## Partners HealthCare System, Inc. and Affiliates

Report on Federal Awards in Accordance with the OMB Uniform Guidance September 30, 2019 EIN 04-3230035

# Partners HealthCare System, Inc. and Affiliates Report on Federal Awards in Accordance with OMB Uniform Guidance Index

**September 30, 2019** 

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#### **Report of Independent Auditors**

To the Board of Directors of Partners HealthCare System, Inc. and Affiliates

#### Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Partners HealthCare System, Inc. and Affiliates (Partners HealthCare), which comprise the consolidated balance sheets as of September 30, 2019 and 2018, and the related consolidated statements of operations, changes in net assets and of cash flows for the years then ended, and the related notes to the consolidated financial statements.

#### Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to Partners HealthCare's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Partners HealthCare's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



#### **Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Partners HealthCare System, Inc. and Affiliates as of September 30, 2019 and 2018, and the results of their operations, their changes in their net assets and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### **Emphasis of Matter**

As discussed in Note 2 to the consolidated financial statements, Partners HealthCare System, Inc. changed the manner in which it presents net assets and reports certain aspects of its financial statements as a not-for-profit entity, and the manner in which it presents the recognition of and measurement of financial assets in 2019. Our opinion is not modified with respect to this matter.

#### Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended September 30, 2019 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 6, 2019 on our consideration of Partners HealthCare's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended September 30, 2019. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Partners HealthCare's internal control over financial reporting and compliance.

Boston, Massachusetts December 6, 2019

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## Partners HealthCare System, Inc. and Affiliates Consolidated Balance Sheets September 30, 2019 and 2018

(in thousands of dollars)	2019	2018
Assets Current assets		
Cash and equivalents	\$ 283,807	\$ 398,413
Investments	2,791,502	1,942,117
Current portion of investments limited as to use	2,235,171	1,465,354
Patient accounts receivable, net	1,129,594	1,078,086
Research grants receivable	136,557	154,449
Other current assets	556,954	517,812
Receivable for settlements with third-party payers	116,791	115,561
Total current assets	7,250,376	5,671,792
Investments limited as to use, less current portion	4,498,716	3,716,162
Long-term investments	1,997,617	1,628,972
Net pledges and contributions receivable, less current portion	284,924	246,951
Property and equipment, net	6,557,206	6,401,710
Other assets	643,534	637,944
Total assets	\$ 21,232,373	\$ 18,303,531
Liabilities and Net Assets Current liabilities		
Current portion of long-term obligations	\$ 455,165	\$ 459,390
Accounts payable and accrued expenses	790,820	696,890
Accrued medical claims and related expenses	57,550	64,398
Accrued employee compensation and benefits	932,870	854,375
Accrual for settlements with third-party payers	75,287	68,711
Unexpended funds on research grants	262,017	284,178
Total current liabilities	2,573,709	2,427,942
Accrued professional liability	542,136	512,516
Accrued employee benefits	2,410,974	958,275
Interest rate swaps liability	510,579	254,295
Accrued other	187,060	231,954
Long-term obligations, less current portion	5,260,196	4,945,968
Total liabilities	11,484,654	9,330,950
Commitments and contingencies		
Net assets	7 050 005	7 070 005
Unrestricted Donor restricted	7,358,335 2,389,384	7,073,335
		1,899,246
Total net assets	9,747,719	8,972,581
Total liabilities and net assets	\$ 21,232,373	\$ 18,303,531

The accompanying notes are an integral part of these consolidated financial statements.

## Partners HealthCare System, Inc. and Affiliates Consolidated Statements of Operations Years Ended September 30, 2019 and 2018

Operating revenues         \$ 10,145,150         \$ 9,239,118           Premium revenue         791,356         1,420,489           Direct academic and research revenue         1,594,085         1,485,467           Indirect academic and research revenue         463,247         420,559           Other revenue         957,499         741,636           Total operating revenues         13,951,337         13,307,269           Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         13,466,831         12,997,370           Depreciation and amortization expenses         13,466,831         12,997,370           Income from operating expenses         13,466,831         12,997,370           Income from operating expenses         13,466,831         12,997,370           Income from investments         182,829         198,118           Change in fair value of interest rate swaps <th>(in thousands of dollars)</th> <th>2019</th> <th>2018</th>	(in thousands of dollars)	2019	2018
Premium revenue         791,356         1,420,489           Direct academic and research revenue         1,594,085         1,485,467           Indirect academic and research revenue         463,247         420,559           Other revenue         957,499         741,636           Total operating revenues         13,951,337         13,307,269           Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         180,922         180,590           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         (271,527)         131,182           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses	•	<b>.</b> 40 445 450	<b></b>
Direct academic and research revenue         1,594,085         1,485,467           Indirect academic and research revenue         463,247         420,559           Other revenue         957,499         741,636           Total operating revenues         13,951,337         13,307,269           Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,590         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         (271,527)         131,182           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affi	•		
Indirect academic and research revenue         463,247         420,559           Other revenue         957,499         741,636           Total operating revenues         13,951,337         13,307,269           Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         (271,527)         131,182           Change in fair value of interest rate swaps         (271,527)         131,182           Chen nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         1,553,312           Total nonoperating gains, net			· ·
Other revenue         957,499         741,636           Total operating revenues         13,951,337         13,307,269           Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         1,594,085         1,485,467           Depreciation and amortization expenses         180,922         180,590           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         1,658         516,706           Excess of reven			
Total operating revenues         13,951,337         13,307,269           Operating expenses         Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         (271,527)         131,182           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         (90,243)		•	·
Operating expenses           Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         -         (90,243)           Funds utilized for property and equipment<			
Employee compensation and benefit expenses         7,110,009         6,635,581           Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         (90,243)           Funds utilized for property and equipment         111,641         39,052           C	Total operating revenues	13,951,337	13,307,269
Supplies and other expenses         3,339,331         3,027,832           Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,992         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318	Operating expenses		
Medical claims and related expenses         556,110         993,870           Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         -         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433      <	· ·		· ·
Direct academic and research expenses         1,594,085         1,485,467           Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433           Cumulative effect of accounting change         1,100,081         -	Supplies and other expenses	3,339,331	3,027,832
Depreciation and amortization expenses         686,374         674,030           Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         -         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433           Cumulative effect of accounting change         1,100,081         -	Medical claims and related expenses	556,110	993,870
Interest expense         180,922         180,590           Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         88,2829         198,118           Income from investments         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         -         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433           Cumulative effect of accounting change         1,100,081         -	Direct academic and research expenses	1,594,085	1,485,467
Total operating expenses         13,466,831         12,997,370           Income from operations         484,506         309,899           Nonoperating gains (expenses)         182,829         198,118           Income from investments         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433           Cumulative effect of accounting change         1,100,081         -	Depreciation and amortization expenses	686,374	674,030
Income from operations         484,506         309,899           Nonoperating gains (expenses)         Income from investments         182,829         198,118           Change in fair value of interest rate swaps         (271,527)         131,182           Other nonoperating income (expenses)         (123,911)         (61,321)           Academic and research gifts, net of expenses         214,267         91,415           Contribution income - affiliates         -         157,312           Total nonoperating gains, net         1,658         516,706           Excess of revenues over expenses         486,164         826,605           Other changes in net assets         -         (90,243)           Funds utilized for property and equipment         111,641         39,052           Change in funded status of defined benefit plans         (1,415,364)         399,318           Other changes in net assets         2,478         9,433           Cumulative effect of accounting change         1,100,081         -	Interest expense	180,922	180,590
Nonoperating gains (expenses) Income from investments  Change in fair value of interest rate swaps Other nonoperating income (expenses) Academic and research gifts, net of expenses Contribution income - affiliates Total nonoperating gains, net Excess of revenues over expenses  Change in net assets Change in net unrealized appreciation on marketable investments Funds utilized for property and equipment Changes in net assets Change in funded status of defined benefit plans Other changes in net assets Changes in net assets Change in funded status of defined benefit plans Other changes in net assets Change in funded status of defined benefit plans Other changes in net assets Change in funded status of defined benefit plans Other changes in net assets  Cumulative effect of accounting change  182,829 198,118 182,829 198,118 182,829 198,118 182,829 198,118 182,829 198,118 182,829 198,118	Total operating expenses	13,466,831	12,997,370
Income from investments  Change in fair value of interest rate swaps  Other nonoperating income (expenses)  Academic and research gifts, net of expenses  Contribution income - affiliates  Total nonoperating gains, net  Excess of revenues over expenses  Change in net unrealized appreciation on marketable investments  Funds utilized for property and equipment  Change in funded status of defined benefit plans  Other changes in net assets  Cumulative effect of accounting change  182,829  198,118  (271,527)  131,182  (61,321)  61,267  91,415  157,312  157,312  156,706  156,706  156,706  156,706  157,312	Income from operations	484,506	309,899
Income from investments  Change in fair value of interest rate swaps  Other nonoperating income (expenses)  Academic and research gifts, net of expenses  Contribution income - affiliates  Total nonoperating gains, net  Excess of revenues over expenses  Change in net unrealized appreciation on marketable investments  Funds utilized for property and equipment  Change in funded status of defined benefit plans  Other changes in net assets  Cumulative effect of accounting change  182,829  198,118  (271,527)  131,182  (61,321)  61,267  91,415  157,312  157,312  156,706  156,706  156,706  156,706  157,312	Nonoperating gains (expenses)		
Other nonoperating income (expenses) (123,911) (61,321) Academic and research gifts, net of expenses 214,267 91,415 Contribution income - affiliates - 157,312  Total nonoperating gains, net 1,658 516,706  Excess of revenues over expenses 486,164 826,605  Other changes in net assets Change in net unrealized appreciation on marketable investments - (90,243) Funds utilized for property and equipment 111,641 39,052 Change in funded status of defined benefit plans (1,415,364) 399,318 Other changes in net assets 2,478 9,433 Cumulative effect of accounting change 1,100,081 -		182,829	198,118
Academic and research gifts, net of expenses  Contribution income - affiliates  Total nonoperating gains, net  Excess of revenues over expenses  Other changes in net assets  Change in net unrealized appreciation on marketable investments  Funds utilized for property and equipment  Change in funded status of defined benefit plans  Other changes in net assets  Change in net assets  Change in funded status of defined benefit plans  Other changes in net assets  Cumulative effect of accounting change  214,267  91,415  691,415  690,243  826,605	Change in fair value of interest rate swaps	(271,527)	131,182
Contribution income - affiliates-157,312Total nonoperating gains, net1,658516,706Excess of revenues over expenses486,164826,605Other changes in net assetsChange in net unrealized appreciation on marketable investments-(90,243)Funds utilized for property and equipment111,64139,052Change in funded status of defined benefit plans(1,415,364)399,318Other changes in net assets2,4789,433Cumulative effect of accounting change1,100,081-	Other nonoperating income (expenses)	(123,911)	(61,321)
Contribution income - affiliates-157,312Total nonoperating gains, net1,658516,706Excess of revenues over expenses486,164826,605Other changes in net assetsChange in net unrealized appreciation on marketable investments-(90,243)Funds utilized for property and equipment111,64139,052Change in funded status of defined benefit plans(1,415,364)399,318Other changes in net assets2,4789,433Cumulative effect of accounting change1,100,081-	Academic and research gifts, net of expenses	214,267	91,415
Excess of revenues over expenses 486,164 826,605  Other changes in net assets  Change in net unrealized appreciation on marketable investments - (90,243)  Funds utilized for property and equipment 111,641 39,052  Change in funded status of defined benefit plans (1,415,364) 399,318  Other changes in net assets 2,478 9,433  Cumulative effect of accounting change 1,100,081 -	Contribution income - affiliates		157,312
Other changes in net assetsChange in net unrealized appreciation on marketable investments-(90,243)Funds utilized for property and equipment111,64139,052Change in funded status of defined benefit plans(1,415,364)399,318Other changes in net assets2,4789,433Cumulative effect of accounting change1,100,081-	Total nonoperating gains, net	1,658	516,706
Change in net unrealized appreciation on marketable investments-(90,243)Funds utilized for property and equipment111,64139,052Change in funded status of defined benefit plans(1,415,364)399,318Other changes in net assets2,4789,433Cumulative effect of accounting change1,100,081-	Excess of revenues over expenses	486,164	826,605
Funds utilized for property and equipment 111,641 39,052 Change in funded status of defined benefit plans (1,415,364) 399,318 Other changes in net assets 2,478 9,433 Cumulative effect of accounting change 1,100,081 -	Other changes in net assets		
Change in funded status of defined benefit plans(1,415,364)399,318Other changes in net assets2,4789,433Cumulative effect of accounting change1,100,081-	Change in net unrealized appreciation on marketable investments	-	(90,243)
Other changes in net assets 2,478 9,433 Cumulative effect of accounting change 1,100,081 -	Funds utilized for property and equipment	111,641	39,052
Other changes in net assets 2,478 9,433 Cumulative effect of accounting change 1,100,081 -	Change in funded status of defined benefit plans	(1,415,364)	399,318
		2,478	9,433
Increase in unrestricted net assets \$ 285,000 \$ 1,184,165	•	1,100,081	
	Increase in unrestricted net assets	\$ 285,000	\$ 1,184,165

## Partners HealthCare System, Inc. and Affiliates Consolidated Statements of Changes in Net Assets Years Ended September 30, 2019 and 2018

(in thousands of dollars)	Donor Unrestricted Restricted				Total
Net assets at September 30, 2017	\$	5,889,170	\$	1,574,939	\$ 7,464,109
Increases (decreases)					
Income from operations		309,899		-	309,899
Income from investments		198,118		35,691	233,809
Change in fair value of interest rate swaps		131,182		-	131,182
Other nonoperating income (expenses)		(61,321)		143,387	82,066
Academic and research gifts, net of expenses		91,415		-	91,415
Contribution income - affiliates		157,312		166,281	323,593
Change in net unrealized appreciation on					
marketable investments		(90,243)		8,449	(81,794)
Funds utilized for property and equipment		39,052		(18,598)	20,454
Change in funded status of defined benefit plans		399,318		-	399,318
Other changes in net assets		9,433		(10,903)	 (1,470)
Change in net assets		1,184,165		324,307	 1,508,472
Net assets at September 30, 2018		7,073,335		1,899,246	8,972,581
Increases (decreases)					
Income from operations		484,506		-	484,506
Income (loss) from investments		182,829		(5,536)	177,293
Change in fair value of interest rate swaps		(271,527)		-	(271,527)
Other nonoperating income (expenses)		(123,911)		379,892	255,981
Academic and research gifts, net of expenses		214,267		-	214,267
Funds utilized for property and equipment		111,641		(83,281)	28,360
Change in funded status of defined benefit plans		(1,415,364)		-	(1,415,364)
Other changes in net assets		2,478		1,880	4,358
Cumulative effect of accounting change		1,100,081		197,183	 1,297,264
Change in net assets		285,000		490,138	775,138
Net assets at September 30, 2019	\$	7,358,335	\$	2,389,384	\$ 9,747,719

## Partners HealthCare System, Inc. and Affiliates Consolidated Statements of Cash Flows Years Ended September 30, 2019 and 2018

(in thousands of dollars)	2019	2018
Cash flows from operating activities		
Change in net assets	\$ 775,138	\$ 1,508,472
Adjustments to reconcile change in net assets to net cash		
provided by operating activities		
Contribution income - affiliates	-	(323,593)
Change in funded status of defined benefit plans	1,415,364	(399,318)
Loss on refunding of debt	836	50,638
Change in fair value of interest rate swaps	271,527	(130,115)
Depreciation and amortization  Provision for bad debts	686,374	674,030 165,861
Amortization of bond discount, premium and issuance costs	(10,698)	(9,163)
(Gain) loss on disposal of property	(10,030)	104
Net realized and change in unrealized appreciation on investments	(381,166)	(270,254)
Cumulative effect of accounting change	(1,297,264)	(270,201)
Restricted contributions and investment income	(303,785)	(106,734)
Cash premium upon issuance of bonds	-	140,222
Increases (decreases) in cash resulting from a change in		
Patient accounts receivable	(51,508)	(238,003)
Other assets	(41,960)	(83,911)
Accounts payable and other accrued expenses	136,895	42,430
Accrued medical claims and related expenses	(6,848)	(131,639)
Settlements with third-party payers	(1,887)	 9,923
Net cash provided by operating activities	1,190,889	898,950
Cash flows from investing activities		
Purchases of property and equipment	(837,584)	(647,470)
Proceeds from sale of property	410	69
Purchase of investments	(3,653,436)	(3,630,869)
Proceeds from sales of investments	2,561,465	2,891,874
Cash acquired through affiliations, net		 5,955
Net cash used for investing activities	 (1,929,145)	 (1,380,441)
Cash flows from financing activities		
Borrowings under line of credit	-	52,848
Repayments under line of credit	(52,848)	-
Payments on long-term obligations	(81,071)	(76,740)
Proceeds from long-term obligations, net of financing costs	559,238	1,350,741
Deposits into refunding trusts	(105,454)	(1,292,796)
Restricted contributions and investment income	 303,785	 106,734
Net cash provided by financing activities	 623,650	 140,787
Net decrease in cash and equivalents	(114,606)	(340,704)
Cash and equivalents		
Beginning of year	 398,413	 739,117
End of year	\$ 283,807	\$ 398,413

The accompanying notes are an integral part of these consolidated financial statements.

(in thousands of dollars)

#### 1. Organization and Community Benefit Commitments

Partners HealthCare System, Inc. (PHS) is the sole member of The Massachusetts General Hospital (MGH), Brigham Health, Inc. (BH), NSMC HealthCare, Inc. (NSMC), Newton-Wellesley Health Care System, Inc. (NWHCS), Foundation of the Massachusetts Eye and Ear Infirmary, Inc. (MEEI), Partners Continuing Care, Inc. (PCC), Partners HealthCare International, LLC (PHI) and Partners HealthCare Insurance Holding Company, LLC (PHIHC) which is the sole corporate member of AllWays Health Partners, Inc. (formerly known as Neighborhood Health Plan, Incorporated). The two physicians who serve as the President and Chief Executive Officer of PHS (PHS CEO) and the Chief Clinical Officer of PHS are the members of Partners Community Physicians Organization, Inc. (PCPO). PHS, together with all of its affiliates, is referred to as "Partners HealthCare."

Partners HealthCare operates academic medical centers, community acute care hospitals, facilities that provide both inpatient and outpatient mental health services, urgent care centers, rehabilitation medicine and long-term care services, physician organizations, a home health agency, nursing homes and a graduate level program for health professions. Partners HealthCare provides services to patients primarily from the Greater Boston area as well as New England and beyond. In addition, Partners HealthCare is a nonuniversity-based non-profit private medical research enterprise and is a principal teaching affiliate of the medical and dental schools of Harvard University. Partners HealthCare operates a licensed, not-for-profit managed care organization and a licensed, for-profit insurance company (collectively referred to as AllWays Health) that provide health insurance products and administrative services to the Massachusetts Medicaid program (MassHealth), ConnectorCare (a state subsidized program for adults who meet income and immigration guidelines) and commercial populations.

#### **Community Benefit**

Partners HealthCare's community benefit programs include working with community residents and organizations to make measurable, sustainable improvements in the health status of underserved populations. Partners HealthCare's hospitals and licensed affiliated health centers partner with the community to support low-income, vulnerable families to overcome barriers to health and wellbeing. In addition, Partners HealthCare supports initiatives related to equity, social determinants of health and work force development.

The Massachusetts Attorney General's Community Benefits Guidelines direct non-profit acute care hospitals and health maintenance organizations to prepare annual reports documenting the status and level of their community benefit programs and initiatives. These annual reports serve the important purpose of providing the public with access to useful information about these programs and initiatives. Partners HealthCare files its report annually with the Massachusetts Attorney General. The report summarizes community benefit activities on a system-wide basis. In addition, each of the acute care hospitals within Partners HealthCare has a community benefit planning and service delivery structure and files separate, annual community benefit reports. AllWays Health also files a community benefit report annually.

The New Hampshire Attorney General's Community Benefits Reporting Guide requires hospitals and healthcare charitable trusts to develop a plan and submit a report on their community activities. Wentworth-Douglass Hospital (Wentworth-Douglass) and Wentworth-Douglass Physician Corporation annually file a report with the New Hampshire Office of the Attorney General.

(in thousands of dollars)

#### **Charity Care**

Partners HealthCare provides care to all emergent patients regardless of their ability to pay. The cost of providing that care is reflected in the consolidated statements of operations. The cost related to those patients for which Partners HealthCare receives either partial or no reimbursement for healthcare services provided is summarized below.

## **State Programs**

#### Massachusetts

Massachusetts acute care hospitals are partially reimbursed for charity care services through the statewide Health Safety Net Trust Fund (HSN) established under Massachusetts law. A portion of the funding for the HSN is paid by an assessment on acute care hospitals' charges for private sector payers. The statewide assessment was \$165,308 in both 2019 and 2018 and the assessment expense on Partners HealthCare's acute care hospitals was \$59,918 and \$58,794 in 2019 and 2018, respectively.

Acute care hospitals are reimbursed for charity care based on claims for eligible patients and services that are submitted to and adjudicated by the HSN. Payments are based on Medicare rates and payment policies. The HSN was under-funded by approximately \$61,461 and \$14,421 in 2019 and 2018, respectively. This shortfall is allocated to acute care hospitals based on their share of total statewide patient care costs with approximately \$20,564 and \$3,686 in 2019 and 2018, respectively, allocated to Partners HealthCare's acute care hospitals. Each hospital's share of the overall state shortfall cannot exceed its total charity care reimbursement. Hospitals with a high proportion of charity care and government funding receive more favorable reimbursement, including limiting their shortfall allocation to no more than 15% of their payments for charity care. In aggregate, Partners HealthCare's acute care hospitals received charity care funding covering 60% and 72% of the estimated cost of charity care provided in 2019 and 2018, respectively.

The Commonwealth of Massachusetts (the Commonwealth) levies an additional assessment on hospitals that is redistributed to the hospitals based on pay-for-performance criteria. The total assessment was \$257,500 in both 2019 and 2018 and the assessment expense on Partners HealthCare's hospitals was \$93,053 and \$93,041 in 2019 and 2018, respectively. The total amount redistributed to hospitals was \$265,000 in both 2019 and 2018 of which Partners HealthCare's hospitals received \$56,496 and \$61,734 in 2019 and 2018, respectively. Additionally, there is a separate assessment for Partners HealthCare's post-acute hospitals which totaled \$6,912 and \$7,482 in 2019 and 2018, respectively.

#### New Hampshire

The State of New Hampshire (New Hampshire) imposes a Medicaid Enhancement Tax (MET) on hospital net patient service revenue. For both of New Hampshire's fiscal years ended June 30, 2019 and 2018, the MET imposed was 5.4%. The amount of MET incurred by Wentworth-Douglass was \$18,825 and \$14,033 in 2019 and 2018, respectively.

New Hampshire acute care hospitals receive disproportionate share payments based on a portion of their charity care relative to other acute care hospitals. Wentworth-Douglass received \$9,097 and \$9,796 in 2019 and 2018, respectively.

(in thousands of dollars)

#### Medicaid

Medicaid is a health insurance program jointly funded by the states and the federal government. Each state administers its own program and sets rules for eligibility, benefits and provider payments within broad federal guidelines and in some cases, including the Commonwealth and New Hampshire, within a Waiver Agreement between each state and the federal government. The program provides health care coverage to low-income adults and children. Eligibility is determined by a variety of factors which include income relative to the federal poverty line, age, immigrant status and assets.

Medicaid payments to Partners HealthCare's providers do not cover the full cost of services provided to Medicaid patients. In aggregate, reimbursement from Medicaid covered approximately 64% and 67% of the estimated cost of services provided in 2019 and 2018, respectively.

#### **Federal Program**

#### Medicare

Medicare is a federally sponsored health insurance program for people age 65 or older, under age 65 with certain disabilities and any age with End-Stage Renal Disease. Medicare's payments historically have not kept pace with increases in the cost of care provided at many hospitals. Additionally, payments to physicians have seen little or no increases over the past several years. Compounding this shortfall in payments is the continued shift of care from higher paying inpatient services to lower paying outpatient services.

Consequently, Medicare payments to Partners HealthCare's providers do not cover the full cost of services provided. In aggregate, reimbursement from Medicare covered approximately 73% and 72% of the estimated cost of services provided in 2019 and 2018, respectively.

(in thousands of dollars)

#### Summary

For charity care, Medicaid and Medicare, the estimated cost of services provided is either obtained directly from a costing system or based on an entity specific ratio of cost to gross charges. In the latter case, cost is derived by applying this ratio to gross charges associated with providing care to charity care, Medicaid and Medicare patients. The following summarizes, by program, the cost of services provided, net reimbursement and cost of services in excess of reimbursement for each year:

	Years Ended September 30,					
	2019			2018		
Cost of services provided						
Charity care	\$	84,758	\$	79,437		
Medicaid		1,216,139		1,179,095		
Medicare		3,947,938		3,604,603		
	\$	5,248,835	\$	4,863,135		
Net reimbursement						
Charity care	\$	40,251	\$	45,840		
Medicaid		781,013		789,822		
Medicare		2,876,749		2,596,740		
	\$	3,698,013	\$	3,432,402		
Cost of services in excess of reimbursement						
Charity care	\$	44,507	\$	33,597		
Medicaid		435,126		389,273		
Medicare		1,071,189		1,007,863		
	\$	1,550,822	\$	1,430,733		

In addition to charity care and inadequate funding from the Medicaid and Medicare programs, there are significant losses related to self-pay patients who fail to make payment for services rendered or insured patients who fail to remit co-payments and deductibles as required under the applicable health insurance arrangement. The estimated cost of providing these services was approximately \$70,743 and \$60,660 for 2019 and 2018, respectively.

#### 2. Summary of Significant Accounting Policies

#### **Basis of Accounting**

The accompanying consolidated financial statements have been prepared on the accrual basis of accounting and include the accounts of PHS and its affiliates. Significant interaffiliate accounts and transactions have been eliminated.

(in thousands of dollars)

#### **Use of Estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates are made in the areas of patient accounts receivable, research grants receivable, investments, receivables and accrual for settlements with third-party payers, accrued medical claims and related expenses, accrued employee compensation and benefits, accrued professional liability, interest rate swaps liability and accrued other.

#### **Income Taxes**

PHS and substantially all of its affiliates are tax-exempt organizations under Section 501(c)(3) or 501(c)(4) of the Internal Revenue Code (IRC) or disregarded entities for tax purposes.

In December 2017, the U.S. Government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (Tax Act). The Tax Act, effective in phases beginning in 2018, made broad and complex changes to the U.S. tax code. Beginning in 2018, the Tax Act required Partners HealthCare to consider certain transportation fringe benefits provided to employees as unrelated business taxable income (UBTI). In addition, beginning in 2019, Partners HealthCare was required to determine unrelated business income or loss on an activity-by-activity basis. Partners HealthCare evaluates opportunities to minimize its tax exposure on UBTI by use of tax credits permitted by the IRC. Total tax expense of \$3,750 and \$14,856 was recognized for the years ended September 30, 2019 and 2018, respectively.

#### **Adoption of New Accounting Guidance**

Partners HealthCare adopted the following new Accounting Standards Updates (ASU) in 2019: Revenue From Contracts with Customers (Revenue Standard); Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities (Financial Instruments Standard); Presentation of Financial Statements for Not-for-Profit entities (Not-For-Profit Standard); and Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made (Contributions Standard).

The Revenue Standard implements a single framework for recognition of all revenue earned from customers in exchange contracts. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services by allocating transaction price to identified performance obligations and recognizing revenue as performance obligations are satisfied. Qualitative and quantitative disclosures are required to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The Revenue Standard was adopted on October 1, 2018 using the modified retrospective transition method. The adoption of this standard did not have a significant impact on operations of Partners HealthCare and applicable disclosures have been included.

The Financial Instruments Standard made changes to the recognition of and measurement of financial assets. Partners HealthCare now records marketable investments at fair value with changes in fair value recognized as nonoperating investment income. The Financial Instruments Standard was adopted on October 1, 2018 with prospective application and a cumulative effect adjustment at the date of adoption. The impact of adopting this new accounting guidance resulted in a cumulative effect of accounting change of \$1,100,081 to unrestricted net assets and \$197,183 to donor restricted net assets.

(in thousands of dollars)

The Not-For-Profit Standard makes targeted changes to the not-for-profit financial reporting model. The primary change under the new guidance is the presentation of two net asset classes versus the previously required three. The guidance also requires new disclosure about information useful for assessing liquidity and availability of resources. The Not-For-Profit Standard was adopted on October 1, 2018 using the retrospective transition method. The adoption of this standard did not have a significant impact on operations of Partners HealthCare.

The Contributions Standard clarifies the definition of an exchange and non-exchange transaction and provides guidance on determining whether a non-exchange transaction (contribution) is conditional or unconditional. The Contributions Standard was adopted on October 1, 2018 using the modified prospective transition method. The adoption of this standard did not have a significant impact on operations of Partners HealthCare.

#### **Fair Value of Financial Instruments**

The fair value of financial instruments approximates the carrying amount reported in the consolidated balance sheets for cash and equivalents, investments and investments limited as to use, patient accounts receivable, research grants receivable, accounts payable and accrued expenses and interest rate swaps liability. More information can be found in Note 7, Fair Value Measurements.

#### **Cash and Equivalents**

Cash and equivalents represent cash, registered money market funds and highly liquid debt instruments with a maturity at the date of purchase of three months or less. Partners HealthCare's cash and equivalents are maintained with several national banks, and cash deposits typically exceed federal insurance limits. It is Partners HealthCare's policy to monitor these banks' financial strength on an ongoing basis, and no losses have been experienced to date.

#### **Investments**

Investments in equity securities with readily determinable fair values, debt securities and alternative investments are measured at fair value. Alternative investments, consisting of various hedge funds, private equity funds, private debt funds, other private partnerships and restricted securities of public companies that are not traded on a national securities exchange, are valued based on amounts reported by the fund manager and evaluated by management. Investments in securities sold short or traded on a national securities exchange are valued based on quoted market prices.

Income from investments (including realized gains and losses, unrealized change in value of investments, interest, dividends and endowment income distributions) is included in excess of revenues over expenses unless the income or loss is restricted by donor or law. Income from investments is reported net of investment-related expenses. Prior to the adoption of the Financial Instruments Standard, the change in net unrealized appreciation on certain marketable investments was excluded from excess of revenues over expenses.

Partners HealthCare has an endowment spending policy for pooled endowment funds. A fixed distribution rate for spending is determined each year which will come from either income and/or net accumulated appreciation.

(in thousands of dollars)

#### Investments Limited as to Use

Investments limited as to use primarily includes assets whose use is contractually limited by external parties as well as assets set aside by the boards (or management) for identified purposes and over which the boards (or management) retain control such that the boards (or management) may, at their discretion, subsequently use such assets for other purposes. Certain investments corresponding to deferred compensation are accounted for such that all income and appreciation (depreciation) is recorded as a direct addition (reduction) to the asset and corresponding liability.

#### **Derivative Instruments**

Derivatives are recognized on the balance sheet at fair value with changes in the fair value recorded in excess of revenues over expenses.

#### **Patient Accounts Receivable**

The payments received for healthcare services rendered from federal and state agencies (under the Medicare and Medicaid programs), managed care payers, commercial insurance companies and patients are subject to explicit and implicit discounts. These discounts are based on contractual agreements, discount policies and management's assessment of historical experiences and are reflected in the period of service.

#### **Research Grants Receivable**

Partners HealthCare receives research funding from departments and agencies of the U.S. Government, industry and other foundation sponsors. Research grants receivable include amounts due from these sponsors of externally funded research. These amounts have been billed or are billable to the sponsor, or in limited circumstances, represent accelerated spending in anticipation of future funding. Research grants receivable are reported at net realizable value.

As of September 30, 2019 and 2018, Partners HealthCare estimates it has approximately \$3,760,000 and \$3,329,000, respectively, of conditional research grants, subject to government appropriations, for future research to be performed. Timing and amounts of funds received are subject to continued government funding and may change over time.

#### **Other Current Assets**

Other current assets include prepaid expenses, inventory, nonpatient receivables, current portion of pledges receivable and premiums receivable. Inventory (primarily supplies and pharmaceuticals) is stated at an average cost or the lower of cost (first-in, first-out method) or market.

#### **Property and Equipment**

Property and equipment is reported on the basis of cost less accumulated depreciation. Donated items are recorded at fair value at the date of contribution. All research grants received for capital are recorded in the year of expenditure as a change in unrestricted net assets. Property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that its carrying amount may not be recoverable. Depreciation of property and equipment is calculated by use of the straight-line method at rates intended to depreciate the cost of assets over their estimated useful lives, which generally range from three to fifty years. Interest costs incurred on borrowed funds during the period of construction of capital assets are capitalized, net of any interest earned, as a component of the cost of acquiring those assets.

(in thousands of dollars)

#### **Asset Retirement Obligations**

Asset retirement obligations, reported in accrued other, are legal obligations associated with the retirement of long-lived assets. These liabilities are initially recorded at fair value and the related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Any changes to the liability due either to the passage of time, better information or the settlement of an obligation are reflected in the current period.

#### **Other Assets**

Other assets consist of long-term receivables, intangible assets, prepaid ground rent, malpractice insurance receivables (Note 16), receivable for settlements with third-party payers and investments in healthcare related limited partnerships. The carrying value of other assets is evaluated for impairment if the facts and circumstances suggest that the carrying value may not be recoverable.

#### **Compensated Absences**

In accordance with formal policies concerning vacation and other compensated absences, accruals of \$312,312 and \$298,910 were recorded as of September 30, 2019 and 2018, respectively.

#### **Unexpended Funds on Research Grants**

Research grants received in advance of corresponding grant expenditures are accounted for as a direct addition to investments limited as to use and unexpended funds on research grants.

#### **Self-Insurance Reserves**

Partners HealthCare is generally self-insured for employee healthcare, disability, workers' compensation and certain other employee benefits. These costs are accounted for on an accrual basis to include estimates of future payments for claims incurred prior to year end.

#### **Net Assets**

Donor restricted net assets include (a) the historical dollar amounts of gifts and the income and gains on such gifts which are required by donors to be retained and (b) gifts and the income and gains on these gifts which can be expended but for which restrictions have not yet been met. Such restrictions include purpose restrictions where donors have specified the purpose for which the net assets are to be spent, or time restrictions imposed by donors or implied by the nature of the gift (capital projects, pledges to be paid in the future and life income funds) or by interpretations of law (gains available for appropriation but not appropriated in the current period). Unrestricted net assets include all of the remaining net assets of Partners HealthCare. More information can be found in Note 18, Net Assets.

Realized gains and losses are classified as unrestricted net assets unless they are restricted by the donor or law. Realized gains and net unrealized appreciation on donor restricted gifts are classified as donor restricted until appropriated for spending by Partners HealthCare in accordance with policies established by Partners HealthCare and applicable Uniform Prudent Management of Institutional Funds Acts (UPMIFA). Net losses on donor restricted endowment funds are classified as a reduction to donor restricted net assets.

(in thousands of dollars)

#### **Contributed Securities**

Partners HealthCare's policy is to sell securities contributed by donors upon receipt, unless prevented from doing so by donor request. For the years ended September 30, 2019 and 2018, contributed securities of \$59,356 and \$64,080, respectively, were received and liquidated. Donors restricted \$18,949 and \$15,328 of the proceeds received from the sale of these contributed securities for long-term purpose for the years ended September 30, 2019 and 2018, respectively.

#### **Statement of Operations**

Activities deemed by management to be ongoing, major and central to the provision of healthcare services, teaching, research activities and health insurance are reported as operating revenues and expenses. Other activities are deemed to be nonoperating and include unrestricted gifts (net of fundraising expenses), external community benefit program support, net change in unexpended academic and research gifts, change in fair value of interest rate swaps, substantially all income (loss) from investments and interest on advanced borrowings. Academic and research gifts largely consist of donor contributions (and the related investment income including realized gains and losses) designated to support the clinical, teaching or research efforts of a physician or department as directed by the donor. These gifts are reported as unrestricted, net of related support expenses, when donor restrictions are of a general nature that are inherent in the normal activities of the organization.

The consolidated statements of operations includes excess of revenues over expenses. Changes in unrestricted net assets, which are excluded from excess of revenues over expenses, include change in net unrealized appreciation on marketable investments (in 2018), contributions of long-lived assets (including assets acquired using contributions which by donor restriction were to be used for acquisition of such assets), change in funded status of defined benefit plans and cumulative effect of accounting change.

#### Revenues

To determine the appropriate revenue recognition policy, Partners HealthCare first assesses whether the transaction is an exchange or non-exchange transaction in accordance with accounting guidance. In general, an exchange transaction consists of an exchange of goods and/or services for commensurate value. Transactions that consist of transferring goods and/or services without receiving commensurate value in return are considered non-exchange transactions.

For exchange transactions, revenue is recognized as goods and/or services are provided and is based on the amount expected to be received in exchange for those goods and/or services. Revenue recognized as exchange transactions include: net patient service revenue, premium revenue and other revenue.

Non-exchange transactions include contributions and grants for which the service provider does not receive commensurate value in return for the funding.

#### **Gifts**

Gifts are reported as other nonoperating gains in the consolidated statements of operations. Unconditional promises to give cash and other assets to Partners HealthCare are reported at fair value at the date the promise is received. Conditional promises to give are recognized when the conditions are substantially met. Gifts are reported as donor restricted support if they are received with donor stipulations that limit the use of the donated assets. Donor restricted contributions whose restrictions are met within the same year as received are reported as unrestricted gifts in the consolidated statements of operations.

(in thousands of dollars)

Gifts of long-lived assets with explicit restrictions that specify use of assets and gifts of cash or other assets that must be used to acquire long-lived assets are reported as additions to donor restricted net assets if the assets are not placed in service during the year.

#### Grants

Grants and contracts normally provide for the recovery of direct and indirect costs, subject to audit. Partners HealthCare recognizes revenue associated with direct and indirect costs as direct costs are incurred. The recovery of indirect costs is based on predetermined rates for U.S. Government grants and contracts and negotiated rates for other grants and contracts.

#### **Medical Claims and Related Expenses**

AllWays Health contracts with various community health centers, hospital-based primary care physician practices and other health care providers for the delivery of services to its members and compensates these providers on a capitated, fee-for-service, per diem or diagnosis-related group (DRG) basis.

The cost of contracted health care services is accrued in the period in which services are provided and include certain estimated amounts. The estimated liability for medical claims and related expenses is actuarially determined based on analysis of historical claims-paid experience, modified for changes in enrollment, inflation and benefit coverage. The liability for medical claims and related expenses represents the anticipated cost of claims incurred but unpaid at the balance sheet date. The estimates for claims expense may be more or less than the amounts ultimately paid when claims are settled. Such changes in estimates are reflected in the current period in the consolidated statements of operations.

In the normal course of business, AllWays Health identifies and recoups overpayments through reductions in future payments made to providers and hospitals. Such overpayments are the result of, among other things, coordination of benefits and provider claim audits. For the years ended September 30, 2019 and 2018, AllWays Health recorded a reduction in its medical claims expense of \$32,213 and \$37,061, respectively, for such overpayments. As of September 30, 2019 and 2018, approximately \$803 and \$2,519, respectively, are recorded as receivables related to such overpayments.

#### Reinsurance

Reinsurance premiums are reported in medical claims and related expenses and reinsurance recoveries are reported as reductions in medical claims and related expenses.

#### **Settlements**

AllWays Health contracts with certain providers at negotiated rates based on historical and anticipated experience. These methods of reimbursement result in settlements based on actual versus anticipated experience which could result in either payments due from (to) these providers. Settlements receivable of \$2,423 and \$798 were recorded in other current assets as of September 30, 2019 and 2018, respectively. Settlements payable of \$701 and \$6,259 were recorded in accrued medical claims and related expenses as of September 30, 2019 and 2018, respectively. The settlements are intended to include both reported and unreported incurred claims as of September 30, 2019 and 2018.

(in thousands of dollars)

In 2014, the Affordable Care Act introduced new settlements related to a risk adjustment program, a risk corridor program and a reinsurance program designed to mitigate the transitional impact on insurers for new members. The risk corridor program and reinsurance program ended on December 31, 2016 in accordance with the provision of the Affordable Care Act. AllWays Health's estimated net receivable due from the federal government for these programs was \$56,370 and \$72,526 at September 30, 2019 and 2018, respectively. Similar to the federal program, Executive Office of Health and Human Services of the Commonwealth (EOHHS) has a risk corridor program, and AllWays Health's estimated net payable due to EOHHS was \$7,848 and \$388 as of September 30, 2019 and 2018, respectively.

#### **Premium Deficiency Reserves**

Premium deficiency reserves are assessed and recognized on a product line basis based upon expected premium revenue, medical expense and administrative expense levels, and remaining contractual obligations using historical experience. There were no premium deficiency reserves as of September 30, 2019 or 2018.

#### **Claims Adjustment Expenses**

Claims adjustment expenses (CAE) are those costs expected to be incurred in connection with the adjustment and recording of health claims. AllWays Health has recorded an estimate of unpaid CAE associated with incurred but unpaid claims, which is included in medical claims and related expenses in the accompanying consolidated statements of operations. Management believes the amount of the liability for unpaid CAE as of September 30, 2019, is adequate to cover AllWays Health's cost for the adjustment and recording of unpaid claims; however, actual expenses may differ from those established estimates. Adjustments to the estimates for unpaid CAE are reflected in operating results in the period in which the change in estimate is identified (Note 11).

#### **Recent Accounting Guidance**

In February 2016, the FASB issued Accounting Standards Updates (ASU) 2016-02, *Leases (Topic 842)*, which requires a lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The standard is effective for Partners HealthCare in 2020, and management is evaluating the impact of this standard on the consolidated financial statements by reviewing the key terms of all lease contracts and implementing new processes and procedures to comply with this standard.

In March 2017, the FASB issued ASU 2017-07, Compensation – Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The standard requires that the service cost component be presented in the same line item(s) as other employee compensation costs and that the remaining components be presented separately from those line items and outside of operations. The standard is effective for Partners HealthCare in 2020, and amounts related to non-service cost components of pension expense will be reclassified from employee compensation and benefit expenses to nonoperating gains (expenses). The adoption of this guidance is expected to reduce income from operations and increase nonoperating gains (expenses) with no impact on excess of revenues over expenses in the consolidated statements of operations.

#### Reclassification

Due to the adoption of new accounting guidance, net asset classes in the 2018 consolidated financial statements have been reclassified to conform with the 2019 presentation.

Unrestricted net assets (in non-operating gains)

(in thousands of dollars)

#### 3. Acquisitions

MEEI contributed their net assets to PHS on April 1, 2018. As a result, contribution income recorded at the fair value of contributed net assets on the transaction day is reflected in the consolidated statements of changes in net assets as follows:

\$

157,312

Donor restricted net assets	 166,281
	\$ 323,593
Assets, liabilities and net assets assumed as of the acquisition date are as follows:	
Assets	
Cash and cash equivalents	\$ 11,716
Investments and investments limited as to use	282,733
Patient accounts receivable, net	27,650
Property and equipment, net	190,854
Other assets	 67,692
Total assets acquired	\$ 580,645
Liabilities	
Long-term obligations	\$ 132,671
Accounts payable and accrued expenses	32,608
Accrued employee compensation and benefits	14,099
Accrual for settlements with third-party payers	4,936
Other liabilities	72,738
Total liabilities assumed	 257,052
Net assets	
Unrestricted	157,312
Donor restricted	166,281
Total net assets	323,593
Total liabilities and net assets	\$ 580,645

(in thousands of dollars)

A summary of the financial results of MEEI from April 1, 2018 through September 30, 2018 included in the consolidated s of operations and changes in net assets is as follows:

Total operating revenue	\$ 220,061
Total operating expenses	 217,011
Income from operations	3,050
Nonoperating gains, net	5,096
Excess of revenues over expenses	8,146
Other changes	159,180
Increase in unrestricted net assets	\$ 167,326

A summary of the consolidated financial results of Partners HealthCare for the year ended September 30, 2018, as if the transaction had occurred on October 1, 2017 is as follows (unaudited):

Total operating revenue	\$ 13,518,035
Total operating expenses	13,210,836_
Income from operations	307,199
Nonoperating gains, net	520,708
Excess of revenues over expenses	827,907
Pension related changes Other changes	399,318 (40,406)
Increase in unrestricted net assets	\$ 1,186,819

2018

For the year ended September 30, 2018, Partners HealthCare made multiple smaller acquisitions for a combined purchase price, net of cash acquired, of \$5,761. In accordance with accounting standards, the purchase price was allocated first to tangible assets and then intangible assets.

### 4. Operating Revenues

#### **Net Patient Service Revenue**

Partners HealthCare maintains agreements with The Centers for Medicare and Medicaid Services under the Medicare program, the Commonwealth under the Medicaid program and various managed care payers that govern payment for services rendered to patients covered by these agreements. The agreements generally provide for per case or per diem rates or payments based on discounted charges for inpatient care and discounted charges or fee schedules for outpatient care. Certain contracts also provide for payments that are contingent upon meeting agreed upon quality and efficiency measures.

(in thousands of dollars)

Partners HealthCare recognizes net patient service revenue associated with services provided to patients who have third-party payer coverage on the basis of contractual rates for the services rendered. For uninsured patients that do not qualify for charity care, Partners HealthCare recognizes revenue on the basis of its standard rates (subject to discounts) for services provided. On the basis of historical experience, a significant portion of uninsured patients are unable or fail to pay for the services provided. Consequently, Partners HealthCare determined it has provided implicit discounts to uninsured patients in accordance with the Revenue Standard. These discounts represent the difference between amounts billed to patients and amounts expected to be collected based on historical experience. Prior to the adoption of the Revenue Standard, a provision for bad debts of \$165,861 was recorded in 2018 that represented charges for services provided that were deemed to be uncollectible. The following summarizes net patient service revenue, net of contractual allowances and discounts by significant payer:

	Years Ended September 30,					
	2019 20			20	2018	
Net patient service revenue (net of contractual allowances and discounts)						
Medicare	\$ 2,495,102	24.6%	\$	2,225,006	24.1%	
Medicare managed care	446,198	4.4%		345,086	3.7%	
Medicaid	651,594	6.4%		560,914	6.1%	
Medicaid managed care	151,204	1.5%		194,510	2.1%	
Massachusett's managed care organizations	3,970,248	39.1%		3,963,921	42.9%	
Other commercial	1,906,389	18.8%		1,436,003	15.5%	
All others	 524,415	5.2%		513,678	5.6%	
Total all payers	\$ 10,145,150	100.0%	\$	9,239,118	100.0%	

Net patient service revenue includes estimated retroactive revenue adjustments due to future audits, reviews and investigations. Retroactive adjustments are considered in the recognition of revenue on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known or as years are no longer subject to such audits, reviews and investigations. Contracts, laws and regulations governing the Medicare, Medicaid and charity care programs and managed care payer arrangements are complex and subject to interpretation. As a result, there is at least a reasonable possibility that recorded estimates will change by a material amount in the near term. A portion of the accrual for settlements with third-party payers has been classified as long-term because such amounts, by their nature or by virtue of regulation or legislation, will not be paid within one year.

(in thousands of dollars)

Third-party payers receivable (accrual) consists of the following:

	September 30,				
		2019		2018	
Current portion					
Receivable for settlements with third-party payers	\$	116,791	\$	115,561	
Accrual for settlements with third-party payers		(75,287)		(68,711)	
		41,504		46,850	
Long-term portion					
Receivable for settlements with third-party payers included in other assets		10,776		5,774	
Accrual for settlements with third-party payers included in accrued other		(26,989)		(29,220)	
		(16,213)		(23,446)	
Third-party payers receivable (accrual)	\$	25,291	\$	23,404	

Partners HealthCare recognizes changes in third-party payer settlements and other estimates in the year of the change in estimate. For the years ended September 30, 2019 and 2018, adjustments to prior year estimates resulted in an increase to income from operations of \$40,448 and \$51,677, respectively. Subsequent changes to estimated discounts are generally recorded as adjustments to net patient service revenue in the period of change.

Partners HealthCare provides either full or partial charity care to patients who cannot afford to pay for their medical services based on income and family size. Charity care is generally available to qualifying patients for medically necessary services. Partners HealthCare reports certain bad debts related to emergency services as charity care. As there is no expectation of collection, there is no net patient service revenue recorded related to charity care.

#### **Premium Revenue**

Premiums are due monthly and are recorded as earned during the period in which members are eligible to receive services. Premiums received prior to the first day of the coverage period are recorded as unearned premiums in accounts payable and accrued expenses.

#### **Academic and Research Revenue**

Academic and research revenue is recognized as either an exchange or non-exchange transaction, depending on the contract type. The following table sets forth total academic and research revenue received by Partners HealthCare by funding source:

	Years Ended September 30,					
	2019			2018		
National Institute of Health and other federal agencies	\$	890,493	43.3%	\$	844,826	44.3%
Federal subcontracts		188,008	9.1%		184,134	9.7%
Industry/Corporate		162,670	7.9%		156,536	8.2%
Foundations/non-profits and other sponsors		583,800	28.4%		521,625	27.4%
Total research revenue		1,824,971			1,707,121	
Academic revenue		232,361	11.3%		198,905	10.4%
Total academic and research revenue	\$	2,057,332	100.0%	\$	1,906,026	100.0%

(in thousands of dollars)

#### Other Revenue

Other revenue includes all other operating revenue sources, the most significant being the following:

	Years Ended September 30,						
	<u></u>	2019	2018				
Specialty and retail pharmacy operations	\$	178,994	\$	70,774			
Intellectual property and royalties Parking and office rentals		96,558 76,110		30,287 73,237			
Tuition		61,993		59,109			
Outsourced services		38,729		39,132			
Cafeteria sales Contract administrative fees		37,729 33,410		34,511 33,228			
International contracts		31,246		32,107			
Blood factor sales		27,530		16,713			
Accountable care organization administration fees		21,118		14,193			
Consulting services Investment income		15,004 13,750		14,166			
Other		13,759 325,319		13,712 310,467			
Total other revenue	\$	957,499	\$	741,636			

#### 5. Liquidity and Availability

Cash and investments are managed centrally by PHS under policies developed by the Investment Committee and reviewed by the Finance Committee of the PHS Board of Directors. Wherever possible, funds are commingled and are assigned to one of three investment pools (the Money Market Pool, the Aggregate Bond Pool and the Long Term Pool, collectively, the Pools) which have been structured to provide a range of investment objectives, risk profiles and rates of return appropriate for Partners HealthCare's assets. Funds are allocated among the Pools based on expected liquidity needs as determined by multi-year financial plans, restrictions and management judgment.

The tiered time horizon structure of the Pools is designed to meet anticipated and contingent liquidity needs. The following table sets forth the periods within which funds are available to meet liquidity needs and Pools, based on redemption provisions with investment managers, from which such funds would be drawn as of September 30, 2019:

Investment Pool	S	ame Day	1 Week	1 Month	3 Months	1 Year	> 1 Year	Total
Money market Aggregate bond Long term	\$	251,956 459,594 31,011	\$ - 70,043 1,593,065	\$ - 60,856 2,236,094	\$ - - 1,716,957	\$ - - 837,611	\$ - - 3,455,405	\$ 251,956 590,493 9,870,143
Total	\$	742,561	\$ 1,663,108	\$ 2,296,950	\$ 1,716,957	\$ 837,611	\$ 3,455,405	\$ 10,712,592
Cumulative total	\$	742,561	\$ 2,405,669	\$ 4,702,619	\$ 6,419,576	\$ 7,257,187	\$ 10,712,592	

(in thousands of dollars)

As of September 30, 2019, the market value of the Money Market pool was \$251,956, all of which was comprised of same day available funds. As of September 30, 2019, the market value of the Aggregate Bond Pool was \$590,493, of which \$459,594 was comprised of same day available funds, which include cash and U.S. Treasuries. Of the remaining \$130,899, \$70,043 was comprised of separately managed mortgage and asset-backed securities and corporate bonds which could be liquidated within one week, while \$60,856 was invested in a commingled fixed income vehicle which could be liquidated within one month.

As of September 30, 2019, Partners HealthCare also had cash and equivalents not included in the Pools of \$198,775 and net patient accounts receivable of \$1,129,594 that would be available for general expenditures within one year of the balance sheet date.

In addition, Partners HealthCare maintains a \$150,000 Credit Agreement (the Credit Agreement) that provides access to same day funds.

#### 6. Investments and Investments Limited as to Use

Investments are either invested in the Pools or separately managed. Substantially all of the affiliates, along with PHS, participate in the Pools. Their respective ownership interests are tracked and updated monthly and are accounted for using the fair value method. Income (including realized gains and losses) from the Pools is allocated to each participant on a monthly basis based on its proportionate interest in the Pools.

Oversight of the management of Partners HealthCare's investable assets, including the Pools and pension assets, is provided by the Investment Committee of PHS Board of Directors which seeks to achieve incremental returns by manager selection and asset allocation (increasing/decreasing allocations within allowable ranges based on current and projected valuations). The Committee is supported by a professional staff, an outside investment consultant and a pension actuarial consultant.

Partners HealthCare utilizes a target allocation policy and balances projected returns, correlation and volatility of various asset classes within the overall risk tolerance. Asset allocations are managed based on relative valuations among and within asset classes and the perceived ability of managers to outperform passive benchmarks. Exposure by asset class is the sum of allocation to those mangers whose mandates most closely fit the listed asset classes. Asset allocation can and will deviate from target exposures and is regularly monitored for rebalancing.

The Pools invest in a variety of assets which include private partnerships whose assets include equity, fixed income and other investments. As of September 30, 2019, the Pools have unfunded commitments of approximately \$1,215,079 which will be drawn down by the various general partners over the next several years. The maximum annual drawdown is expected to be 3% to 5% of investments and investments limited as to use.

(in thousands of dollars)

Investments and investments limited as to use are recorded in the balance sheet as follows:

	September 30,					
	2019			2018		
Current assets						
Investments	\$	2,791,502	\$	1,942,117		
Current portion of investments limited as to use		2,235,171		1,465,354		
		5,026,673		3,407,471		
Long-term assets						
Investments limited as to use, less current portion		4,498,716		3,716,162		
Long-term investments		1,997,617		1,628,972		
	\$	11,523,006	\$	8,752,605		

Investments limited as to use consist of the following:

	Septemb	30, 2019	September 30, 2018			
	Current		Long-Term	Current		.ong-Term
	Portion		Portion	Portion		Portion
Internally designated funds						
Reserved for capital expenditures	\$ 1,153,160	\$	-	\$ 885,548	\$	-
Unexpended academic and research gifts	-		3,659,920	-		2,951,821
Deferred compensation	-		405,032	-		355,294
Other	 612,505		398,384	 253,006		377,477
	1,765,665		4,463,336	1,138,554		3,684,592
Externally limited funds						
Unexpended funds on research	262,017		-	284,178		-
Contributions held for others	2,051		-	1,610		-
Professional liability trust fund	-		35,380	-		31,570
Held by trustees under debt and other						
agreements	205,438		-	 41,012		-
	 469,506		35,380	 326,800		31,570
	\$ 2,235,171	\$	4,498,716	\$ 1,465,354	\$	3,716,162

(in thousands of dollars)

Investments and investments limited as to use as of September 30, 2018 was reported at either fair value or on the equity or cost methods of accounting. The composition of these investments, segregated between pooled investments and those that are separately invested, was as follows:

	September 30, 2018								
	At Fair Value			On Equity Method	On Cost Method			Total	
Pooled investments									
Invested cash equivalents	\$	47,324	\$	-	\$	-	\$	47,324	
Separately managed investments		1,647,937		-		-		1,647,937	
Mutual funds		63,370		-		-		63,370	
Commingled funds		1,524,184		-		-		1,524,184	
Private partnerships		-		1,889,786		2,702,139		4,591,925	
		3,282,815		1,889,786		2,702,139		7,874,740	
Separately invested									
Invested cash equivalents		128,063		-		55		128,118	
Equities		6,397		-		49,163		55,560	
Fixed income securities		24,176		-		-		24,176	
Mutual funds		559,945		-		6		559,951	
Other		32,186		-		77,874		110,060	
		750,767		-		127,098		877,865	
	\$	4,033,582	\$	1,889,786	\$	2,829,237	\$	8,752,605	

Separately managed investments include cash and equivalents of \$174,368, equities of \$915,935 and fixed income securities of \$557,634 as of September 30, 2018.

(in thousands of dollars)

Investment income and gains (losses) from cash and equivalents, investments, investments limited as to use and beneficial interests in perpetual trusts comprise the following:

	Years Ended September 30					
		2019	2018			
Unrestricted						
Dividends, interest and other income	\$	55,891	\$	51,491		
Endowment income distributions, net of reinvested gains	•	57,559	,	46,234		
Net realized gains (losses) on investments		•		,		
Realized gains		419,858		273,474		
Other-than-temporary impairment		-		(58,845)		
Change in unrealized appreciation of investments		(97,045)		66,002		
Total investment activity included in excess of						
revenues over expenses		436,263		378,356		
Change in net unrealized appreciation on marketable						
investments		_		(90,243)		
Total unrestricted investment activity		436,263		288,113		
Donor restricted						
Dividends and interest income		5,630		24,794		
Endowment income distributions		(69,519)		(60,520)		
Net realized gains (losses) on investments						
Realized gains		91,044		58,944		
Other-than-temporary impairment		-		(8,750)		
Change in unrealized appreciation of investments		(32,691)		21,223		
Change in net unrealized appreciation on marketable investments		-		8,449		
Change in value of beneficial interests in perpetual trusts		916		841		
Total donor restricted investment activity		(4,620)		44,981		
Total investment income and gains (losses)	\$	431,643	\$	333,094		

(in thousands of dollars)

Investment income included in operating results and excess of revenues over expenses comprise the following:

	Years Ended September 30,						
		2019	2018				
Investment income included in operations and reported in other revenue	\$	13,759	\$	13,712			
Investment income included in nonoperating gains and reported in							
Income from investments		182,829		198,118			
Academic and research gifts, net of expenses		239,675		166,526			
Total investment activity included in excess of revenues over expenses	\$	436,263	\$	378,356			

#### 7. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (also referred to as exit price). Therefore, a fair value measurement should be determined based on the assumptions that market participants would use in pricing the asset or liability. In determining fair value, the use of various valuation approaches, including market, income and cost approaches, is permitted.

#### **Fair Value Hierarchy**

A fair value hierarchy has been established based on whether the inputs to valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the reporting entity's assumptions about the inputs market participants would use. The fair value hierarchy requires the reporting entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. In addition, for hierarchy classification purposes, the reporting entity should not look through the form of an investment to the nature of the underlying securities held by an investee.

The hierarchy is described below.

Level 1 Valuations using quoted prices in active markets for identical assets or liabilities.

Valuations of these products do not require a significant degree of judgment. Level 1 assets and liabilities primarily include debt and equity securities that are traded in an active exchange market.

(in thousands of dollars)

#### Level 2

Valuations using observable inputs other than Level 1 prices such as quoted prices in active markets for similar assets or liabilities; quoted prices for identical or similar assets or liabilities in markets that are not active; broker or dealer quotations; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities primarily include debt securities with quoted prices that are traded less frequently than exchange-traded instruments as well as debt securities and derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data.

#### Level 3

Valuations using unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Level 3 includes assets and liabilities whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques reflecting the reporting entity's assumptions about the assumptions market participants would use as well as those requiring significant management judgment.

#### **Valuation Techniques**

Pooled investments, separately invested cash equivalents and debt and equity securities are classified within Level 1 or Level 2 of the fair value hierarchy as they are valued using quoted market prices, broker or dealer quotations, or other observable pricing sources. Certain types of investments are classified within Level 3 of the fair value hierarchy because they have little or no market activity and therefore have little or no observable inputs with which to measure fair value.

The valuation of interest rate swaps is determined using widely accepted valuation techniques, including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities.

(in thousands of dollars)

The following tables summarize fair value measurements as of September 30, 2019 and 2018 for financial assets and liabilities measured at fair value on a recurring basis:

	Fair Value Measurements Using									
		Quoted Prices in Active Markets for Identical Items (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Inobservable Inputs (Level 3)		nvestments Valued ing NAV as a Practical Expedient	Fair Value at September 30 2019	
Assets										
Pooled investments										
Invested cash equivalents	\$	77,760	\$	174,195	\$	-	\$	-	\$	251,955
Separately managed investments		1,697,302		265,838		-		-		1,963,140
Mutual funds		70,043		-		-		-		70,043
Commingled funds		-		1,451,470		-		-		1,451,470
Private partnerships and other				-	_	-		6,975,984		6,975,984
		1,845,105		1,891,503		-		6,975,984		10,712,592
Separately invested										
Invested cash equivalents		124,688		=		-		=		124,688
Equities		36,266		-		-		-		36,266
Mutual funds		534,423		33,874		-		-		568,297
Beneficial interests in										
perpetual assets		-		-		50,457		-		50,457
		695,377		33,874		50,457		-		779,708
	\$	2,540,482	\$	1,925,377	\$	50,457	\$	6,975,984	\$	11,492,300
Interest rate swaps			•	(540, 570)					•	(540, 570)
Liabilities			\$	(510,579)					\$	(510,579)

(in thousands of dollars)

		Fair Va					
	i Ma Ider	oted Prices n Active arkets for ntical Items Level 1)	Significant Other Observable Inputs (Level 2)			Significant Inobservable Inputs (Level 3)	 ir Value at otember 30, 2018
Assets							
Pooled investments							
Invested cash equivalents	\$	14,626	\$	32,698	\$	-	\$ 47,324
Separately managed investments		1,379,248		268,689		-	1,647,937
Mutual funds		63,370		-		-	63,370
Commingled funds				1,524,184			 1,524,184
		1,457,244		1,825,571			 3,282,815
Separately invested							
Invested cash equivalents		128,063		-		-	128,063
Equities		6,397		-		-	6,397
U.S. Government and domestic							
fixed income securities		24,176		-		-	24,176
Mutual funds		559,945		-		-	559,945
Beneficial interests in							
perpetual assets		-		-		32,186	 32,186
		718,581				32,186	 750,767
	\$	2,175,825	\$	1,825,571	\$	32,186	\$ 4,033,582
Interest rate swaps							
Assets			\$	15,243			\$ 15,243
Liabilities				(254,295)			 (254,295)
Net			\$	(239,052)			\$ (239,052)

(in thousands of dollars)

#### 8. Pledges and Contributions Receivable

Pledges receivable represent unconditional promises to give and are net of allowances for uncollectible amounts. Pledges are recorded at the present value of their estimated future cash flows. Pledges collectible within one year are classified as other current assets, net of allowances, and total \$107,586 and \$95,292 as of September 30, 2019 and 2018, respectively. Estimated cash flows due after one year are discounted using published treasury bond and note yields that are commensurate with estimated collection risks. The blended discount rate was 1.6% and 2.9% for 2019 and 2018, respectively. Pledges are expected to be collected as follows:

	September 30,				
	2019			2018	
Amounts due					
Within one year	\$	127,396	\$	111,277	
In one to five years		178,196		160,865	
In more than five years		60,339		67,349	
Total pledges receivable		365,931		339,491	
Less: Unamortized discount		11,714		20,955	
		354,217		318,536	
Less: Allowance for uncollectibles		24,138		20,937	
Net pledges receivable		330,079		297,599	
Contributions receivable from trusts		62,431		44,644	
	\$	392,510	\$	342,243	

## 9. Property and Equipment

Property and equipment consists of the following:

September 30,					
	2019		2018		
\$	341,650	\$	269,280		
	8,287,126		7,961,709		
	2,957,515		2,996,429		
	609,146		519,291		
	12,195,437		11,746,709		
	5,638,231		5,344,999		
\$	6,557,206	\$	6,401,710		
	\$	\$ 341,650 8,287,126 2,957,515 609,146 12,195,437 5,638,231	\$ 341,650 \$ 8,287,126 2,957,515 609,146 12,195,437 5,638,231		

(in thousands of dollars)

Depreciation expense for the years ended September 30, 2019 and 2018 was \$681,807 and \$670,132, respectively. Interest costs, net of interest earned, aggregating \$7,406 and \$5,032 were capitalized in 2019 and 2018, respectively.

For the years ended September 30, 2019 and 2018, fully depreciated assets with an original cost of \$388,575 and \$295,348, respectively, were written off.

#### 10. Levels of Capital and Surplus

Risk-based capital (RBC) is a methodology adopted by the National Association of Insurance Commissioners (NAIC) for determining the minimum level of capital and surplus deemed necessary for an insurer based upon the types of assets held and business written. Pursuant to a guaranty entered into by PHS when it acquired AllWays Health in 2012 (the RBC Guaranty), PHS has committed to maintain AllWays Health's capital and surplus at a specified minimum level, measured quarterly in accordance with an RBC methodology permitted by the Massachusetts Division of Insurance (DOI). The RBC Guaranty may be enforced by the DOI. In 2019, AllWays Health returned capital of \$100,000 to PHS. In 2018, PHS provided capital to AllWays Health of \$4,000. AllWays Health's current contract with EOHHS requires AllWays Health to maintain a minimum net worth and/or financial insolvency insurance in an amount equal to the Minimum Net Worth calculation as defined in Massachusetts General Law 176G, Section 25. At December 31, 2018 and 2017 (AllWays Health's statutory year end), the minimum net worth requirement, as determined in accordance with EOHHS guidelines, was \$64,942 and \$143,774, respectively. AllWays Health's statutory net worth was \$271.421 and \$337.126 at December 31, 2018 and 2017. respectively, and thus exceeded the EOHHS requirements by \$206,479 and \$193,352, respectively.

#### 11. Accrued Medical Claims and Related Expenses

Accrued medical claims and related expenses include estimates of expected trends in claims severity, frequency, and other factors, which could vary as the claims are ultimately settled and are based principally upon historical experience. For the years ended September 30, 2019 and 2018, changes in estimates resulted in a decrease of accrued medical claims and related expense of \$3,613 and \$7,796, respectively. Increases (decreases) of this nature occur as the result of claim settlements and recoveries during the current year and as additional information is received regarding individual claims, causing changes from the original estimates of the cost of these claims. Ongoing analysis of the recent loss development trends is also taken into account in evaluating the overall adequacy of the reserves.

(in thousands of dollars)

Changes in accrued medical claims and related expenses are as follows:

	2019	2018
Balance at beginning of year	\$ 64,398	\$ 196,037
Less:	(004)	(0.500)
Accrual for claims adjustment expenses	(994) (0.874)	(3,523)
Accrued medical payables - other Plus: Settlements payable, net	(9,874) 30,506	(7,197) 18,286
rius. Gettierierits payable, net	,	 ·
Net balance at beginning of year	84,036	 203,603
Incurred related to		
Current year	559,723	1,001,666
Prior years	 (3,613)	(7,796)
Total incurred	556,110	993,870
Paid related to		
Current year	487,195	935,878
Prior years	63,985	 177,559
Total paid	551,180	1,113,437
Net balance at end of year	88,966	84,036
Plus:		
Accrual for claims adjustment expenses	3,040	994
Accrued medical payables - other	1,154	9,874
Less: Settlements payable, net	(35,610)	 (30,506)
Balance at end of year	\$ 57,550	\$ 64,398

Medical claims and related expenses in the accompanying consolidated statements of operations include other nonclaims related costs. These nonclaims related expenses were for directly delivered services and medical cost risk sharing and incentives.

(in thousands of dollars)

## 12. Long-Term Obligations

Long-term obligations issued by PHS and its affiliates consist of the following:

	September 30,			
		2019		2018
Massachusetts Health and Educational Facilities Authority (Authority) Revenue Bonds				
Series F*, variable interest rate of 1.71% and 1.57%, final maturity in 2040	\$	231,300	\$	232,850
Series G*, variable interest rate of 1.90% and 1.61%, final maturity in 2042		75,000		75,000
Series H*, variable interest rate of 1.38% and 1.59%, final maturity in 2042		167,700		170,005
Series I*, average fixed interest rate of 4.76%, final maturity 2020		18,175		29,480
Series J*, average fixed interest rate of 5.00%, final maturity in 2024		49,035		70,370
Series P*, variable interest rate of 1.54% and 1.52%, final maturity in 2027		150,000		150,000
Massachusetts Development Finance Agency (Agency) Revenue Bonds				
Series K*, average fixed interest rate of 4.75%, variable interest rate				
of 1.56% and 1.53%, final maturity in 2046		122,170		136,360
Series L, average fixed interest rate of 4.93%, final maturity in 2032		87,705		95,065
Series M*, average fixed interest rate of 4.96%, variable interest rate				
of 1.75% and 1.59%, final maturity in 2048		295,000		347,500
Series N*, variable interest rate of 2.06% and 2.07%, final maturity in 2044		131,300		132,850
Series O*, average fixed interest rate of 4.58%, variable interest rate		,		,,,,,,,
of 2.06% and 2.04%, final maturity in 2050		307,840		312,040
Series Q*, average fixed interest rate of 4.80%, final maturity in 2047		420,280		422,695
Series R*, variable interest rate of 1.97% and 1.99%, final maturity in 2052		100,000		100,000
Series S*, average fixed interest rate of 4.63%, variable interest rate		.00,000		.00,000
of 2.05% and 2.03%, final maturity in 2047		942,850		948,105
Series T*, variable interest rate of 2.12%, final maturity of 2049		158,250		-
MEEI Series D*, variable rate of n/a and 3.31%, final maturity in 2038		-		54,703
New Hampshire Health and Education Facilities Authority Revenue Bonds				0.,.00
Series 2017, average fixed interest rate of 5.00%, final maturity in 2041		97,405		99,565
PHS Taxable Debt		01,100		00,000
Series 2007 taxable bonds, fixed interest rate of 6.26%, final maturity in 2037		100,000		100,000
Series 2011 taxable bonds, fixed interest rate of 3.44%, final maturity in 2021		250,000		250,000
2012 Taxable Senior Notes, fixed interest rate of 4.11%, final maturity in 2052		400,000		400,000
2014 Taxable Senior Notes, fixed interest rate of 4.73%, final maturity in 2044		150,000		150,000
Series 2015 taxable bonds, fixed interest rate of 4.12%, final maturity in 2055		300,000		300,000
2016 Taxable Senior Notes, fixed interest rate of 3.89%, final maturity in 2046		225,000		225,000
Series 2017 taxable bonds, fixed interest rate of 3.77%, final maturity in 2048		303,644		303,644
2018 Taxable Senior Notes, fixed interest rate of 4.60%, final maturity in 2049		400,000		-
Other obligations		6,912		10,308
Line of credit		· -		52,848
Capital lease obligations		1,870		3,181
Total long-term obligations, par value		5,491,436		5,171,569
Unamortized discounts and premiums, net		247,170		259,487
Deferred financing costs		(23,245)	_	(25,698)
Total long-term obligations, net		5,715,361		5,405,358
Less: Current portion		455,165	_	459,390
	\$	5,260,196	\$	4,945,968

<sup>\*</sup> Denotes series is issued in multiple subseries.

Variable interest rates are presented at September 30, 2019 and 2018, respectively.

(in thousands of dollars)

Aggregate maturities and payments of long-term obligations during the next five years and thereafter (including the impact of unamortized discounts and premiums, net and deferred financing costs) and other amounts classified as current liabilities, are as follows:

	_	Scheduled Maturities	He	Bonds pported by Partners ealthCare Liquidity	Bonds pported by Bank Facilities	Total
2020	\$	83,720	\$	215,195	\$ 156,250	\$ 455,165
2021		332,354		-	-	332,354
2022		101,303		-	-	101,303
2023		103,969		-	-	103,969
2024		109,812		-	-	109,812
Thereafter		4,612,758			 	 4,612,758
	\$	5,343,916	\$	215,195	\$ 156,250	\$ 5,715,361

The scheduled maturities represent annual payments as required under debt repayment schedules. The current portion of long-term obligations includes the payments scheduled to be made in 2020, bonds supported by Partners HealthCare liquidity that can be tendered prior to September 30, 2020, and bonds supported by bank facilities with financial institutions (standby bond purchase agreements or letters of credit) that expire prior to September 30, 2020. The bonds supported by Partners HealthCare liquidity provide the bondholder with an option to tender the bonds to Partners HealthCare. Accordingly, these bonds are classified as a current liability. The bonds supported by bank facilities provide the bondholder with an option to tender the bonds to the liquidity provider. Generally accepted accounting principles require bonds backed by bank facilities expiring within one year of the balance sheet date as well as potential principal amortization under bank facilities' term out provisions due within one year of the balance sheet date to be classified as a current liability.

If bonds supported by bank facilities cannot be remarketed the repayment terms of those bank facilities could result in repayments of \$56,250 in 2020, \$156,961 in 2021, \$106,961 in 2022, \$44,461 in 2023, \$11,111 in 2024 and \$5,556 thereafter. If the bonds supported by Partners HealthCare liquidity cannot be remarketed, payments on these bonds would include \$215,195 in 2020, \$86,600 in 2021, \$50,230 in 2022, \$119,870 in 2023, \$69,250 in 2024 and \$191,935 thereafter.

(in thousands of dollars)

Scheduled maturities of long-term debt for each of the next five years (excluding the impact of unamortized discounts and premiums, net and deferred financing costs), assuming bonds backed by bank facilities are remarketed and the standby purchase agreements are renewed and bonds supported by Partners HealthCare liquidity are remarketed, are as follows:

2020	\$ 83,720
2021	334,959
2022	104,108
2023	106,974
2024	112,917
Thereafter	 4,748,757
	\$ 5,491,435

Interest expense paid during the years ended September 30, 2019 and 2018 was \$230,348 and \$201,628, respectively.

In January 2019, PHS issued \$158,250 of Partners HealthCare System Series 2019 T Revenue Bonds. The bond proceeds were used to refund Massachusetts Eye and Ear Infirmary Series D Bonds (\$55,402), refund Series M-2 Bonds (\$50,000) and repay the borrowing under the Credit Agreement (\$52,848).

In December 2018 and January 2019, PHS issued \$350,000 and \$50,000, respectively, of Partners HealthCare System 2018 Taxable Senior Notes. Proceeds from the notes will be used to finance certain capital projects.

In December 2017, PHS issued \$948,105 of Partners HealthCare System Series 2017 S Revenue Bonds, plus bond premium of \$122,734. The bond proceeds, net of issuance costs of \$5,359 were used to refund portions of Series G (\$191,532), Series I (\$111,556), Series J (\$344,484), Series K (\$44,331), Series L (\$231,658) and Series M (\$141,920).

In December 2017, PHS issued \$99,565 of Partners HealthCare System Series 2017 NH Revenue Bonds, plus bond premium of \$17,488. The bond proceeds, net of issuance costs of \$562 were used to refund Wentworth-Douglass Hospital Series 2011 (\$97,206), Series 2016A (\$14,325) and Series 2016B (\$4,960).

In December 2017, PHS issued \$303,644 of Partners HealthCare System Series 2017 Taxable Bonds. The bond proceeds, net of issuance costs of \$1,943, were used to refund portions of Series K Bonds (\$50,054) and to finance certain capital projects (\$251,647).

Partners HealthCare bonds are general obligations of PHS supported by guarantees from BH, The Brigham and Women's Hospital, Inc., MGH and The General Hospital Corporation which may be suspended under certain conditions.

PHS and affiliate debt agreements contain certain covenants, including a minimum debt service coverage ratio and limitations on additional indebtedness and asset transfers.

(in thousands of dollars)

### **Credit Agreement**

Partners HealthCare maintains a \$150,000 Credit Agreement that provides access to same day funds. Advances under the Credit Agreement bear a variable rate of interest based on the London Interbank Offered Rate (LIBOR). As of September 30, 2019, there were no amounts outstanding under the Credit Agreement. The Credit Agreement expires in June 2020.

#### 13. Derivatives

### **Interest Rate Swaps**

Partners HealthCare utilizes swap contracts to manage fluctuations in cash flows resulting from interest rate risk on certain of its variable rate bonds. These bonds expose Partners HealthCare to variability in interest payments due to changes in interest rates. Management believes that it is prudent to limit the variability of its interest payments. To meet this objective and to take advantage of low interest rates, Partners HealthCare entered into various swap contracts involving the exchange of fixed rate payments by Partners HealthCare for variable rate payments from several counterparties based on a percentage of LIBOR.

By using swap contracts to manage the risk of changes in interest rates, Partners HealthCare exposes itself to credit risk and market risk. Credit risk is the failure of the counterparty to perform under the terms of the swap contracts. When the fair value of a swap contract is positive, the counterparty has a liability to Partners HealthCare, which creates credit risk. Partners HealthCare minimizes its credit risk by entering into swap contracts with several counterparties and requiring the counterparty to post collateral for the benefit of Partners HealthCare based on the credit rating of the counterparty and the fair value of the swap contract. Conversely, when the fair value of a swap contract is negative, Partners HealthCare has a liability to the counterparty and, therefore, it does not possess credit risk. Under certain circumstances, Partners HealthCare may be required to post collateral for the benefit of the counterparty. Market risk is the adverse effect on the value of a financial instrument that results from a change in interest rates. The market risk associated with interest rate changes is managed by establishing and monitoring parameters that limit the types and degree of market risk that may be undertaken.

(in thousands of dollars)

The following is a summary of the outstanding positions under these swap contracts as of September 30, 2019:

Effective Date		Notional Amount	Maturity	Rate Paid	Rate Received
Lifective Date	•	Amount	Matarity	Nate i aia	Nate Neceived
5/1/03	\$	150,000	7/1/35	4.40%	67% 1-month LIBOR
10/15/03		9,945	1/1/31	3.85%	70% 1-month LIBOR
7/1/05		150,000	7/1/40	3.63%	67% 1-month LIBOR
7/1/05		22,400	7/1/25	5.11%	67% 6-month LIBOR
9/1/05		3,350	1/1/23	3.26%	70% 1-month LIBOR
7/1/07		150,000	7/1/42	3.46%	67% 1-month LIBOR
7/1/09		100,000	7/1/44	3.71%	67% 1-month LIBOR
7/1/11		100,000	7/1/46	3.74%	67% 1-month LIBOR
7/1/13		100,000	7/1/48	3.80%	67% 1-month LIBOR
7/1/15		50,000	7/1/50	3.80%	67% 1-month LIBOR
4/1/16		100,000	7/1/52	3.76%	67% 1-month LIBOR
7/1/17		50,000	7/1/52	3.74%	67% 1-month LIBOR
7/1/19		50,000	7/1/49	1.85%	67% 1-month LIBOR
7/1/21		50,000	7/1/51	1.84%	67% 1-month LIBOR
7/1/23		50,000	7/1/53	1.82%	67% 1-month LIBOR
7/1/24		100,000	7/1/54	1.81%	67% 1-month LIBOR
7/1/25		50,000	7/1/55	1.77%	67% 1-month LIBOR
7/1/26		100,000	7/1/56	1.78%	67% 1-month LIBOR
7/1/27		100,000	7/1/57	1.78%	67% 1-month LIBOR
	\$	1,485,695			

Partners HealthCare's swap contracts contain provisions that require collateral to be posted if the fair value of the swap exceeds certain thresholds. The collateral thresholds reflect the current credit ratings issued by major credit rating agencies on Partners HealthCare's and the counterparty's debt. Declines in Partners HealthCare's or the counterparty's credit ratings would result in lower collateral thresholds and, consequently, the potential for additional collateral postings by Partners HealthCare or the counterparty. As of September 30, 2019 and 2018, Partners HealthCare had posted collateral of \$204,916 and \$40,279, respectively. Partners HealthCare has established procedures to ensure that liquidity and securities are available to meet collateral posting requirements.

Upon the occurrence of certain events of default or termination events identified in the swap contracts, either Partners HealthCare or the counterparty could terminate the contracts in accordance with their terms. Termination results in the payment of a termination amount by one party that attempts to compensate the other party for its economic losses. If interest rates at the time of termination are lower than those specified in the swap contract, Partners HealthCare would make a payment to the counterparty. Conversely, if interest rates at such time are higher, the counterparty would make a payment to Partners HealthCare.

(in thousands of dollars)

#### 14. Commitments

#### Leases

Partners HealthCare has capital and noncancelable operating leases for certain buildings and equipment. Minimum future lease commitments under noncancelable leases for the next five years and thereafter are as follows:

	Capital Leases	Operating Leases		
2020	\$ 1,170	\$	185,630	
2021	754		171,807	
2022	-		151,033	
2023	-		137,278	
2024	-		112,198	
Thereafter	 		539,233	
Total lease payments	1,924	\$	1,297,179	
Less: Amount representing interest	54			
Capital lease obligations at September 30, 2019	\$ 1,870			

Rental expense under operating leases approximated \$192,208 and \$187,800 in 2019 and 2018, respectively.

### 15. Pension and Postretirement Healthcare Benefit Plans

Substantially all employees of Partners HealthCare are covered under noncontributory defined benefit pension plans and various defined contribution pension plans. In addition, certain affiliates provide subsidized healthcare benefits for retired employees on a self-insured basis, with the benefit obligation being partially funded. These retiree healthcare benefits are administered through an insurance company and are accounted for on the accrual basis, which includes an estimate of future payments for claims incurred.

In 2019, a voluntary retirement program was offered to a sub-set of Newton-Wellesley Hospital employees who met specific criteria. For those employees who accepted the voluntary retirement package, the benefits of this program were conveyed as increased contributions to the defined benefit pension plan and the postretirement health plan. The total cost of this program was approximately \$31,803, of which approximately \$29,266 was for the defined benefit plan and \$2,537 was for the postretirement plan. In September 2019, approximately \$28,400 was funded into the defined benefit plan related to this program with the remaining \$866 being funded in October 2019.

(in thousands of dollars)

Total expense for these plans consists of the following:

	Ye	ars Ended	Sept	ember 30,	
			2018		
Defined benefit plans	\$	256,768	\$	276,619	
Defined contribution plans		179,195		166,743	
Postretirement healthcare benefit plans		(110)		(3,345)	
	\$	435,853	\$	440,017	

Information regarding benefit obligations, plan assets, funded status, expected cash flows and net periodic benefit cost follows within this footnote.

### **Benefit Obligations**

, and the second		Defined Pensio			Postretirement Healthcare Benefit Plans				
	2019 2018 2019				2019		2018		
Change in benefit obligations									
Benefit obligations at beginning of year	\$	7,028,994	\$	6,916,236	\$	171,425	\$	161,100	
Service cost		324,429		329,653		3,105		3,157	
Interest cost		309,280		278,872		6,618		4,902	
Plan amendments (gain) loss		827		(6,487)		-		-	
Actuarial (gain) loss		1,231,610		(309,035)		17,396		511	
Special termination benefits		29,266		-		2,537		-	
Benefits paid		(227,558)		(307,111)		(8,464)		(7,851)	
Expenses paid		(13,017)		(15,760)		-		-	
Employee contributions		129		142		8,620		9,606	
Acquisition				142,484					
Benefit obligations at end of year	\$	8,683,960	\$	7,028,994	\$	201,237	\$	171,425	

The accumulated benefit obligation for all defined benefit pension plans at the end of 2019 and 2018 was \$8,267,644 and \$6,695,351, respectively.

		l Benefit n Plans		nt Healthcare t Plans	
	2019				
Weighted-average assumptions used to determine end of year benefit obligation					
Discount rate	3.40%	4.31%	3.05% - 3.30%	3.80% - 4.30%	
Rate of compensation increase	3.00% - 4.45%	3.00% - 4.45%	N/A	N/A	
Postretirement healthcare cost trend rate for next year	N/A	N/A	5.50%	6.00%	
Rate to which the cost trend rate is to decline	N/A	N/A	5.00%	5.00%	
Year that rate reaches the ultimate trend rate	N/A	N/A	2020	2020	

(in thousands of dollars)

Assumed healthcare cost trend rates have a significant effect on the amounts reported for the postretirement healthcare plans. A one-percentage-point change in assumed healthcare cost trend rates would have the following effect:

	(	One-Percentage-Point						
	In	crease	Decrease					
Effect on postretirement benefit obligation	\$	3,321	\$	(3,734)				

#### **Plan Assets Defined Benefit** Postretirement **Pension Plans** Healthcare Benefit Plans 2019 2018 2019 2018 Change in plan assets Fair value of plan assets at beginning of year \$ 117,742 \$ 103,262 6,527,812 \$ 6,039,237 \$ Actual return on plan assets 422,552 5,391 253,581 (534)Employer contributions 258.277 288.643 4.408 7.334 Employee contributions 9,606 129 142 8,620 Benefits paid (227,558)(307, 111)(8,464)(7,851)Expenses paid (13,017)(15,760)Acquisition 100,109 Fair value of plan assets at end of year 121,772 \$ 6,799,224 \$ 6,527,812 \$ 117,742

The assets of the defined benefit pension plans are aggregated in a single master trust (Master Trust) and managed as one asset pool. The investment objective for the Master Trust is to achieve the highest reasonable total return after considering (i) plan liabilities, (ii) funding status and projected cash flows, (iii) projected market returns, valuations and correlations for various asset classes and (iv) ability and willingness to incur market risk.

Within the Master Trust, assets are allocated to managers with investment mandates that may range from a single sub-asset class to very broad mandates; with restrictions that range from long-only to unconstrained; and with management structures ranging from separately managed funds to mutual/commingled funds to private partnerships. Less market sensitive managers employ long/short equity and diversified strategies. Investment risks (concentration, correlation, valuation, liquidity, leverage, mandate compliance, etc.) are monitored at the manager level as well as the pool level.

(in thousands of dollars)

The following table presents the capital allocations, reported exposures of the allocations and policy benchmarks by manager mandate within the Master Trust. Some managers, particularly less market sensitive managers, invest capital among multiple asset classes. Beginning in October 2018, the Long Term Policy Benchmark is 70% Morgan Stanley Capital International All Country World Index and 30% Barclays Global Aggregate Bond. Prior to October 2018, the Long Term Policy benchmark was set annually as a policy weighted calculation of multiple and private benchmarks and the weight of these benchmarks was changed each fiscal year at the direction of the PHS Investment Committee.

	Septemb	er 30, 2019		September 30, 2018				
		Reported	ported		Reported	Policy		
	Dollars	Exposures		Dollars	Exposures	Benchmark		
Global equity	\$ 865,191	12.7 %	\$	834,907	12.8 %	11.0 %		
Traditional U.S. equity	758,228	11.2 %		832,940	12.8 %	13.0 %		
Traditional foreign developed equity	781,196	11.5 %		812,674	12.4 %	12.0 %		
Traditional emerging markets equity	713,761	10.5 %		770,919	11.8 %	13.0 %		
Private equity	763,774	11.2 %		580,925	8.9 %	8.0 %		
Real assets	271,875	4.0 %		223,624	3.4 %	3.0 %		
Less Market Sensitive managers	2,287,076	33.6 %		2,198,471	33.7 %	35.0 %		
Fixed income managers	358,123	5.3 %		273,352	4.2 %	5.0 %		
	\$ 6,799,224	100.0 %	\$	6,527,812	100.0 %	100.0 %		

The postretirement healthcare benefit plans assets are invested in commingled funds with the objective of achieving returns to satisfy plan obligations and with a level of volatility commensurate with Partners HealthCare's overall financial profile.

The following table presents plan assets, by type of investment, as of September 30, 2019 and 2018 measured at fair value on a recurring basis using the fair value hierarchy defined in Note 7:

		Fair Va	alue	e Measuremer	_			
		ted Prices n Active nrkets for tical Items Level 1)		Significant Other Observable Inputs (Level 2)	Investments Valued Using NAV as a Practical Expedient		Fair Value at September 30, 2019	
Defined benefit pension plans								
Invested cash equivalents	\$	103,891	\$	-	\$	-	\$	103,891
Separately managed investments		666,531		191,541	310			858,382
Commingled funds		-		1,506,425	-			1,506,425
Private partnerships		88,551		-		4,241,975		4,330,526
		858,973		1,697,966		4,242,285		6,799,224
Postretirement healthcare benefit plans								
Commingled funds	28,405			81,577	11,790			121,772
Total plan assets	\$	887,378	\$	1,779,543	\$	4,254,075	\$	6,920,996

(in thousands of dollars)

		Fair Va				
		oted Prices n Active arkets for ntical Items Level 1)	Significant Other Observable Inputs (Level 2)		nvestments Valued ing NAV as a Practical Expedient	air Value at eptember 30, 2018
Defined benefit pension plans						
Invested cash equivalents	\$	43,228	\$ -	\$	-	\$ 43,228
Separately managed investments		664,321	304,620		-	968,941
Commingled funds		-	1,708,124		-	1,708,124
Private partnerships		-	-		3,807,519	3,807,519
		707,549	2,012,744		3,807,519	6,527,812
Postretirement healthcare benefit plans						
Commingled funds		19,474	83,863		14,405	 117,742
Total plan assets	\$	727,023	\$ 2,096,607	\$	3,821,924	\$ 6,645,554

In evaluating the Level at which private partnerships have been classified within the fair value hierarchy, management has assessed factors including, but not limited to price transparency, the ability to redeem these investments at net asset value at the measurement date, and the existence or absence of certain restrictions at the measurement date. Investments in private partnerships generally have limited redemption options for investors and, subsequent to final closing, may or may not permit subscriptions by new or existing investors. These entities may also have the ability to impose gates, lockups and other restrictions on an investor's ability to readily redeem out of their investment interest in the fund. As of September 30, 2019 and 2018, Partners HealthCare has excluded all assets from the fair value hierarchy for which fair value is measured using net asset value per share as a practical expedient.

(in thousands of dollars)

### **Funded Status**

The funded status of the plans recognized in the balance sheet and the amounts recognized in unrestricted net assets follows:

	Defined Benefit Pension Plans				Postretirement Healthcare Benefit Plans			
		2019		2018		2019		2018
End of year Fair value of plan assets at measurement date Benefit obligations at measurement date	\$	6,799,224 (8,683,960)	\$	6,527,812 (7,028,994)	\$	121,772 (201,237)	\$	117,742 (171,425)
Funded status	\$	(1,884,736)	\$	(501,182)	\$	(79,465)	\$	(53,683)
Amounts recognized in the balance sheet consist of								
Current liabilities	\$	(2,562)	\$	(1,820)	\$	(1,161)	\$	(1,488)
Long-term liabilities		(1,882,174)		(499,362)		(78,304)		(52, 195)
	\$	(1,884,736)	\$	(501,182)	\$	(79,465)	\$	(53,683)
Amounts not yet recognized in net periodic benefit cost and included in unrestricted net assets consist of								
Actuarial net loss (gain)	\$	2,858,791	\$	1,508,828	\$	41,230	\$	16,214
Prior service cost (credit)		(261,883)		(296,658)		(18,931)		(24,220)
	\$	2,596,908	\$	1,212,170	\$	22,299	\$	(8,006)
Amounts recognized in unrestricted net assets consist of								
Current year actuarial (gain) loss	\$	1,440,052	\$	(298,585)	\$	25,870	\$	2,085
Amortization of actuarial gain (loss)		(89,760)		(133,111)		(861)		(847)
Current year prior service cost (credit)  Amortization of prior service (cost) credit		827 33,947		(6,487) 32,338		- 5,289		- 5,289
	\$	1,385,066	\$	(405,845)	\$	30,298	\$	6,527

At the end of 2019 and 2018, the projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with an accumulated benefit obligation in excess of plan assets were as follows:

	2019	2018
Accumulated benefit obligation in excess of plan assets		
Projected benefit obligation	\$ 8,683,960	\$ 7,028,994
Accumulated benefit obligation	8,267,644	6,695,351
Fair value of plan assets	6,799,224	6,527,812

(in thousands of dollars)

### **Expected Cash Flows**

Information about the expected cash flows for the defined benefit and postretirement healthcare benefit plans is as follows:

		Defined Benefit Pension Plans	 tretirement ealthcare Benefit Plans	
Expected employer contributions				
2020	\$	348,862	\$ 3,247	
				Medicare Subsidy
Expected benefit payments (receipts)				
2020	\$	315,969	\$ 10,629	\$ (24)
2021		344,627	11,509	(21)
2022		363,424	12,344	(19)
2023		390,881	13,068	(15)
2024		406,963	13,719	(13)
2025-2029		2,330,152	73,141	(40)

### **Net Periodic Benefit Cost**

	Defined Pensio			Postretirement Healthcare Benefit Plans					
	2019	019			2019		2018		
Service cost Interest cost Expected return on plan assets Special termination benefits Amortization of	\$ 324,429 309,280 (462,020) 29,266	\$	329,653 278,872 (432,679)	\$	3,105 6,618 (7,942) 2,537	\$	3,157 4,902 (6,962)		
Prior service cost (credit) Actuarial net (gain) loss Net periodic benefit cost	\$ (33,947) 89,760 256,768	<del></del> \$	(32,338) 133,111 276,619	<del></del>	(5,289) 861 (110)	\$	(5,289) 847 (3,345)		

(in thousands of dollars)

Amounts expected to be amortized from unrestricted net assets into net periodic benefit cost during the year ending September 30, 2020 are as follows:

		I	Defined Benefit Pension Plans	Postretirement Healthcare Benefit Plans
Actuarial net loss (gain)		\$	168,383	\$ 3,661
Prior service cost (credit)			(34,095)	(5,289)
		l Benefit n Plans		ment Healthcare nefit Plans
	2019	2018	2019	2018
Weighted-average assumptions used to determine net periodic pension and postretirement cost				
Discount rate	4.31 %	3.90% - 4.00%	3.80% - 4.309	% 2.85% - 3.85%
Expected return on plan assets	7.25 %	6.90% - 7.25%	6.75 %	6.75 %
Rate of compensation increase	3.00% - 4.45%	3.00% - 4.45%	N/A	N/A
Healthcare cost trend rate for this year	N/A	N/A	6.00%	5.00% - 6.50%
Rate to which the cost trend rate is to decline	N/A	N/A	5.00%	5.00%
Year that rate reaches the ultimate trend rate	N/A	N/A	2021	2021

Partners HealthCare uses a long-term return assumption which is validated annually by obtaining long-term asset return, volatility and correlation projections for relevant asset class indexes; modifying volatility and correlations to reflect the actual historical experience of the active managers; calculating the expected return using benchmark weights and indexes; and comparing the return assumption to the sum of the expected return and the historical outperformance of the actual return versus the benchmark. Partners HealthCare regularly monitors the active risk of the Master Trust by a statistical regression of the return series of the actual portfolio to that of the policy benchmark.

Assumed healthcare cost trend rates have a significant effect on the amounts reported for the postretirement healthcare plans. A one-percentage-point change in assumed healthcare cost trend rates would have the following effect:

	0	One-Percentage-Point						
	Inc	rease	Dec	crease				
Effect on service and interest cost	\$	89	\$	(71)				

(in thousands of dollars)

### 16. Professional Liability Insurance

Partners HealthCare insures substantially all of its professional and general liability risk on a claims-made basis in cooperation with other healthcare organizations in the Greater Boston area through a captive insurance company, Controlled Risk Insurance Company Ltd. (CRICO). PHS owns 11% of CRICO. The investment is accounted for on the cost basis of accounting. The policies cover claims made during their respective terms, but not those occurrences for which claims may be made after expiration of the policy, except for certain tail liabilities which CRICO has assumed on an occurrence basis through December 31, 2019. Management intends to renew its coverage on a claims-made basis and has no reason to believe that it will be prevented from such renewal. During 2018, CRICO announced and paid a dividend to member organizations. As a result, Partners HealthCare recognized a dividend of \$84,900 as a nonoperating gain.

Partners HealthCare follows the accounting policy of establishing reserves to cover the ultimate costs of medical malpractice claims, which include costs associated with litigating or settling claims. The liability also includes an estimated tail liability, established to cover all malpractice claims incurred but not reported to the insurance company as of the end of the year. The total malpractice liability of \$542,136 and \$512,516 as of September 30, 2019 and 2018, respectively, is presented as an accrued professional liability in the consolidated balance sheets. These reserves have been recorded on a discounted basis using an interest rate of 3.25% and 4.0% as of September 30, 2019 and 2018, respectively.

Partners HealthCare also recognizes an insurance receivable from CRICO, at the same time that it recognizes the liability, measured on the same basis as the liability, subject to the need for a valuation allowance for uncollectible amounts. The insurance receivable of \$459,634 and \$433,120 as of September 30, 2019 and 2018, respectively, is reported as a component of other assets in the consolidated balance sheets.

Management is not aware of any claims against Partners HealthCare or factors affecting CRICO that would cause the expense for professional liability risks to vary materially from the amount provided.

### 17. Concentration of Credit Risk

Financial instruments that potentially subject Partners HealthCare to concentration of credit risk consist of patient accounts receivable, research grants receivable, pledges receivable, premiums receivable, certain investments and interest rate swaps.

Partners HealthCare receives a significant portion of its payments for services rendered from a limited number of government and commercial third-party payers, including Medicare, Medicaid, Blue Cross and Blue Shield of Massachusetts, Harvard Pilgrim Health Care and Tufts Health Plan. Research funding is provided through many government and private sponsors. AllWays Health receives a portion of its premium revenue from the Commonwealth. Pledges receivable are due from multiple donors. Partners HealthCare assesses the credit risk for pledges based on history and the financial wherewithal of donors, most of which are individuals or organizations well known to Partners HealthCare.

(in thousands of dollars)

Investments, which include government and agency securities, stocks and corporate bonds, and private partnerships and other investments, are not concentrated in any corporation or industry or with any single counterparty. Alternative investments are less liquid than Partners HealthCare's other investments. The reported values of the alternative investments may differ significantly from the values that would have been used had a ready market for those securities existed. These instruments may contain elements of both credit and market risk. Such risks include, but are not limited to, limited liquidity, absence of oversight, dependence upon key individuals, emphasis on speculative investments and nondisclosure of portfolio composition.

Partners HealthCare minimizes the credit risk it is exposed to under interest rate swap agreements by utilizing several counterparties and requiring the counterparties to post collateral for the benefit of Partners HealthCare when the fair value of the swap is positive. Partners HealthCare minimizes its counterparty risk by contracting with nine counterparties, none of which accounts for more than 20% of the aggregate notional amount of the swap contracts.

### 18. Net Assets

Donor restricted net assets are available for the following purposes:

	September 30,					
		2019		2018		
Donor restricted						
Charity care	\$	173,946	\$	138,327		
Buildings and equipment		133,542		126,020		
Clinical care, research and academic		2,081,896		1,634,899		
	\$	2,389,384	\$	1,899,246		

### **Endowment**

Partners HealthCare's endowment consists of numerous individual funds established for a variety of purposes and includes both donor restricted endowment funds and funds designated by boards to function as endowment.

Partners HealthCare has interpreted UPMIFA as requiring the preservation of the value of the original gift of the donor restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, Partners HealthCare classifies as donor restricted net assets the original value of all gifts with donor stipulations to maintain in perpetuity, accumulated gains required to be maintained in perpetuity by explicit donor stipulation or accumulated gains which have been appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, Partners HealthCare considers several factors in making a determination to appropriate or accumulate donor restricted endowment funds. These factors include: the duration and preservation of the fund; the purposes of the organization and the donor restricted endowment fund; general economic conditions; the possible effect of inflation and deflation; the expected total return from income and the appreciation of investments; other resources of the organization; and the investment policies of the organization.

(in thousands of dollars)

#### **Endowment Funds with Deficits**

From time to time, the value of assets associated with individual donor restricted endowment funds may fall below the value of the initial and subsequent donor gift amounts. These deficits generally result from unfavorable market fluctuations that occurred after the investment of new donor restricted contributions or subsequent endowment additions. When such endowment deficits exist, they are classified as a reduction to donor restricted net assets.

The following presents the endowment net asset composition by type of fund as of September 30, 2019 and 2018 and the changes in endowment assets for the years ended September 30, 2019 and 2018:

	Unrestricted	Donor Restricted	Total
Endowment net asset composition by type of fund as of September 30, 2019			
Donor-restricted endowment funds Board-designated endowment funds	\$ - 1,171,631	\$ 1,839,545 	\$ 1,839,545 1,171,631
Total funds	\$ 1,171,631	\$ 1,839,545	\$ 3,011,176
	Unrestricted	Donor Restricted	Total
Changes in endowment net assets			
Endowment net assets at September 30, 2018	\$ 1,264,410	\$ 1,365,096	\$ 2,629,506
Investment return Investment income Net realized and unrealized	3,563	5,379	8,942
appreciation (depreciation)	39,907	60,014	99,921
Total investment return	43,470	65,393	108,863
Contributions Appropriation of endowment assets	7,773	286,193	293,966
for expenditure Other changes	(50,141) (93,881)	(69,938) 192,801	(120,079) 98,920
Total changes	(92,779)	474,449	381,670
Endowment net assets at September 30, 2019	\$ 1,171,631	\$ 1,839,545	\$ 3,011,176

(in thousands of dollars)

	Unrestricted	Donor Restricted	Total
Endowment net asset composition by type of fund as of September 30, 2018			
Donor-restricted endowment funds Board-designated endowment funds	\$ - 1,264,410	\$ 1,365,096 	\$ 1,365,096 1,264,410
Total funds	\$ 1,264,410	\$ 1,365,096	\$ 2,629,506
	Unrestricted	Donor Restricted	Total
Changes in endowment net assets			
Endowment net assets at September 30, 2017	\$ 1,193,485	\$ 1,165,593	\$ 2,359,078
Investment return Investment income Net realized and unrealized appreciation (depreciation)	3,372 73,148	32,124 85,502	35,496 158,650
Total investment return	76,520	117,626	194,146
Contributions Appropriation of endowment assets	7,416	71,212	78,628
for expenditure Other changes	(47,305) 34,294	(60,203) 70,868	(107,508) 105,162
Total changes  Endowment net assets at	70,925	199,503	270,428
September 30, 2018	\$ 1,264,410	\$ 1,365,096	\$ 2,629,506

### 19. Functional Expenses

Expenses by functional classification are allocated based on management's judgement, nature of the expense and historical experience and are as follows:

	Healthcare services	Research and academic	Insurance	General and administrative	Year Ended September 30, 2019
Operating expenses					
Employee compensation and benefit expense	\$ 5,975,215	\$ -	\$ 57,906	\$ 1,076,888	\$ 7,110,009
Supplies and other expenses	3,229,298	-	52,091	57,942	3,339,331
Medical claims and related expenses	-	-	556,110	-	556,110
Direct academic and research expenses	-	1,594,085	-	-	1,594,085
Depreciation and amortization expenses	603,794	-	-	82,580	686,374
Interest expense	128,900			52,022	180,922
Total operating expenses	\$ 9,937,207	\$ 1,594,085	\$ 666,107	\$ 1,269,432	\$ 13,466,831

(in thousands of dollars)

Direct academic and research expenses include \$924,570 of employee compensation and benefit expense and \$669,515 of supplies and other expenses for the year ended September 30, 2019.

	Health servi		Research and academic		Insurance		neral and ninistrative	Year Ended September 30, 2019	
Nonoperating expenses Employee compensation and benefit expense Supplies and other expenses Interest expense	\$	- - -	\$	- - -	\$	- - -	\$ 61,256 58,634 23,552	\$	61,256 58,634 23,552
Total nonoperating expenses	\$	-	\$		\$	-	\$ 143,442	\$	143,442

	ŀ	Healthcare Research and General and services academic Insurance administrative								
Operating expenses										
Employee compensation										
and benefit expense	\$	5,535,828	\$	-	\$	60,916	\$	1,038,837	\$	6,635,581
Supplies and other expenses		2,875,811		-		62,064		89,957		3,027,832
Medical claims and related expenses		-		-		993,870		_		993,870
Direct academic and research expenses		-		1,485,467		-		_		1,485,467
Depreciation and amortization expenses		583,960		-		-		90,070		674,030
Interest expense		130,590		-		-		50,000		180,590
Total operating expenses	\$	9,126,189	\$	1,485,467	\$	1,116,850	\$	1,268,864	\$	12,997,370

Direct academic and research expenses include \$861,570 of employee compensation and benefit expense and \$623,897 of supplies and other expenses for the year ended September 30, 2018.

	 thcare vices	 rch and lemic	ln	surance	eneral and ninistrative	ear Ended otember 30, 2018
Nonoperating expenses Employee compensation and benefit expense Supplies and other expenses Interest expense	\$ - - -	\$ - - -	\$	- - -	\$ 57,927 47,476 23,914	\$ 57,927 47,476 23,914
Total nonoperating expenses	\$ -	\$ -	\$	-	\$ 129,317	\$ 129,317

### 20. Contingencies

Partners HealthCare is subject to complaints, claims and litigation which arise in the normal course of business. In addition, Partners HealthCare is subject to reviews and investigations by various federal and state government agencies to assure compliance with applicable laws, some of which are subject to different interpretations. Governmental review of compliance by healthcare organizations, including Partners HealthCare, has increased.

(in thousands of dollars)

### 21. Pending Transactions

On April 12, 2019, MGH and Wentworth-Douglas entered into a definitive affiliation agreement with Exeter Health Resources, Inc. This transaction is currently being reviewed by state and federal agencies.

### 22. Subsequent Events

Partners HealthCare has assessed the impact of subsequent events through December 6, 2019, the date the audited financial statements were issued. During this period, there were no subsequent events that require adjustment to the audited financial statements.



Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development and Research Training				
Research and Development				
Consumer Product Safety Commission				
Consumer Product Safety Commission	93.RD	Direct	\$ 36,232	\$ -
			36,232	-
Department of Agriculture National Institute of Food and Agriculture			· · · · · · · · · · · · · · · · · · ·	
University of New England	10.310	2016-68001-24961	11,039	_
3			11,039	
Department of Defense				
Defense Threat Reduction Agency	93.RD	Direct	512,890	223,273
U.S. Army Medical Research Acquisition Activity	93.RD	Direct	444,258	150,000
AlphaSense	93.RD	FA8650-16-C-6722	9,882	-
Beth Israel Deaconess Medical Center	93.RD	W911NF-C-0050	27,054	-
BioProtection Systems	93.RD	HDTRA1-15-C-0058	(10,460)	21,399
Brigham and Women's Hospital	93.RD	W81XWH-17-2-0068	43,494	-
Citizens United for Research in Epilepsy	93.RD	W81XWH-15-2-0069	(378)	-
Citizens United for Research in Epilepsy	93.RD	W81XWH-15-2-0069	768,392	90,229
Johns Hopkins University	93.RD	N00024-13-D-6400	41,945	-
Lockheed Martin	93.RD	FA8750-18-C-0026	139,262	-
Luna Innovations	93.RD	W81XWH16-C-0014	124,151	-
Luna Innovations	93.RD	W81XWH-18-C-0004	109,362	-
Massachusetts Institute of Technology	93.RD	7000415627	(3,050)	-
Massachusetts Institute of Technology	93.RD	7000442543	27,569	-
Massachusetts Institute of Technology	93.RD	7000451740	3,749	-
Massachusetts Institute of Technology	93.RD	FA8702-15-D-0001	313,359	-
Massachusetts Institute of Technology	93.RD	FA8721-05-C-0002	(389)	-
Merck Sharp & Dohme	93.RD	HDTRA1-15-C-0058	75,465	-
Moveo Walks	93.RD	Topic #: DHA182-003	49,856	-
Radiation Monitoring Devices	93.RD	Number not Available	146,969	-
RayWatch	93.RD	FA8051-17-C-0003	35,765	-
SARC	93.RD	NCT02008877	(124)	-
SimQuest International	93.RD	W900KK-17-C-0041	193,584	-
Stottler Henke Associates	93.RD	140D6318C0039	153,007	-
Sylvatica Biotech	93.RD	Number not Available	(11,820)	-

Pagatach and Development, continued   Pagatach and Development, continued   Pagatach and Development, continued   Pagatach and Pagata	Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
United Technologies Research Center         93.RD         FA8750-18-C-0025         143,828         -           University of California, San Francisco         93.RD         W81XWH-15-9-001         80.691         -           Department of Defense Advanced Research Projects Agency         12.910         Direct         5,421,976         1,466,758           Space and Naval Warfare Systems Command         12.910         Direct         311,559         -           U.S. Navy, Department of Defense Advanced Research Projects Agency         12.910         Direct         311,559         -           Space and Naval Warfare Systems Command         12.910         Direct         28.124         -           U.S. Navy, Department of Defense         12.910         W91NF-C-0050         59         -           Beth Israel Deaconess Medical Center         12.910         M91NF-C-0050         59         -           Broad Institute         12.910         N66001-T-C-4013         10         -           Broad Institute         12.910         N66001-T-C-4013         10         -           Broad Institute         12.910         N66001-T-C-4013         45.517         -           Broad Institute         12.910         N91NF-1920018         80.960         -           Harvard College	·				
University of California, San Francisco         93.RD         W81XWH-16-9-001         80,691         −           University of Pittsburgh of the Commonwealth System of Higher Education         93.RD         W911QY-14-C-0700         80,691         −           Department of Defense Advanced Research Projects Agency         12.910         Direct         5.421,976         1,466,758           Space and Naval Warfare Systems Command         12.910         Direct         311,589            Beth Israel Deaconess Medical Center         12.910         W911NF-C-0500         5.9            Broad Institute         12.910         DARPA-16-59-SAFE-FP-010         105,919            Broad Institute         12.910         N66001-17-C-050         5.9            Broad Institute         12.910         N66001-17-C-0401         105,919            Broad Institute         12.910         N66001-17-C-0401         105,919            Broad Institute         12.910         N66001-17-C-0401         45,517            Broad Institute         12.910         PARSA-18-59-SAFE-FP-010         105,919            Broad Institute         12.910         PARSA-18-59-SAFE-FP-0004         45,517            Havard	· · · · · · · · · · · · · · · · · · ·				
University of Pittsburgh of the Commonwealth System of Higher Education   93.RD   W911QY-14-C-0070   79.389   - 3.497.70   3.497.7	· ·			,	-
Department of Defense Advanced Research Projects Agency				,	-
Department of Defense Advanced Research Projects Agency   12.910   Direct   5.421,976   1.466,758   5.421,976   1.466,758   5.421,976   1.466,758   5.421,976   1.466,758   5.421,976   1.466,758	University of Pittsburgh of the Commonwealth System of Higher Education	93.RD	W911QY-14-C-0070	79,389	
Department of Defense Defense Defense Threat Reduction Agency Digital Infuzion Defense Defense Defense Defense Threat Reduction Agency Digital Infuzion Defense Department of the Navy, Office of the Chief of Naval Research Department of Defense Department of the Navy, Office of the Chief of Naval Research				3,497,700	484,901
Department of Defense Defense Defense Threat Reduction Agency Digital Infuzion Defense Defense Defense Defense Threat Reduction Agency Digital Infuzion Defense Department of the Navy, Office of the Chief of Naval Research Department of Defense Department of the Navy, Office of the Chief of Naval Research	Department of Defense Advanced Research Projects Agency				
Space and Naval Warfare System's Command   12.910   Direct   231,589   - 1		12.910	Direct	5.421.976	1.466.758
12.910   Direct   263,124				-, ,	-
Beth Israel Deaconess Medical Center   12.910				,	_
Brown University		12.910	W911NF-C-0050	,	_
Harvard College	Broad Institute	12.910	DARPA-16-59-SAFE-FP-010	105,919	_
Harvard College	Brown University	12.910	N66001-17-C-4013	10	_
Substitute of Technology   12.910	Harvard College	12.910	HR0011-15-C-0094	45,517	-
Massachusetts Institute of Technology         12.910         HR0011-15-C-0155         139         -           Massachusetts Institute of Technology         12.910         W911NF-17-2-0043         12,158         -           Vanderbilt University Medical Center         12.910         HR0011-18-2-0001         657,011         -           Department of Defense Defense Threat Reduction Agency         Image: Properties of Defense Defense Threat Reduction Agency           Digital Infuzion         12.351         HDTRA1-14-CHEM-BIO-BAA         (4,330)         -           Department of Defense Department of the Air Force, Material Command         12.800         Direct         985,944         393,760           Air Force Office of Scientific Research         12.800         Direct         26,800         -           Massachusetts Institute of Technology         12.800         FA8650-17-C-9113         5,728         -           Massachusetts Institute of Technology         12.800         FA8702-15-D-0001         114,590         -           University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           Department of Defense Department of the Navy, Office of the Chief of Naval Research         12.800         FA9550-15-1-0273         (5,630)         -		12.910	W911NF1920018	80,960	-
Massachusetts Institute of Technology         12.910         W911NF-17-2-0043         12,158         -           Vanderbilt University Medical Center         12.910         HR0011-18-2-0001         657,011         -           Department of Defense Defense Threat Reduction Agency         7,034,010         1,466,758           Department of Defense Department of the Air Force, Materiel Command         (4,330)         -           Air Force Material Command         12.800         Direct         985,944         393,760           Air Force Office of Scientific Research         12.800         Direct         26,800         -           Massachusetts Institute of Technology         12.800         FA8650-17-C-9113         5,728         -           University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           Department of Defense Department of the Navy, Office of the Chief of Naval Research         12.800         FA9550-15-1-0273         (5,630)         -	Johns Hopkins University	12.910	FA8650-18-2-7834	135,548	-
Vanderbilt University Medical Center         12.910         HR0011-18-2-0001         657,011         -           Department of Defense Defense Phreat Reduction Agency         12.351         HDTRA1-14-CHEM-BIO-BAA         (4,330)         -           Department of Defense Department of the Air Force, Material Command         12.800         Direct         985,944         393,760           Air Force Office of Scientific Research         12.800         Direct         26,800         -           Massachusetts Institute of Technology         12.800         FA8650-17-C-9113         5,728         -           Massachusetts Institute of Technology         12.800         FA8702-15-D-0001         114,590         -           University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           Department of Defense Department of the Navy, Office of the Chief of Naval Research         12.800         FA9550-15-1-0273         (5,630)         -	Massachusetts Institute of Technology	12.910	HR0011-15-C-0155	139	-
Department of Defense Defense Threat Reduction Agency Digital Infuzion   12.351   HDTRA1-14-CHEM-BIO-BAA   (4,330)   - (4,33	Massachusetts Institute of Technology	12.910	W911NF-17-2-0043	12,158	-
Department of Defense Defense Threat Reduction Agency Digital Infuzion	Vanderbilt University Medical Center	12.910	HR0011-18-2-0001	657,011	
Digital Infuzion				7,034,010	1,466,758
Digital Infuzion	Department of Defense Defense Threat Reduction Agency				
Department of Defense Department of the Air Force, Materiel Command	•	12.351	HDTRA1-14-CHEM-BIO-BAA	(4,330)	-
Department of Defense Department of the Air Force, Materiel Command  Air Force Material Command  Air Force Office of Scientific Research  Air Force Office of Scientific Research  12.800  Direct  26,800  - Massachusetts Institute of Technology  Massachusetts Institute of Technology  12.800  FA8650-17-C-9113  5,728  - Massachusetts Institute of Technology  12.800  FA8702-15-D-0001  114,590  - University of Washington  12.800  FA9550-15-1-0273  (5,630)  - Department of Defense Department of the Navy, Office of the Chief of Naval Research	·			(4,330)	
Air Force Material Command       12.800       Direct       985,944       393,760         Air Force Office of Scientific Research       12.800       Direct       26,800       -         Massachusetts Institute of Technology       12.800       FA8650-17-C-9113       5,728       -         Massachusetts Institute of Technology       12.800       FA8702-15-D-0001       114,590       -         University of Washington       12.800       FA9550-15-1-0273       (5,630)       -         Department of Defense Department of the Navy, Office of the Chief of Naval Research	Department of Defence Department of the Air Force Material Command				
Air Force Office of Scientific Research       12.800       Direct       26,800       -         Massachusetts Institute of Technology       12.800       FA8650-17-C-9113       5,728       -         Massachusetts Institute of Technology       12.800       FA8702-15-D-0001       114,590       -         University of Washington       12.800       FA9550-15-1-0273       (5,630)       -         Department of Defense Department of the Navy, Office of the Chief of Naval Research		12 800	Direct	985 944	303 760
Massachusetts Institute of Technology         12.800         FA8650-17-C-9113         5,728         -           Massachusetts Institute of Technology         12.800         FA8702-15-D-0001         114,590         -           University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           Department of Defense Department of the Navy, Office of the Chief of Naval Research         5,728         -         -				,	393,700
Massachusetts Institute of Technology         12.800         FA8702-15-D-0001         114,590         -           University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           Department of Defense Department of the Navy, Office of the Chief of Naval Research         393,760				,	_
University of Washington         12.800         FA9550-15-1-0273         (5,630)         -           1,127,432         393,760           Department of Defense Department of the Navy, Office of the Chief of Naval Research         4         1,127,432         393,760	<b></b>			,	_
Department of Defense Department of the Navy, Office of the Chief of Naval Research	<b>0</b> ,			,	_
Department of Defense Department of the Navy, Office of the Chief of Naval Research	Officially of Pradimington	12.000	17.0000 10 1 0270		202.760
				1,121,432	393,760
Homeland Security Advanced Research Projects Agency 12.300 Direct 228,432 -	• • • • • • • • • • • • • • • • • • • •				
	Homeland Security Advanced Research Projects Agency	12.300	Direct	228,432	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Defense Department of the Navy, Office of the Chief of Naval Research,				
Office of Naval Research	12.300	Direct	307,040	39,590
University of California, San Diego	12.300	N00014-16-1-2829, P00003	111,687	
			647,159	39,590
Department of Defense U.S. Army Materiel Command				
Defense Advanced Research Projects Agency	12.431	Direct	12,947	-
U.S. Army Materiel Command	12.431	Direct	1,654,825	84,499
Fred Hutchinson Cancer Research Center	12.431	W911NF-17-1-0360 P00005	276,267	,
Massachusetts General Hospital	12.431	W911NF-14-2-0045	76,653	_
University of Southern California	12.431	W911NF1810434	189,317	_
University of Utah	12.431	W911NF-15-2-0046	(24,801)	_
•			2,185,208	84,499
Department of Defense U.S. Army Medical Command				
Air Force Office of Scientific Research	12.420	Direct	5,338,155	31,051
Department of Defense	12.420	Direct	186,960	71,543
Department of Defense-Congressionally Directed Medical Research Programs	12.420	Direct	1,771,759	90,000
U.S. Army Medical Research Acquisition Activity	12.420	Direct	26,334,636	2,320,202
U.S. Army Medical Research and Materiel Command	12.420	Direct	799,601	127,789
U.S. Army RDECOM Acquisition Center	12.420	Direct	(26,621)	121,103
Advanced Technology International	12.420	W81XWH-15-9-0001	38,481	32,541
American Burn Association	12.420	W81XWH-11-1-0835	174,987	32,341
American Burn Association	12.420	W81XWH-16-2-0048	9,014	_
Beth Israel Deaconess Medical Center	12.420	W81XW-16-1-0042	33,624	_
Beth Israel Deaconess Medical Center  Beth Israel Deaconess Medical Center	12.420	W81XWH-16-1-0464	150,556	_
Boston VA Research Institute	12.420	W81XWH-15-1-0216	15,667	_
Boston VA Research Institute	12.420	W81XWH-15-1-0631	52,903	_
Brigham and Women's Hospital	12.420	W81XWH-16-1-1065	(194)	_
Children's Hospital Corporation	12.420	W81XWH-12-1-0155	(3,780)	_
Children's Hospital Corporation	12.420	W81XWH-15-1-0621	73,706	_
Craig Hospital	12.420	W81XWH-15-2-0078	36,182	_
Dana Farber Cancer Institute	12.420	W81XWH-14-1-0240	6,362	_
gel-e	12.420	W81XWH-18-1-0006	56,772	_
Harvard College	12.420	W81XWH-14-1-0131	28,598	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Defense U.S. Army Medical Command, continued				
Joan & Sanford I. Weill Medical College of Cornell University	12.420	W81XWH1810667	805,291	-
Johns Hopkins School of Public Health	12.420	W81XWH-12-1-0588	25,067	-
Johns Hopkins University	12.420	W81XWH-16-2-0060	1,000	-
Massachusetts Eye and Ear Infirmary	12.420	W81XWH-17-1-0644	16,405	-
Massachusetts General Hospital	12.420	W81XWH-14-2-0008	(3,848)	-
Massachusetts General Hospital	12.420	W81XWH-16-1-0652	78,764	(1,000)
Massachusetts Institute of Technology	12.420	W81XWH-18-2-0010	39,708	-
Mayo Clinic	12.420	W81XWH-15-1-0293	16,185	-
Metis Foundation	12.420	W81XWH-16-1-0784	125,502	-
National Trauma Institute	12.420	W81XWH-17-1-0673	28,563	-
Nationwide Children's Hospital	12.420	W81XWH1810547	103,774	-
Roccor	12.420	W81XWH-17-C-0008	37,031	-
The Geneva Foundation	12.420	W81XWH-18-1-0507	23,640	-
Tufts College	12.420	W81XWH-17-1-0531	7,445	-
University of Alabama	12.420	W81XWH-12-1-0155	14,587	-
University of Alabama	12.420	W81XWH-15-1-0705	85,509	-
University of California	12.420	W81XWH-14-2-0176	204,516	-
University of California, Los Angeles	12.420	W81XWH-16-10086	(2,899)	-
University of California, San Diego	12.420	W81XWH-15-2-0090	204,369	-
University of California, San Diego	12.420	W81XWH-15-2-0090	162,934	-
University of California, San Francisco	12.420	W81XWH-13-2-0075	10,035	-
University of California, San Francisco	12.420	W81XWH-14-2-0176	8,520	-
University of California, San Francisco	12.420	W81XWH-18-2-0042	36,075	-
University of Cincinnati	12.420	W81XWH-16-2-0020	26,219	-
University of Delaware	12.420	W81XWH-17-1-0335	106,288	-
University of Southern California	12.420	W81XWH-12-2-0012	12,062	-
University of Southern California	12.420	W81XWH-13-1-0259	11,890	-
University of Southern California	12.420	W81XWH-14-1-0462	13,888	-
University of Texas Health Science Center at Houston	12.420	W81XWH-1-1-0123	53,295	-
University of Texas, MD Anderson Cancer Center	12.420	W81XWH-14-1-0109	72,951	-
Wake Forest University Health Sciences	12.420	W81XWH-13-2-0054	68,580	
			37,470,714	2,672,126

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Defense Uniformed Services University of the Health Sciences				
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-11-1-0023	973,385	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-15-2-0028	1,724	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-17-2-0009	1,597,838	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-17-2-0023	23,847	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-17-2-009	135,522	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU-0001-17-2-009	168,145	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU00011820015	52,930	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU0001-18-2-0018	191,310	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU001-17-2-009	59,563	-
Henry M Jackson Foundation for the Advancement of Military Medicine	12.750	HU-001-17-2-009	146,153	-
The Geneva Foundation	12.750	HU00011920009	52,104	-
			3,402,521	
Department of Education Office of Innovation and Improvement				
United Way of Massachusetts Bay	84.411	U411C170195	7,697	_
	•	31113113133	7,697	
Department of Energy				
Texas A&M University	81.135	DE-AR0000823	260,058	_
Total Flatt Chiroloty	01.100	DE 71110000020	260,058	
			200,000	
Department of Health and Human Services				
Centers for Disease Control and Prevention	93.RD	Direct	14,023	-
DHHS-Indian Health Service	93.RD	Direct	80,228	-
DHHS-IPA Agreement	93.RD	Direct	83,287	-
Eastern Cooperative Oncology Group	93.RD	Direct	(1,690)	-
NIH-National Institutes of Health	93.RD	Direct	2,573,076	-
NIH-NCI National Cancer Institute	93.RD	Direct	34,803	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.RD	Direct	82,346	-
NIH-NIMH National Institute of Mental Health	93.RD	Direct	13	-
Substance Abuse and Mental Health Services Administration	93.RD	Direct	1,333	
U.S. Food & Drug Administration	93.RD	Direct	1,857,866	510,547
Aethlon Medical	93.RD	HHSN261201700022C	38,781	-
Arsenal Medical	93.RD	R44GM117849	149,572	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services, continued				
Atlantic Research Group	93.RD	HHSN268201400011C	2,588	-
Broad Institute	93.RD	1U19MH114821-01	41,737	-
Broad Institute	93.RD	5400000156/66102700416-01B1	20,059	-
Broad Institute	93.RD	HHSN261201500003I	4,936	-
Broad Institute	93.RD	17X149	(8)	-
Charles River Analytics	93.RD	1A11AA111111-01	65,799	-
Charles River Analytics	93.RD	HHSN261201800012C/75N91018C00012	17,392	-
Children's Hospital Corporation	93.RD	HHSN272201400052C	(1,986)	-
Dana Farber Cancer Institute	93.RD	9617932	28,783	-
Dana Farber Cancer Institute	93.RD	9618265	(14)	-
Duke University	93.RD	HHSN- 275201000003I	7,430	-
EMMES Corporation	93.RD	HHSN263201300005C	(5,970)	-
Emory University	93.RD	HHSO100201900015C	95,116	-
ExQor Technologies	93.RD	2R44MH108481-03	90,825	-
Harvard College	93.RD	HHSN27500001600003I	132	-
Harvard College	93.RD	HHSF223201610080C	46,977	-
Harvard Pilgrim Health Care	93.RD	HHSF223201400030I	554,969	-
Harvard Pilgrim Health Care	93.RD	HHSF22320140030I	6,037	-
Harvard Pilgrim Health Care	93.RD	2011-N-13526	58,489	-
Leidos Biomedical Research	93.RD	HHSN261200800001E	1,756,407	-
Leidos Biomedical Research	93.RD	14X081	10,156	-
Leidos Biomedical Research	93.RD	HHSN261200800001E	125,752	-
Leidos Biomedical Research	93.RD	HHSN2612015000031	15,361	-
Mapp Biopharmaceutical	93.RD	HHSO100201600021C	9,531	-
Mayo Clinic	93.RD	HHSN261201200042I	33,712	-
Mayo Clinic	93.RD	HHSN2612012000421	36,382	-
Memorial Sloan Kettering Institute Cancer Center	93.RD	HHSA2902015000071	18,183	-
Mitre Corporation	93.RD	HHSM-500-2012-000081	175,679	-
NanoHybrids	93.RD	1R41EY028839-01	10,254	-
National Council for Behavioral Health	93.RD	HHSS28320120003I/HHSS28342002T	82	-
Northern Arizona University	93.RD	1656063	1,565	-
Radiological Society of North America	93.RD	HHSN268201500021C	2,917	-
Robin Medical	93.RD	HHSN261201200050C	(121)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services, continued				
SAIC-Frederick	93.RD	HHSN261200800001E	(6)	-
Selecta Biosciences	93.RD	2016-0056	156,894	-
Social and Scientific Systems	93.RD	HHSN261200800001E	(5,789)	-
Social and Scientific Systems	93.RD	HHSN273201600003I/HHSN27300002	12,626	-
University of Buffalo	93.RD	HHSN268201600001C	288,359	-
University of California, San Francisco	93.RD	HHSN268201700005C	21,862	-
University of Michigan	93.RD	5 U1 AG017719-18	6,104	-
University of Michigan	93.RD	HHSN268201100026C	65,235	-
University of Michigan	93.RD	21-312-0214643-65091L	96,789	-
University of North Carolina, Chapel Hill	93.RD	1 OT3 HL142479-01	267,108	-
University of Rochester	93.RD	HHSN272201200005C	16,601	-
University of Southern California	93.RD	HHSF223201400115C	(38,074)	-
University of Texas, MD Anderson Cancer Center	93.RD	HHSN261201200034I 02	24,086	-
Volatylix	93.RD	1R44Al141264	77,685	-
Westat	93.RD	GS00F009DA	12,446	-
Westat	93.RD	HHSD2002013M53968B	427,720	151,044
Westat	93.RD	HHSN261201800002B	51,606	
			9,624,041	661,591
Department of Health and Human Services Administration for Children and Families				
Office of Refugee Resettlement	93.604	Direct	47,394	-
Center for Victims of Torture	93.604	90ZT0142-01-01	1,020	-
Center for Victims of Torture	93.604	90ZT0187-01-00	65,307	-
			113,721	
Department of Health and Human Services Administration for Community Living				
DHHS-National Institute on Disability, Independent Living and Rehabilitation	93.433	Direct	1,402,746	202,252
Boston University	93.433	90DP0055-04-00	(1,304)	,
Craig Hospital	93.433	90DPTB0017-01-00	104	_
Liberating Technologies	93.433	90BI0020-01-00	(10,777)	_
Spaulding Rehabilitation Hospital	93.433	90DP0039-03-01	(45,805)	_
Spaulding Rehabilitation Hospital	93.433	90DPBU0001-02-00	14,766	_
Spaulding Rehabilitation Hospital	93.433	90DPTB0011-02-00	14,576	_
Spaulding Rehabilitation Hospital	93.433	90SI50210-02-00	56,257	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services Administration for Community Living, continued				
TIRR Memorial Hermann	93.433	90DP0060	30,708	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.433	0041980 130453-2	46,725	
			1,507,996	202,252
Department of Health and Human Services Agency for Healthcare Research and Quality				
Agency for Healthcare Research and Quality	93.226	Direct	4,292,864	736,178
Brigham and Women's Hospital	93.226	1R01HS025375-02	38,683	-
Columbia University	93.226	5R01HS024538-02	13,571	-
Columbia University	93.226	5R01HS024713-03	21,096	-
Duke University	93.226	5P50HS023418-03	50,644	-
Duke University	93.226	5P50HS023418-04	267,957	-
Harvard College	93.226	1P30HS024453-01	100,234	-
Johns Hopkins University	93.226	5R01HS024079-04	11,026	-
Massachusetts General Hospital	93.226	5R01HS025718-02	18,131	-
Northeastern University	93.226	7R21HS024330-02	(4)	-
Northwestern University	93.226	5R01HS024930-04	46,866	-
RAND Corporation	93.226	5R18HS026432-02	119,563	-
University of Massachusetts, Amherst	93.226	5R01HS025752-02	8,070	-
University of Oklahoma Health Sciences Center	93.226	5R18HS023919-04	(1,014)	-
Yale University	93.226	2U18HS016978-12	171,440	-
Yale University	93.226	5R18HS023778-02	413	-
Yale University School of Medicine	93.226	5R18HS023778-05	14,748	
			5,174,288	736,178
Department of Health and Human Services Centers for Disease Control and Prevention				
Centers for Disease Control and Prevention	93.061	Direct	1,448	-
Centers for Disease Control and Prevention	93.084	Direct	2,548,964	554,898
Centers for Disease Control and Prevention	93.262	Direct	15,245	-
Centers for Disease Control and Prevention	93.326	Direct	405,670	-
Centers for Disease Control and Prevention	93.349	Direct	35,957	6,589
NIH-NIOSH National Institute for Occupational Safety and Health	93.262	Direct	357,131	-
Apervita	93.424	U38OT000216	14,018	-
Beth Israel Deaconess Medical Center	93.067	6NU2GGH01140-05-03	103,168	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services Centers for Disease Control and Prevention, co	ntinued			
ChangeLab Solutions	93.424	NU38OT000141	129,327	-
Children's Hospital Corporation	93.080	5NU27DD001155-04-02	16,710	-
Fenway Community Health Center	93.944	6NU62PS005074	42,885	-
Harvard College	93.067	5U2GGH001911-04	12,922	-
Harvard College	93.067	6U2GGH001911-04-01	187,013	-
Harvard College	93.084	6NU38PS004644-05	16,228	-
Harvard College	93.262	2 R01OH002421-23-00	35,884	-
Harvard College	93.262	2U19OH008861-12	31,764	-
Harvard College	93.262	5U19OH008861-12	146,130	17,275
Harvard Pilgrim Health Care	93.084	5U54CK000483-02	209	-
Harvard Pilgrim Health Care	93.084	5U54CK000483-03-00	4,548	-
Harvard Pilgrim Health Care	93.084	5U54CK000484-02	64,652	-
Harvard School of Public Health	93.067	5U2GGH001911-04	13,467	-
Icahn School of Medicine at Mount Sinai	93.262	5 U01OH011479-012-00	103,842	-
National Association of County and City Health Officials	93.391	1NU1ROT0000015-01-00	476,459	-
National Association of County and City Health Officials	93.421	NU38OT000306-01-00	331,968	-
Olive View-UCLA Education and Research Institute	93.942	5U01CK000480-03	7,377	-
Partners in Health	93.738	5NU58DP005874-03-00	70,135	-
Partners in Health	93.738	NU58DP006594-01-00	260,243	-
			5,433,364	578,762
Department of Health and Human Services Centers for Medicare and Medicaid Services				
Centers for Medicare & Medicaid Services	93.986	Direct	1,489,186	146,175
American College of Emergency Physicians	93.639	1L1CMS331479-03	9,759	-
			1,498,945	146,175
Department of Health and Human Services Food and Drug Administration				
U.S. Food & Drug Administration	93.103	Direct	951,055	157,577
Harvard Pilgrim Health Care	93.103	HHSF2232009100061	1,579	-
New England Pediatric Device Consortium	93.103	5P50FD004907-04	(2,256)	_
New England Pediatric Device Consortium	93.103	5P50FD004907-05	2,853	-
Tufts Medical Center	93.103	1R01FD003899-01A4	(57,323)	_
University of Kansas Medical Center	93.103	5R01FD004809-03	17,115	-
•			913,023	157,577

Department of Health and Human Services Health Resources and Services Administration   93.110   Direct   3.126,051   1.879,920   1.879,9	Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Health Resources and Services Administration   93, 110   Direct   3,126, 051   1,879, 920   19,171   2-1					
Beth Israel Deaconess Medical Center	Department of Health and Human Services Health Resources and Services Administration				
Educational Development Center   93,110   UFAMC26525   116,649   - Fenway Community Health Center   93,129   U3OCS22742   31,335   Fenway Community Health Center   93,211   1G25RH32431-01-00   37,087	Health Resources and Services Administration	93.110		3,126,051	1,879,920
Fenway Community Health Center	Beth Israel Deaconess Medical Center	93.134	5R39OT31102-02	19,171	-
Great Plains Tribal Chairmen's Health Board   93.211   12,525RH32431-01-00   37,087   - 1	Educational Development Center			116,649	-
Harvard College	Fenway Community Health Center	93.129	U30CS22742	31,335	-
Johns Hopkins University	Great Plains Tribal Chairmen's Health Board	93.211	1G25RH32431-01-00	37,087	-
MGH Institute of Health Professions         93.247         T94HP30909         121,939         -           Mount Sinal School of Medicine         93.110         5H30MC24048-08-00         4,131         -           University of Colorado, Denver         93.110         5UMA6MC31101-02-00         119,664         -           University of Massachusetts Medical School         93.145         5U10HA29294-04-00         2,456         -           Department of Health and Human Services National Institutes of Health         8         Direct         157,570         -           NIH-FIC Fogarty International Center         93.989         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.121         Direct         1,964,953         527,740           NIH-National Institutes of Health         93.172         Direct         1,964,953         36,932           NIH-National Institutes of Health         93.173         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.237         Direct         1,01,934	Harvard College	93.884	5T0BHP299970200	4,866	-
Mount Sinai School of Medicine         93.110         5H30MC24048-08-00         4,131         -           University of Colorado, Denver         93.110         5UMA6MC31101-02-00         119,664         -           University of Massachusetts Medical School         93.145         5U10HA29294-04-00         2,456         -           Department of Health and Human Services National Institutes of Health         93.865         Direct         157,570         -           Eurice Kennedy Shriver National Institute of Child         93.895         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.172         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.273         Direct         3,507,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.273         Direct         1,401,	Johns Hopkins University	93.505	UD5MC30792	67,953	-
University of Colorado, Denver University of Massachusetts Medical School   93.145   5UNA6MC31101-02-00   2,456   2,	MGH Institute of Health Professions	93.247	T94HP30909	121,939	-
University of Massachusetts Medical School   93.145   5U10HA29294-04-00   2,456	Mount Sinai School of Medicine	93.110	5H30MC24048-08-00	4,131	-
Department of Health and Human Services National Institutes of Health   Eurice Kennedy Shriver National Institute of Child   93.865   Direct   157,570   194,408   126,541   NIH-FIC Fogarty International Center   93.989   Direct   194,408   126,541   NIH-National Institutes of Health   93.113   Direct   1,954,953   527,740   NIH-National Institutes of Health   93.121   Direct   2,54,241   114,039   NIH-National Institutes of Health   93.172   Direct   7,766,890   3,649,932   NIH-National Institutes of Health   93.173   Direct   3,470,610   483,830   NIH-National Institutes of Health   93.213   Direct   3,071,013   58,014   NIH-National Institutes of Health   93.233   Direct   2,580,282   62,808   NIH-National Institutes of Health   93.242   Direct   25,431,709   4,237,689   NIH-National Institutes of Health   93.279   Direct   1,401,984   274,819   NIH-National Institutes of Health   93.279   Direct   10,018,777   1,078,258   NIH-National Institutes of Health   93.286   Direct   10,649,940   1,286,593   NIH-National Institutes of Health   93.307   Direct   21,153,911   9,494,753   NIH-National Institutes of Health   93.331   Direct   1,724,426   350,733   NIH-National Institutes of Health   93.361   Direct   1,724,426   350,733   NIH-National Institutes of Health   93.393   Direct   7,610,364   816,771   NIH-National Institutes of Health   93.394   Direct   7,981,233   1,446,297   NIH-National Institutes of Health   93.395   Direct   29,368,920   9,277,873   Direct   29,368,92	University of Colorado, Denver	93.110	5UMA6MC31101-02-00	119,664	-
Department of Health and Human Services National Institutes of Health   Struck Rennedy Shriver National Institute of Child   93,865   Direct   157,570   - NIH-FIC Fogarty International Center   93,989   Direct   194,408   126,541   NIH-National Institutes of Health   93,113   Direct   1,954,953   527,740   NIH-National Institutes of Health   93,113   Direct   926,241   114,039   NIH-National Institutes of Health   93,172   Direct   7,766,890   3,649,932   NIH-National Institutes of Health   93,173   Direct   3,470,610   483,830   NIH-National Institutes of Health   93,213   Direct   3,071,013   58,014   NIH-National Institutes of Health   93,233   Direct   2,580,282   62,808   NIH-National Institutes of Health   93,242   Direct   2,5431,709   4,237,689   NIH-National Institutes of Health   93,273   Direct   25,431,709   4,237,689   NIH-National Institutes of Health   93,279   Direct   1,401,984   274,819   NIH-National Institutes of Health   93,286   Direct   10,649,940   1,286,593   NIH-National Institutes of Health   93,307   Direct   21,153,911   9,494,753   NIH-National Institutes of Health   93,361   Direct   1,724,426   350,733   NIH-National Institutes of Health   93,361   Direct   1,724,426   350,733   NIH-National Institutes of Health   93,393   Direct   7,610,364   816,711   NIH-National Institutes of Health   93,393   Direct   7,981,233   1,446,297   NIH-National Institutes of Health   93,394   Direct   7,981,233   1,446,297   NIH-National Institutes of Health   93,395   Direct   7,981,233   1,446,297   NIH-National Institutes of Health	University of Massachusetts Medical School	93.145	5U10HA29294-04-00	2,456	<u>-</u> _
Éunice Kennedy Shriver National Institute of Child         93.865         Direct         157,570         -           NIH-FIC Fogarty International Center         93.989         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.121         Direct         926,241         114,039           NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,932           NIH-National Institutes of Health         93.173         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.307         Direct         17,81,335         103,833				3,651,302	1,879,920
Éunice Kennedy Shriver National Institute of Child         93.865         Direct         157,570         -           NIH-FIC Fogarty International Center         93.989         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.121         Direct         926,241         114,039           NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,932           NIH-National Institutes of Health         93.173         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.286         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.307         Direct         718,135         103,833	Department of Health and Human Services National Institutes of Health				
NIH-FIC Fogarty International Center         93.989         Direct         194,408         126,541           NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.121         Direct         926,241         111,039           NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,932           NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.286         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.307         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.301         Direct         21,153,911         9,494,753		93.865	Direct	157.570	_
NIH-National Institutes of Health         93.113         Direct         1,954,953         527,740           NIH-National Institutes of Health         93.121         Direct         926,241         114,039           NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,933           NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.273         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.307         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.310         Direct         21,153,911         9,494,753           NIH-National Institutes of Health         93.361         Direct         1,724,426         350,733				,	126.541
NIH-National Institutes of Health         93.121         Direct         926,241         114,039           NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,932           NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.307         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.301         Direct         21,153,911         9,494,753           NIH-National Institutes of Health         93.351         Direct         1,724,426         350,733           NIH-National Institutes of Health         93.361         Direct         1,806,007         454,860				,	
NIH-National Institutes of Health         93.172         Direct         7,766,890         3,649,932           NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.286         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.307         Direct         718,135         103,833           NIH-National Institutes of Health         93.310         Direct         21,153,911         9,494,753           NIH-National Institutes of Health         93.361         Direct         1,724,426         350,733           NIH-National Institutes of Health         93.393         Direct         1,806,007         454,860					
NIH-National Institutes of Health         93.173         Direct         3,470,610         483,830           NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.286         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.307         Direct         718,135         103,833           NIH-National Institutes of Health         93.310         Direct         21,153,911         9,494,753           NIH-National Institutes of Health         93.351         Direct         1,724,426         350,733           NIH-National Institutes of Health         93.393         Direct         1,806,007         454,860           NIH-National Institutes of Health         93.393         Direct         7,610,364         816,711 </td <td></td> <td></td> <td></td> <td>,</td> <td>,</td>				,	,
NIH-National Institutes of Health         93.213         Direct         3,071,013         58,014           NIH-National Institutes of Health         93.233         Direct         2,580,282         62,808           NIH-National Institutes of Health         93.242         Direct         25,431,709         4,237,689           NIH-National Institutes of Health         93.273         Direct         1,401,984         274,819           NIH-National Institutes of Health         93.279         Direct         10,018,777         1,078,258           NIH-National Institutes of Health         93.286         Direct         10,649,940         1,286,593           NIH-National Institutes of Health         93.307         Direct         718,135         103,833           NIH-National Institutes of Health         93.310         Direct         21,153,911         9,494,753           NIH-National Institutes of Health         93.351         Direct         1,724,426         350,733           NIH-National Institutes of Health         93.361         Direct         1,806,007         454,860           NIH-National Institutes of Health         93.393         Direct         7,81,233         1,446,297           NIH-National Institutes of Health         93.394         Direct         29,368,920         9,277,873				, ,	
NIH-National Institutes of Health       93.233       Direct       2,580,282       62,808         NIH-National Institutes of Health       93.242       Direct       25,431,709       4,237,689         NIH-National Institutes of Health       93.273       Direct       1,401,984       274,819         NIH-National Institutes of Health       93.279       Direct       10,018,777       1,078,258         NIH-National Institutes of Health       93.286       Direct       10,649,940       1,286,593         NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	
NIH-National Institutes of Health       93.242       Direct       25,431,709       4,237,689         NIH-National Institutes of Health       93.273       Direct       1,401,984       274,819         NIH-National Institutes of Health       93.279       Direct       10,018,777       1,078,258         NIH-National Institutes of Health       93.286       Direct       10,649,940       1,286,593         NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873					
NIH-National Institutes of Health       93.273       Direct       1,401,984       274,819         NIH-National Institutes of Health       93.279       Direct       10,018,777       1,078,258         NIH-National Institutes of Health       93.286       Direct       10,649,940       1,286,593         NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	,
NIH-National Institutes of Health       93.279       Direct       10,018,777       1,078,258         NIH-National Institutes of Health       93.286       Direct       10,649,940       1,286,593         NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	, ,
NIH-National Institutes of Health       93.286       Direct       10,649,940       1,286,593         NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	,
NIH-National Institutes of Health       93.307       Direct       718,135       103,833         NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	, ,
NIH-National Institutes of Health       93.310       Direct       21,153,911       9,494,753         NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	, ,
NIH-National Institutes of Health       93.351       Direct       1,724,426       350,733         NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				,	,
NIH-National Institutes of Health       93.361       Direct       1,806,007       454,860         NIH-National Institutes of Health       93.393       Direct       7,610,364       816,711         NIH-National Institutes of Health       93.394       Direct       7,981,233       1,446,297         NIH-National Institutes of Health       93.395       Direct       29,368,920       9,277,873				, ,	
NIH-National Institutes of Health         93.393         Direct         7,610,364         816,711           NIH-National Institutes of Health         93.394         Direct         7,981,233         1,446,297           NIH-National Institutes of Health         93.395         Direct         29,368,920         9,277,873					
NIH-National Institutes of Health         93.394         Direct         7,981,233         1,446,297           NIH-National Institutes of Health         93.395         Direct         29,368,920         9,277,873				, ,	
NIH-National Institutes of Health 93.395 Direct 29,368,920 9,277,873				, ,	,
				, ,	, ,
		93.396	Direct	11,295,226	1,976,073

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
NIH-National Institutes of Health	93.397	Direct	444,940	-
NIH-National Institutes of Health	93.837	Direct	39,677,006	7,701,046
NIH-National Institutes of Health	93.838	Direct	24,025,923	3,992,352
NIH-National Institutes of Health	93.839	Direct	7,888,476	2,317,359
NIH-National Institutes of Health	93.840	Direct	15,951	-
NIH-National Institutes of Health	93.846	Direct	16,591,743	1,792,517
NIH-National Institutes of Health	93.847	Direct	32,343,249	4,322,386
NIH-National Institutes of Health	93.853	Direct	35,776,124	4,419,497
NIH-National Institutes of Health	93.855	Direct	40,788,031	5,774,693
NIH-National Institutes of Health	93.859	Direct	16,197,733	2,006,422
NIH-National Institutes of Health	93.865	Direct	16,413,526	5,271,322
NIH-National Institutes of Health	93.866	Direct	42,371,107	9,214,144
NIH-National Institutes of Health	93.867	Direct	3,976,478	410,291
NIH-National Institutes of Health	93.879	Direct	1,159,153	102,790
NIH-National Institutes of Health	93.989	Direct	208,097	4,500
NIH-NCATS National Center for Advancing Translational Sciences	93.350	Direct	1,136,326	386,594
NIH-NCCAM National Center for Complementary and Alternative Medicine	93.213	Direct	839,046	179,551
NIH-NCI National Cancer Institute	93.310	Direct	632,365	119,440
NIH-NCI National Cancer Institute	93.353	Direct	3,210,113	389,834
NIH-NCI National Cancer Institute	93.393	Direct	13,453,457	2,194,958
NIH-NCI National Cancer Institute	93.394	Direct	8,563,466	1,348,332
NIH-NCI National Cancer Institute	93.395	Direct	9,730,734	4,661,378
NIH-NCI National Cancer Institute	93.396	Direct	6,350,520	1,024,644
NIH-NCI National Cancer Institute	93.397	Direct	2,167,022	1,717,732
NIH-NCNR National Center for Nursing Research	93.361	Direct	344,688	99,151
NIH-NEI National Eye Institute	93.867	Direct	20,314,604	1,608,694
NIH-NHGRI National Human Genome Research Institute	93.172	Direct	1,864,351	452,266
NIH-NHGRI National Human Genome Research Institute	93.310	Direct	415,464	439,459
NIH-NHLBI National Heart, Lung, and Blood Institute	93.233	Direct	5,289,289	107,963
NIH-NHLBI National Heart, Lung, and Blood Institute	93.837	Direct	36,694,660	6,988,786
NIH-NHLBI National Heart, Lung, and Blood Institute	93.838	Direct	12,896,328	1,429,635
NIH-NHLBI National Heart, Lung, and Blood Institute	93.839	Direct	3,058,311	182,919
NIH-NHLBI National Heart, Lung, and Blood Institute	93.855	Direct	631,657	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
NIH-NIA National Institute on Aging	93.866	Direct	15,608,113	321,431
NIH-NIAAA National Institute on Alcohol Abuse and Alcoholism	93.273	Direct	1,084,182	134,244
NIH-NIAID National Institute of Allergy and Infectious Diseases	93.353	Direct	132,640	-
NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct	53,247,429	25,917,245
NIH-NIAMS National Institute of Arthritis and Musculoskeletal and Skin Diseases	93.310	Direct	905,787	-
NIH-NIAMS National Institute of Arthritis and Musculoskeletal and Skin Diseases	93.846	Direct	5,962,330	1,674,969
NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.286	Direct	16,642,187	2,873,400
NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.310	Direct	1,101,706	-
NIH-NICHD National Institute of Child Health and Human Development	93.310	Direct	197,520	-
NIH-NICHD National Institute of Child Health and Human Development	93.865	Direct	3,488,723	612,310
NIH-NIDA National Institute on Drug Abuse	93.279	Direct	5,427,720	2,722,318
NIH-NIDCD National Institute on Deafness and Other Communication Disorders	93.173	Direct	17,697,010	2,013,750
NIH-NIDCD National Institute on Deafness and Other Communication Disorders	93.310	Direct	855,506	247,759
NIH-NIDCR National Institute of Dental and Craniofacial Research	93.121	Direct	527,277	186,000
NIH-NIDDK National Institute of Diabetes and Digestive and Kidney Diseases	93.847	Direct	14,496,289	1,912,742
NIH-NIEHS National Institute of Environmental Health Sciences	93.113	Direct	508,566	-
NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct	7,056,378	1,082,970
NIH-NIMH National Institute of Mental Health	93.242	Direct	18,011,845	4,183,307
NIH-NIMHD National Center on Minority Health and Health Disparities	93.307	Direct	967,178	301,399
NIH-NINDS National Institute of Neurological Disorders and Stroke	93.853	Direct	28,963,360	3,752,677
NIH-NLM National Library of Medicine	93.879	Direct	166,982	9,775
NIH-OD Office of the Director	93.310	Direct	4,417,297	768,783
NIH-OD Office of the Director	93.351	Direct	1,949,278	42,909
Actualize Therapy	93.242	5R44MH114725-02	81,755	-
Advanced Brain Monitoring	93.866	1R44AG050326-01A1	19,930	-
Advanced Brain Monitoring	93.866	1R44AG054256-01A1	55,966	-
Advanced MRI Technologies	93.242	1R44MH112210-01A1	30,663	-
AdventHealth	93.847	7R01DK112700-02	130,931	-
Africa Health Research Institute	93.855	5R01AI138546-02	39,530	-
ALA Scientific Instruments	93.279	4R44DA043277-02	54,902	-
Albany Medical College	93.837	5R01HL141127-02	64,254	-
Albert Einstein College of Medicine	93.397	5P20CA210284-02	22,802	-
Albert Einstein College of Medicine	93.847	5R01DK102952-07	303,948	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Albert Einstein College of Medicine	93.847	5R01DK115577-02	201,118	-
Albert Einstein College of Medicine	93.855	1U19AI142777-01	57,132	-
Albert Einstein College of Medicine	93.866	1R01AG062622-01	14,385	-
American College of Surgeons	93.307	5R01MD011695-03	488,875	-
Ann & Robert H Lurie Children's Hospital of Chicago	93.847	R01DK109881	47,234	-
Astraea Therapeutics	93.279	1U01DA047791-01	54,428	-
Augusta University	93.847	5U24DK076169-12	(1,474)	-
Augusta University	93.847	5U24DK076169-13	1,008	-
Augusta University	93.847	U24DK115255-01	24,900	-
Augusta University	93.855	5R01HL131674-04	227,264	-
Azevan Pharmaceuticals	93.853	5U44NS090616-04	155,809	45,966
Azevan Pharmaceuticals	93.853	5U44NS090616-04 (NCE)	64,858	-
Banner Alzheimer's Institute	93.866	1R01AG058468-01	287,568	-
Banner Alzheimer's Institute	93.866	5R01AG055444-02	38,575	-
Barrett Technology	93.286	1R43EB027525-01	34,010	-
Barrett Technology	93.865	5R44HD080278-03	242,998	-
Baylor College of Medicine	93.242	1R01MH115793-02	30,592	-
Baylor College of Medicine	93.394	5R01CA181275-05	44,151	-
Baylor College of Medicine	93.847	1R01DK104832-01A1	326	-
Baystate Medical Center	93.838	5U01HL122989-06	40,168	-
Baystate Medical Center	93.838	5U01HL123009-04	93	-
Baystate Medical Center	93.838	5U01HL123009-05	62,941	-
Beckman Research Institute of the City of Hope	93.393	5R01CA202712-02	24,415	-
Beckman Research Institute of the City of Hope	93.393	5R01CA202712-03	216,416	-
Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-03	953	-
Benaroya Research Institute at Virginia Mason	93.855	5UM1AI109565-06	6,157,381	-
Beth Israel Deaconess Medical Center	93.113	5R01ES028688-02	5,784	-
Beth Israel Deaconess Medical Center	93.213	5R01AT006358-06	(146)	-
Beth Israel Deaconess Medical Center	93.233	1R01HL136310-01A1	13,363	-
Beth Israel Deaconess Medical Center	93.233	5 R01 HL 136310-02	11,550	-
Beth Israel Deaconess Medical Center	93.233	5P01HL095491-08	510,219	-
Beth Israel Deaconess Medical Center	93.242	1R01MH116170-01A1	10,756	-
Beth Israel Deaconess Medical Center	93.242	4R01MH092440-05	(7,552)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Beth Israel Deaconess Medical Center	93.242	5R01MH048832-22	37,988	-
Beth Israel Deaconess Medical Center	93.242	5R01MH078113-09	21,551	-
Beth Israel Deaconess Medical Center	93.242	5R01MH107579-04	177,023	-
Beth Israel Deaconess Medical Center	93.242	5R01MH111448-03	62,977	-
Beth Israel Deaconess Medical Center	93.242	5U01MH081928-09	80,157	-
Beth Israel Deaconess Medical Center	93.242	5U01MH081928-10	166,996	-
Beth Israel Deaconess Medical Center	93.279	5R01DA036298-05	(11,081)	-
Beth Israel Deaconess Medical Center	93.310	1UG3HL147353-01	78,857	-
Beth Israel Deaconess Medical Center	93.396	5U01CA199252-04	401,372	-
Beth Israel Deaconess Medical Center	93.396	R01CA229307	5,517	-
Beth Israel Deaconess Medical Center	93.397	5P50CA101942-14	581,488	-
Beth Israel Deaconess Medical Center	93.837	2R01HL102368-06A1	1,687	-
Beth Israel Deaconess Medical Center	93.837	5 R01 HL 125379-02 A1	11,550	-
Beth Israel Deaconess Medical Center	93.837	5R01HL111465-05	7,566	-
Beth Israel Deaconess Medical Center	93.837	5U01HL126497-05	51,404	-
Beth Israel Deaconess Medical Center	93.838	5U01HL123009-04	67,689	-
Beth Israel Deaconess Medical Center	93.838	5U01HL123009-06	45,908	-
Beth Israel Deaconess Medical Center	93.838	5U01HL123022-06	14,239	-
Beth Israel Deaconess Medical Center	93.839	1R34HL135226-01	1,149	-
Beth Israel Deaconess Medical Center	93.839	5R01HL136394-03	405,617	-
Beth Israel Deaconess Medical Center	93.847	5R01DK088826-08	3,562	-
Beth Israel Deaconess Medical Center	93.847	5R01DK103902-05	109,727	-
Beth Israel Deaconess Medical Center	93.847	5R01DK108894-03	20,235	-
Beth Israel Deaconess Medical Center	93.847	5U01DK082919-12	95,306	-
Beth Israel Deaconess Medical Center	93.847	R01DK095072-06	25,581	-
Beth Israel Deaconess Medical Center	93.847	U01DK082919-08	(3,246)	-
Beth Israel Deaconess Medical Center	93.853	1U01NS096835-02	32,163	-
Beth Israel Deaconess Medical Center	93.853	5 R01 NS 091177-04	5,775	-
Beth Israel Deaconess Medical Center	93.853	5U01NS096835-02	95,310	-
Beth Israel Deaconess Medical Center	93.855	1R21Al137835-01A1	22,789	-
Beth Israel Deaconess Medical Center	93.855	5R01AI129797-03	268,086	-
Beth Israel Deaconess Medical Center	93.855	5U19Al128751-02	503,302	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI069412-13	2,204,545	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI124377-04	238,696	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Beth Israel Deaconess Medical Center	93.855	5UM1AI126603-03	35,105	-
Beth Israel Deaconess Medical Center	93.855	5UM1AI126603-04	508,030	-
Beth Israel Deaconess Medical Center	93.866	1R01AG051658-04	35,116	-
Beth Israel Deaconess Medical Center	93.866	1R01AG060981-01	24,752	-
Beth Israel Deaconess Medical Center	93.866	5R01AG052282-04	155,264	-
Beth Israel Deaconess Medical Center	93.866	5R01AG055559-03	331,529	-
BioSensics	93.865	5R44HD084035-03	126,357	-
BioSensics	93.866	1R42AG059491-01	96,420	-
BioSensics	93.866	5R42AG059491	68,720	-
BioSensics	93.866	R44AG051374	(4,710)	-
Boston Medical Center	93.279	5R01DA042685-02	(1,127)	-
Boston Medical Center	93.350	5U01TR002070-02	52,455	-
Boston Medical Center	93.350	U01TR002070	181,654	-
Boston Medical Center	93.847	2P30DK046200-26	14,346	-
Boston Medical Center	93.847	5P30DK046200-25	(16,463)	-
Boston Medical Center	93.847	5P30DK046200-27	77,463	-
Boston University	93.143	5P42ES007381-23	64,644	-
Boston University	93.173	4P50DC013027-05	(2,067)	-
Boston University	93.173	5R01DC015570-04	21,712	-
Boston University	93.213	5R01AT007257-05	(41)	-
Boston University	93.213	5R01AT007483-05	11,393	-
Boston University	93.273	5R01AA007112-30	269,949	-
Boston University	93.273	5R01AA015923-08	54,915	-
Boston University	93.393	5R01CA226805-02	11,300	-
Boston University	93.394	1R01CA232056-01A1	33,708	-
Boston University	93.395	1R01CA212639-01A1	(72,441)	-
Boston University	93.395	1R01CA227433-01	28,848	-
Boston University	93.395	1R01CA232708-01A1	21,109	-
Boston University	93.837	5R01HL098028-06	51,530	-
Boston University	93.837	5R01HL128914-04	127,472	-
Boston University	93.837	5R01HL141406-02	200,458	-
Boston University	93.838	1R61HL137081-01	2,037	-
Boston University	93.847	3UC4DK108612-01S1	161,512	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Boston University	93.853	5R01NS095369-03	457	-
Boston University	93.853	5U01NS086659-04	44,701	-
Boston University	93.853	5U01NS093334-04	389,934	-
Boston University	93.859	5R01GM121457-02	138,061	-
Boston University	93.866	1R56AG051638-01A1	12,563	-
Boston University	93.866	1RF1AG056032-01A1	329,619	-
Boston University	93.866	4500003087	60,293	-
Boston University	93.866	5R01AG054076-02	(20)	-
Boston University	93.866	R21AG049968-02	(3,094)	-
Boston University	93.867	7R21EY027067-02	(4,641)	-
Boston University School of Medicine	93.866	1 R01AG061706-01	53,809	-
Boston VA Research Institute	93.837	5U01HL130163-03	8,442	-
Botswana Harvard AIDS Institute Partnership	93.397	1P20CA210283-01	(102)	-
Botswana Harvard AIDS Institute Partnership	93.397	5P20CA210283-02	(5,148)	-
Botswana Harvard AIDS Institute Partnership	93.397	P20CA210283-02	(4,086)	-
Brain Solutions	93.279	1R42DA043977-01	393,138	-
Brandeis University	93.395	5R01CA142746-09	92,958	-
Brandeis University	93.865	1R01 HD090103-01A1	17,039	-
Brigham and Women's Hospital	93.121	5U01DE024443-05	39,128	-
Brigham and Women's Hospital	93.172	1U01HG008685-04	203,528	-
Brigham and Women's Hospital	93.172	5U01HG007690-06	343,959	-
Brigham and Women's Hospital	93.242	3R01MH091448-09S1	64,043	-
Brigham and Women's Hospital	93.242	5R01MH091448-10	212,029	-
Brigham and Women's Hospital	93.242	5R01MH101244-07	121,533	-
Brigham and Women's Hospital	93.242	5R03MH108908-02	(60)	-
Brigham and Women's Hospital	93.242	5R21MH115280-02	40,563	-
Brigham and Women's Hospital	93.242	5U01MH109977-03	145,452	-
Brigham and Women's Hospital	93.279	1R01DA044167-01A1	15,291	-
Brigham and Women's Hospital	93.286	5R21EB025270-02	15,289	-
Brigham and Women's Hospital	93.307	5R01MD011685-02	98,546	-
Brigham and Women's Hospital	93.310	5U01HG007690-03	(6,759)	-
Brigham and Women's Hospital	93.394	5R01CA120528-13	45,869	-
Brigham and Women's Hospital	93.394	5U24CA180918-05	7,302	-
Brigham and Women's Hospital	93.395	3U10CA180821-06S2	186	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Brigham and Women's Hospital	93.395	5R01CA207982-03	28,449	-
Brigham and Women's Hospital	93.395	5U10CA031946-32	17,537	-
Brigham and Women's Hospital	93.395	5UM1AI068636-11	(69,681)	-
Brigham and Women's Hospital	93.395	CALGB Cooperative Agreement	1,560	-
Brigham and Women's Hospital	93.396	2P01CA120964-11A1	50,471	-
Brigham and Women's Hospital	93.396	5R35CA197605-04	156,799	-
Brigham and Women's Hospital	93.396	5U01CA214411-03	18,839	-
Brigham and Women's Hospital	93.397	1P50CA206963-01A1	(30,878)	-
Brigham and Women's Hospital	93.397	5P50CA206963-02	(20,785)	-
Brigham and Women's Hospital	93.701	U01NS062835	(89)	-
Brigham and Women's Hospital	93.837	4U01HL101422-05	17,217	-
Brigham and Women's Hospital	93.837	4U01HL130163-04	18,698	-
Brigham and Women's Hospital	93.837	4U54HL119145-06	59,984	-
Brigham and Women's Hospital	93.837	5R01HL127118-04	32,890	-
Brigham and Women's Hospital	93.837	5U01HL101422	18,029	-
Brigham and Women's Hospital	93.837	5U01HL101422-06	49,425	-
Brigham and Women's Hospital	93.837	5U01HL107352-05	156,855	-
Brigham and Women's Hospital	93.837	5U01HL130163-04	408	-
Brigham and Women's Hospital	93.837	5U54HL119145-05	221,805	-
Brigham and Women's Hospital	93.837	5U54HL119145-06	14,326	-
Brigham and Women's Hospital	93.837	5U54HL119145-07	321,519	-
Brigham and Women's Hospital	93.839	5R01HL116854-05	29,986	-
Brigham and Women's Hospital	93.846	1R01AR074797	69,237	-
Brigham and Women's Hospital	93.846	1U01AR070498-01A1	228,402	11,382
Brigham and Women's Hospital	93.846	2R01AR065807	217,220	-
Brigham and Women's Hospital	93.846	5R01AR064367-04	462,652	-
Brigham and Women's Hospital	93.846	5R01AR065538-05	5,075	-
Brigham and Women's Hospital	93.846	5R01AR065807-20	(1,429)	-
Brigham and Women's Hospital	93.846	5U01AR068043-02	13,214	-
Brigham and Women's Hospital	93.846	5U01AR068043-03	110,323	-
Brigham and Women's Hospital	93.847	5R01DK102696-05	74,516	-
Brigham and Women's Hospital	93.847	5R01DK104772-04	11,302	-
Brigham and Women's Hospital	93.847	R01DK108438-02	3,271	-
Brigham and Women's Hospital	93.853	5R21NS101673-02	20,989	-
Brigham and Women's Hospital	93.853	5R21NS104609-02	15,704	-
Brigham and Women's Hospital	93.855	1R01Al138800-01A1	10,542	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Brigham and Women's Hospital	93.855	1R01Al138801-01A1	20,817	-
Brigham and Women's Hospital	93.855	1R56Al125109-01A1	(1,359)	-
Brigham and Women's Hospital	93.855	5R01AI108538-05	27,594	-
Brigham and Women's Hospital	93.855	5R01AI138999-02	156,688	-
Brigham and Women's Hospital	93.855	5U01AI063594-13	1,840	-
Brigham and Women's Hospital	93.855	5U01AI117841-05	1,126,552	-
Brigham and Women's Hospital	93.855	5UM1AI068636-11	(837)	-
Brigham and Women's Hospital	93.855	5UM1AI068636-12	447,231	-
Brigham and Women's Hospital	93.855	5UM1AI106701-05	8,197	-
Brigham and Women's Hospital	93.855	UM01AI068636	(8,861)	-
Brigham and Women's Hospital	93.859	5P01GM061354-15	1,043,288	-
Brigham and Women's Hospital	93.865	3R01HD093724-02S1	4,361	-
Brigham and Women's Hospital	93.865	5R01HD093724-02	90,714	-
Brigham and Women's Hospital	93.866	1R01AG058825-01A1	17,254	-
Brigham and Women's Hospital	93.866	1R01AG063689-01	10,775	-
Brigham and Women's Hospital	93.866	1R56AG055728-01	23,955	-
Brigham and Women's Hospital	93.866	2P01AG015379-21A1	5,103	-
Brigham and Women's Hospital	93.866	5P01AG015379-20	501,637	-
Brigham and Women's Hospital	93.866	5P01AG015379-20/20S1	408,240	-
Brigham and Women's Hospital	93.866	5R01AG042512-05	52,026	-
Brigham and Women's Hospital	93.866	5R01AG053184-02	276,108	-
Brigham and Women's Hospital	93.866	5R01AG054366-02	210	-
Brigham and Women's Hospital	93.867	5R01EY027921-02	279,973	-
Brigham and Women's Hospital	93.867	5R24EY028767-01	381,959	-
Broad Institute	93.121	7R01DE022087-05	(389)	-
Broad Institute	93.172	2RM1HG006193-06	(1,391)	-
Broad Institute	93.172	5R01HG009141-02	55,747	-
Broad Institute	93.172	5RM1HG006193-09	84,565	-
Broad Institute	93.172	5U24HG010262-02	7,684	-
Broad Institute	93.172	5UM1HG008895-04	121,110	-
Broad Institute	93.172	5UM1HG008900-02	21,962	-
Broad Institute	93.172	5UM1HG008900-04	28,004	-
Broad Institute	93.172	5UM1HG009390-02	24,651	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Broad Institute	93.172	U41HG009494	33,311	-
Broad Institute	93.172	UM1HG008900	106,452	-
Broad Institute	93.172	UM1HG009390	54,037	-
Broad Institute	93.242	1R01MH109903-03	2,560	-
Broad Institute	93.242	1R56MH115957-01	156,530	-
Broad Institute	93.242	2R01MH107649-04	227,956	-
Broad Institute	93.242	540000541	8,227	-
Broad Institute	93.242	5R01MH105500-5	9,956	-
Broad Institute	93.242	5U01MH105669-04	26,604	-
Broad Institute	93.242	5U01MH111660-02	90,595	-
Broad Institute	93.242	5U01MH115727-02	13,000	-
Broad Institute	93.242	5U01MH115727-03	113,941	-
Broad Institute	93.242	R01MH107649	(1,628)	-
Broad Institute	93.310	1U2COD023196-02	6,493	-
Broad Institute	93.310	3U54DK102557-03	(50)	-
Broad Institute	93.310	5400000141/VUMC59306/5400000317	101,212	-
Broad Institute	93.310	5R01DK113597-02	(3,923)	-
Broad Institute	93.310	5R01DK113597-03	363,001	-
Broad Institute	93.310	VUMC59306	(705)	-
Broad Institute	93.350	OT3TR002025	(3,150)	-
Broad Institute	93.368	1OT2OD002750-01	185,113	-
Broad Institute	93.394	227914	18,569	-
Broad Institute	93.394	5R01CA161026-07	9,868	-
Broad Institute	93.394	5R33CA202820-03	12,755	-
Broad Institute	93.394	U01CA214125	25,733	-
Broad Institute	93.394	U24CA210979	31,905	-
Broad Institute	93.394	U24CA210979-02	84,464	-
Broad Institute	93.394	U24CA210986	31,386	-
Broad Institute	93.394	U24CA210999	49,622	-
Broad Institute	93.396	1R01CA184922-01	(606)	-
Broad Institute	93.396	2R01CA155010	3,949	-
Broad Institute	93.837	1OT3HL142478-01	28,562	-
Broad Institute	93.837	1R01HL142711-01A1 / 234357	5,408	-
Broad Institute	93.837	3004511242/5400000310	61,194	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Broad Institute	93.837	5400000102/226405	7,622	-
Broad Institute	93.837	540000049	47,828	-
Broad Institute	93.837	5R01HL131015-03	2,564	-
Broad Institute	93.837	5R01HL138737-02	13,664	-
Broad Institute	93.837	R01HL131015	74,903	-
Broad Institute	93.846	1UH2AR06788-02	24,111	-
Broad Institute	93.846	540000142	3,384	-
Broad Institute	93.846	R01AR061445	3,412	-
Broad Institute	93.847	1RC2DK114784-02	23,123	-
Broad Institute	93.847	1RC2DK114784-03	122,387	-
Broad Institute	93.847	1UC4DK116255-01	28,697	-
Broad Institute	93.847	233311 / 1R01DK120485-01	4,844	-
Broad Institute	93.847	5400000031/5400000233	(856)	-
Broad Institute	93.847	5400000499	51,435	-
Broad Institute	93.847	540000630	9,281	-
Broad Institute	93.847	5R01DK064869-13	471	-
Broad Institute	93.847	5R01DK075787-12	11,523	-
Broad Institute	93.847	5R01DK105154-04	110,354	-
Broad Institute	93.847	5R24DK110499-03	11,254	-
Broad Institute	93.847	5U01DK105554-02	215	-
Broad Institute	93.847	5U01DK105554-04	11,608	-
Broad Institute	93.847	5U54DK105566-04	88,717	-
Broad Institute	93.847	FP068366-01A/5400000550	18,423	-
Broad Institute	93.847	R01DK099465	10,577	-
Broad Institute	93.847	RC2DK114784	7,091	-
Broad Institute	93.847	U01DK105554	(14,934)	-
Broad Institute	93.853	540000503	78,427	-
Broad Institute	93.855	112673	10,180	-
Broad Institute	93.855	1P01AI129880-01A1	6,038	-
Broad Institute	93.855	1U19AI133524-01	(3,014)	-
Broad Institute	93.855	1U19AI142784-01	4,113	-
Broad Institute	93.855	2U19AI110818-06	12,590	-
Broad Institute	93.855	5R01Al117043-03	7,815	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Broad Institute	93.855	5R01AI117043-05	38,395	-
Broad Institute	93.855	5R01Al132300-02	38,395	-
Broad Institute	93.855	5U19AI110818-05	33,750	-
Broad Institute	93.855	5U24AI118668-03	(1,361)	-
Broad Institute	93.855	M17A12655 (A10974) U19Al089992	6,236	-
Broad Institute	93.855	UM1AI110498	1,522	-
Broad Institute	93.855	WU-14-266	4,014	-
Broad Institute	93.855	WU-14-266 / 1U19AI109725	5,333	-
Broad Institute	93.859	1R35GM122455-01	39,422	-
Broad Institute	93.865	R01 HD081256	24,852	-
Broad Institute	93.865	U24HD090743/5400000133/5400000540	14,108	-
Broad Institute	93.866	5DP2AG058486-02	69,562	-
Broad Institute	93.867	5R01EY027421-03	13,591	-
Brown University	93.213	5UH2AT009145-04	125,132	-
Brown University	93.242	3R01MH105442-05S1	95,513	-
Brown University	93.242	5R01MH106174-05	68,373	-
Brown University	93.242	5R34MH097820-03	2,290	-
Brown University	93.286	5R01EB022889-03	114,620	-
Brown University	93.398	5R01CA201262-03	37,640	-
Brown University	93.839	5U01HL114476-05	762	-
Brown University	93.853	5R01NS079533-05	(2,307)	-
Brown University	93.853	5R01NS079533-07	132,954	-
Brown University	93.866	5UH3AG049619-05	160,371	-
California Pacific Medical Center	93.866	5R01AG052964-04	491,508	-
Cambridge Hospital	93.393	1R01CA229355-01A1	12,972	-
Carolinas HealthCare System	93.121	3U01DE022939-05S3	(21,617)	-
Carolinas HealthCare System	93.121	5R01DE023375-05	157,696	-
Carolinas HealthCare System	93.121	5U01DE022939-05	9,455	-
Carolinas HealthCare System	93.121	5U01DE022939-07	352,137	-
Case Western Reserve University	93.279	5R01DA043263-04	269,129	-
Case Western Reserve University	93.286	5U01EB020955-03	8,335	-
Case Western Reserve University	93.838	2R01HL094585-05A1	(4,368)	-
Case Western Reserve University	93.838	5R01HL094585-07	20,306	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Case Western Reserve University	93.846	1R01AR066193-03	(12,231)	-
Case Western Reserve University	93.847	1DP3DK114812-01	36,141	-
Case Western Reserve University	93.847	2U01DK094157-07	337,397	-
Case Western Reserve University	93.847	3U01DK094157-06	(4,487)	-
Case Western Reserve University	93.847	3U01DK094157-07	(3,663)	-
Case Western Reserve University	93.847	5U01DK094157-08	29,944	-
Case Western Reserve University	93.853	1U01NS082329-01A1	97	-
Case Western Reserve University	93.855	5U01AI131295-02	9,514	-
Case Western Reserve University	93.867	5R01EY027134-02	52,787	-
Cedar-Sinai Medical Center	93.393	5R01CA211707-02	148,998	-
Cedar-Sinai Medical Center	93.394	5R01CA201709-03	27,439	-
Cedar-Sinai Medical Center	93.837	5R01HL089765-09	2,591	-
Cedar-Sinai Medical Center	93.866	1R01AG058911-01	207,714	-
Cedars-Sinai Research Institute	93.853	5U01NS088312-03	19,489	-
Cedars-Sinai Research Institute	93.853	5U01NS088312-04	(1,011)	-
Centre for the AIDS Programme of Research	93.855	5R01AI111936-04	(3,407)	-
Children's Hospital Corporation	93.172	1R01HG010004-02	69,953	-
Children's Hospital Corporation	93.242	2R01MH078829-20	(42)	-
Children's Hospital Corporation	93.242	5R24MH109111-03	8,640	-
Children's Hospital Corporation	93.286	5R01EB017337-05	131,163	-
Children's Hospital Corporation	93.394	5U24CA184407-06	89,502	-
Children's Hospital Corporation	93.395	5R01CA222355-02	9,046	-
Children's Hospital Corporation	93.837	5R01 HL128694-04	(9)	-
Children's Hospital Corporation	93.837	5UM1HL098147-10	202,191	-
Children's Hospital Corporation	93.838	5R01HL137192-03	435,010	-
Children's Hospital Corporation	93.839	5P01HL032262-36	85	-
Children's Hospital Corporation	93.839	5P01HL095489-09	693,569	-
Children's Hospital Corporation	93.839	5U01HL117720-05	(95)	-
Children's Hospital Corporation	93.846	5R34AR066631-02	15,465	-
Children's Hospital Corporation	93.847	1R21DK118951-01	81,944	-
Children's Hospital Corporation	93.847	5P30DK034854-32	79,568	-
Children's Hospital Corporation	93.847	5P30DK034854-33	33,789	-
Children's Hospital Corporation	93.847	5P30DK034854-34	177,813	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Children's Hospital Corporation	93.847	5R24DK099808-05	64,868	-
Children's Hospital Corporation	93.853	1R21NS101373-01A1	41,218	-
Children's Hospital Corporation	93.853	5R01NS080833-08	14,263	-
Children's Hospital Corporation	93.855	2P01Al089618-06	(400)	-
Children's Hospital Corporation	93.855	4R01AI100114-05	(212)	-
Children's Hospital Corporation	93.855	5P01Al089618-07	714,045	-
Children's Hospital Corporation	93.855	5R01AI108588-04	158,940	-
Children's Hospital Corporation	93.855	5R01AI126915-03	63,179	-
Children's Hospital Corporation	93.855	5U01AI126614-04	45,225	-
Children's Hospital Corporation	93.865	1R21HD090549-01A1	(2,742)	-
Children's Hospital Corporation	93.865	1U01HD087211-01	67,206	-
Children's Hospital Corporation	93.865	1U01HD087211-01	230,080	-
Children's Hospital Corporation	93.865	5R01HD065762-08	187,811	-
Children's Hospital Corporation	93.865	5R01HD076258-05	22,747	-
Children's Hospital Corporation	93.865	5R01HD76258-04	(84)	-
Children's Hospital Corporation	93.865	5R21HMD096355-02	4,417	-
Children's Hospital Corporation	93.867	1R01EY025794-04	142,262	-
Children's Hospital Corporation	93.867	5R01EY025794-02S1	60,776	-
Children's Hospital Corporation	93.867	5R01EY025794-03	237,469	-
Children's Hospital Los Angeles	93.837	1R01HL146541-01	48,468	-
Children's Hospital Los Angeles	93.838	5R01HL141352-02	307,287	-
Children's Hospital Medical Center	93.837	4R01HL116906-04 REVISED	48,014	-
Children's Hospital of Philadelphia	93.395	1U10CA180886	21,932	-
Cincinnati Childrens Hospital Medical Center	93.846	5P30AR070549-03	8,491	-
Cleveland Clinic Foundation Group Return	93.838	5U01HL125177-05	118,597	-
Cleveland Clinic Foundation Group Return	93.846	1R01AR074131-01	9,839	-
Clinitech	93.273	2R44AA026123-02	28,738	-
Collagen Medical	93.394	1R44CA200186-01A1	14,395	-
Collagen Medical	93.866	1R44AG059524-01	31,945	-
Columbia University	93.242	5U01MH105670-05	123	-
Columbia University	93.393	5U01CA199336-05	84,082	-
Columbia University	93.393	7R01CA140574-10	21,947	-
Columbia University	93.395	5R01CA212086-03	136,164	-
Columbia University	93.837	5R01HL127464-04	341,761	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Columbia University	93.837	5R01HL132412-03	39,786	-
Columbia University	93.838	5R01HL137234-02	87,160	-
Columbia University	93.847	5R01DK080099-09	111,887	-
Columbia University	93.853	2R01NS084142-06	37,283	-
Columbia University	93.855	1U19AI131474-01	(47)	-
Columbia University	93.855	2P01AI045897-18	27,856	-
Columbia University	93.855	5R01AI116814-05	19,616	-
Columbia University	93.855	5U54AI138370-02	88,355	-
Columbia University	93.865	5R01HD094793-02	34,666	-
Columbia University	93.866	1RF1AG057473-01	149,784	-
Columbia University	93.866	3U01AG046152-05S1	109,071	-
Columbia University	93.866	5U01AG051412-05	1,276,007	-
Columbia University	93.866	7U01AG046152-05	134,726	-
Columbia University Medical Center	93.361	7R01NR016941-02	239,591	-
Columbia University Medical Center	93.846	5R01AR068425-03	41,245	-
Columbia University Medical Center	93.866	5U01AG051412-05 (Supplement)	454,407	-
Cornell University	93.286	4R01EB017274-04	(12)	-
Cornell University	93.838	5P01HL114501-05	476,965	-
Cornell University	93.853	5 R01NS093120-04	17,215	-
Cornell University	93.879	5R01LM012719-02	75,219	-
CorticoMetrics	93.394	2R42CA183150-02	215,092	-
CorticoMetrics	93.853	1R44NS089090-01A1	124,635	-
CREcare	93.865	1R41HD097844-01A1	20,940	-
Dana Farber Cancer Institute	93.113	1U01ES029520-01	21,463	-
Dana Farber Cancer Institute	93.121	5R01DE024403-05	49,370	-
Dana Farber Cancer Institute	93.121	5R01DE027736-02	221,675	-
Dana Farber Cancer Institute	93.172	4P50HG004233-09	(8,290)	-
Dana Farber Cancer Institute	93.353	1U2CCA233195-01	149,623	-
Dana Farber Cancer Institute	93.353	1U54CA231637-01	542,494	-
Dana Farber Cancer Institute	93.353	1UM1CA233080-01	49,861	-
Dana Farber Cancer Institute	93.353	3P30CA006516-53S3	312,952	-
Dana Farber Cancer Institute	93.353	3R01CA176745-07S1	122,733	-
Dana Farber Cancer Institute	93.353	5P01CA154303-07	11,807	-
Dana Farber Cancer Institute	93.353	U24CA224331	33,123	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Dana Farber Cancer Institute	93.393	1R01CA218651-01A1	1,198	-
Dana Farber Cancer Institute	93.393	2U01CA167552-07	5,184	-
Dana Farber Cancer Institute	93.393	5P01CA087969-19	7,963	-
Dana Farber Cancer Institute	93.393	5R01CA118553-10	19,269	-
Dana Farber Cancer Institute	93.393	5R01CA169141-07	11,611	-
Dana Farber Cancer Institute	93.393	5R01CA204954-04	172,008	-
Dana Farber Cancer Institute	93.393	5R21CA222940-02	3,079	-
Dana Farber Cancer Institute	93.393	5R35CA197735-04	116,648	-
Dana Farber Cancer Institute	93.393	5U01CA218651-02	2,872	-
Dana Farber Cancer Institute	93.393	R01CA227237	13,699	-
Dana Farber Cancer Institute	93.393	R21CA230873-01	8,352	-
Dana Farber Cancer Institute	93.393	R35CA197735	7,811	-
Dana Farber Cancer Institute	93.394	1R01CA214912-02	190	-
Dana Farber Cancer Institute	93.394	1R01CA239042-01	88,126	-
Dana Farber Cancer Institute	93.394	2R01CA161026-06	17,744	-
Dana Farber Cancer Institute	93.394	3R01CA188446-05S1	99,405	-
Dana Farber Cancer Institute	93.394	4R01CA114465-10	(1,864)	-
Dana Farber Cancer Institute	93.394	5R01CA175732-05	(394)	-
Dana Farber Cancer Institute	93.394	5R01CA188446-05	82,190	-
Dana Farber Cancer Institute	93.394	5R01CA208254-03	228,504	-
Dana Farber Cancer Institute	93.394	5R21CA205094-02	15,905	-
Dana Farber Cancer Institute	93.394	5U01CA190234-05	25,904	-
Dana Farber Cancer Institute	93.394	5U01CA210171-03	9,385	-
Dana Farber Cancer Institute	93.394	5U01CA210171-04	189,216	-
Dana Farber Cancer Institute	93.394	5U24CA194354-05	69,511	-
Dana Farber Cancer Institute	93.395	5UG1CA189823-03	(5,112)	-
Dana Farber Cancer Institute	93.395	1U10CA180867-01	(17,771)	-
Dana Farber Cancer Institute	93.395	3U10CA180821-05S2	104,110	-
Dana Farber Cancer Institute	93.395	4R01CA077544-15	(848)	-
Dana Farber Cancer Institute	93.395	5P01CA142106-14	20,543	-
Dana Farber Cancer Institute	93.395	5R01CA178264-05	34,316	-
Dana Farber Cancer Institute	93.395	5R01CA200977-02	6,669	-
Dana Farber Cancer Institute	93.395	5R01CA205406-03	88,438	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Dana Farber Cancer Institute	93.395	5R21CA188833-02	(998)	-
Dana Farber Cancer Institute	93.395	5U01CA190234-05	10,883	-
Dana Farber Cancer Institute	93.395	5U10CA180867-03	(101)	-
Dana Farber Cancer Institute	93.395	5U10CA180867-05	(62,799)	-
Dana Farber Cancer Institute	93.395	5UM1CA186709	(184)	-
Dana Farber Cancer Institute	93.395	5UM1CA186709-04	118,915	-
Dana Farber Cancer Institute	93.395	5UM1CA186709-05	123,745	-
Dana Farber Cancer Institute	93.395	R01CA188228	(2,062)	-
Dana Farber Cancer Institute	93.396	1U01CA232161-01	262,218	-
Dana Farber Cancer Institute	93.396	5P01CA080111-20	5,809	-
Dana Farber Cancer Institute	93.396	5R01CA131945-10	64,892	-
Dana Farber Cancer Institute	93.396	5R21CA205094-02	21,416	-
Dana Farber Cancer Institute	93.396	5R35CA197632-04	7,570	-
Dana Farber Cancer Institute	93.396	5U01CA195469-04	7,570	-
Dana Farber Cancer Institute	93.397	2P30CA006516-52	(287)	-
Dana Farber Cancer Institute	93.397	2U54CA156732-08	21,039	-
Dana Farber Cancer Institute	93.397	3P30CA006516-51S4	8,062	-
Dana Farber Cancer Institute	93.397	3P30CA006516-53S7	187,305	-
Dana Farber Cancer Institute	93.397	3P30CA006516-54S4	102,246	-
Dana Farber Cancer Institute	93.397	4P50CA168504-04	(155)	-
Dana Farber Cancer Institute	93.397	5 P50 CA206963-04	54,382	-
Dana Farber Cancer Institute	93.397	5P30CA006516-53	160,288	-
Dana Farber Cancer Institute	93.397	5P30CA006516-54	2,348,843	-
Dana Farber Cancer Institute	93.397	5P50CA090381-15	78,825	-
Dana Farber Cancer Institute	93.397	5P50CA127003-10	14,015	-
Dana Farber Cancer Institute	93.397	5P50CA168504-05	(10,289)	-
Dana Farber Cancer Institute	93.397	5U54CA193461-04	95,722	-
Dana Farber Cancer Institute	93.397	5U54CA193461-05	121,253	-
Dana Farber Cancer Institute	93.839	4P50HL110790-05	(3,692)	-
Dana Farber Cancer Institute	93.839	5U01HL069249	(2,754)	-
Dana Farber Cancer Institute	93.839	5UG1HL069249-19	13,004	-
Dana Farber Cancer Institute	93.853	5R01NS091620-04	53,631	-
Dana Farber Cancer Institute	93.855	4R01AI101897-05	2,597	-
Dana Farber Cancer Institute	93.855	5P01Al045757-19	(8,742)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Dana Farber Cancer Institute	93.859	5R01GM107427-04	(4,387)	-
Dana Farber Cancer Institute	93.866	1UG3AG060626-01	262,996	-
Dana Farber/Harvard Cancer Center	93.397	5P50CA090381-15	2,985	-
Dartmouth College	93.113	5P01ES022832-05	(231)	-
Dartmouth College	93.397	U54CA163307-02	144	-
Dartmouth College	93.838	5R01HL122372-04	(25,793)	-
Dartmouth-Hitchcock Clinic	93.838	6R01HL122372-05	20,174	-
Dartmouth-Hitchcock Clinic	93.865	5R01HD067270-10	98,003	-
Dartmouth-Hitchcock Clinic	93.865	R01HD067270	69,499	-
Day Zero Diagnostics	93.855	R43AI148172	4,300	-
Duke NUS Graduate Medical School	93.855	5R01AI139032-02	58,960	-
Duke University	93.173	1U24DC012206-01A1	(65)	-
Duke University	93.286	1R01EB028143-01A1	42,078	-
Duke University	93.286	1R21EB025313-01	11,621	-
Duke University	93.393	5R01CA190428-04	40,774	-
Duke University	93.394	5R01CA200808-02	19,929	-
Duke University	93.394	7R01CA182076-05	87,651	-
Duke University	93.837	3U10HL084904-10S1	51,313	-
Duke University	93.837	5U10HL084904-08	(87)	-
Duke University	93.837	5U10HL084904-11	21,348	-
Duke University	93.837	5U10HL084904-12	84,032	-
Duke University	93.837	U01HL084904-08	(50)	-
Duke University	93.837	U01HL105463	(50)	-
Duke University	93.837	U10HL084904	22,699	-
Duke University	93.855	1R56Al139425-01	16,125	-
Duke University	93.855	5UM1AI104681-05	36,517	-
Duke University	93.855	5UM1AI104681-07	194	-
Duke University	93.865	5U01HD073984-06	(5,798)	-
Duke University	93.865	7U01HD073984-05	197	-
ECOG ACRIN Cancer Research Group	93.395	1UG1CA189828	14,698	-
ECOG ACRIN Cancer Research Group	93.395	5U10CA180820-05	14,901	-
ECOG-ACRIN Medical Research Foundation	93.394	5U24CA196172-05	9,758	-
ECOG-ACRIN Medical Research Foundation	93.395	5U10CA180820-05	83,480	-
ECOG-ACRIN Medical Research Foundation	93.395	5UG1CA189828-05	27,629	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Electrical Geodesics	93.853	2R44NS071988-03A1	24,189	-
EMMES Corporation	93.847	1UC4DK114839-01	34,365	-
Emory University	93.213	5UG3AT008857-02	7,551	8,503
Emory University	93.837	4U01HL105561-06	(39,058)	-
Emory University	93.853	5U01NS038455-14	8,757	-
Emory University	93.855	2P30AI050409-20	74,391	-
Emory University	93.855	5R01AI051231-18	394,363	-
Emory University	93.866	1R01AG058704-01	8,260	-
Emory University	93.866	1R01AG058704-02	64,755	-
ExQor Technologies	93.279	1R43DA044050-01	2,166	-
ExQor Technologies	93.866	4R44AG05834302	169,302	-
EyePhone	93.867	2R44EY025902-02	172,572	-
Fairhaven Health	93.865	1R43HD090753-01A1	48,945	-
Feinstein Institute for Medical Research	93.846	3UH2AR067694-05S2	417,850	-
Feinstein Institute for Medical Research	93.846	5UH2AR067694-02	80,534	-
Feinstein Institute for Medical Research	93.855	5UH2AR067688-02	89,101	-
Feinstein Institute for Medical Research	93.855	5UH2AR067688-05	26,421	-
Fenway Community Health Center	93.279	1K23DA044874-01	11,030	-
Fenway Community Health Center	93.279	5R01DA047045-02	9,599	-
Fenway Community Health Center	93.855	5P30AI060354-14	26,286	-
FHC	93.242	1R41MH11980401	27,593	-
FHI 360	93.855	5UM1A1068619-12	8,096	-
FHI 360	93.865	5R01HD077888-03	15,771	-
FieldLine	93.853	1R41NS108898-01	13,166	-
Florida Atlantic University	93.855	1R15Al127214-01	24,057	-
Florida International University	93.279	5U01DA040381-04	118,168	-
FluGen	93.855	R42AI120269-03	17,720	-
Forsyth Institute	93.121	2R01DE025020-05	11,616	-
Forsyth Institute	93.121	5R01DE024468-05	101,857	-
Forsyth Institute	93.121	5R01DE025020-04	93,456	-
Fraunhofer CMI	93.855	5R01AI101446-05	1,882	-
Fred Hutchinson Cancer Research Center	93.393	5R01CA176272-05	44,572	-
Fred Hutchinson Cancer Research Center	93.393	5U01CA137088-09	83,509	-
Fred Hutchinson Cancer Research Center	93.393	5U01CA182940-05	79	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Fred Hutchinson Cancer Research Center	93.394	5U01CA214114-03	19,328	-
Fred Hutchinson Cancer Research Center	93.394	5U01CA214172-02	13,911	-
Fred Hutchinson Cancer Research Center	93.855	5UM1Al068614-13	264,218	-
Fred Hutchinson Cancer Research Center	93.855	5UM1AI068618-13	93,419	-
Fred Hutchinson Cancer Research Center	93.866	5R01AG048209-03S1	(902)	-
Fred Hutchinson Cancer Research Center	93.866	5R01AG048209-04	95,738	-
Fred Hutchinson Cancer Research Center	93.866	5R01AG048209-05	120,082	-
Function Promoting Therapies	93.866	2R44AG045011-02	377,507	-
Gateway Biotechnology	93.173	R43DC017418	49,682	-
George Washington University	93.837	5R01HL140977-02	214,058	-
George Washington University	93.847	4U01DK098246-05	(2)	-
George Washington University	93.847	5U01DK061230-16	175,501	-
George Washington University	93.847	5U01DK098246-07	360,441	-
George Washington University	93.847	5-U01DK098246-07	994,235	-
George Washington University	93.847	R01DK104845	4,426	-
Georgetown University	93.989	R21TW010789	42,545	-
GHESKIO Centers	93.855	5UMIAI069421-13	69,976	-
Giner	93.242	5R44MH090582-06	36,387	-
GlycoT Therapeutics	93.859	1R43GM123823-01A1	411	-
Hackensack University Medical Center	93.395	7R01CA212639-02	85,937	-
Harvard College	93.113	5P30ES000002-54	(429)	-
Harvard College	93.113	5P30ES000002-55	10,219	-
Harvard College	93.113	5R01ES009718-20	16,402	-
Harvard College	93.113	5R01ES013307-15	47,116	-
Harvard College	93.113	5R01ES014370-13	18,821	-
Harvard College	93.113	5R01ES019853-05	42,106	-
Harvard College	93.113	5R01ES021372-05	38,244	-
Harvard College	93.113	5R01ES026166-04	94,747	-
Harvard College	93.113	5R01ES028033-02	342,509	-
Harvard College	93.113	5R24ES028521-02	69,272	-
Harvard College	93.142	1UH4ES027055-02	5,146	-
Harvard College	93.172	5U01HG009088-04	561,751	-
Harvard College	93.172	5U01HG009379-03	210,205	-
Harvard College	93.173	5R01DC016932-02	49,562	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Harvard College	93.213	5R01AT009708-03	365,437	-
Harvard College	93.242	1R01MH112829-02	36,274	-
Harvard College	93.242	5P50MH106933-05	748,693	-
Harvard College	93.242	5R01MH101269-06	363,201	-
Harvard College	93.242	5R01MH116858-02	298,420	-
Harvard College	93.242	5R21MH109819-02	5,662	-
Harvard College	93.242	5R61MH113751-02	114,818	-
Harvard College	93.242	5U19MH113211-02	14,521	-
Harvard College	93.279	1R01DA048533-01	8,141	-
Harvard College	93.279	5R01DA044201-02	16,621	-
Harvard College	93.279	P30DA035772	27,208	-
Harvard College	93.286	1R01EB021857-01A1	(4,036)	-
Harvard College	93.286	5R01EB023287-03	367,245	-
Harvard College	93.307	1R21MD011701-01	10,653	-
Harvard College	93.307	5P01MD010428-03	(17)	-
Harvard College	93.350	027270.387217.44012	5,259	-
Harvard College	93.350	1UL1TR002541-01	180,704	-
Harvard College	93.350	5UL1TR001102-05	(207,018)	-
Harvard College	93.350	5UL1TR002541-02	3,372,923	-
Harvard College	93.350	5ULTR002541-02	88,232	-
Harvard College	93.353	1U2CCA233262-01	399,341	-
Harvard College	93.353	1U2CCA233280-01	27,314	-
Harvard College	93.393	2U01CA176726-06	1,890,274	-
Harvard College	93.393	4UM1CA176726-05	(34,563)	-
Harvard College	93.393	5R00CA215314-03	7,630	-
Harvard College	93.393	5R01CA050385-30	299,270	-
Harvard College	93.393	5R01CA179129-05	(132)	-
Harvard College	93.393	5R03CA195098-02	4,826	-
Harvard College	93.393	5R21CA222940-02	22,310	-
Harvard College	93.393	5R21CA230873-02	22,464	-
Harvard College	93.393	5U01CA199334-03	(814)	-
Harvard College	93.393	5U01CA209414-03	408,338	16,811
Harvard College	93.393	5UM1CA176726-05	1,148	-
Harvard College	93.396	1R21CA208618-01A1	(34,879)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Harvard College	93.396	5R01CA218579-02	372,019	-
Harvard College	93.397	5U54CA225088-02	430,882	-
Harvard College	93.837	1R01HL137710-01A1	25,740	-
Harvard College	93.837	1U01HL145386-01	394,846	-
Harvard College	93.837	2R01HL060712-17	229,463	-
Harvard College	93.837	5R01HL035464-29	66,120	-
Harvard College	93.837	5R01HL119230-04	90,836	-
Harvard College	93.837	5R01HL126896-03	84,053	-
Harvard College	93.837	5R01HL130143-03	382,035	-
Harvard College	93.837	5U19HL129903-05	576,537	-
Harvard College	93.838	4R01HL114769-04	83	-
Harvard College	93.838	5P01HL120839-04	(1,660)	-
Harvard College	93.838	5P01HL120839-05	420,487	-
Harvard College	93.838	5R01HL139496-02	221,694	-
Harvard College	93.847	1UC4DK104165-01S1	577,491	-
Harvard College	93.847	3UC4DK104165-01S1	6,374	-
Harvard College	93.847	5R01DK108200-04	38,218	-
Harvard College	93.847	5R24DK103074-03	179,231	-
Harvard College	93.853	1R01NS111952-01	6,958	-
Harvard College	93.853	5R01NS086882-05	13,628	-
Harvard College	93.853	5R01NS089619-04	120,230	-
Harvard College	93.853	5R01NS104143-02	100,811	-
Harvard College	93.855	1U19AI142793-01	26,797	-
Harvard College	93.855	2P30Al060354-16	17,300	-
Harvard College	93.855	5P01AI056299-15	376,631	-
Harvard College	93.855	5P01AI112521-05	39,231	-
Harvard College	93.855	5P30AI060354 -15	510	-
Harvard College	93.855	5P30Al060354-14	(17,794)	-
Harvard College	93.855	5P30Al060354-15	1,313,803	-
Harvard College	93.855	5PO1AI112521-05	380,968	-
Harvard College	93.855	5R01Al037581-23	7,486	-
Harvard College	93.855	5R01AI114617-05	118,144	-
Harvard College	93.855	5R21AI117304-02	5,493	-
Harvard College	93.855	5U01AI114235-05	313,660	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Harvard College	93.855	5U01AI135940-02	411,156	_
Harvard College	93.855	5U19AI109740-05	169,665	-
Harvard College	93.855	5U19AI109755-05	128,190	-
Harvard College	93.855	5U19AI133524-02	346,654	-
Harvard College	93.855	5UM1AI069456-13	2,897	-
Harvard College	93.859	5P01GM047467-25	(736)	-
Harvard College	93.859	5P01GM099117-07	89,094	-
Harvard College	93.859	5P50GM107618-05	85,182	-
Harvard College	93.859	5R01GM116525-03	(888)	-
Harvard College	93.859	R01GM129026	11,230	-
Harvard College	93.859	U54GM088558	17,949	-
Harvard College	93.865	1R01HD094725-01A1	60,963	-
Harvard College	93.865	1R01HD095766-01A1	5,053	-
Harvard College	93.865	5R01HD080471-05	13,951	-
Harvard College	93.865	5R01HD088619-02	12,835	-
Harvard College	93.865	5R01HD091797-04	59,524	-
Harvard College	93.865	5R01HD093761-02	135,083	-
Harvard College	93.865	5R01HD095766-02	38,083	-
Harvard College	93.865	5R21HD092879-02	112,216	-
Harvard College	93.865	5U01AI135940-02	5,053	-
Harvard College	93.866	1R01AG054066-1A1	5,595	-
Harvard College	93.866	1R01AG061774-01	100,835	-
Harvard College	93.866	3P01AG032952-09S1	113,555	-
Harvard College	93.866	3R01AG048917-03	51,114	-
Harvard College	93.866	5P01AG032952-07	41,192	-
Harvard College	93.866	5P01AG041710-05	5,894	-
Harvard College	93.866	5P01AG041710-06	114,053	-
Harvard College	93.866	5R01AG011085-24	(380)	-
Harvard College	93.866	5R01AG011085-26	365,112	-
Harvard College	93.866	5R01AG053273-04	177,161	-
Harvard College	93.866	5R03AG060247-02	20,999	-
Harvard Medical School	93.855	5U19AI109740-05	107,580	-
Harvard Medical School	93.855	5U19AI109764-05	46,861	-
Harvard Pilgrim Health Care	93.310	5UG3OD023286-02	(160)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Harvard Pilgrim Health Care	93.393	5R00CA201542-03	25,761	-
Harvard Pilgrim Health Care	93.865	1R01HD094150-01	115,117	-
Harvard Pilgrim Health Care	93.865	3R01HD034568-17S2	3,634	-
Harvard Pilgrim Health Care	93.865	5R01HD085993-04	197,230	-
Harvard Pilgrim Health Care	93.865	5R01HD090019-03	91,053	-
Harvard School of Public Health	93.855	5U01AI114235-03	7,580	-
Harvard School of Public Health	93.855	5UM1AI069456-10	59,800	-
Harvard School of Public Health	93.865	5R01HD080471-03	4,407	-
Harvard University	93.837	5U19HL129903-05	294,213	-
Hebrew Rehabilitation Center for Aged	93.866	1R01AG059089-01	48,436	-
Hebrew Rehabilitation Center for Aged	93.866	2P01AG031720-06A1	289,508	-
Hebrew Rehabilitation Center for Aged	93.866	3P01AG031720-06A1S1	35,367	-
Hebrew Rehabilitation Center for Aged	93.866	5R01AG025037-13	69,699	-
Hebrew Rehabilitation Center for Aged	93.866	R01AG025037	81,470	-
Hebrew Senior Life	93.866	5P01AG031720-07	48,033	-
Hebrew Senior Life	93.866	2P01AG031720-06A1	33,579	-
Hebrew Senior Life	93.866	3R24AG054259-01	948	-
Hebrew Senior Life	93.866	5P01AG031720-07	18,564	-
Hebrew Senior Life	93.866	5R21AG057955-02	3,734	-
Hebrew Senior Life	93.866	P01AG031720	8,599	-
Hennepin Healthcare Research Institute	93.279	3UG1DA040316-04S5	29,396	-
Highland Instruments	93.213	5R44AT008637-02	7	-
Highland Instruments	93.213	5R44AT008637-03	111,721	-
Highland Instruments	93.866	1R44AG055360-01	9,045	-
Icahn School of Medicine at Mount Sinai	93.242	5P50MH096890-08	74,980	-
Icahn School of Medicine at Mount Sinai	93.393	1R01CA210806-03	80,444	-
Icahn School of Medicine at Mount Sinai	93.393	5R01CA203193-04	76,332	-
Icahn School of Medicine at Mount Sinai	93.837	5P01HL131478-03	403,302	-
Icahn School of Medicine at Mount Sinai	93.837	5R01HL118440-04	1	-
Icahn School of Medicine at Mount Sinai	93.837	5R01HL128056-04	74,227	-
Icahn School of Medicine at Mount Sinai	93.837	5R01HL144072-02	196,500	-
Icahn School of Medicine at Mount Sinai	93.837	5U01HL088942-11	55,999	-
Icahn School of Medicine at Mount Sinai	93.847	5R01DK109881-02	(25,523)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Icahn School of Medicine at Mount Sinai	93.855	5U01AI063594-13	(15,381)	-
Icahn School of Medicine at Mount Sinai	93.859	5R35GM124836-02	50,500	-
Icahn School of Medicine at Mount Sinai	93.866	7R01AG053509-04	27,116	-
Icahn School of Medicine at Mount Sinai	93.867	1UG1EY028096-01A1	17,754	-
Icahn School of Medicine at Mount Sinai	93.867	2R01EY015473-14A1	22,018	-
Icahn School of Medicine at Mount Sinai	93.867	4U10EY014655-10	(74,117)	-
Icahn School of Medicine at Mount Sinai	93.867	5R01EY015473-15	294,212	-
Indiana University	93.393	5R03CA219779-02	17,146	-
Indiana University	93.839	1R01HL140961-01A1	7,542	-
Indiana University	93.847	1R01DK112293-03	132,515	-
Indiana University	93.853	4R33NS095139-02	16,866	-
Indiana University	93.855	5U01AI069911-13	143,373	-
Indiana University	93.859	5R01GM120156-02	71,245	-
Indiana University	93.866	1R56AG057195-01	(32,447)	-
Indiana University	93.866	5U01AG057195-02	775,343	-
Institute for Clinical Research	93.855	1U01Al068641	2,860	-
Institute for Clinical Research	93.855	M43-BW-070-0912-4	5,336	-
Institute for Systems Biology	93.855	1R21AI142302-01	9,907	-
Institute for Systems Biology	93.855	521Al133335-02	17,447	-
Integrated BioTherapeutics	93.855	1R43AI136143	6,562	-
Intelon Optics	93.867	1R41EY028820-01A1	61,876	-
International Agency for Research on Cancer	93.273	5R01AA024770-03	41,905	-
International Agency for Research on Cancer	93.310	7U19CA203654	5,987	-
International Agency for Research on Cancer	93.394	1U01CA195603	48,504	-
Intravascular Imaging	93.837	1R41HL140671-01	81,049	-
IQ Medical Imaging	93.394	2R42CA192600-02	308,538	-
IQ Medical Imaging	93.394	5R42CA189637-03	194,744	-
Jackson Laboratory	93.172	3U41HG007497-04S1	(27,048)	-
Jaeb Center for Health Research	93.847	3UC4DK108612-01S1	15,774	-
Jaeb Center for Health Research	93.867	5U10EY014231-16	21,968	-
Joan & Sanford I. Weill Medical College of Cornell University	93.837	7U01HL105561-08	29,262	-
Joan & Sanford I. Weill Medical College of Cornell University	93.838	1R01HL133801-02	76,039	-
Joan & Sanford I. Weill Medical College of Cornell University	93.838	5P01HL114501-05	179,043	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Joan & Sanford I. Weill Medical College of Cornell University	93.853	5UH3NS095554-02	4,129	-
Johns Hopkins University	93.172	5U24HG010263-02	193,552	-
Johns Hopkins University	93.173	5U01DC013778-05	12,504	-
Johns Hopkins University	93.173	5U01DC013778-05	615	-
Johns Hopkins University	93.242	1P50MH115842-01	20,527	-
Johns Hopkins University	93.242	5R01MH104553-05	55,042	-
Johns Hopkins University	93.242	5R01MH110437-02	38,610	-
Johns Hopkins University	93.395	5U01CA137443-05	6,130	-
Johns Hopkins University	93.395	5UM1CA137443-09	17,290	-
Johns Hopkins University	93.397	5P50CA098252-15	2,525	-
Johns Hopkins University	93.838	5U01HL121812-05	(8,230)	-
Johns Hopkins University	93.846	5R01AR069569-03	14,013	-
Johns Hopkins University	93.847	1U34DK120051-01	12,727	-
Johns Hopkins University	93.847	5R24DK099803-05	354,163	-
Johns Hopkins University	93.855	1U01AI134591-02	335	-
Johns Hopkins University	93.855	5U01AI125290-03	131,055	-
Johns Hopkins University	93.855	5U24AI118633-05	150,984	-
Johns Hopkins University	93.855	5UM1AI068632-13	260,345	-
Johns Hopkins University	93.855	5UM2AI130836-03	152,860	-
Johns Hopkins University	93.866	2003438429	12,085	-
Johns Hopkins University	93.866	5R01AG049872-05	7,926	-
Johns Hopkins University	93.866	5R01AG053100-03	114,629	-
Johns Hopkins University	93.867	5U10EY024527-04	56,765	-
Johns Hopkins University School of Medicine	93.837	5R01HL112299-05	12,926	-
Johns Hopkins University School of Medicine	93.866	5R01AG050515-03	302,120	-
Joslin Diabetes Center	93.847	1UC4DK101108-01	(4,678)	-
Joslin Diabetes Center	93.847	4P30DK036836-30	38,039	28,640
Joslin Diabetes Center	93.847	5U01DK114156-02	54,777	-
Kaiser Foundation Research Institute	93.847	2R01DK085070	34,626	-
King's College London	93.242	1R01MH114708-02	419,152	-
Kitware	93.286	5R01EB021396-04	9,525	-
Lehigh University	93.286	1R15EB019704-01A1	(1,826)	-
Leland Stanford Junior University	93.242	5R21MH116484-02	26,182	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Leland Stanford Junior University	93.855	2U19AI057229-16	1,759	-
Leland Stanford Junior University	93.855	5U19AI057229-15	45,621	-
Liberating Technologies	93.865	1R43HD082938-01	(2,331)	-
Lumicell	93.394	5R44CA211013-2	115,831	-
Maine Medical Center	93.847	5R24DK092759-08	451,202	-
Masonic Medical Research Institute	93.837	7R01HL102368-07	281,369	-
Massachusetts Eye and Ear Infirmary	93.173	5R01DC000194-34	30,761	-
Massachusetts Eye and Ear Infirmary	93.173	5R01DC011805-09	135,689	-
Massachusetts Eye and Ear Infirmary	93.173	5R01DC014924-06	28,581	-
Massachusetts Eye and Ear Infirmary	93.173	5R21DC014909-02	41,104	-
Massachusetts Eye and Ear Infirmary	93.853	5R01NS088160-04	30,853	-
Massachusetts Eye and Ear Infirmary	93.855	5P01AI083214-11	595,072	-
Massachusetts Eye and Ear Infirmary	93.867	1R01EY029269-01A1	72,439	-
Massachusetts Eye and Ear Infirmary	93.867	2R01EY020928-07	86,665	-
Massachusetts Eye and Ear Infirmary	93.867	5R01EY015473-13	10,368	-
Massachusetts Eye and Ear Infirmary	93.867	5R01EY022305-06	10,516	-
Massachusetts General Hospital	93.172	1R01HG009174-03	256,431	-
Massachusetts General Hospital	93.242	1R01MH116205-01A1	88,823	-
Massachusetts General Hospital	93.242	5R01MH102279-05	122,909	-
Massachusetts General Hospital	93.242	5R01MH116173-02	322,592	-
Massachusetts General Hospital	93.273	5R33AA025192-04	97,479	-
Massachusetts General Hospital	93.279	5R21DA041682-02	4,150	-
Massachusetts General Hospital	93.279	R61DA047034	320,193	-
Massachusetts General Hospital	93.286	7R01EB017722-05	28,129	-
Massachusetts General Hospital	93.310	1OT2OD024612-01	(1)	-
Massachusetts General Hospital	93.310	3OT2OD023867-01S2	(13,239)	-
Massachusetts General Hospital	93.310	3OT2OD026553-01S1	3,131,822	-
Massachusetts General Hospital	93.310	3U19CA179563-05S1	(74)	-
Massachusetts General Hospital	93.310	5UH3TR000901-05	(56,127)	-
Massachusetts General Hospital	93.310	7UH3TR000901-05	(373)	-
Massachusetts General Hospital	93.361	1R01NR017399-01A1	13,232	-
Massachusetts General Hospital	93.393	1U01CA225451-01	85,554	-
Massachusetts General Hospital	93.393	5R01CA218123-02	3,813	-
Massachusetts General Hospital	93.394	1U01CA233360-01	178,586	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Massachusetts General Hospital	93.394	5R01CA203873-04	69,769	-
Massachusetts General Hospital	93.394	5R01CA215431-03	206,268	-
Massachusetts General Hospital	93.394	5R01CA227156-02	23,189	-
Massachusetts General Hospital	93.394	5U01CA182367-04	59,182	-
Massachusetts General Hospital	93.395	1R01CA227821-02	181,159	-
Massachusetts General Hospital	93.395	2P01CA069246-20	187	-
Massachusetts General Hospital	93.395	5P01CA069246-22	248,302	-
Massachusetts General Hospital	93.396	5U19CA179563-05	(37,678)	-
Massachusetts General Hospital	93.397	5P50CA165962-05	(14,706)	-
Massachusetts General Hospital	93.837	1R01HL140498-02	44,184	-
Massachusetts General Hospital	93.837	5R01HL122388-04	3,155	-
Massachusetts General Hospital	93.837	5R01HL125869-05	70,038	-
Massachusetts General Hospital	93.837	5R01HL128099-04	76,692	-
Massachusetts General Hospital	93.837	5R01HL130539-03	6,146	-
Massachusetts General Hospital	93.837	5R01HL133149-02	41,026	-
Massachusetts General Hospital	93.837	5R01HL133149-03	18,503	-
Massachusetts General Hospital	93.837	5R01HL137562-03	46,288	-
Massachusetts General Hospital	93.837	5R01HL141053-02	66,116	-
Massachusetts General Hospital	93.837	5R01HL141917-02	252,571	-
Massachusetts General Hospital	93.837	5R01HL142809-02	89,102	-
Massachusetts General Hospital	93.837	5U01HL123336-04	(47,674)	-
Massachusetts General Hospital	93.837	5U01HL123336-06	26,976	-
Massachusetts General Hospital	93.837	5U01HL123339-06	41,458	-
Massachusetts General Hospital	93.837	5U10HL110337-07	98,893	-
Massachusetts General Hospital	93.839	5R01HL137913-03	33,159	-
Massachusetts General Hospital	93.846	5R01AR065944-05	(152)	-
Massachusetts General Hospital	93.847	2P30DK040561-21	(4,104)	-
Massachusetts General Hospital	93.847	5P30DK057521-19	(13,281)	-
Massachusetts General Hospital	93.847	5P30DK057521-20	42,710	-
Massachusetts General Hospital	93.847	5R01DK049302-22	151,393	-
Massachusetts General Hospital	93.847	5R01DK062472-16	(4,502)	-
Massachusetts General Hospital	93.847	5R01DK101495-03	(1,448)	-
Massachusetts General Hospital	93.847	5R01DK105072-04	55,722	-
Massachusetts General Hospital	93.847	5R01DK107972-05	79,672	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Massachusetts General Hospital	93.853	1R01NS102574-01A1	19,159	-
Massachusetts General Hospital	93.853	1U24NS107243-01	7,871	-
Massachusetts General Hospital	93.853	2R56NS062092-06	(738)	-
Massachusetts General Hospital	93.853	3UH3NS100548-01S1	94,836	-
Massachusetts General Hospital	93.853	4U10NS086729-04	(20,787)	-
Massachusetts General Hospital	93.853	5R01NS062092-07	43,322	-
Massachusetts General Hospital	93.853	5R01NS095937-03	25,196	-
Massachusetts General Hospital	93.853	5U01NS062835-05	(2,201)	-
Massachusetts General Hospital	93.853	5U01NS090259-05	29,540	-
Massachusetts General Hospital	93.853	5U01NS098968-03	58,759	-
Massachusetts General Hospital	93.853	5U24NS107154-02	51,851	-
Massachusetts General Hospital	93.855	1U01AI136816-01	11,762	-
Massachusetts General Hospital	93.855	2R37AI058736-14A1	18,604	-
Massachusetts General Hospital	93.855	5R01AI042006-22	74,259	-
Massachusetts General Hospital	93.855	5R01AI058736-13	(6,878)	-
Massachusetts General Hospital	93.855	5R01AI123001	161	-
Massachusetts General Hospital	93.855	5R01Al123001-03	39,459	-
Massachusetts General Hospital	93.855	5R33AI110165-05	51,803	-
Massachusetts General Hospital	93.865	5R01HD091067-02	52,795	-
Massachusetts General Hospital	93.866	1R56AG057454-01	60,604	-
Massachusetts General Hospital	93.867	1R01EY029544-01	111,139	-
Massachusetts General Hospital	93.867	5R01EY025454-04	20,205	-
Massachusetts General Hospital	93.867	5R01EY028234-02	12,275	-
Massachusetts Institute of Technology	93.172	1R01DC016607-01	28,134	-
Massachusetts Institute of Technology	93.172	3R01HG008754-03S1	173,498	-
Massachusetts Institute of Technology	93.172	5R01HG008754-04	227,707	-
Massachusetts Institute of Technology	93.173	1R01DC016607-01A1	39,973	-
Massachusetts Institute of Technology	93.242	3U01MH108168-04S1	126,514	-
Massachusetts Institute of Technology	93.242	5U01MH108168-04	473,778	-
Massachusetts Institute of Technology	93.242	5U01MH117072-02	81,895	-
Massachusetts Institute of Technology	93.242	5-U01-MH117072-02	138,501	-
Massachusetts Institute of Technology	93.286	2P41EB015871-31	181,085	-
Massachusetts Institute of Technology	93.286	2R01EB000244-39	469,788	-
Massachusetts Institute of Technology	93.286	5R01EB022062-03	36,910	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Massachusetts Institute of Technology	93.310	5R01GM104948-05	3,894	-
Massachusetts Institute of Technology	93.394	5R33CA223904-02	352,160	-
Massachusetts Institute of Technology	93.396	5U01CA215798-03	36,900	-
Massachusetts Institute of Technology	93.397	5P30CA014051-47	(12,973)	-
Massachusetts Institute of Technology	93.397	5U54CA210180-03	398,272	-
Massachusetts Institute of Technology	93.837	1R34HL125859-01A1	(23,427)	-
Massachusetts Institute of Technology	93.865	5DP1HD091947-02	(1,550)	-
Massachusetts Institute of Technology	93.866	5R01AG058002-03	132,973	-
Mayo Clinic	93.395	5UG1CA189823-04	135,599	-
Mayo Clinic	93.395	5UG1CA189823-05	315,745	-
Mayo Clinic	93.399	1UG1CA189823-01	13,279	-
Mayo Clinic	93.399	5UG1CA189823-05	52,272	-
Mayo Clinic	93.866	1RF1AG057547-01	80,244	-
Mayo Clinic	93.866	5U01AG045390-05	83,802	-
Mayo Clinic Jacksonville	93.853	5U01NS080168-06	26,184	-
McLean Hospital Corporation	93.242	1P50MH115846-01A1	63,952	-
McLean Hospital Corporation	93.242	1R01MH117012-01A1	45,670	-
McLean Hospital Corporation	93.242	3R01MH104488-04S1	55,978	-
McLean Hospital Corporation	93.242	4R01MH096793-05	9,880	-
McLean Hospital Corporation	93.242	5R01MH104560-04	(910)	-
McLean Hospital Corporation	93.242	5R01MH108602-02	(8,642)	-
McLean Hospital Corporation	93.242	5R01MH108602-03	284,755	-
McLean Hospital Corporation	93.242	5R01MH110438-04	15,565	-
McLean Hospital Corporation	93.242	5R37MH068376-15	122,124	-
McLean Hospital Corporation	93.279	1R21DA042847-01	(9,491)	-
McLean Hospital Corporation	93.279	3R01DA041866-02S1	86,894	-
McLean Hospital Corporation	93.279	3UG1DA015831-18S1	330,756	-
McLean Hospital Corporation	93.279	4R33DA042847-03	67,445	-
McLean Hospital Corporation	93.853	5R01NS100808-03	19,202	-
MD Anderson Cancer Center	93.396	5P01CA117969-14	277,370	-
Medical University of South Carolina	93.847	1U01DK104833-03	32,285	-
Memorial Sloan Kettering Institute	93.396	5U24CA213274-03	47,996	-
Memorial Sloan Kettering Institute Cancer Center	93.395	3P01CA190174-04S1	120,092	-
Memorial Sloan Kettering Institute Cancer Center	93.395	5P01CA190174-04	411,661	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
MGH Institute of Health Professions	93.173	1R01DC013547-04	1,269	-
MGH Institute of Health Professions	93.173	7R01DC015216-02	10,669	-
MGH Institute of Health Professions	93.866	5R21AG0551459-02	19,537	-
Michigan State University	93.310	4UH3OD023285-03	78,710	-
Michigan State University	93.310	5UG3OD023285-02	(8,914)	-
Michigan State University	93.394	7R01CA135650-09	65,888	-
Michigan State University	93.837	5R01HL130624-04	245,278	-
Michigan State University	93.865	5R01HD094842-02	124,970	-
Miriam Hospital	93.865	5R01HD078515-05	30,607	-
Montreal Heart Institute	93.847	5U01DK062432-18	193,221	-
Mount Sinai Hospital	93.279	5P01DA008227-26	53,741	-
Mount Sinai Medical Center	93.213	1UG3AT009149-02	112,155	-
Mount Sinai Medical Center	93.393	5R01CA202956-03	259,435	-
Mount Sinai Medical Center	93.867	5U10EY024526-03	12,083	-
Mount Sinai School of Medicine	93.837	5P01HL131478-03	392,858	-
Mount Sinai School of Medicine	93.837	5U01HL088942-11	186,119	-
Mount Sinai School of Medicine	93.853	5U01NS086625-04	27,951	-
Mount Sinai School of Medicine	93.859	5R01GM114472-04	12,212	-
NanoHybrids	93.395	1R41CA221420-01	41,840	-
National Bureau of Economic Research	93.866	2P01AG005842-30	44,823	-
National Jewish Health	93.838	5U01HL089897-13	60,095	-
National Jewish Health	93.855	4U01AI097073-04	257,888	-
Natural Pharmacia International	93.273	4R42AA022577-02	226,246	-
Natural Pharmacia International	93.351	SBIR	123,797	-
New England Research Institute	93.837	5U01HL107407-02	18,481	-
New England Research Institute	93.837	U01HL107407	4,558	-
New England Research Institute	93.847	5U01DK110377-03	55,436	-
New York Genome Center	93.859	5R01GM122924-02	108,455	-
New York University Medical Center	93.213	7R01AT007258-06	107,325	-
New York University Medical Center	93.395	5U01CA213333-02	22,587	-
New York University Medical Center	93.395	7R01CA140594-09	16,663	-
New York University School of Medicine	93.213	1UG3AT009844-01	27,501	-
New York University School of Medicine	93.286	5U01EB018760-04	28,067	-
New York University School of Medicine	93.395	5R01CA176502-05	86,856	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
New York University School of Medicine	93.837	5U01HL105907-07	17,544	-
New York University School of Medicine	93.837	R01HL119153	11,496	-
New York University School of Medicine	93.867	5U10EY026869-03	13,338	-
North Carolina State University	93.286	5R01EB025205-02	151,799	-
North Carolina State University	93.286	7R21EB025313-02	1,785	-
Northeastern University	93.242	5R01MH107556-03	23,836	-
Northeastern University	93.242	5R01MH113234-03	235,380	-
Northeastern University	93.279	5R01DA047130-02	412,518	-
Northeastern University	93.393	5U01CA193632-03	314,867	-
Northeastern University	93.394	5R01CA204443-04	110,695	-
Northeastern University	93.839	1R01HL143020-01	311,997	-
Northeastern University	93.839	5R01HL124315-03	103,114	-
Northeastern University	93.847	5R01DK109316-04	14,304	-
Northeastern University	93.853	1UF1NS107694-01	57,917	-
Northern Arizona University	93.307	5R01MD013352-05	86,816	-
Northern California Institute for Research and Education	93.866	5U19AG024904-14	57,482	-
Northwestern University	93.173	5P50DC012283-05	8,936	-
Northwestern University	93.838	5R01HL122477-05	127,845	-
Northwestern University	93.846	7R01AR064850-06	12,061	-
Northwestern University	93.847	5R01DK102815-04	63,058	-
Northwestern University	93.853	5U01NS080818-05	4,899	-
Northwestern University	93.866	5U2CAG057441-03	153,659	-
Northwestern University	93.866	5U2CAG060426-02	43,716	-
Ohio State University	93.173	5R01DC014924-06	278,255	44,889
Ohio State University	93.393	4P01CA163205-04	(29,134)	-
Ohio State University	93.393	5P01CA163205-05	(11,008)	-
Ohio State University	93.837	5R01HL128857-03	9,634	-
Ohio State University	93.837	5R01HL133665-04	71,220	-
Ohio State University	93.866	1R01AG050801-02	79,338	-
Ohio State University	93.866	5U01AG054444-02	141,628	-
Oregon Health & Science University	93.837	5R21HL140377-02	25,402	-
Oregon Health & Science University	93.846	5R01AR073186-02	63,419	-
Oregon Health & Science University	93.867	5R01EY019474-07	135,015	-
Origent Data Sciences	93.350	5R44TR002047-02	39,824	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Osmic Enterprises	93.866	5R44AG051311-02	(256,452)	-
Palo Alto Veterans Institute for Research	93.242	5R01MH112628-03	66,259	-
Palo Alto Veterans Institute for Research	93.307	R01MD012273	43,412	-
Pendar Technology	93.847	1R43DK120127-01	65,377	-
Penn State University	93.173	5R01DC005642-14	10,799	-
Penn State University	93.837	5U10HL098115-06	2,868	-
Penn State University	93.837	5U10HL098115-07	66,017	-
Pennsylvania State University	93.077	5P50DA036107-05	(5,719)	-
Pennsylvania State University	93.838	3U10HL109086-06S1	76,376	-
Pennsylvania State University	93.866	5U2CAG060408-02	281,823	-
PerceptiMed	93.361	1R44NR014090-01	41,130	-
Phoenix Children's Hospital	93.865	R01HD088528	94,524	-
Physical Sciences	93.173	1r43dc017407-01	33,784	-
Physical Sciences	93.393	1R44CA224853-01A1	89,225	-
Physical Sciences	93.867	W81XWH-16-C-0163	26,767	-
Progenra	93.837	1R41HL130207-01	(389)	-
Radiation Monitoring Devices	93.395	1R41CA206645-01A1	(1,290)	-
Rehabilitation Institute of Chicago	93.846	1R01AR069176-02	21	-
Rensselaer Polytechnic Institute	93.855	5R01AI132580-02	186,360	-
Research Foundation for Mental Hygiene	93.242	5R01AG047146-05	104,860	-
Research Foundation for Mental Hygiene	93.242	5R61MH116089-02	75,349	-
Research Foundation for The SUNY on behalf of University of Buffalo	93.867	1R01EY028553-01	34,733	-
Reveal Pharmaceuticals	93.286	1R44DK113906	332,131	-
Rhode Island Hospital	93.361	5R01NR014782-05	164,213	-
Rhode Island Hospital	93.837	5R01HL134706-03	124,914	-
Rhode Island Hospital	93.859	1P20GM125507-01	24,450	-
Rhode Island Hospital	93.866	5R03AG056349-02	8,876	-
Riparian Pharmaceuticals	93.837	5R44HL118826-04	128,115	-
Robin Medical	93.394	R44CA203276	151,131	-
RPCI Oncology	93.172	5U41HG004059-15	219,753	-
RPCI Oncology	93.393	5U24CA180996-06	85,554	-
Rush University	93.847	5R01DK101350-05	(19,790)	-
Rush University	93.847	5R01DK107984-03	76,349	-
Rush University Medical Center	93.853	5R01NS084965-05	131,016	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Rush University Medical Center	93.853	5U01NS096767-04	1,564,142	201,100
Rush University Medical Center	93.866	1R01AG052583-03	397,822	-
Rush University Medical Center	93.866	1RF1AG059621-01	31,589	-
Rush University Medical Center	93.866	2RF1AG015819-16	(719)	-
Rush University Medical Center	93.866	5R01AG017917-15	30,191	-
Rush University Medical Center	93.866	R01AG061798	26,199	-
Rutgers, the State University of New Jersey	93.242	7R34MH113757-02	1,949	-
Rutgers, the State University of New Jersey	93.286	5R01EB020036-04	84,067	-
SARC	93.397	4U54CA168512-05	(2,451)	-
SARC	93.397	SARC-Y6-Project 2-BWH-FLETCHER	(492)	-
Schepens Eye Research Institute	93.853	1RF1NS110048-01	3,535	-
Schepens Eye Research Institute	93.867	1R21EY027882-01	(4,908)	-
Scripps Research Institute	93.855	1R01AI147826-01	30,078	-
Scripps Research Institute	93.855	1R56Al134418-01A1	328,457	-
Scripps Research Institute	93.855	1UM1AI144462-01	168,635	-
Scripps Research Institute	93.855	5U19AI109762-05	17,898	-
Scripps Research Institute	93.855	5U19AI135995-02	163,261	-
Scripps Research Institute	93.855	5U19AI135995-02	183,433	-
Scripps Research Institute	93.855	5UM1A1100663-07	408,844	-
Scripps Research Institute	93.855	5UM1AI100663-07	381,207	-
Scripps Research Institute	93.867	5R01EY026202-04	131,721	-
Seattle Institute for Biomedical and Clinical Research	93.393	1R01CA239208-01	9,478	-
Sentien Biotechnologies	93.847	5R44DK085766-06	(4,050)	-
SFC Fluidics	93.279	2R44DA041173-02	109,992	-
Sloan Kettering Institute for Cancer Research	93.393	5U01CA199335-03	27,849	-
Sloan Kettering Institute for Cancer Research	93.393	5U01CA199335-05	139,030	-
Sloan Kettering Institute for Cancer Research	93.394	5R01CA182076-04	(5,777)	-
Spaulding Rehabilitation Hospital	93.865	5R01HD082302-03	8,372	-
Stanford University	93.121	5R01DE024971-05	406,347	-
Stanford University	93.173	5R01DC014034-05	60,398	-
Stanford University	93.393	5R01CA193694-04	92,604	-
Stanford University Medical Center	93.173	5R01DC005960-13	276,691	-
Stanford University Medical Center	93.853	2U01NS038455-16A1	197,423	-
Stanford University Medical Center	93.853	2U01NS038455-17	124,905	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Stanford University Medical Center	93.853	5U01NS038455-17	333,882	-
State University of New York Upstate Medical University	93.847	5R01DK11045603	64	-
Sunnybrook Research Institute	93.173	1R01DC017291-01	263,276	-
Sunnybrook Research Institute	93.279	5R01DA042299-02	13,762	-
Superconducting Systems	93.846	4R44AR065903-02	3,096	-
Swedish Medical Center	93.395	5R01CA184283-04	201,363	-
Sylvatica Biotech	93.286	1R21EB023021-01	8,764	-
Texas Woman's University	93.213	1R34AT010081	51,424	-
The Methodist Hospital Research Institute	93.397	5U54CA210181-03	12,593	-
The Methodist Hospital Research Institute	93.853	1U01NS104326-02	6,032	-
The Methodist Hospital Research Institute	93.866	R01AG057635	189,376	-
The Society of Thoracic Surgeons	93.837	5R01HL122261-04	16,049	-
Theranano	93.279	1R41DA043974-01	24,687	-
Third Pole	93.350	5R44TR001704-02	77,371	-
Third Pole	93.838	1R44HL134429-01	43,408	-
Thomas Jefferson University	93.837	5R01HL136209-03	235,206	-
Thomas Jefferson University	93.838	5R01HL127426-04	5,468	-
Trace-Ability	93.242	1R44MH119110-01A1	52,046	-
Translational Genomics Research Institute	93.310	5UH3TR000891-05	11,907	-
Tristan Technologies	93.853	5R44NS090894-04	24,153	-
Tristan Technologies	93.286	2R44EB02314702	64,805	-
Tufts College	93.393	5R01CA207110-03	137,241	-
Tufts College	93.837	5R01HL130735-04	177,924	-
Tufts College	93.853	5R01NS092847	218,281	-
Tufts College	93.867	1R01EY029870-01	28,544	-
Tufts Medical Center	93.839	5R01HL135160-03	22,314	-
Tufts Medical Center	93.846	5R01AR065977-04	14,873	-
Tufts Medical Center	93.846	5R01AR066378-04	(2,509)	-
Tufts University	93.866	1R01AG059011-01A1	3,677	-
Tufts University School of Medicine	93.173	5R01DC014217-05	14,065	-
Tufts University School of Medicine	93.350	5UL1TR002544-02	27,730	-
Tulane Medical Center	93.865	5U01HD052104-14	19,559	-
University of Alabama	93.279	1R01DA044112-01A1	29,132	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Alabama	93.837	5R01HL126596-03	173,307	_
University of Alabama	93.837	5R35HL135816-03	225,287	-
University of Alabama	93.838	5R01HL119960-06	(159,057)	-
University of Alabama	93.838	5U01HL133232-02	224,328	-
University of Alabama	93.846	1R01AR073822-01	167,801	-
University of Alabama	93.846	5P50AR060772-07	509,761	-
University of Alabama	93.847	5R01DK108438-04	271,015	-
University of Alabama	93.855	5P30AI027767-29	(96)	-
University of Alabama	93.855	5R01AI111475-05	(4,536)	-
University of Alabama	93.855	5U19AI090959-11	836,092	-
University of Alabama, Birmingham	93.847	1R01DK115473-01A1	71,940	-
University of Alabama, Birmingham	93.847	5R01DK115473-02	104,834	-
University of Alabama, Birmingham	93.853	1U01NS093663-01A1	313	-
University of Alabama, Birmingham	93.853	5U01NS093663-02	(17,524)	-
University of Arizona	93.837	5U01HL133362-03	178,916	-
University of Arizona	93.846	5R01AR071409-03	329,618	-
University of Arizona	93.866	7RF1AG057457-02	117,911	-
University of Arizona	93.989	1R21TW011222-01	8,709	-
University of Arizona	93.989	7R21TW010221-03	16,900	-
University of Bern- Switzerland	93.855	2U01AI069924-12	14,804	-
University of California	93.113	5R01ES023316-05	(5,505)	-
University of California	93.113	5R01ES023316-07	318,295	-
University of California	93.242	3U01MH105578-04S1	109,734	-
University of California	93.242	5R24MH106096-03	(554)	-
University of California	93.286	5U01EB025162-02	1,136,097	-
University of California	93.361	5R01NR015591-04	87,850	-
University of California	93.846	5R01AR073135-02	330,888	-
University of California	93.853	5U01NS086090-05	13,196	-
University of California	93.855	5UM1AI110498-05	87,982	-
University of California	93.865	5R01HD078748-05	87,796	-
University of California	93.867	5R01EY024608-04	13,843	-
University of California, Berkeley	93.172	5RM1HG009490-03	536,212	-
University of California, Davis	93.866	1RF1AG054548-01	73,038	-
University of California, Irvine	93.113	5R01ES020454-08	179,540	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of California, Irvine	93.361	5R01NR015591-04	365	-
University of California, Irvine	93.396	5R01CA190964-04	282,671	-
University of California, Los Angeles	93.242	5R01MH085953-08	119,333	-
University of California, Los Angeles	93.855	7UM1AI068636-13	508,533	-
University of California, Los Angeles	93.855	7UM1AI068636-13 REVISED	12,430	-
University of California, Los Angeles	93.855	7UM1AI106701-06	342,857	-
University of California, Los Angeles	93.855	UM1AI068636	48,969	-
University of California, Los Angeles	93.859	5P01GM099134-08	432,038	-
University of California, Los Angeles	93.865	5R01HD090138-03	(16,125)	-
University of California, San Diego	93.242	1R21MH117518-01A1	20,751	-
University of California, San Diego	93.242	1RF1MH117155-01	34,658	-
University of California, San Diego	93.242	5R01MH106595-03	22,600	-
University of California, San Diego	93.242	5R01MH111359-04	195,192	-
University of California, San Diego	93.242	5R01MH111438-03	560,769	-
University of California, San Diego	93.279	5U24DA041123-04	188,641	-
University of California, San Diego	93.395	4P01CA081534-16	(374)	-
University of California, San Diego	93.837	5U01HL126494-05	62,089	-
University of California, San Diego	93.855	2U19AI070535-12	62,311	-
University of California, San Diego	93.859	5R01GM032373-34	99,873	-
University of California, San Diego	93.866	5R01AG047922-02	107,206	-
University of California, San Diego	93.866	5U19AG010483-26	1,915,985	1,850,415
University of California, San Diego	93.866	7R01AG048642-04	200,730	-
University of California, San Diego Medical Center	93.286	4R01EB009282-08	(152)	-
University of California, San Francisco	93.394	1U01CA225427-01	26,884	-
University of California, San Francisco	93.837	1R61HL141047-01	73,474	-
University of California, San Francisco	93.837	4R33HL141047-02	179,097	-
University of California, San Francisco	93.837	5R01HL131621-02	1	-
University of California, San Francisco	93.838	5R35HL140026-02	44,106	-
University of California, San Francisco	93.838	5U01HL134766-04	24,743	-
University of California, San Francisco	93.853	5U01NS086090-05	35,467	-
University of California, San Francisco	93.853	5U54NS092089-05	6,376	-
University of California, San Francisco	93.855	5U01AI131296-03	10,599	-
University of California, San Francisco	93.855	5UM1AI110498-05	199,421	-
University of California, San Francisco	93.859	5R01GM117163-04	165,706	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of California, San Francisco	93.865	5R01HD089511-04	12,928	-
University of California, San Francisco	93.866	2P30AG015272-21	8,648	-
University of California, San Francisco	93.866	5R01AG038791-09	457,745	-
University of California, San Francisco, Cardiovascular Research Institute	93.395	5U24CA215123-02	341,224	-
University of Chicago	93.847	1R01DK118266-02	312,238	-
University of Cincinnati	93.838	5U01HL131755-03	19,964	-
University of Cincinnati	93.853	5R01NS100417-02	106,613	-
University of Cincinnati	93.853	5U01NS036695-18	343,774	-
University of Cincinnati	93.853	5U01NS069763-05	20,626	-
University of Cincinnati	93.853	5U01NS091951-04	23,072	-
University of Cincinnati	93.853	5U01NS092076-02	28,608	-
University of Cincinnati	93.853	5U01NS095869-02	8,203	-
University of Colorado	93.846	1R01AR069060-01A1	30,667	-
University of Colorado	93.846	5R01AR065441-05	71,130	-
University of Colorado, Denver	93.361	2U2CNR014637-06	18,897	-
University of Colorado, Denver	93.393	5R01CA181207-05	141,039	-
University of Colorado, Denver	93.837	5R01HL125734-04	240,719	-
University of Colorado, Denver	93.865	5R03HD094560-02	69,751	-
University of Colorado, Denver	93.866	1R01AG054366-01A1	98,491	6,878
University of Colorado, Denver	93.866	5R01AG054366-02	55,021	-
University of Colorado, Denver	93.866	5R01AG054366-04	12,109	-
University of Connecticut	93.242	5R01MH106506	40,595	-
University of Connecticut Health Center	93.837	R01 HL131862	245,716	-
University of Florida	93.242	R01MH117114	75,411	-
University of Florida	93.279	5R01DA039044-05	127,243	-
University of Florida	93.865	5R01HD089939-03	555,533	-
University of Hawaii	93.279	4R01DA019912-09	744	-
University of Hawaii	93.393	4P01CA168530-05	(1,764)	-
University of Houston	93.286	5R21EB026175-02	161,606	-
University of Illinois	93.242	5R56MH112642-02	84,476	-
University of Illinois	93.310	1UG3OD023272-01	(14,226)	-
University of Illinois	93.310	4UH3OD023272-03	28,133	-
University of Illinois	93.310	5UG3OD023272-02	(8,490)	-
University of Illinois, Urbana-Champaign	93.113	4P01ES022848-04	174,348	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Illinois, Urbana-Champaign	93.113	5R21ES027878-02	3,597	-
University of Iowa	93.837	5R01HL131689-03	10,178	-
University of Iowa	93.847	5U01DK108328-04S1	700	-
University of Iowa	93.853	5U01NS093663-05	252,989	-
University of Kentucky Research Foundation	93.113	5R01ES025515-04	(55,636)	-
University of Louisville	93.837	1PO1HL078825-12	21,560	-
University of Maryland	93.847	52P30DK090868-09	2,217	-
University of Maryland	93.853	5R01NS100178-02	131,452	-
University of Maryland	93.855	1R21AI124776-02	104,200	-
University of Maryland	93.855	5R01AI120008	117,008	-
University of Maryland, Baltimore	93.855	5U19Al082655	300,552	-
University of Maryland, Baltimore	93.859	R01GM118837	24,460	-
University of Massachusetts, Amherst	93.393	5R01CA207369-02	268,737	-
University of Massachusetts, Amherst	93.837	R01HL122241-04	7,232	-
University of Massachusetts, Amherst	93.865	5R01HD078517-05	120,933	-
University of Massachusetts, Amherst	93.866	5R01AG051600-03	71,628	-
University of Massachusetts, Lowell	93.839	7R01HL125089	22,512	-
University of Massachusetts, Lowell	93.853	5R01NS097723-03	129,137	-
University of Massachusetts Medical Center	93.855	5R01Al123286-04	207,381	-
University of Massachusetts Medical School	93.213	5R61AT009337-02	12,665	-
University of Massachusetts Medical School	93.279	5R21DA046734-02	32,699	-
University of Massachusetts Medical School	93.310	5UH3TR000888-05	(31,880)	-
University of Massachusetts Medical School	93.837	1R01HL145721-01	4,030	-
University of Massachusetts Medical School	93.837	5R01HL131624-03	389,223	-
University of Massachusetts Medical School	93.837	5R01HL137734-02	23,625	-
University of Massachusetts Medical School	93.853	5R01NS091552-04	51,877	-
University of Massachusetts Medical School	93.853	5R01NS098747-04	218,564	-
University of Massachusetts Medical School	93.879	1UG4LM012347-01	(2,395)	-
University of Miami	93.242	5R01MH103770-05	69,096	-
University of Miami	93.242	5R01MH110441-04	167,829	-
University of Miami	93.839	5R01HL131013-04	39,690	-
University of Miami	93.853	5R01NS098740-03	43,496	-
University of Michigan	93.173	5R01DC004820-16	40,256	-
University of Michigan	93.213	5R01AT007550-05	41,656	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Michigan	93.242	1R56MH110872-02	115	_
University of Michigan	93.242	5R01MH110872-03	88,902	-
University of Michigan	93.393	5U01CA199284-04	284,083	-
University of Michigan	93.837	5R01HL127564-04	288,511	239,030
University of Michigan	93.853	1U01NS088034	6,097	-
University of Michigan	93.853	2U01NS06283506	(8,269)	-
University of Michigan	93.853	R01NS099653-01A1	64	-
University of Michigan	93.853	U01NS069498	12,817	-
University of Michigan	93.853	U01NS079077	(128)	-
University of Michigan	93.855	5R01AI138347-02	29,359	-
University of Minnesota	93.286	5U01EB025153-03	18,550	-
University of Minnesota	93.837	5R01HL131049-04	97,939	-
University of Minnesota	93.837	5R01HL141288-02	580,798	-
University of Minnesota	93.839	1R21HL130818-01	(6,453)	-
University of Minnesota	93.839	5R01HL132906-02	161,250	-
University of Minnesota	93.846	5R01AR063070-05	(11)	-
University of Minnesota	93.853	5R01NS080816-04	61,071	-
University of Minnesota	93.853	5R01NS088679-03	27,693	-
University of Minnesota	93.865	1R01HD088176-03	14,147	-
University of Nebraska Medical Center	93.847	5R01DK103658-05	73,385	-
University of New Mexico	93.279	5R01DA016017-05	10,484	-
University of New South Wales	93.279	5R01DA040506-03	4,018	-
University of North Carolina, Chapel Hill	93.121	5U01DE017018-11	(8,422)	-
University of North Carolina, Chapel Hill	93.242	5R21MH110933-02	1,508	-
University of North Carolina, Chapel Hill	93.242	5R61MH110027-02	17,567	-
University of North Carolina, Chapel Hill	93.242	5U01MH110925-03	473,934	-
University of North Carolina, Chapel Hill	93.242	5U01MH110925-03 REVISED	34,423	-
University of North Carolina, Chapel Hill	93.286	5R01EB025024-02	63,038	-
University of North Carolina, Chapel Hill	93.865	5R01HD092374-03	145,584	-
University of North Carolina, Chapel Hill	93.865	5U19HD089881-04	37,177	-
University of North Carolina, Chapel Hill	93.865	5U24HD089880-04	491,202	127,313
University of Notre Dame	93.847	4R01DK100237-04	(3,346)	-
University of Pennsylvania	93.286	5R01EB018464-04	79,161	-
University of Pennsylvania	93.286	5R21EB027397-02	33,943	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Pennsylvania	93.350	3U54AR057319-16S1	95,102	-
University of Pennsylvania	93.394	5-R01-CA-229502-02	44,579	-
University of Pennsylvania	93.397	3U54CA163313-05S1	(8)	-
University of Pennsylvania	93.837	5P01HL094307-08	51,694	-
University of Pennsylvania	93.837	5R01HL103723-06	208,253	-
University of Pennsylvania	93.837	5R01HL131613-02	18,136	-
University of Pennsylvania	93.837	5U01HL125388-4	27,993	-
University of Pennsylvania	93.846	5-U54-AR-057319-16	34,284	-
University of Pennsylvania	93.847	5U01DK099919-05	(21,174)	-
University of Pennsylvania	93.847	5-U01DK103225-05	48,620	-
University of Pennsylvania	93.853	5R24NS092986-04	110,316	-
University of Pennsylvania	93.866	5U01AG032984-10	22,601	-
University of Pennsylvania	93.866	5U01AG052943-03	178,369	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.242	5R01MH107797-04	75,502	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.307	5R01MD009118-04	49	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.350	5UL1TR001857-02	(88,648)	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.350	5UL1TR001857-03	657,613	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.361	5R01NR014831-05	2,237	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.396	7R21CA208618-02	105,392	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.838	5R01HL113178-06	41,961	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.838	5R01HL124021-06	6,604	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.838	5U01HL128954-03	11,916	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.838	5U01HL128954-04	2,917	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.846	5P50AR060780-07	73,024	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.846	5R21AR069285-03	11,643	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.846	7R21AR070378-02	26,175	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.853	5R01NS096755-04	211,228	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.853	5R01NS098023-04	50,537	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.855	1P01Al129880-01A1	602,313	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.855	5P01AI108545-05	103,303	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.865	4U10HD036801-21 / S-MFM1819-JB15	136,491	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.866	5R01AG056331-02	4,453	-
University of Pittsburgh of the Commonwealth System of Higher Education	93.866	7R01AG056279-03	47,501	-
University of Rochester	93.242	5P50MH106435-05	40,191	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Rochester	93.242	5R01MH045573-28	359,292	-
University of Rochester	93.242	R01MH107371-04	8,029	-
University of Rochester	93.838	R01HL120908	(1,349)	-
University of Rochester	93.866	5P01AG047200-04	117,694	-
University of Rochester Medical Center	93.853	1R21NS104878-01	71,237	-
University of South Carolina	93.173	1R01DC017156-01	87,897	-
University of Southern California	93.310	5UH3TR000967-03	3,370	-
University of Southern California	93.847	3U01DK107350-02	(4,656)	-
University of Southern California	93.847	5U24DK110814-03	152,994	-
University of Southern California	93.853	5U54NS100064-03	15,054	-
University of Southern California	93.866	1R01AG053798-01A1	144,970	-
University of Southern California	93.866	1R01AG061848-01	28,483	-
University of Southern California	93.866	2U19AG024904-11/Subaward#WE12015-01	49,894	-
University of Southern California	93.866	4U19AG010483-25	343,899	-
University of Southern California	93.866	5R01AG053798-02	17,367	-
University of Southern California	93.866	5U19AG010483-26	49,009	-
University of Southern California	93.866	5U19AG024904-14	93,296	-
University of Southern California	93.866	5U24AG057437-02	773,613	-
University of Southern California	93.866	7RF1AG041845-02	2,362	-
University of Texas Health Science Center at Houston	93.399	1R01CA232888-01A1	29,069	-
University of Texas Health Science Center at Houston	93.837	5R01HL141824-02	34,158	-
University of Texas Health Science Center at Houston	93.837	5UM1HL087318-12	18,092	-
University of Texas Health Science Center at San Antonio	93.213	5R01AT008422-05	12,862	-
University of Texas Health Science Center at San Antonio	93.242	5R01MH107499-03	136,720	-
University of Texas Health Science Center at San Antonio	93.853	5R01NS017950-36	546,460	-
University of Texas Health Science Center at San Antonio	93.866	7R01AG049607-04	283,937	-
University of Texas Health Science Center at San Antonio	93.866	7R01AG054076-03	1,230,190	-
University of Texas Medical Branch at Galveston	93.865	19-84725-10	4,920	-
University of Texas Medical Branch at Galveston	93.865	5P2CHD065702-09	10,339	-
University of Texas Medical Branch at Galveston	93.865	5P2CHD065702-10	4,014	-
University of Texas Southwestern Medical Center	93.396	1UM1CA221940-02	598,522	-
University of Texas Southwestern Medical Center	93.396	5UM1CA221940-02	67,455	-
University of Texas Southwestern Medical Center	93.853	1R01NS108115-01A1	129,479	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
University of Texas Southwestern Medical Center	93.855	1U19AI142784-01	87,418	-
University of Texas Southwestern Medical Center	93.866	5R01AG056426-02	299,292	-
University of Texas, Austin	93.242	5R01MH104562-04	93,283	-
University of Texas, MD Anderson Cancer Center	93.393	5R01CA186566-02	3,190	-
University of Texas, MD Anderson Cancer Center	93.394	5U01CA200462-03	129,025	-
University of Texas, MD Anderson Cancer Center	93.394	5U01CA200462-04	132,729	-
University of Texas, MD Anderson Cancer Center	93.396	5P01CA117969-14	94,014	-
University of Texas, MD Anderson Cancer Center	93.859	5R01GM116024-04	79,660	-
University of Utah	93.121	3R01DE027255-01S1	247,376	-
University of Utah	93.173	5U01DC014706-03	6,432	-
University of Utah	93.855	4R33AI122377-04	101,224	-
University of Utah School of Medicine	93.853	1U01NS095388-01A1	384	-
University of Virginia	93.837	5R21HL140432-02	20,410	-
University of Virginia	93.837	5U01HL117006-02	694,011	-
University of Virginia	93.837	5U01HL117006-05	55,186	-
University of Washington	93.113	5R01ES027696-03	121,714	-
University of Washington	93.393	5R01CA173754-05	1,080	-
University of Washington	93.837	5R01HL120393-04	7,589	-
University of Washington	93.837	5R01HL130770-02	(254)	-
University of Washington	93.838	5R01HL132232-03	8,133	-
University of Washington	93.855	1R01AI136648-02	219,595	-
University of Washington	93.866	1R01AG042437-01A1	(243)	-
University of Washington, Seattle	93.847	5R01DK088762-09	432,124	-
University of Washington, Seattle	93.866	3U01AG016976-20S9	18,224	-
University of Washington, Seattle	93.866	5U01AG016976-19	(8,188)	-
University of Wisconsin System	93.310	4UH3OD023282-03	637,650	-
University of Wisconsin System	93.310	5UG3OD023282-02	9,976	-
University of Wisconsin System	93.865	5R01HD094759-02	38,795	-
University of Wisconsin, Madison	93.242	4R01MH097464-05	(1,754)	-
University of Wisconsin, Madison	93.865	5P01HD076892-01A1	140,777	-
Vanderbilt University	93.286	2R01EB016695-05	58,795	-
Vanderbilt University	93.853	5R01NS049251-12	123,841	-
Vanderbilt University Medical Center	93.242	5R01MH111776-03	1,497	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Vanderbilt University Medical Center	93.242	5R01MH113478-02	75,959	-
Vanderbilt University Medical Center	93.837	5R01HL131977-04	74,464	-
Vanderbilt University Medical Center	93.838	1R56HL141567-01A1	41,164	-
Vanderbilt University Medical Center	93.847	5R01DK096994-03	(3,267)	-
Vanderbilt University Medical Center	93.847	5R01DK096994-06	(6,352)	-
Vanderbilt University Medical Center	93.855	1R21AI139012-02	87,927	-
Vanderbilt University Medical Center	93.855	5R01AI077505-11	91,073	-
Vanderbilt University Medical Center	93.867	1U24EY029893-01	382,115	-
Vanderbilt University Medical Center	93.879	7R21LM012448-03	26,858	-
Vascular BioSciences	93.838	1R42HL132742-01A1	128,459	-
Veralase	93.855	R42AI114012	8,433	-
Virginia Commonwealth University	93.393	5R01CA215610-03	59,948	-
Virginia Commonwealth University	93.847	5R01DK094818-05	28,139	-
Virginia Commonwealth University	93.853	5R01NS070715-10	45,302	-
Virginia Commonwealth University	93.853	5U01NS095388-03	1,135,761	64,711
Virginia Commonwealth University	93.853	7U01NS095388-02	10,086	-
Virginia Commonwealth University	93.989	1R21TW010439-02	13,552	-
Virtici	93.847	2R44DK101197-02	132,214	-
Wake Forest University	93.846	5U01AR068658-04	44,165	-
Wake Forest University	93.853	5R01NS058949-09	6,919	-
Wake Forest University	93.853	R01NS058949	169,551	-
Wake Forest University Health Sciences	93.233	5R01HL133684-02	296,081	-
Wake Forest University Health Sciences	93.837	5R01HL104199-07	63,927	-
Wake Forest University Health Sciences	93.853	R01NS058949	2,985	-
Wake Forest University Health Sciences	93.859	P01GM113852-03	94,679	-
Wake Forest University Health Sciences	93.866	5R01AG050657-04	108,702	-
Wake Forest University Health Sciences	93.866	5R01AG058571-02	74,847	-
Washington University	93.394	5U24CA196171-05	(2,883)	-
Washington University	93.396	5P01CA101937-14	(352)	-
Washington University	93.397	2P50CA171963-06	272,957	-
Washington University	93.397	5P50CA171963-05	(7,584)	-
Washington University	93.839	4UH3HL138325-02	167,814	-
Washington University	93.839	5UH3HL138325-03	5,469	-
Washington University	93.846	5R01AR060846-05	20,285	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services National Institutes of Health, continued				
Washington University	93.855	5U19AI109725-05	757,941	-
Washington University	93.866	2UF1AG032438-07	78,788	-
Washington University	93.866	3U01AG052564-02S2	22,508	-
Washington University	93.866	3U01AG052564-03S2	110,209	-
Washington University	93.866	5R01AG047644-05	158,221	-
Washington University	93.866	5R34AG056639-02	10,784	-
Washington University	93.866	5U01AG052564-04	872,415	-
Weill-Cornell Medical College	93.837	5R01HL128278-05	63,603	-
Whitehead Institute for Biomedical Research	93.855	5R21AI134365-02	82,576	-
Woodland Pharmaceuticals	93.393	1R41CA213678-01A1	(14)	-
Yale University	93.173	1R21DC018098-01	1,936	-
Yale University	93.242	1 R56 MH 114833-01A1	21,385	-
Yale University	93.242	5R01MH105203-05	369,108	-
Yale University	93.396	1R01CA230275-01A1	7,269	-
Yale University	93.837	5R01HL125918-02	491	-
Yale University	93.838	1U01HL145567-01	37,994	-
Yale University	93.853	1U01NS084495-04	(471)	-
Yale University	93.855	2R01AI104824-06A1	5,451	-
Yale University	93.855	5P01AI039671-22	942,734	-
Yale University	93.855	5R01AI104824-05	(9,305)	-
Zata Pharmaceuticals	93.859	2R44GM109517-02	16,482	-
			910,856,886	157,885,677
Department of Health and Human Services Office of Minority Health				
Northwestern University	93.137	1CPIMP171141-01-00	11,327	-
Northwestern University	93.137	1CPIMP181168-01-00	76,288	-
			87,615	-
Department of Health and Human Services Office of the Secretary				
Assistant Secretary for Preparedness and Response	93.817	Direct	1,835,794	632,807
Broad Institute	93.360	4500002209	12,798	-
Emory University	93.825	5U3REP170552-03-00	118,751	-
Johns Hopkins University	93.088	6ASTWH150032-01-03	(1,343)	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
Department of Health and Human Services Office of the Secretary, continued				
Massachusetts General Hospital	93.817	1 HITEP180042-01-00	140,262	-
University of Massachusetts Medical School	93.857	5U01HL126495-05	26,603	
			2,132,865	632,807
Department of Health and Human Services Substance Abuse and Mental				
Health Services Administration Substance Abuse and Mental Health Services Administration	93.243	Direct	200.077	
Great Plains Tribal Chairmen's Health Board	93.243 93.788	Direct 1H79Tl081826-01	368,877 28,919	-
Great Plains Tribai Chairmen's Health Board	93.788	111/911081826-01	397,796	<u>-</u>
Department of State			391,190	
Global Health Service Corps	93.RD	Number not Available	211,807	_
Global Health Service Golps	33.IVD	Number not Available	211,807	
Department of Transportation Federal Aviation Administration (FAA)			211,007	
Boston University	20.109	13-C-AJFE-BU-014	(7,970)	_
···· · · · · · · · · · · · · · · · · ·			(7,970)	
Department of Veterans Affairs				
Dallas VA Medical Center	93.RD	Direct	18,116	-
Department of Veterans Affairs	93.RD	Direct	442,678	-
VA Boston Healthcare System	93.RD	Direct	400,930	-
Veterans Administration	93.RD	Direct	(1,618)	-
Veterans Administration Hospital	93.RD	Direct	9,160	-
Veterans Administration Medical Center	93.RD	Direct	(6)	
			869,260	
Environmental Protection Agency Office of Research and Development (ORD)				
Dartmouth College	66.509	RD-83544201-6	31,268	-
University of Illinois, Urbana-Champaign	66.509	83543401	86,333	
			117,601	
Federal Communications Commission	00.00	Discort	444 400	
Federal Communications Commission	93.RD	Direct	111,182	
National Agrangution and Change Administration			111,182	
National Aeronautics and Space Administration  National Aeronautics and Space Administration	43.001	Direct	174,284	
National Aeronautics and Space Administration  National Aeronautics and Space Administration	43.001	Direct	693,782	2,017
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Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research and Development, continued				
National Aeronautics and Space Administration, continued				
Baylor College of Medicine	43.003	NNX16A069A	957,643	-
Baylor College of Medicine	43.003	NNX17AE04G	5,881	-
KBRwyle	93.RD	NNJ15HK11B	100,600	30,478
Massachusetts Institute of Technology	43.001	NNX15AF85G	9,603	-
Massachusetts Institute of Technology	43.003	7000000324/NNX16A069A	193,476	-
Thomas Jefferson University	43.003	NNX15AC14G	121,292	-
University of California, Irvine	43.003	NNX15AI22G	5,307	-
University of Pennsylvania	43.003	NNX15AK76GA	37,942	
			2,299,810	32,495
National Science Foundation				
National Science Foundation	47.041	Direct	327,576	-
National Science Foundation	47.049	Direct	297,636	-
National Science Foundation	47.050	Direct	23,295	-
National Science Foundation	47.070	Direct	540,314	-
National Science Foundation	47.074	Direct	47,167	-
National Science Foundation	47.075	Direct	211,120	-
Columbia University	47.070	IIS 1636832	31,993	-
George Washington University	47.041	1830941	83,145	-
Massachusetts Institute of Technology	47.070	IIS-1404494	19,783	-
Massachusetts Institute of Technology	47.076	5710004209	158,538	-
U.S. Civilian Research & Development Foundation	47.079	OISE-9531011	5,096	-
University of Nevada, Las Vegas	47.074	1921742	27,270	-
University of Nevada, Las Vegas	47.074	1929592	23,121	-
University of Pennsylvania	47.049	PHY-1545935	88,965	-
Woods Hole Research Center	47.076	WHRC-MG0932-01	16,898	
			1,901,917	-
Social Security Administration				
Westat	96.001	SS001660014	34,063	
Total Research and Development			\$ 1,002,604,952	\$ 168,055,068

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training				
Department of Defense U.S. Army Medical Command				
U.S. Army Medical Research Acquisition Activity	12.420	Direct	\$ 74,032 74.032	\$ -
Department of Health and Human Services Agency for Healthcare Research and Quality			14,002	
Agency for Healthcare Research and Quality	93.226	Direct	361,027	10,039
Children's Hospital Corporation	93.225	5T32HS000063-24	2,950	-
Children's Hospital Corporation	93.226	2T32HS000063-25	79,749	-
Children's Hospital Corporation	93.226	5K12HS022986-04	(2,979)	-
Children's Hospital Corporation	93.226	5K12HS022986-05	135,101	-
			575,848	10,039
Department of Health and Human Services Health Resources and Services Administration				
Health Resources and Services Administration	93.186	Direct	340,788	-
Health Resources and Services Administration	93.247	Direct	784,126	183,825
Harvard College	93.110	6 T76MC000016400	14,399	-
Harvard College	93.110	6 T76MC00001-64-00	30,068	-
Harvard College	93.884	5T0BHP29997-03-00	6,278	-
University of Colorado, Denver	93.110	5UA6MC31101-02	14,950	
			1,190,609	183,825
Department of Health and Human Services National Institutes of Health				
NIH-FIC Fogarty International Center	93.989	Direct	96,648	51,725
NIH-National Institutes of Health	93.113	Direct	27,702	-
NIH-National Institutes of Health	93.121	Direct	169,928	-
NIH-National Institutes of Health	93.172	Direct	394,484	-
NIH-National Institutes of Health	93.173	Direct	235,735	-
NIH-National Institutes of Health	93.213	Direct	709,769	-
NIH-National Institutes of Health	93.233	Direct	1,114,838	-
NIH-National Institutes of Health	93.242	Direct	3,744,958	89,849
NIH-National Institutes of Health	93.273	Direct	498,842	-
NIH-National Institutes of Health	93.279	Direct	1,755,373	29,973
NIH-National Institutes of Health	93.286	Direct	968,388	-
NIH-National Institutes of Health	93.393	Direct	259,409	-
NIH-National Institutes of Health	93.398	Direct	3,485,031	80,733

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training, continued				
Department of Health and Human Services National Institutes of Health, continued				
NIH-National Institutes of Health	93.837	Direct	4,576,174	-
NIH-National Institutes of Health	93.838	Direct	1,784,608	-
NIH-National Institutes of Health	93.839	Direct	864,882	302,378
NIH-National Institutes of Health	93.846	Direct	2,766,874	-
NIH-National Institutes of Health	93.847	Direct	6,512,191	9,519
NIH-National Institutes of Health	93.853	Direct	3,000,187	-
NIH-National Institutes of Health	93.855	Direct	4,655,565	88,796
NIH-National Institutes of Health	93.859	Direct	1,146,998	-
NIH-National Institutes of Health	93.865	Direct	1,916,457	4,153
NIH-National Institutes of Health	93.866	Direct	1,628,323	-
NIH-National Institutes of Health	93.867	Direct	9,031	-
NIH-National Institutes of Health	93.879	Direct	51,762	-
NIH-National Institutes of Health	93.989	Direct	190,840	52,795
NIH-NCCAM National Center for Complementary and Alternative Medicine	93.213	Direct	248,544	-
NIH-NCI National Cancer Institute	93.393	Direct	266,016	-
NIH-NCI National Cancer Institute	93.398	Direct	2,477,008	-
NIH-NEI National Eye Institute	93.867	Direct	1,400,197	5,230
NIH-NHLBI National Heart, Lung, and Blood Institute	93.233	Direct	169,930	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.837	Direct	5,004,441	77,271
NIH-NHLBI National Heart, Lung, and Blood Institute	93.838	Direct	3,870,746	-
NIH-NHLBI National Heart, Lung, and Blood Institute	93.839	Direct	224,854	-
NIH-NIA National Institute on Aging	93.866	Direct	1,222,352	108,952
NIH-NIAAA National Institute on Alcohol Abuse and Alcoholism	93.273	Direct	141,572	-
NIH-NIAID National Institute of Allergy and Infectious Diseases	93.855	Direct	1,880,660	77,311
NIH-NIAMS National Institute of Arthritis and Musculoskeletal and Skin Dise	93.846	Direct	562,257	32,426
NIH-NIBIB National Institute of Biomedical Imaging and Bioengineering	93.286	Direct	704,166	-
NIH-NICHD National Institute of Child Health and Human Development	93.865	Direct	258,193	70,566
NIH-NIDA National Institute on Drug Abuse	93.279	Direct	1,632,989	20,983
NIH-NIDCD National Institute on Deafness and Other Communication Disorders	93.173	Direct	183,483	-
NIH-NIDCR National Institute of Dental and Craniofacial Research	93.121	Direct	40,392	-
NIH-NIDDK National Institute of Diabetes and Digestive and Kidney Diseases	93.847	Direct	3,312,287	-
NIH-NIEHS National Institute of Environmental Health Sciences	93.113	Direct	(5,577)	-
NIH-NIGMS National Institute of General Medical Sciences	93.310	Direct	53,201	-
NIH-NIGMS National Institute of General Medical Sciences	93.859	Direct	281,015	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training, continued				
Department of Health and Human Services National Institutes of Health, continued				
NIH-NIMH National Institute of Mental Health	93.242	Direct	1,954,842	35,753
NIH-NINDS National Institute of Neurological Disorders and Stroke	93.853	Direct	2,233,310	95,299
American Academy of Child and Adolescent Psychiatry	93.279	5K12DA000357-17	157,995	-
Augusta University	93.847	5U24DK115255-02	5,447	-
Beth Israel Deaconess Medical Center	93.213	5T32 AT000051-19	57,584	-
Beth Israel Deaconess Medical Center	93.213	5T32AT000051-19	86,478	-
Beth Israel Deaconess Medical Center	93.837	2T32HL007734-26	63,918	-
Beth Israel Deaconess Medical Center	93.837	5T32HL007734-23	(2,628)	-
Beth Israel Deaconess Medical Center	93.837	5T32HL007734-24	(1,247)	-
Beth Israel Deaconess Medical Center	93.855	5T32AI074549-10	42,770	-
Beth Israel Deaconess Medical Center	93.859	5T32GM103702-05	39,672	-
Boston Medical Center	93.242	1T32MH116140-01	51,324	-
Boston Medical Center	93.242	5T32MH116140-02	26,720	-
Boston University	93.837	5T32HL125232-02	2	-
Brigham and Women's Hospital	93.242	5K24MH110807-03	4,502	-
Brigham and Women's Hospital	93.839	1K12HL141953-01	115,171	-
Brigham and Women's Hospital	93.865	5K23HD074648-05	(2,699)	-
Children's Hospital Corporation	93.839	5T32HL066987-17	163,893	-
Children's Hospital Corporation	93.847	5K23DK102600-03	8,491	-
Children's Hospital Corporation	93.853	5K24NS064050-11	5,099	-
Children's Hospital Corporation	93.855	5T32AI007512-32	58,854	-
Children's Hospital Corporation	93.855	5T32HD075727-05	16,208	-
Children's Hospital Corporation	93.865	5T32HD040128-15	107,600	-
Dana Farber Cancer Institute	93.398	5K01CA172478-05	43,620	-
Dana Farber Cancer Institute	93.398	5K08CA208008-04	135,961	-
Dana Farber Cancer Institute	93.398	5K08CA219504-02	138,918	-
Dana Farber Cancer Institute	93.398	5T32CA207021-03	32,263	-
Dana Farber Cancer Institute	93.398	T32CA092203	15,034	-
Harvard College	93.242	5T32MH017119-33	40,270	-
Harvard College	93.242	T32MH017119	50,677	-
Harvard College	93.310	5R25GM114818-03	(4,665)	-
Harvard College	93.350	1KL2TR002542-01	398,949	-
Harvard College	93.350	1KL2TR002542-02	112,374	-

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training, continued				
Department of Health and Human Services National Institutes of Health, continued				
Harvard College	93.350	4KL2TR001100-04	(4,542)	-
Harvard College	93.350	5KL2TF001100-05	(75,938)	-
Harvard College	93.350	5KL2TR001100-05	(446,325)	-
Harvard College	93.350	5KL2TR002542-02	1,769,997	-
Harvard College	93.398	2T32CA009001-44	16,144	-
Harvard College	93.398	5T32CA009001-42	18,753	-
Harvard College	93.398	5T32CA9001-43	35,222	-
Harvard College	93.398	5T32ES007069-39	48,100	-
Harvard College	93.398	T32CA009001	55,446	-
Harvard College	93.837	5T32HL098048-10	10,879	-
Harvard College	93.853	5T32NS48005-15	53,184	-
Harvard College	93.855	4T32Al007433-25	14	-
Harvard College	93.855	5P30AI060354-14	2,811	-
Harvard College	93.855	5T32Al007245-35	36,271	-
Harvard College	93.866	5T32AG000222-26	35,061	-
Harvard College	93.866	5T32AG000222-27	157,976	-
Harvard College	93.879	5T15LM007092-26	23,800	-
Harvard Medical School	93.866	5T32AG000222-25	(1,294)	-
Hebrew Senior Life	93.866	5T32 AG 23480-13	50,740	-
Hebrew Senior Life	93.866	5T32AG023480-14	65,529	-
Judge Baker Children's Center	93.242	5T32MH016259-37	8,914	-
Judge Baker Children's Center	93.242	5T32MH016259-38	198	-
Massachusetts Eye and Ear Infirmary	93.867	5K12EY016335-13	50,235	-
Massachusetts General Hospital	93.242	5K01MH111802-03	27,953	-
Tufts College	93.121	1K23DE026804	30,125	-
University of South Florida	93.242	5D43MH108169-04	4,506	-
Vanderbilt University Medical Center	93.855	7K23AI106406-05	4,918	
			74,629,107	1,233,712

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Research Training, continued				
Department of Health and Human Services Substance Abuse and Mental				
Health Services Administration				
Substance Abuse and Mental Health Services Administration	93.243	Direct	65,215	16,006
American Psychiatric Association	93.243	1H79SM080388-01	6,652	-
American Psychiatric Association	93.243	2SM060562-04	3,976	-
American Psychiatric Association	93.243	SM060562-07	1	-
MGH Institute of Health Professions	93.243	1H79TI081655-01	21,322	40.000
National Aeronautics and Space Administration			97,166	16,006
Baylor College of Medicine	43.003	NNX16A069A	4,424	
Translational Research Institute	43.003	NNX16A069A	(3,289)	_
Translational Nesseaton Institute	40.000	1414/10/1000/1	1.135	
Total Research Training			76.567.897	1.443.582
Total Research and Development and Research Training			\$ 1,079,172,849	\$ 169,498,650
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Student Financial Aid Cluster				
Department of Education Office of Federal Student Aid				
Federal Direct Student Loans	84.268		\$ 39,019,659	\$ -
rederal bliect Student Ebans	04.200			Ψ -
			39,019,659	
Department of Health and Human Services Health Resources and Services Administration				
Nurse Faculty Loan Program (NFLP) FY19 Beginning Balance	93.264		179,613	-
U.S. Department of Health and Human Services	93.264		26,513	
			206,126	-
ARRA Nurse Faculty Loan Program FY19 Beginning Balance				
U.S. Department of Health and Human Services	93.408		20,201	_
C.C. Department of Floatin and Flaman Convides	30.400		20,201	
				<del></del>
Total Student Financial Aid Cluster			\$ 39,245,986	<u> </u>
Food Distribution Cluster				
Department of Agriculture Food and Nutrition Service		01115		
Greater Boston Food Bank	10.569	SNAP	22,851	-
Total Food Distribution Cluster			\$ 22,851	<u> </u>

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Other Programs				
Agency for International Development				
U.S. Agency for International Development	98.001	Direct	\$ 2,188,146	\$ 1,203,347
Eastern Virginia Medical School	98.001	AID-OAA-A-10-00068	19,601	-
Eastern Virginia Medical School	98.001	AID-OAA-A-14-00010	51,766	-
Harvard College	98.001	AID-OFDA-A-17-00008	74,910	-
Harvard College	98.001	AID-OFDA-A-17-00064	69,030	-
Invisible Children	98.001	7260518CA00001	50,973	-
Last Mile Health	98.001	Number not Available	23,386	-
Last Mile Health	98.001	AID-OAA-A-16-00028	(109)	-
Management Systems International	98.001	AID-OAA-I-13-00042	(476)	-
Seattle Children's Hospital	98.001	AID-OAA-A-14-00049	(9,919)	-
University of Washington	98.001	AID-OAA-A-15-00034	47,976	-
University Research Co.	98.001	AID-0AA-A-10-00021	45,282	-
Subtotal			2,560,566	1,203,347
Department of Agriculture Food and Nutrition Service				
Massachusetts Department of Public Health	10.557	INTF3502M03162726104	814,856	-
Massachusetts Department of Public Health	10.557	INTF3502M03162726128	779,690	-
Massachusetts Department of Public Health	10.557	WIC voucher	3,239,497	-
University of Massachusetts Medical Center	10.561	Outreach Partner Amendment 1-4-2016	731	-
Subtotal			4,834,774	-
Department of Health and Human Services				
Great Plains Area IHS	93.U001	Direct	737,973	-
Action for Boston Community Development	93.U002	FPHPA16204-01-00	236	_
Boston Public Health Commission	93.U003	INTF6208PP1161326144	10,543	-
Subtotal			748,752	
Department of Health and Human ServicesAdministration for Children and Families				
Massachusetts Department of Public Health	93.092	INTF3211MM3W19020007	34,992	13,200
Subtotal			34,992	13,200

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Other Programs, continued				
Department of Health and Human Services Centers for Disease Control and Prevention				
Boston Public Health Commission	93.069	FY19020002	5,336	-
Boston Public Health Commission	93.074	FY17017707	223	-
Boston Public Health Commission	93.074	FY17017746	206	-
Massachusetts Department of Public Health	93.073	6 U01DD001224-01-02	43,743	-
Massachusetts Department of Public Health	93.073	INTF3122H78500224039	(9,249)	-
Massachusetts Department of Public Health	93.074	MAPC	6,141	-
Massachusetts Department of Public Health	93.074	MPD	10,898	-
Massachusetts Department of Public Health	93.535	INTF4123H78500224043	782,159	102,772
Massachusetts Department of Public Health	93.940	INTF4942MM3100119020	(7,515)	-
Massachusetts Department of Public Health	93.940	INTF4944MM3181926038	563,920	-
Massachusetts Department of Public Health	93.943	INTF5180HH2500224007	12,418	-
Massachusetts Department of Public Health	93.943	INTF5180HH2W40199011	24,968	-
Massachusetts Department of Public Health	93.946	INTF3070HH4300522029	13,094	-
Massachusetts League of Community Health Centers	93.070	Number not Available	21,187	
Subtotal			1,467,529	102,772
Department of Health and Human Services Health Resources and Services Administration				
Health Resources and Services Administration	93.266	Direct	1,623,312	1,398,491
Boston Public Health Commission	93.914	H89HA00011	127,270	-
Dimock Community Health Center	93.153	2H12HA24846-06-00	81,023	_
Icahn School of Medicine at Mount Sinai	93.110	5H30MC24048-08	18,523	_
Massachusetts Association of Health Boards	93.241	Number not Available	8,178	-
Massachusetts Department of Public Health	93.110	INTF3121M04W16082022	64,972	-
Massachusetts Department of Public Health	93.301	Number not Available	39,181	-
Massachusetts Department of Public Health	93.870	INTF3617M03171019090	258,314	-
Massachusetts Department of Public Health	93.870	INTF3617M03171019100	344,720	-
Massachusetts Department of Public Health	93.917	INTF4944MM3181926016	385,208	-
Massachusetts Hospital Association	93.301	5H3HRH00011-14-00	8,730	-
Subtotal			2,959,431	1,398,491
Department of Health and Human Services Office of Population Affairs				
Action for Boston Community Development	93.217	1FPHPA006419-01-00	(20,912)	_
Action for Boston Community Development	93.217	FPHPA006304-01-00	78,455	_
Action for Boston Community Development	93.217	FPHPA16204-01-00	125,605	_
Subtotal			183,148	
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Department of Health and Human Services Office of the Secretary   Boston Public Health Commission   93,889   421011-12561011   467	Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Boston Public Health Commission	Other Programs, continued				
Commonwealth of Massachusetts	Department of Health and Human Services Office of the Secretary				
Massachusetts Department of Public Health   93,817   NTF6207PPIW16005708   35,1732	Boston Public Health Commission	93.889	4221011-2261011	467	-
Massachusetts Department of Public Health         93.817         INTF6207PP1W16052809         35.564         -           Massachusetts Department of Public Health         93.889         INTF6207PP1204215596         (120)         -           Massachusetts Department of Public Health         93.889         INTF6207PP1204215596         (120)         -           Massachusetts Department of Public Health         93.889         INTF6207PP1204215698         368         -           Massachusetts General Hospital         93.817         1 HITEP180042-01-00         68.878         -           Massachusetts League of Community Health Centers         93.889         Number not Available         3.997         -           Massachusetts League of Community Health Centers         93.889         Number not Available         (2.546)         -           Substance Albuse and Mental Health Centers         93.899         Number not Available         (2.546)         -           Substance Abuse and Mental Health Services Administration         93.276         Direct         152,375         -           City of Chelsea         93.959         INTF235IMM3802114012         (6.528)         -           Commonwealth of Massachusetts         93.959         INTF235IMM3802114012         (6.528)         22.932           Massachusetts Department of Public Heal	Commonwealth of Massachusetts	93.889	INTF6207PP1W16028699	6,914	-
Massachusetts Department of Public Health   93,889   INTF6207PP1204215507-1   (1,309)   -	Massachusetts Department of Public Health	93.817	INTF6207PP1W16005708	351,732	-
Massachusetts Department of Public Health         93,889         INTF6207PP1204215568         (120)         -           Massachusetts Department of Public Health         93,887         1 HITEP180042-01-00         68,878         -           Massachusetts General Hospital         93,887         1 HITEP180042-01-00         68,878         -           Massachusetts League of Community Health Centers         93,889         Number not Available         2,446         -           Massachusetts League of Community Health Centers         93,889         Number not Available         3,997         -           Massachusetts League of Community Health Centers         93,889         Number not Available         2,546         -           Subtotal         466,391         -         -         -           Department of Health and Human Services Substance Abuse and Mental         Health Services Administration         93,276         Direct         152,375         -           Substance Abuse and Mental Health Services Administration         93,276         Direct         152,375         -           City of Chelsea         93,959         4512-9069         11,467         -           City of Chelsea         93,359         INTE235IMM3820114012         (6,528)         -           Massachusetts Department of Mental Health         93	Massachusetts Department of Public Health	93.817	INTF6207PP1W16052809	35,564	-
Massachusetts Department of Public Health         93,889         INTF6207PP1204215668         368         -           Massachusetts General Hospital         93,889         FY2018         2,446         -           Massachusetts League of Community Health Centers         93,889         Number not Available         3,997         -           Massachusetts League of Community Health Centers         93,889         Number not Available         2,246         -           Massachusetts League of Community Health Centers         93,889         Number not Available         2,246         -           Subtotal         Bubble Method Method Health Centers         93,889         Number not Available         2,246         -           Substance Abuse and Mental Health Services Administration         80,276         Direct         152,375         -           City of Chelsea         93,959         METE-2058         11,467         -           City of Chelsea         93,959         INTE2351M03802114012         (6,528)         -           Commonwealth of Massachusetts         93,943         SCDMH651001663334BRIG         228,799         220,932           Massachusetts Department of Public Health         93,959         INTE2351M03183626051         160,335         -           Massachusetts Department of Public Health         93,95	Massachusetts Department of Public Health	93.889	INTF6207PP1204215507-1	(1,309)	-
Massachusetts General Hospital         93.817         1 HITEP180042-01-00         68.878         -           Massachusetts League of Community Health Centers         93.889         Number not Available         3,997         -           Massachusetts League of Community Health Centers         93.889         Number not Available         3,997         -           Massachusetts League of Community Health Centers         93.889         Number not Available         (2,546)         -           Subtotal	Massachusetts Department of Public Health	93.889	INTF6207PP1204215596	(120)	-
Massachusetts League of Community Health Centers         93.889         FY2018         2.446         -           Massachusetts League of Community Health Centers         93.889         Number not Available         3.997         -           Massachusetts League of Community Health Centers         93.889         Number not Available         (2.546)         -           Subtotal         93.889         Number not Available         (2.546)         -           Department of Health and Human Services Substance Abuse and Mental Health Services Administration         80.276         Direct         152.375         -           City of Chelsea         93.959         Massachusett Department of Mental Health Services Administration         93.959         INTF2351MM3802114012         (6.528)         -           Commonwealth of Massachusetts         93.959         INTF2351MM3802114012         (6.528)         228,799         220,932           Massachusetts Department of Public Health         93.243         SCDMH681001663334BRIG         228,799         220,932           Massachusetts Department of Public Health         93.959         INTF2351M03183626051         160,335         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626061         131,121         -           We Hampshire Department of Health and Human Services	Massachusetts Department of Public Health	93.889	INTF6207PP1204215668	368	-
Massachusetts League of Community Health Centers         93.889         Number not Available (2.546)         3.997         -           Subtotal         93.889         Number not Available (2.546)         -           Department of Health and Human Services Substance Abuse and Mental Health Services Administration         80.276         Direct         152,375         -           Substance Abuse and Mental Health Services Administration         93.276         Direct         152,375         -           City of Chelsea         93.959         4512-9069         11,467         -           Commonwealth of Massachusetts         93.959         INTF2351M0318362061         28,799         220,932           Massachusetts Department of Public Health         93.943         SCDMH651001663334BRIG         28,799         220,932           Massachusetts Department of Public Health         93.959         INTF2351M03183626051         160,335         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626051         131,121         -           Massachusetts Department of Public Health and Human Services         93.788         05-95-92-7040-500731         611,193         -           Department of Homeland Security         Massachusetts Emergency Management Agency         97.036         FEMA-4110-DR-MA         82,228         -	Massachusetts General Hospital	93.817	1 HITEP180042-01-00	68,878	-
Massachusetts League of Community Health Centers   93.889   Number not Available   (2,546)   - 2	Massachusetts League of Community Health Centers	93.889	FY2018	2,446	-
Subtotal   Subtotal	Massachusetts League of Community Health Centers	93.889	Number not Available	3,997	-
Department of Health and Human Services Substance Abuse and Mental Health Services Administration   93,276   Direct   152,375   - City of Chelsea   93,959   4512-9069   11,467   - City of Chelsea   93,959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts   093,959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts Department of Mental Health   93,959   INTF2351M03183626051   160,335   - Commonwealth of Mental Health   93,959   INTF2351M03183626051   160,335   - Commonwealth of Mental Health   93,959   INTF2351M03183626051   131,292   - Commonwealth of Public Health   93,959   INTF2351M03183626051   131,292   - Commonwealth of Public Health   93,959   INTF2351M03183626061   131,121   - Commonwealth of Homeland Security   20,932	Massachusetts League of Community Health Centers	93.889	Number not Available	(2,546)	
Health Services Administration   93.276   Direct   152,375   - Cuty of Chelsea   93.959   4512-9069   11,467   - Commonwealth of Massachusetts   93.959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts   93.959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts Department of Mental Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626053   113,292   - Commonwealth of Public Health   93.959   INTF2351M03183626053   131,129   - Commonwealth of Public Health   93.959   INTF2351M03183626051   131,121   - Commonwealth of Public Health   93.959   INTF2351M03183626061   131,121   - Commonwealth of Health   93.959   INTF2351M03183626061   131,121   - Commonwealth of Health   93.959   INTF2351M03183626061   131,129   - Commonwealth   C	Subtotal			466,391	
Health Services Administration   93.276   Direct   152,375   - Cuty of Chelsea   93.959   4512-9069   11,467   - Commonwealth of Massachusetts   93.959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts   93.959   INTF2351MM3802114012   (6,528)   - Commonwealth of Massachusetts Department of Mental Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626051   160,335   - Commonwealth of Public Health   93.959   INTF2351M03183626053   113,292   - Commonwealth of Public Health   93.959   INTF2351M03183626053   131,129   - Commonwealth of Public Health   93.959   INTF2351M03183626051   131,121   - Commonwealth of Public Health   93.959   INTF2351M03183626061   131,121   - Commonwealth of Health   93.959   INTF2351M03183626061   131,121   - Commonwealth of Health   93.959   INTF2351M03183626061   131,129   - Commonwealth   C	Department of Health and Human Services Substance Abuse and Mental				
City of Chelsea         93.959         4512-9069         11,467         -           Commonwealth of Massachusetts         93.959         INTF2351MM3802114012         (6,528)         -           Massachusetts Department of Mental Health         93.959         INTF2351M031833628051         228,799         220,932           Massachusetts Department of Public Health         93.959         INTF2351M03183626051         160,335         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626053         113,292         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626061         131,121         -           New Hampshire Department of Health and Human Services         93.788         05-95-92-7040-500731         611,193         -           Subtotal         97.036         FEMA-4110-DR-MA         82,228         -           Subtotal         82,228         -           Department of Housing and Urban Development Office of Community         FEMA-4110-DR-MA         82,228         -           City of Springfield         14,241         Number not Available         134,882         -           City of Springfield         14,267         MA0401L1T071706         91,222         -           HIllbown CDC Three County Continuum of	·				
Commonwealth of Massachusetts	Substance Abuse and Mental Health Services Administration	93.276	Direct	152,375	_
Commonwealth of Massachusetts	City of Chelsea	93.959	4512-9069	11.467	_
Massachusetts Department of Mental Health         93.243         SCDMH651001663334BRIG         228,799         220,932           Massachusetts Department of Public Health         93.959         INTF2351M03183626051         160,335         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626063         113,292         -           New Hampshire Department of Public Health and Human Services         93.788         05-95-92-7040-500731         611,193         -           Subtotal         97.036         FEMA-4110-DR-MA         82,228         -           Subtotal         82,228         -           Department of Housing and Urban Development Office of Community         FEMA-4110-DR-MA         82,228         -           Planning and Development         14,241         Number not Available         134,882         -           City of Springfield         14,267         MA0401L1T071706         91,222         -           HOWPA         14,241         Number not Available         48,691         -           HUD McKinney-Vento         14,267         Number not Available         37,786         -	·	93.959	INTF2351MM3802114012	(6,528)	_
Massachusetts Department of Public Health         93.959         INTF2351M03183626051         160,335         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626053         113,292         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626061         131,121         -           New Hampshire Department of Health and Human Services         93.788         05-95-92-7040-500731         611,193         -           Subtotal         5.05-95-92-7040-500731         82,228         -         220,932           Department of Homeland Security         97.036         FEMA-4110-DR-MA         82,228         -           Subtotal         82,228         -           Department of Housing and Urban Development Office of Community         PIA.04         Number not Available         134,882         -           City of Springfield         14.267         MA0401L1T071706         91,222         -           HOWPA         14.241         Number not Available         48,691         -           HUD McKinney-Vento         14.267         Number not Available         37,786         -	Massachusetts Department of Mental Health	93.243	SCDMH651001663334BRIG	, , ,	220,932
Massachusetts Department of Public Health         93.959         INTF2351M03183626053         113,292         -           Massachusetts Department of Public Health         93.959         INTF2351M03183626061         131,121         -           New Hampshire Department of Health and Human Services         93.788         05-95-92-7040-500731         611,193         -           Subtotal         1,402,054         220,932           Department of Homeland Security         FEMA-4110-DR-MA         82,228         -           Subtotal         82,228         -           Subtotal         82,228         -           Department of Housing and Urban Development Office of Community         FEMA-4110-DR-MA         82,228         -           Planning and Development         14,241         Number not Available         134,882         -           City of Springfield         14,241         Number not Available         134,882         -           HOWPA         14,241         Number not Available         48,691         -           HUD McKinney-Vento         14,267         Number not Available         37,786         -	•	93.959	INTF2351M03183626051	160,335	· -
New Hampshire Department of Health and Human Services   93.788   05-95-92-7040-500731   611,193   -		93.959	INTF2351M03183626053	113,292	-
Department of Homeland Security   97.036   FEMA-4110-DR-MA   82,228   - Subtotal   82,	Massachusetts Department of Public Health	93.959	INTF2351M03183626061	131,121	-
Department of Homeland Security   Massachusetts Emergency Management Agency   97.036   FEMA-4110-DR-MA   82,228   - Subtotal   82,	New Hampshire Department of Health and Human Services	93.788	05-95-92-7040-500731	611,193	-
Massachusetts Emergency Management Agency Subtotal         97.036         FEMA-4110-DR-MA         82,228         -           Department of Housing and Urban Development Office of Community Planning and Development City of Springfield         14.241         Number not Available         134,882         -           Hilltown CDC Three County Continuum of Care         14.267         MA0401L1T071706         91,222         -           HOWPA HUD McKinney-Vento         14.267         Number not Available         48,691         -           HUD McKinney-Vento         14.267         Number not Available         37,786         -	Subtotal			1,402,054	220,932
Massachusetts Emergency Management Agency Subtotal         97.036         FEMA-4110-DR-MA         82,228         -           Department of Housing and Urban Development Office of Community Planning and Development City of Springfield         14.241         Number not Available         134,882         -           Hilltown CDC Three County Continuum of Care         14.267         MA0401L1T071706         91,222         -           HOWPA HUD McKinney-Vento         14.267         Number not Available         48,691         -           HUD McKinney-Vento         14.267         Number not Available         37,786         -	Department of Homeland Security				
Subtotal         82,228         -           Department of Housing and Urban Development Office of Community         Planning and Development         Very 14,241         Number not Available         134,882         -           City of Springfield         14.241         Number not Available         134,882         -           Hilltown CDC Three County Continuum of Care         14.267         MA0401L1T071706         91,222         -           HOWPA         14.241         Number not Available         48,691         -           HUD McKinney-Vento         14.267         Number not Available         37,786         -	·	97.036	FFMA-4110-DR-MA	82 228	_
Planning and Development       14.241       Number not Available       134,882       -         City of Springfield       14.267       MA0401L1T071706       91,222       -         HOWPA       14.241       Number not Available       48,691       -         HUD McKinney-Vento       14.267       Number not Available       37,786       -	· · · · · · · · · · · · · · · · · · ·	0000	. 2		
Hilltown CDC Three County Continuum of Care       14.267       MA0401L1T071706       91,222       -         HOWPA       14.241       Number not Available       48,691       -         HUD McKinney-Vento       14.267       Number not Available       37,786       -					
Hilltown CDC Three County Continuum of Care       14.267       MA0401L1T071706       91,222       -         HOWPA       14.241       Number not Available       48,691       -         HUD McKinney-Vento       14.267       Number not Available       37,786	·	14.241	Number not Available	134,882	-
HOWPA         14.241         Number not Available         48,691         -           HUD McKinney-Vento         14.267         Number not Available         37,786         -		14.267	MA0401L1T071706	,	-
HUD McKinney-Vento         14.267         Number not Available         37,786		14.241	Number not Available	,	-
	HUD McKinney-Vento	14.267	Number not Available	37,786	-
	Subtotal			312,581	

Cluster Title/Federal Program/Pass-Through Program	CFDA Number	Direct Award or Pass-Through Entity Identifying Number	Total Expenditures	Subrecipient Expenditures
Other Programs, continued				
Department of Justice Office for Victims of Crime				
Department of Justice Office of Justice Programs	16.582	Direct	309,679	22,098
Commonwealth of Massachusetts	16.575	VOCA2017BRIGVRP00000	(7,219)	=
Commonwealth of Massachusetts	16.575	VOCA2018BRIGPASS0000	(2,959)	=
Commonwealth of Massachusetts	16.575	VOCA2018BRIGVRP00000	(13,499)	=
Commonwealth of Massachusetts	16.575	VOCA2019BRIGPASS0000	185,841	=
Commonwealth of Massachusetts	16.575	VOCA2019BRIGVRP00000	219,460	
Subtotal			691,303	22,098
Department of Justice Office of Juvenile Justice and Delinquency Prevention City of Chelsea Subtotal	16.123	2016-MU-MU-K099	51,611 51,611	<u>-</u>
Department of Transportation National Highway Traffic Safety Administration (NHTSA) KEA Technologies Subtotal	20.614	DTNH22-13-H-00433	255,235 255,235	<u>-</u>
Department of Veterans Affairs Department of Veterans Affairs Subtotal	93.U004	VA241-17-D-0108	16,899 16,899	<u>.</u>
Health Resources & Services Administration Boston Public Health Commission Subtotal	93.194	H89HA00011	267,878 267,878	<u>-</u>
Total Other Programs Total Federal Expenditures			16,335,372 \$ 1,134,777,058	2,960,840 \$ 172,459,490

#### 1. Organization

Partners HealthCare System, Inc. (PHS) is the sole member of The Massachusetts General Hospital (MGH), Brigham Health, Inc. (BH), NSMC HealthCare, Inc. (NSMC), Newton-Wellesley Health Care System, Inc. (NWHCS), Foundation of the Massachusetts Eye and Ear Infirmary, Inc. (MEEI), Partners Continuing Care, Inc. (PCC), Partners HealthCare International, LLC (PHI) and Partners HealthCare Insurance Holding Company, LLC (PHIHC) which is the sole corporate member of AllWays Health Partners, Inc. (formerly known as Neighborhood Health Plan, Incorporated). The two physicians who serve as the President and Chief Executive Officer of PHS (PHS CEO) and the Chief Clinical Officer of PHS are the members of Partners Community Physicians Organization, Inc. (PCPO). PHS, together with all of its affiliates, is referred to as "Partners HealthCare."

Partners HealthCare operates academic medical centers, community acute care hospitals, facilities that provide both inpatient and outpatient mental health services, urgent care centers, rehabilitation medicine and long-term care services, physician organizations, a home health agency, nursing homes and a graduate level program for health professions. Partners HealthCare provides services to patients primarily from the Greater Boston area as well as New England and beyond. In addition, Partners HealthCare is a nonuniversity-based non-profit private medical research enterprise and is a principal teaching affiliate of the medical and dental schools of Harvard University. Partners HealthCare operates a licensed, not-for-profit managed care organization and a licensed, for-profit insurance company (collectively referred to as AllWays Health) that provide health insurance products and administrative services to the Massachusetts Medicaid program (MassHealth), ConnectorCare (a state subsidized program for adults who meet income and immigration guidelines) and commercial populations.

#### 2. Summary of Significant Accounting Policies

#### **Basis of Presentation**

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the grant activity of Partners HealthCare and is recorded on the accrual basis of accounting.

The information in the Schedule is presented in accordance with 2 CFR 200 Uniform Guidance requirements. Therefore, some amounts presented in the Schedule may differ from amounts presented in or used in the preparation of the basic consolidated financial statements. Negative amounts represent adjustments to amounts reported as expenditures in prior years. Catalog of Federal Domestic Assistance (CFDA), pass-through award numbers and expenditures are provided where available. The Schedule combines expenditures of The Brigham and Women's Hospital, Inc. (BWH), The General Hospital Corporation (GHC) d/b/a MGH, Foundation of the Massachusetts Eye and Ear Infirmary, Inc. (MEEI) including Schepens Eye Research Institute (SERI), The McLean Hospital Corporation (McLean), MGH Institute of Health Professions (IHP), Spaulding Rehabilitation Hospital Corporation (SRH), Cooley Dickinson Hospital (CDH), North Shore Medical Center, Inc. (NSMC), Newton-Wellesley Hospital (NWH), Brigham and Women's Faulkner Hospital, Inc. (BWFH), Martha's Vineyard Hospital (MVH), Nantucket Cottage Hospital (NCH), Partners Community Physicians Organization (PCPO), Wentworth-Douglass Hospital (WDH), and Partners HealthCare. These entities are all affiliates of Partners HealthCare.

#### 3. Federal Student Loan Programs

The amounts reported in the Student Financial Aid Cluster of the Schedule represent the beginning balances and newly issued loans in fiscal year 2019. As of September 30, 2019, IHP had loans outstanding of \$129,117 for loans issued as part of the Nurse Faculty Loan Program and ARRA - Nurse Faculty Loan Program. The ARRA loans (CFDA number 93.408) were \$20,201 and the NonARRA loans (CFDA number 93.264) were \$108,916.

#### 4. Facilities and Administrative and Fringe Benefit Costs

Federal expenditures for Research and Development and Research and Development Training for BWH, MGH, McLean, MEEI, SERI, SRH and IHP include facilities and administrative cost recoveries and fringe benefit cost recoveries in the amounts reported in the Schedule based on rates negotiated and awarded with the DHHS Division of Cost Allocation. These rates are based on financial information submitted utilizing the methods prescribed in Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals, contained in the Code of Federal Regulation, Title 45, Part 74, Appendix E (OASC-3). The predetermined facilities and administrative cost rates for IHP are based on financial information submitted utilizing the simplified method for small institutions prescribed in Indirect (F&A) Costs Identification and Assignment, and Rate Determination for Institutions of Higher Education (IHEs), contained in the Code of Federal Regulation, Title 2, Part 200, Appendix III. Expenditures reported in Training and Other include the maximum facilities and administrative recoveries approved by the sponsor. The 10% de-minimis rate is not utilized on Research and Development or Research and Development Training by Partners HealthCare affiliates because they have approved negotiated rate agreements. The 10% de-minimis rate is used for Other awards where allowed.

Part II
Reports on Compliance and Internal Control



## Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

To the Board of Directors of Partners HealthCare System, Inc. and Affiliates

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the consolidated financial statements of Partners HealthCare System, Inc. and Affiliates (Partners HealthCare) which comprise the consolidated balance sheet as of September 30, 2019, and the related consolidated statements of operations, changes in net assets and cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated December 6, 2019, which included an emphasis of matter paragraph related to Partners HealthCare changing the manner in which it presents net assets and reports certain aspects of its financial statements as a not-for-profit entity, and the manner in which it presents the recognition of and measurement of financial assets in 2019 as discussed in Note 2.

#### Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Partners HealthCare's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Partners HealthCare's internal control. Accordingly, we do not express an opinion on the effectiveness of Partners HealthCare's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether Partners HealthCare's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

#### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Priewaterhouse Coopers 11P

Boston, Massachusetts December 6, 2019



## Report of Independent Auditors on Compliance with Requirements That Could Have a Direct and Material Effect on Each Major Program and on Internal Control Over Compliance in Accordance with the Uniform Guidance

To the Board of Directors of Partners HealthCare System, Inc. and Affiliates

#### Report on Compliance for Each Major Federal Program

We have audited Partners HealthCare System, Inc. and Affiliates' (Partners HealthCare) compliance with the types of compliance requirements described in the OMB Compliance Supplement that could have a direct and material effect on each of Partners HealthCare's major federal programs for the year ended September 30, 2019. Partners HealthCare's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

#### Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

#### Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of Partners HealthCare's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about Partners HealthCare's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of Partners HealthCare's compliance.

#### Opinion on Each Major Federal Program

In our opinion, Partners HealthCare complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended September 30, 2019.



#### Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as item 2019-001. Our opinion on each major federal program is not modified with respect to this matter.

Partners HealthCare's response to the noncompliance finding identified in our audit is described in the accompanying "Management's Views and Corrective Action Plan." Partners HealthCare's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

#### Report on Internal Control Over Compliance

Management of Partners HealthCare is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered Partners HealthCare's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of Partners HealthCare's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Boston, Massachusetts December 6, 2019

Priewaterhouse Coopers IIP

Part III Federal Award Findings and Questioned Cost

# Partners HealthCare System, Inc. and Affiliates Schedule of Findings and Questioned Costs Fiscal Year Ended September 30, 2019

#### 1. Summary of Auditor's Results

Financial Statements Type of auditor's report issued Internal control over financial reporting	Unmodified				
Material weakness(es) identified?  Significant deficiency(ies) identified that are not considered to be material weaknesses?	yes <u>X</u> _noyes <u>X</u> _none reported				
Noncompliance material to financial statements noted?	yes <u>X</u> no				
Federal Awards					
Internal control over major programs Material weakness(es) identified?	yes <u>X</u> no				
Significant deficiency (ies) identified that are not considered to be material weaknesses?	yesX_ none reported				
Type of auditor's report issued on compliance for major programs	Unmodified				
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200, 516(a)	X yesno				
Identification of Major Programs	Name of Federal Program or Cluster				
Various CFDA numbers	Research and Development, Research Training Cluster				
93.266	Health Resources and Services Administration				
Dollar threshold used to distinguish between Type A and Type B programs	\$3,404,331				
Auditee qualified as low-risk auditee?	<u>X</u> yesno				
Financial Statement Findings					

#### 2.

No findings to report.

#### Partners HealthCare System, Inc. and Affiliates Schedule of Findings and Questioned Costs Fiscal Year Ended September 30, 2019

#### 3. Federal Findings and Questioned Costs

#### **2019-001 Equipment**

#### Research and Development Cluster

Grantor: Department of Health and Human Services National Institute of Health

Program Name: Refer to table below

Award Year: 2019

Award Number: Refer to table below CFDA Number: Refer to table below

#### Criteria

Property records must be maintained that include a description of the property, a serial number or other identification number, the source of funding for the property (including the FAIN), who holds title, the acquisition date, and cost of the property, the percentage of Federal participation in the project costs for the Federal award under which the property was acquired, the location, use and condition of the property, and any ultimate disposition data including the date of disposal and sale price of the property. (2 CFR section 200.313(d).

#### Condition

Based on guidance provided by the Department of Health and Human Services (HHS), Partners HealthCare currently utilizes a statistical sampling methodology for their physical equipment observations at certain facilities as part of their internal control related to the Research and Development cluster. Partners HealthCare performed an equipment observation for 418 property records throughout fiscal year 2019 at certain facilitates, noting no exceptions identified (0%). However, as part of the PwC Research and Development cluster equipment testing of safeguarding and retention of property records, 6 out of 56 (10%) equipment selections were identified as disposed but were not identified as such in the property records and documentation was not retained supporting these dispositions. The assets identified including their book and net value as follows:

Program Name	Award Number	CFDA#	Asset Type	Book Value		Net Value	
Kidney Diseases, Urology and Hematology Research	R01-DK043031 U01-HL066678-04-S1	93.849 93.837	Binary Pump Treadmill	\$	6,482 19.624	\$	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	P30-NS045776	93.853	Bioanalyzer System		22.650		_
National Center for Research Resources	M01-RR001066-30	93.389	TurnKey System		31,111		-
Trans-NIH Research Support Biomedical Research and Research Training	DP1-GM105378 P01-GM058448	93.310 93.859	Cell Analyzer Liquid Handling Workstation		72,167 205,973		-
G			Total	\$	351,525	\$	

#### Cause

Individuals who disposed of assets did not follow Partners HealthCare's policies with respect to disposal of assets purchased with federal funds. Additionally, Partners HealthCare performed a statistical sampling methodology each year at certain facilities, however there was no periodic full inventory count performed or review of full depreciated assets to ensure these assets purchased with federal funding were still in use or disposed of based upon Partners HealthCare policies to ensure the proper documentation was retained.

#### **Effect**

Assets were inappropriately included in the listing of federal equipment which were no longer in use that had been disposed of without the proper documentation being retained.

#### Partners HealthCare System, Inc. and Affiliates Schedule of Findings and Questioned Costs Fiscal Year Ended September 30, 2019

#### Recommendation

We recommend Partners HealthCare consider performing a complete inventory count periodically including follow up and education sessions with Principal Investigators and other research staff responsible for the safeguarding and disposal of any equipment that was marked as in use to ensure the asset has not been disposed of based upon Partners HealthCare's policies. Additionally, we recommend Partners Healthcare perform a review of fully depreciated assets on a periodic basis to ensure property records and documentation properly reflect equipment which has been disposed or transferred.

#### Management's Views and Corrective Action Plan

Management's views and corrective action plan is included at the end of this report after the summary schedule of prior audit findings.

#### Partners HealthCare System, Inc. and Affiliates Schedule of Status of Prior Audit Findings Fiscal Year Ended September 30, 2019

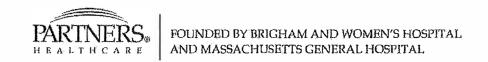
#### **Summary of Status of Prior Year Finding**

#### 2018-001 Procurement

The Research and Development cluster procurement testing of new purchases greater than \$100,000 under the former OMB A-110 Subpart C.46 *Procurement records* (in effect through September 30, 2018) stated that: Procurement shall include the following at a minimum: (a) basis for contractor selection, (b) justification for lack of competition when competitive bids or offers are not obtained, and (c) basis for award cost or price. PwC noted one transaction for \$105,000 where no competitive bids were made.

Effective October 1, 2018, Partners Healthcare implemented Uniform Guidance Procurement Standards 2 CFR 200.317- 326 requiring bid support for all federally funded purchases above the Micro-purchase Threshold. The Partners implementation includes dedicated Supply Chain resources to review all eligible transactions prior to processing.

There were no exceptions noted in the current year procurement testing.



#### Management's View and Corrective Action Plan For the Fiscal Year Ended September 30, 2019

#### 2019-001 Research and Development Cluster Equipment

Phone: 857/282-0711

Management agrees with the finding recommendations. Partners HealthCare will perform a full inventory of in service assets, for those institutions which perform periodic statistical sampling and update items previously retired to ensure inventory records appropriately reflect in service and disposed of assets. Communication of the importance of maintaining accurate inventory records as well as full inventories are expected to begin in January 2020 and be completed by September 30, 2020. To address education, Partners HealthCare will develop a standard operating procedure (SOP) outlining roles and responsibilities throughout the equipment life cycle. The new SOP will be completed by June 30, 2020 and will address review frequency of fully depreciated and disposed assets.

Rhonda Lowe Date

Research Controller
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Corporate Accounting