

U.S. Department of Energy

Support Cost By Functional Activity Report



Fiscal Year Ended September 30, 2005

**This report and additional functional support cost details
from the 28 contributing sites are available online at:
<http://www.mbe.doe.gov/progliaison/scfa.htm>**

**U.S. DEPARTMENT OF ENERGY
FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT
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U.S. DEPARTMENT OF ENERGY

FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT

INTRODUCTION

PURPOSE OF THE REPORT

The purpose of this report is to highlight the amounts of and trends in support costs incurred by 28 of the Department's largest contractors, classified by functional activity. These represent the majority of contractor support costs for the Department's sites. This report is issued in response to the House Report, 105-581, accompanying the Energy and Water Development Appropriations Act for fiscal year (FY) 1999, which commended the Department on the development of the Support Cost by Functional Activity (SCFA) System and the annual SCFA Report. Support activities are functions that are necessary to be performed to enable Department of Energy (DOE) sites to accomplish their direct mission activities. Accounting, procurement, human resources, safety and health and maintenance are examples of support cost. An example of a direct mission activity (not included in support) could be a scientist directly involved in performing research. Support costs do not include the costs of capital equipment or construction.

While support costs represent a substantial amount of money, management of these costs is the responsibility of the predominant program at each site. DOE corporate budget and accounting systems do not provide visibility for these costs. This report provides the relevant insights into support costs for the Department.

WHY CAPTURE SCFA?

The functional cost concept recognizes that the classification of costs as being charged in a direct or indirect manner is not relevant to measuring the activity required to support direct mission programs in the Department. Therefore, instead of classifying costs as direct or indirect, they are classified as either mission direct, construction or support costs. These components together represent total program costs. By eliminating the focus on how costs are distributed, a better picture may be obtained as to how much is being expended to support our critical missions and whether those amounts appear reasonable.

BACKGROUND

The SCFA Report began as a way to identify the cost of the Department's support programs and the trends in those costs. The managing and reporting of support costs was initiated as a cooperative effort between the Office of the Chief Financial Officer, the Department's program offices and the Financial Management Systems Improvement Council (FMSIC). This relationship is based on a belief that the appropriate level of each support cost was best determined at the levels closest to the activities, that is by the cognizant Departmental field offices and the contractors.

Prior to FY 1997, Department-wide support cost data showing the nature of, amount of and trends in these costs was not available. For example, the Office of Environmental Management could not determine how much of its funding for environmental cleanup at DOE sites was being expended on actual “hands on” cleanup versus support-related activities. Recognizing the importance of managing these costs, and in response to requests from Congress and the Government Accountability Office (GAO), the Department’s Chief Financial Officer implemented the SCFA System. Site contractors input cost data into the SCFA System and DOE Field CFO’s review and certify each submission for accuracy. In implementing SCFA to track support-related costs, consistent functions for 22 specific cost categories—such as facility management, safeguards and security, and site maintenance—that contractors use in reporting their support-related costs were developed. These 22 specific categories fall into three broad categories: general support, mission support and site specific support. The remaining cost incurred by the Department represents direct mission activity, as well as capital equipment and construction costs. Definitions of support cost categories were developed jointly by the program offices, the Office of the Chief Financial Officer and FMSIC to ensure that contractors conform to uniform standards in reporting their support-related costs.

The SCFA Report is only one of several tools to help improve support cost management. We also recognize the other roles/tools of site offices, including institutional planning, performance appraisals and broad sharing of lessons learned and best practices among laboratories/contractors who regularly update their progress.

FMSIC

FMSIC is a Departmental financial management idea-sharing forum comprised of DOE Chief Financial Officer staff and contractors. FMSIC provides a forum for contractors to share successful approaches (best practices) which could provide gains in budget and accounting economy and efficiency. FMSIC also established the SCFA Peer Reviews Program designed to ensure consistency and data integrity in support cost reporting. The Council meets periodically to discuss contractor financial management issues, including support costs and the results of peer reviews.

EXTERNAL AUDITS AND REVIEWS

GAO recommended in its September 2002 report, “*DOE Contractor Management: Opportunities to Promote Initiatives That Could Reduce Support-Related Costs*” (GAO-02-1000) (<http://www.gao.gov/new.items/d021000.pdf>), that the Department “...develop a system to analyze the merits of cost-saving initiatives implemented at contractor sites, identify those that have broader applicability in DOE and work with program offices to promote those most likely to reduce support-related costs.” In response, the Department collected, reviewed and highlighted cost-saving initiatives with broad applicability

beginning with the FY 2002 annual report. It is the Department's intent to promote those initiatives that may provide opportunities for other contractors across the complex. The annual report is provided to all headquarters program offices, field locations and individual contractors.

In September 2005, the GAO issued its report, "*Department of Energy: Additional Opportunities Exist for Reducing Laboratory Contractors' Support Costs*", (GAO-05-897) (<http://www.gao.gov/new.items/d05897.pdf>). GAO concurs with the Department that indirect cost rates cannot be compared across sites and DOE can utilize support costs as a basis for assessing internal cost management.

In the report, GAO presented five recommendations for executive action:

- 1) Work with the Financial Management Systems Improvement Council (FMSIC) to clarify definitions of functional support cost categories.
Action: Concur: The CFO is working with FMSIC to clarify functional support cost definitions.
- 2) Evaluate the effectiveness of the pilot award-term program at Sandia National Laboratories (SNL) prior to extending the program to other laboratories.
Action: Concur: Evaluation of the SNL pilot has been completed and supported program extension.
- 3) Complete revisions to DOE Order 350.1 which will (1) extend the requirement to benchmark the value of employee benefits to all contractors, (2) require prompt corrective action if the value of benefits exceeds the allowable range, and (3) extend the benchmarking requirements to include the costs, as well as the values, of the benefits.
Action: Concur: The Order is being revised and is targeted for issuance in FY 2006.
- 4) Develop a long-term sustainable maintenance approach for contractor facilities that meets day-to-day maintenance requirements, reduces the maintenance backlog and minimizes its reaccumulation.
Action: Concur: The Department is developing long-term maintenance plans including estimated costs and milestones.
- 5) Require that each DOE management and operating contractor implement a process improvement program that routinely assesses the efficiency and effectiveness of business practices and other operations.
Action: Concur: The FY 2006 SCFA reporting process will require contractors to define their formal process improvement program.

The Department has begun addressing the recommendations and is currently on track to complete corrective actions by September 2006.

U.S. DEPARTMENT OF ENERGY
FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT
LIMITATIONS OF FUNCTIONAL SUPPORT COST DATA

This report is a cost management tool and cannot be used for making site-to-site comparisons due to the numerous site specific factors that influence supports costs. In addition, support cost alone should not be used to make broad program funding decisions. The report may be used in conjunction with other tools (e.g. budget reports, planning documents, etc.) to promote stronger program management and planning. By eliminating the focus on how costs are distributed, a better picture may be obtained as to how much is being expended for support activities and whether those amounts are reasonable.

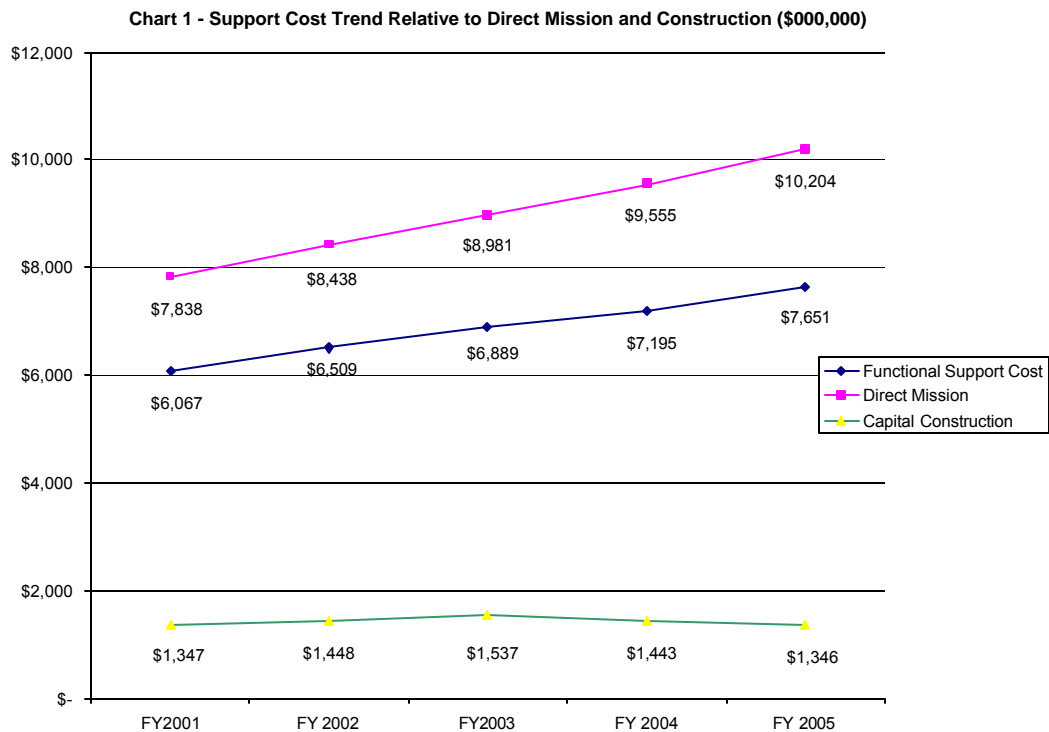
Functional support cost is not determined based on fully allocated cost and cannot automatically be interpreted as indirect/overhead costs as this term is defined by the Cost Accounting Standards (CAS) included in the Federal Acquisition Regulations. The contractors are subject to CAS and do not budget, accumulate or distribute costs in their formal accounting systems in the manner reflected in this report. 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 costs are reported on a prime cost basis (i.e., prior to any cost distribution) and, by definition, may include both direct and indirect costs.

The data reflected in the report was obtained by analyzing information contained in the contractors' financial management systems and apportioning costs into the SCFA categories. While the total cost for each contractor is accurate and a standard set of definitions was used, apportioning the costs to functional categories requires the exercise of management judgment. Numerous factors 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 variances across sites will result from differences in the type, size, nature, environment, etc., of actual work activities.

Field offices are responsible for the quality of the functional cost and cost savings initiative data. DOE Field CFO's review and certify each submission for accuracy. 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 due to professional judgment involved in categorizing cost at each site. However, the current level of accuracy is sufficient for comparison of a given site over time, but not across sites.

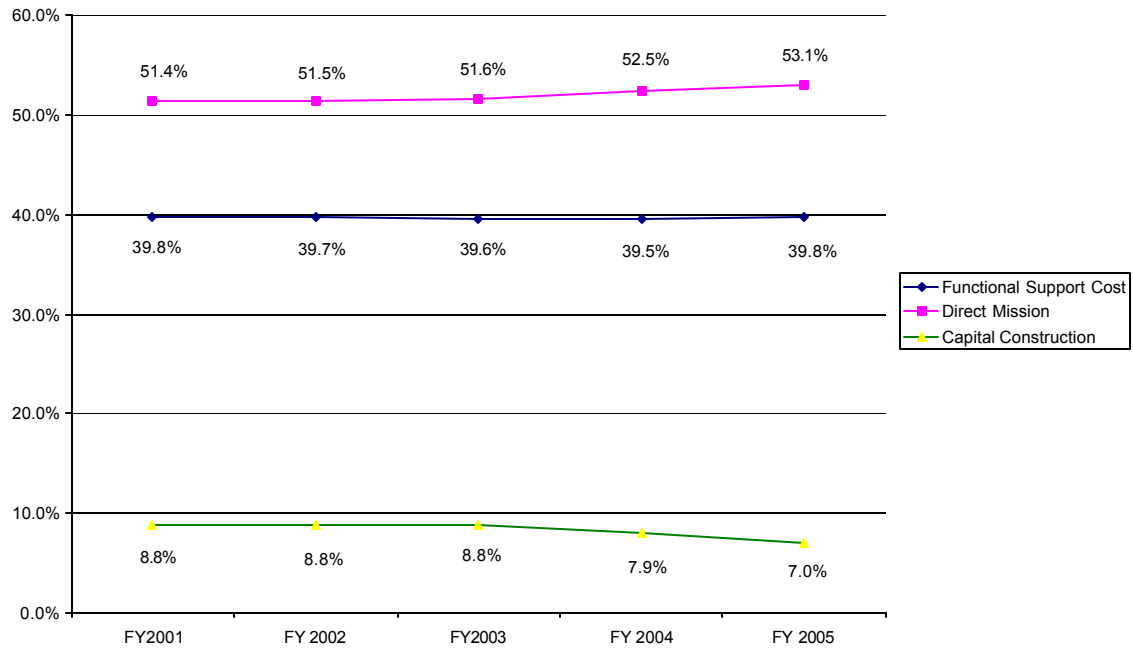
U.S. DEPARTMENT OF ENERGY FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT DEPARTMENTAL RESULTS AND TRENDS

The Department’s 28 submitting contractors reported FY 2005 costs of \$19.2 billion; \$7.7 billion total functional support cost, \$10.2 billion direct mission and \$1.3 billion for construction. Refer to the tables titled “Trends in Total Support Cost by Functional Categories,” in this report for a detailed analysis of functional support cost for the Department and its major mission areas. The chart below reflects the five year trend in total functional support cost, direct mission and construction. Functional support cost and direct mission has increased \$1.6 billion and \$2.4 billion respectively for the period FY 2001 to FY 2005. Construction has remained relatively stable.



As the Department’s direct mission increases, the support must also increase. However, the percentage of support cost to the total Department expenditures remained stable while the percentage of direct mission cost to total cost increased. As Chart 2 shows, the FY 2005 percentage of functional support cost to total cost is 39.8 percent, the same as FY 2001, and the percentage ranged only .3 percent over the five years. The percentage of cost applied to direct mission increased from 51.4 percent to 53.1 percent.

Chart 2 - % Of Total Cost for Each Component of Cost ^{1/}



As reflected in the table below, the Department has been increasing the percentage of its budget spent on direct mission since the inception of functional support cost in FY 1995. Currently the Department is spending the largest percent of its budget on mission direct activities since 1995.

	Functional Support as a % of Total Cost	Mission Direct as a % of Total Cost
FY 1995	43.6	45.3
FY 2000	40.4	51.9
FY 2005	39.8	53.1

* Less Capital Equipment and Construction

1/ The FY 2004 Functional Support Cost percentage was adjusted by .1% from the FY 2004 Support Cost Report due to an \$8 million restatement recommended by an SCFA peer review.

I. Largest Support Cost Categories

SUBCATEGORY	FY 2005 (\$000,000)	FY 2005 % of TOTAL COST	FY 2005 % OF TOTAL FUNCTIONAL SUPPORT COST
Maintenance	896.9	4.7%	11.7%
Safety and Health	813.4	4.2%	10.6%
Information Services	790.7	4.1%	10.3%
Total	2,501.0	13.0%	32.6%

In FY 2005, the three largest functional support cost categories accounted for approximately 33 percent of the total functional support costs at the 28 contributing sites. Over past years, these three categories have traditionally accounted for the highest percentage of total cost. Trend data for these and all other categories can be found on page 16. The following is a brief description of each of the subcategories identified in Table 2.

- **Maintenance** - A significant number of the Department's facilities are aging and obsolete. The Department has begun to require contractors to address the backlog of maintenance projects while they also manage current maintenance needs. Although this effort will involve significant costs in the near term, it could reduce functional support costs in the long term.
- **Safety and Health** - These costs reflect a heightened emphasis on safety and are 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 and management oversight. In FY 2005, the Secretary approved a new DOE oversight policy to ensure DOE line management and contractor assurance processes are established to further enhance the protection of the public and the Department's workers. The Office of Security and Safety Performance Assurance conducted inspections to evaluate the effectiveness of selected institutional safety and health processes.
- **Information Services** - These costs rose in response to the continuing need for support of computer-based systems that will integrate, unify, modernize and streamline the way the Department handles administrative functions, including financial records, time-and-effort reporting, project management, property management and facility maintenance. Costs reflect an increased customer demand for software and associated licenses, desktop services and integrated computing network services.

II. Three Support Cost Categories with the Largest Percent Increase

SUBCATEGORY	FY 2001 (\$000,000)	FY 2005 (\$000,000)	% Increase	% of Total Cost FY 2001	% of Total Cost FY 2005
Safeguards and Security	508.7	783.9	54.1%	3.3%	4.1%
Management/Incentive Fee	406.4	594.2	46.2%	2.7%	3.1%
LDRD/PDRD/SDRD	234.6	337.9	44.0%	1.5%	1.8%
Total	1,149.7	1,716.0	49.3%	7.5%	8.9%

Overall, from FY 2001 to FY 2005, functional support costs increased by approximately \$1.58 billion. The following provides a description of the three categories with the largest percentage increases in functional support costs from FY 2001 to FY 2005:

- **Safeguards and Security** - The events of September 11, 2001, and increased emphasis on Homeland Security continue to drive safeguards and security costs higher. This category of costs accounted for the largest dollar increase from FY 2001 to FY 2005. NNSA implemented corrective action plans to address the recommendations provided by special study groups in security operations. The Secretary approved a DOE oversight policy to ensure DOE line management and contractor assurance processes are established to further enhance the protection of national security assets.
- **Management/Incentive Fee** - The increase in this category results mainly from the Department's implementation of incentive award contracts used for cleanup and site closure. The objective was to significantly decrease the amount of time projected to clean up the Department's sites. Reducing the timeline resulted in significant reductions in the cost and risks associated with the contaminated sites. In the mid 1990's, cleanup at Rocky Flats was expected to take at least 30 years. The contractor (Kaiser-Hill) achieved incentives for the accelerated cleanup, which was accomplished in 2006, significantly ahead of schedule. More recent applications of incentive contracts are also placing more price risk upon the contractors which in turn results in higher fees expected by the contractors. As an example, the most recent changes involving the Savannah River (Westinghouse) contract resulted in increased fee opportunities as a result of the contractor accepting significantly increased risk associated with cleanup activities.

- Laboratory Directed Research and Development (LDRD), Plant Directed Research, Development and Demonstration Program (PDRD), and Site Directed Research, Development and Demonstration Program (SDRD) - Overall, from FY 2001 to FY 2005, the percentage of cost expended on LDRD/PDRD/SDRD for the National Nuclear Security Administration and the Office of Science increased by 52 percent and 44 percent respectively. Sandia National Laboratory increased by \$41.5 million, the largest increase among submitting sites. Three sites that had PDRD activity in FY 2005 and had no cost in FY 2001; Kansas City (\$1.683 million), Pantex (\$1.388 million) and Y-12 (\$5.104 million). Also, Nevada had zero SDRD activity in FY 2001 and \$4.881 million in FY 2005. Within the overall context of maintaining the vitality of the laboratories, the specific purpose of these three programs is to provide the DOE laboratories with funds to undertake creative and innovative research and development. All three components reflect costs incurred in accordance with legislative authority.

III. Trends

The following table presents comparative FY 2005 and FY 2001 data for each category.

**Table 4 – Trends in Functional Support Cost Sub-Categories
(All dollars are in thousands)**

	FY 2005 As a % of Functional support cost	FY 2001 As a % of Support Cost	FY 2005 Functional support cost \$	FY 2001 Functional support cost \$	Change As a % of Functional support cost FY 2001 - FY 2005	\$ Change FY 2001 - FY 2005
Safeguards and Sec.	10.24%	8.38%	783,865	508,706	1.86%	275,159
Management Fee	7.77%	6.70%	594,222	406,432	1.07%	187,790
Facilities Mgmt	7.69%	7.02%	588,117	425,807	0.67%	162,310
Information Services	10.33%	10.39%	790,677	630,405	-0.06%	160,272
Safety and Health	10.63%	11.26%	813,392	683,442	-0.63%	129,950
LDRD/PDRD/SDRD	4.42%	3.87%	337,910	234,606	0.55%	103,304
Maintenance	11.72%	13.48%	896,906	817,884	-1.76%	79,022
Utilities	5.61%	6.04%	429,268	366,729	-0.43%	62,539
Program/Proj Control	3.21%	3.05%	245,568	184,874	0.16%	60,694
Human Resources	2.92%	2.95%	223,110	178,723	-0.03%	44,387
Executive Direction	2.57%	2.52%	196,503	152,803	0.05%	43,700
Lab/Tech Support	2.59%	2.56%	197,979	155,510	0.03%	42,469
Other	1.75%	1.55%	133,953	93,907	0.20%	40,046
Information Outreach	2.29%	2.24%	175,162	136,092	0.05%	39,070
Procurement	2.14%	2.07%	164,051	125,446	0.07%	38,605
Central Admin Serv.	2.80%	3.06%	214,079	185,916	-0.26%	28,163
Taxes	1.45%	1.38%	111,238	83,852	0.07%	27,386
Quality Assurance	1.92%	2.11%	146,639	127,844	-0.19%	18,795
CFO	2.11%	2.42%	161,850	146,687	-0.31%	15,163
Logistics Support	2.28%	2.66%	174,414	161,145	-0.38%	13,269
Environmental	2.72%	3.33%	208,245	201,760	-0.61%	6,485
Legal	0.84%	0.96%	64,046	58,404	-0.12%	5,642
Total Functional support cost	100.00%	100.00%	7,651,194	6,066,974	0.00%	1,584,220

IV. Long-Term Analysis

The following table presents summarized actual data and projected costs that have been redirected to mission direct activities as a result of efficiencies displayed by the Support Cost Report.

Table 5 – Support Cost Analysis
(All dollars are in thousands)

Fiscal Year	(Mission Direct + Construction + Support Cost)= Total Cost	Support Cost As A Percentage of Total Cost	Percent Change From FY 1995 Baseline	Support Cost \$ Change From the FY 1995 Baseline
1995	\$13,992,966	43.6		
1996	\$13,298,807	42.6	1.0%	\$132,988
1997	\$12,771,135	42.8	0.8%	\$102,169
1998	\$12,905,644	42.3	1.3%	\$167,773
1999	\$13,312,461	41.7	1.9%	\$252,937
2000	\$14,394,608	40.4	3.2%	\$460,627
2001	\$15,252,034	39.8	3.8%	\$579,577
2002	\$16,394,699	39.7	3.9%	\$639,393
2003	\$17,407,027	39.6	4.0%	\$696,281
2004	\$18,192,510	39.5	4.1%	\$745,893
2005	\$19,200,927	39.8	3.8%	\$729,635
Total				\$4,507,275

If you consider FY 1995 data as a baseline, we can estimate how many additional dollars would have been consumed as support cost from FY 1996 through FY 2005. If the FY 1995 support cost rate remained at 43.6% in the 10 subsequent years, mission direct funding would have decreased by over \$4.5 billion. In FY 2005 alone, over \$700 million extra dollars would have been spent on support costs had we maintained the same rate as in FY 1995. Due to our documented results, more dollars have been invested in mission direct activities and less in support cost.

U.S. DEPARTMENT OF ENERGY FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT COST SAVING INITIATIVES

Many of the Department's major contractors provided information related to initiatives implemented to manage and reduce functional support costs at their sites. Several of these initiatives may have broader applicability and may provide opportunities that could be used by other contractors across the Department.

Many of the Department's locations utilize Six Sigma, which is a rigorous, statistically based, customer-focused business methodology to improve work processes. Six Sigma allows for the design and monitoring of everyday business activities to minimize waste and maximize use of resources, while increasing customer satisfaction. Six Sigma is a methodology that applies advanced statistical tools to identify and eliminate defects, waste, rework and non-value activities from business processes, resulting in improved customer satisfaction, employee satisfaction and cost savings. By applying the disciplined and rigorous Six Sigma methodology and performance-based leadership tools, sustainable solutions to business problems can be delivered. This approach focuses on identifying and eliminating the cost of poor quality embedded in current business and operational processes through the use of qualitative and advanced quantitative tools and techniques.

Below are several cost saving initiatives, identified by the Department's contractors with claimed savings of \$6.7 million in FY 2005. These savings, reductions or cost avoidances have been realized and reinvested at each site.

WASTE INFORMATION MANAGEMENT SYSTEM

Reported by Oak Ridge Environmental Mgmt. Enrichment Facility (\$2.3 M).

- This Process Improvement Project was undertaken to help reduce the budget for the Waste Information Management System. The goal was to eliminate unneeded functionality of the waste tracking database, while retaining those elements necessary to maintain compliance with applicable requirements and regulations. The team identified features that were not requirements-based and could be eliminated.

LEVERAGING COST SAVINGS AGREEMENTS

Reported by Pacific Northwest National Lab (\$2.0 M).

- Battelle continues to leverage cost savings by negotiating broad agreements that benefit all of the labs managed by Battelle. This results in an estimated annual savings to PNNL in excess of \$2M for airline agreements, travel services contracts, purchase agreements, rental car agreements, joint systems and joint software purchases.

ELIMINATION OF SUPPLEMENTAL INSTITUTIONS

Reported by Argonne National Lab and Sandia National Lab (\$1.3 M).

- The on-site Argonne service station and swimming pool were closed, which resulted in cost avoidance of \$353K for needed facility repairs and upgrades, plus an estimated \$22K in annual maintenance costs. Also, Sandia closed the Coronado Club (an eating facility) in FY 2005 resulting in a cost savings of \$900K.

REDUCTION OF PROTECTED AREA VEHICLE TRAFFIC

Reported by Y-12 (\$671K).

- A Six Sigma Black Belt Process Improvement Project was initiated to reduce the number of vehicle entries into the Protected Area by 50% to meet a business imperative. A ticket process was implemented with an assigned number of tickets allocated to each division. The reduction in entries also served to reduce the amount of non-productive time people spend waiting in line for access.

RELOCATION TIERED AGREEMENTS

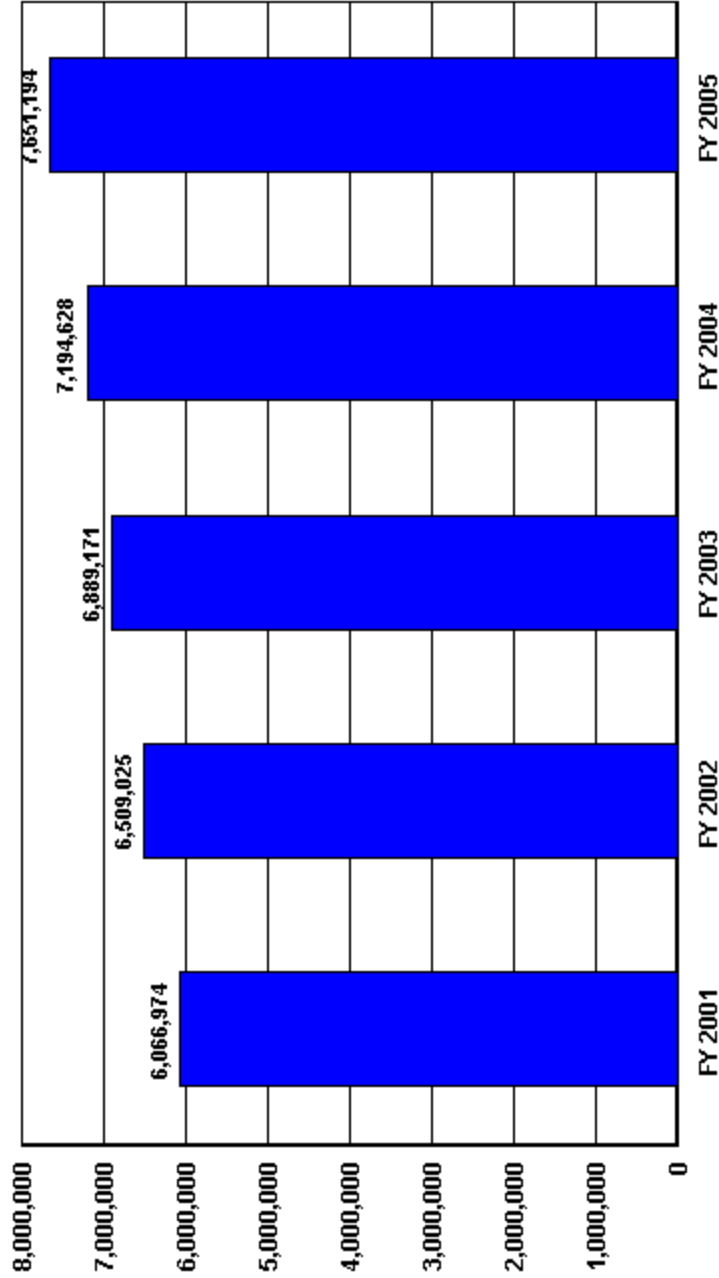
Reported by Kansas City (\$459K).

- Depending on the type of hire, three options are available that will set limits on cost allowances for relocation expenses. This will make it easier to estimate and control costs. Previously, there was only one relocation agreement with maximum benefits for all new hires and transfers, resulting in high costs to Departmental overhead and expenses that were difficult to manage or predict.

Trends in Total Support Cost by Functional Categories
TOTAL FOR ALL 28 SITES (\$000)
FY 2005

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	\$ Change 2001 To FY 2005	% Change 2001 To FY 2005
Total Costs	15,252,034	16,394,699	17,407,027	18,192,510	19,200,927	3,948,893	25.9%
Capital Construction	1,347,050	1,447,954	1,536,512	1,443,083	1,345,977	-1,073	-0.1%
Total Costs Less Construction	13,904,984	14,946,745	15,870,515	16,749,427	17,854,950	3,949,966	28.4%
Total Support Costs	6,066,974	6,509,025	6,889,171	7,194,628	7,651,194	1,584,220	26.1%
Mission Direct Operation	7,838,010	8,437,720	8,981,344	9,554,799	10,203,756	2,365,746	30.2%
Mission Direct Operation as % of Total Cost	51.4%	51.5%	51.6%	52.5%	53.1%		
Capital Construction as % of Total Cost	8.8%	8.8%	8.8%	7.9%	7.0%		
Total Support Cost as % of Total Cost	39.8%	39.7%	39.6%	39.5%	39.8%		
Total	100.0%	100.0%	100.0%	100.0%	100.0%		
TOTAL SUPPORT COST as % of TOTAL COST	39.8%	39.7%	39.6%	39.5%	39.8%		
TOTAL SUPPORT COST	6,066,974	6,509,025	6,889,171	7,194,628	7,651,194	1,584,220	26.1%
TOTAL GENERAL SUPPORT as % of TOTAL	12.4%	12.2%	12.4%	12.2%	12.3%		
TOTAL GENERAL SUPPORT	1,893,257	1,992,833	2,164,569	2,214,117	2,368,999	475,742	25.1%
EXECUTIVE DIRECTION	152,803	172,997	186,601	191,424	196,503	43,700	28.6%
HUMAN RESOURCES	178,723	185,541	203,197	205,081	223,110	44,387	24.8%
CFO	146,687	139,671	146,118	153,405	161,850	15,163	10.3%
PROCUREMENT	125,446	128,259	144,617	154,464	164,051	38,605	30.8%
LEGAL	58,404	59,034	65,104	56,405	64,046	5,642	9.7%
CENTRAL ADMIN SERVICES	185,916	198,764	211,307	207,018	214,079	28,163	15.1%
PROGRAM/PROJECT CONTROL	184,874	187,146	221,984	225,678	245,568	60,694	32.8%
INFORMATION OUTREACH	136,092	144,341	146,407	170,152	175,162	39,070	28.7%
INFORMATION SERVICES	630,405	702,730	750,954	774,594	790,677	160,272	25.4%
OTHER	93,907	74,350	88,280	75,896	133,953	40,046	42.6%
TOTAL MISSION SUPPORT as % of TOTAL	22.6%	22.5%	22.2%	22.2%	22.1%		
TOTAL MISSION SUPPORT	3,448,827	3,686,724	3,859,710	4,046,425	4,238,825	789,998	22.9%
ENVIRONMENTAL	201,760	199,881	201,512	198,755	208,245	6,485	3.2%
SAFETY AND HEALTH	683,442	729,138	755,875	762,440	813,392	129,950	19.0%
FACILITIES MANAGEMENT	425,807	485,316	540,751	591,567	588,117	162,310	38.1%
MAINTENANCE	817,884	821,381	843,643	861,869	896,906	79,022	9.7%
UTILITIES	366,729	390,424	385,671	388,728	429,268	62,539	17.1%
SAFEGUARDS AND SECURITY	508,706	608,987	677,717	744,771	783,865	275,159	54.1%
LOGISTICS SUPPORT	161,145	165,631	165,327	167,476	174,414	13,269	8.2%
QUALITY ASSURANCE	127,844	125,949	131,545	147,798	146,639	18,795	14.7%
LABORATORY/TECHNICAL SUPPORT	155,510	160,017	157,669	183,021	197,979	42,469	27.3%
TOTAL SITE SPECIFIC as % of TOTAL	4.8%	5.1%	5.0%	5.1%	5.4%		
TOTAL SITE SPECIFIC	724,890	829,468	864,892	934,086	1,043,370	318,480	43.9%
MANAGEMENT/INCENTIVE FEE	406,432	454,564	465,405	514,964	594,222	187,790	46.2%
TAXES	83,852	94,428	89,948	101,311	111,238	27,386	32.7%
LDRD / PDRD / SDRD	234,606	280,476	309,539	317,811	337,910	103,304	44.0%

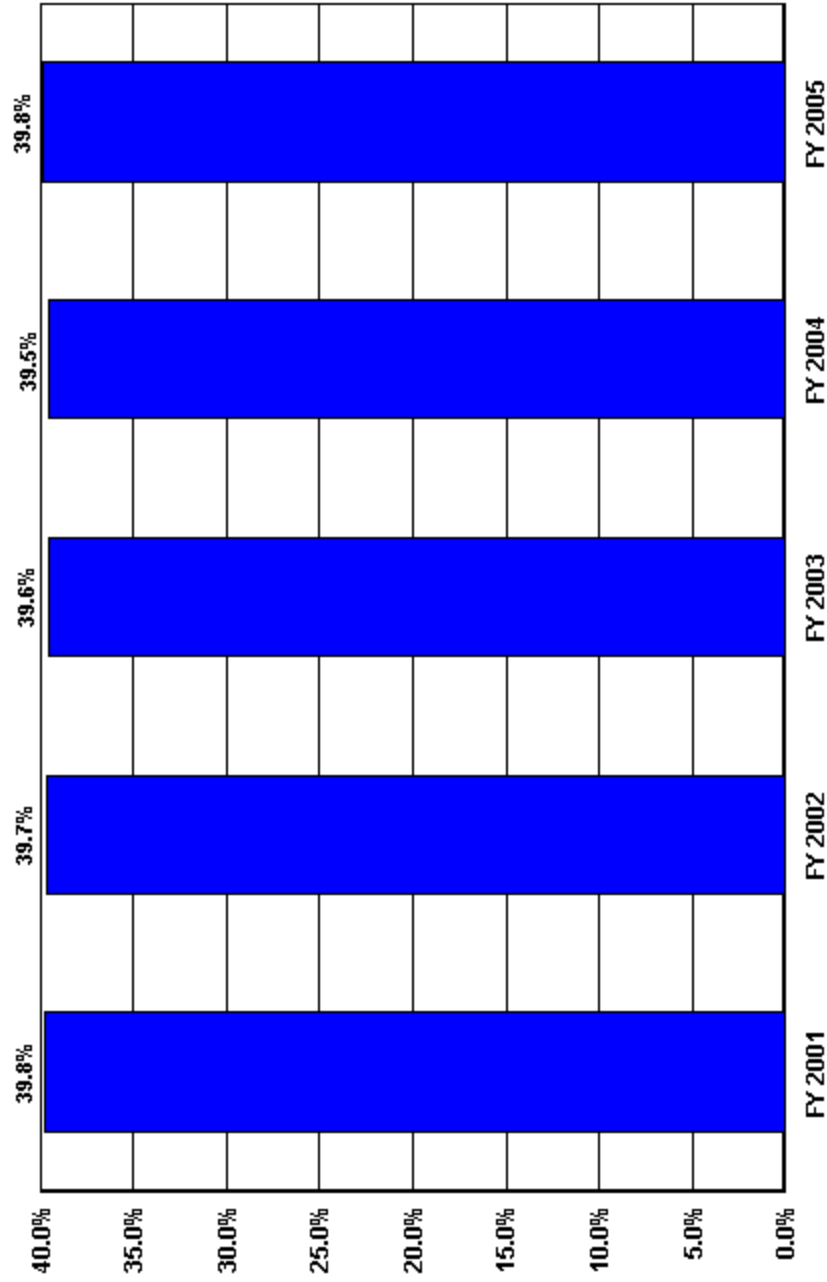
US Department of Energy
 Total Functional Support
 TOTAL FOR ALL 28 SITES



Total Functional Support (\$ in 000's)

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	6,066,974	6,509,025	6,889,171	7,194,628	7,651,194

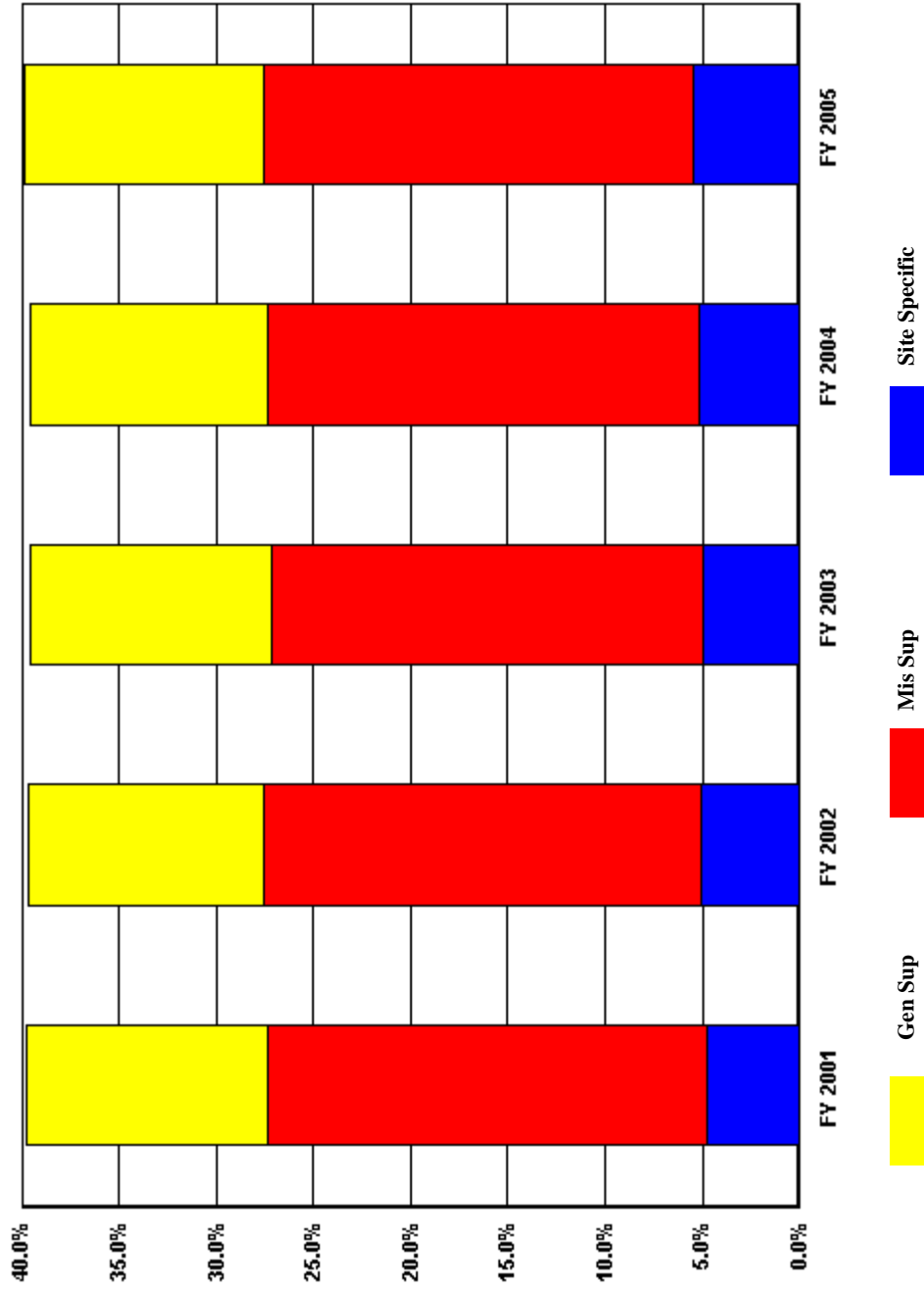
**US Department of Energy
Total Functional Support as a % of Total Costs
TOTAL FOR ALL 28 SITES**



■ Total Functional Support

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	39.8%	39.7%	39.6%	39.5%	39.8%

**US Department of Energy
Percent of Support Category to Total Costs
TOTAL FOR ALL 28 SITES**



	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gen Sup	12.4%	12.2%	12.4%	12.2%	12.3%
Mis Sup	22.6%	22.5%	22.2%	22.2%	22.1%
Site Specific	4.8%	5.1%	5.0%	5.1%	5.4%

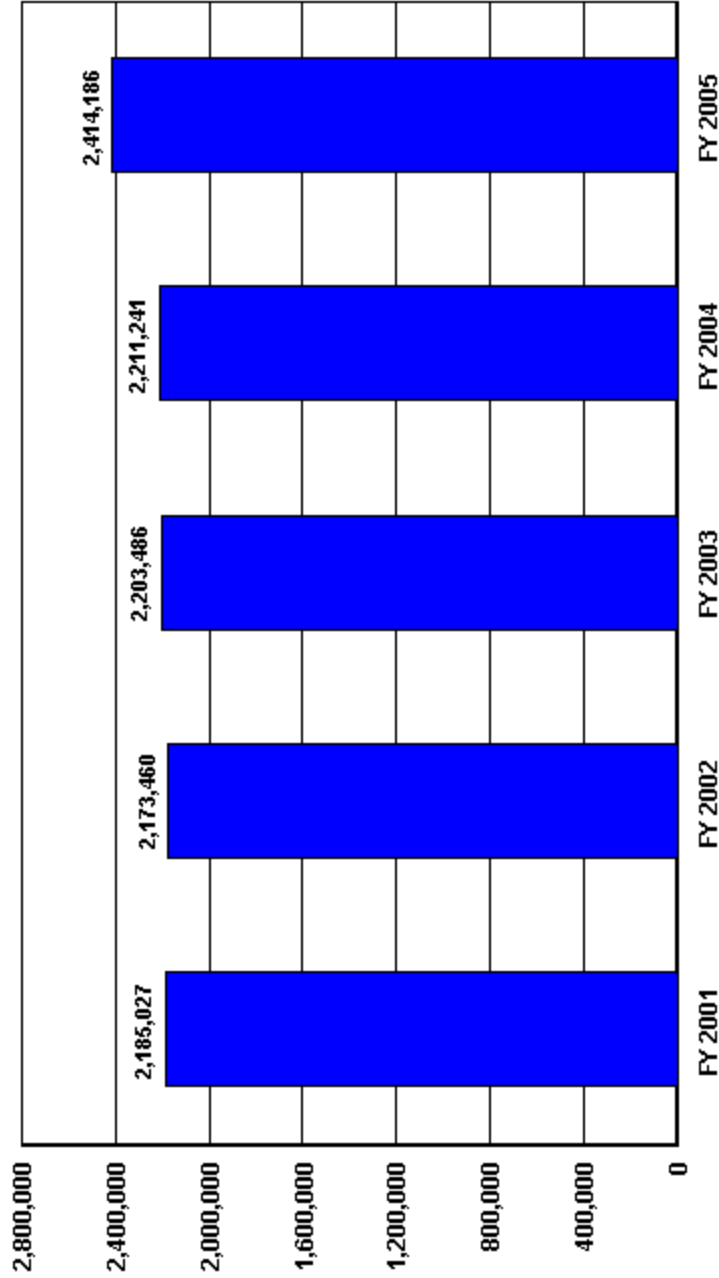
Trends in Total Support Cost by Functional Categories

Total EM Sites (\$000)

FY 2005

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	\$ Change 2001 To FY 2005	% Change 2001 To FY 2005
Total Costs	4,537,281	4,608,603	4,850,316	5,022,107	5,436,742	899,461	19.8%
Capital Construction	331,611	307,985	245,417	213,373	171,095	-160,516	-48.4%
Total Costs Less Construction	4,205,670	4,300,618	4,604,899	4,808,734	5,265,647	1,059,977	25.2%
Total Support Costs	2,185,027	2,173,460	2,203,486	2,211,241	2,414,186	229,159	10.5%
Mission Direct Operation	2,020,643	2,127,158	2,401,413	2,597,493	2,851,461	830,818	41.1%
Mission Direct Operation as % of Total Cost	44.5%	46.2%	49.5%	51.7%	52.4%		
Capital Construction as % of Total Cost	7.3%	6.7%	5.1%	4.2%	3.1%		
Total Support Cost as % of Total Cost	48.2%	47.2%	45.4%	44.0%	44.4%		
Total	100.0%	100.0%	100.0%	100.0%	100.0%		
TOTAL SUPPORT COST as % of TOTAL COST	48.2%	47.2%	45.4%	44.0%	44.4%		
TOTAL SUPPORT COST	2,185,027	2,173,460	2,203,486	2,211,241	2,414,186	229,159	10.5%
TOTAL GENERAL SUPPORT as % of TOTAL	13.0%	12.2%	11.9%	11.0%	11.6%		
TOTAL GENERAL SUPPORT	589,863	563,157	577,563	551,013	631,825	41,962	7.1%
EXECUTIVE DIRECTION	35,307	36,173	33,594	33,549	37,063	1,756	5.0%
HUMAN RESOURCES	55,974	54,253	56,086	56,169	58,940	2,966	5.3%
CFO	51,980	40,540	40,550	39,979	42,291	-9,689	-18.6%
PROCUREMENT	41,558	39,939	42,938	42,530	45,471	3,913	9.4%
LEGAL	22,765	22,213	25,232	16,732	17,049	-5,716	-25.1%
CENTRAL ADMIN SERVICES	59,700	60,169	67,051	58,571	64,255	4,555	7.6%
PROGRAM/PROJECT CONTROL	97,473	96,626	93,838	96,536	102,640	5,167	5.3%
INFORMATION OUTREACH	29,958	27,861	24,685	20,601	20,694	-9,264	-30.9%
INFORMATION SERVICES	177,958	166,192	171,476	157,440	161,869	-16,089	-9.0%
OTHER	17,190	19,191	22,113	28,906	81,553	64,363	374.4%
TOTAL MISSION SUPPORT as % of TOTAL	29.5%	29.0%	27.8%	26.9%	25.8%		
TOTAL MISSION SUPPORT	1,340,509	1,337,161	1,349,021	1,350,546	1,401,939	61,430	4.6%
ENVIRONMENTAL	93,231	83,457	81,935	73,384	74,980	-18,251	-19.6%
SAFETY AND HEALTH	333,897	345,275	334,331	333,109	365,887	31,990	9.6%
FACILITIES MANAGEMENT	133,842	116,922	133,089	128,724	123,331	-10,511	-7.9%
MAINTENANCE	309,199	308,796	304,468	291,694	307,706	-1,493	-0.5%
UTILITIES	90,133	94,409	99,481	92,763	102,962	12,829	14.2%
SAFEGUARDS AND SECURITY	174,080	190,564	208,714	229,653	216,099	42,019	24.1%
LOGISTICS SUPPORT	66,276	61,799	60,786	59,404	65,032	-1,244	-1.9%
QUALITY ASSURANCE	60,422	56,553	51,171	53,313	53,084	-7,338	-12.1%
LABORATORY/TECHNICAL SUPPORT	79,429	79,386	75,046	88,502	92,858	13,429	16.9%
TOTAL SITE SPECIFIC as % of TOTAL	5.6%	5.9%	5.7%	6.2%	7.0%		
TOTAL SITE SPECIFIC	254,655	273,142	276,902	309,682	380,422	125,767	49.4%
MANAGEMENT/INCENTIVE FEE	212,651	231,932	238,698	278,122	343,012	130,361	61.3%
TAXES	21,385	21,913	19,642	20,681	21,697	312	1.5%
LDRD / PDRD / SDRD	20,619	19,297	18,562	10,879	15,713	-4,906	-23.8%

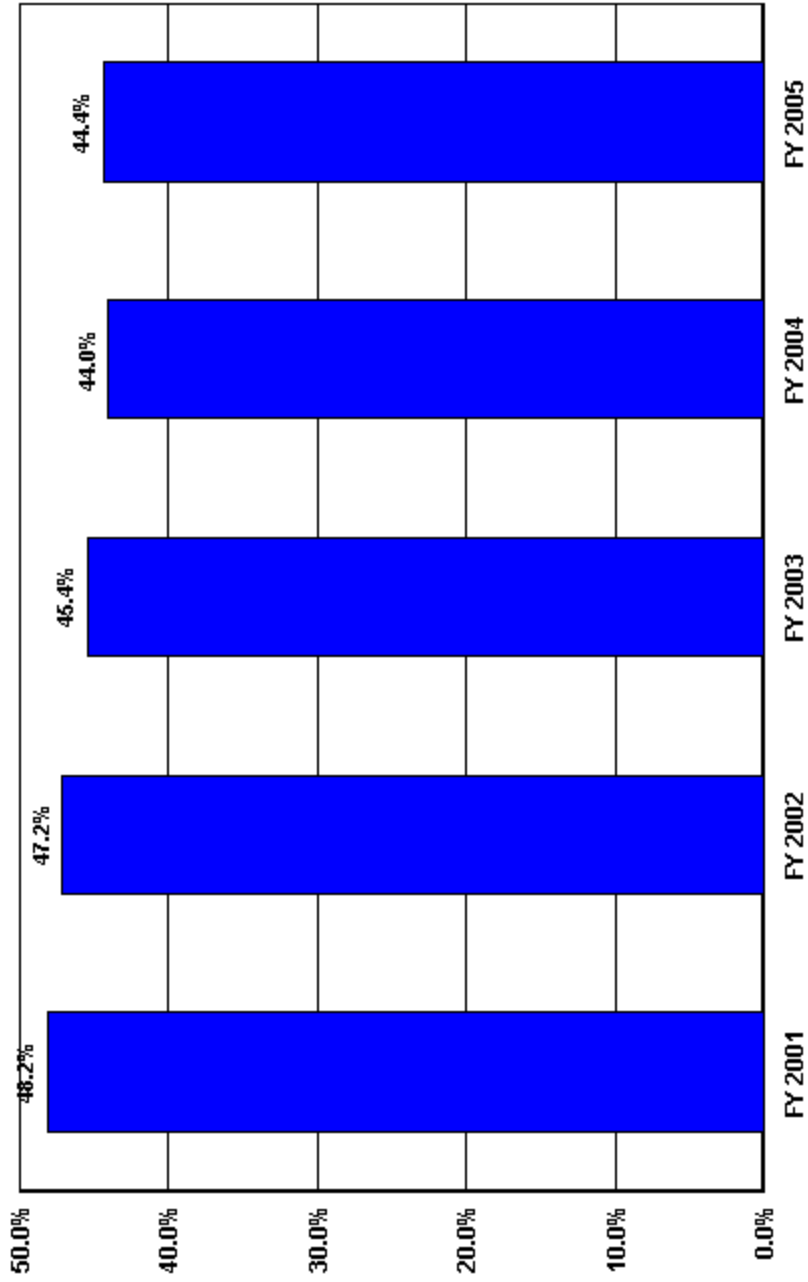
US Department of Energy
 Total Functional Support
 Total EM Sites



Total Functional Support (\$ in 000's)

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	2,185,027	2,173,460	2,203,486	2,211,241	2,414,186

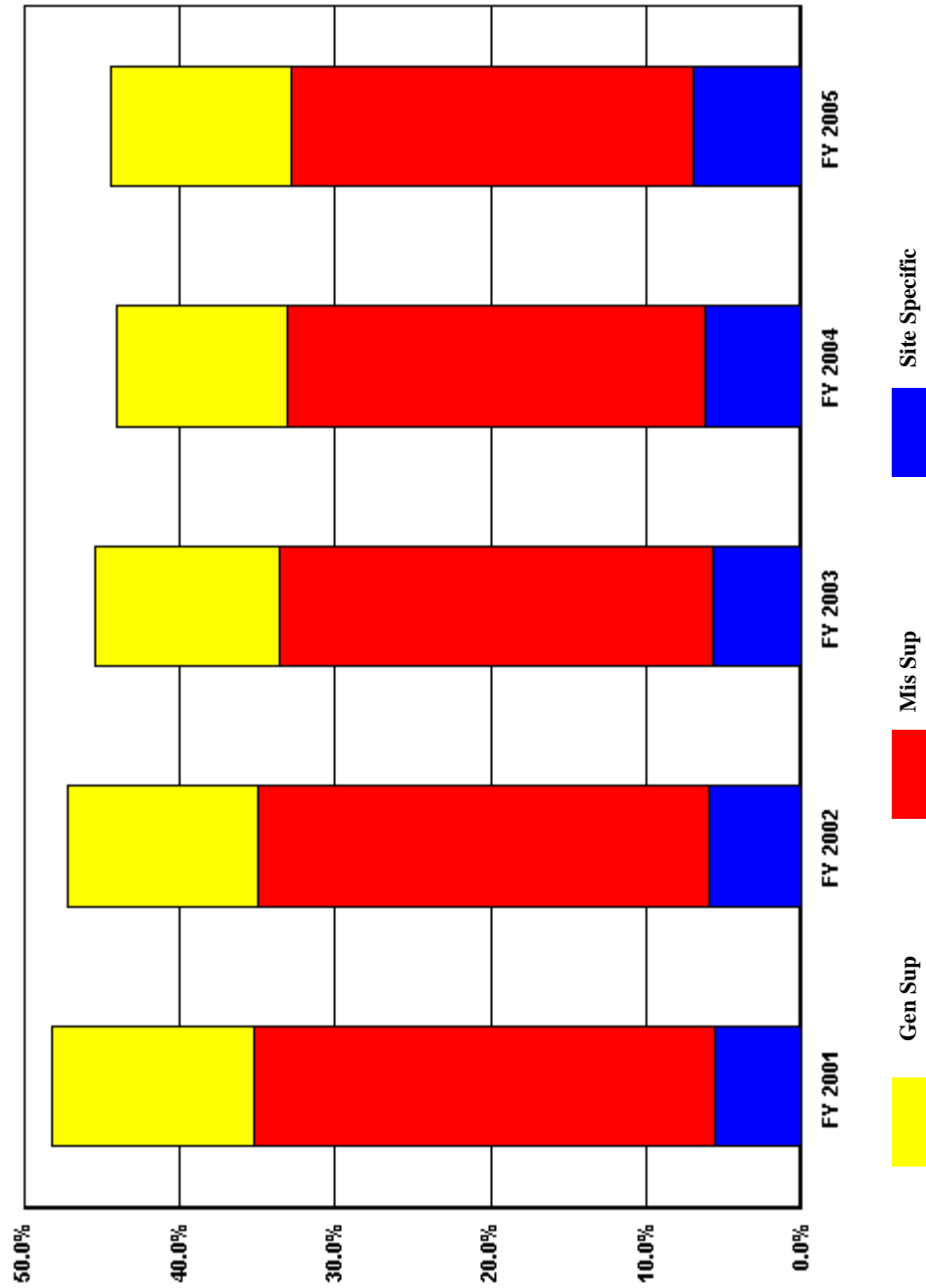
**US Department of Energy
Total Functional Support as a % of Total Costs
Total EM Sites**



■ Total Functional Support

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	48.2%	47.2%	45.4%	44.0%	44.4%

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

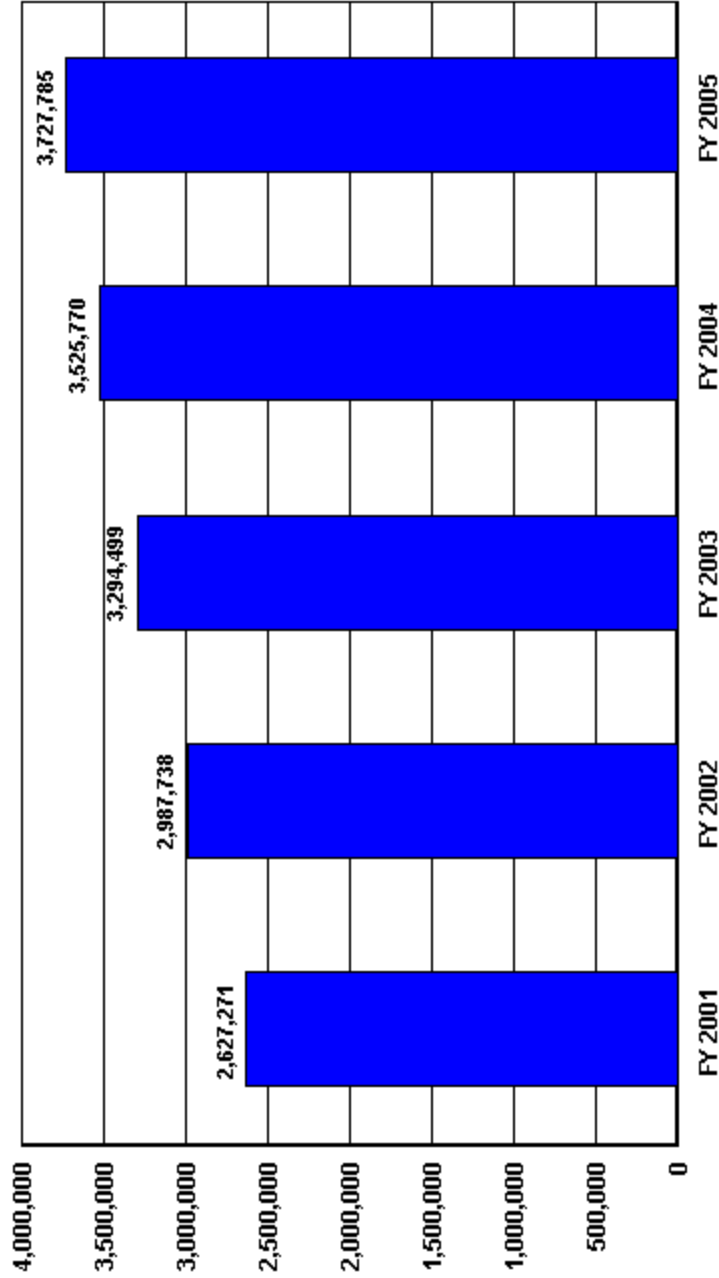


	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gen Sup	13.0%	12.2%	11.9%	11.0%	11.6%
Mis Sup	29.5%	29.0%	27.8%	26.9%	25.8%
Site Specific	5.6%	5.9%	6.2%	6.2%	7.0%

Trends in Total Support Cost by Functional Categories
Total NNSA Sites (\$000)
FY 2005

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	\$ Change 2001 To FY 2005	% Change 2001 To FY 2005
Total Costs	7,012,121	7,828,446	8,462,837	8,776,954	9,260,922	2,248,801	32.1%
Capital Construction	673,316	725,250	867,559	773,737	768,869	95,553	14.2%
Total Costs Less Construction	6,338,805	7,103,196	7,595,278	8,003,217	8,492,053	2,153,248	34.0%
Total Support Costs	2,627,271	2,987,738	3,294,499	3,525,770	3,727,785	1,100,514	41.9%
Mission Direct Operation	3,711,534	4,115,458	4,300,779	4,477,447	4,764,268	1,052,734	28.4%
Mission Direct Operation as % of Total Cost	52.9%	52.6%	50.8%	51.0%	51.4%		
Capital Construction as % of Total Cost	9.6%	9.3%	10.3%	8.8%	8.3%		
Total Support Cost as % of Total Cost	37.5%	38.2%	38.9%	40.2%	40.3%		
Total	100.0%	100.0%	100.0%	100.0%	100.0%		
TOTAL SUPPORT COST as % of TOTAL COST	37.5%	38.2%	38.9%	40.2%	40.3%		
TOTAL SUPPORT COST	2,627,271	2,987,738	3,294,499	3,525,770	3,727,785	1,100,514	41.9%
TOTAL GENERAL SUPPORT as % of TOTAL	11.7%	11.7%	12.3%	12.6%	12.7%		
TOTAL GENERAL SUPPORT	821,262	914,502	1,041,699	1,108,136	1,176,929	355,667	43.3%
EXECUTIVE DIRECTION	76,710	87,114	91,919	90,692	86,869	10,159	13.2%
HUMAN RESOURCES	88,278	94,814	106,969	107,785	122,111	33,833	38.3%
CFO	52,690	55,212	56,317	61,594	64,510	11,820	22.4%
PROCUREMENT	55,128	58,320	69,829	76,261	82,231	27,103	49.2%
LEGAL	24,326	24,400	27,097	24,503	27,549	3,223	13.2%
CENTRAL ADMIN SERVICES	80,302	88,861	95,421	96,698	97,469	17,167	21.4%
PROGRAM/PROJECT CONTROL	47,484	49,864	86,190	105,388	121,639	74,155	156.2%
INFORMATION OUTREACH	56,990	60,209	63,009	64,036	64,621	7,631	13.4%
INFORMATION SERVICES	304,760	377,959	419,544	454,288	474,702	169,942	55.8%
OTHER	34,594	17,749	25,404	26,891	35,228	634	1.8%
TOTAL MISSION SUPPORT as % of TOTAL	20.7%	21.1%	21.2%	22.1%	22.0%		
TOTAL MISSION SUPPORT	1,449,443	1,652,982	1,791,833	1,935,399	2,041,715	592,272	40.9%
ENVIRONMENTAL	73,969	83,114	80,177	83,305	94,380	20,411	27.6%
SAFETY AND HEALTH	239,448	278,483	310,907	310,606	331,094	91,646	38.3%
FACILITIES MANAGEMENT	210,956	274,355	300,763	343,463	346,216	135,260	64.1%
MAINTENANCE	322,556	316,305	351,713	376,126	383,930	61,374	19.0%
UTILITIES	172,320	189,894	175,314	182,835	192,346	20,026	11.6%
SAFEGUARDS AND SECURITY	279,663	346,474	396,448	440,339	485,304	205,641	73.5%
LOGISTICS SUPPORT	62,337	70,003	70,500	72,398	74,845	12,508	20.1%
QUALITY ASSURANCE	47,888	51,093	58,954	72,482	71,759	23,871	49.8%
LABORATORY/TECHNICAL SUPPORT	40,306	43,261	47,057	53,845	61,841	21,535	53.4%
TOTAL SITE SPECIFIC as % of TOTAL	5.1%	5.4%	5.4%	5.5%	5.5%		
TOTAL SITE SPECIFIC	356,566	420,254	460,967	482,235	509,141	152,575	42.8%
MANAGEMENT/INCENTIVE FEE	127,853	143,976	157,538	163,930	168,268	40,415	31.6%
TAXES	60,126	68,537	68,278	73,725	84,165	24,039	40.0%
LDRD / PDRD / SDRD	168,587	207,741	235,151	244,580	256,708	88,121	52.3%

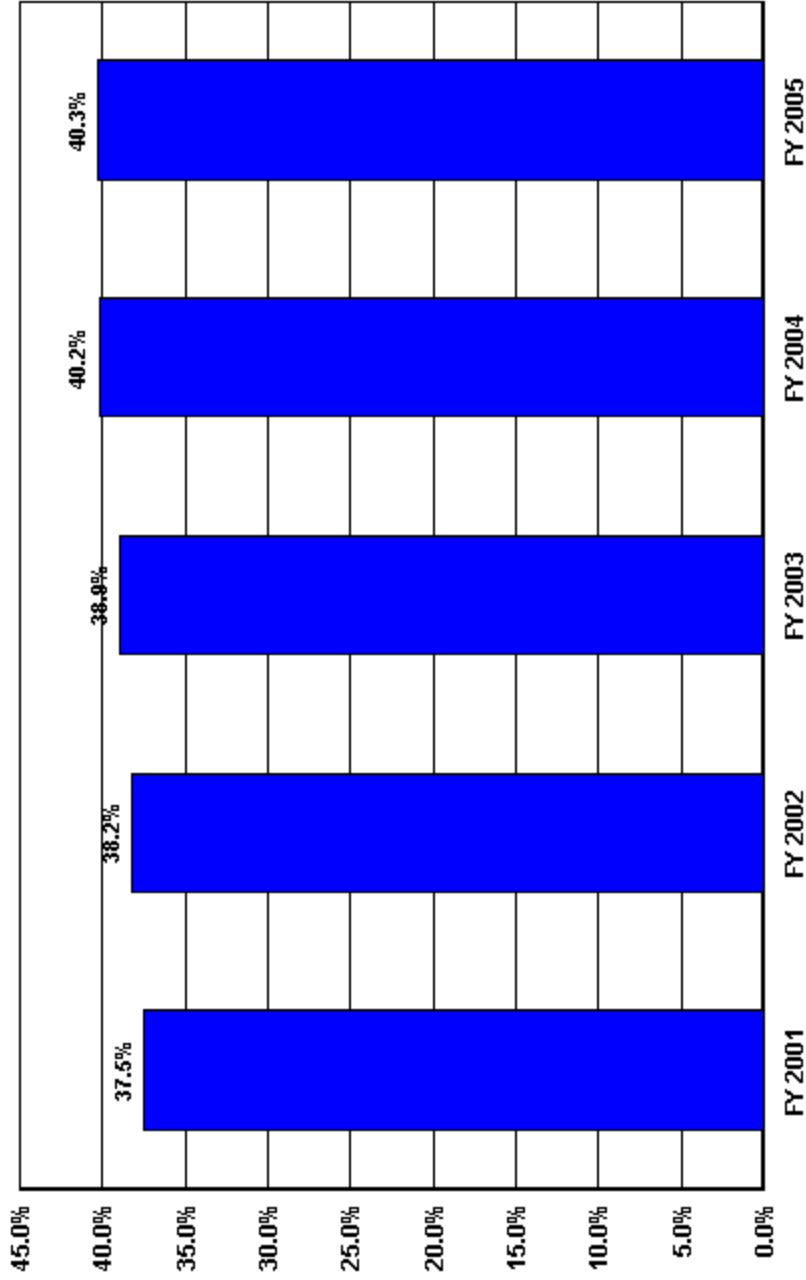
US Department of Energy
 Total Functional Support
 Total NNSA Sites



Total Functional Support (\$ in 000's)

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	2,627,271	2,987,738	3,294,499	3,525,770	3,727,785

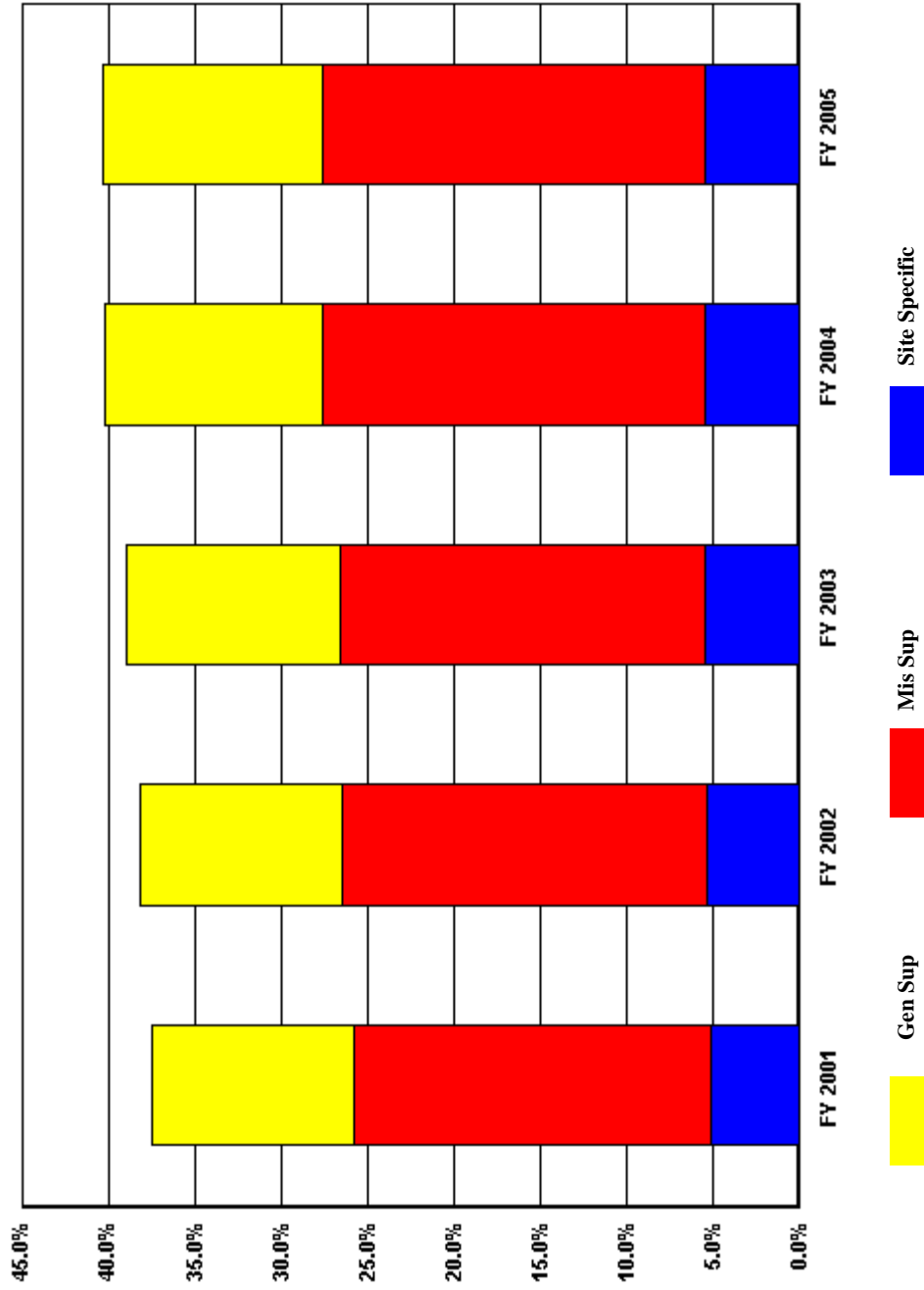
**US Department of Energy
Total Functional Support as a % of Total Costs
Total NNSA Sites**



■ Total Functional Support

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	37.5%	38.2%	38.9%	40.2%	40.3%

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

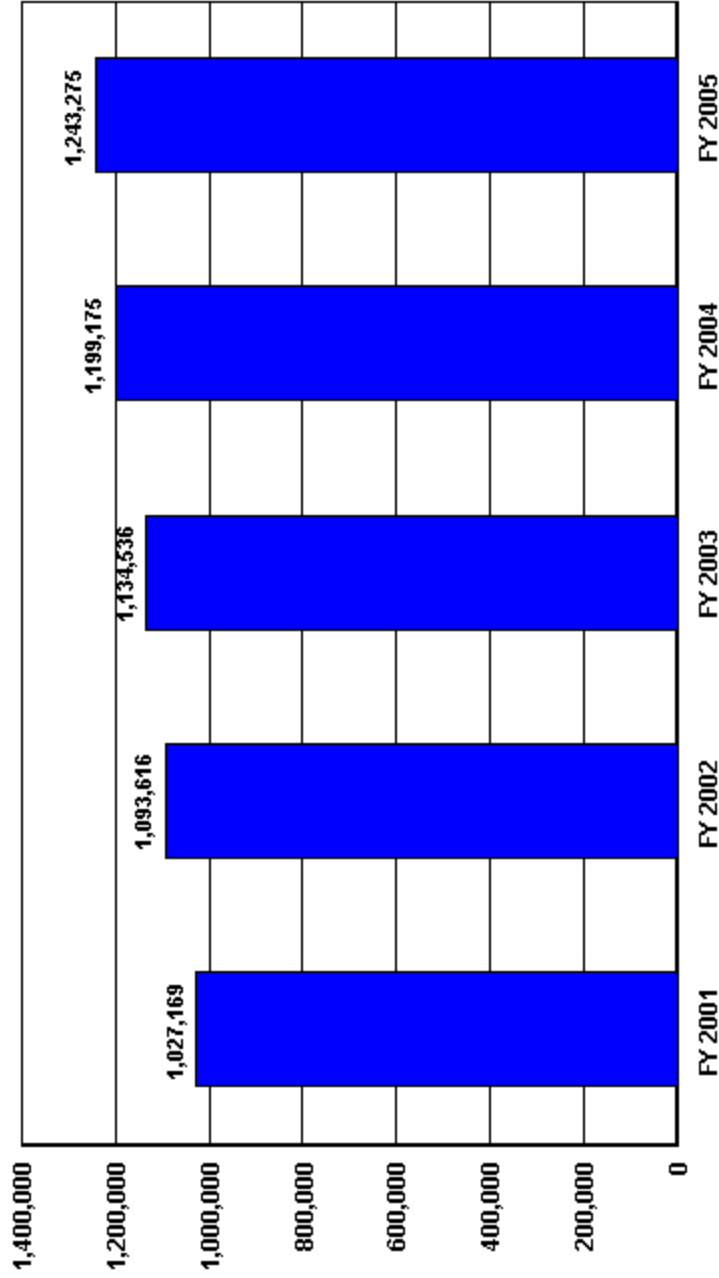


	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gen Sup	11.7%	11.7%	12.3%	12.6%	12.7%
Mis Sup	20.7%	21.1%	21.2%	22.1%	22.0%
Site Specific	5.1%	5.4%	5.4%	5.5%	5.5%

Trends in Total Support Cost by Functional Categories
Total SC Sites (\$000)
FY 2005

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	\$ Change 2001 To FY 2005	% Change 2001 To FY 2005
Total Costs	3,161,664	3,403,677	3,494,621	3,767,686	3,921,501	759,837	24.0%
Capital Construction	335,901	404,320	414,893	442,388	391,537	55,636	16.6%
Total Costs Less Construction	2,825,763	2,999,357	3,079,728	3,325,298	3,529,964	704,201	24.9%
Total Support Costs	1,027,169	1,093,616	1,134,536	1,199,175	1,243,275	216,106	21.0%
Mission Direct Operation	1,798,594	1,905,741	1,945,192	2,126,123	2,286,689	488,095	27.1%
Mission Direct Operation as % of Total Cost	56.9%	56.0%	55.7%	56.4%	58.3%		
Capital Construction as % of Total Cost	10.6%	11.9%	11.9%	11.7%	10.0%		
Total Support Cost as % of Total Cost	32.5%	32.1%	32.5%	31.8%	31.7%		
Total	100.0%	100.0%	100.0%	100.0%	100.0%		
TOTAL SUPPORT COST as % of TOTAL COST	32.5%	32.1%	32.5%	31.8%	31.7%		
TOTAL SUPPORT COST	1,027,169	1,093,616	1,134,536	1,199,175	1,243,275	216,106	21.0%
TOTAL GENERAL SUPPORT as % of TOTAL	11.9%	11.8%	12.1%	11.4%	11.2%		
TOTAL GENERAL SUPPORT	376,752	402,677	424,090	429,345	441,095	64,343	17.1%
EXECUTIVE DIRECTION	35,001	42,820	51,517	55,702	60,751	25,750	73.6%
HUMAN RESOURCES	27,223	28,459	30,851	32,289	33,059	5,836	21.4%
CFO	34,997	36,541	42,056	44,732	47,963	12,966	37.0%
PROCUREMENT	22,371	23,147	24,691	28,635	29,256	6,885	30.8%
LEGAL	9,044	9,725	10,361	11,486	11,106	2,062	22.8%
CENTRAL ADMIN SERVICES	34,761	34,617	34,730	36,095	39,306	4,545	13.1%
PROGRAM/PROJECT CONTROL	28,511	28,649	29,945	12,499	11,883	-16,628	-58.3%
INFORMATION OUTREACH	35,012	37,797	42,160	68,346	74,537	39,525	112.9%
INFORMATION SERVICES	118,083	125,258	121,072	122,758	120,543	2,460	2.1%
OTHER	31,749	35,664	36,707	16,803	12,691	-19,058	-60.0%
TOTAL MISSION SUPPORT as % of TOTAL	17.8%	17.4%	17.5%	17.5%	17.5%		
TOTAL MISSION SUPPORT	563,614	593,058	612,933	657,837	685,683	122,069	21.7%
ENVIRONMENTAL	27,609	26,191	33,293	35,963	33,146	5,537	20.1%
SAFETY AND HEALTH	102,848	99,691	102,366	110,166	106,956	4,108	4.0%
FACILITIES MANAGEMENT	65,229	76,991	88,843	99,914	101,529	36,300	55.7%
MAINTENANCE	151,535	163,537	154,139	165,324	173,482	21,947	14.5%
UTILITIES	100,226	102,147	107,163	108,243	126,323	26,097	26.0%
SAFEGUARDS AND SECURITY	42,016	50,075	51,543	56,017	61,116	19,100	45.5%
LOGISTICS SUPPORT	25,994	27,943	28,967	30,743	29,025	3,031	11.7%
QUALITY ASSURANCE	12,654	9,374	11,339	11,078	11,072	-1,582	-12.5%
LABORATORY/TECHNICAL SUPPORT	35,503	37,109	35,280	40,389	43,034	7,531	21.2%
TOTAL SITE SPECIFIC as % of TOTAL	2.7%	2.9%	2.8%	3.0%	3.0%		
TOTAL SITE SPECIFIC	86,803	97,881	97,513	111,993	116,497	29,694	34.2%
MANAGEMENT/INCENTIVE FEE	39,191	40,795	40,109	43,085	46,031	6,840	17.5%
TAXES	2,212	3,648	1,578	6,556	4,977	2,765	125.0%
LDRD / PDRD / SDRD	45,400	53,438	55,826	62,352	65,489	20,089	44.2%

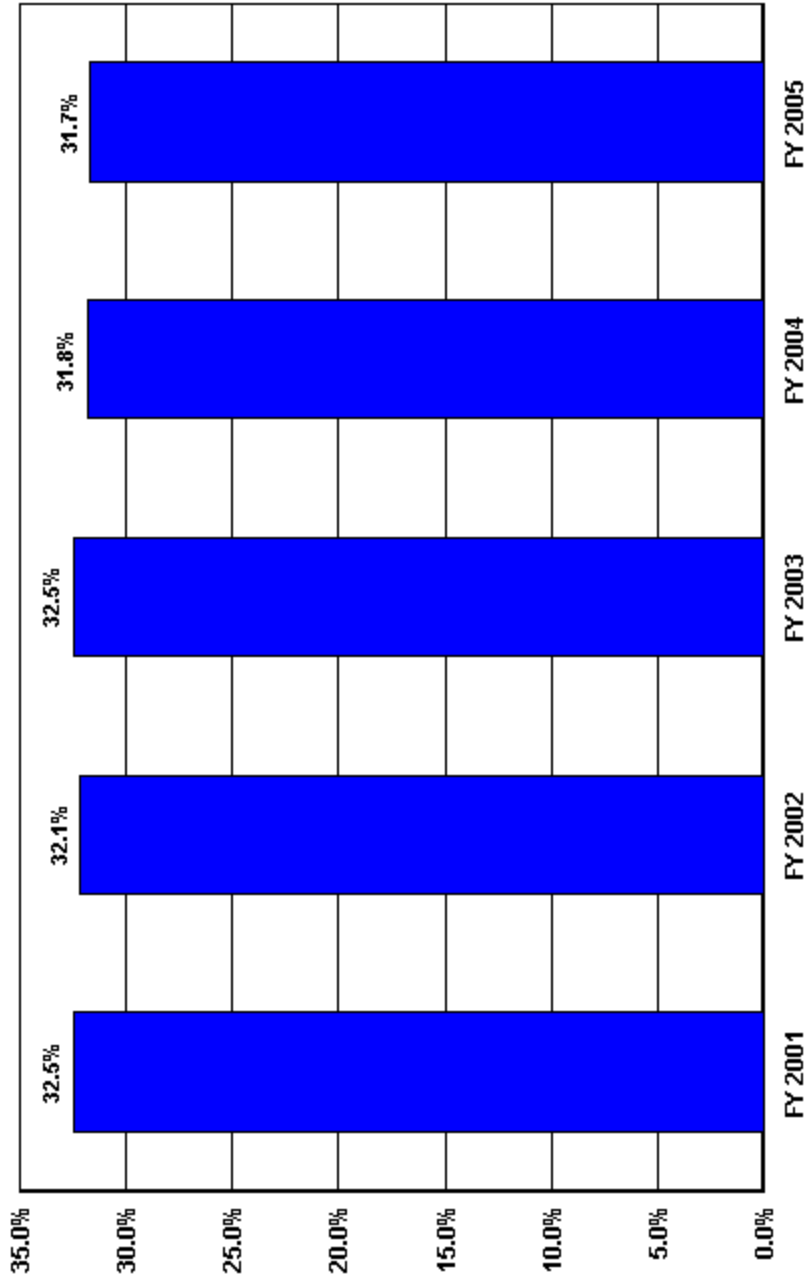
US Department of Energy
 Total Functional Support
 Total SC Sites



Total Functional Support (\$ in 000's)

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	1,027,169	1,093,616	1,134,536	1,199,175	1,243,275

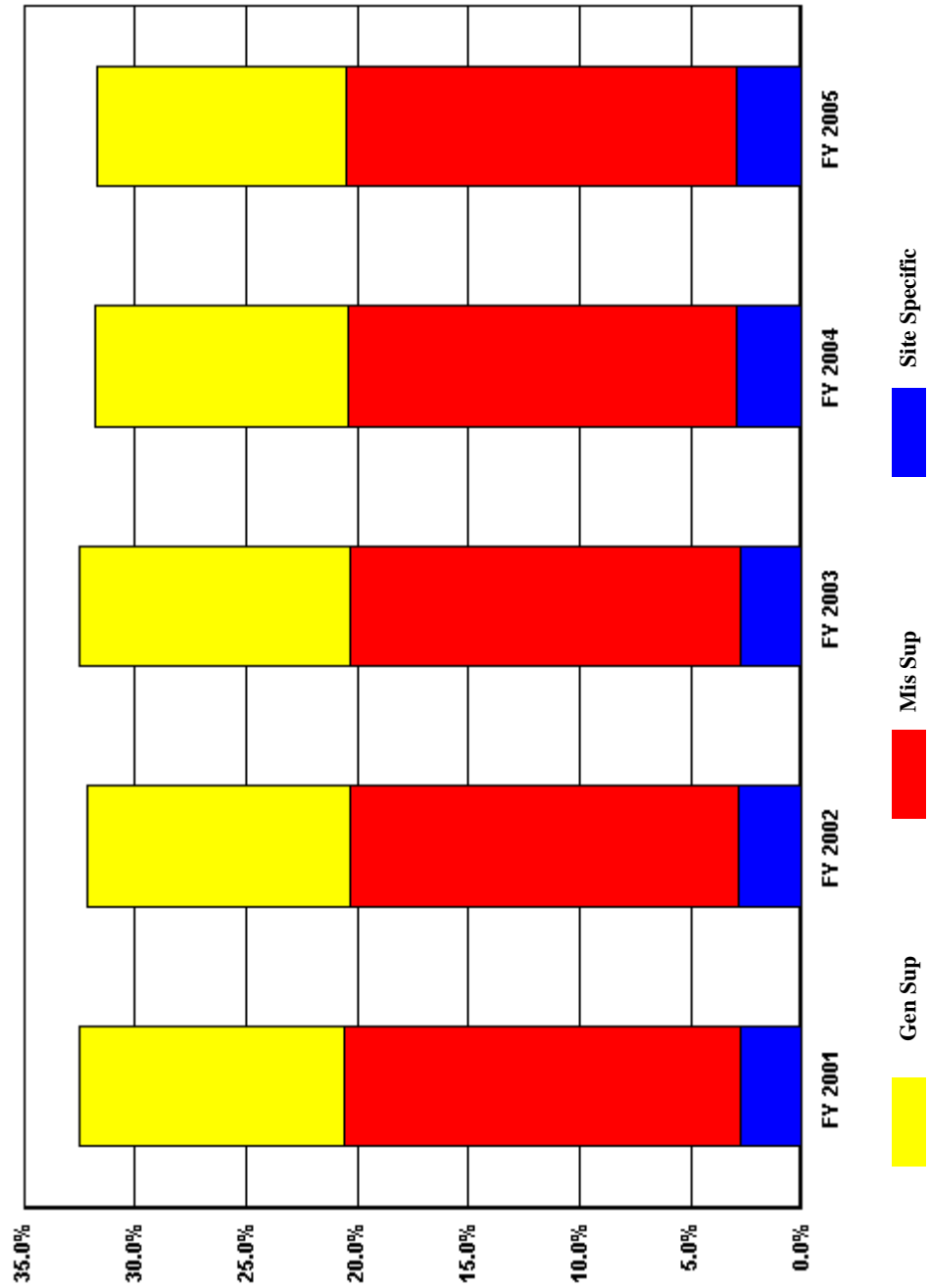
**US Department of Energy
Total Functional Support as a % of Total Costs
Total SC Sites**



■ Total Functional Support

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Total Functional Support	32.5%	32.1%	32.5%	31.8%	31.7%

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



	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Gen Sup	11.9%	11.8%	12.1%	11.4%	11.2%
Mis Sup	17.8%	17.4%	17.5%	17.5%	17.5%
Site Specific	2.7%	2.9%	3.0%	3.0%	3.0%

**U.S. DEPARTMENT OF ENERGY
FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT
DEFINITIONS**

A. General Terms

1. **Support Cost**: Cost incurred by 28 of our major operating contractors in support of direct mission efforts. These costs do not have a single Departmental sponsor. Support cost includes General Support, Mission Support and Site Specific costs.

2. **Total Cost**: Includes Mission Direct, Construction and Support Costs and is equal to total program costs.

B. General Support: Represents cost categories which would exist regardless of the specific mission.

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 and 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 to 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.
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 programs; stakeholder-related outreach; activities contributing to the development of the local/regional economy; other information or outreach activities such as HBCU (Historically Black Colleges and Universities) and other university-related activities, including stakeholder agencies and Washington, DC, liaison activities. This category includes:

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.

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). Includes pagers and related systems, but not the maintenance of these systems. Also includes computer leases. Does 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.

C. Mission Support: Represents cost categories that exist solely due to the unique mission being accomplished.

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:

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.)

Auditing and Evaluation - These audits are done as a routine mechanism to ensure 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.

Non-Environmental Management 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; and 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 (heating ventilation air conditioning 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.

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 National Fire Protection Association, 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.

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 (As Low As Reasonably Achievable) programs; control of paths for inhalation or ingestion of radiation; radiation exposure records; fixed and portable instrumentation for radiation detection and measurement; 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 Safety and Health (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, 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 footnoted

since they materially affect year to year trends. (Note: Include trailer leases in this category; but 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 - 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. Includes asbestos removal and material replacement.

Maintenance - Functions include supervision; planning and scheduling storage and staging 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 - Includes the fuel handling and storage facilities, all assigned personnel and the main steam distribution system.

Central Chilled Water Facility - Includes all assigned personnel and the main chilled water distribution system.

Water Supply System - Includes wells, treatment facilities, storage tanks, the main distribution system and all assigned personnel.

Sanitary Waste Disposal System - Includes 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 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, and 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, 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.

Cyber Security - Includes management of unclassified and classified data, information technology security assets, cyber information systems, including information technical utilities which include grid research, threat assessments, wireless networks, performance measures, risk management, configuration management, certification/accreditation, training, network monitoring and intrusion detection systems.

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 the Occurrence Reporting and Processing System), 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.

D. Site Specific: Represents cost categories not defined as general support, mission support or construction.

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).
21. **Taxes** - Includes state and municipal taxes, as well as "payments in lieu of taxes." Does not include taxes that are payroll related.
22. **Laboratory Directed Research and Development (LDRD), Plant Directed Research, Development and Demonstration Program (PDRD), and Site Directed Research, Development and Demonstration Program (SDRD)** – LDRD portion reflects costs incurred in accordance with DOE Order 413.2A for the purpose of pursuing new and innovative scientific concepts of benefit to the DOE. Excludes allocations of overhead. The PDRD and SDRD portions reflect costs incurred in accordance with the legislative authority for these activities.

E. Mission Direct: Represents costs not identified as support cost or construction. These are costs associated with directly accomplishing the mission.

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.

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.

APPENDIX B

U.S. DEPARTMENT OF ENERGY FY 2005 SUPPORT COST BY FUNCTIONAL ACTIVITY REPORT

All 28 Submitting Sites & Contractors

Ames Laboratory/Iowa State University
Argonne National Laboratory/University of Chicago
Bettis Atomic Power Laboratory/Bechtel
Brookhaven National Laboratory/Brookhaven Science Associates
Fermi National Accelerator Laboratory/University Research Associates
Hanford/Fluor Daniel, Bechtel & CH2M Hill
Idaho National Lab/Bechtel BWXT Idaho, LLC
Kansas City Plant/Honeywell, FM&T
Knolls Atomic Power Laboratory/Lockheed Martin
Lawrence Berkeley National Laboratory/University of California
Lawrence Livermore National Laboratory/University of California
Los Alamos National Laboratory/University of California
National Renewable Energy Laboratory/Midwest Research Institute
Nevada/Bechtel Nevada
Oak Ridge National Laboratory/UT-Battelle, LLC
Oak Ridge Environmental Management & Enrichment Facility/Bechtel Jacobs
Pacific Northwest National Laboratory/Battelle Memorial Institute
Pantex/BWXT
Princeton Plasma Physics Laboratory/Princeton University
Rocky Flats/Kaiser-Hill
Sandia National Laboratory/Lockheed Martin
Savannah River/Westinghouse & Wackenhut
Stanford Linear Accelerator Center/Stanford University
Strategic Petroleum Reserve/DynMcDermott Petroleum Operations
West Valley/West Valley Nuclear Services
WIPP/Westinghouse
Y12/BWXT
Yucca Mountain/Bechtel-SAIC

This report and additional functional support cost details from the 28 contributing sites are available online at: <http://www.mbe.doe.gov/progliaison/scfa.htm>