



BERKELEY LAB

2019 Annual Financial Report





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2019



Ernest Orlando Lawrence Berkeley National Laboratory
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Front Cover:

Top Left: A conceptual design of the Biological & Environmental Program Integration Center (BioEPIC). The BioEPIC is proposed to be constructed in the Bayview area of the Lawrence Berkeley National Laboratory main campus; it is envisioned as a 4 story, 72,000 square-foot facility with an occupancy of approximately 200 people. This project achieved CD-1 during FY2019.

Bottom Left: A conceptual design of Seismic Safety & Modernization (SSM). The SSM project is a multi-year planning and construction effort intended to address seismic safety issues and emergency response capabilities specifically related to the Cafeteria, Health Services facility, and the Fire House at Berkeley Lab. This project achieved CD-1 during FY2019.

Right: Photo of completed Integrated Genomics Building (IGB). IGB is an 80,880 GSF laboratory/office building housing the Joint Genome Institute (JGI) and the U.S. Department of Energy Systems Biology Knowledgebase (KBase) programs.

Background: Image from Dr. Fangchao Song's Berkeley Lab Research SLAM for Early Career Scientists and Postdocs, "I am a Bubble Player".

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Lawrence Berkeley National Laboratory is an internationally renowned research institution dedicated to addressing the world's most challenging scientific problems, from advancing sustainable energy solutions and creating useful new materials, to pushing the frontiers of computing and revealing the origin and fate of the universe. As the original home of "team science," which emphasizes large-scale interdisciplinary research in the public interest, Berkeley Lab's scientific expertise has been recognized with 13 Nobel Prizes. The University of California manages the Lab on behalf of the U.S. Department of Energy (DOE).



FY2019 financial results highlight another year of robust funding for the Lab under the leadership of Laboratory Director Michael Witherell and Deputy Lab Directors Horst Simon, Research, and Michael Brandt, Operations. The DOE continues to demonstrate its trust in the Lab to carry out its scientific mission through its continued investment in large-scale initiatives here.

A key focus for the year has been on the many major scientific and infrastructure projects underway or that will soon be underway. Some examples include the Advanced Light Source Upgrade (ALS-U), ESnet 6, Gamma-Ray Energy Tracking Array (GRETA), Bayview Site cleanup, Biological and Environmental Program Integration (BioEPIC), and Seismic/Safety Modernization (SSM). Additionally, strategic Laboratory Directed Research and Development (LDRD) initiatives seeded years earlier have yielded scientific capabilities that enable the Lab to successfully win competitively awarded projects such as the National Alliance for Water Innovation (NAWI) Hub and the Advanced Quantum Testbed.

The Lab continues to focus on attracting and developing the people we need to focus on our mission and lead the various

areas of the Lab. The Lab has established the first of its kind Inclusion, Diversity, Equity and Accountability (IDEA) program among the National Labs. Our staff have used LinkedIn Learning for over 20,000 video courses, and over 200 supervisors have benefited from our Safe Academy for Excellence (SAFE) leadership training. We launched the Skillful Stewardship program for division and department leaders and provided 360 leadership assessments for Lab leaders.

Berkeley Lab received \$1.1B in FY2019 funding which is essentially the same level as FY2018. FY2019 spending was \$946M, an increase of four percent over FY2018. Even with this increase in spending, the Lab's ending uncosted balance grew by five percent from FY18 levels, mainly due to the volume of major project funding, which is more heavily front-loaded. Lab leadership continues to actively manage the Lab's cost-competitive position, using indirect cost as a percent of total cost as an indicative measure. The FY2019 indirect percentage of total cost remained essentially flat with the previous year's level. The Lab's total indirect budget reflected a modest increase to accommodate continuing infrastructure needs, along with escalation for fenced costs. All indirect-funded Operations units absorbed half of the labor escalation to help mitigate any additional indirect budget increases.

OCFO Mission: High-value financial and procurement services and strategic solutions that contribute to Berkeley Lab's research and stewardship mission

The Office of the Chief Financial Officer (OCFO) made key contributions to shaping and managing the financial strategy that allows the Lab to make successful investments. With the Lab Director's endorsement, OCFO piloted a Lab-wide multi-year budgetary planning process to gain insight of out-year institutional support needs and provide assurance that desired programmatic growth is aligned with the Lab's strategic goals. Also, the OCFO continues to make progress on critical initiatives in our Strategic Roadmap. OCFO planning

and execution of new support models for significant projects and programs, including an Earned Value Management System (EVMS) financial community of practice, contributed to project progress and improved support of Critical Decision reviews for projects under DOE Order 413.3B.

Three of the OCFO activities in FY2019 enabled the execution and stewardship of the Lab's mission. The Property Management System review, a periodic DOE-led assessment of the

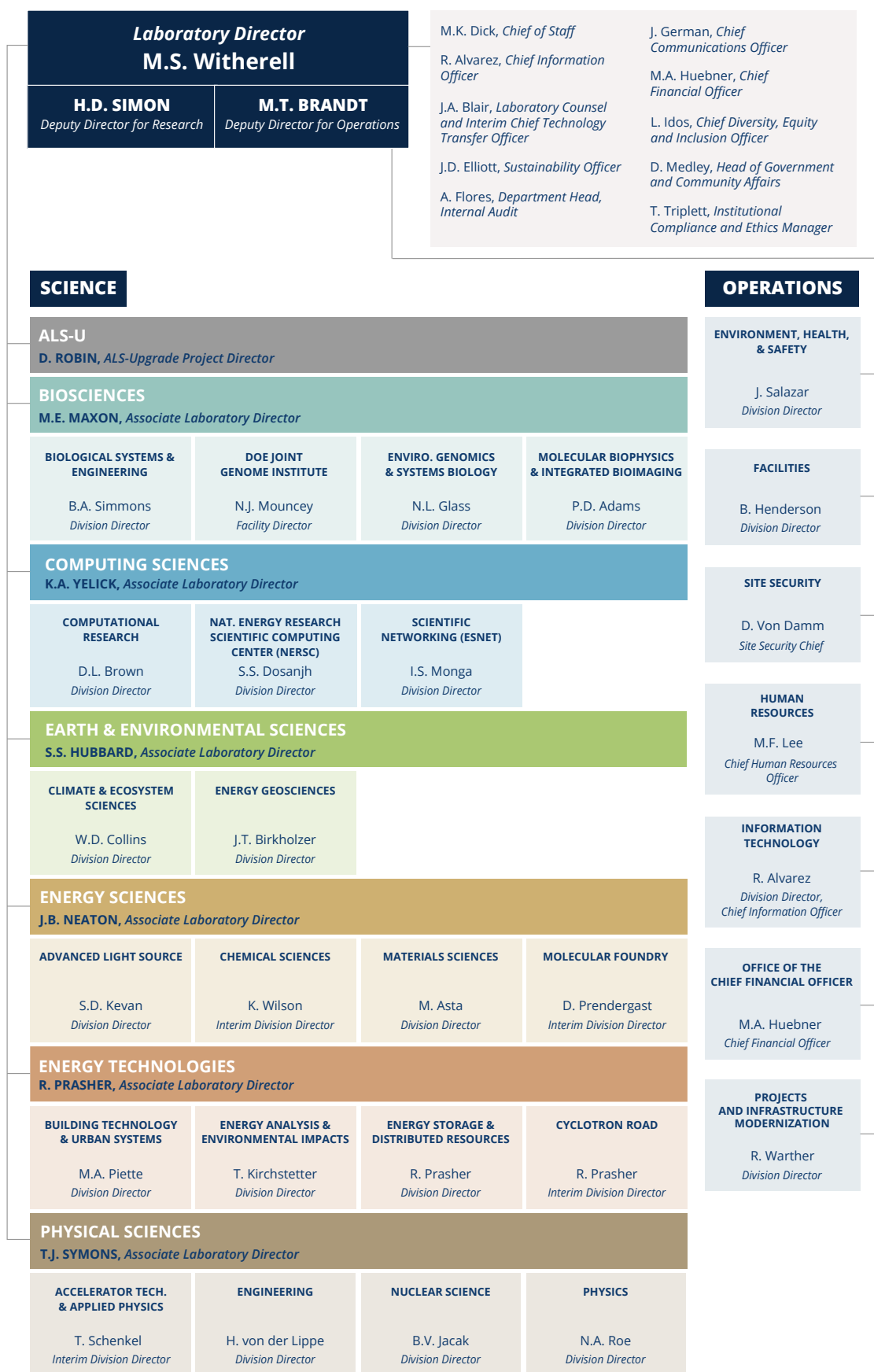
Lab's Property system, was positive. For the DOE Procurement Balance Scorecard (BSC), the Lab met or exceeded all 14 goals. OCFO also developed the financial course content in the Skillful Stewardship program that promotes effective stewardship of Lab resources. In the area of continuous process and service improvements, the Controller's Office led the payment request process enhancement that resulted in a more streamlined process with user-friendly workflows. We continued to upgrade and enhance Financial Management System (FMS), electronic System for Research Administration (eSRA), and reporting tools to deliver additional functionalities and efficiencies to end-users.

OCFO continues to invest in our people. We implemented a division-wide mentoring program that involved 24 mentor/mentee pairings in FY2019. We broadened our inclusion work by launching the gender pronoun initiative following the lead of the Lab's IDEA program. We prioritized the development of a succession planning program to ensure we will have the leaders we need in the organization to meet future challenges.

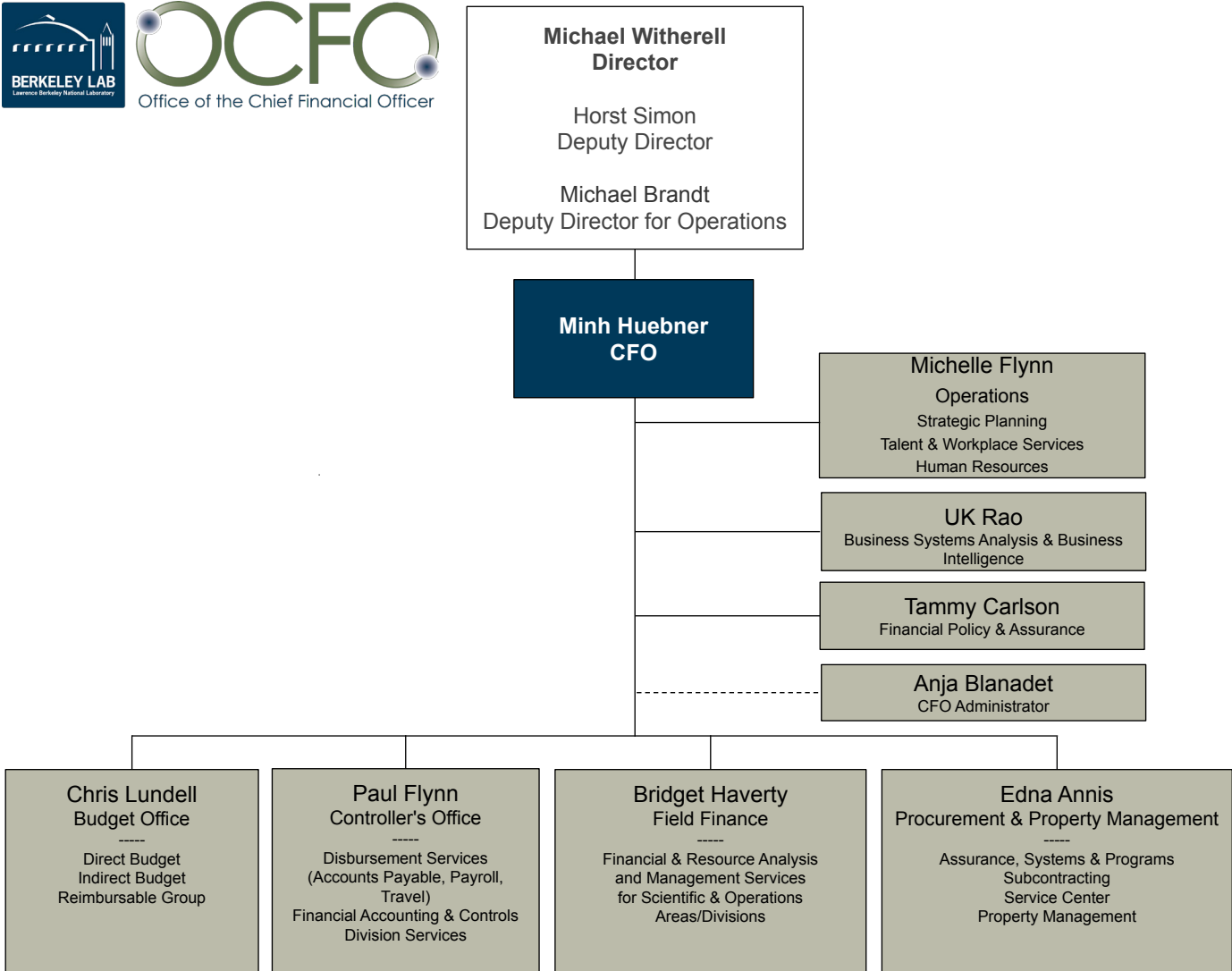
We continue to focus on our partnerships with scientific customers and key stakeholders and to assure efficient services, strong consultative support, and effective stewardship in support of the Lab's mission of bringing science solutions to the world.

Minh Agon Huebner
Chief Financial Officer

Lawrence Berkeley National Laboratory (LBNL), University of California



Office of the Chief Financial Officer



INSTITUTIONAL INFORMATION

1

Where Did Your Program Dollars Go in FY2019?

Expenses	DOE Operating Costs	DOE Integrated Contractors Costs	Construction and Equipment	SPP Non-DOE
DIRECT				
Direct Labor				
UC Labor (a)	\$0.34	\$0.38	\$0.23	\$0.34
Contract Labor	\$0.00	\$0.00	\$0.00	\$0.00
Organization/Area Burden	\$0.06	\$0.06	\$0.03	\$0.06
Subtotal Direct Labor	\$0.40	\$0.44	\$0.27	\$0.40
Other Direct				
Services	\$0.19	\$0.18	\$0.46	\$0.12
Materials	\$0.08	\$0.04	\$0.16	\$0.08
Utilities	\$0.01	\$0.00	\$0.00	\$0.00
Other Expenses (b)	\$0.01	\$0.01	\$0.00	\$0.01
Recharges (c)	\$0.02	\$0.05	\$0.01	\$0.06
Travel	\$0.02	\$0.02	\$0.01	\$0.01
Subtotal Other Direct	\$0.33	\$0.30	\$0.64	\$0.29
Total Direct	\$0.73	\$0.74	\$0.92	\$0.69
INDIRECT				
Procurement	\$0.01	\$0.01	\$0.01	\$0.01
Travel	\$0.00	\$0.00	\$0.00	\$0.00
G&A (Other Inst.)	\$0.26	\$0.26	\$0.07	\$0.30
Total Indirect	\$0.27	\$0.26	\$0.08	\$0.31
TOTAL EXPENSES	\$1.00	\$1.00	\$1.00	\$1.00

Note: Minor variances may occur due to rounding.

(a) UC Labor includes salary and benefits for Scientists/Engineers, Administrators, Students/GSRAs and Campus Labor.

(b) Includes misc. expenses (stipends, sales tax, freight, etc.).

(c) Distributed activities used by direct funded programs. Includes recharges credited back to direct operating accounts such as ALS and ESnet.

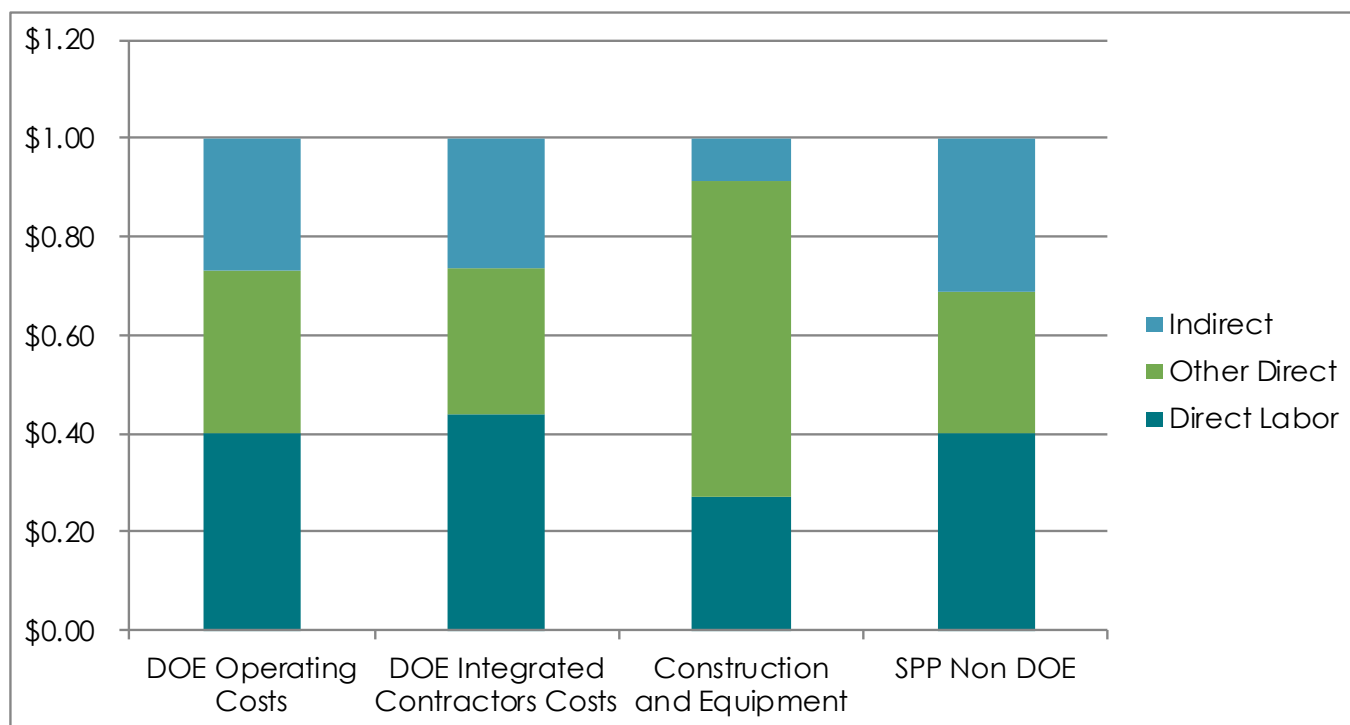


Table 1.1

Cost Trends by Expense Category, FY2015-FY2019 (\$M and % of Total)

Expenses	FY2015		FY2016		FY2017		FY2018		FY2019	
	\$M	%	\$M	%	\$M	%	\$M	%	\$M	%
DIRECT										
Direct Labor										
UC Labor (a)	277.4	34.2%	275.1	33.3%	283.1	33.0%	289.2	31.9%	315.0	33.3%
Contract Labor	0.4	0.0%	1.3	0.2%	1.0	0.1%	0.8	0.1%	1.4	0.1%
Organization/ALD Burden	42.8	5.3%	47.5	5.7%	48.2	5.6%	47.7	5.3%	50.9	5.4%
Subtotal Direct Labor	320.5	39.5%	323.9	39.2%	332.3	38.7%	337.7	37.2%	367.3	38.8%
OTHER DIRECT										
Services	150.2	18.5%	158.1	19.1%	174.3	20.3%	217.6	24.0%	200.6	21.2%
Materials	82.6	10.2%	77.9	9.4%	77.2	9.0%	74.5	8.2%	83.4	8.8%
Utilities	9.6	1.2%	6.9	0.8%	6.8	0.8%	7.6	0.8%	7.3	0.8%
Other Expenses (b)	5.7	0.7%	5.6	0.7%	5.5	0.6%	6.3	0.7%	8.1	0.9%
Recharges (c)	21.9	2.7%	23.3	2.8%	22.4	2.6%	23.4	2.6%	27.2	2.9%
Travel	11.8	1.5%	12.7	1.5%	11.9	1.4%	12.4	1.4%	13.8	1.5%
Subtotal Other Direct	281.8	34.7%	284.6	34.4%	298.1	34.7%	341.6	37.7%	340.3	36.0%
Total Direct	602.3	74.2%	608.5	73.6%	630.4	73.5%	679.3	74.9%	707.6	74.8%
INDIRECT										
Procurement	9.2	1.1%	9.6	1.2%	9.6	1.1%	9.6	1.1%	10.7	1.1%
Travel	0.9	0.1%	1.0	0.1%	1.1	0.1%	1.1	0.1%	1.1	0.1%
G&A (Other Inst.)	198.9	24.5%	207.8	25.1%	217.0	25.3%	217.1	23.9%	226.4	23.9%
Total Indirect	209.0	25.8%	218.4	26.4%	227.7	26.5%	227.9	25.1%	238.2	25.2%
TOTAL EXPENSES	811.3	100.0%	826.9	100.0%	858.1	100.0%	907.2	100.0%	945.8	100.0%

Note: Minor variances may occur due to rounding.

(a) UC Labor includes salary and benefits for Scientists/Engineers, Administrators, Students/GSRAs and Campus Labor.

(b) Includes misc. expenses (stipends, sales tax, freight, etc.)

(c) Distributed activities used by direct funded programs. Includes recharges credited back to direct operating accounts such as ALS and ESnet.

Table 1.2

Direct Cost Trends by Area and Division, FY2015 - FY2019 (\$K)

Area and Division	FY2015	FY2016	FY2017	FY2018	FY2019
BIOSCIENCES (a)	174,901	169,850	170,286	162,458	175,991
Biological Systems & Engineering		45,702	43,767	38,719	46,520
Environmental Genomics & System Biology		17,744	15,834	16,894	19,111
Genomics	7,963				
Joint Genome Institute	73,127	68,915	71,642	65,904	68,210
Life Sciences	30,132				
Molecular Biophysics & Integrated Bioimaging		37,489	39,043	40,941	42,150
Physical Biosciences	63,680				
COMPUTING SCIENCES	167,127	158,354	172,732	183,308	183,225
Computational Research	32,171	35,563	37,666	43,796	47,646
National Energy Research Scientific Computing Center	93,768	80,041	95,180	99,264	87,495
Scientific Networking	41,189	42,749	39,886	40,248	48,084
DIRECTORATE & OPERATIONS	17,032	23,135	42,947	74,699	73,070
ALS-U					23,931
Environment, Health, and Safety	34	31	29	69	282
Facilities	9,323	14,098	33,231	69,834	4,425
Human Resources				777	923
Information Technology	2,306	3,128	4,200	3,891	3,790
Laboratory Directorate	173	316	219	92	196
Other	106	123	162	37	43
Public Affairs	1,422	1,520	1,459		-
Projects and Infrastructure Modernization					39,480
Protective Services	3,670	3,919	3,648		
EARTH & ENVIRONMENTAL SCIENCES (b)	64,683	65,537	65,432	66,794	71,703
Climate & Ecosystems		36,519	36,659	35,345	38,066
Earth Sciences	64,683				
Energy Geosciences		29,019	28,774	31,449	33,636
Note: Minor variances may occur due to rounding. (a) Biosciences reorganized in FY2016, forming Biological Systems & Engineering, Environmental Genomics & System Biology, Joint Genome Institute, and Molecular Biophysics & Integrated Bioimaging. (b) Environmental Sciences reorganized in FY2016, forming Climate & Ecosystems and Energy Geosciences.					

continued...

Direct Cost Trends by Area and Division, FY2015 - FY2019 (\$K) Continued

Area and Division	FY2015	FY2016	FY2017	FY2018	FY2019
ENERGY SCIENCES (c)	157,831	163,012	164,136	172,134	179,235
Advanced Light Source	60,233	65,578	73,900	79,054	70,281
Chemical Sciences	24,737	28,478	26,702	25,985	27,764
Material Sciences	72,860	68,955	31,553	33,346	42,289
Molecular Foundry			31,981	33,750	38,901
ENERGY TECHNOLOGIES (d)	106,834	107,666	113,137	110,305	122,252
Building Technologies & Urban Systems		33,893	38,218	34,223	40,242
Cyclotron Road		1,739	2,937	2,629	3,059
Energy Analysis & Environmental Impacts		42,576	40,649	42,270	44,221
Energy Storage & Distributed Resources		29,458	31,333	31,183	34,730
Energy Technologies	106,834				
PHYSICAL SCIENCES	122,867	139,346	129,444	137,486	140,305
Accelerator Technology & Applied Physics	32,470	38,772	43,590	42,353	38,566
Engineering	4,549	2,223	1,375	2,153	1,764
Nuclear Science	33,439	33,681	32,130	32,565	37,437
Physics	52,409	64,669	52,349	60,416	62,537
DIVISION TOTAL	811,276	826,899	858,115	907,185	945,781

Note: Minor variances may occur due to rounding.

c) Energy Sciences reorganization in FY2017, Molecular Foundry division created (formerly in Materials Sciences division).

d) Energy Technologies reorganized in FY2016, forming Building Technologies Urban Systems, Cyclotron Road, Energy Analysis Environmental Impact, Energy Storage & Distributed Resources.

Costs by Direct Funding Source by Area and Division, FY2019 (\$K)

Area and Division	FY2019						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Biosciences	127,723	2,098	28,513	16,863	175,197	794	175,991
Biological Systems & Energy	33,311	948	7,414	4,847	46,520	-	46,520
Environmental Genomics & System Biology	10,325	-	5,911	2,875	19,111	-	19,111
Joint Genome Institute	67,939	-	-	271	68,210	-	68,210
Molecular Biophysics & Integrated Bioimaging	16,147	1,150	15,188	8,870	41,356	794	42,150
Computing Sciences	154,614	21,989	2,221	1,914	180,738	2,486.55	183,225
Computational Research	27,285	17,680	2,182	499	47,646	-	47,646
National Energy Research Scientific Computing Center	82,154	1,658	-	1,196	85,008	2,487	87,495
Scientific Networking	45,174	2,651	39	220	48,084	-	48,084
Directorate & Operations	23,321	177	146.57	-	23,644	49,426.18	73,070
ALS-U	1,863	14	-	-	1,877	22,054	23,931
Environment, Health, and Safety	280	2	-	-	282	-	282
Facilities	4,425	-	-	-	4,425	-	4,425
Human Resources	923	-	-	-	923	-	923
Information Technology	3,673	118	-	-	3,790	-	3,790
Laboratory Directorate	49	-	147	-	196	-	196
Other	-	43	-	-	-	-	43
Projects & Infrastructure Modernization	12,108	-	-	-	12,108	27,372	39,480
Protective Services	-	-	-	-	-	-	-
Public Affairs	-	-	-	-	-	-	-
Earth & Environmental Sciences	57,234	6,652	414	7,245	71,545	157.42	71,703
Climate & Ecosystems	33,166	3,143	336	1,422	38,066	-	38,066
Energy Geosciences	24,068	3,509	78	5,823	33,479	157	33,636
Note: Minor variances may occur due to rounding.							

continued...

Costs by Direct Funding Source by Area and Division, FY2019 (\$K) Continued

Area and Division	FY2019						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non- Federal	Operating Subtotal	Capital and Equipment	Total
Energy Sciences	152,998	444	2,316	12,707	168,465	10,769.35	179,235
Advanced Light Source	62,526	38	-	2,148	64,713	5,568	70,281
Chemical Sciences	26,018	332	200	248	26,798	966	27,764
Materials Sciences	32,744	39	106	8,448	41,338	951	42,289
Molecular Foundry	31,710	34	2,010	1,862	35,617	3,284	38,901
Energy Technologies	97,144	1,696	3,602	19,810	122,252	-	122,252
Building Technology & Urban Systems	32,997	179	550	6,516	40,242	-	40,242
Cyclotron Road	2,502	-	286	272	3,059	-	3,059
Energy Analysis & Environmental Impacts	33,037	1,031	2,593	7,561	44,221	-	44,221
Energy Storage & Distributed Resources	28,609	487	173	5,461	34,730	-	34,730
Physical Sciences	71,616	14,018	6,319	5,730	97,683	42,622.04	140,305
Accelerator Technology & Applied Physics	16,101	11,924	-	1,216	29,241	9,325	38,566
Engineering	-	400	18	1,340	1,758	6	1,764
Nuclear Science	22,661	878	5,244	2,283	31,066	6,371	37,437
Physics	32,854	816	1,058	890	35,618	26,919	62,537
DIVISION TOTAL	684,649	47,075	43,532	64,270	839,525	106,256	945,781
Note: Minor variances may occur due to rounding.							

Costs by Direct Funding Source by Area and Division, FY2018 (\$K)

Area and Division	FY2018						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Biosciences	114,387	1,544	28,818	17,174	161,924	534	162,458
Biological Systems & Energy	25,842	309	8,406	4,162	38,719	-	38,719
Environmental Genomics & System Biology	7,861	12	5,631	3,391	16,894	-	16,894
Joint Genome Institute	65,233	-	-	137	65,370	534	65,904
Molecular Biophysics & Integrated Bioimaging	15,452	1,223	14,781	9,485	40,941	-	40,941
Computing Sciences	154,269	19,275	2,135	1,199	176,878	6,430	183,308
Computational Research	25,793	15,649	2,094	259	43,796	-	43,796
National Energy Research Scientific Computing Center	91,548	545	-	741	92,834	6,430	99,264
Scientific Networking	36,928	3,081	41	198	40,248	-	40,248
Directorate & Operations	23,424	286	17	-	23,727	50,972	74,699
Environment, Health, and Safety	69	-	-	-	69	-	69
Facilities	18,862	-	-	-	18,862	50,972	69,834
Human Resources	770	7	-	-	777	-	777
Information Technology	3,694	197	-	-	3,891	-	3,891
Laboratory Directorate	30	45	17	-	92	-	92
Other	-	37	-	-	37	-	37
Protective Services	-	-	-	-	-	-	-
Public Affairs	-	-	-	-	-	-	-
Earth & Environmental Sciences	53,052	5,961	566	7,099	66,677	117	66,794
Climate & Ecosystems	30,302	3,467	387	1,081	35,236	110	35,345
Energy Geosciences	22,750	2,495	179	6,018	31,442	7	31,449

Note: Minor variances may occur due to rounding.

continued...

Costs by Direct Funding Source by Area and Division, FY2018 (\$K) Continued

Area and Division	FY2018						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Energy Sciences	151,530	438	2,458	10,574	165,000	7,134	172,134
Advanced Light Source	73,603	34	-	1,787	75,424	3,629	79,054
Chemical Sciences	23,997	221	240	1,010	25,468	517	25,985
Materials Sciences	25,446	35	-	6,868	32,349	997	33,346
Molecular Foundry	28,484	148	2,218	909	31,759	1,991	33,750
Energy Technologies	81,568	2,352	4,768	21,617	110,305	-	110,305
Building Technology & Urban Systems	23,861	579	1,738	8,045	34,223	-	34,223
Cyclotron Road	2,480	-	123	26	2,629	-	2,629
Energy Analysis & Environmental Impacts	30,788	615	2,408	8,459	42,270	-	42,270
Energy Storage & Distributed Resources	24,439	1,158	499	5,087	31,183	-	31,183
Physical Sciences	70,862	17,576	7,911	4,955	101,304	36,182	137,486
Accelerator Technology & Applied Physics	19,927	16,181	-	1,321	37,429	4,924	42,353
Engineering	-	323	131	1,129	1,583	571	2,153
Nuclear Science	20,508	480	6,770	2,071	29,829	2,735	32,565
Physics	30,426	593	1,009	435	32,463	27,953	60,416
DIVISION TOTAL	649,093	47,432	46,674	62,618	805,816	101,369	907,185
Note: Minor variances may occur due to rounding.							

Costs by Direct Funding Source by Area and Division, FY2017 (\$K)

Area and Division	FY2017						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Biosciences (a)	126,222	969	26,570	15,680	169,441	845	170,286
Biological Systems & Energy	32,152	120	6,671	4,824	43,767	-	43,767
Environmental Genomics & System Biology	6,435	-	6,313	3,086	15,834	-	15,834
Joint Genome Institute	70,546	-	-	251	70,797	845	71,642
Molecular Biophysics & Integrated Bioimaging	17,089	849	13,586	7,519	39,043	-	39,043
Computing Sciences (b)	154,620	14,021	3,735	356	172,732	-	172,732
Computational Research	26,290	9,461	1,725	190	37,666	-	37,666
National Energy Research Scientific Computing Center	92,953	169	1,995	62	95,180	-	95,180
Scientific Networking	35,377	4,390	15	104	39,886	-	39,886
Directorate & Operations	24,912	567	1	-	25,481	17,466	42,947
Environment, Health, and Safety	29	-	-	-	29	-	29
Facilities	15,773	-	-	-	15,773	17,459	33,231
Information Technology	3,861	338	-	-	4,200	-	4,200
Laboratory Directorate	150	67	1	-	219	-	219
Other	-	162	-	-	162	-	162
Protective Services	3,641	-	-	-	3,641	8	3,648
Public Affairs	1,459	-	-	-	1,459	-	1,459
Earth & Environmental Sciences (c)	52,165	5,080	1,299	6,721	65,265	167	65,432
Climate & Ecosystems	30,998	3,506	735	1,252	36,491	167	36,659
Energy Geosciences	21,167	1,574	564	5,468	28,774	-	28,774
Energy Sciences (d)	145,620	578	2,382	9,845	158,425	5,711	164,136
Advanced Light Source	67,228	135	11	1,692	69,066	4,834	73,900
Chemical Sciences	25,586	69	9	1,038	26,702	-	26,702
Material Sciences	24,648	162	-	6,743	31,553	(0)	31,553
Molecular Foundry	28,158	212	2,362	372	31,104	877	31,981
Energy Technologies (e)	85,644	1,748	6,404	19,341	113,137	-	113,137
Building Technologies & Urban Systems	28,346	59	1,873	7,941	38,218	-	38,218
Cyclotron Road	2,932	-	5	-	2,937	-	2,937
Energy Analysis & Environmental Impacts	28,659	979	3,407	7,605	40,649	-	40,649
Energy Storage & Distributed Resources	25,707	710	1,120	3,796	31,333	-	31,333
Physical Sciences	68,019	18,480	7,740	5,425	99,664	29,780	129,444
Accelerator Technology & Applied Physics	17,848	17,647	-	2,158	37,652	5,938	43,590
Engineering	-	218	65	977	1,260	115	1,375
Nuclear Science	21,153	168	7,080	2,118	30,519	1,610	32,130
Physics	29,018	448	595	172	30,232	22,117	52,349
DIVISION TOTAL	657,202	41,444	48,131	57,368	804,145	53,970	858,115

Note: Minor variances may occur due to rounding.

(a) Energy Sciences reorganization in FY2017, Molecular Foundry division created (formerly in Materials Sciences division).

Costs by Direct Funding Source by Area and Division, FY2016 (\$K)

Area and Division	FY2016						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Biosciences (a)	127,768	302	26,161	15,619	169,850	-	169,850
Biological Systems & Energy	35,876	117	5,794	3,916	45,702	-	45,702
Environmental Genomics & System Biology	6,250	-	6,521	4,972	17,744	-	17,744
Joint Genome Institute	68,218	-	-	697	68,915	-	68,915
Molecular Biophysics & Integrated Bioimaging	17,425	185	13,845	6,034	37,489	-	37,489
Computing Sciences (b)	143,950	6,206	2,738	797	153,691	4,662.13	158,354
Computational Research	30,820	1,481	2,706	556	35,563	-	35,563
National Energy Research Scientific Computing Center	74,841	347	-	192	75,379	4,662	80,041
Scientific Networking	38,289	4,378	32	50	42,749	-	42,749
Directorate & Operations	18,392	123	-	-	18,515	4,619.57	23,135
Environment, Health, and Safety	31	-	-	-	31	-	31
Facilities	9,540	-	-	-	9,540	4,557	14,098
Information Technology	3,128	-	-	-	3,128	-	3,128
Laboratory Directorate	316	-	-	-	316	-	316
Other	-	123	-	-	123	-	123
Protective Services	3,857	-	-	-	3,857	62	3,919
Public Affairs	1,520	-	-	-	1,520	-	1,520
Earth & Environmental Sciences (c)	52,641	3,103	1,450	8,065	65,259	278.15	65,537
Climate & Ecosystems	30,751	2,930	871	1,692	36,243	275	36,519
Energy Geosciences	21,890	174	579	6,373	29,016	3	29,019
Energy Sciences	142,723	1,277	2,892	8,159	155,052	7,960.00	163,012
Advanced Light Source	58,538	557	14	1,418	60,527	5,052	65,578
Chemical Sciences	27,694	84	82	619	28,478	-	28,478
Material Sciences	56,492	636	2,797	6,122	66,047	2,908	68,955
Energy Technologies (d)	80,143	1,508	8,499	17,499	107,650	15.48	107,666
Building Technologies & Urban Systems	24,337	34	2,651	6,870	33,893	-	33,893
Cyclotron Road	1,694	-	45	-	1,739	-	1,739
Energy Analysis & Environmental Impacts	30,118	291	5,004	7,149	42,561	15	42,576
Energy Storage & Distributed Resources	23,994	1,183	800	3,480	29,458	-	29,458
Physical Sciences	87,897	10,809	7,983	6,441	113,130	26,215.90	139,346
Accelerator Technology & Applied Physics	19,459	9,631	-	3,143	32,233	6,540	38,772
Engineering	-	342	247	1,632	2,220	3	2,223
Nuclear Science	21,787	109	7,491	1,520	30,908	2,773	33,681
Physics	46,651	727	245	146	47,769	16,900	64,669
DIVISION TOTAL	653,515	23,328	49,724	56,581	783,148	43,751	826,899

Note: Minor variances may occur due to rounding.

(a) Biosciences reorganized in FY2016, forming Biological Systems & Engineering, Environmental Genomics & System Biology, Joint Genome Institute, and Molecular Biophysics & Integrated Bioimaging.

(b) Environmental Sciences reorganized in FY2016, forming Climate & Ecosystems and Energy Geosciences.

(c) Energy Technologies reorganized in FY2016, forming Building Technologies & Urban Systems, Cyclotron Road, Energy Analysis Environmental Impact, Energy Storage & Distributed Resources.

Costs by Direct Funding Source by Area and Division, FY2015 (\$K)

Area and Division	FY2015						
	DOE Operating	DOE Integrated Contractors Costs	SPP Federal	SPP Non-Federal	Operating Subtotal	Capital and Equipment	Total
Biosciences (a)	128,701	646	31,014	14,541	174,901	-	174,901
Genomics - JGI	72,528	-	-	599	73,127	-	73,127
Genomics	10	-	5,062	2,891	7,963	-	7,963
Life Sciences	4,707	151	21,329	3,944	30,132	-	30,132
Physical Biosciences	51,456	494	4,623	7,106	63,680	-	63,680
Computing Sciences (b)	161,713	2,867	2,225	322	167,127	-	167,127
Computation Research	29,272	430	2,199	270	32,171	-	32,171
National Energy Research Scientific Computing Center	93,758	9	-	-	93,768	-	93,768
Scientific Networking Division	38,682	2,428	26	53	41,189	-	41,189
Directorate & Operations	14,069	106	-	-	14,174	2,858	17,032
Environment, Health, and Safety	34	-	-	-	34	-	34
Facilities	6,979	-	-	-	6,979	2,344	9,323
Information Technology	2,306	-	-	-	2,306	-	2,306
Lab Directorate	173	-	-	-	173	-	173
Other	-	106	-	-	106	-	106
Protective Services	3,155	-	-	-	3,155	514	3,670
Public Affairs	1,422	-	-	-	1,422	-	1,422
Earth & Environmental Sciences (c)	48,624	3,988	1,955	9,358	63,925	758	64,683
Earth Sciences	48,624	3,988	1,955	9,358	63,925	758	64,683
Energy Sciences	140,663	1,249	3,125	8,616	153,653	4,177	157,831
Advanced Light Source	53,892	623	6	1,536	56,056	4,177	60,233
Chemical Sciences	23,949	33	151	605	24,737	-	24,737
Materials Sciences	62,823	593	2,969	6,476	72,860	0	72,860
Energy Technologies (d)	80,840	1,051	10,436	13,623	105,950	884	106,834
Energy Technologies	80,840	1,051	10,436	13,623	105,950	884	106,834
Physical Sciences	92,659	9,387	8,279	4,785	115,111	7,756	122,867
Accelerator Technology & Applied Physics	18,067	7,209	-	948	26,223	6,247	32,470
Engineering	-	1,567	443	2,390	4,401	148	4,549
Nuclear Science	22,799	247	7,836	1,291	32,173	1,266	33,439
Physics	51,794	364	-	156	52,314	95	52,409
DIVISION TOTAL	667,268	19,292	57,036	51,245	794,842	16,435	811,276

Note: Minor variances may occur due to rounding.

(a) Biosciences reorganized in FY2016, forming Biological Systems & Engineering, Environmental Genomics & System Biology, Joint Genome Institute, and Molecular Biophysics & Integrated Bioimaging.

(b) Computing Sciences broken out into Computation Research, National Energy Research Scientific Computing Center, Scientific Computing Center in FY2015.

(c) Environmental Sciences reorganized in FY2016, forming Climate & Ecosystems and Energy Geosciences.

(d) Energy Technologies reorganized in FY2016, forming Building Technologies & Urban Systems, Cyclotron Road, Energy Analysis Environmental Impact, Energy Storage & Distributed Resources.

Indirect Budget Costs by Area and Division, FY2019 (\$K)

Area and Division	Distributed Support Costs			Institutional Costs						Total (a)
	ALD/ Org. Burden	Service Centers (b)	Other (c)	LDRD	IGPP	G&A	Procurement Burden	Site Support	Travel Burden	
Biosciences	12,412	9,591		3,962						25,965
Bioscience Area Office	12,412	509								12,921
Biological Systems & Energy		2,664		995						3,659
Environmental Genomics & System Biology				1,543						1,543
Joint Genome Institute		4,456		447						4,904
Molecular Biophysics & Integrated Bioimaging		1,961		977						2,938
Computing Sciences	7,514	4,073		4,291						15,878
Computing Sciences ALD	3,555	4,073								7,627
Computational Research	2,668			3,526						6,194
National Energy Research Scientific Computing Center	871			765						1,635
Scientific Networking	421									421
Directorate & Operations	8,778	24,209		329	9,172	93,571	15,110	105,099	1,332	257,600
Environment, Health, and Safety								24,292		24,292
Facilities	4,135	9,301					2,115	66,595		82,146
Human Resources		4,631				12,123				16,753
Information Technology	3,050	8,653				32,573				44,276
Laboratory Directorate		1,419		329		23,415		663		25,826
Office of the Chief Financial Officer		205				8,621	12,996		1,332	23,154
Operations						12,438				12,438
Projects & Infrastructure Modernization	1,593				9,172	4,401		13,550		28,716
Note: Minor variances may occur due to rounding. (a) Summation of indirect budget costs provided only to show magnitude of dollars being managed and does not equate to total indirect costs since there are overlaps between indirect budgets. For example, some organization burden costs are included in G&A and Recharges. (b) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only and GSRA pass through cost. (c) Includes: LBNL's Office of Homeland Security (formerly known as Nuclear Non-Proliferation).										

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Indirect Budget Costs by Area and Division, FY2019 (\$K) Continued

Area and Division	Distributed Support Costs			Institutional Costs						Total (a)
	ALD/ Org. Burden	Service Centers (b)	Other (c)	LDRD	IGPP	G&A	Procurement Burden	Site Support	Travel Burden	
Earth & Environmental Sciences	4,821	90		2,936				3		7,850
Earth & Environmental Science ALD	4,821	62						3		4,886
Climate & Ecosystems				1,377						1,377
Energy Geosciences		28		1,560						1,588
Energy Sciences	9,173	74		4,157						13,404
Energy Sciences ALD	771									771
Advanced Light Source	2,352			746						3,099
Chemical Sciences	1,904			1,015						2,919
Materials Sciences	2,577	74		1,750						4,401
Molecular Foundry	1,568			647						2,215
Energy Technologies	8,277	3,268		2,570						14,115
Energy Technologies Area Office	8,277									8,277
Building Technology & Urban Systems		1,345		293						1,638
Energy Storage & Distributed Resources		785		1,243						2,027
Energy Analysis & Environmental Impacts		1,138		1,034						2,173
Physical Sciences	11,497	2,306	248	3,676		1,159		1,667		20,553
Physical Sciences ALD	499									499
Accelerator Technology & Applied Physics	1,684			1,166						2,851
Engineering	5,645	1,948		216		1,159		1,667		10,635
Nuclear Science	1,756	358	248	1,167						3,529
Physics	1,912			1,127						3,039
GRAND TOTAL	62,472	43,611	248	21,922	9,172	94,730	15,110	106,770	1,332	355,365

Note: Minor variances may occur due to rounding.

(a) Summation of indirect budget costs provided only to show magnitude of dollars being managed and does not equate to total indirect costs since there are overlaps between indirect budgets. For example, some organization burden costs are included in G&A and Recharges.

(b) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only and GSRA pass through cost.

(c) Includes: LBNL's Office of Homeland Security (formerly known as Nuclear Non-Proliferation).

Average FTE Breakdown by Area and Division, FY2019

Area and Division	Direct Funded FTEs				Indirect Funded FTEs				Total FTEs
	DOE Direct Operating	Other Direct Operating (a)	Capital & Equipment	Direct Funded Total	ALD/ Org. Burden	Service Centers (b)	Operations Overhead (c)	Indirect Funded Total	
Biosciences	332.3	124.8	0.2	457.2	70.7	19.2	18.7	108.6	565.9
Biological Systems & Energy	79.7	38.0	-	117.7	-	7.3	5.8	13.1	130.7
Bioscience Area Office		-	-	-	70.7	3.3	-	74.0	74.0
Environmental Genomics & System Biology	54.4	28.0	-	82.5	-	-	9.3	9.3	91.7
Joint Genome Institute	176.3	1.3	-	177.6	-	1.0	-	1.0	178.5
Molecular Biophysics & Integrated Bioimaging	21.9	57.5	0.2	79.5	-	7.7	3.7	11.4	90.9
Computing Sciences	223.4	61.4	-	284.8	36.7	-	17.2	53.9	338.7
Computational Research	68.7	54.2	-	122.9	10.6	-	13.5	24.1	147.0
Computing Sciences ALD	0.0	-	-	0.0	16.2	-	-	16.2	16.2
National Energy Research Scientific Computing Center	95.1	6.6	-	101.8	6.6	-	3.7	10.3	112.1
Scientific Networking	59.5	0.6	-	60.1	3.3	-	-	3.3	63.4
Directorate & Operations	22.0	0.3	81.8	104.1	35.9	33.2	669.9	739.0	843.0
ALS-U	3.4	0.0	72.8	76.2	-	-	-	-	76.2
Office of the Chief Financial Officer		0.0		0.0	-	0.2	138.5	138.7	138.7
Environment, Health, Safety & Security	0.1	-		0.1	-	-	98.8	98.8	98.9
Facilities	3.9	-		3.9	17.8	2.2	161.8	181.8	185.7
Human Resources	1.8	-		1.8	-	-	59.2	59.2	61.0
Information Technology	7.2	0.2		7.4	11.6	25.7	82.2	119.5	126.9
Laboratory Directorate	0.1	0.1		0.2	-	5.0	82.8	87.8	88.0
Operations		-		-	-	-	16.5	16.5	16.5
Projects and Infrastructure Modernization	5.4	-	9.0	14.4	6.5	-	30.1	36.6	51.0

Notes: Minor variances may occur due to rounding. FTEs are calculated based on translating labor hours charged into work-months and dividing by division's PLF. FTE calculation does not include Contract Labor or Campus Labor. Total FTE excludes 37.0 FTEs from non-contract projects (CSR, IJE, IPA, MLA, Royalties, and UC Construction Projects).

(a) Other Operating includes DOE Integrated Contractors, Non-DOE Fellowships, and CRADAs.

(b) Service Centers includes recharge cost centers that default to B&R YNO1 (project type OHRCH) only.

(c) Operations Overhead includes: G&A, LDRD, Site Support, Payroll Burden, Procurement, Travel, IGPP, S&S, and LBNL's Office of Homeland Security

continued...

Average FTE Breakdown by Area and Division, FY2019 *Continued*

Area and Division	Direct Funded FTEs				Indirect Funded FTEs				Total FTEs
	DOE Direct Operating	Other Direct Operating (a)	Capital & Equipment	Direct Funded Total	ALD/ Org. Burden	Service Centers (b)	Operations Overhead (c)	Indirect Funded Total	
Earth & Environmental Sciences	132.9	37.1	-	170.0	20.0	0.3	12.8	33.1	203.1
Climate & Ecosystems	80.4	15.0	-	95.4	-	-	4.8	4.8	100.2
Earth & Environmental Science ALD		-	-	-	20.0	0.2	0.0	20.2	20.2
Energy Geosciences	52.5	22.1	-	74.6	-	0.1	8.0	8.1	82.7
Energy Sciences	443.1	47.1	10.6	500.9	43.4	0.4	24.2	68.0	568.9
Advanced Light Source	149.0	0.8	10.6	160.5	10.1	-	4.0	14.1	174.6
Chemical Sciences	91.8	4.7	-	96.5	10.8	-	5.1	15.9	112.5
Energy Sciences ALD		-	-	-	2.9	-		2.9	2.9
Material Sciences	124.4	24.2	0.0	148.7	11.2	0.4	8.8	20.5	169.2
Molecular Foundry	77.9	17.3	0.0	95.2	8.2	-	6.3	14.6	109.8
Energy Technologies	243.1	63.8	-	306.8	35.2	19.5	12.1	66.9	373.7
Building Technology & Urban Systems	73.2	21.2	-	94.4	-	7.4	1.6	9.1	103.4
Cyclotron Road	4.6	1.0	-	5.6	-	-	-	-	5.6
Energy Analysis Environmental Impact	75.4	23.6	-	99.0	-	7.1	4.2	11.3	110.3
Energy Storage & Distributed Resources	88.8	18.0	-	106.8	-	5.0	6.2	11.3	118.1
ETA Area Office	1.0	-	-	1.0	35.2	-	-	35.2	36.2
Physical Sciences	180.3	49.7	56.8	286.8	51.3	8.4	23.0	82.7	369.5
Accelerator Technology & Applied Physics	39.0	21.3	23.4	83.7	9.0	-	4.0	13.0	96.7
Engineering		3.9	(0.0)	3.9	22.1	6.8	6.9	35.8	39.7
Nuclear Science	61.4	19.3	8.7	89.4	8.6	1.6	6.8	17.0	106.4
Physical Sciences ALD	0.0	-	-	0.0	1.6	-	-	1.6	1.6
Physics	79.8	5.3	24.7	109.8	10.1	-	5.3	15.3	125.1
TOTAL	1,577.0	384.2	149.4	2,110.6	293.2	81.1	777.9	1,152.2	3,262.8
Notes: Minor variances may occur due to rounding. FTEs are calculated based on translating labor hours charged into work-months and dividing by division's PLF. FTE calculation does not include Contract Labor or Campus Labor. Total FTE excludes 37.0 FTEs from non-contract projects (CSR, IJE, IPA, MLA, Royalties, and UC Construction Projects). (a) Other Operating includes DOE Integrated Contractors, Non-DOE Fellowships, and CRADAs. (b) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only. (c) Operations Overhead includes: G&A, LDRD, Site Support, Payroll Burden, Procurement, Travel, IGPP, S&S, and LBNL's Office of Homeland Security									

Funds Held for Others Cost Trends, FY2015-FY2019 (\$K)

Funding Source	FY2015	FY2016	FY2017	FY2018	FY2019
Royalty	3,031	3465	3,240	2,793	1,713
Contractor Supported Research (CSR)	3,826	4026	3,050	3,135	4,780
Inter-Location Appointments (ILA)	4,093	3664	2,957	2,970	3,265
UC Construction Projects	2,188	455	185	-	-
Other	192	20	252	161	292
Total	13,330	11,630	9,684	9,059	10,050

Note: UC Construction costs decreased by 79% (or \$1,733K) in FY2016, primarily due to the completion of CRT and SERC buildings.
 Royalty project costs decreased by 39% or (\$1,081K) in FY2019, primarily due to the Zheng e TEM Microscope purchased in FY2018 and the winding down of the Flexlab improvements project in FY2019.
 Contractor Supported Research increased by 52% or \$1,645K in FY2019, primarily due to \$1,300K one-time equipment purchase.

DIRECT FUNDING — DOE & REIMBURSABLE WORK

2

Total Laboratory Funding and Costs

Total Laboratory Funding - \$1,087M

For the second year in a row, Berkeley Lab's funding exceeded \$1B. While this is a slight decrease (\$10M) from FY2018, healthy funding levels in recent years have enabled Lawrence Berkeley National Laboratory to execute its mission and continue to achieve scientific excellence.

Office of Science funding increased by \$10M in FY2019. Most notable are the following:

- Basic Energy Sciences (BES) increased \$38M, largely due to continued support of the Advanced Light Source Upgrade (ALS-U) as the project team continued to work toward CD-3A approval.
- Advanced Scientific Computing Research (ASCR) increased \$17M, driven in large part by an increase in funding to support NERSC 9 (\$10M) and ESnet (\$5M), the Department of Energy's dedicated science network.
- Biological and Environmental Research (BER) increased \$10M due to initial funding for the National Microbiome Data Collaboration (\$5M) and continued support for Watershed SFA.
- Funding for Science Laboratories Infrastructure (SLI) decreased by \$50M in FY2019 due to Integrative Genomics Building (down by \$38M, as the final year of funding for IGB was FY2018) as well as General Purpose Plant Projects (down \$16M). This decrease was partially offset by BioEPIC (\$5M), which received CD-1 in FY2019.
- High Energy Physics (HEP) decreased \$7M, primarily due to the Dark Energy Spectroscopic Instrument (DESI), which has received CD-3 approval.

Funding outside of the Office of Science decreased by \$22M. Energy Efficiency and Renewable Energy (EERE) decreased \$11M, including \$5M in Buildings Technologies and \$6M in Geothermal. Fossil Energy decreased by \$10M in Coal, and Environmental Management decreased \$6M for legacy waste cleanup. Funding from other federal and non-federal sponsors remained relatively flat.

Scientific excellence has been part of Berkeley Lab since its inception in 1931, and researchers here continue to seek science solutions to solve some of the greatest problems facing the world.

Total Laboratory Costs - \$946M

Laboratory costs in FY2019 were \$946M, approximately \$40M greater than FY2018.

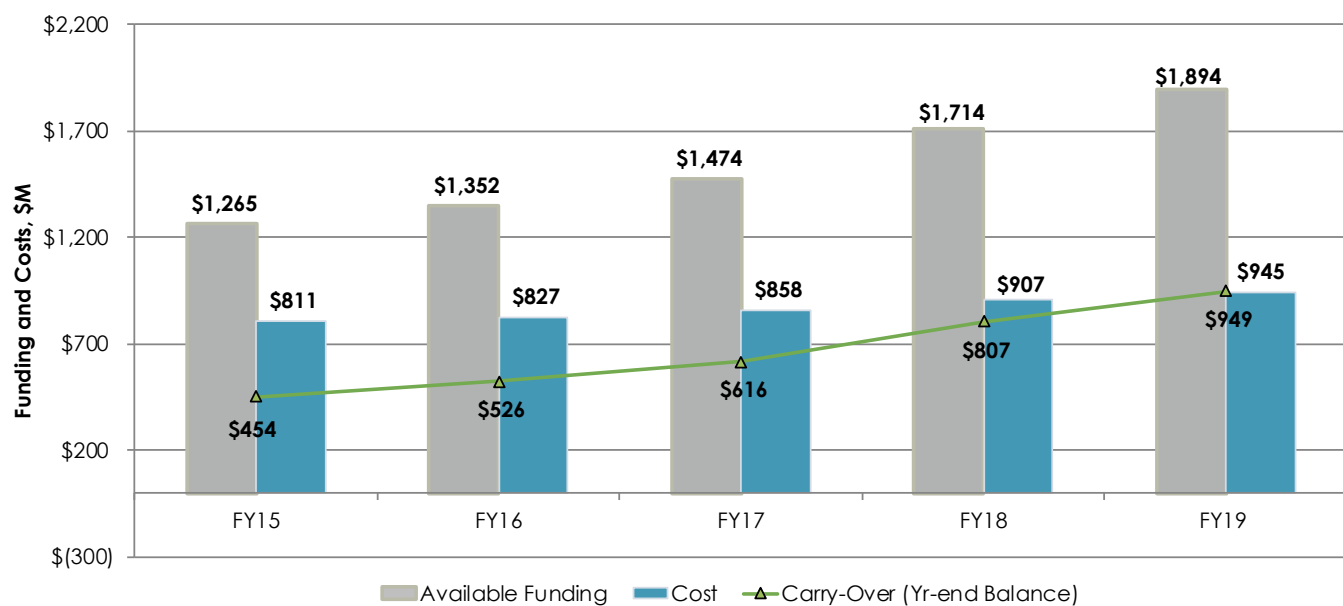
Office of Science costs increased by \$22M, largely in the area of Operating spending. The Laboratory experienced growth in Biological Environmental Research (\$14M), as spending at the Joint BioEnergy Institute (JBEI, \$6M) and the Joint Genome Institute (JGI, \$3M) increased as compared to FY2018.

Spending in scientific and infrastructure investments increased by a modest \$5M, however, the large swings in project spending demonstrate that this continues to be an area of focus at the Laboratory. Construction spending related to the Integrative Genomics Building (SLI) decreased by \$23M, while spending related to the Advanced Light Source Upgrade (BES) increased by \$22M. LUX-ZEPLIN (HEP) decreased by \$3M, while Gamma-Ray Energy Tracking Array (GRETA) increased by \$4M. BioEPIC (SLI) commenced in FY2019 and spent \$2M.

Outside of the Office of Science, the largest contributor to the spending increase was Energy Efficiency and Renewable Energy, which increased by \$18M. The Laboratory has received substantial increases in funding from EERE in recent years, and this increase in spending is reflective of the ramp-up necessary to support those new funding levels. The spending increases were realized primarily in Building Technologies (\$11M) and Vehicle Technologies (\$4M).

Refer to Section 1, Institutional Information, for more information regarding how program dollars were spent in FY2019.

Historical Trends: Funding, Cost and Carryover



FY19 final funding is carryover of \$807M plus new annual funding of \$1,087M.

Minor variances may occur due to rounding and other adjustments not reflected. Examples of these adjustments include bridge funding, suspense items, and DOE's Federal Administrative Charge.

Berkeley Lab Funding Trends (BA) by Funding Source (\$K)

LBNL Fund Trends (BA) by Funding Source (\$K)	FY2015	FY2016	FY2017	FY2018	FY2019
DOE DIRECT OPERATING					
Administrator for National Nuclear Security Administration	14,130	13,369	10,853	9,918	10,548
Advanced Research Projects Agency - Energy	1,779	3,033	9,276	580	5,653
Assistant Secretary for Electricity Delivery & Energy Reliability	8,106	10,145	10,289	7,002	4,540
Assistant Secretary for Energy Efficiency and Renewable Energy	61,016	91,435	106,908	111,062	100,414
Assistant Secretary for Environmental Management	863	16,715	9,072	40,900	34,920
Assistant Secretary for Fossil Energy	7,799	7,263	13,972	18,829	9,296
Assistant Secretary for Nuclear Energy	2,414	2,519	3,596	3,396	3,713
Assistant Secretary for International Affairs	2,958	3,773	3,826	473	(259)
Office of Technology Transitions	-	-	-	-	80
Office of Energy and Threat	158	179	226	86	149
Office of Energy Policy & Systems Analysis	2,066	1,862	650	(2)	(1)
Office of Environment, Health, Safety and Security	1,540	310	40	525	342
Office of Indian Energy Policy & Programs	-	35	-	-	-
Office of Legacy Management	195	169	250	-	-
Office of Cybersecurity, Energy Security and Emergency	-	-	-	-	225
Office of Science	533,386	548,159	558,594	613,485	633,304
Office of the Chief Information Officer	-	200	-	-	1,998
Office of Indian Energy Policy & Programs	-	-	-	-	(0)
Total DOE Direct Operating	636,409	699,165	727,551	806,255	804,921
OTHER DIRECT OPERATING					
Federal Agencies	53,330	51,519	49,042	47,924	44,958
Non-Federal Sponsors (a)	55,066	52,376	55,063	56,152	61,568
Cooperative Research and Development Agreements	2,175	2,588	2,685	2,936	2,024
DOE Integrated Contractors (b)	19,292	23,328	41,444	47,432	47,075
Total Other Direct Operating	129,864	129,810	148,234	154,444	155,625
TOTAL OPERATING	766,274	828,975	875,786	960,700	960,546
Note: Minor variances may occur due to rounding. Data Source: Budget Authority as provided in the Berkeley Lab final contract modification for the fiscal year. (a) Includes both funding and deobligations for Non-Federal Sponsors who are precluded by law from paying an advance under the WN02 program. (b) Total funding for Integrated Contractors is assumed to be equal to cost incurred.					

continued...

Berkeley Lab Funding Trends (BA) by Funding Source (\$K) Continued

LBNL Fund Trends (BA) by Funding Source (\$K)	FY2015	FY2016	FY2017	FY2018	FY2019
DOE PLANT AND CAPITAL EQUIPMENT					
Basic Equipment/Major Items of Equipment					
Administrator for National Nuclear Security Administration	2,570	1,375	1,428	1,190	425
Assistant Secretary for Energy Efficiency and Renewable Energy	900	990	-	-	(0)
Office of Science	14,076	39,889	39,915	56,585	56,809
Total DOE Capital Equipment	17,546	42,254	41,342	57,775	57,234
General Plant Projects					
Office of Science	(0)	-	9,000	16,400	(10)
Accelerator Improvement Projects					
Office of Science	1,800	1,000	2,000	8,700	4,400
Line-Item Construction					
Assistant Secretary for Energy Efficiency and Renewable Energy	(0)	-	-	-	-
Office of Science	12,090	25,250	20,098	54,333	65,000
Total DOE Plant	13,890	26,250	31,098	79,433	69,390
TOTAL DOE PLANT AND CAPITAL EQUIPMENT	31,436	68,504	72,440	137,209	126,624
TOTAL LABORATORY	797,710	897,479	948,226	1,097,908	1,087,169

Note: Minor variances may occur due to rounding.

Data Source: Budget Authority as provided in the Berkeley Lab final contract modification for the fiscal year.

Berkeley Lab Cost Trends by Funding Source (\$K)

LBNL Cost Trends by Funding Source (\$K)	FY2015	FY2016	FY2017	FY2018	FY2019
DOE DIRECT OPERATING					
Administrator for National Nuclear Security Administration	11,764	13,698	11,404	8,956	9,924
Advanced Research Projects Agency - Energy	1,609	1,614	2,623	4,392	4,434
Assistant Secretary for Electricity Delivery & Energy Reliability	9,635	9,136	8,639	7,671	6,525
Assistant Secretary for Energy Efficiency and Renewable Energy	73,493	76,135	80,750	78,272	95,978
Assistant Secretary for Environmental Management	7,828	9,858	15,987	16,187	12,370
Assistant Secretary for Fossil Energy	8,020	8,037	8,083	9,134	13,055
Assistant Secretary for Nuclear Energy	2,359	2,728	2,096	2,417	5,201
Assistant Secretary for International Affairs	189	1,461	2,865	3,374	2,146
Office of Energy and Threat	174	182	167	147	171
Office of Energy Policy & Systems Analysis	419	2,296	934	641	197
Office of Environment, Health, Safety and Security	229	1,264	388	42	86
Office of Indian Energy Policy & Programs	128	134	1	0	-
Office of Legacy Management	119	215	58	141	87
Office of Technology Transitions	-	-	-	-	49
Office of Science	551,302	526,749	523,098	517,636	534,312
Office of the Chief Information Officer		8	110	81	115
Total DOE Direct Operating	667,268	653,515	657,202	649,093	684,649
OTHER DIRECT OPERATING					
Federal Agencies	57,036	49,724	48,131	46,674	43,532
Non-Federal Sponsors (a)	49,131	54,112	54,923	60,252	61,559
Cooperative Research and Development Agreements	2,114	2,469	2,446	2,366	2,711
DOE Integrated Contractors	19,292	23,328	41,444	47,432	47,075
Total Other Direct Operating	127,573	129,633	146,943	156,723	154,876
TOTAL OPERATING	794,841	783,148	804,145	805,816	839,525
DOE PLANT AND CAPITAL EQUIPMENT					
Basic Equipment/Major Items of Equipment					
Administrator for National Nuclear Security Administration	716	3,021	1,597	1,146	455
Assistant Secretary for Energy Efficiency and Renewable Energy	884	1,005	(0)	-	
Office of Science	9,855	28,759	32,334	48,791	53,684
Total DOE Capital Equipment	11,456	32,785	33,930	49,937	54,138
General Plant Projects					
Office of Science	514	62	2,009	7,010	4,607
Accelerator Improvement Projects					
Office of Science	2,120	2,345	731	460	2,691
Line-Item Construction					
Assistant Secretary for Energy Efficiency and Renewable Energy	170	-	-	-	
Office of Science	2,174	8,558	17,300	43,962	44,819
Total DOE Plant	4,979	10,966	20,040	51,432	52,117
TOTAL DOE PLANT AND CAPITAL EQUIPMENT	16,434	43,751	53,970	101,369	106,256
TOTAL LABORATORY (b)	811,276	826,899	858,115	907,185	945,781

Note: Minor variances may occur due to rounding.

Data Source: Berkeley Lab published Fiscal Year End Costs.

(a) Includes costs for Non-Federal Sponsors who are precluded by law from paying an advance under the WN program.

(b) FY2019 costs do not include various adjustments. Examples of these adjustments include bridge funding, inventory, suspense items, and DOE's Federal Administrative Charge. The total of these adjustments for FY2019 is \$715K.

Table 2.3

Berkeley Lab Funding and Costs by Funding Source (\$K)

Funding and Cost by Source (\$K)	FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
DOE DIRECT OPERATING				
Administrator for National Nuclear Security Administration	7,901	10,548	9,924	8,525
Advanced Research Projects Agency - Energy	6,620	5,653	4,434	7,839
Assistant Secretary for Electricity Delivery & Energy Reliability	12,416	4,540	6,525	10,431
Assistant Secretary for Energy Efficiency & Renewable Energy	122,294	100,414	95,978	126,730
Assistant Secretary for Environmental Management	50,351	34,920	12,370	72,901
Assistant Secretary for Fossil Energy	24,401	9,296	13,055	20,642
Assistant Secretary for Nuclear Energy	3,352	3,713	5,201	1,864
Assistant Secretary for International Affairs	3,438	(259)	2,146	1,033
Office of Technology Transitions	-	80	49	31
Office of Energy & Threat	44	149	171	22
Office of Energy Policy & Systems Analysis	326	(1)	197	128
Office of Environment, Health, Safety and Security	526	342	86	782
Office of Indian Energy Policy & Programs	0	(0)	-	0
Office of Legacy Management	109	-	87	22
Office of Cybersecurity, Energy Security and Emergency	-	225	-	225
Office of Science	380,082	633,304	534,312	479,074
Office of the Chief Information Officer	1	1,998	115	1,884
Total DOE Direct Operating	611,861	804,921	684,649	732,133
OTHER DIRECT OPERATING				
Federal Agencies	50,657	44,958	43,532	52,353
Non-Federal Sponsors (a)	28,745	61,568	61,559	29,149
Cooperative Research and Development Agreements	1,647	2,024	2,711	1,010
DOE Integrated Contractors (b)	-	47,075	47,075	-
Total Other Direct Operating (c)	81,049	155,625	154,876	82,513
TOTAL OPERATING	692,911	960,546	839,525	814,646
Note: Minor variances may occur due to rounding. (a) Includes funding and deobligations for Non-Federal Sponsors who are precluded by law from paying an advance under the WN02 program. (b) Total funding for Integrated Contractors is assumed to be equal to cost incurred. (c) The sum of FY2019 Beginning Uncosted Obligations, FY2019 Funds, minus, FY2019 Costs does not equal FY2019 Ending Uncosted Obligations due to various adjustments not reflected in the FY2019 Costs column. Examples of these adjustments include bridge funding, inventory, suspense items, and DOE's Federal Administrative Charge. The total of these adjustments for FY2019 is \$715K.				

continued...

Berkeley Lab Funding and Costs by Funding Source (\$K) Continued

Funding and Cost by Source (\$K)	FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
DOE PLANT AND EQUIPMENT				
Basic Equipment/Major Items of Equipment				
Administrator for National Nuclear Security Administration	84	425	455	54
Assistant Secretary for Energy Efficiency & Renewable Energy	-	(0)		(0)
Office of Science	49,037	56,809	53,684	52,162
Total Capital Equipment	49,121	57,234	54,138	52,216
General Plant Projects				
Office of Science	16,389	(10)	4,607	11,772
Accelerator Improvement Projects				
Office of Science	10,488	4,400	2,691	12,197
Line-Item Construction				
Assistant Secretary for Energy Efficiency & Renewable Energy	-	-	-	-
Office of Science	39,954	65,000	44,819	60,135
TOTAL DOE PLANT	66,831	69,390	52,117	84,104
TOTAL DOE PLANT AND CAPITAL EQUIPMENT	115,952	126,624	106,256	136,320
TOTAL LABORATORY	808,863	1,087,169	945,781	950,966
Note: Minor variances may occur due to rounding.				

FY2019 Funding and Costs by DOE Programs (\$K)

OFFICE OF SCIENCE		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
AT10	Burning Plasma Science: Foundations	613	665	517	761
AT40	Discovery Plasma Science	907	1,200	334	1,773
FS10	Safeguards and Security - Science	4,736	7,675	8,272	4,139
KA21	Energy Frontier Experimental Physics	5,264	7,644	8,293	4,615
KA22	Intensity Frontier Experimental Physics	1,222	2,520	2,241	1,500
KA23	Cosmic Frontier Experimental Physics	6,147	18,994	12,280	12,861
KA24	Theoretical and Computational Physics	5,519	9,403	6,817	8,105
KA25	Advanced Technology R&D	7,759	15,596	14,729	8,626
KA26	Accelerator Stewardship	2,057	600	1,136	1,521
KB01	Medium Energy Physics	550	689	722	517
KB02	Heavy-Ion Physics	3,542	6,148	5,071	4,619
KB03	Nuclear Theory	1,228	3,421	3,129	1,520
KB04	Low Energy Physics	4,709	12,145	10,478	6,375
KC02	Materials Sciences and Engineering	21,442	33,469	31,631	23,280
KC03	Chemical Sciences, Geosciences, and Biosciences	24,815	38,291	35,281	27,825
KC04	Scientific User Facilities	36,739	92,893	94,316	35,316
KJ04	Mathematical, Computational, and Computer Sciences Research	44,683	23,856	20,731	47,808
KJ05	High Performance Computing and Network Facilities	123,549	193,472	128,867	188,154
KL10	Internships and Visiting Faculty Activities at DOE Labs	908	1,248	902	1,254
KL15	Outreach	21	50	20	51
KP12	Climate Change Research	0	(0)	0	-
KP15	Biological Research	38	(1)	-	37
KP16	Biological Systems Science	51,744	129,640	117,984	63,400
KP17	Climate and Environmental Sciences	30,899	33,464	30,060	34,303
ST50	Isotope Research	982	223	499	706
ST60	Isotope Operations	7	-	1	6
Total Operating		380,082	633,304	534,312	479,074

continued...

FY2019 Funding and Costs by DOE Programs (\$K) Continued

OFFICE OF SCIENCE		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
CAPITAL EQUIPMENT					
AT10	Burning Plasma Science: Foundations	-	3,000	-	3,000
AT40	Discovery Plasma Science	1,986	-	452	1,535
KA21	Energy Frontier Experimental Physics	3,551	14,954	7,481	11,024
KA22	Intensity Frontier Experimental Physics	7	(0)	6	0
KA23	Cosmic Frontier Experimental Physics	16,178	19,900	25,217	10,862
KA25	Advanced Technology R&D	484	2,615	1,222	1,877
KA26	Accelerator Stewardship	116	-	109	7
KB02	Heavy-Ion Physics	62	(1)	-	61
KB04	Low Energy Physics	5,914	6,600	6,371	6,143
KC02	Materials Sciences and Engineering	1,181	(4)	1,029	149
KC03	Chemical Sciences, Geosciences, and Biosciences	20	1,807	1,124	703
KC04	Scientific User Facilities	10,537	7,943	7,394	11,086
KJ05	High Performance Computing and Network Facilities	6,197	1,500	2,487	5,210
KP16	Biological Systems Science	2,804	(1,505)	794	505
Total Capital Equipment		49,037	56,809	53,684	52,162
GENERAL PLANT PROJECTS					
KG07	Facilities and Infrastructure	16,389	(10)	4,607	11,772
Total General Plant Projects		16,389	(10)	4,607	11,772
ACCELERATOR IMPROVEMENT PROJECTS					
KA25	Advanced Technology R&D	7,684	-	635	7,048
KC04	Scientific User Facilities	2,804	4,400	2,056	5,148
TOTAL ACCELERATOR IMPROVEMENT PROJECTS		10,488	4,400	2,691	12,197
LINE-ITEM CONSTRUCTION					
39KC	Basic Energy Sciences	16,000	60,000	22,054	53,946
39KG	Science Laboratories Infrastructure	23,954	5,000	22,765	6,190
Total Line-Item Construction		39,954	65,000	44,819	60,135
TOTAL DOE PLANT		66,831	69,390	52,117	84,104
TOTAL OFFICE OF SCIENCE		495,950	759,503	640,113	615,340

Note: Minor variances may occur due to rounding.

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FY2019 Funding and Costs by DOE Programs (\$K) Continued

ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
BM01	Biomass/Biofuels Energy Systems	15,212	7,514	8,716	14,011
BT01	Residential Buildings Integration	1,127	2,392	1,676	1,843
BT02	Commercial Buildings Integration	9,430	6,389	6,387	9,433
BT03	Emerging Technologies	19,526	11,190	15,066	15,649
BT04	Equipment and Buildings Standards	18,284	15,519	11,872	21,931
BT08	EE Building Systems Design Energy Innovation Hubs	0	(0)	-	0
EB21	Solar Energy	17	-	-	17
EB40	Geothermal Technologies	45	-	10	36
EB57	Energy Efficiency and Renewable Energy (EERE) Program Support	20	(0)	1	19
ED19	Industries Of The Future (Crosscutting)	0	(0)	-	-
ED20	Industrial Technical Assistance	4,664	9,499	6,359	7,805
ED27	Next Generation Manufacturing R&D Projects	5,806	5,962	4,389	7,380
EL17	Federal Energy Management Program	6,531	4,681	5,014	6,198
GT01	Enhanced Geothermal Systems	4,488	6,118	2,753	7,853
GT02	Low Temperature and Co-produced Resource	577	2,243	729	2,090
GT03	Hydrothermal	498	2,364	500	2,362
GT04	Systems Analysis	98	75	95	78
HT01	Fuel Cell Systems R&D	1,170	1,829	1,439	1,560
HT02	Hydrogen Fuel R&D	3,692	3,109	4,207	2,593
HT07	Manufacturing R&D	34	-	32	1
HT08	Technology Validation	6	(1)	-	4
HT11	Technology Acceleration	660	295	523	433
HT12	Hydrogen Infrastructure R&D	-	244	-	244
PG03	Strategic Priorities and Impact Analysis	1,256	1,093	644	1,704
PG04	Technology-to-Market	899	881	175	1,605
PG05	International	40	(1)	2	38
SL01	Concentrating Solar Power	386	(1)	-	385
SL02	Photovoltaic R&D	2,845	100	172	2,772
SL03	Systems Integration (Balance of Systems and Power Electronics)	4,066	102	2,216	1,953
SL04	Balance of Systems Soft Cost Reduction	4,657	26	2,406	2,277
SL05	Innovations in Manufacturing Competitiveness	7	80	-	87
VT02	Outreach	200	(0)	50	150
VT04	Advanced Combustion and Engine R&D	67	(0)	26	42
VT05	Materials Technology	0	-	-	0
VT06	Fuels Technology	110	-	6	104
VT12	Batteries and Electrification Technologies	6,826	11,352	12,180	5,998
VT13	Vehicle & Systems Simulation and Testing	2,553	(0)	948	1,605
VT15	Energy Efficient Mobility Systems	2,357	4,138	4,061	2,434
VT16	Advanced Engine and Fuel Technologies	-	110	75	35
VT17	Materials Technology	-	25	-	25
VT18	Analysis	316	348	321	343
WC01	Water Power Program	14	75	-	89

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FY2019 Funding and Costs by DOE Programs (\$K) Continued

ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY (Continued)		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
WI03	State Energy Program (Grants)	1,276	777	643	1,411
WI06	Intergovernmental Activities	0	(0)	-	-
WI07	Weatherization Assistance Program	127	170	152	146
WI12	Weatherization Innovation	0	-	-	0
WW02	Technology Viability	32	(0)	-	32
WW03	Technology Application	0	(0)	-	0
WW06	Technology RD&T and Resource Character	291	127	243	176
WW08	Mitigate Market Barriers	662	530	545	647
WW09	Modeling & Analysis	1,419	1,060	1,346	1,133
Total Operating		122,294	100,414	95,978	126,730
CAPITAL EQUIPMENT					
BT04	Equipment and Buildings Standards	0	-	-	0
ED27	Next Generation Manufacturing R&D Projects	0	(0)	-	-
Total Capital Equipment		0	(0)	0	0
TOTAL DOE PLANT		0	(0)	0	0
TOTAL ASSISTANT SECRETARY FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY		122,294	100,414	95,978	126,730
Note: Minor variances may occur due to rounding.					

ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
EY40	Defense Site Acceleration Completion - Technology Development and Deployment	178	225	138	265
EY80	Defense Environmental Cleanup - Program Support	0	(0)		-
EZ50	Non-Defense Environmental Cleanup - Small Sites	50,173	34,695	12,232	72,636
Total Operating		50,351	34,920	12,370	72,901
TOTAL ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT		50,351	34,920	12,370	72,901
Note: Minor variances may occur due to rounding.					

continued...

FY2019 Funding and Costs by DOE Programs (\$K) Continued

ASSISTANT SECRETARY FOR FOSSIL ENERGY		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
AA30	Sequestration	888	(0)	51	837
AA60	Advanced Energy Systems	32	-	30	2
AA65	Carbon Capture	6,677	731	2,513	4,895
AA70	Carbon Storage	9,961	3,164	5,106	8,019
AA90	Cross Cutting Research	3,443	2,204	2,839	2,808
AB05	Natural Gas Technologies	1,800	1,525	1,406	1,919
AC10	Oil Technology	64	(0)	8	56
AD20	Contractual Services And Supplies	0	(0)	0	-
BD00	Unconventional Fossil Energy Technologies	1,535	1,672	1,102	2,105
CE03	Center for Zero Emissions Technology - Montana State	0	(0)	-	-
Total Operating		24,401	9,296	13,055	20,642
TOTAL ASSISTANT SECRETARY FOR FOSSIL ENERGY		24,401	9,296	13,055	20,642
Note: Minor variances may occur due to rounding.					

ADMINISTRATOR FOR NATIONAL NUCLEAR SECURITY ADMINISTRATION		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
Operating					
CT84	Emergency Response	168	430	571	27
DN20	DNN Research and Development	2,248	7,494	6,869	2,873
DN40	Nonproliferation and Arms Control	191	303	425	69
DP09	Infrastructure and Operations	3,176	1,400	1,496	3,081
DP13	Engineering	164	350	353	161
DP15	Advanced Simulation and Computing	40	(0)	-	40
DP40	Nuclear Counterterrorism Incident Response	0	-	-	0
MO01	Cyber Security	1,807	(0)	156	1,651
MO02	Enterprise Security Computing	106	571	54	624
NN20	Defense Nuclear Nonproliferation Research and Development (DNN R&D)	0	-	0	0
NN40	Nonproliferation and International Security (NIS)	(0)	-	-	(0)
Total Operating		7,901	10,548	9,924	8,525
CAPITAL EQUIPMENT					
DN20	DNN Research and Development	84	425	455	54
Total Capital Equipment		84	425	455	54
TOTAL ADMINISTRATOR FOR NATIONAL NUCLEAR SECURITY ADMINISTRATION		7,985	10,973	10,379	8,579
Note: Minor variances may occur due to rounding.					

continued...

FY2019 Funding and Costs by DOE Programs (\$K) Continued

ASSISTANT SECRETARY FOR ELECTRICITY DELIVERY & ENERGY RELIABILITY		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
TD54	Operations & Analysis	0	(0)	-	(0)
TE11	Transmission Reliability and Resilience	4,575	1,841	1,861	4,555
TE12	Resilient Distribution Systems	1,609	1,060	1,421	1,248
TE13	Cyber Security for Energy Delivery Systems	726	(2)	440	285
TE14	Energy Storage	884	810	576	1,118
TE15	Transformer Resilience & Advanced Components	149	15	142	21
TF00	Transmission Permitting and Technical Assistance	4,403	816	2,084	3,134
TG01	Infrastructure Security and Energy Restoration	70	(0)	-	70
Total Operating		12,416	4,540	6,525	10,431
TOTAL ASSISTANT SECRETARY FOR ELECTRICITY DELIVERY & ENERGY RELIABILITY		12,416	4,540	6,525	10,431
Note: Minor variances may occur due to rounding.					

ASSISTANT SECRETARY FOR NUCLEAR ENERGY		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
AF58	Fuel Cycle Research and Development (FCR&D)	3,064	3,393	4,737	1,720
DF01	First Repository	15	-	-	15
KK05	Contractual Support Services	-	120	91	29
NT05	Nuclear Energy Advanced Modeling and Simulation	274	200	373	101
Total Operating		3,352	3,713	5,201	1,864
TOTAL ASSISTANT SECRETARY FOR NUCLEAR ENERGY		3,352	3,713	5,201	1,864
Note: Minor variances may occur due to rounding.					

ADVANCED RESEARCH PROJECTS AGENCY - ENERGY		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
CJ01	ARPA-E Projects	6,608	5,653	4,434	7,827
CJ02	Program Direction	12	-	0	12
Total Operating		6,620	5,653	4,434	7,839
TOTAL ADVANCED RESEARCH PROJECTS AGENCY - ENERGY		6,620	5,653	4,434	7,839
Note: Minor variances may occur due to rounding.					

continued...

FY2019 Funding and Costs by DOE Programs (\$K) Continued

THE OFFICE OF CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE			FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING						
TI02	Electricity Delivery & Energy Reliability		-	225	-	225
Total Operating			0	225	0	225
TOTAL OFFICE OF CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE			0	225	0	225
Note: Minor variances may occur due to rounding.						
OFFICE OF ENVIRONMENT, HEALTH, SAFETY & SECURITY			FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING						
HQ10	Employee Compensation		10	93	53	49
HU10	Corporate Safety Program		516	250	33	733
Total Operating			526	342	86	782
TOTAL OFFICE OF HEALTH SAFETY AND SECURITY			526	342	86	782
Note: Minor variances may occur due to rounding.						
ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS			FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obliga- tions
OPERATING						
PE04	Office Of Environmental Analysis		0	-	-	0
WA22	Office of International Affairs - Program Direction		3,437	(259)	2,146	1,033
Total Operating			3,437	(259)	2,146	1,033
TOTAL ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS			3,437	(259)	2,146	1,033
Note: Minor variances may occur due to rounding.						
OFFICE OF ENERGY AND THREAT			FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING						
GD50	Cyber		2	-	2	-
GD60	Energy and Threat-Program		42	149	169	22
Total Operating			44	149	171	22
TOTAL OFFICE OF ENERGY AND THREAT			44	149	171	22
Note: Minor variances may occur due to rounding.						
OFFICE OF LEGACY MANAGEMENT			FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING						
LM01	Legacy Management Activities - Defense		109	-	87	22
Total Operating			109	0	87	22
TOTAL OFFICE OF LEGACY MANAGEMENT			109	0	87	22
Note: Minor variances may occur due to rounding.						

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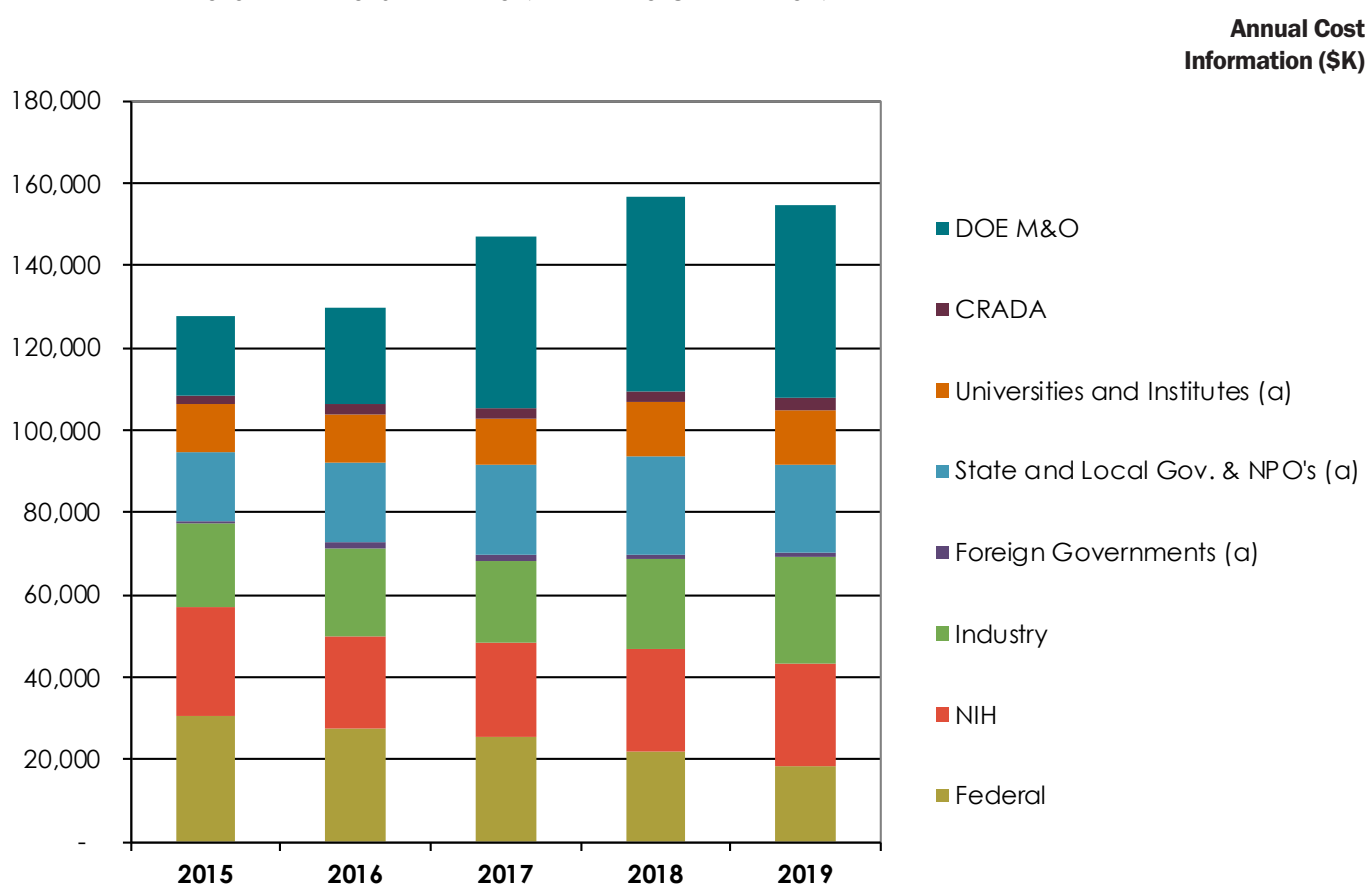
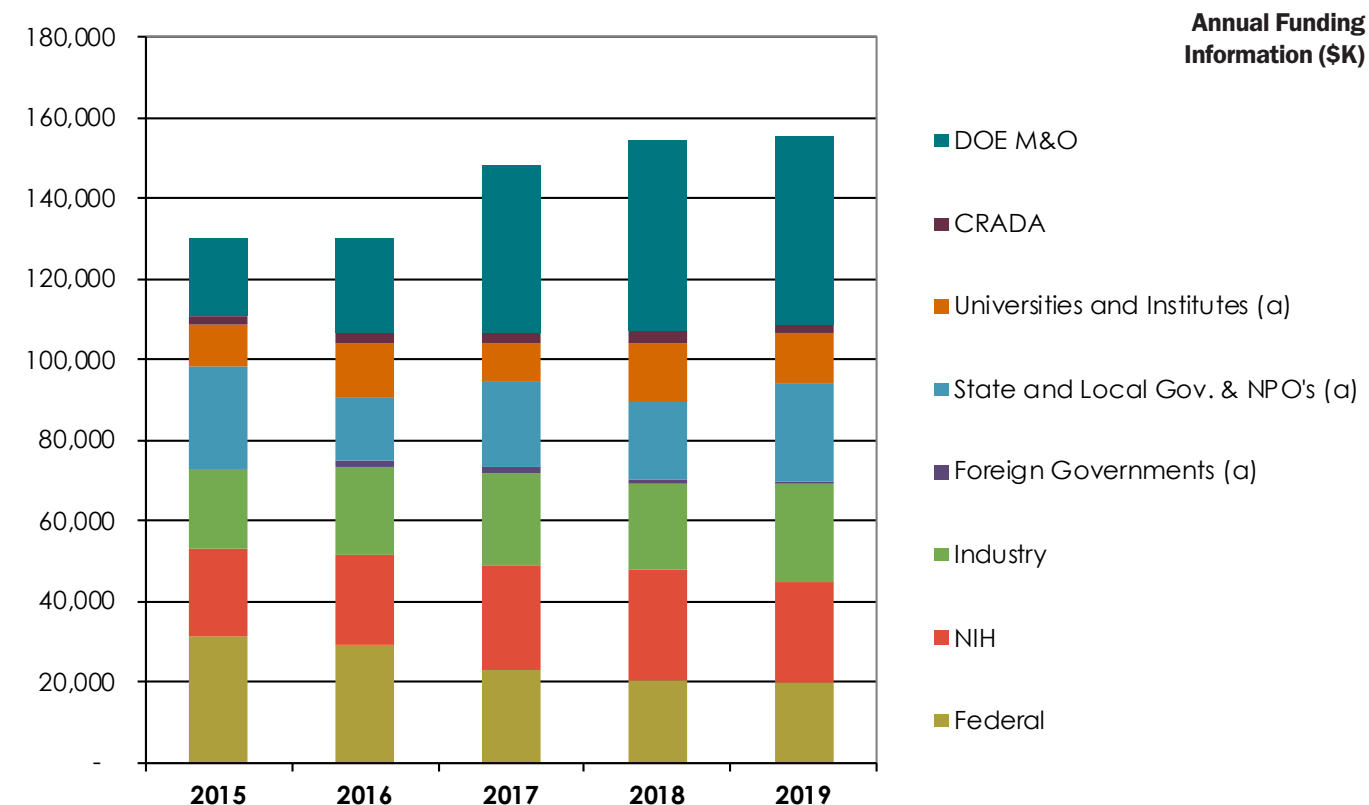
FY2019 Funding and Costs by DOE Programs (\$K) Continued

OFFICE OF ENERGY POLICY & SYSTEMS ANALYSIS		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
EP01	EPSA Program Direction	326	(1)	197	129
PE01	Policy, Planning And Analysis	0	(0)	-	0
Total Operating		326	(1)	197	129
TOTAL OFFICE OF ENERGY POLICY & SYSTEMS ANALYSIS		326	(1)	197	129
Note: Minor variances may occur due to rounding.					
OFFICE OF THE CHIEF INFORMATION OFFICER		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
CP20	Corporate IT Planning and Architecture IM-20	0	1,999	115	1,884
CS70	Integrated Joint Cybersecurity Coordination Center (iJC3)	1	(1)	-	0
Total Operating		1	1,998	115	1,884
TOTAL OFFICE OF THE CHIEF INFORMATION OFFICER		1	1,998	115	1,884
Note: Minor variances may occur due to rounding.					
OFFICE OF INDIAN ENERGY POLICY & PROGRAMS		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
IP10	Salaries & Benefits	0	(0)	-	(0)
IP20	Support Services	0	(0)	-	(0)
Total Operating		0	(0)	0	(0)
TOTAL OFFICE OF INDIAN ENERGY POLICY & PROGRAMS		0	(0)	0	(0)
Note: Minor variances may occur due to rounding.					
OFFICE OF TECHNOLOGY TRANSITIONS		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
OPERATING					
TT10	Contractual Support Services	-	80	49	31
Total Operating		0	80	49	31
TOTAL OFFICE OF INDIAN ENERGY POLICY & PROGRAMS		0	80	49	31
Note: Minor variances may occur due to rounding.					
All DOE Programs (\$K)		FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
TOTAL OPERATING		611,861	804,921	684,649	732,133
TOTAL CAPITAL EQUIPMENT		49,121	57,234	54,138	52,217
TOTAL GENERAL PLANT PROJECTS		16,389	(10)	4,607	11,772
TOTAL ACCELERATOR IMPROVEMENT PROJECTS		10,488	4,400	2,691	12,197
TOTAL LINE ITEM CONSTRUCTION		39,954	65,000	44,819	60,135
TOTAL FUNDING AND COSTS		727,814	931,544	790,905	868,454
Note: Minor variances may occur due to rounding.					

FY2019 Funding and Costs by Other Direct Operating Source (\$K)

Funding Source	FY2019 Beginning Uncosted Obligations	FY2019 Funds	FY2019 Costs	FY2019 Ending Uncosted Obligations
REIMBURSABLE WORK				
Federal Agencies				
Department of Agriculture	35	-	36	0
Department of Defense	9,149	13,241	9,147	13,334
Department of Homeland Security - Domestic Nuclear Detection Office	2,702	(4)	1,404	1,294
Department of Housing And Urban Development	2	(2)	-	-
Department of State - Other	1,298	(1)	773	549
Department of The Interior	0	(0)	-	-
Department of Transportation	729	679	596	829
Environmental Protection Agency	488	212	387	325
National Aeronautics And Space Administration	3,307	3,448	3,306	3,545
National Institutes of Health	28,912	25,292	25,296	28,921
National Science Foundation	1	(1)	-	-
Nuclear Regulatory Commission	22	(1)	1	21
Other Federal Agencies	4,012	2,094	2,585	3,534
Total Federal Agencies	50,657	44,958	43,532	52,353
Non-Federal Agencies				
Foreign Governments (a)	776	843	1,080	570
Domestic and Foreign Industry (a)	11,825	24,050	25,574	10,888
State and Local Governments & NPO's (a)	10,621	24,268	21,585	12,696
Universities and Institutes (a)	5,523	12,408	13,319	4,995
Total Non-Federal Agencies	28,745	61,568	61,559	29,149
Cooperative Research and Development Agreements				
CRADA - Other	1,595	1,701	2,469	894
CRADA - Small Business	52	323	242	116
Total Cooperative Research and Development Agreements	1,647	2,024	2,711	1,010
TOTAL REIMBURSABLE WORK	81,049	108,550	107,801	82,513
DOE INTEGRATED CONTRACTORS				
Work Performed for Other DOE Locations (b)	-	47,075	47,075	-
Total DOE Integrated Contractors	-	47,075	47,075	-
TOTAL OTHER DIRECT OPERATING (c)	81,049	155,625	154,876	82,513
Note: Minor variances may occur due to rounding. (a) Includes funding obligations and deobligations for Non-Federal Sponsors who are precluded by law from paying an advance under the WNO2 program. (b) Total funding for Integrated Contractors is assumed to be equal to cost incurred. (c) The sum of FY2019 Beginning Uncosted Obligations and FY2019 Funds, minus FY2019 Costs does not equal FY2019 Ending Uncosted Obligations due to various adjustments not reflected in the FY2019 Costs column. Examples of these adjustments include bridge funding, inventory, suspense items, and DOE's Federal Administrative Charge. The total of these adjustments for FY2019 is \$715K.				

FY2019 Funding and Cost Trends by Other Direct Operating Source (\$K)



Note: Minor variances may occur due to rounding.

(a) Includes funding obligations and deobligations for Non-Federal Sponsors precluded by law from paying an advance under the WN02 program.

Total Funding Amounts by Area and Division for Each Fiscal Year (\$K)

Area and Division	Fiscal Years				
	FY2015	FY2016	FY2017	FY2018	FY2019
BIOSCIENCES	173,539	166,741	179,747	183,508	185,951
Biological Systems & Energy		40,785	45,481	51,228	49,694
Environmental Genomics & System Biology		17,644	22,596	18,964	23,408
Joint Genome Institute		70,884	70,715	70,386	71,196
Molecular Biophysics & Integrated Bioimaging		37,429	40,956	42,930	41,653
Genomics	79,476				
Life Sciences	29,174				
Physical Biosciences	64,889				
COMPUTING SCIENCES	165,127	174,134	189,990	231,880	252,473
Computational Research	42,698	33,671	43,737	51,844	54,165
National Energy Research Scientific Computing Center	81,773	96,973	93,814	96,181	107,494
Scientific Networking	40,656	43,489	52,439	83,855	90,815
EARTH & ENVIRONMENTAL SCIENCES	65,148	64,679	79,953	72,940	79,905
Climate & Ecosystems		38,843	42,308	39,452	41,837
Energy Geosciences		25,836	37,646	33,487	38,068
Earth Sciences	65,148				
ENERGY SCIENCES	155,628	173,469	176,437	208,425	176,679
Advanced Light Source	66,238	74,439	74,279	97,548	69,618
Chemical Sciences	21,795	27,988	29,204	27,238	30,129
Material Sciences	67,596	71,043	37,195	43,334	37,674
Molecular Foundry			35,759	40,305	39,258
ENERGY TECHNOLOGIES	98,048	125,708	140,598	128,323	121,883
Building Technologies & Urban Systems		40,138	44,214	44,554	41,008
Cyclotron Road		2,345	3,982	1,750	2,017
Energy Analysis & Environmental Impacts		46,722	56,664	46,522	41,939
Energy Storage & Distributed Resources		36,502	35,738	35,497	36,919
Environmental Energy Technologies	98,048				
PHYSICAL SCIENCES	122,725	147,270	134,738	167,653	159,460
Accelerator Technology & Applied Physics	36,986	37,461	43,386	56,326	49,792
Engineering	3,595	2,132	1,519	1,496	1,936
Nuclear Science	31,916	35,304	32,882	39,744	38,922
Physics	50,229	72,373	56,951	70,087	68,810
DIRECTORATE & OPERATIONS	17,495	45,477	46,763	105,180	110,818
Advanced Light Source Upgrade (ALS-U) (a)					62,014
Environment, Health, Safety & Security	-				102
Facilities	12,153	36,520	37,458	99,597	4,079
Human Resources				1,118	1,298
Information Technology	2,384	4,139	4,029	4,383	3,537
Laboratory Directorate	173	592	165	44	80
Office of the Chief Financial Officer	(2,612)	(802)	(21)		23
Operations	106	123	162	37	
Protective Services	3,589	3,603	3,673		
Public Affairs	1,702	1,302	1,298		
Projects & Infrastructure Modernization					39,685
GRAND TOTAL	797,710	897,479	948,226	1,097,908	1,087,169

(a) ALS-U became a separate division in FY2019 (previously reported under Energy Sciences, Advanced Light Source).

INDIRECT BUDGETS

3

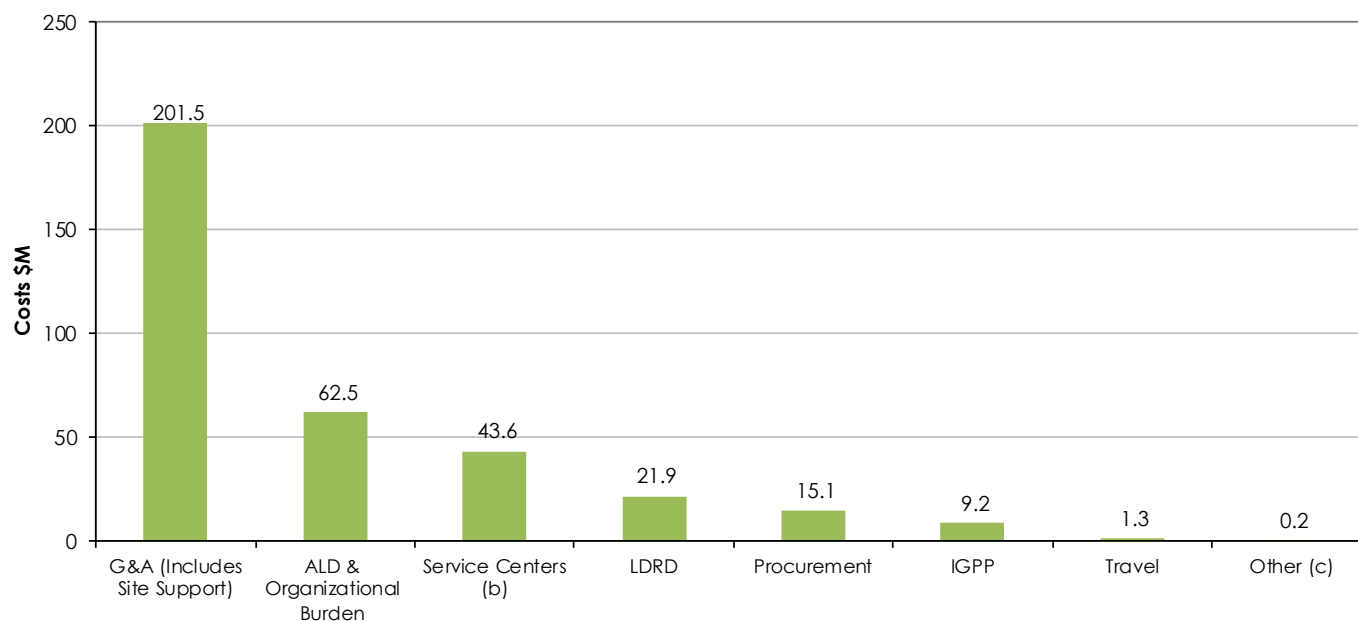
Indirect Budgets – FY2019 Costs (\$M)

Indirect Budgets (a)		FY2019 Costs (\$M)
G&A (Includes Site Support)		201.5
ALD & Organizational Burden		62.5
Service Centers (b)		43.6
LDRD		21.9
Procurement		15.1
IGPP		9.2
Travel		1.3
Other (c)		0.2
Total		355.4

(a) Summation of indirect budget provided only to show magnitude of dollars being managed and does not equate to total indirect costs since there are overlaps between indirect budgets. For example, some organization burden costs are included in G&A and Recharges. In FY2019, LDRD cost includes \$4.3M G&A assessed on LDRD projects.

(b) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only.

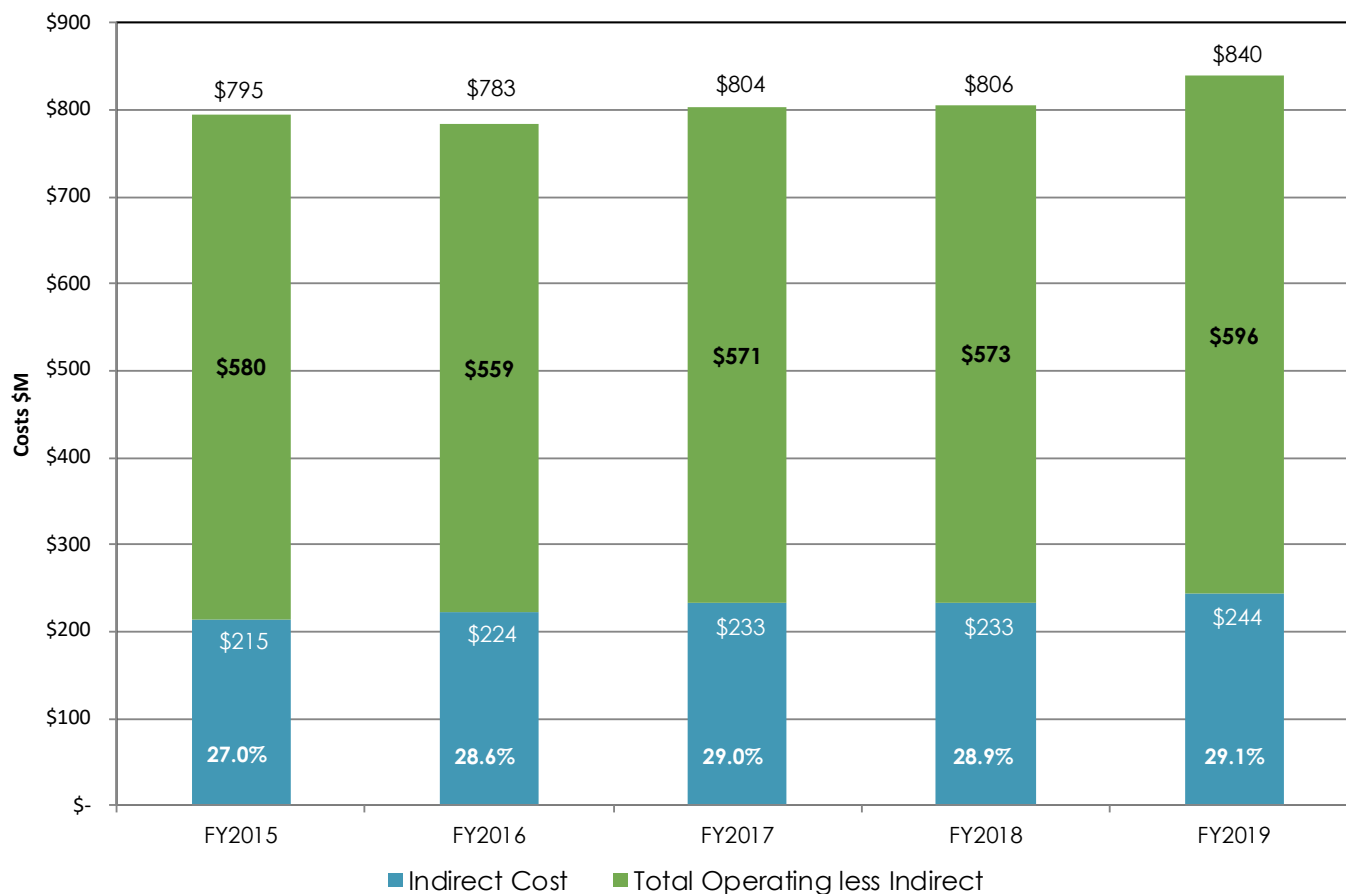
(c) Includes Office of Homeland Security Charge.



(b) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only.

(c) Includes Office of Homeland Security Charge.

Institutional Overhead Costs as a Percent of Operating Costs, FY2015-FY2019



Notes:

- (1) Chart represents the institutional cost structure for each fiscal year with adjustments for indirect double count of G&A on LDRD projects. Institutional overhead costs include G&A, Site Support, LDRD, Travel, Procurement, and IGPP. Percent is the percentage of indirect cost to total operating cost.
- (2) Total Operating Costs are used as the denominator in the chart above because this is more representative of ongoing scientific program costs. Including Construction and Equipment costs, which are generally procurement intensive and one-time in nature, would create significant anomalies in overhead comparisons for prior years. Thus, Construction and Capital Equipment costs are excluded from this chart. This differs from Table 1.1.
- (3) Overhead Costs as a percentage of Total Operating Costs represented in the chart above does not account for functional costs. Functional costs are an all inclusive accounting of support cost (even if they are charged to Direct-funded programs). Functional costs are prescribed by DOE's annual Institutional Cost Report (ICR) process. The ICR equivalent metric in FY2019 is 32.9%.

Table 3.1

Institutional Costs by Division, FY2019 (\$K)

Division	G&A (a)	LDRD (b)	Procurement	Travel	IGPP	Total
Lab Directorate	24,078					24,078
LDRD		21,922				21,922
Associate Lab Director for Operations						
Deputy Director for Operations	3,014					3,014
Projects and Infrastructure Modernization	17,951				9,172	27,123
Office of Institutional Assurance and Integrity	1,589					1,589
Environment, Health & Safety	24,292					24,292
Facilities	66,595		2,115			68,710
Human Resources	12,123					12,123
Information Technology	32,573					32,573
Office of the Chief Financial Officer	8,621		12,996	1,332		22,948
Engineering	2,826					2,826
Earth Sciences	3					3
General Lab	7,835					7,835
TOTAL	201,499	21,922	15,110	1,332	9,172	249,035

Note: Minor variances may occur due to rounding.

(a) Includes Site Support & Strategic Planning Support Activities (SPSA).

(b) LDRD costs include \$4.3M of G&A assessment.

Institutional FTEs Charged by Division, FY2019

Division	G&A (a)	LDRD (b)	Procurement	Travel	IGPP	Total
Lab Directorate	85.7					85.7
LDRD		97.9				97.9
Associate Lab Director for Operations						
Deputy Director for Operations	6.7					6.7
Projects and Infrastructure Modernization	23.7				6.6	30.4
Office of Institutional Assurance and Integrity	8.0					8.0
Environment, Health & Safety	98.8					98.8
Facilities	150.0		11.9			161.9
Human Resources	59.2					59.2
Information Technology	82.2					82.2
Office of the Chief Financial Officer	55.2		73.8	6.9		135.9
Engineering	6.3					6.3
Earth Sciences	-					-
General Lab	-					-
TOTAL	576.0	97.9	85.7	6.9	6.6	773.2
Note: Minor variances may occur due to rounding. (a) Includes Site Support & Strategic Planning Support Activities (SPSA) (b) LDRD projects conducted by multiple divisions as reflected in Table 1.3						

Figure 3.3

Payroll Burden Summary (\$M)

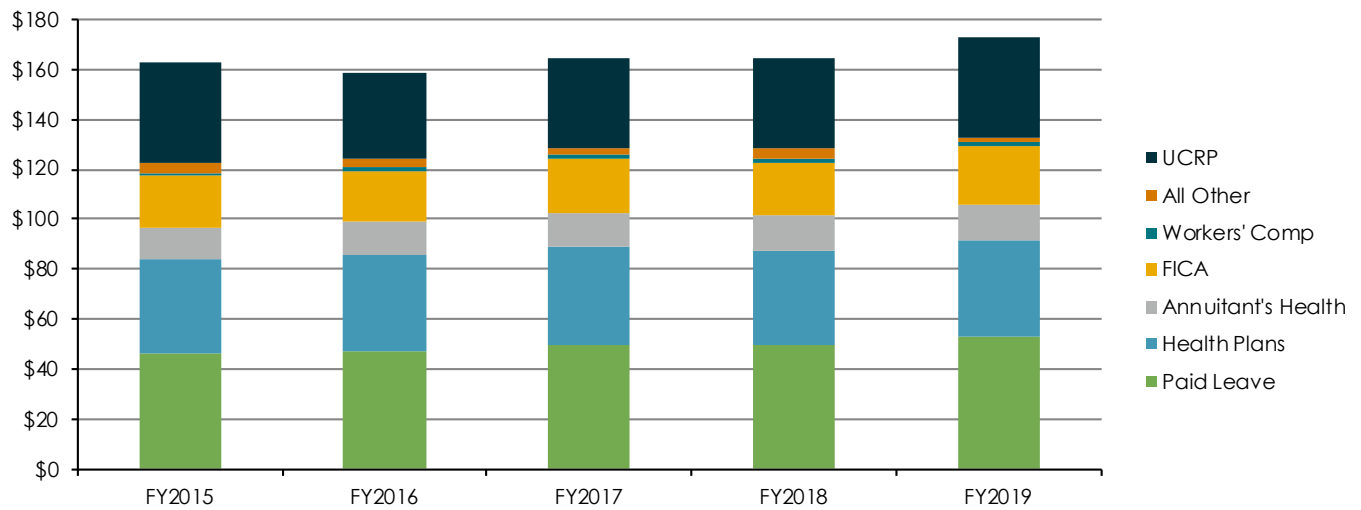
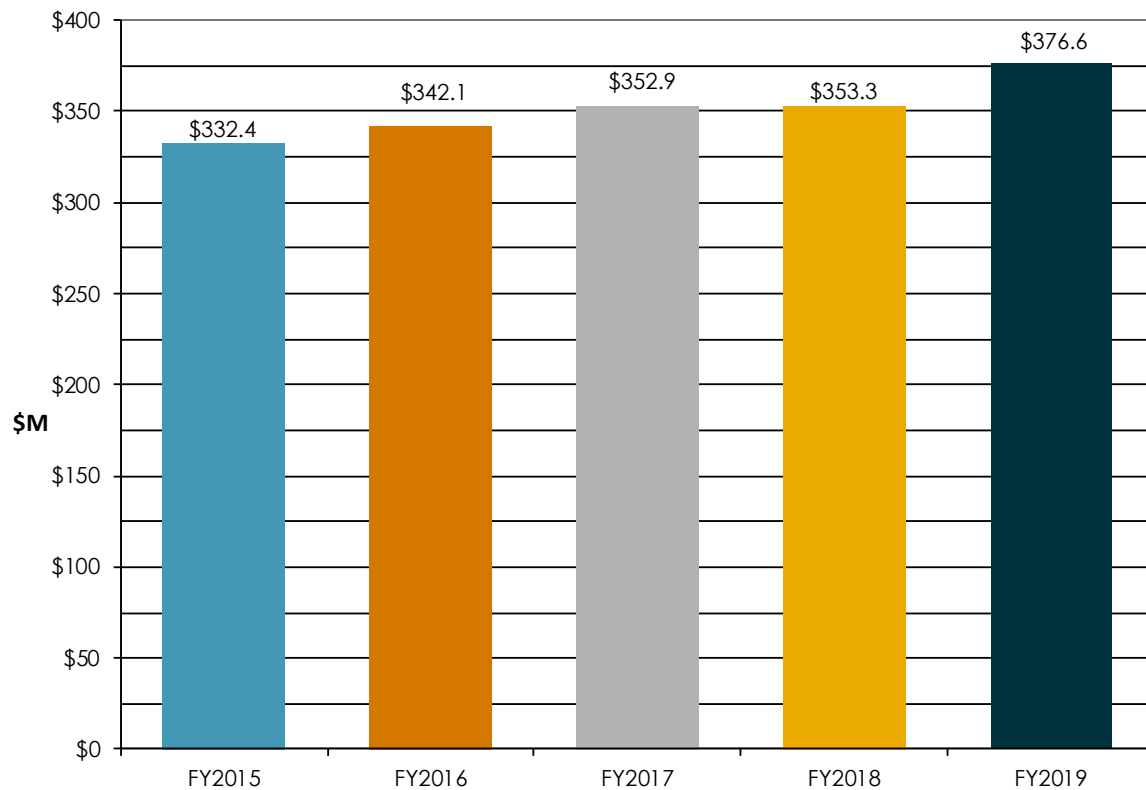


Figure 3.4

Gross Payroll Summary (\$M)



Note: Gross payroll excludes payroll transactions such as Tuition Reimbursement, Relocation, etc.

Total annual payroll for FY2015 is \$340M, for FY2016 is \$372M, for FY2017 is \$358M, for FY2018 is \$358M, for FY2019 is \$383M.

Area and Organizational Burden Costs and FTEs

Burden includes costs for the management and supervision of Area/Division activities and is distributed over labor costs including campus and contract labor.

Area and Division Cost Pools	FY2019	
	Cost \$K	Avg FTE
Biosciences	12,412	70.7
Computing Sciences	7,514	36.7
Computational Research	2,668	10.6
Computing Sciences Area	3,555	16.2
National Energy Research Scientific Computing Center	871	6.6
Scientific Networking	421	3.3
Earth & Environmental Sciences	4,821	20.0
Energy Sciences	9,173	43.4
Advanced Light Source	2,352	10.1
Chemical Sciences	1,904	10.8
Energy Sciences Area	771	2.9
Materials Sciences	2,577	11.2
Molecular Foundry	1,568	8.2
Energy Technologies Area	8,277	35.2
Physical Sciences	11,497	51.3
Accelerator Technology & Applied Physics	1,684	9.0
Engineering	5,645	22.1
Nuclear Science	1,756	8.6
Physical Sciences Area	499	1.6
Physics	1,912	10.1
Directorate & Operations	8,778	35.9
Facilities	4,135	17.8
Information Technology	3,050	11.6
Projects and Infrastructure Modernization	1,593	6.5
TOTAL	62,472	293.2
Note: Minor Variances may occur due to rounding.		

Service Center Costs and FTEs by Area and Division

Certain Laboratory services are provided by recharges that recover operational costs through various cost-allocation mechanisms; e.g., by assigning a dollar value to the work performed (a unit charge based on an hourly rate) or the products produced (unit charge per item).

Area and Division (a)	FY2019	
	Cost \$K	Avg FTE
Biosciences Area	509	3.3
Biological Systems & Energy	2,664	7.3
Computing Sciences Area	4,073	-
Earth & Environmental Science Area	62	0.2
Energy Technologies Area Office	3,268	19.5
Energy Geosciences	28	0.1
Engineering	1,948	6.8
Facilities	9,301	2.2
Human Resources (b)	4,631	-
Information Technology	8,653	25.7
Joint Genome Institute	4,456	1.0
Laboratory Directorate	1,419	5.0
Materials Sciences	74	0.4
Molecular Biophysics & Integrated Bioimaging	1,961	7.7
Nuclear Science	358	1.6
Office of the Chief Financial Officer	205	0.2
Total	43,611	81.1
Note: Minor Variances may occur due to rounding. (a) Service Centers includes recharge cost centers that default to B&R YN01 (project type OHRCH) only and GSRA pass through costs. (b) Includes: GSRA pass through costs.		

Distributed Recharges by Resource Category Trends, FY2015-FY2019 (\$K)

Distributed Recharge (a, b)	FY2015	FY2016	FY2017	FY2018	FY2019
Vehicle	864	875	883	938	928
MSD Facility	272	272	259	141	90
Animal Care	659	657	605	532	495
Creative Services	919	955	1,040	926	996
FAM Facility Recharge	78	57	41	32	16
ESD Sample Analysis Recharge	69	111	82	68	62.32
Warehouse Storage Recharge	96	90	98	217	169
88-Inch Accelerator Operations	1,026	1,185	1,065	862	1,363
JBEI Non-Material Recharge	1,335	869	775	640	776
JBEI Material Recharge	5,270	5,280	5,477	5,518	1,618
BCSB	1,568	1,445	1,258	1,300	1,986
Telephone Services	5,200	5,592	5,108	5,475	5,953
ETA Recharge	2,802	2,687	2,787	2,808	3,060
Computer/Net Recharges	1,584	1,463	1,473	1,448	1,787
Flexlab Recharge	60	204	303	210	249
Engineering Shop	656	606	622	745	888
CAD	731	739	669	901	1,075
ALS Proprietary Recharge	809	868	774	947	831
JGI Production Sequencing	63	38	84	56	36
NERSC Sponsored Storage Recharge	294	569	220	372	-
Scientific Networking	2,683	3,250	3,492	3,338	3,737
CRT HPC Recharge	1,327	3,612	3,387	3,792	4,073
JGI Occupancy Labor Recharge	980	132	151	150	119
JGI Occupancy Material Recharge	4,617	4,231	4,275	3,716	3,549
Electricity	12,919	9,427	8,820	9,816	9,360
Sustainability Recharge		580	921	1,304	1,421
GSRA - Material Recharge	2,917	3,397	3,491	3,959	4,641
Applied Nuclear Physics Recharge				215	358
EGD TOUGH Code Recharge					28
Total Recharges	49,798	49,192	48,161	50,423	49,662
Note: Minor variances may occur due to rounding.					
(a) Includes recharges credited back to direct operating accounts such as ALS, ESnet, JGI, etc.					
(b) Does not include Procurement and Travel recharges					

FINANCIAL STATEMENT

4

Balance Sheet Comparative Statement of Financial Position (\$K)

	FY2019	FY2018
ASSETS:		
Current Assets		
Cash	5,037	4,680
Accounts Receivable	31,841	33,228
Inventories	353	440
Other Current Assets	2,655	1,536
TOTAL CURRENT ASSETS	39,886	39,884
Net Plant & Equipment	790,816	707,871
TOTAL ASSETS	830,702	747,755
LIABILITIES AND EQUITY:		
Liabilities		
Current Liabilities		
Drafts Payable	4,341	2,353
Accounts Payable	18,107	19,489
Inter/Intra DOE Payable	1,001	710
Accrued Expenses	111,045	104,102
Capital Lease Liability - Current	249	8,266
Unearned Revenues	59,704	60,373
Other	108	232
Total Current Liabilities	194,555	195,525
Environmental Liabilities	1,122,927	993,508
Capital Lease Liability - Noncurrent	1,040	-
Post-Retirement Benefits (Note 2)	730,509	630,424
Pension Plan Liability (Note 2)	1,682,014	1,000,083
TOTAL LIABILITIES	3,731,045	2,819,540
EQUITY:		
Beginning Equity	(2,071,785)	(2,042,436)
Change in Equity (Note 2)	(828,558)	(29,349)
ENDING EQUITY	(2,900,343)	(2,071,785)
TOTAL LIABILITIES AND EQUITY	830,702	747,755
See accompanying Note 1: Summary of Significant Accounting Policies on page 55-56. Note 2 can be found on page 57.		

Note 1: Summary of Significant Accounting Policies

Basis of Presentation

This financial statement has been prepared to report the financial position of the Lawrence Berkeley National Laboratory (the Laboratory). It has been prepared from the books and records of the Laboratory in accordance with the Laboratory's accounting policies.

Reporting Entity

The Laboratory is a national research facility operated by the University of California (UC) for the Department of Energy (DOE) under the terms of Contract DE-AC02-05CH11231 (Contract 31). The Laboratory's reporting entity status is that of an integrated contractor, meaning its accounts are integrated with those of DOE through the use of reciprocal accounts.

Basis of Accounting

The financial records of the Laboratory conform to Generally Accepted Accounting Principles (GAAP), and Cost Accounting Standards (CAS), the provisions of the DOE accounting directives for Management and Operating (M&O) Contractors and are in compliance with Contract 31 between UC and DOE.

Financial Sources

The Laboratory receives funding from DOE in accordance with the provisions of Contract 31. The Laboratory receives authorization to incur costs and conduct operations through modifications to the contract.

In addition to DOE-funded work, reimbursable work is performed for other federal and non-federal entities. Costs for reimbursable work are recorded and billed to the requesting entity by the Laboratory. Cash collected from these billings is transmitted to the U.S. Department of the Treasury and deposited in the DOE account. Non-federal work performed at the Laboratory must be funded in advance.

Letter of Credit

The Laboratory received authority for expenditures according to a checks-paid letter of credit from the U.S. Department of the Treasury; Letter of Credit Contract Number DE-AC02-05CH11231 with Wells Fargo Bank (WFB). The WFB letter of credit was renewed on November 1, 2012 for a five-year term and then extended through October 31, 2019.

Cash

The Laboratory considers all balances in demand deposit accounts to be cash. Demand deposit cash accounts include non-DOE sources of funds including strategic partnership projects, royalty, and gift.

Accounts Receivable

Accounts receivable include reimbursements due from federal sponsors, short-term investments held by the University of California Office of the President (UCOP), and other receivables. Other receivables include receivables related to inter-location appointments, intellectual property licensing agreements, and amounts due from non-federal sponsors.

Inventories

The Laboratory identifies three types of inventory: operating materials, precious metals, and nuclear materials. For operating materials, only those materials meeting a materiality threshold will be accounted for as an asset on the financial statements. Operating materials that do not meet the materiality threshold are accounted for using the

continued...

Note 1: Summary of Significant Accounting Policies Continue

purchase method, which allows items to be expensed when purchased. Precious materials procurement through the inter-DOE procurement process are accounted for as an asset. Nuclear materials are accounted for as an asset.

Other Current Assets

Other current assets primarily consist of prepaid expenses. The Laboratory accounts for prepaid expenses as balance sheet assets if the amortization of costs will occur over a period exceeding twelve months and amortization is deemed material.

Net Plant and Equipment

Plant and equipment are purchased, constructed, or fabricated in-house and include major modifications or improvements. The Laboratory's capitalization threshold is \$500K for items with an anticipated service life of two years or more. Plant and equipment items meeting these criteria are capitalized. Costs of construction and fabrication are capitalizable expenses and are recorded initially as construction/fabrication work in process. Upon in-service or occupancy, the value is transferred to the appropriate fixed-assets account. Depreciation is computed using the straight-line method over the estimated useful life of the asset.

Liabilities

Liabilities cannot be incurred by the Laboratory without an authorized appropriation, except for approved unfunded liabilities.

Current liabilities include drafts payable, accounts payable, inter/intra DOE payable, and accrued expenses (including accrued payroll and vacation). Current liabilities also include the current portion of our capital lease liability as well as unearned revenue related to advances received for reimbursable work and funds held for others.

Long-term liabilities include the long-term portion of capital lease liabilities and environmental liabilities. Environmental liabilities include future clean up, restoration activities, and Environment, Health & Safety (EH&S) liabilities to bring facilities and operations into compliance with existing laws. These liabilities are not funded by current appropriations, but are booked as adjusting entries at the direction of DOE.

Pension Plan and Post Retirement Benefit liabilities are determined through coordination between UC and DOE. Both current employees and retirees at the Laboratory participate in the University of California Retirement Plan (UCRP).

Note 2: FY2019 Year-End Adjustments

DOE made adjustments to record FY2019 Post-Retirement Benefit and Pension Plan obligations. These amounts will be reflected in the Laboratory's actuals for October 2019. These adjustments are the result of coordination and approval by both DOE and UC. The adjustments this year are primarily due to a lower discount rate (from 4% in 2018 to 3% in 2019) resulting in higher obligations.

The following is the adjusted balance sheet for FY2019:

	Adjusted Balance Sheet (\$K)		
	FY2019	YE Adjustments	Adjusted FY2019
ASSETS:			
Current Assets			
Cash	5,037		5,037
Accounts Receivable	31,841		31,841
Inventories	353		353
Other Current Assets	2,655		2,655
Total Current Assets	39,886		39,886
Net Plant & Equipment	790,816		790,816
TOTAL ASSETS	830,702		830,702
LIABILITIES AND EQUITY:			
Liabilities			
Current Liabilities			
Drafts Payable	4,341		4,341
Accounts Payable	18,107		18,107
Inter/Intra DOE Payable	1,001		1,001
Accrued Expenses	111,045		111,045
Capital Lease Liability - Current	249		249
Unearned Revenues	59,704		59,704
Other	108		108
Total Current Liabilities	194,555		194,555
Environmental Liabilities	1,122,927		1,122,927
Capital Lease Liability - Noncurrent	1,040		1,040
Post-Retirement Benefits	630,424	100,085	730,509
Pension Plan Liability	1,000,083	681,931	1,682,014
TOTAL LIABILITIES	2,949,029	782,016	3,731,045
EQUITY:			
Beginning Equity	(2,071,785)		(2,071,785)
Change in Equity	(46,542)	(782,016)	(828,558)
ENDING EQUITY	(2,118,327)	(782,016)	(2,900,343)
TOTAL LIABILITIES AND EQUITY	830,702	0	830,702

Note 2 Continued: FY2018 Year-End Adjustments

DOE made adjustments to record FY2018 Post-Retirement Benefit and Pension Plan obligation. These amounts will be reflected in the Laboratory's actuals for October 2018. These adjustments are the result of coordination and approval by both DOE and UC.

The following is the adjusted balance sheet for FY2018:

	Adjusted Balance Sheet (\$K)		
	FY2018	YE Adjustments	Adjusted FY2018
ASSETS:			
Current Assets			
Cash	4,680		4,680
Accounts Receivable	33,228		33,228
Inventories	440		440
Other Current Assets	1,536		1,536
Total Current Assets	39,884		39,884
Net Plant & Equipment	707,871		707,871
TOTAL ASSETS	747,755		747,755
LIABILITIES AND EQUITY:			
Liabilities			
Current Liabilities			
Drafts Payable	2,353		2,353
Accounts Payable	19,489		19,489
Inter/Intra DOE Payable	710		710
Accrued Expenses	104,102		104,102
Capital Lease Liability - Current	8,266		8,266
Unearned Revenues	60,373		60,373
Other	232		232
Total Current Liabilities	195,525		195,525
Environmental Liabilities	993,508		993,508
Capital Lease Liability - Noncurrent	-		
Post-Retirement Benefits	633,061	(2,637)	630,424
Pension Plan Liability	1,110,346	(110,263)	1,000,083
TOTAL LIABILITIES	2,932,440	(112,900)	2,819,540
EQUITY:			
Beginning Equity	(2,042,436)		(2,042,436)
Change in Equity	(142,249)	112,900	(29,349)
ENDING EQUITY	(2,184,685)	112,900	(2,071,785)
TOTAL LIABILITIES AND EQUITY	747,755	0	747,755

PROCUREMENT & PROPERTY MANAGEMENT

5

Table 5.1

Purchases Placed Using Purchase Orders/Subcontracts

Total POs	(\$K)	# Actions
\$0 - \$25,000	\$66,036	65,380
\$25,001 - \$150,000	\$95,194	1,551
\$150,001- \$1,000,000	\$133,355	431
\$1,000,001 +	\$169,649	47
Total	\$464,234	67,409

Table 5.2

Procurement Purchase Order Dollar Amount by Area

Division	PO (\$K)
Directorate & Operations	\$120,017
Computing Sciences	\$117,266
Biosciences	\$70,310
Physical Sciences	\$56,388
Energy Technologies	\$39,035
Energy Sciences	\$41,678
Earth & Environmental Sciences	\$19,540
Total	\$464,234

Figure 5.1

Procurement Obligations by Channel (\$K)

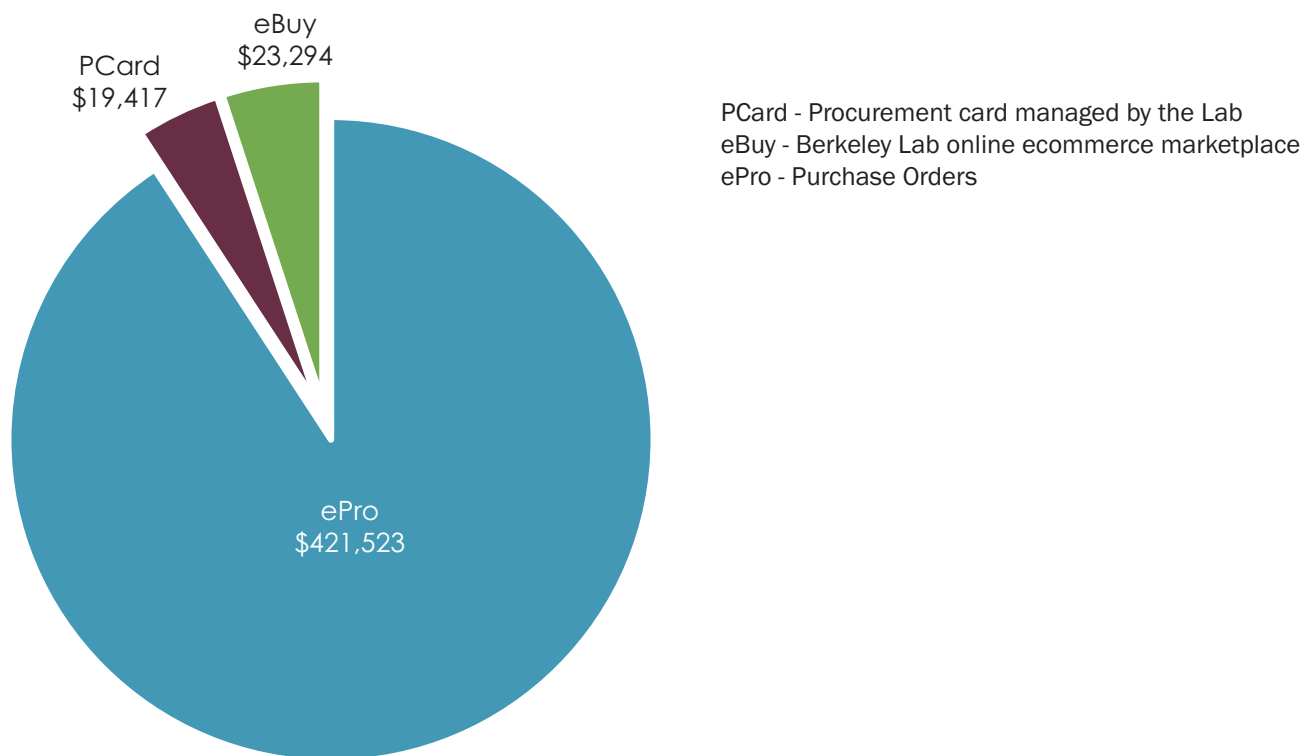


Figure 5.2

Laboratory Supplier Socioeconomic Performance

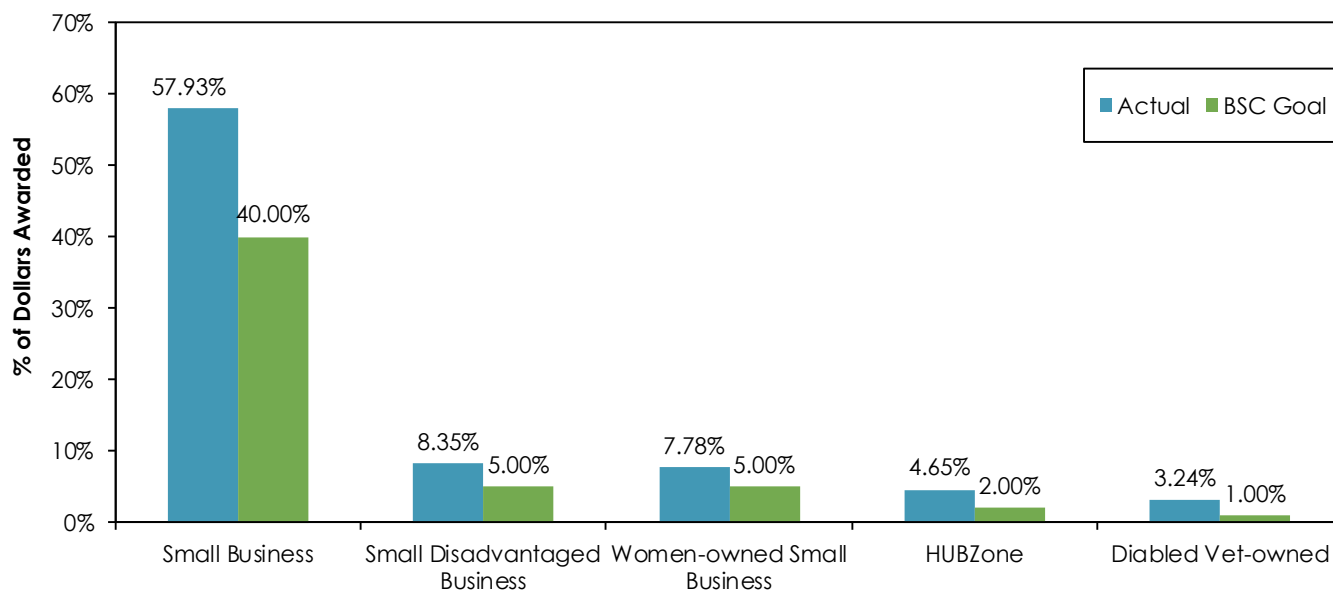


Figure 5.3

Cycle Time for Purchase Orders ≤\$25K – Subcontracting Groups FY2019

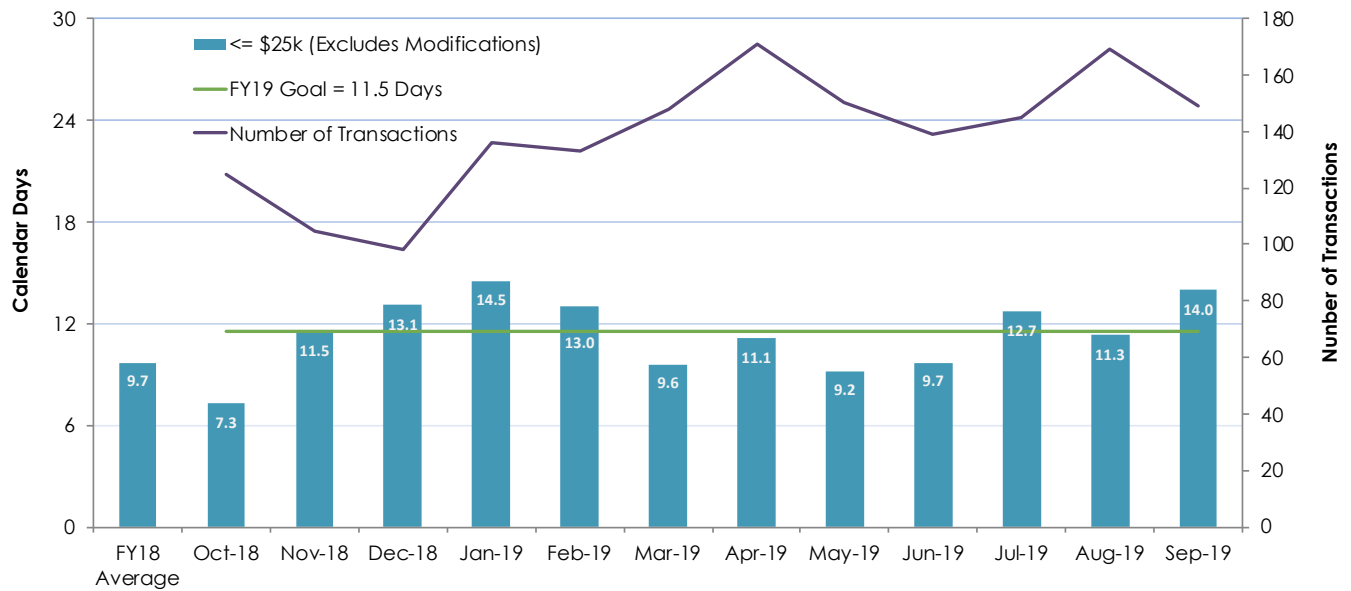


Figure 5.4

Procurement Cost Savings



Table 5.3

Property Management Activity

Asset Category	# of Assets	Acquisition Value (\$K)	
Equipment	6,987	743,678	
Attractive	18,854	63,969	
High Risk	23	209,136	
Totals Lab-wide	25,864	1,016,783	
Subset of Attractive Assets			
Computers Laptops	7,324	13,217	
Computer Desktops	6,384	13,985	
Tablets	1,283	855	
Subset Total	14,991	28,057	
Inventory Campaign	# of Assets Per Inventory Campaign	Positive Resolutions Per Inventory Campaign	% Positive
Attractive	10,352	10,307	99.57%
Controlled	2,771	2,765	99.78%
High Risk	26	26	100%
Final Results	13,149	13,098	99.61%
Validation Size	No validation required in FY2019	No validation required in FY2019	0%
Assets Scanned	10,782	13,098	82.32%
Area and Division	# of Assets for Area and Division	Acquisition Value for Area and Division (\$K)	
BIOSCIENCES			
Biological Systems & Energy	1,358	25,989	
Bioscience Area Office	852	24,132	
Environmental Genomics & System Biology	390	5,130	
Joint Genome Institute	991	18,546	
Molecular Biophysics & Integrated Bioimaging	743	20,835	
ALD Totals	4,334	94,632	
Computing Sciences			
Computing Sciences ALD	82	156	
Computational Research	992	3,372	
National Energy Research Scientific Computing	1,179	107,700	
Scientific Networking	726	21,813	
ALD Totals	2,979	133,042	

continued...

Property Management Activity Continued

Area and Division	# of Assets for Area and Division	Acquisition Value for Area and Division (\$K)	
DIRECTORATE & OPERATIONS			
ALS-U	41	96	
Chief Financial Officer	230	375	
Environment, Health, Safety & Security	338	2,532	
Excess	201	1,131	
Facilities	716	4,521	
Human Resources	174	199	
Information Technology	2,482	20,863	
Laboratory Directorate	206	287	
Operations	29	40	
Projects and Infrastructure Modernization	78	434	
Protective Services	617	2,969	
ALD Totals	5,071	33,351K	
EARTH & ENVIRONMENTAL SCIENCES			
Earth & Environ Science ALD	363	1,595	
Climate & Ecosystems	655	8,819	
Energy Geosciences	746	11,768	
ALD Totals	1,764	22,183	
ENERGY SCIENCES			
Energy Sciences ALD	11	20	
Advanced Light Source	1,795	235,235	
Chemical Sciences	1,293	39,584	
Molecular Foundry	1,191	82,392	
Material Sciences	1,495	56,615	
ALD Totals	5,826	413,942	
Energy Technologies			
Energy Technologies Area Office	128	196	
Building Technology and Urban Systems	555	5,617	
Cyclotron Road	43	413	
Energy Analysis Environmental Impact	586	7,579	
Energy Storage & Distribution	857	15,413	
ALD Totals	2,169	29,217	
Physical Sciences			
Accelerator Technology and Applied Physics	1,052	91,481	
Engineering	996	18,294	
Nuclear Science	815	76,146	
Physics	858	104,496	
ALD Totals	3,721	290,416	
TOTALS LAB WIDE	25,864	1,016,783	

ACRONYMS & KEY TERMS

6

Acronyms and Key Terms

ALD	Associate Lab Director
ALS	Advanced Light Source
ALS-U	Advanced Light Source Upgrade
ARPA-E	Advanced Research Projects Agency-Energy
ASCR	Advanced Scientific Computing Research
B&R	Budget and Reporting
BA	Budget Authority
BCSB	Berkeley Center for Structural Biology
BER	Biological & Environmental Research
BES	Basic Energy Sciences
BioEPIC	Biological and Environmental Program Integration Center
BSC	Balanced Score Card
CAD	Computer Aided Design
CAS	Cost Accounting Standards
CD	Critical Decision
CFO	Chief Financial Officer
CRADA	Cooperative Research and Development Agreement
CRT	Computational Research and Theory Facility
CSR	Contractor Supported Research
DESI	Dark Energy Spectroscopic Instrument
DNN	Defence Nuclear Nonproliferation
DOE	Department of Energy
eBuy	Berkeley Lab's Online Marketplace
EERE	Energy Efficiency and Renewable Energy
EGD	Energy Geosciences Division
EH&S	Environment/Health/Safety
ePro	Berkeley Lab Purchase Orders
EPSA	Energy Policy System Analysis
ESD	Earth Sciences Division
ESnet	Energy Sciences Network
ETA	Energy Technologies Area
FAM	Facility Advanced Microscopy
FC	Fuel Cycle
FICA	Federal Insurance Contributions Act
FTE	Full-Time Equivalent
FY	Fiscal Year (October 1 through September 30)

Acronyms and Key Terms Continued

G&A	General and Administrative
GAAP	Generally Accepted Accounting Principles
GRETA	Gamma-Ray Energy Tracking Array
GSRA	Graduate Student Research Assistant
HEP	High Energy Physics
HPC	High Performance Computing
HUBZone	Historically Under-utilized Business Zone
ICR	Institutional Cost Report
IGPP	Institutional General Plant Project
iJC3	Integrated Joint Cybersecurity Coordination Center
IJE	Inter-Jurisdictional Employee Exchange
ILA	Inter-Location Appointment
IPA	Inter-Governmental Personnel Assignment
IT	Information Technology
JBEI	Joint BioEnergy Institute
JGI	Joint Genome Institute
LBNL	Lawrence Berkeley National Laboratory
LDRD	Laboratory Directed Research and Development
LUX-ZEPLIN	Large Underground Xenon-ZonEd Proportional scintillation in Liquid Noble gases
M&O	Management & Operating
MLA	Multiple Location Appointment
MSD	Materials Sciences Division
NERSC	National Energy Research Scientific Computing Center
NIH	National Institutes of Health
NIS	Nonproliferation & International Security
NPO	Nonprofit Organization
OCFO	Office of the Chief Financial Officer
OHRCH	Overhead Recharge
PCard	Procurement Card
PLF	Paid Leave Factor
R&D	Research and Development
RD&T	Research, Development, and Technology

Acronyms and Key Terms Continued

S&S	Safeguard & Security
SERC	Solar Energy Research Center
SFA	Scientific Focus Area
SLI	Science Laboratories Infrastructure
SPP	Sponsored Partnership Projects
SPSA	Strategic Planning Support Activities
TEM	Transmission Electron Microscope
TOUGH	Transport of Unsaturated Groundwater and Heat
UC	University of California
UCOP	University of California Office of the President
UCRP	University of California Retirement Plan
WFB	Wells Fargo Bank
WOSB	Women-Owned Small Business

Key Terms

Throughout this document, \$K means dollars in thousands, \$M means dollars in millions, and \$B means dollars in billions.

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