2001, 23 employees were aligned with the Program/Project Planning & Control (PPPC) functional cost activity. At the end of FY 2001, 119 employees were aligned with the PPPC functional area. While this strategy does reflect an increase in total functional cost, it is recognized by BWXT Y-12 and the NNSA Y-12 Area Office that a strong PPPC function enhances both the contractor and the government's ability to manage the work that is being performed at Y-12. The implementation of this strategy has caused the PPPC functional category to be increased by \$3.5M.

Safety and Health – Increased scope requirements in the following areas have driven cost increases in the Health and Safety category: Fire Protection operations and the development of a Fire Protection Corrective Action Plan, complete implementation of Integrated Safety Management, and planning for implementation of 10CFR830. These activities have combined for a \$10M increase in the period FY 1997 to FY 2001.

Utilities - \$30M increase in FY 1998 due to DOE assigning management responsibility of Oak Ridge power operations switchyard to Y-12. Costs were higher in FY 01 due to a larger consumption of natural gas combined with a higher quantity price for natural gas.

Safeguards and Security - Fiscal Years 2000 and 2001 have seen significant changes in the area of Safeguards and Security. First, a decision was made in Oak Ridge to subcontract security activities to Wackenhut Services Inc. (WSI) This is significant from a functional cost perspective in that all cost incurred by WSI are considered security cost. In the past, some of these costs necessary to execute the security function may have been incurred on other functional cost lines like CFO, Quality, Executive Direction, Fee, etc. A second significant change in the area of Safeguards and Security is the decision to direct fund the safeguards and security scope of work. With Safeguards and Security having direct funding status, many of the critical unfunded needs in this area are receiving attention and consideration of funding. This environment is adding scope to the safeguards and security area and therefore costs are increasing. Combined impact of changes in the Safeguards and Security area are an increase of \$20M in the period FY 1997 to FY 2001.

Other – Major cost elements in this category include:

Contract Transition Cost	789K
Relocation Costs	748K
Support for American Museum of Science & Energy	425K
Service Awards	219K

Taxes – Lower corporate income tax paid in FY 2001 resulted in a decrease in the taxes category. Total Sales and Use taxes paid for FY 2001 were \$4.8M. These costs are incurred as a part of material costs and are spread across the functional categories as a part of material cost.

### **Cost Savings Initiatives**

A part of the FY 2002 Fee plan for BWXT Y-12 is a commitment to gain 10% in productivity improvements and cost savings. Several cost savings projects have been identified that will produce, at a minimum, the 10% metric. In addition, BWXT Y-12 is aggressively implementing a Six Sigma program that will produce further efficiencies.

## Functional Cost Reporting System - Definitions

### A. General Support:

1. **Executive Direction** - Includes costs normally associated with the executive level of management. Examples of activities in this account may be the Laboratory Director, President, and other top level management and immediate staff (Secretary, Special Assistants, etc.), Science Advisors and Deputy Directors, Vice Presidents, etc. This category also includes total quality (TQM) type activities such as the development and administration of Total Quality Improvement Plans, Cost Savings and Reengineering Programs administration, etc.; institutional/strategic planning, including development and control; and any site specific development. All other management/supervisor activities, including related incidental costs, should be reported in the appropriate support/mission category.
2. **Human Resources** - Includes costs associated with recruiting, wage and salary administration, equal employment opportunity and diversity activities, benefits administration, employee concerns programs, central training development services (job specific training development curriculum should be included in the specific category to which it applies), industrial relations, personnel records, employee claims, adjudications, grievances, arbitration, educational programs providing for undergraduate and graduate course work, and other personnel services
3. **Chief Financial Officer** - Includes costs associated with activities of a financial nature, such as general accounting, payroll, travel accounting, funds control, cost accounting, financial systems management, non-project/program specific budget coordination and control, such as indirects, and internal audit.
4. **Procurement** - Includes costs associated with activities related to make/buy decisions, contracting, purchasing, contract administration (including prime), and acquisition of resources to conduct activities, as well as conduct audit and cost/price analysis activities.
5. **Legal** - Includes costs associated with legal counsel support and litigation support. Includes outside legal support and ethics functions.
6. **Central Administrative Services** - Includes costs associated with clerical support pools, travel reservation support, food service, printing and graphic support services, records management, and all library-related activities. Also includes cost-per-copy contracts (convenience copiers). Does not include secretarial and clerical costs; these are in the respective category they support.

## Functional Cost Reporting System - Definitions

7. **Program/Project Planning & Control** - Includes cost associated with support and execution of program/project budgeting, funding requests, baseline control and preparation (including planning, scheduling, coordination, change control, reporting and analysis which is program specific). Also includes master scheduling, project management system administration, and baseline pricing and validation efforts. Does not include actual program/project management functions. These costs should be reported in the specific mission or support categories they relate to.
8. **Information/Outreach Activities** - Costs associated with media communication, public relations, technology transfer, technical information management, educational programs, employee outreach program, stakeholder-related outreach, activities contributing to the development of the local/regional economy, and other information or outreach activities such as HBCU and other university-related activities, including stakeholder agencies and Washington, DC, liaison activities. This category includes:

### **Information Outreach Activities**

**Public Relations/Information** - Includes all costs associated with activities which provide non-technical information about the M&O Contractor, and its activities to the general public, news media, etc.

**Technology Transfer** - Includes all costs associated with activities that encourage the further development of promising technologies; disseminate information to appropriate researchers, organizations, industry, governmental bodies, and other institutions; and other activities that assist in effecting the introduction of technologies into the marketplace.

**Technical Information Management** - Includes all costs associated with activities to develop and make available technical information.

**Employee Outreach Programs** - Includes all costs associated with activities by employees utilizing their technical expertise for the benefit of external stakeholders.

**Other Information Outreach Activities** - Includes all costs associated with other outreach activities that are not defined above.

**Stakeholder-Related Outreach** - Community relations and education programs to promote enhanced understanding of the site by local and state stakeholders.



## Functional Cost Reporting System - Definitions

9. **Information Services** - Costs associated with Automated Data Processing (ADP) Services (central computer facilities, and service organizations, including business and scientific), Communications (mail, both electronic and hard copy including postage, subcontracted delivery services, etc.), Networking (groups of computers that communicate with each other, share peripherals, and access remote hosts or other networks), and Telecommunications Services (communication by electronic submission of impulses over telephone/optic lines including cell phones). Include pagers and related systems, but not the maintenance of these systems. Also include computer leases. Do not include computer bill-out rates in any other functional category. This category includes systems analysts/programmers; however, specific systems management and administrative costs for various business and scientific systems should be included in their respective functional categories (Note: Dedicated scientific activities, experiments, analysis, etc., should be included in the appropriate category. Also computer hardware maintenance activities are to be reported within the maintenance category.)
10. **Other** - Costs which are not identified in another functional cost category. This includes legal settlements, workforce restructuring activities (severance, benefits, and outplacement services) and general company liability insurance expenditures. Specifically identify significant cost activities and provide footnotes.

### B. **Mission Support:**

11. **Environmental** – Includes costs associated with the development, implementation, and maintenance of effluent controls, environmental monitoring, and surveillance, permitting, auditing and evaluation to assure environmental compliance, and pollution prevention. These activities, performed on a routine basis, are necessary to maintain compliance with Federal State and Local regulations, as well as applicable DOE Orders and directives. This category does not include actual waste storage or cleanup activities. The category includes:
- **Auditing and Evaluation** - These audits are done as a routine mechanism to assure environmental compliance with internal and external directives, including the National Environmental Policy Act (NEPA). Encompasses costs associated with implementation of the Environmental, Safety and Health Compliance Assessment activities (such as related "Tiger Team" activities). Also includes the development of performance objectives and environmental auditing procedures.

## Functional Cost Reporting System - Definitions

- **Effluent and Environmental Monitoring and Surveillance** - Monitoring activities include data base monitoring as required by DOE directive or compliance monitoring as required by the environmental regulatory authorities, such as air and water monitoring. (Note: Actual sample analysis should be included in Laboratory Support or Other Technical Support Activities.)
- **Permitting** - Includes those activities involved in reporting the results of environmental monitoring, analysis, and evaluation. These activities are necessary to obtain permits from regulatory agencies regarding plant releases and/or discharges. (Note: Environmental Impact Statement costs and related activities are to be included in the appropriate category they support.)
- **NON-EM WASTE MANAGEMENT** - The Non-EM Waste Management functional area includes those activities addressing the treatment, storage, and disposal of wastes. Activities include characterization and certification of waste to ensure its proper treatment or disposal; waste handling and temporary storage activities, such as operation of 90-day satellite accumulation areas for the storage of hazardous waste; operation and management of all waste treatment and disposal systems; and final disposal of all wastes.

**12. Safety & Health** - Costs associated with safety and health programs, such as emergency preparedness, fire protection, industrial hygiene, industrial safety, occupational medical services, nuclear safety, work smart programs, radiation protection, transportation safety (does not include traffic management functions - include this item in logistics), and management oversight. Further definitions are as follows:

**Emergency Preparedness** - Emergency Preparedness includes all those activities that are intended to provide personnel with a special capability to respond to incidents and accidents. Activities in this area include maintenance inspection of emergency facilities and equipment; emergency response team personnel training, drills, and exercises; maintaining and updating of current emergency plans based on site specific safety analyses; coordination with State and local authorities and Federal Agencies. Plant and equipment that are part of safety systems relied upon to prevent or mitigate accidents (HVAC process monitors, etc.) are not included in this area, but are addressed in Industrial Safety or Nuclear Safety. The physical plant and equipment provided for normal and emergency egress are addressed in Industrial Safety.

## Functional Cost Reporting System - Definitions

**Fire Protection** - Fire Protection includes all those activities that are intended to prevent, detect, alert, and suppress fires. Activities in this area include fire prevention; fire detection; fire suppression systems; related inspections and testing; fire fighting and emergency response, loss prevention; operation of ambulances and fire fighting equipment; testing and inspection of fire protection equipment and alarm systems; flammable and explosive material control; training certification to NFPA, state and local requirements; review of construction and design plans for fire hazards; and mutual aid agreements with local authorities. This area excludes those fire protection activities and/or systems that are solely for the benefit or protection of nuclear systems, storage areas, and/or processes (e.g., glove box inerting systems). These excluded activities are to be included in Nuclear Safety.

**Industrial Hygiene** - Industrial Hygiene includes all those activities that are intended to provide protection to workers from physical and physiological hazards. Activities in this area include engineered/redesign of tasks, ventilation, substitution of less hazardous materials (such as asbestos abatement program administration, but not removal), written and verbal communication of real and perceived hazards, personnel protection, radiological and non-radiological laundry services, laser protection, and physiological stress. This area does not include medical surveillance, employee medical records, and exposure of workers to radioactivity (note that non-ionizing radiation is included).

**Industrial Safety** - Industrial Safety includes all those activities that are intended for the protection of workers from physical trauma. Activities in this area include electrical safety; machinery and machine guarding; personnel protection; accident investigation; compressed gas and pressure system safety; hoisting, rigging, and material handling; lockout/tag-out; confined space controls; platform, man-lift and scaffolding usage; safe surfaces for walling and working; cutting, welding and boring safety; hand and portable power tool safety; explosives and hazardous material handling, storage and use; construction safety; firearms safety; and facility egress.

**Occupational Medical Services** - Occupational Medical Services includes all those activities that are intended to provide a comprehensive occupational medical program, including employee health examinations such as pre-placement and qualification, periodic, return to work, fitness for duty, and termination examinations; diagnosis and treatment of occupational illnesses and injuries; employee health counseling (employee assistance program and wellness); maintenance of medical records; emergency medical treatment and triage; specialized medical equipment; and immunization programs.

## **Functional Cost Reporting System - Definitions**

**Nuclear Safety** - Nuclear Safety includes activities that are intended to maintain criticality safety and nuclear operations safety. Activities in this area include control of systems and parameters within subcritical limits, and use of systems, procedures, equipment, analyses, programs, and personnel to ensure safe nuclear reactor and nuclear non-reactor operations.

**Radiation Protection** - The Radiation Protection includes all those activities that are intended to control exposures of workers and the public to radioactivity. Activities in this area include control equipment and procedures for radiation sources; interlocks, instrumentation, and shielding for radiation-generating devices; equipment and procedures used to minimize or mitigate external exposure; personnel dosimetry, bioassay program, and ALARA programs; control of paths for inhalation or ingestion of radiation; radiation exposure records; fixed and portable instrumentation for radiation detection and measurement; and contamination control; effluent monitoring and release; and environmental monitoring and remediation.

**Transportation Safety** - Transportation Safety includes all those activities that are intended to ensure safe packaging and transportation. Activities in this area include packaging certification; coordination of intra-building and on-site movements and transfers; off-site and international shipments; transportation (including marking and labeling) of material; maintenance inspection of transportation equipment; testing and technology of transportation operators; aviation safety; motor vehicle safety; water craft safety; and rail safety.

**Management and Oversight** - Management and Oversight includes all those activities that are intended to coordinate, direct, integrate, and control S&H activities across multiple areas. Activities in this area include S&H documentation and document control activities; configuration management; S&H performance trending, analyses, and lessons learned feedback; corrective action tracking; S&H self-assessment activities; dedicated internal S&H personnel; coordination and communication with DOE, State, and local authorities; internal audits and surveillance; external S&H program reviews; operational readiness reviews; and performance and documentation of comprehensive safety analyses. Nuclear safety analyses are included in Nuclear Safety. Program elements such as quality assurance, management systems, oversight, and physical infrastructure are inherent to all areas and are intended to be accounted for in the specific areas.

**13. Facilities Management** - Costs associated with facilities and their ability to function effectively, such as plant and maintenance engineering, facilities remodeling (if it does not meet the capitalization criteria), facilities utilization analysis, modification and upgrade analysis,

## Functional Cost Reporting System - Definitions

facilities planning and condition determinations, rental of buildings/land.

Facilities Management includes:

**Engineering** - Activities including facility engineering such as HVAC systems, facility electrical/mechanical activities, and repair and maintenance analysis.

**Rental of Buildings/Land** - Activities including leases, rental, and any real property third party financing agreements. Lease costs should be foot noted since they materially affect year to year trends. (Note: Include trailer leases in this category; include set-up and tear down in Maintenance.)

**Other** - Includes all other activities involving facilities management/plant engineering not defined above.

(Note: Leases for facilities and land are to be included, all other leases should be reported in the appropriate category.)

- 14. Maintenance** - Costs associated with day-to-day work that is required to sustain property, plant, and equipment in a condition suitable for it to be used for its designated purpose and includes preventive, predictive, and corrective maintenance. This category includes all maintenance activities regardless of source of funds. (Note: All maintenance is included even though it is recognized these costs are incurred in support of other support and mission categories.)

Maintenance Activities include:

**Preventive Maintenance** - Includes all those systematically planned and scheduled actions performed for the purpose of preventing equipment, system or facility failure.

**Predictive Maintenance** - Includes actions necessary to monitor, find trends, and analyze parameters associated with equipment, systems, or facilities that are indicative of decreasing performance or impending failure.

**Corrective Maintenance** - Is the repair of failed or malfunctioning equipment, system, or facility to restore the intended function or design condition. This maintenance does not result in a significant extension of the expected useful life. Include asbestos removal and material replacement.

**Maintenance** - Functions include supervision; planning and scheduling storage and staging

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of materials and supplies; calibration, care, repair, and storage of equipment used in monitoring or for the performance of maintenance work; and similar activities.

**General Maintenance** - Includes roads and grounds activities; regularly scheduled custodial services, such as cleaning and preserving facilities and equipment, and pest control.

(Note: Also includes computer hardware maintenance, vehicle maintenance, and utility maintenance. Cost for relocation of personnel is included in the respective category they support.)

- 15. Utilities** - Costs include utility-related engineering associated with labor, operating plants and equipment, contract services for fuel, water treatment chemicals, or support needed to provide electric power, heat, steam, chilled water, potable water, process gases, and sanitary waste disposal to support business and research. This element includes all costs associated with contract services in support of utilities, such as fuel, water treatment chemicals, and control systems, (also include energy management related activities).

Utilities include:

**Central Steam Facility** - Including the fuel handling and storage facilities, all assigned personnel, and the main steam distribution system.

**Central Chilled Water Facility** - Including all assigned personnel and the main chilled water distribution system.

**Water Supply System** - Including wells, treatment facilities, storage tanks, the main distribution system, and all assigned personnel.

**Sanitary Waste Disposal System** - Including the main collection system, refuse collection (internal as well as contracted services), treatment facilities, and all assigned personnel.

**Electrical Power** - Distribution system including main substations and high-voltage distribution systems, and all assigned personnel, as well as all electricity purchases.

- 16. Safeguards and Security** - Includes all costs associated with the development and

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implementation of a Safeguards and Security Program to protect nuclear materials, nuclear weapons, classified information, and government property from theft, sabotage, espionage, or other acts that may cause adverse impacts on national security or to the health and safety of the public and the employees.

Specifically includes the following:

**Program Direction** - Includes all persons and operating costs for program management, vulnerability assessment, Safeguards and Security alarming process, professional development and training, inspections, surveys, assessments, facility approval (including Foreign Ownership, Control, or Influence), tests and evaluations, policy oversight and administration, and technology development oversight and program management, associated with the Safeguards and Security Program.

**Protective Forces** - Includes all personnel and operating costs associated with Protective Forces. This includes such things as salaries, overtime, benefits, travel, materials and supplies, uniforms, equipment, facilities, vehicles, helicopters, training, communications, federal and contractor management, and oversight of protective forces.

**Physical Security Protection Systems** - Includes all personnel and operating costs associated with designing, installing, performance testing, contraband detection, alarm communications and control, intrusion detection and assessment, barriers and access denial, entry and egress control, vital components tampering, and monitoring.

**Transportation** - All security-related transportation costs for transport of special nuclear materials, weapons, and other classified material. Includes such costs as personnel, equipment, facilities security upgrades to vehicles, and communications. Transportation costs associated with off-site shipment of wastes should be included in the Mission Category.

**Information Security** - Includes all personnel and operating costs associated with classified documents and material, classification, unclassified controlled nuclear information, security infractions, computer security, technical surveillance countermeasures, and operations security.

**Material Control and Accountability (MC&A)** - Includes all personnel and operating costs associated with control and accountability of special nuclear materials (SNM), nuclear weapons, test devices, and weapons components. Includes MC&A access areas,

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surveillance, containment, detection, assessment, testing, transfers, verifications and measurements, inventories, reconciliation, and statistical analyses.

**Research & Development** - Includes all personnel and operating costs associated with research and development of physical security, information security, personnel security, material control and accountability, integrated systems, vulnerability assessment methods, technology application and tests, and technology transfer to users or potential vendors.

**Personnel Security** - Includes initial investigations, reinvestigations, adjudication, security education, personnel security assurance program, visitor control, national agency checks, and administrative review activities.

**17. Logistics Support** - Costs associated with shipping, receiving, transportation (excluding maintenance which is included in the Maintenance category), warehousing, motor pools, office equipment pools, property management and excessing activities; routine inventory write-offs; and other logistic support activities. (Note: Final disposal costs for radiological/hazardous waste shipments are a Mission Direct cost.)

**18. Quality Assurance** - Costs associated with all quality assurance, reliability, and regulatory activities. Included in this category are costs for quality engineering and inspection services, quality assurance audits, occurrence reporting (such as ORPS), development of quality program plans, operational readiness review coordination and other activities related to ensuring the quality assurance of site operations and facilities. This does not include costs incurred for weapons stockpile certification.

**19. Laboratory/Tech Support** - Measurement and testing conducted within the context of sampling, field investigations, analytical chemistry, and other similar studies. Includes the cost of other technical support services/activities, such as non-destructive assay, electronics services, machine shops, etc

### C. Site Specific

**20. Management/Award Fee/Incentive Fee** - The management allowance is an amount paid to not-for-profit educational institutions for the equivalent of home or corporate office G&A expenses. The award and incentive fee is a fee that is paid to a contractor based on performance and includes shared savings incentive payments (such as cost savings incentives).



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21. **Taxes** - Includes state and municipal taxes, as well as "payments in lieu of taxes." Does not include taxes which are payroll related.
22. **Laboratory Directed Research and Development (LDRD)** - Costs incurred in accordance with DOE Order 413.2 for the purpose of pursuing new and innovative scientific concepts of benefit to the DOE. Also includes LDRD administrative costs.

### D. **Mission Direct:**

23. **Mission Direct** - All costs not included in General Support, Mission Support or Site Specific categories. This section captures program activities which include scientific, engineering, production operations, decommissioning, decontamination, remediation, etc. To be categorized by the Assistant Secretary.
24. **Capital/construction** - Prime capital and construction costs related to line items. Capital equipment (CE) and General Plant Projects (GPP). Does not include costs that more appropriately belong in a general support, mission support or site specific categories.