

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY



## REPORTS ON THE AUDIT OF FEDERAL FINANCIAL ASSISTANCE PROGRAMS IN ACCORDANCE WITH OMB CIRCULAR A-133

FOR THE YEAR ENDED JUNE 30, 2013



# MASSACHUSETTS INSTITUTE OF TECHNOLOGY

## Reports on the Audit of Federal Financial Assistance Programs in Accordance with OMB Circular A-133 For the Year Ended June 30, 2013

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**SECTION I**

**FINANCIAL REPORTS**





## **Independent Auditor's Report**

To the Risk and Audit Committee of the  
Massachusetts Institute of Technology

### **Report on the Consolidated Financial Statements**

We have audited the accompanying consolidated financial statements of Massachusetts Institute of Technology (the "Institute") and its subsidiaries, which comprise the consolidated statement of financial position as of June 30, 2013, and the related consolidated statement of activities and statement of cash flows for the year then ended, and the related notes to the 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.

### **Auditor's Responsibility**

Our responsibility is to express an opinion on the consolidated financial statements based on our audit. We conducted our audit 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 the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. 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 the Massachusetts Institute of Technology and its subsidiaries as of June 30, 2013, and the changes in its net assets and its statement of cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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### **Other Matters**

We have previously audited the Massachusetts Institute of Technology's 2012 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated September 14, 2012. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2012 is consistent, in all material respects, with the audited financial statements from which it has been derived.

### *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 June 30, 2013 is presented for purposes of additional analysis as required by Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations* 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 September 13, 2013 on our consideration of Massachusetts Institute of Technology'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. The purpose of that report is 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 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 Massachusetts Institute of Technology's internal control over financial reporting and compliance.

*PricewaterhouseCoopers LLP*

September 13, 2013



# Massachusetts Institute of Technology

## Statements of Financial Position

at June 30, 2013 and 2012  
(in thousands of dollars)

	2013	2012
<b>Assets</b>		
Cash . . . . .	\$ 299,913	\$ 239,377
Accounts receivable, net . . . . .	168,932	159,957
Pledges receivable, net, at fair value . . . . .	404,594	479,659
Contracts in progress, principally U.S. Government . . . . .	67,999	66,724
Deferred charges, inventories, and other assets . . . . .	107,891	93,499
Student notes receivable, net . . . . .	49,484	49,529
Investments, at fair value . . . . .	13,830,100	12,847,866
Noncontrolling interests . . . . .	274,663	304,436
Land, buildings, and equipment (at cost of \$3,650,856 for June 2013; \$3,546,351 for June 2012), net of accumulated depreciation . . . . .	2,516,264	2,497,711
Total assets . . . . .	\$ 17,719,840	\$ 16,738,758
<b>Liabilities and Net Assets</b>		
Liabilities:		
Accounts payable, accruals, and other liabilities . . . . .	\$ 384,437	\$ 378,369
Liabilities due under life income fund agreements, at fair value . . . . .	95,259	87,899
Deferred revenue and other credits . . . . .	138,017	155,476
Advance payments . . . . .	396,831	380,167
Borrowings . . . . .	2,428,215	2,460,002
Government advances for student loans . . . . .	34,563	34,103
Accrued benefit liabilities . . . . .	109,644	443,398
Total liabilities . . . . .	3,586,966	3,939,414
Net Assets:		
Unrestricted net assets controlled by the Institute . . . . .	5,500,955	4,584,516
Unrestricted net assets attributable to noncontrolling interests . . . . .	274,663	304,436
Total unrestricted net assets . . . . .	5,775,618	4,888,952
Temporarily restricted . . . . .	5,644,291	5,297,554
Permanently restricted . . . . .	2,712,965	2,612,838
Total net assets . . . . .	14,132,874	12,799,344
Total liabilities and net assets . . . . .	\$ 17,719,840	\$ 16,738,758

The accompanying notes are an integral part of the financial statements.

# Massachusetts Institute of Technology

## Statement of Activities

for the year ended June 30, 2013

(with summarized financial information for the year ended June 30, 2012)

(in thousands of dollars)

	2013			Total	
	Unrestricted	Temporarily Restricted	Permanently Restricted	2013	2012
<b>Operating Activities</b>					
<b>Operating Revenues:</b>					
Tuition and similar revenues, net of discount of \$258,726 in 2013 and \$251,709 in 2012. . . . .	\$ 310,231	\$ —	\$ —	\$ 310,231	\$ 275,993
Research revenues:					
Campus . . . . .	661,962	—	—	661,962	654,355
Lincoln . . . . .	890,973	—	—	890,973	844,908
SMART . . . . .	47,525	—	—	47,525	28,587
Total research revenues . . . . .	1,600,460	—	—	1,600,460	1,527,850
Gift and bequests for current use . . . . .	177,257	—	—	177,257	156,172
Fees and services . . . . .	182,019	—	—	182,019	219,391
Other programs . . . . .	125,118	—	—	125,118	104,556
Support from investments:					
Endowment . . . . .	499,299	—	—	499,299	468,604
Other investments . . . . .	98,218	—	—	98,218	78,681
Total support from investments . . . . .	597,517	—	—	597,517	547,285
Auxiliary enterprises . . . . .	114,461	—	—	114,461	108,868
Net asset reclassifications and transfers . . . . .	79,532	—	—	79,532	50,181
Total operating revenues . . . . .	\$ 3,186,595	\$ —	\$ —	\$ 3,186,595	\$ 2,990,296
<b>Operating Expenses:</b>					
Salaries and wages . . . . .	\$ 1,128,304	\$ —	\$ —	\$ 1,128,304	\$ 1,069,310
Employee benefits . . . . .	268,831	—	—	268,831	233,343
Supplies and services . . . . .	960,914	—	—	960,914	926,760
Subrecipient agreements . . . . .	155,421	—	—	155,421	121,892
Utilities, rent, and repairs . . . . .	159,098	—	—	159,098	160,492
Depreciation . . . . .	129,138	—	—	129,138	125,100
Interest expense . . . . .	106,871	—	—	106,871	107,689
Total operating expenses . . . . .	2,908,577	—	—	2,908,577	2,744,586
Results of operations . . . . .	\$ 278,018	\$ —	\$ —	\$ 278,018	\$ 245,710
<b>Non-Operating Activities</b>					
Pledge revenue . . . . .	\$ —	\$ 80,172	\$ 24,035	\$ 104,207	\$182,748
Gifts and bequests . . . . .	—	—	43,554	43,554	94,504
Investment income . . . . .	—	489	6,747	7,236	7,342
Net gain on investments and other assets . . . . .	478,955	669,225	15,984	1,164,164	738,308
Distribution of accumulated investment gains . . . . .	(184,102)	(301,948)	—	(486,050)	(441,316)
Net change in life income funds . . . . .	1,921	11,989	6,354	20,264	6,572
Postretirement plan changes other than net periodic benefit income (cost) . . . . .	311,442	—	—	311,442	(394,469)
Net asset reclassifications and transfers . . . . .	30,205	(113,190)	3,453	(79,532)	(50,181)
Total non-operating activities . . . . .	638,421	346,737	100,127	1,085,285	143,508
Increase in net assets controlled by the Institute . . . . .	916,439	346,737	100,127	1,363,303	389,218
Change in net assets attributable to noncontrolling interests . . . . .	(29,773)	—	—	(29,773)	22,395
Net assets at the beginning of the year . . . . .	4,888,952	5,297,554	2,612,838	12,799,344	12,387,731
Net assets at the end of the year . . . . .	\$ 5,775,618	\$ 5,644,291	\$ 2,712,965	\$ 14,132,874	\$12,799,344

The accompanying notes are an integral part of the financial statements.

# Massachusetts Institute of Technology

## Statements of Cash Flows

for the years ended June 30, 2013 and 2012  
(in thousands of dollars)

	2013	2012
<b>Cash Flow from Operating Activities:</b>		
Increase in net assets . . . . .	\$ 1,333,530	\$ 411,613
Adjustments to reconcile change in net assets to net cash used in or provided by operating activities:		
Net gain on investments and other assets . . . . .	(1,164,164)	(734,374)
Change in accrued benefits liability . . . . .	(333,754)	358,904
Depreciation . . . . .	129,138	125,100
Donated securities received . . . . .	(129,915)	(49,295)
Proceeds from sale of donated securities . . . . .	94,917	40,280
Net gain on life income funds . . . . .	(12,621)	(2,442)
Change in noncontrolling interests . . . . .	29,773	(22,395)
Amortization of bond premiums and discounts and other adjustments . . . . .	(6,767)	(2,431)
Change in operating assets and liabilities:		
Pledges receivable . . . . .	75,065	(93,774)
Accounts receivable . . . . .	(8,975)	101,249
Contracts in progress . . . . .	(1,275)	1,687
Deferred charges, inventories and other assets . . . . .	(14,392)	(21,764)
Accounts payable, accruals and other liabilities, excluding building and equipment accruals . . . . .	7,086	21,970
Liabilities due under life income fund agreements . . . . .	7,360	3,674
Deferred revenue and other credits . . . . .	(17,458)	30,628
Advance payments . . . . .	16,664	(9,311)
Reclassify investment income . . . . .	(7,236)	(7,342)
Reclassify contributions restricted for long-term investment . . . . .	(8,557)	(85,489)
Net cash (used in) provided by operating activities . . . . .	<u>(11,581)</u>	<u>66,488</u>
<b>Cash Flow from Investing Activities:</b>		
Purchases of land, buildings and equipment . . . . .	(148,834)	(183,958)
Purchases of investments . . . . .	(64,279,236)	(52,463,972)
Proceeds from sale of investments . . . . .	64,475,286	52,589,461
Student notes issued . . . . .	(28,105)	(20,013)
Collections from student notes . . . . .	28,255	20,198
Net cash provided by (used in) investing activities . . . . .	<u>47,366</u>	<u>(58,284)</u>
<b>Cash Flow from Financing Activities:</b>		
Investment in endowment . . . . .	8,557	85,486
Proceeds from sale of donated securities restricted for endowment . . . . .	34,998	9,015
Increase in investment income for restricted purposes . . . . .	7,236	7,342
Repayment of borrowings . . . . .	(26,500)	(2,490)
Increase in government advances for student loans . . . . .	460	349
Net cash provided by financing activities . . . . .	<u>24,751</u>	<u>99,702</u>
Net increase in cash . . . . .	60,536	107,906
Cash at the beginning of the year . . . . .	239,377	131,471
Cash at the end of the year . . . . .	<u>\$ 299,913</u>	<u>\$ 239,377</u>

The accompanying notes are an integral part of the financial statements.

## Notes to Financial Statements

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### A. Accounting Policies

#### Basis of Presentation

The accompanying financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America. The financial statements include MIT and its wholly-owned subsidiaries.

Net assets, revenues, expenses, gains and losses are classified into three categories based on the existence or absence of donor-imposed restrictions. The categories are permanently restricted, temporarily restricted, and unrestricted net assets. Unconditional promises to give (pledges) are recorded as receivables and revenues within the appropriate net asset category.

Permanently restricted net assets include gifts, pledges, trusts and remainder interests, and income and gains that are required by donors to be permanently retained. Pledges, trusts, and remainder interests are reported at their estimated fair values.

Temporarily restricted net assets include gifts, pledges, trusts and remainder interests, and income and gains that 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, life income funds), or by interpretations of law (net gains on permanently restricted gifts that have not been appropriated for spending). Gifts specified for the acquisition or construction of long-lived assets are reported as temporarily restricted net assets until the monies are expended and the buildings are put into use, at which point they are reclassified to unrestricted net assets. Net unrealized losses on permanently restricted endowment funds for which the book value exceeds market value are recorded as a reduction to unrestricted net assets.

Unrestricted net assets are all the remaining net assets of MIT. Donor-restricted gifts and unexpended restricted endowment income that are received and either spent, or the restriction is otherwise met within the same year, are reported as unrestricted revenue. Gifts of long-lived assets are reported as unrestricted revenue.

Net asset reclassifications and transfers consist primarily of payments on unrestricted pledges and use of building funds in accordance with donor restrictions for buildings put into use during the year. Expirations of temporary restrictions on net assets, release of permanent restrictions by a donor, and change of restrictions imposed by donors are also reported as reclassifications of net assets among unrestricted, temporarily and permanently restricted net assets.

MIT administers its various funds, including endowments, funds functioning as endowments, school or departmental funds, and related accumulated gains in accordance with the principles of "Fund Accounting." Gifts are recorded in fund accounts and investment income is distributed to funds annually. Income distributed to funds may be a combination of capital appreciation and yield pursuant to MIT's total return investment and spending policies. Each year, the Executive Committee of the Corporation approves the rates of distribution of investment return to the funds from MIT's investment pools. See Note K for further information on income distributed to funds.

MIT's operations include tuition, research revenues, unrestricted gifts and bequests for current use, fees and services, other programs, endowment distribution and income from other investments, auxiliary revenues, payments on pledges for unrestricted gifts, and operating expenditures. Results of operations are displayed in the Statement of Activities.

MIT is a nonprofit organization that is tax-exempt under Section 501(c)(3) of the Internal Revenue Code, originally recognized in October 1926, with the most recent affirmation letter dated July 2001.

#### Restricted Cash

Certain cash balances, totaling \$88.7 million and \$60.3 million at June 30, 2013 and 2012, respectively, are restricted for use under certain sponsored research agreements or are held on behalf of a related party.

The Institute had approximately \$298.5 million and \$238.1 million at June 30, 2013 and 2012, respectively, of its cash and cash equivalents accounts with a single institution. The Institute has not experienced any losses associated with deposits at this institution.

#### Advance Payments

Amounts received by MIT from the U.S. Government, corporations, industrial sources, foundations, and other non-MIT sponsors under the terms of agreements that generally require the exchange of assets, rights, or privileges between MIT and the sponsor are recorded as advance payments. Revenue is recognized as MIT fulfills the terms of the agreement.

## A. Accounting Policies (continued)

### Land, Buildings, and Equipment

Land, buildings, and equipment are shown at cost when purchased or fair value as of the date of a gift when received as gifts, net of accumulated depreciation. When expended, costs associated with the construction of new facilities are shown as construction in progress until such projects are completed and put into use. Depreciation is computed on a straight-line basis over the estimated useful lives of 25 to 50 years for buildings, 3 to 25 years for equipment, and 4 to 6 years for software.

Fully depreciated assets were removed from the financial statements in the amount of \$42.1 million and \$27.2 million during 2013 and 2012, respectively. Land, buildings, and equipment at June 30, 2013 and 2012 are shown in Table 1.

	2013	2012
Land . . . . .	\$ 67,538	\$ 65,198
Land improvements . .	65,541	64,299
Educational buildings	3,212,543	3,106,569
Equipment . . . . .	172,073	175,046
Software . . . . .	35,549	31,933
<b>Total . . . . .</b>	<b>3,553,244</b>	<b>3,443,045</b>
Less: accumulated depreciation . . . . .	(1,134,592)	(1,048,640)
Construction in progress . . . . .	84,874	87,177
Software projects in progress . . . . .	12,738	16,129
<b>Land, buildings, and equipment . . . . .</b>	<b>\$ 2,516,264</b>	<b>\$ 2,497,711</b>

Depreciation expense was \$129.1 million in 2013 and \$125.1 million in 2012. Net interest expense of \$3.3 million and \$3.8 million was capitalized during 2013 and 2012, respectively, in connection with MIT's construction projects.

### Tuition and Student Support

Tuition and similar revenues, shown in Table 2 below, includes tuition and fees in degree programs as well as tuition and fees for executive and continuing education programs at MIT.

	2013	2012
Tuition revenue . . . . .	\$ 527,974	\$ 491,046
Executive and continuing educational revenues . . . .	40,983	36,656
<b>Total . . . . .</b>	<b>568,957</b>	<b>527,702</b>
Less: tuition discount . . .	(258,726)	(251,709)
<b>Net tuition &amp; similar revenue . . . . .</b>	<b>\$ 310,231</b>	<b>\$ 275,993</b>

Tuition support is awarded to undergraduate students by MIT based on need. Graduate students are provided with tuition support in connection with research assistance, teaching assistance, and fellowship appointments. Tuition support from MIT sources is displayed as tuition discount. Total student support granted to students was \$460.6 million and \$441.2 million in 2013 and 2012, respectively. Of that amount, \$152.4 million in 2013 and \$144.5 million in 2012 was aid from sponsors. Components of student support are detailed in Table 3 below.

	2013			2012		
	Institute sources	External sponsors	Total student support	Institute sources	External sponsors	Total student support
Undergraduate tuition support . . .	\$ 87,680	\$ 14,151	\$ 101,831	\$ 88,007	\$ 14,074	\$ 102,081
Graduate tuition support . . . . .	171,046	55,112	226,158	163,702	52,000	215,702
Fellow stipends . . . . .	19,772	16,401	36,173	18,203	15,060	33,263
Student employment . . . . .	29,721	66,725	96,446	26,723	63,412	90,135
<b>Total . . . . .</b>	<b>\$ 308,219</b>	<b>\$ 152,389</b>	<b>\$ 460,608</b>	<b>\$ 296,635</b>	<b>\$ 144,546</b>	<b>\$ 441,181</b>

## A. Accounting Policies (continued)

### Sponsored Research

Direct and indirect categories of research revenues are shown in the table below.

	2013	2012
Direct		
Campus . . . . .	\$ 473,220	\$ 471,155
Lincoln . . . . .	860,190	819,645
SMART . . . . .	47,332	28,311
<b>Total direct</b>	<b>1,380,742</b>	<b>1,319,111</b>
Indirect		
Campus . . . . .	\$ 188,742	\$ 183,200
Lincoln . . . . .	30,783	25,263
SMART . . . . .	193	276
<b>Total indirect . . . . .</b>	<b>219,718</b>	<b>208,739</b>
<b>Total research revenues . . . . .</b>	<b>\$ 1,600,460</b>	<b>\$ 1,527,850</b>

Revenue associated with contracts and grants is recognized as related costs are incurred. The capital costs of buildings and equipment are depreciated over their estimated life cycle and the sponsored research recovery allowance for depreciation is treated as indirect research revenue. MIT has recorded reimbursement of indirect costs relating to sponsored research at negotiated fixed billing rates. The income generated by the negotiated rates is adjusted each fiscal year to reflect any variance between the negotiated fixed rates and rates based on actual cost. The actual cost rate is audited by the Defense Contract Audit Agency (DCAA) and a final fixed-rate agreement is signed by the U.S. Government and MIT. The variance between the negotiated fixed rate and the final audited rate results in a carry forward (over or under-recovery). The carry forward is included in the calculation of negotiated fixed billing rates in future years. Any adjustment in the rate is charged or credited to unrestricted net assets.

### Gifts and Pledges

Gifts and pledges are recognized when received. Gifts of securities are recorded at their fair value at the date of contribution. Donated securities received totaled \$129.9 million and \$49.3 million in 2013 and 2012, respectively, and are shown separately in the Statements of Cash Flows. Gifts of equipment received from manufacturers and other donors are put into use and recorded by MIT at fair value. Gifts of equipment totaled \$0.1 million in 2013 and \$0.4 million in 2012. Pledges in the amount of \$404.6 million and \$479.7 million were recorded as receivables at June 30, 2013 and 2012, respectively, with the revenue assigned to the appropriate classification of restriction. Pledges consist of unconditional written promises to contribute to MIT

in the future and are recorded after discounting the future cash flows to the present value.

MIT records items of collections as gifts at nominal value. They are received for educational purposes and most are displayed throughout MIT. In general, collections are not disposed of for financial gain or otherwise encumbered in any manner.

### Life Income Funds

MIT's life income fund agreements with donors consist primarily of irrevocable charitable gift annuities, pooled income funds, and charitable remainder trusts for which MIT serves as trustee. Assets are invested and payments are made to donors and other beneficiaries in accordance with the respective agreements. MIT records the assets that are associated with each life income fund at fair value and records as liabilities the present value of the estimated future payments at current interest rates to be made to the donors and beneficiaries under these agreements. A rollforward of liabilities due under life income fund agreements is presented in Table 5.

	2013	2012
Balance at the beginning of the year . . . . .	\$ 87,899	\$ 84,225
Addition for new gifts . . . . .	12,073	7,389
Termination and payments to beneficiaries . . . . .	(18,043)	(12,200)
Net investment and actuarial gain . . . . .	13,330	8,485
<b>Balance at end of year</b>	<b>\$ 95,259</b>	<b>\$ 87,899</b>

### Recently Adopted Accounting Standards

On July 1, 2012, MIT early adopted new guidance related to the *Statements of Cash Flows*. This guidance requires MIT to classify cash receipts from the sale of donated financial assets consistently with cash donations received in the Statements of Cash Flows if those cash receipts were from the sale of donated financial assets that upon receipt were directed without any imposed limitations for sale and were converted nearly immediately into cash.

On July 1, 2012, MIT adopted further new guidance enhancing the *Fair Value Measurement* standard, to ensure that the valuation techniques for investments that are categorized with Level 3 of the fair value hierarchy are fair, consistent, and verifiable. Refer to Note B for further details.



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## A. Accounting Policies (continued)

On July 1, 2011, MIT adopted new guidance enhancing the *Fair Value Measurement* standard. This standard requires further disclosure on the activity in the Level 3 rollforward to be reported on a gross, rather than net, basis.

On July 1, 2011, MIT adopted the accounting standard *Not-for-Profit Entities: Mergers and Acquisitions*. This standard specifies that noncontrolling interests (formerly known as minority interests, classified as a liability) be reported within unrestricted net assets on the Statements of Financial Position and the change in net assets attributable to noncontrolling interests be reported separately within the Statement of Activities.

### Noncontrolling Interests

MIT is the general partner for several private equity funds and has displayed the noncontrolling interests on the Statements of Financial Position.

### Non-Cash Items

Non-cash transactions excluded from the Statements of Cash Flows include \$12.4 million and \$12.9 million of accrued liabilities related to plant and equipment purchases for 2013 and 2012, respectively.

### Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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.

### Reclassifications

Certain June 30, 2012 balances and amounts previously reported have been reclassified to conform to the June 30, 2013 presentation. The Institute revised the prior year presentation of its accounts receivable and advance payment balances for amounts not yet received. Management believes the impact on the prior year financial statements is not material.

### Subsequent Events

MIT has evaluated subsequent events through September 13, 2013, the date the financial statements were issued. There were no subsequent events that occurred after the balance sheet date that have a material impact on MIT's financial statements.

### Summarized Information

The Statement of Activities includes certain prior year summarized comparative information in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with MIT's financial statements for the year ended June 30, 2012, from which summarized information was derived.

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## B. Investments

Investment transactions are accounted for on the trade date. Dividend income is recorded on the ex-dividend date. Realized gains and losses are recorded by MIT using the average cost basis. For limited partnerships, the realized gain/loss is calculated once the entire cost basis is distributed back to MIT or using information provided by managers with respect to the character of a distribution as being a gain or return of capital.

MIT values its investments in accordance with the principles of accounting standards which establish a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or liability based on the best information available. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. MIT follows a fair value hierarchy based on three levels of inputs,

of which the first two are considered observable and the last is unobservable.

The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used by MIT for financial instruments measured at fair value on a recurring basis. The three levels of inputs are as follows:

- Level 1 – Quoted prices in active markets for identical assets or liabilities. Market price data is generally obtained from relevant exchanges or dealer markets.
- Level 2 – Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the same term of the assets or liabilities. Inputs are obtained from various sources including market participants, dealers, and brokers.

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## B. Investments (continued)

- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Investments may be classified as Level 2 when market information (including observable net asset values) is available, yet the investment is not traded in an active market. Market information, including observable net asset values, subscription and redemption activity, if applicable, and the length of time until the investment will become redeemable are considered when determining the proper categorization of the investment's fair value measurement within the fair valuation hierarchy.

Fund investments that have observable market inputs (such as net asset values) and from which MIT has the ability to redeem within twelve months of June 30 are classified in the fair value hierarchy as Level 2.

Investment funds that have unobservable inputs or for which MIT does not have the ability to redeem within twelve months are classified in the fair value hierarchy as Level 3.

Table 6 presents MIT's investments at fair value as of June 30, 2013 and 2012, grouped by the valuation hierarchy as defined earlier in this note

Transfers between levels are recognized at the beginning of the reporting period. There were no transfers in and out of Level 1 and Level 2 fair value measurements in 2013 and 2012. Transfers between Level 2 and Level 3 result from the expiration or commencement of lock-ups which impact MIT's ability to exit the fund within twelve months.

Cash and cash equivalents include cash, money market funds, repurchase agreements and negotiable certificates of deposit and are valued at cost, which approximates fair value. Instruments listed or traded on a securities exchange are valued at the last quoted price on the primary exchange where the security is traded.

Investments in non-exchange traded debt are primarily valued using independent pricing sources that use broker quotes or models using market observable inputs. Investments managed by external advisors include investments in absolute return, domestic, foreign and private equity, real estate and real asset commingled funds.

The majority of these commingled funds are not readily marketable and are reported at fair value utilizing the most current information provided by the external advisors. The fair value of these securities held in external investment funds that do not have readily determinable fair values are

determined by the external managers based on appraisals or other estimates that require varying degrees of judgment. If no public market exists for the investment securities, the fair value is determined by the external managers taking into consideration, among other things, the cost of the securities, prices of recent significant placements of securities of the same issuer, and subsequent developments concerning the companies to which the securities relate. Using these valuations, most of these external managers calculate MIT's capital account or net asset value (NAV) in accordance with, or in a manner consistent with, GAAP. As a practical expedient, MIT is permitted under GAAP to estimate the fair value of its investments with external managers using the external managers' reported NAV without further adjustment unless MIT expects to sell the investment at a value other than NAV or the NAV is not calculated in accordance with GAAP. Direct real estate holdings are valued at fair market value based on external appraisals.

Other direct investments that are not readily marketable are valued by MIT based upon valuation information received from the entity which may include last trade information, third party appraisals of real estate, or valuations prepared in connection with the administration of an employee stock ownership plan. MIT may also utilize industry standard valuation techniques, including discounted cash flow models. The significant unobservable inputs used in the fair value measurements of MIT's direct investments may include their cost of capital, and equity and industry risk premiums. Significant increases or decreases in these inputs in isolation may result in a significantly lower or higher fair value measurement, respectively. Split-interest agreements are generally valued at the present value of the future distributions expected to be received over the term of the agreement. Over-the-counter positions such as interest rate and total return swaps, credit default swaps, options, exchange agreements, and interest rate cap and floor agreements are valued using broker quotes or models using market observable inputs. Because the swaps and other over-the-counter derivative instruments have inputs that can usually be corroborated by observable market data, they are generally classified within Level 2.



## B. Investments (continued)

**Table 6. Investments**

<i>(in thousands of dollars)</i>	Quoted prices in active markets [Level 1]	Significant other observable inputs [Level 2]	Significant unobservable inputs [Level 3]	Total fair value
<b>Fiscal Year 2013</b>				
Cash and cash equivalents . . . . .	\$ 1,526,544	\$ —	\$ —	\$ 1,526,544
US treasury . . . . .	629,760	—	—	629,760
US government agency . . . . .	18	93,502	—	93,520
Domestic bonds** . . . . .	17,951	253,163	86,895	358,009
Foreign bonds** . . . . .	—	19,381	—	19,381
Common equity				
Long domestic . . . . .	147,168	—	241,382	388,550
Long foreign . . . . .	135,099	—	—	135,099
Short domestic . . . . .	—	—	(3)	(3)
Short foreign . . . . .	(18)	—	—	(18)
Equity**				
Absolute return . . . . .	51,218	351,022	1,222,830	1,625,070
Domestic . . . . .	—	18,024	1,249,343	1,267,367
Foreign . . . . .	—	610,855	1,661,841	2,272,696
Private . . . . .	—	—	2,510,672	2,510,672
Real estate* . . . . .	17	—	2,311,490	2,311,507
Real assets** . . . . .	711	5,482	619,632	625,825
Split interest agreements . . . . .	—	—	148,297	148,297
Other . . . . .	—	—	2,444	2,444
Derivatives . . . . .	385	(3,005)	—	(2,620)
Total investments, gross . . . . .	<u>\$ 2,508,853</u>	<u>\$ 1,348,424</u>	<u>\$ 10,054,823</u>	<u>\$ 13,912,100</u>
Liabilities associated with investments:				
Real estate*** . . . . .	—	—	(82,000)	(82,000)
Total investments, net . . . . .	<u>\$ 2,508,853</u>	<u>\$ 1,348,424</u>	<u>\$ 9,972,823</u>	<u>\$ 13,830,100</u>
<b>Fiscal Year 2012</b>				
Cash and cash equivalents . . . . .	\$ 1,599,874	\$ —	\$ —	\$ 1,599,874
US treasury . . . . .	462,111	—	—	462,111
US government agency . . . . .	—	84,625	—	84,625
Domestic bonds** . . . . .	23,243	229,872	78,961	332,076
Foreign bonds** . . . . .	—	15,043	—	15,043
Common equity				
Long domestic . . . . .	933,902	1,559	279,521	1,214,982
Long foreign . . . . .	290,853	5,891	—	296,744
Short domestic . . . . .	(570,076)	(609)	(3)	(570,688)
Short foreign . . . . .	(76,711)	—	—	(76,711)
Equity**				
Absolute return . . . . .	—	393,396	1,283,490	1,676,886
Domestic . . . . .	69,625	27,701	1,038,537	1,135,863
Foreign . . . . .	8,124	281,523	1,070,981	1,360,628
Private . . . . .	—	—	2,610,024	2,610,024
Real estate* . . . . .	—	—	1,964,901	1,964,901
Real assets** . . . . .	1,648	75,377	536,266	613,291
Split interest agreements . . . . .	—	—	121,816	121,816
Other . . . . .	—	—	2,638	2,638
Derivatives . . . . .	(1,239)	5,002	—	3,763
Total investments . . . . .	<u>\$ 2,741,354</u>	<u>\$ 1,119,380</u>	<u>\$ 8,987,132</u>	<u>\$ 12,847,866</u>

\*Real estate includes direct investments and investments held through commingled vehicles.

\*\*Real assets, equity, domestic bonds and foreign bonds categories include commingled vehicles that invest in these type of investments.

\*\*\*Principal payments begin in calendar year 2018, ranging from \$400-\$1,600. Interest rate is fixed at 3.93% with maturity in calendar year 2023.

## B. Investments (continued)

Table 7 is a rollforward of the investments classified by MIT within Level 3 of the fair value hierarchy defined earlier in this footnote at June 30, 2013 and 2012.

<b>Table 7. Rollforward of Level 3 Investments</b>							
<i>(in thousands of dollars)</i>	Fair Value Beginning	Realized Gains [Losses]	Unrealized Gains [Losses]	Purchases	Sales	Transfer of Assets between Levels	Fair Value Ending
<b>Fiscal Year 2013</b>							
Domestic bonds.....	\$ 78,961	\$ -	\$ (1)	\$ 16,781	\$ (8,846)	\$ -	\$ 86,895
Foreign bonds .....	-	-	-	-	-	-	-
Common equity							
Long domestic.....	279,521	1,190	(38,661)	7,258	(7,926)	-	241,382
Long foreign .....	-	15	-	-	(15)	-	-
Short domestic .....	(3)	-	-	-	-	-	(3)
Equity							
Absolute return .....	1,283,490	-	6,142	105,729	(210,814)	38,283	1,222,830
Domestic .....	1,038,537	-	164,804	167,990	(121,988)	-	1,249,343
Foreign .....	1,070,981	13,985	261,364	592,900	(198,279)	(79,110)	1,661,841
Private .....	2,610,024	11,817	(74,308)	361,721	(398,582)	-	2,510,672
Real estate .....	1,964,901	(1,957)	187,235	355,320	(194,009)	-	2,311,490
Real assets .....	536,266	(6,555)	18,455	126,888	(55,422)	-	619,632
Split interest agreements....	121,816	160	27,287	16,444	(17,410)	-	148,297
Other .....	2,638	5	(193)	-	(6)	-	2,444
Total, gross.....	\$ 8,987,132	\$ 18,660	\$ 552,124	\$ 1,751,031	\$ (1,213,297)	\$ (40,827)	\$ 10,054,823
Real estate liabilities .....	-	-	-	(82,000)	-	-	(82,000)
Total, net.....	\$ 8,987,132	\$ 18,660	\$ 552,124	\$ 1,669,031	\$ (1,213,297)	\$ (40,827)	\$ 9,972,823
<b>Fiscal Year 2012</b>							
Domestic bonds.....	\$ 75,644	\$ -	\$ 1	\$ 11,550	\$ (7,879)	\$ (355)	\$ 78,961
Foreign bonds .....	3	-	-	-	(2)	(1)	-
Common equity							
Long domestic.....	273,148	8	5,379	7,716	(6,730)	-	279,521
Short domestic .....	-	-	(3)	-	-	-	(3)
Equity							
Absolute return .....	1,408,152	(7,750)	13,925	39,161	(169,998)	-	1,283,490
Domestic .....	564,360	(10,918)	143,115	400,257	(58,277)	-	1,038,537
Foreign .....	1,112,986	(24,375)	(19,476)	181,410	(166,705)	(12,859)	1,070,981
Private .....	2,479,017	(6,185)	125,079	319,630	(307,517)	-	2,610,024
Real estate .....	1,691,704	5,149	142,723	441,466	(316,141)	-	1,964,901
Real assets .....	699,098	-	(6,189)	12,094	(78,326)	(90,411)	536,266
Split interest agreements....	101,125	-	2,319	18,478	(106)	-	121,816
Other .....	2,592	167	124	30	(275)	-	2,638
Totals.....	\$ 8,407,829	\$ (43,904)	\$ 406,997	\$ 1,431,792	\$ (1,111,956)	\$ (103,626)	\$ 8,987,132

All net realized and unrealized gains and losses relating to financial instruments held by MIT shown in Table 6 are reflected in the Statement of Activities. Cumulative unrealized gains related to Level 3 investments totaled \$2,958.5 million and \$2,476.9 million as of June 30, 2013 and 2012, respectively. The net change in unrealized gains (losses) related to these financial instruments held by MIT at June 30, 2013 and June 30, 2012 are disclosed in Table 7.

MIT enters into short sales whereby it sells securities which may or may not be owned by MIT in anticipation of a decline in the price of such securities or in order to hedge portfolio positions. Cash collateral and certain securities owned by MIT were held at counterparty brokers to collateralize these positions and are included in investments on the Statements of Financial Position.

## B. Investments (continued)

Table 8 below sets forth a summary of valuation techniques and quantitative information utilized in determining the fair value of MIT's Level 3 investments as of June 30, 2013, where no practical expedient using external managers' reported NAVs exists.

Asset Type (in thousands of dollars)	Fair Value at June 30, 2013	Valuation Technique	Unobservable Input	Rates
Real estate . . . . .	\$ 1,425,621	Discounted cash flow	Discount Rate	5.5-9.0%
Equity securities . . . . .	224,375	Discounted cash flow	Discount Rate	11.0%
Split interest agreements . . . . .	88,674	Net present value	Discount Rate	1.0-8.0%
Real assets . . . . .	9,629	Discount to public price	Discount	20.0%
Other illiquid assets . . . . .	360	Varies	Varies	Varies
	<u>\$ 1,748,659</u>			

Certain investments in real estate, equities, and private investments may be subject to restrictions that (i) limit MIT's ability to withdraw capital after such investment and (ii) may be subject to limitations that limit the amount that may be withdrawn as of a given redemption date. Most absolute return, domestic equity and foreign equity commingled funds limit withdrawal to monthly, quarterly, or other periods, and may require notice periods. In addition, certain of these funds are able to designate a portion of the investments as illiquid in "side-pockets," and these funds may not be available for withdrawal until liquidated by the investing fund. Generally, MIT has no

discretion as to withdrawal with respect to its investment in private equity and real estate funds. Distributions are made when sales of assets are made within these funds and the investment cycle for these funds can be as long as fifteen to twenty years. These restrictions may limit MIT's ability to respond quickly to changes in market conditions. MIT does have various sources of liquidity at its disposal, including cash, cash equivalents, marketable debt and equity securities, and lines of credit.

Details on the estimated remaining life, current redemption terms and restrictions by asset class and type of investment are provided in Table 9.

Asset Class (in thousands of dollars)	2013		2012		Redemption Terms	Redemption Restrictions
	Unfunded Commitments	Fair Value	Unfunded Commitments	Fair Value		
Equity						
Domestic	\$ 21,958	\$ 1,267,367	\$ 26,941	\$ 1,135,863	Redemption terms range from daily to annually with 90 days notice	Lock-up provision range from none to 4 years
Foreign	80,245	2,272,696	209,245	1,360,628	Redemption terms range from daily to annually with 90 days notice	Lock-up provision range from none to 8 years
Absolute return	30,635	1,625,070	37,762	1,676,886	Redemption terms range from monthly with 3 business days notice to closed end structures not available for redemption	Lock-up provision range from none to not redeemable
Private	997,663	2,510,672	1,261,309	2,610,024	Closed end funds not eligible for redemption	Not redeemable
Real estate	447,147	829,926	531,904	757,715	Closed end funds not eligible for redemption	Not redeemable
Real assets	72,133	615,512	135,516	613,083	Redemption terms range from 1 fund annually with 90 days notice to all other funds being closed end funds not eligible for redemption	Not redeemable except for 1 fund with a lock-up provision of 4 years
Totals	<u>\$ 1,649,781</u>	<u>\$ 9,121,243</u>	<u>\$ 2,202,677</u>	<u>\$ 8,154,199</u>		

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## B. Investments (continued)

MIT performs ongoing due diligence to determine that investment fair value is reasonable as of June 30, 2013 and 2012. In particular, to ensure that the valuation techniques for investments that are categorized within Level 3 of the fair value hierarchy are fair, consistent, and verifiable, MIT has established a Valuation Committee (the “Committee”) that oversees the valuation processes and procedures and ensures that the policies are fair and consistently applied. The Committee is responsible for conducting annual reviews of the valuation policies, evaluating the overall fairness and consistent application of the valuation policies and performing specific reviews of certain valuations reported. The Committee performs due diligence over the external managers and based on this review, substantiates

NAV as a practical expedient for estimates of fair value of its investments in external managers. The Committee is comprised of senior personnel and contains members who are independent of investment functions. The Committee meets annually, or more frequently, as needed. Members of the Valuation Committee report annually to MIT’s Risk and Audit Committee. The methods described previously in this footnote may produce a fair value that may not be indicative of net realizable value or reflective of future fair values. While MIT believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

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## C. Derivative Financial Instruments

MIT maintains an interest rate swap agreement to manage the interest cost and risk associated with a portion of its variable rate debt, described in Note G. Under the agreement, MIT pays a fixed rate of 4.91% and receives a payment indexed to the Securities Industry and Financial Market Association (SIFMA) on a notional amount of \$125.0 million. At June 30, 2013, the swap agreement had a total fair value of (\$40.7) million and at June 30, 2012 had a fair value of (\$58.6) million. This swap had a total net gain for 2013 of \$17.9 million and a total net loss of \$25.8 million for 2012. The notional amount of this derivative is not recorded on MIT’s Statements of Financial Position.

For its investment management, MIT uses a variety of financial instruments with off-balance sheet risk involving contractual or optional commitments for future settlement. MIT uses these instruments primarily to manage its exposure to extreme market events and fluctuations in asset classes or currencies. Instruments utilized include futures, total return and credit default swaps, and interest rate cap and swaption agreements. The futures are exchange-traded and the swap, swaptions, and cap agreements are executed over the counter.

Total return swaps involve commitments to pay interest in exchange for a market-linked return, both based on notional amounts. To the extent the total return of the security or index underlying the transaction exceeds or falls short of the offsetting interest rate obligation, MIT will receive a payment from or make a payment to the counterparty.

MIT’s portfolio of interest rate caps and swaptions is designed for protection from significant increases in interest rates. An interest rate swaption is an option to enter into an interest rate swap agreement on pre-set terms at a future date. The purchaser and seller of the swaption agree on the expiration date, option type, exercise style, the terms of the underlying swap and the type of settlement. As the expiration date approaches, the swaption holder can either

notify the seller of its intention to exercise or let the option expire. An interest rate cap places a ceiling on a floating rate of interest on a specified notional principal amount for a specific term. The buyer of the cap uses the cap contract to limit its maximum interest rate exposure. If the buyer’s floating rate rises above the cap strike, the cap contract provides for payments from the seller to the buyer of the cap for the difference between the floating rate and the cap strike. If the floating rate remains below the cap strike, no payments are required. The cap buyer is required to pay an upfront fee or premium for the cap. The cap premium charged by the seller depends upon the market’s assessment of the probability that rates will move through the cap strike over the time horizon of the deal. The payoff is expected to occur in extreme market conditions that would negatively impact MIT’s other assets.

Table 10 summarizes the notional exposure and net ending fair value relative to the financial instruments with off-balance sheet risk as of June 30, 2013 and 2012, related to MIT’s investment management. Derivatives held by limited partnerships and commingled investment vehicles pose no off-balance sheet risk to MIT due to the limited liability structure of these investments. To manage the counterparty credit exposure of MIT’s direct off-balance sheet financial instruments, MIT requires collateral to the maximum extent possible under normal trading practices. Collateral is moved on a daily basis as required by fluctuations in the market. The collateral is generally in the form of debt obligations issued by the U.S. Treasury or cash. In the event of counterparty default, MIT has the right to use the collateral to offset the loss associated with the replacement of the agreements. MIT enters into arrangements only with counterparties believed to be creditworthy. On June 30, 2013, cash collateral and certain securities owned by MIT were held at counterparty brokers to collateralize these positions and are included in investments on the Statements of Financial Position.

## C. Derivative Financial Instruments (continued)

**Table 10. Derivative Financial Instruments**

<i>(in thousands of dollars)</i>	Notional Exposure		Net ending fair value*	Net gain (loss)**
	Long	Short		
<b>Fiscal Year 2013</b>				
Fixed income instruments				
Fixed income futures . . . . .	\$ 3,200	\$ (17,900)	\$ 385	\$ 415
Options on interest rate exchange agreements . . . . .	2,577,777	(55,000)	36,901	4,609
Interest rate caps and floors . . . . .	2,250,000	-	2,509	(955)
Interest rate swaps . . . . .	-	-	-	(274)
Total fixed income instruments . . . . .	4,830,977	(72,900)	39,795	3,795
Currency instruments				
Currency forwards . . . . .	-	-	-	347
Total currency instruments . . . . .	-	-	-	347
Commodity instruments				
Commodity futures . . . . .	-	-	-	1,062
Equity index swaps . . . . .	-	-	-	(6,181)
IOS index swaps . . . . .	-	-	-	406
Total commodity and index futures . . . . .	-	-	-	(4,713)
Credit instruments . . . . .	19,498	(153,995)	(1,692)	(25,196)
<b>2013 Total</b> . . . . .	<b>\$ 4,850,475</b>	<b>\$ (226,895)</b>	<b>\$ 38,103</b>	<b>\$ (25,767)</b>
<b>Fiscal Year 2012</b>				
Fixed income instruments				
Fixed income futures . . . . .	\$ 8,900	\$ (14,400)	\$ (29)	\$ 38
Options on interest rate exchange agreements . . . . .	2,577,777	(55,000)	32,292	(37,142)
Interest rate caps and floors . . . . .	2,250,000	-	3,592	(6,361)
Interest rate swaps . . . . .	-	(11,900)	(270)	(321)
Total fixed income instruments . . . . .	4,836,677	(81,300)	35,585	(43,786)
Currency instruments				
Currency forwards . . . . .	-	-	(148)	1,306
Total currency instruments . . . . .	-	-	(148)	1,306
Commodity instruments				
Commodity futures . . . . .	2,072	-	(1,062)	(952)
Equity index futures . . . . .	-	-	-	1,449
Equity index swaps . . . . .	-	(60,036)	-	-
IOS index swaps . . . . .	-	(18,889)	12	603
Total commodity and index futures . . . . .	2,072	(78,925)	(1,050)	1,100
Credit instruments . . . . .	410,358	(1,629,309)	28,024	20,975
<b>2012 Total</b> . . . . .	<b>\$ 5,249,107</b>	<b>\$ (1,789,534)</b>	<b>\$ 62,411</b>	<b>\$ (20,405)</b>

\* The fair value of all derivative financial instruments is reflected in investments at fair value in the Statements of Financial Position.

\*\* Net gain (loss) from the derivative financial instruments is located in the non-operating section as net gain on investments and other assets in the Statement of Activities.

## C. Derivative Financial Instruments (continued)

Table 11 provides further details related to MIT's credit instruments. The act of entering into a credit default swap contract is often referred to as "buying protection" or "selling protection" on an underlying reference obligation. The buyer is obligated to make premium payments to the seller over the term of the contract in return for a contingent payment upon the occurrence of a credit event with respect to the underlying obligation. The seller bears the obligation to "protect" the buyer in the event of default of the underlying issuer. Upon this event, the cash payment which the buyer receives is equal to the clearing price established by an auction of credit default swap claims,

which is designed to approximate the recovery value of an unsecured claim on the issuer in default. The swap will last for a predetermined amount of time, typically five years. Upon termination of the swap, the buyer is no longer obligated to make any premium payments and there is no other exchange of capital.

The following table summarizes the notional amounts and fair value of the purchased and written credit derivatives, classified by the expiration terms and the external credit ratings of the reference obligations at June 30, 2013 and 2012.

<b>Table 11. Credit Derivative Instruments</b>										
<i>(in thousands of dollars)</i>	Purchased Protection				Written protection notional amount					
	Purchased notional amounts	Purchased fair value*	Years to maturity		Written notional amounts***	Offsetting purchased credit protection**	Net written credit protection	Net written credit protection fair value		
		<5 years	5-10 years							
<b>Fiscal Year 2013</b>										
Credit rating on underlying or index										
A- to AAA . . . . .	\$ 66,499	\$ (1,168)	\$ 20,000	\$ 46,499	\$ 19,498	\$ -	\$ -	\$ -	\$ 488	
BBB- to BBB+ . . . . .	67,998	(1,012)	5,000	62,998	-	(19,498)	-	-	-	
<b>2013 Total</b>	<b>\$ 134,497</b>	<b>\$ (2,180)</b>	<b>\$ 25,000</b>	<b>\$ 109,497</b>	<b>\$ 19,498</b>	<b>\$ (19,498)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 488</b>	
<b>Fiscal Year 2012</b>										
Credit rating on underlying or index										
A- to AAA . . . . .	\$ 605,184	\$ (1,652)	\$ 61,150	\$ 544,034	\$ 410,358	\$ (410,358)	\$ -	\$ -	\$ 17,783	
BBB- to BBB+ . . . . .	541,181	(5,703)	45,000	496,181	-	-	-	-	-	
Non-investment grade . . . . .	5,000	(576)	-	5,000	-	-	-	-	-	
Non-rated . . . . .	35,381	728	5,000	30,381	-	-	-	-	-	
ABX-AA index . . . . .	32,205	17,444	-	32,205	-	-	-	-	-	
<b>2012 Total</b>	<b>\$ 1,218,951</b>	<b>\$ 10,241</b>	<b>\$ 111,150</b>	<b>\$ 1,107,801</b>	<b>\$ 410,358</b>	<b>\$ (410,358)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 17,783</b>	
* The fair value of all credit derivative instruments is reflected in investments, at fair value in the Statements of Financial Position.										
** Net gain (loss) of the credit derivative instruments is located in the non-operating section as net gain on investments and other assets in the Statement of Activities.										
*** The written and offsetting purchased credit protection held as of June 30, 2013 has a maturity of less than five years. Of the amount held as of June 30, 2012, \$285,358 had a maturity of less than five years and \$125,000 had a maturity of five to ten years.										

## D. Pledges Receivable

Table 12 below shows the time periods in which pledges receivable at June 30, 2013 and 2012 are expected to be realized.

	2013	2012
In one year or less . . . . .	\$ 131,174	\$ 158,236
Between one year and five years . . . . .	187,708	232,983
More than five years . . . . .	130,662	141,780
Less: allowance for unfulfilled pledges . . . . .	<u>(44,950)</u>	<u>(53,340)</u>
<b>Pledges receivable, net . . . . .</b>	<b><u>\$ 404,594</u></b>	<b><u>\$ 479,659</u></b>

A review of pledges is periodically made with regard to collectability. As a result, the allowance for pledges that may not be fulfilled is adjusted, and some pledges have been cancelled and are no longer recorded in the financial statements. Pledges are discounted in the amount of \$34.2 million and \$30.9 million in 2013 and 2012, respectively. MIT has gross conditional pledges, not recorded, for the promotion of education and research of \$85.3 million and \$118.2 million in 2013 and 2012, respectively. MIT has pledges receivable relating to research in the amount of \$21.8 million and \$25.4 million in 2013 and 2012, respectively.

Pledges receivable are classified as Level 3 under the valuation hierarchy described in Note B.

Table 13 below is a rollforward of the pledges receivable at June 30, 2013 and 2012.

	2013	2012
Balance at beginning of year . . . . .	\$ 479,659	\$ 385,885
New pledges . . . . .	99,062	164,333
Pledge payments received . . . . .	(179,272)	(88,975)
Decrease (increase) in pledge discount . . . . .	(3,245)	24,156
Decrease (increase) in reserve for unfulfilled pledges . . . . .	8,390	(5,740)
<b>Balance at the end of year . . . . .</b>	<b><u>\$ 404,594</u></b>	<b><u>\$ 479,659</u></b>

## E. Student Notes Receivable

Table 14 below details the components of student notes receivable at June 30, 2013 and 2012.

	2013	2012
Institute-funded student notes receivable . . . . .	\$ 14,004	\$ 14,112
Perkins student notes receivable . . . . .	38,480	38,417
<b>Total student notes receivable . . . . .</b>	<b><u>52,484</u></b>	<b><u>52,529</u></b>
Less: allowance for doubtful accounts . . . . .	<u>(3,000)</u>	<u>(3,000)</u>
<b>Student notes receivable, net . . . . .</b>	<b><u>\$ 49,484</u></b>	<b><u>\$ 49,529</u></b>



**E. Student Notes Receivable (continued)**

Perkins student notes receivable are funded by the U.S. Government and by MIT. Funds advanced by the U.S. Government for this program are ultimately refundable to the U.S. Government and are classified as liabilities in Government advances for student loans in the Statements of Financial Position. Due to the nature and terms of the student loans, which are subject to significant restrictions, it is not feasible to determine the fair value of such loans.

**Allowance for Credit Losses**

Management regularly assesses the adequacy of the allowance for credit losses by performing ongoing evaluations of the student loan portfolio, including such factors as the differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, the value of any collateral and, where applicable, the existence of any guarantees or indemnifications. MIT's Perkins receivable represents the amounts due from current and former students under the Federal Perkins Loan Program. Loans disbursed under the Federal Perkins Loan program are able to be assigned to the U.S. Government in certain non-repayment situations. In these situations the Federal portion of the loan balance is guaranteed.

Factors also considered by management when performing its assessment, in addition to general economic conditions and the other factors described above, included, but were not limited to, a detailed review of the aging of the student loan receivable and a review of the default rate by loan category in comparison to prior years. The level of the allowance is adjusted based on the results of management's analysis.

Loans less than 120 days delinquent are deemed to have a minimal delay in payment and are generally not written off but are reserved in accordance with the terms discussed above. Loans more than 120 days delinquent are subject to standard collection practices including litigation. Only loans that are deemed uncollectible are written off and this only occurs after several years of unsuccessful collection, including placement at more than one external collection agency.

Considering the other factors already discussed herein, management considers the allowance for credit losses at June 30, 2013 and 2012 to be prudent and reasonable. Furthermore, MIT's allowance is general in nature and is available to absorb losses from any loan category. Management believes that the allowance for credit losses at June 30, 2013 and 2012 is adequate to absorb credit losses inherent in the portfolio as of that date.

Changes in the allowance for credit losses for the years ended June 30, 2013 and 2012 were as shown in the following table.

	2013	2012
Balance at beginning of year . . . . .	\$ 3,000	\$ 3,000
Provision for credit losses . . . . .	-	41
Net charge-offs . . . . .	-	(41)
<b>Balance at end of year . . . . .</b>	<b>\$ 3,000</b>	<b>\$ 3,000</b>



## F Accounts Payable, Accruals and Other Liabilities

MIT's account payable, accruals, and other liabilities at June 30, 2013 and 2012 are shown in Table 16 below.

	2013	2012
Accounts payable and accruals .....	\$ 325,472	\$ 320,902
Accrued vacation .....	58,965	57,467
<b>Total</b> .....	<b>\$ 384,437</b>	<b>\$ 378,369</b>

## G. Borrowings

MIT's outstanding borrowings at June 30, 2013 and 2012 are shown in Table 17 below.

	2013	2012
<b>EDUCATIONAL PLANT</b>		
Massachusetts Health and Educational Facilities Authority (MHEFA)		
Series I, 4.75%-5.20%, due 2028, par value \$59,200 .....	\$ 59,563	\$ 59,588
Series J-1, variable rate, due 2031 .....	125,000	125,000
Series J-2, variable rate, due 2031 .....	125,000	125,000
Series K, 5.25%-5.50%, due 2012-2032, par value \$203,500 .....	214,304	241,405
Series L, 3.0%-5.25%, due 2004-2033, par value \$167,670 .....	177,651	178,635
Series M, 5.25%, due 2014-2030, par value \$131,110 .....	141,634	142,787
Series N, 3.5%-5.0%, due 2014-2038, par value \$325,195 .....	329,010	330,327
Series O, 4.0%-6.0%, due 2016-2036, par value \$266,460 .....	269,778	271,022
<b>Total MHEFA</b> .....	<b>1,441,940</b>	<b>1,473,764</b>
Medium Term Notes Series A, 7.125%, due 2026 .....	17,363	17,359
Medium Term Notes Series A, 7.25%, due 2096 .....	45,447	45,445
Taxable Bonds, Series B, 5.60%, due 2111, par value \$750,000 <sup>1</sup> .....	746,956	746,924
Notes payable to bank, variable rate, due 2014 .....	83,033	83,033
<b>Total Educational Plant</b> .....	<b>892,799</b>	<b>892,761</b>
<b>OTHER</b>		
Notes payable to bank, variable rate, due 2014 .....	93,476	93,477
<b>Total Borrowings</b> .....	<b>\$ 2,428,215</b>	<b>\$ 2,460,002</b>

<sup>1</sup> The proceeds of Taxable Bonds, Series B were held as investments as of June 30, 2013 and 2012 and have not yet been invested in physical assets.

Fair value of the outstanding debt is approximately 11.0% and 22.0% greater than the carrying value in 2013 and 2012, respectively. It is classified as Level 3 under the valuation hierarchy described in Note B. Carrying value is based on estimates using current interest rates available for similarly rated debt of the same remaining maturities.

## G. Borrowings (continued)

The aggregate amounts of debt payments and sinking fund requirements for each of the next five fiscal years are shown in Table 18 below.

2014 .....	\$	202,509
2015 .....		59,110
2016 .....		9,585
2017 .....		98,090
2018 .....		26,500

MIT maintains a line of credit with a major financial institution for an aggregate commitment of \$500.0 million. As of June 30, 2013, \$323.5 million was available under this line of credit. The line of credit expires on March 28, 2014.

Cash paid for interest on long-term debt in 2013 and 2012 was \$116.3 million and \$101.0 million, respectively.

Variable interest rates at June 30, 2013 are shown in Table 19 below.

		Amount	Rate
MHEFA Series J-1 . . . .	\$	125,000	0.04%
MHEFA Series J-2 . . . .		125,000	0.06%
Notes payable to bank . .		176,509	0.79%

In the event that MIT receives notice of any optional tender on its Series J-1 and Series J-2 variable-rate bonds, or if these bonds become subject to mandatory tender, the purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, MIT will be obligated to purchase the bonds tendered at 100 percent of par on the tender date.

## H. Commitments and Contingencies

### Federal Government Funding

MIT receives funding or reimbursement from Federal agencies for sponsored research under Government grants and contracts. These grants and contracts provide for reimbursement of indirect costs based on rates negotiated with the Office of Naval Research (ONR), MIT's cognizant Federal agency. MIT's indirect cost reimbursements have been based on fixed rates with carry forward of under or over-recoveries. At June 30, 2013 and 2012, MIT recorded a net over-recovery of \$26.9 million and \$56.7 million, respectively.

The DCAA is responsible for auditing indirect charges to grants and contracts in support of ONR's negotiating responsibility. MIT has final audited rates through 2009. MIT's 2013 research revenues of \$1,600.5 million include reimbursement of indirect costs of \$219.7 million, which includes the adjustment for the variance between the indirect cost income determined by the fixed rates and actual costs for 2013. In 2012, research revenues were \$1,527.9 million, which included reimbursement of indirect costs of \$208.7 million.

### Leases

At June 30, 2013, there were no capital lease obligations. MIT is committed under certain operating (rental) leases. Rent expense incurred under operating lease obligations was \$40.5 million and \$37.1 million in 2013 and 2012, respectively. Future minimum payments under operating leases are shown in Table 20 below.

2014 .....	\$	40,156
2015 .....		29,580
2016 .....		21,866
2017 .....		17,387
2018 .....		16,151

### Investments

As of June 30, 2013, \$10.3 million of investments were pledged as collateral to various supplier and government agencies.

## H. Commitments and Contingencies (continued)

### Future Construction

MIT has contracted for educational plant in the amount of \$67.8 million at June 30, 2013. It is expected that the resources to satisfy these commitments will be provided from unexpended plant funds, anticipated gifts, and unrestricted funds. MIT will be committing additional resources to planned major construction projects and improvements to the current infrastructure over the next several years.

### Related Entities

MIT has entered into agreements, including collaborations with third-party not-for-profit and for-profit entities, for

education, research, and technology transfers. Some of these agreements involve funding from foreign governments. These agreements subject MIT to greater financial risk than do its normal operations. In the opinion of management, the likelihood of realization of increased financial risks by MIT under these agreements is remote.

### General

MIT is subject to certain other legal proceedings and claims that arise in the normal course of operations. In the opinion of management, the ultimate outcome of these actions will not have a material effect on MIT's financial position.

## I. Functional Expense Classification

MIT's expenditures on a functional basis are shown in Table 21 below.

	2013	2012
General and administrative . . . . .	\$ 681,505	\$ 604,320
Instruction and unsponsored research . . . . .	692,032	673,851
Sponsored research . . . . .	1,397,857	1,335,638
Auxiliary enterprises . . . . .	124,358	120,137
Operation of Alumni Association . . . . .	12,825	10,640
Total operating expense . . . . .	<u>\$ 2,908,577</u>	<u>\$ 2,744,586</u>

## J. Retirement Benefits

MIT offers a defined benefit plan and a defined contribution plan to its employees. The plans cover substantially all MIT employees.

MIT also offers a postretirement welfare benefit plan (certain health care and life insurance benefits) for retired employees. Substantially all MIT employees may become eligible for those benefits if they reach a qualifying retirement age while working for MIT. The health care component of the welfare plan is paid for in part by retirees, their covered dependents, and beneficiaries. Benefits are provided through various insurance companies whose charges are based either on the claims and administrative expenses paid during the year or annual insured premiums. The life insurance component of the welfare plan includes basic life insurance and supplemental life insurance. The basic life insurance plan is non-contributory and covers the retiree only. The supplemental life insurance plan is paid for by the retiree. MIT maintains a trust to pay for postretirement welfare benefits.

MIT contributes to the defined benefit plan amounts that are actuarially determined to provide the retirement plan with sufficient assets to meet future benefit requirements. There was a \$33.0 million contribution to the defined benefit plan in 2013. There were no contributions to the defined benefit plan in 2012.

For purposes of calculating net periodic cost for the defined benefit plan, plan amendments are amortized on a straight-line basis over the average future service to expected retirement of active participants at the date of the amendment. Cumulative gains and losses (including changes in assumptions) in excess of 10 percent of the greater of the projected benefit obligation or the market-related value of assets are amortized over the average future service of active participants. The annual amortization shall not be less than the total amount of unrecognized gains and losses up to \$1.0 million.

## J. Retirement Benefits (continued)

The amount contributed and expenses recognized during 2013 and 2012 related to the defined contribution plan were \$46.2 million and \$43.5 million, respectively.

For purposes of calculating net periodic cost for the postretirement welfare benefit plan, a portion of the current obligation related to the transition to the accounting standard *Employers' Accounting for Postretirement Benefits Other than Pensions*, was amortized on a straight-line basis over 20 years from the date of adoption of that statement in 1994. Plan changes resulted in a reduction of the remaining

transition obligation in fiscal year 2012 which made 2012 the final year of amortization. Plan amendments are amortized on a straight-line basis over the average future service to full eligibility of active participants at the date of amendment. Cumulative gains and losses (including changes in assumptions) in excess of 10 percent of the greater of the plan's obligation or the market-related value of assets are amortized over the average future service of active participants. The annual amortization shall not be less than the total amount of unrecognized gains and losses up to \$1.0 million.

### Components of Net Periodic Benefit (Income) Cost

Table 22 summarizes the components of net periodic benefit (income) cost recognized in operating activity and other amounts recognized in non-operating activity in unrestricted net assets for the years ended June 30, 2013 and 2012.

	Defined benefit plan		Postretirement welfare benefit plan	
	2013	2012	2013	2012
<i>(in thousands of dollars)</i>				
<b>Components of net periodic benefit (income) cost recognized in operating activity</b>				
Service cost . . . . .	\$ 77,093	\$ 61,431	\$ 23,004	\$ 20,599
Interest cost . . . . .	130,187	138,858	22,087	26,207
Expected return on plan assets . . . . .	(211,063)	(217,979)	(24,786)	(23,399)
Amortization of transition amount . . . . .	–	–	–	1,194
Amortization of net actuarial loss (gain) . . . . .	17,542	(1,000)	10,642	9,314
Amortization of prior service cost . . . . .	1,018	1,970	(2,801)	(2,100)
<b>Net periodic benefit (income) cost recognized in operating activity . . . . .</b>	<b>\$ 14,777</b>	<b>\$ (16,720)</b>	<b>\$ 28,146</b>	<b>\$ 31,815</b>
<b>Other amounts recognized in non-operating activity in unrestricted net assets</b>				
Current year actuarial (gain) loss . . . . .	\$ (230,545)	\$ 444,241	\$ (54,496)	\$ (8,118)
Amortization of actuarial (loss) gain . . . . .	(17,542)	1,000	(10,642)	(9,314)
Current year prior service credit . . . . .	–	–	–	(23,919)
Amortization of prior service cost . . . . .	(1,018)	(1,970)	2,801	2,100
Reduction in transition obligation due to plan change . . . . .	–	–	–	(8,357)
Amortization of transition obligation . . . . .	–	–	–	(1,194)
<b>Total other amounts recognized in non-operating activity . . . . .</b>	<b>(249,105)</b>	<b>443,271</b>	<b>(62,337)</b>	<b>(48,802)</b>
<b>Total recognized . . . . .</b>	<b>\$ (234,328)</b>	<b>\$ 426,551</b>	<b>\$ (34,191)</b>	<b>\$ (16,987)</b>

The estimated net actuarial loss and prior service cost for the defined benefit plan that will be amortized from unrestricted net assets into net periodic benefit cost during the next fiscal year are \$14.1 million and \$1.0 million, respectively. The estimated net actuarial loss and prior

service credit for the postretirement welfare benefit plan that will be amortized from unrestricted net assets into net periodic benefit cost during the next fiscal year are \$5.8 million and \$2.8 million, respectively.

## J. Retirement Benefits (continued)

Cumulative amounts recognized as non-operating changes in unrestricted net assets are summarized in Table 23 for the years ended June 30, 2013 and 2012.

<i>(in thousands of dollars)</i>	Defined benefit plan		Postretirement welfare benefit plan	
	2013	2012	2013	2012
<b>Amounts recognized in unrestricted net asset consist of:</b>				
Net actuarial loss . . . . .	\$ 323,339	\$ 571,425	\$ 73,570	\$ 138,708
Prior service cost/(credit) . . . . .	3,833	4,851	(19,017)	(21,818)
<b>Total cumulative amounts recognized in unrestricted net assets. . . . .</b>	<b>\$ 327,172</b>	<b>\$ 576,276</b>	<b>\$ 54,553</b>	<b>\$ 116,890</b>

### Benefit Obligations and Fair Value of Assets

Table 24 summarizes the benefit obligations, plan assets, and amounts recognized in the Statements of Financial Position for MIT's retirement benefit plans. MIT uses a June 30 measurement date for its defined benefit and postretirement welfare benefit plans.

<i>(in thousands of dollars)</i>	Defined benefit plan		Postretirement welfare benefit plan	
	2013	2012	2013	2012
<b>Change in projected benefit obligations</b>				
Projected benefit obligations at beginning of year . . .	\$ 2,890,587	\$ 2,458,592	\$ 489,475	\$ 509,838
Service cost . . . . .	77,093	61,432	23,004	20,599
Interest cost . . . . .	130,187	138,858	22,086	26,207
Retiree contributions. . . . .	—	—	4,066	3,834
Net benefit payments, transfers and other expenses . .	(144,222)	(116,351)	(22,913)	(22,109)
Plan amendment . . . . .	—	—	—	(32,276)
Assumption changes and actuarial net loss (gain). . . .	(149,861)	348,056	(36,601)	(16,618)
<b>Projected benefit obligations at end of year. . . . .</b>	<b>2,803,784</b>	<b>2,890,587</b>	<b>479,117</b>	<b>489,475</b>
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year . . . . .	2,577,752	2,572,307	358,912	311,629
Actual return on plan assets. . . . .	291,747	121,795	42,681	14,899
Employer contributions . . . . .	33,000	—	35,624	52,920
Retiree contributions. . . . .	—	—	4,066	3,834
Net benefit payments, transfers and other expenses . .	(144,223)	(116,350)	(26,302)	(24,370)
<b>Fair value of plan assets at end of year . . . . .</b>	<b>2,758,276</b>	<b>2,577,752</b>	<b>414,981</b>	<b>358,912</b>
<b>Funded (unfunded) status at end of year . . . . .</b>	<b>\$ (45,508)</b>	<b>\$ (312,835)</b>	<b>\$ (64,136)</b>	<b>\$ (130,563)</b>
Amounts recognized in the Statements of Financial Position consist of:				
<b>Total accrued benefit liabilities. . . . .</b>	<b>\$ (45,508)</b>	<b>\$ (312,835)</b>	<b>\$ (64,136)</b>	<b>\$ (130,563)</b>

## J. Retirement Benefits (continued)

The accumulated benefit obligation for MIT's defined benefit plan was \$ 2,620.4 million and \$2,681.9 million at June 30, 2013 and 2012, respectively.

On January 1, 2012, MIT began providing retiree drug coverage through an Employer Group Waiver Plan (EGWP). Under EGWP, the cost of drug coverage is offset through direct federal subsidies, brand name drug discounts and reinsurance reimbursements. Prior to January 1, 2012, MIT received retiree drug subsidy payments directly from the federal government. The net effect of this change reduced the accumulated postretirement benefit obligation to \$56.4 million at June 30, 2012. This was treated as an actuarial gain.

### Assumptions and Health Care Trend Rates

Table 25 summarizes assumptions and health care trend rates. The expected long-term rate of return assumption represents the expected average rate of earnings on the funds invested or to be invested to provide for the benefits included in the benefit obligation. The long-term rate of return assumption is determined based on a number of factors, including historical market index returns, the anticipated long-term asset allocation of the plans, historical plan return data, plan expenses and the potential to outperform market index returns.

	Defined benefit plan		Postretirement welfare benefit plan	
	2013	2012	2013	2012
<b>Assumptions used to determine benefit obligation as of June 30:</b>				
Discount rate . . . . .	5.03%	4.49%	4.95%	4.41%
Rate of compensation increase* . . . . .	4.00%	4.00%		
<b>Assumptions used to determine net periodic benefit (income) cost for year ended June 30:</b>				
Discount rate . . . . .	4.49%	5.65%	4.41%	5.56%
Expected long-term return on plan assets . . . . .	8.00%	8.00%	7.00%	7.00%
Rate of compensation increase* . . . . .	4.00%	4.00%		
<b>Assumed health care cost trend rates</b>				
Health care cost trend rate assumed for next year			7.00%	7.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate) . . . . .			4.75%	5.00%
Year the rate reaches the ultimate trend rate . . . .			2021	2018

\* The average rate of salary increase is assumed to be 4.00% for 2014, and thereafter.

As an indicator of sensitivity, a one percentage point change in the assumed health care cost trend rate would affect 2013 as shown in Table 26 below.

	1% point increase	1% point decrease
Effect on 2013 postretirement service and interest cost . . . . .	\$ 7,178	\$ (5,864)
Effect on postretirement benefit obligation as of June 30, 2013 . . . . .	\$ 59,617	\$ (49,911)

### Plan Investments

The investment objectives for the assets of the plans are to minimize expected funding contributions and to meet or exceed the rate of return assumed for plan funding purposes over the long term. The nature and duration of benefit obligations, along with assumptions concerning asset class returns and return correlations, are considered when determining an appropriate asset allocation to achieve the investment objectives.

Investment policies and strategies governing the assets of the plans are designed to achieve investment objectives within prudent risk parameters. Risk management practices include the use of external investment managers, the maintenance of a portfolio diversified by asset class, investment approach, security holdings, and the maintenance of sufficient liquidity to meet benefit obligations as they come due.

## J. Retirement Benefits (continued)

Tables 27A and 27B present investments at fair value of MIT's defined benefit plan and postretirement welfare benefit plan, which are included in plan net assets as of June 30, 2013 and 2012, grouped by the valuation hierarchy detailed in Note B. There were no transfers in and out of Level 1 and Level 2 fair value measurements in 2013 or 2012. Transfers between Level 2 and Level 3 result from the expiration or commencements of lock-ups which impact MIT's ability to exit the fund within twelve months.

<i>(in thousands of dollars)</i>	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant un- observable inputs (Level 3)	Total fair value
<b>Fiscal Year 2013</b>				
Cash and cash equivalents . . . . .	\$ 197,341	\$ —	\$ —	\$ 197,341
US treasury . . . . .	194,191	—	—	194,191
US government agency . . . . .	—	19,667	—	19,667
Domestic bonds . . . . .	—	65,178	—	65,178
Foreign bonds . . . . .	—	—	—	—
Common equity				
Long domestic . . . . .	43,518	—	2,100	45,618
Long foreign . . . . .	1,740	—	—	1,740
Equity*				
Absolute return . . . . .	—	94,411	266,407	360,818
Domestic . . . . .	—	—	378,862	378,862
Foreign . . . . .	—	220,858	344,298	565,156
Private . . . . .	—	—	455,850	455,850
Real estate . . . . .	—	—	316,977	316,977
Real assets* . . . . .	205	1,119	166,597	167,921
Derivatives . . . . .	82	—	—	82
<b>Total plan investments</b>	<b>\$ 437,077</b>	<b>\$ 401,233</b>	<b>\$ 1,931,091</b>	<b>\$ 2,769,401</b>
<b>Fiscal Year 2012</b>				
Cash and cash equivalents . . . . .	\$ 92,684	\$ —	\$ —	\$ 92,684
US treasury . . . . .	130,713	—	—	130,713
US government agency . . . . .	—	18,253	—	18,253
Domestic bonds . . . . .	—	53,331	—	53,331
Foreign bonds . . . . .	—	265	—	265
Common equity				
Long domestic . . . . .	63,258	996	2,100	66,354
Long foreign . . . . .	14,669	3,721	—	18,390
Equity*				
Absolute return . . . . .	—	334,067	289,429	623,496
Domestic . . . . .	—	5,317	297,799	303,116
Foreign . . . . .	2,874	190,879	158,171	351,924
Private . . . . .	—	—	431,578	431,578
Real estate . . . . .	—	—	294,379	294,379
Real assets* . . . . .	—	18,935	157,611	176,546
Derivatives . . . . .	(9)	6,976	—	6,967
<b>Total plan investments</b>	<b>\$ 304,189</b>	<b>\$ 632,740</b>	<b>\$ 1,631,067</b>	<b>\$ 2,567,996</b>

\*Real assets and equity categories include commingled vehicles that invest in these types of investments.



## J. Retirement Benefits (continued)

**Table 27B. Postretirement Welfare Benefit Plan Investments**

<i>(in thousands of dollars)</i>	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant un- observable inputs (Level 3)	Total fair value
<b>Fiscal Year 2013</b>				
Cash and cash equivalents . . . . .	\$ 23,812	\$ —	\$ —	\$ 23,812
US government agency . . . . .	—	—	—	—
Domestic bonds** . . . . .	—	76,485	—	76,485
Common equity				
Long domestic . . . . .	26,646	—	—	26,646
Long foreign . . . . .	220	—	—	220
Equity*				
Absolute return . . . . .	—	28,802	40,018	68,820
Domestic . . . . .	—	—	62,147	62,147
Foreign . . . . .	—	41,273	71,597	112,870
Private . . . . .	—	—	20,826	20,826
Real estate . . . . .	—	—	18,053	18,053
Real assets* . . . . .	—	—	5,254	5,254
Derivatives . . . . .	—	—	—	—
<b>Total plan investments</b>	<b>\$ 50,678</b>	<b>\$ 146,560</b>	<b>\$ 217,895</b>	<b>\$ 415,133</b>
<b>Fiscal Year 2012</b>				
Cash and cash equivalents . . . . .	\$ 26,512	\$ —	\$ —	\$ 26,512
US government agency . . . . .	—	2,147	—	2,147
Domestic bonds** . . . . .	—	66,632	—	66,632
Common equity				
Long domestic . . . . .	24,026	—	—	24,026
Long foreign . . . . .	1,565	—	—	1,565
Equity*				
Absolute return . . . . .	—	53,986	21,705	75,691
Domestic** . . . . .	—	325	49,236	49,561
Foreign . . . . .	6,146	64,168	5,906	76,220
Private . . . . .	—	—	16,936	16,936
Real estate . . . . .	—	—	14,627	14,627
Real assets* . . . . .	—	—	3,502	3,502
Derivatives . . . . .	—	1,596	—	1,596
<b>Total plan investments</b>	<b>\$ 58,249</b>	<b>\$ 188,854</b>	<b>\$ 111,912</b>	<b>\$ 359,015</b>

\*Real assets and equity categories include commingled vehicles that invest in these types of investments.

\*\* Includes one common collective trust (CCT) WTC CTF Core Bond fund.



## J. Retirement Benefits (continued)

Table 28 is a rollforward of the investments classified by MIT's defined benefit plan and postretirement welfare benefit plan within Level 3 of the fair value hierarchy defined in Note B as at June 30, 2013 and 2012.

<i>(in thousands of dollars)</i>	Fair Value Beginning	Realized Gains (Losses)	Unrealized Gains (Losses)	Purchases	Sales	Transfer of Assets between levels	Fair Value Ending
<b>Table 28. Rollforward of Level 3 Investments</b>							
<b>Defined Benefit Plan</b>							
<b>Fiscal Year 2013</b>							
Common equity:							
Domestic.....	\$ 2,100	\$ -	\$ -	\$ 909	\$ (909)	\$ -	\$ 2,100
Foreign.....	-	5	-	-	(5)	-	-
Equity:							
Absolute return.....	289,429	-	(1,018)	92,136	(124,527)	10,387	266,407
Domestic.....	297,799	-	65,532	80,463	(67,859)	2,927	378,862
Foreign.....	158,171	-	45,583	230,398	(32,620)	(57,234)	344,298
Private.....	431,578	(218)	14,517	81,197	(71,224)	-	455,850
Real estate.....	294,379	-	19,976	64,595	(61,973)	-	316,977
Real assets.....	157,611	(2,176)	998	21,554	(11,390)	-	166,597
<b>Totals.....</b>	<b>\$ 1,631,067</b>	<b>\$ (2,389)</b>	<b>\$ 145,588</b>	<b>\$ 571,252</b>	<b>\$ (370,507)</b>	<b>\$ (43,920)</b>	<b>\$ 1,931,091</b>
<b>Fiscal Year 2012</b>							
Common equity:							
Domestic.....	\$ 1,049	\$ 544	\$ -	\$ 1,191	\$ (684)	\$ -	\$ 2,100
Equity:							
Absolute return.....	444,384	(1,938)	(1,054)	41,047	(43,593)	(149,417)	289,429
Domestic.....	175,339	(3,639)	40,285	98,279	(12,465)	-	297,799
Foreign.....	137,014	(7,051)	10,225	40,908	(22,925)	-	158,171
Private.....	399,681	(11,085)	23,412	68,569	(48,999)	-	431,578
Real estate.....	282,404	-	9,552	52,080	(49,657)	-	294,379
Real assets.....	180,268	-	(12,828)	4,307	(14,136)	-	157,611
<b>Totals.....</b>	<b>\$ 1,620,139</b>	<b>\$ (23,169)</b>	<b>\$ 69,592</b>	<b>\$ 306,381</b>	<b>\$ (192,459)</b>	<b>\$ (149,417)</b>	<b>\$ 1,631,067</b>
<b>Postretirement Welfare Benefit Plan</b>							
<b>Fiscal Year 2013</b>							
Equity:							
Absolute return.....	\$ 21,705	\$ -	\$ 2,388	\$ 9,436	\$ (9,380)	\$ 15,869	\$ 40,018
Domestic.....	49,236	-	10,720	11,719	(9,853)	325	62,147
Foreign.....	5,906	-	9,728	54,518	(5,383)	6,828	71,597
Private.....	16,936	-	705	7,307	(4,122)	-	20,826
Real estate.....	14,627	-	1,695	6,694	(4,963)	-	18,053
Real assets.....	3,502	-	(2)	1,935	(181)	-	5,254
<b>Totals.....</b>	<b>\$ 111,912</b>	<b>\$ -</b>	<b>\$ 25,234</b>	<b>\$ 91,609</b>	<b>\$ (33,882)</b>	<b>\$ 23,022</b>	<b>\$ 217,895</b>
<b>Fiscal Year 2012</b>							
Equity:							
Absolute return.....	\$ 22,134	\$ -	\$ 230	\$ 3,827	\$ (2,560)	\$ (1,926)	\$ 21,705
Domestic.....	19,876	-	5,292	24,068	-	-	49,236
Foreign.....	8,670	(730)	1,115	2,400	(2,424)	(3,125)	5,906
Private.....	11,786	-	969	5,508	(1,327)	-	16,936
Real estate.....	10,344	-	1,393	5,044	(2,154)	-	14,627
Real assets.....	3,059	-	121	371	(49)	-	3,502
<b>Totals.....</b>	<b>\$ 75,869</b>	<b>\$ (730)</b>	<b>\$ 9,120</b>	<b>\$ 41,218</b>	<b>\$ (8,514)</b>	<b>\$ (5,051)</b>	<b>\$ 111,912</b>

## J. Retirement Benefits (continued)

The plans have made investments in various long-lived partnerships, and in other cases, have entered into contractual arrangements that may limit their ability to initiate redemptions due to notice periods, lock-ups and gates. Details on estimated remaining life, current redemption terms and restrictions by asset class and type of investment for both the defined benefit plan and postretirement welfare benefit plan are provided below as of June 30, 2013 and 2012.

<b>Table 29. Unfunded Commitments</b>						
Asset Class <i>(in thousands of dollars)</i>	2013		2012		Redemption Terms	Redemption Restrictions
	Unfunded Commitments	Fair Value	Unfunded Commitments	Fair Value		
<b>Defined Benefit Plan</b>						
Equity:						
Domestic	\$ 2,126	\$ 378,862	\$ 2,382	\$ 303,116	Redemption terms range from daily to annually with 90 days notice	Lock-up provision range from none to 4 years
Foreign	21,600	565,156	54,900	351,924	Redemption terms range from daily to quarterly with 90 days notice	Lock-up provision range from none to 8 years
Absolute return	25,251	360,818	25,724	623,496	Redemption terms range from monthly with 3 business days notice to closed end structure not available for redemption	Lock-up provision range from none to not redeemable
Private	191,245	455,850	232,418	431,578	Closed end funds not eligible for redemption	Not redeemable
Real estate	150,491	316,977	185,374	294,379	Redemption terms range from 1 fund quarterly with 45 days notice to all other funds are closed end funds not eligible for redemption	Not redeemable except holding with a lock-up provision of 5 years
Real assets	21,503	167,921	39,427	176,546	Redemption terms range from 1 fund annually with 90 days notice to all other funds are closed end funds not eligible for redemption	Not redeemable except for 1 fund with a lock-up provision of 4 years
<b>Totals</b>	<b>\$ 412,216</b>	<b>\$ 2,245,584</b>	<b>\$ 540,225</b>	<b>\$ 2,181,039</b>		
<b>Postretirement Welfare Benefit Plan</b>						
Equity:						
Domestic	\$ 236	\$ 62,147	\$ 265	\$ 49,561	Redemption terms range from quarterly with 60 days notice to annually with 90 day notice	Lock-up provision range from 30 months to 4 years
Foreign	2,400	112,870	6,100	76,220	Redemption terms range from daily with 28 days notice to annually with 60 day notice	Lock-up provision range from none to 5 years
Absolute return	1,266	68,820	1,577	75,691	Redemption terms range from monthly with 3 business days notice to quarterly with 90 days notice	Lock-up provision range from none to 5 years
Private	19,038	20,826	21,754	16,936	Closed end funds not eligible for redemption	Not redeemable
Real estate	13,342	18,053	16,780	14,627	Closed end funds not eligible for redemption	Not redeemable
Real assets	2,004	5,254	3,938	3,502	Closed end funds not eligible for redemption	Not redeemable
<b>Totals</b>	<b>\$ 38,286</b>	<b>\$ 287,970</b>	<b>\$ 50,414</b>	<b>\$ 236,537</b>		

## J. Retirement Benefits (continued)

Target allocations and weighted-average asset allocations of the investment portfolio for the MIT defined benefit plan and postretirement welfare benefit plan at June 30, 2013 and 2012, are shown in Table 30.

	Defined benefit plan Plan assets as of June 30			Postretirement welfare benefit plan Plan assets as of June 30		
	Target Allocation	2013	2012	Target Allocation	2013	2012
Cash and cash equivalents . . .	(5)-5%	7%	4%	(5)-5%	6%	8%
Fixed income . . . . .	3-13%	10%	8%	10-20%	18%	19%
Equities . . . . .	30.5-70.5%	52%	46%	35-75%	54%	47%
Marketable alternatives . . . . .	16.5-26.5%	13%	24%	17.5-27.5%	17%	21%
Real assets . . . . .	4-14%	6%	7%	0-7.5%	1%	1%
Real estate . . . . .	6-16%	12%	11%	0-10%	4%	4%
<b>Total</b> . . . . .		<b>100%</b>	<b>100%</b>		<b>100%</b>	<b>100%</b>

The following tables summarize the notional exposure and net ending fair value of derivative financial instruments held by the MIT defined benefit plan and postretirement welfare benefit plan at June 30, 2013 and 2012. Refer to Note C for detailed discussion regarding derivative financial instruments.

<i>(in thousands of dollars)</i>	Notional exposure		Net ending fair value amount	Net gain (loss)
	Long	Short		
<b>Fiscal Year 2013</b>				
Fixed income instruments				
Fixed income futures . . . . .	\$ 3,600	\$ (5,500)	\$ 82	\$ 91
Interest rate swaps . . . . .	—	—	—	(43)
Total fixed income instruments . . . . .	<b>3,600</b>	<b>(5,500)</b>	<b>82</b>	<b>48</b>
Currency forwards and other instruments				
Currency forwards and other instruments . . . . .	—	—	—	6
Commodity and index instruments				
IOS index swaps . . . . .	—	—	—	157
Credit instruments . . . . .	—	—	—	(1,372)
<b>2013 Total</b> . . . . .	<b>\$ 3,600</b>	<b>\$ (5,500)</b>	<b>\$ 82</b>	<b>\$ (1,161)</b>
<b>Fiscal Year 2012</b>				
Fixed income instruments				
Fixed income futures . . . . .	\$ —	\$ (3,700)	\$ (9)	\$ 8
Interest rate swaps . . . . .	—	(3,743)	(85)	(1,056)
Total fixed income instruments . . . . .	—	<b>(7,443)</b>	<b>(94)</b>	<b>(1,048)</b>
Commodity and other instruments				
IOS index swaps . . . . .	—	(7,322)	5	205
Credit instruments . . . . .	—	(13,027)	7,056	(27)
<b>2012 Total</b> . . . . .	<b>\$ —</b>	<b>\$ (27,792)</b>	<b>\$ 6,967</b>	<b>\$ (870)</b>

## J. Retirement Benefits (continued)

In fiscal 2013, there were no derivatives held by the postretirement welfare benefit plan. The credit instruments generated \$0.3 million loss for the year. Fiscal 2012 information is summarized below.

<i>(in thousands of dollars)</i>	Notional exposure		Net ending fair value amount	Net gain (loss)
	Long	Short		
<b>Fiscal Year 2012</b>				
Fixed income instruments				
Interest rate swaps . . . . .	\$ -	\$ (857)	\$ (19)	\$ (242)
Total fixed income instruments . . . . .	-	(857)	(19)	(242)
Commodity and other instruments				
IOS index swaps . . . . .	\$ -	\$ (1,675)	\$ 1	\$ 47
Total index instruments . . . . .	-	(1,675)	1	47
Credit instruments . . . . .	-	(2,981)	1,614	(6)
<b>2012 Total . . . . .</b>	<b>\$ -</b>	<b>\$ (5,513)</b>	<b>\$ 1,596</b>	<b>\$ (201)</b>

Table 32 summarizes the notional amounts and fair value of the purchased and written credit derivatives classified by the expiration terms and the external credit ratings of the reference obligations. These credit derivatives for both plans were liquidated during fiscal 2013 generating a loss of \$1.4 million and \$0.3 million for the ABX-AA indexes for the defined benefit plan and the postretirement welfare benefit plan, respectively. Fiscal 2012 information is summarized below.

<i>(in thousands of dollars)</i>	Purchased protection			
	Purchased notional amounts	Purchased fair value*	Years to maturity	
			<5 years	5-10 years
<b>Defined Benefit Plan</b>				
<b>Fiscal Year 2012</b>				
Credit rating on underlying or index				
ABX-AA index . . . . .	\$ 13,027	\$ 7,056	\$ -	\$ 13,027
ABX--AAA index . . . . .	-	-	-	-
<b>2012 Total . . . . .</b>	<b>\$ 13,027</b>	<b>\$ 7,056</b>	<b>\$ -</b>	<b>\$ 13,027</b>
<b>Postretirement Welfare Benefit Plan</b>				
<b>Fiscal Year 2012</b>				
Credit rating on underlying or index				
ABX--AA index . . . . .	\$ 2,981	\$ 1,614	\$ -	\$ 2,981
ABX--AAA index . . . . .	-	-	-	-
<b>2012 Total . . . . .</b>	<b>\$ 2,981</b>	<b>\$ 1,614</b>	<b>\$ -</b>	<b>\$ 2,981</b>

\* The fair value of all credit derivative instruments is reflected in investments, at fair value in the Statements of Financial Position.

## J. Retirement Benefits (continued)

### Contributions

In 2014, MIT expects to make contributions of \$20.4 million and \$9.7 million to its defined benefit pension plan and postretirement welfare benefit plan, respectively. These contributions have been estimated based on the same assumptions used to measure MIT's benefit obligations at June 30, 2013. MIT contributed \$35.6 million and \$52.9 million to the postretirement welfare benefit plan in 2013 and 2012, respectively.

### Expected Future Benefit Payments

Table 33 reflects total expected benefit payments for the defined benefit and postretirement welfare benefit plans. These payments have been estimated based on the same assumptions used to measure MIT's benefit obligations at June 30, 2013.

**Table 33. Expected Future Benefit Payments**

<i>(in thousands of dollars)</i>		Pension benefits		Other Benefits*
2014 .....	\$	145,636	\$	23,681
2015 .....		154,008		26,406
2016 .....		159,000		28,933
2017 .....		164,180		31,092
2018 .....		170,020		32,891
2019-2023 .....		917,584		187,090

\* Other benefits reflect the total net benefits expected to be paid from the plans (i.e., gross benefit reimbursements offset by retiree contributions).

## K. Components of Net Assets and Endowment

Table 34 presents the total net assets composition as of June 30, 2013. The amounts listed in the unrestricted category under endowment funds are those gifts and other funds received over the years that MIT designated as funds functioning as endowment and invested with

the endowment funds. A large component of temporarily restricted net assets in other invested funds is pledges, the majority of which will be reclassified to unrestricted net assets when cash is received.

**Table 34. Total Net Asset Composition**

<i>(in thousands of dollars)</i>	2013				2012 Total
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
<b>Endowment funds</b>					
General purpose . . . . .	\$ 739,162	\$ 870,306	\$ 213,760	\$ 1,823,228	\$ 1,970,777
Departments and research. . . . .	492,137	792,875	524,831	1,809,843	1,627,569
Library . . . . .	9,837	17,916	8,399	36,152	33,735
Salaries and wages . . . . .	445,062	2,073,659	647,309	3,166,030	2,979,258
Graduate general. . . . .	62,824	108,813	88,625	260,262	241,376
Graduate departments. . . . .	90,778	260,981	204,768	556,527	508,759
Undergraduate. . . . .	183,818	868,077	324,260	1,376,155	1,290,582
Prizes . . . . .	7,028	22,824	19,342	49,194	45,275
Miscellaneous . . . . .	891,085	156,003	426,326	1,473,414	1,161,177
Investment income held for distribution . . .	307,171	–	–	307,171	291,056
Endowment funds before pledges. . . . .	3,228,902	5,171,454	2,457,620	10,857,976	10,149,564
Pledges. . . . .	–	–	147,956	147,956	158,710
<b>Total endowment funds . . . . .</b>	<b>3,228,902</b>	<b>5,171,454</b>	<b>2,605,576</b>	<b>11,005,932</b>	<b>10,308,274</b>
<b>Other invested funds</b>					
Student loan funds. . . . .	20,466	–	17,313	37,779	38,102
Building funds . . . . .	57,525	77,818	–	135,343	78,786
Designated purposes:					
Departments and research . . . . .	265,216	–	–	265,216	270,541
Other purposes. . . . .	417,275	45,474	–	462,749	309,261
Real estate gift held for sale. . . . .	7,237	–	–	7,237	1,592
Life income funds . . . . .	4,430	40,879	90,076	135,385	133,219
Pledges. . . . .	–	256,638	–	256,638	320,948
Other funds available for current expenses. .	919,860	52,028	–	971,888	453,036
Funds expended for educational plant . . . . .	580,044	–	–	580,044	581,149
<b>Total other invested funds . . . . .</b>	<b>2,272,053</b>	<b>472,837</b>	<b>107,389</b>	<b>2,852,279</b>	<b>2,186,634</b>
Noncontrolling interests. . . . .	274,663	–	–	274,663	304,436
<b>Total net assets at fair value . . . . .</b>	<b>\$ 5,775,618</b>	<b>\$ 5,644,291</b>	<b>\$ 2,712,965</b>	<b>\$ 14,132,874</b>	<b>\$ 12,799,344</b>

## K. Components of Net Assets and Endowment (continued)

MIT's endowment consists of approximately 3,500 individual funds established for a variety of purposes and includes both donor-restricted endowment funds and funds designated by the Executive Committee of the MIT Corporation (Executive Committee) to function as endowment. As required by GAAP, net assets associated with endowment funds, including funds designated by the Executive Committee to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

The Executive Committee has interpreted the Massachusetts-enacted version of Uniform Prudent Management of Institutional Funds Act (UPMIFA) as allowing MIT to appropriate for expenditure or accumulate so much of an endowment fund as MIT determines is prudent for the uses, benefits, purposes and duration for which the endowment fund is established, subject to the intent of the donor as expressed in the gift instrument. Unless stated otherwise in the gift instrument, the assets in an endowment fund shall be donor-restricted assets until appropriated for expenditure by the Executive Committee.

As a result of this interpretation, MIT has not changed the way permanently restricted net assets are classified. See Note A for further information on net asset classification. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, the Executive Committee considers the following factors in making a determination to appropriate or accumulate endowment funds:

- i. the duration and preservation of the fund
- ii. the purposes of MIT and the endowment fund
- iii. general economic conditions
- iv. the possible effects of inflation and deflation
- v. the expected total return from income and the appreciation of investments
- vi. other resources of MIT
- vii. the investment policies of MIT

**Table 35. Endowment Net Asset Composition by Type of Fund**

<i>(in thousands of dollars)</i>	Unrestricted	Temporarily restricted	Permanently restricted	Total
<b>Fiscal Year 2013</b>				
Donor-restricted endowment funds . .	\$ (1,191)	\$ 5,171,454	\$ 2,605,576	\$ 7,775,839
Board-designated endowment funds . .	3,230,093	–	–	3,230,093
<b>Total endowment funds . . . . .</b>	<b>\$ 3,228,902</b>	<b>\$ 5,171,454</b>	<b>\$ 2,605,576</b>	<b>\$ 11,005,932</b>
<b>Fiscal Year 2012</b>				
Donor-restricted endowment funds . .	\$ (3,444)	\$ 4,786,012	\$ 2,519,059	\$ 7,301,627
Board-designated endowment funds . .	3,006,647	–	–	3,006,647
<b>Total endowment funds . . . . .</b>	<b>\$ 3,003,203</b>	<b>\$ 4,786,012</b>	<b>\$ 2,519,059</b>	<b>\$ 10,308,274</b>

### Underwater Endowment Funds

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the value of the initial and subsequent donor gift amounts (underwater). When underwater endowment funds exist, they are classified as a reduction of unrestricted

net assets. Total underwater endowment funds reported in unrestricted net assets were \$1.2 million and \$3.4 million as of June 30, 2013 and 2012, respectively. The underwater status of these funds resulted from unfavorable market fluctuations.

## K. Components of Net Assets and Endowment (continued)

<i>(in thousands of dollars)</i>	Unrestricted	Temporarily restricted	Permanently restricted	Total
<b>Fiscal Year 2013</b>				
Endowment net assets, July 1, 2012 .....	\$ 3,003,203	\$ 4,786,012	\$ 2,519,059	\$ 10,308,274
Investment return				
Investment income .....	19,388	48,080	13,054	80,522
Net appreciation (realized and unrealized) .....	294,247	669,225	15,983	979,455
Total investment return .....	313,635	717,305	29,037	1,059,977
Contributions .....	-	-	67,718	67,718
Appropriation of endowment assets for expenditure .....	(151,382)	(330,147)	(17,770)	(499,299)
Other charges				
Underwater gain adjustment .....	2,253	(2,253)	-	-
Net asset reclassifications and transfers to create board-designated endowment funds .....	61,193	537	7,532	69,262
<b>Endowment net assets, June 30, 2013 .....</b>	<b>\$ 3,228,902</b>	<b>\$ 5,171,454</b>	<b>\$ 2,605,576</b>	<b>\$ 11,005,932</b>
<b>Fiscal Year 2012</b>				
Endowment net assets, July 1, 2011 .....	\$ 2,889,595	\$ 4,598,751	\$ 2,365,228	\$ 9,853,574
Investment return				
Investment income .....	20,170	37,982	19,921	78,073
Net appreciation (realized and unrealized) .....	201,806	447,240	15,200	664,246
Total investment return .....	221,976	485,222	35,121	742,319
Contributions .....	-	-	115,592	115,592
Appropriation of endowment assets for expenditure .....	(142,780)	(312,757)	(13,067)	(468,604)
Other charges				
Underwater gain adjustment .....	3,627	(3,627)	-	-
Net asset reclassifications and transfers to create board-designated endowment funds .....	30,785	18,423	16,185	65,393
<b>Endowment net assets, June 30, 2012 .....</b>	<b>\$ 3,003,203</b>	<b>\$ 4,786,012</b>	<b>\$ 2,519,059</b>	<b>\$ 10,308,274</b>



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## K. Components of Net Assets and Endowment (continued)

### Investment and Spending Policies

MIT maintains its investments primarily in two investment pools: Pool A, principally for endowment and funds functioning as endowment, and Pool C, principally for investment of current funds of MIT's schools and departments and MIT's operating funds. Pool A operates as a mutual fund with units purchased and redeemed based on the previous month's unit market value of Pool A. The total market value of Pool A was \$11,753.8 million at June 30, 2013 and \$10,970.0 million at June 30, 2012. Pool A includes certain operating and life income funds totaling \$1,331.3 million at June 30, 2013 and \$1,246.5 million at June 30, 2012. Certain assets are also maintained in separately invested funds. Separately invested funds totaled \$435.4 million at June 30, 2013 and \$426.3 million at June 30, 2012.

MIT has adopted endowment investment and spending policies designed to provide a predictable stream of funding to programs supported by its endowment while maintaining the purchasing power of endowment assets. An additional investment goal is to maximize return relative to appropriate risk such that performance exceeds appropriate benchmark returns at the total pool, asset class and individual manager levels.

To achieve its long-term rate-of-return objectives, MIT relies on a total return strategy in which investment returns are realized through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends). MIT targets a diversified asset allocation that places greater emphasis on equity-based investments to achieve its long-term objectives within prudent risk constraints.

The Executive Committee of the Corporation votes to distribute funds for operational support from general investments. In accordance with MIT's spending policy, these distributions are funded from both investment income and market appreciation. The distribution rates were \$60.84 and \$58.73 per Pool A unit as of June 30, 2013 and 2012, respectively. In 2013, the amount distributed for spending from Pool A and Pool C totaled \$585.8 million, compared to \$554.3 million distributed in 2012. Included in this amount was a special distribution of \$24.0 million and \$17.7 million from gains in Pool C in 2013 and 2012, respectively. During 2013, distributions from separately invested funds were \$18.8 million, compared to \$13.1 million in 2012. The income earned in Pool C, or currently invested funds, was fully distributed.



**SECTION II**

**SCHEDULE OF EXPENDITURES OF FEDERAL  
AWARDS**



**Massachusetts Institute of Technology**  
**Schedule of Expenditures of Federal Awards**  
**For the Year Ended June 30, 2013**

<b>Federal Grantor/ Pass Through Grantor/ Program Title</b>	<b>Federal CFDA Number</b>	<b>Federal Expenditures</b>
<b>Research and Development</b>		
U.S. Department of Defense Cluster:		
Air Force		\$ 284,959,288
Army		93,518,873
Navy		67,001,837
Defense Advance Research Project Agency		54,576,447
Ballistic Missile Defense Organization		52,477,373
National Security Agency		9,290,527
Classified		158,630,930
Other Department of Defense		181,706,558
Passthrough		42,843,454
Total Department of Defense		<u>\$ 945,005,287</u>
U.S. Department of Energy		76,698,606
U.S. Department of Energy - Passthrough		16,289,255
U.S. Department of Health and Human Services		116,968,111
U.S. Department of Health and Human Services - Passthrough		19,157,435
National Aeronautics & Space Administration		35,452,758
National Aeronautics & Space Administration - Passthrough		8,858,010
National Science Foundation		63,198,685
National Science Foundation - Passthrough		16,532,947
Federal Aviation Administration		26,872,802
National Oceanic & Atmospheric Administration		6,203,838
Other Federal Sponsors**		15,926,095
Other Federal Sponsors - Passthrough		1,440,653
Total Research and Development, non-capital projects	Appendix A	<u>\$ 1,348,604,482</u>
Research and Development, Capital Projects - ARRA	Note 5	9,892,656
Total Research and Development*		<u>\$ 1,358,497,138</u>
<b>Fellowships</b>		
National Science Foundation Fellowships	47.076	<u>\$ 14,960,839</u>

\* These programs include ARRA expenditures, which are detailed in Appendix A, B, and C.

\*\* Includes Department of Education

The accompanying notes are an integral part of this schedule.

**Massachusetts Institute of Technology**  
**Schedule of Expenditures of Federal Awards**  
**For the Year Ended June 30, 2013**

<b>Federal Grantor/ Pass Through Grantor/ Program Title</b>	<b>Federal CFDA Number</b>	<b>Federal Expenditures</b>
<b>Student Financial Assistance Cluster</b>		
U.S. Department of Education:		
Grants:		
Federal Pell Grants	84.063	\$ 3,451,860
Federal Supplemental Educational Opportunity Grants	84.007	1,875,059
Federal Work Study	84.033	1,791,657
Federal Perkins Loan:	84.038	
New Loans		6,957,761
Balance Outstanding From Prior Years		31,522,713
Loan Administrative Cost Allowance		435,527
William D. Ford Federal Direct Loan Program:		
Direct Subsidized and Unsubsidized Loans	84.268	12,346,594
Direct Plus Loan for Parents and for Graduate or Professional Students	84.268	8,263,739
Total Student Financial Assistance Cluster		\$ 66,644,910
Other Federal Expenditures:		
Department of Defense	Appendix B	\$ 239,343
Department of Defense - Passthrough	Appendix C	4,454,708
Department of Energy	Appendix B	351,143
Department of Energy - Passthrough	Appendix C	465,685
Department of Health and Human Services	Appendix B	1,939,038
Department of Health and Human Services - Passthrough	Appendix C	164,180
National Aeronautics & Space Administration	Appendix B	1,700,119
National Aeronautics & Space Administration - Passthrough	Appendix C	919,131
National Science Foundation	Appendix B	1,582,041
National Science Foundation - Passthrough	Appendix C	672,032
Other Federal Sponsors**	Appendix B	942,744
Other Federal Sponsors - Passthrough**	Appendix C	439,729
Total Other Federal Expenditures*		\$ 13,869,893
Total Federal Expenditures		\$ 1,453,972,780

\* These programs include ARRA expenditures, which are detailed in Appendix A, B, and C.

\*\* Includes Department of Education

The accompanying notes are an integral part of this schedule.

# Massachusetts Institute of Technology

## Notes to Schedule of Expenditures of Federal Awards

### June 30, 2013

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#### 1. Basis of Presentation

The accompanying schedule of expenditures of federal awards and appendices A, B and C (the "Schedule") summarizes the expenditures of the Massachusetts Institute of Technology (the "Institute") under programs of the federal government for the year ended June 30, 2013. Because the Schedule presents only a selected portion of the activities of the Institute, it is not intended to and does not present the financial position, changes in net assets and cash flows of the Institute. The accompanying appendices A, B, and C provide detail on the federal awards expended by the Institute.

For purposes of the Schedule, federal awards include all grants, contracts and similar agreements entered into directly between the Institute and agencies and departments of the federal government and all subawards to the Institute by nonfederal organizations pursuant to federal grants, contracts and similar agreements. The information in this schedule is presented in accordance with the provisions of Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Nonprofit Organizations*. Therefore, certain amounts presented in the Schedule may differ from amounts presented in, or used in preparation of, the consolidated financial statements. CFDA and pass-through numbers are provided when available. Negative amounts represent adjustments to amounts reported in prior years in the normal course of business.

#### 2. Summary of Significant Accounting Policies for Federal Expenditures

Expenditures for direct costs are recognized as incurred using the accrual method of accounting and the cost accounting principles contained in OMB Circular A-21, *Cost Principles for Educational Institutions*. Under those cost principles, certain types of expenditures are not allowable or are limited as to reimbursement. Moreover, expenditures include a portion of costs associated with general Institute activities (facilities and administrative costs) which are allocated to awards under negotiated formulas commonly referred to as facilities and administrative rates.

The Institute receives funding from federal government agencies for sponsored research under government grants and contracts. These grants and contracts provide for reimbursement of indirect costs based on rates negotiated with the Office of Naval Research (ONR), the Institute's cognizant federal agency. The Institute's indirect cost reimbursements are based on fixed rates with carryforward of under or over recoveries.

The Defense Contract Audit Agency (DCAA) is responsible for auditing indirect charges to grants and contracts. The Institute has final audited rates through 2009 and negotiated fixed rates for indirect costs through the 2014 fiscal year.

#### 3. Federal Student Loan Programs

The Federal Perkins Loan Program (CFDA #84.038) is administered directly by the Institute and balances and transactions relating to this program are included in the Institute's consolidated financial statements. The amount of Perkins loan principal cancelled during the 2013 fiscal year was \$3,793 (CFDA #84.037).

**Massachusetts Institute of Technology**  
**Notes to Schedule of Expenditures of Federal Awards**  
**June 30, 2013**

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The William D. Ford Federal Direct Loan Programs (CFDA #84.268) are not administered by the Institute and balances and transactions relating to these programs are not included in the Institute's consolidated financial statements.

**4. Subrecipients**

In the Research and Development cluster (Appendix A-1, Appendix A-2 and Appendix A-3), a total of \$142,574,667 was passed-on to subrecipients.

For other programs (Appendix B and Appendix C), a total of \$74,629 was passed-on to subrecipients, as follows:

<b>Project Name</b>	<b>CFDA</b>	<b>Amount Passed to Subrecipients</b>
Can/National Needs Grant: Summer Of Innovation Pilot	43.	\$ 38,927
CDIO In Aerospace Engineering Education	43.	28,484
Policy Analysis for Complex Transport System	84.116J	7,218

**5. ARRA Research and Development Capital Projects**

In the Research and Development Cluster, the following amount was expended related to capital projects under a direct award received:

<b>Project Name</b>	<b>Department</b>	<b>CFDA</b>	<b>Federal Expenditures</b>
ARRA – Extramural Research Facilities Improvements	NIH	93.702	\$9,029,881
ARRA – Nanostructured Materials	NSF	47.082	862,775



**Appendix A**  
**Massachusetts Institute of Technology**  
**Schedule of Expenditures of Federal Awards - Worksheet**  
**Federal Research Support**  
**FY 13 Expenditures**

<u>Sponsor</u>	Campus Direct (Appendix A-1)	Lincoln Direct (Appendix A-2)	Lincoln Passthrough (Appendix A-2)	Campus Passthrough (Appendix A-3)	<u>Total</u>
Department of Defense:					
Air Force	\$ 11,515,524	\$ 273,443,764	-	-	\$ 284,959,288
Army	31,163,237	62,355,636	-	-	93,518,873
Navy	31,102,407	35,899,430	-	-	67,001,837
Defense Advance Research Project Agency	15,761,468	38,814,979	-	-	54,576,447
Ballistic Missile Defense Organization	-	52,477,373	-	-	52,477,373
National Security Agency	-	9,290,527	-	-	9,290,527
Classified	-	158,630,930	-	-	158,630,930
Other Department of Defense	1,267,804	180,438,754	-	-	181,706,558
Passthrough	-	-	600,740	42,242,714	42,843,454
Total Department of Defense	90,810,440	811,351,393	600,740	42,242,714	945,005,287
Department of Energy	72,698,726	3,999,880	-	16,289,255	92,987,861
Department of Health & Human Services	100,925,752	16,042,359	364,555	18,792,880	136,125,546
Nat'l Aeronautics & Space Administration	20,976,701	14,476,057	-	8,858,010	44,310,768
National Science Foundation	63,198,685	-	286,605	16,246,342	79,731,632
Federal Aviation Administration	-	26,872,802	-	-	26,872,802
Nat'l Oceanic & Atmospheric Administration	-	6,203,838	-	-	6,203,838
Other Federal Sponsors:					
Department of Agriculture	23,810	-	-	-	23,810
Department of Commerce	3,722,511	-	-	-	3,722,511
Department of Education	460,243	-	-	-	460,243
Department of Interior	683,244	-	-	-	683,244
Department of Transportation	4,890,465	-	-	-	4,890,465
Environmental Protection Agency	926,335	-	-	-	926,335
Nuclear Regulatory Commission	67,388	-	-	-	67,388
Other	2,670,898	2,481,201	-	-	5,152,099
Passthrough	-	-	-	1,440,653	1,440,653
Total Other Federal Sponsors	13,444,894	2,481,201	-	1,440,653	17,366,748
<b>Total Federal Sponsors</b>	<b>\$ 362,055,198</b>	<b>\$ 881,427,530</b>	<b>\$ 1,251,900</b>	<b>\$ 103,869,854</b>	<b>\$ 1,348,604,482</b>

Note for Appendices A-1, A-3, B and C details: Contracts without full CFDA numbers are shown as ".CCC" in the CFDA# column.

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

**Department of Defense**

**Air Force**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
FA7014-09-D-0011	Task Order 0004 Child: Collaborative Initiatives	12.CCC	691
FA7014-09-D-0011	Task Order 0004: Applying Lean to Mental Health Services Enterprise	12.CCC	336,339
FA8650-07-C-7704	MEMS - Grad Student Supplemental Funds	12.CCC	2,211
FA8650-07-C-7704	Hybrid Insect - MEMS - Supplemental Funds	12.CCC	907
			<b>340,148</b>
			<b>340,148</b>

**Total for Air Force**

**Air Force Office of Scientific Research - AFOSR**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
FA9550-10-1-0551	DoD Cap - FY10 Appropriation	12.630	10,509
FA9550-10-1-0551	DoD FY11 uncapped	12.630	17,669
FA9550-11-1-0011	Fabricated Equipment: Cold Atom Quantum Simulator	12.630	19,350
FA9550-11-1-0011	Uncapped Funds ? FY11 to FY12	12.630	79,806
			<b>127,334</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
FA 9550-11-1-0150	An Optimization Framework for Air Force Logistics Models	12.800	155,500
FA9550-08-1-0159	Non-DOD Cap Funds - FY11 Appropriation	12.800	100,263
FA9550-08-1-0159	Medard - Child Account	12.800	35,441
FA9550-08-1-0159	Katabi - Child Account	12.800	63,478
FA9550-08-1-0304	Non-capped DoD Funds FY12 - Van Vliet	12.800	113,661
FA9550-08-1-0379	DoD FY2011 Funding - Uncapped	12.800	33,394
FA9550-08-1-0379	Fabricated Equipment: Polisher	12.800	14,379
FA9550-08-1-0379	Smith - Child Account - Subcontract to Purdue University	12.800	423,646
FA9550-08-1-0379	Fabricated Equipment: Membrane Stacking Apparatus	12.800	35,947
FA9550-08-1-0379	MURI DoD Cap Funds FY11 Appropriation	12.800	-4,553
FA9550-08-1-0379	Smith - Child Account - Barbastathis	12.800	38,263
FA9550-09-1-0196	DoD Funds Un-Capped Child: Managing Degrees of Freedom	12.800	63,016
FA9550-09-1-0330	DoD Cap FY 2011 Appropriation	12.800	-4,105
FA9550-09-1-0363	Fab Eq (Option 2+) - Overmoded W-Band Traveling Wave Tube	12.800	63,287

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA9550-09-1-0363	FY11+ UNCAPPED funds (Option 2+)	12.800	167,798
FA9550-09-1-0420	AFOSR Child: Dahleh - DOD Uncapped FY11	12.800	27,902
FA9550-09-1-0420	AFOSR Child: Acemoglu - DOD Uncapped FY11	12.800	102,525
FA9550-09-1-0420	DoD Uncapped FY11 Appropriations - Ozdaglar	12.800	186,345
FA9550-09-1-0606	DoD Cap - FY09 Appropriation	12.800	-86,291
FA9550-09-1-0606	Hierarchical Kernel Machines: The Mathematics of Learning Inspired by Visual Cortex	12.800	198,451
FA9550-09-1-0689	DoD FY 2011 Funding- Uncapped	12.800	149,184
FA9550-09-1-0700	DOD Cap Funds FY11 - Strano	12.800	-40,718
FA9550-09-1-0700	Non DOD Cap Funds - Strano	12.800	129,737
FA9550-10-1-0063	DoD Cap Funds - FY10 Appropriation	12.800	65,905
FA9550-10-1-0063	Ultrafast Optics: Kolodziejski Child	12.800	20,883
FA9550-10-1-0063	UltraFast Optics: Kaertner Child	12.800	93,571
FA9550-10-1-0063	UltraFast Optics: Fujimoto Child	12.800	185,898
FA9550-10-1-0122	DoD FY2011 Funding -Uncapped	12.800	197,132
FA9550-10-1-0122	Dod Cap: Fy10 Appropriation	12.800	94,327
FA9550-10-1-0242	FY11 Uncapped: Biosensing Bioprocessing Devices	12.800	-91
FA9550-10-1-0395	DoD Cap Funds - FY10	12.800	83,976
FA9550-10-1-0412	DoD Uncapped - FY11	12.800	157,499
FA9550-10-1-0412	DoD Cap - FY10 Appropriation	12.800	53
FA9550-10-1-0437	DoD FY11 child - 6922649 - Jalliet	12.800	144,418
FA9550-11-1-0039	Fabricated Equipment Nanosatellite	12.800	45,171
FA9550-11-1-0039	DoD Uncapped Funds	12.800	41,441
FA9550-11-1-0059	Advanced Nanostructures for Two-Phase Fluid and Thermal Transport	12.800	120,782
FA9550-11-1-0134	Distributed Hybrid Information and Plan Consensus HIPC for Semi-autonomous UAV Teams	12.800	94,935
FA9550-11-1-0141	Design Optimizations Simulation of Wave Propagation in Metamaterials	12.800	311,886
FA9550-11-1-0168	Lossy Information Exchange and Instantaneous Communication	12.800	130,469
FA9550-11-1-0174	THERMAL REGULATION OF HEAT TRANSFER PROCESSES	12.800	282,043
FA9550-11-1-0183	Stateless Networking: Principles, Architectures and Codes	12.800	92,324
FA9550-11-1-0195	Whiter Plasma-Materials Child	12.800	224,572
FA9550-11-1-0195	Plasma-Materials Interactions in Electric Propulsion	12.800	254,247
FA9550-11-1-0195	Fab Eq - DIONISOS Upgrade	12.800	5,920
FA9550-11-1-0199	Tu(r)ning Weakness to Strength: Mechanomutable Bioinspired Materials	12.800	79,928
FA9550-11-1-0221	New Algorithms and Sparse Regularization for Synthetic Aperture Radar Imaging	12.800	20,505
FA9550-11-1-0225	Far IR Setup	12.800	11,289
FA9550-11-1-0225	Quantum Transport and Optoelectronics in Gapped Graphene Nanodevices	12.800	177,968
FA9550-11-1-0305	Statistical Models and Graph: Deconvolution via Incoherence	12.800	159,314

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA9550-11-1-0312	The Value of Information in Distributed Decision Networks	12.800	74,467
FA9550-11-1-0339	Dynamic Data Driven Methods for Self-aware Aerospace Vehicles	12.800	470,717
FA9550-12-1-0080	Fabricated Equipment: Attosecond Pulse + IR Pulse Molecular Fragmentation Interferometer	12.800	25,223
FA9550-12-1-0080	Phase-Sensitive Control of Molecular Dissociation Through Attosecond Pump/Strong-Field mid-IR	12.800	213,821
FA9550-12-1-0129	Quantitative Analysis, Design, and Fabrication of Biosensing and Bioprocessing Devices in Living Cells	12.800	189,691
FA9550-12-1-0259	Thin Film Self-Assembly of Globular Protein-Polymer Diblock Copolymers for Nanostructured Biofluidics	12.800	97,762
FA9550-12-1-0259	Fab Equipment: Flow Coater	12.800	5,536
FA9550-12-1-0287	Statistical, Graphical, and Learning Methods for Sensing, Surveillance, and Navigation Systems	12.800	122,819
FA9550-12-1-0292	YIP: Modular Paradigm for Scalable Quantum Information	12.800	108,675
FA9550-12-1-0313	Fluid SLAM and the Robotic Reconstruction of Localized Atmospheric Phenomena	12.800	101,697
FA9550-12-1-0328	Air Force Fiscal Year 2012 Young Investigator Research Program	12.800	123,397
FA9550-12-1-0348	Robust Coordination of Autonomous Systems through Risk-sensitive, Model-based Programming	12.800	68,421
FA9550-12-1-0357	Hybridized Multiscale Discontinuous Galerkin Methods for Multiphysics	12.800	127,658
FA9550-12-1-0420	Model-based optimal experimental design for complex physical systems	12.800	72,268
FA9550-12-1-0420	Collaborative Research: Model Reduction for Nonlinear and Parametric	12.800	74,748
FA9550-12-1-0499	Photonics: Science, Tech. & App. - Kaertner child acct	12.800	76,861
FA9550-12-1-0499	Advanced Photonics: Science, Tech. & App. - Fujimoto child acct	12.800	38,806
FA9550-12-1-0499	Advanced Photonics: Science, Tech. & App. - Ippen child acct	12.800	42,057
FA9550-13-1-0023	Coding instead of splitting - algebraic combinations in time and space	12.800	183,358
FA9550-13-1-0042	A Comprehensive Theory of Algorithms for Wireless Networks and Mobile Systems	12.800	12,172
FA9550-13-1-0065	Automated Discovery of New Chemical Reactions and Accurate Calculation of Their Rates	12.800	33,109
FA9550-13-1-0099	GEO Satellites as Space Weather Sensors	12.800	11,427
FA9550-13-1-0159	High-Energy, Multi-Octave-Spanning Mid-IR Sources via Adiabatic Difference Frequency Generation	12.800	27,880
			<b>7,365,485</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA9550-12-1-0423	Efficient Algorithmic Frameworks via Structural Graph Theory	12.910	366,739

**366,739**

**7,859,558**

### Air Force Research Laboratory

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA8750-11-2-0009	Biologically Inspired Circuits for Visual Search and Recognition in Complex Scenes	12.300	64,729
FA8750-11-2-0225	Proceeding Towards an Instructible Apprentice Programmer: Programming Semantics meets Nature	12.300	21,610
FA8750-11-2-0225	Computing on Encrypted Data: Theory and Applications	12.300	334,527

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

<u>Contract Number</u> FA8750-12-1-0321 FA8750-12-1-0321	<u>Government Contract Title</u> Assisted Perception, Planning and Control for Remote Mobility and Dexterous Manipulation Fabricated Equipment - Robot Movement System	<u>CFDA#</u> 12.300 12.300	<u>FY Expenses</u> 442,075 7,906 <b>870,847</b>
<u>Contract Number</u> FA8750-12-2-0110	<u>Government Contract Title</u> Provably Safe Android Apps	<u>CFDA#</u> 12.800	<u>FY Expenses</u> 1,338,347 <b>1,338,347</b>
<u>Contract Number</u> FA8650-11-1-7154 FA8650-11-1-7162	<u>Government Contract Title</u> Nonparametric Representations for Integrated Inference, Central, and Sensing Framework for Efficient Algorithms in Planar Networks and Beyond	<u>CFDA#</u> 12.910 12.910	<u>FY Expenses</u> 659,997 39,777 <b>699,774</b>
<u>Contract Number</u> FA8650-05-C-7262 FA8650-05-C-7262	<u>Government Contract Title</u> Child - Poggio Learning Locomotion: Heirarchical Reinforcement Learning for Dynamic Quadrupedal Locomotion	<u>CFDA#</u> 12.CCC 12.CCC	<u>FY Expenses</u> -4,042 5 <b>-4,037</b>
<b>Army</b>			<b>2,904,931</b>
<u>Contract Number</u> W911QY-12-1-0005	<u>Government Contract Title</u> Functional Micro-Dispensers for Controlled Release of Low Toxicity Pesticides.	<u>CFDA#</u> 12.360	<u>FY Expenses</u> 175,855 <b>175,855</b>
<u>Contract Number</u> W81XWH-09-1-0240	<u>Government Contract Title</u> An RNAI-Enhanced Circuit for Cancer-Specific Dtection and Destruction	<u>CFDA#</u> 12.420	<u>FY Expenses</u> -144 <b>-144</b>
<u>Contract Number</u> W911NF-10-1-0059 W911NF-10-1-0059 W911NF-10-1-0059	<u>Government Contract Title</u> New Treatments - Task 1 - Gene Expression New Treatments for Stress-induced Dysregulation of Circuits -Phase II - Tasks - Task 7 Goosens/ New Treatments - Task 3 - Longitudinal Neuroimaging	<u>CFDA#</u> 12.431 12.431 12.431	<u>FY Expenses</u> -101 101,424 1,024

**Appendix A-1 - Detail**  
**Massachusetts Institute of Technology**  
**Federal Research Support - On Campus**  
**Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 3/4 MIT/Coin	12.431	232,668
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 1 Goosens	12.431	178,301
W911NF-10-1-0059	New Treatments - Task 7 - Stressor Interaction	12.431	188,246
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Subawards - U Coimbra T	12.431	55,735
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 9 Goosens/	12.431	102,142
W911NF-10-1-0059	New Treatments - Task 6 - Amygdala Recordings	12.431	189,117
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Subawards - UMass Tash	12.431	159,148
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 5 Goosens/	12.431	124,895
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 10 Goosens	12.431	173,322
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Subawards - MIT Task 1	12.431	15,108
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits -Phase II - Tasks - Task 8 Goosens/	12.431	137,905
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Subawards - U Coimbra T	12.431	31,624
W911NF-10-1-0059	New Treatments - Task 4 - Neuroimaging of Reward	12.431	-517
W911NF-10-1-0059	New Treatments for Stress-induced Dysregulation of Circuits - Phase II - Tasks - Task 2 Goosens	12.431	41,133
W911NF-12-1-0036	Precision Control and Randomized Benchmarking of a 12-us Class Superconducting Qubit	12.431	48,383
			<b>1,779,557</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W31P4Q-13-1-0014	HERMES : Highly Efficient Robotic Mechanisms and Electromagnetic systems	12.91	97,298
W31P4Q-13-1-0014	Fabricated Equipment- Quadruped-Humanoid Hybrid Robots	12.91	3,008
			<b>100,306</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W31P4Q-10-1-0005	DoD Cap - FY09 Appropriation	12.910	-66,847
W31P4Q-10-1-0005	Fabricated Equipment - Double Test Chamber	12.910	11,052
W31P4Q-10-1-0005	FY11 Uncapped Opt 1: Velasquez-Heller child	12.910	428,879
W31P4Q-10-1-0005	DoD Cap - FY09 Velasquez-Heller	12.910	9
W31P4Q-10-1-0005	FY11 Uncapped: Northeastern Subaward	12.910	163,912
W31P4Q-10-1-0005	COMPACT MECHANICAL AND ION PUMPING TO ACHIEVE HIGH VACUUM	12.910	353
W31P4Q-10-1-0005	FY11 UNCAPPED Allocation: Option I	12.910	373,256
			<b>910,614</b>

**Army Aviation and Missile Command**

**Total for Army**

**2,966,188**

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W31P4Q-09-1-0007	DoD Cap Funds-FY09 Appropriation	12.910	-192,439
W31P4Q-09-1-0007	DoD Cap Funds - FY 10 Appropriation	12.910	710,992
W31P4Q-09-1-0007	Phump JHB	12.910	41,841
			<b>560,394</b>
	<b>Total for Army Aviation and Missile Command</b>		<b>560,394</b>

**Army Contracting Command - Redstone**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W31P4Q-12-1-0019	Englund QuSecComm Child	12.910	15,226
W31P4Q-12-1-0019	BBN - Child	12.910	43,625
W31P4Q-12-1-0019	Quantum Secured Communications (QuSecComm)	12.910	20,177
W31P4Q-13-1-0013	HAMR: Hosoi child	12.910	1,173
W31P4Q-13-1-0013	HAMR: Iagnemma child	12.910	10,941
			<b>91,142</b>
	<b>Total for Army Contracting Command - Redstone</b>		<b>91,142</b>

**Army Corps of Engineers**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W912HQ-09-C-0008	Passive PE Sampling of In Situ Remediation of Contaminated Sediments	12.431	85,312
W912HQ-10-C-0005	Robust Means for Estimating Black Carbon-Water Sorption Coefficients of Organic Contaminants in	12.431	23,642
			<b>108,954</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W9132T-11-2-0031	High-throughput Diagnostic Long-Wave Infrared (LWIR) Scanning of Ft. Drum Building Envelopes	12.630	3
			<b>3</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
W912HZ-12-C-0027	Modeling and Estimation of Terrain Properties from Proprioceptive and Exteroceptive Vehicle Sens	12.CCC	46,715
			<b>46,715</b>
	<b>Total for Army Corps of Engineers</b>		<b>155,672</b>

**Army Materiel - Miscellaneous**

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number W911NF-12-1-0306	Government Contract Title China's Emerging Capabilities in Energy Technology Innovation and Development	CFDA# 12.431	FY Expenses 292,641
			<b>292,641</b>
	<b>Total for Army Materiel - Miscellaneous</b>		<b>292,641</b>
<b>Army Research Office</b>			
Contract Number W911NF-11-C-0101	Government Contract Title Threat-Based Semi-Autonomous Operator Assistance Algorithms for Ground Vehicles	CFDA# 12.300	FY Expenses 154,520
			<b>154,520</b>
Contract Number W911NF-07-1-0139	Government Contract Title Kinetics and Mechanisms of the Destruction of Toxic Agents by Recyclable Catalytic Nanoparticles	CFDA# 12.431	FY Expenses 5,844
W911NF-07-1-0493	Quantum Emulations - Toronto	12.431	150,291
W911NF-07-1-0493	Quantum Emulations - CNRS	12.431	130,000
W911NF-07-1-0493	Quantum Emulations - Harvard	12.431	312,128
W911NF-07-1-0493	Quantum Emulations-Harvard	12.431	-37,938
W911NF-07-1-0493	Quantum Emulations of New Materials Using Ultracold Atoms	12.431	56,697
W911NF-07-1-0493	Fabricated Equipment: Cold Atom Source.	12.431	10,614
W911NF-07-1-0493	Quantum Emulations-Amherst	12.431	124,145
W911NF-07-1-0493	Quantum Emulations - Amherst UMass	12.431	-600
W911NF-07-1-0493	Quantum Emulations-Austin	12.431	144,270
W911NF-07-1-0493	Fabricated Equipment - Strongly Interacting Fermi Mixtures in 2D	12.431	67,549
W911NF-07-1-0493	Quantum Emulations-Ecole Polytechnique	12.431	56,083
W911NF-07-1-0493	Quantum Emulations-Innsbruck	12.431	191,620
W911NF-07-1-0493	Quantum Emulations - Innsbruck	12.431	53,583
W911NF-07-1-0493	Fabricated Equipment: Imbalanced Fermi Mixtures In Optical Lattices	12.431	3,583
W911NF-07-1-0493	Ketterle Research	12.431	177
W911NF-07-1-0493	Quantum Emulations-CNRS	12.431	70,029
W911NF-07-1-0493	Zwierlein Research	12.431	-23,486
W911NF-07-1-0493	Fabricated Equipment - Imbalanced Fermi Mixtures in Optical Lattices	12.431	-175
W911NF-07-1-0493	Ketterle Research	12.431	210,959
W911NF-07-1-0493	Quantum Emulations - LMU	12.431	166,189
W911NF-08-1-0458	Dod Cap Funds - FY10 Appropriation	12.431	20,449
W911NF-09-1-0222	DoD Cap Funds	12.431	-288,703
W911NF-09-1-0222	DoD Uncapped Funds	12.431	585,244



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-09-1-0222	FY10 DoD Capped fund	12.431	-74,301
W911NF-09-1-0422	DOD Cap- FY10 Appropriation	12.431	48,103
W911NF-09-1-0438	The Design of Quantum Algorithms Using Physics Tools	12.431	74,345
W911NF-09-1-0448	DoD Cap Funds -FY10 Appropriation: Malone	12.431	1,157
W911NF-09-1-0448	Uncapped	12.431	157,990
W911NF-09-1-0480	DoD Funding - Uncapped	12.431	16,052
W911NF-09-1-0480	DoD Cap - FY09 Appropriation	12.431	9,996
W911NF-09-1-0480	Dod Cap - FY10 Appropriation	12.431	39,416
W911NF-09-1-0556	DODCap funds FY09 Appropriation - Ozdaglar	12.431	103,227
W911NF-09-1-0556	DOD Uncapped funds FY11 - Ozdaglar	12.431	194,351
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Stojanovic FY11	12.431	17,489
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - CMU FY11	12.431	136,607
W911NF-10-1-0088	DoD Cap - FY10 Appropriation	12.431	-8,746
W911NF-10-1-0088	DoD Uncapped - FY11 Appropriation	12.431	96
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? Stojanovic Phase II	12.431	188,116
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? Avniel Phase II	12.431	117,900
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Admin FY11	12.431	-31
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? Megretski Phase II	12.431	109,124
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Fabricated Equipment FY11	12.431	85,105
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Stojanovic FY10	12.431	342
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Megretski FY11	12.431	3,531
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? Ricketts Phase II	12.431	274,637
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? ADMIN Phase II	12.431	19,213
W911NF-10-1-0088	Asymmetric Multilevel Outphasing - Dawson Phase II	12.431	128,309
W911NF-10-1-0088	DOD uncapped - Phase II	12.431	-802
W911NF-10-1-0088	Asymmetrical Multilevel Outphasing ? CMU Phase II	12.431	161,525
W911NF-10-1-0127	Uncapped Funds	12.431	413,610
W911NF-10-1-0430	Quantum Illumination-Based Target Detection and Discrimination	12.431	124,243
W911NF-10-1-0430	DoD Cap FY 10 Appropriation	12.431	199,366
W911NF-10-2-0049	ARL - Palacios	12.431	6,469
W911NF-10-2-0049	Bilayer Graphene: Growth, Characterization and Devices	12.431	54,304
W911NF-10-2-0049	ARL - Jarillo-Herrero	12.431	-1,713
W911NF-10-2-0049	ARL - Dresselhaus	12.431	29,787
W911NF-10-2-0049	ARL - Kong	12.431	56,350
W911NF-10-2-0065	The Mind of the Mind's Eye	12.431	62,807
			406,587

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-11-1-0096	DOD Cap - FY 11 Appropriation	12.431	347,564
W911NF-11-1-0202	Optical Transition Clocks - Cornell University	12.431	302,989
W911NF-11-1-0202	Optical Transition Clocks - University of Insbruck	12.431	128,285
W911NF-11-1-0202	Optical Transition Clocks - Ecole Polytechnique	12.431	107,511
W911NF-11-1-0202	Optical Transition Clocks - University of Colorado	12.431	319,529
W911NF-11-1-0202	Optical-Transition Clocks With Microfabricated Frequency Combs For Performance Beyond the State of the Art	12.431	223,842
W911NF-11-1-0202	Fabricated Equipment - Trapped Atom Optical - Transition Clock	12.431	113,295
W911NF-11-1-0281	Biologically Patterned Amyloid Scaffolds for Multifunctional and Multiscale Materials	12.431	280,398
W911NF-11-1-0331	Fabricated Equipment - SHG Interferometer	12.431	2,607
W911NF-11-1-0331	Fabricated Equipment - EUV Beamline	12.431	18,230
W911NF-11-1-0331	Identification and Manipulation of Novel Topological Phases	12.431	141,476
W911NF-11-1-0400	Post Docs - Off Campus	12.431	95,676
W911NF-11-1-0400	Lloyd - Research	12.431	102,135
W911NF-11-1-0400	Multi-Qubit Enhanced Sensing and Metrology	12.431	1,557
W911NF-11-1-0400	Harvard University	12.431	379,030
W911NF-11-1-0400	Vuletic - Research	12.431	227,176
W911NF-11-1-0400	University Of Connecticut	12.431	35,522
W911NF-11-1-0400	Cappellaro - Research	12.431	215,042
W911NF-11-2-0054	Multi-input, multimodal, mammalian information processing circuits - Subawards	12.431	284,612
W911NF-11-2-0054	Multi-input, multimodal, mammalian information processing circuits	12.431	353,184
W911NF-11-2-0054	Irvine child	12.431	89,164
W911NF-11-2-0054	Multi-input, multimodal, mammalian information processing circuits - C. Voigt	12.431	115,149
W911NF-12-1-0290	Developing Novel Frameworks for Many-Body Ensembles	12.431	88,360
W911NF-12-1-0435	Fabricated Equipment: Optical Set up for High Power Optical Lattices for a Li-7 Experiment	12.431	39,255
W911NF-12-1-0486	Quantum Algorithms where Physics and Math Meet	12.431	138,663
W911NF-13-1-0031	Zwierlein Research	12.431	21,306
W911NF-13-1-0031	Fabricated Equipment: Optical Lattice Emulator	12.431	21,120
W911NF-13-1-0031	Ketterle Research	12.431	30,827
W911NF-13-1-0031	New Forms of Matter in Optical Lattices	12.431	308
W911NF-13-1-0031	Fabricated Equipment: BEC 4	12.431	1,629
W911NF-13-1-0031	Harvard University Subaward	12.431	39,497
W911NF-13-1-0063	Measurement and Analysis of Granular Soil Beneath Lightweight Robotic Running Gear	12.431	633
<b>9,428,684</b>			

FY Expenses  
48,268

CFDA#  
12.910

Government Contract Title  
Fabricated Equipment: Microphotonic Probe Station

Contract Number  
W911NF-12-1-0210

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-12-1-0210	Silicon Photonic 3D- Integrated Reduced Energy Transmission (SPIRET)	12.910	334,380
W911NF-12-1-0210	SPIRET Child acct Stojanovic	12.910	75,893
			<b>458,541</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-11-C-0201	Enabling Novel Minimally-Actuated Robotic Capabilities Through Active Fluids	12.CCC	432,853
W911NF-11-C-0201	Iagnemma child: Maximum Mobility	12.CCC	55,260
W911NF-11-C-0201	Culpepper child: Maximum Mobility	12.CCC	73,022
			<b>561,135</b>

### Total for Army Research Office

**10,602,880**

### ARO-ISN UARC

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-13-D-0001, T.O. 1	ISN3 - Management (No F&A)	12.431	173,631
W911NF-13-D-0001, T.O. 1	ISN3 - Management & Outreach (TO1)	12.431	39,996
W911NF-13-D-0001, T.O. 1	ISN3 - Outreach	12.431	78,774
W911NF-13-D-0001, T.O. 2	ISN3 - Research Enrichment (TO2)	12.431	431,777
W911NF-13-D-0001, T.O. 3	ISN3-1.4.1 Tailored Nano-Particles For Obscurant Applications	12.431	30,216
W911NF-13-D-0001, T.O. 3	ISN3-1.3.2 Responsive Surface Texturing and Coloring	12.431	42,677
W911NF-13-D-0001, T.O. 3	ISN3-1.3.1 Nanostructured Hybrid Interfaces	12.431	96,824
W911NF-13-D-0001, T.O. 3	ISN3-1.1.1 Hybrid Quantum Dot-Based Imagers and Emitters with Broadly Tunable Spectral Chara	12.431	146,482
W911NF-13-D-0001, T.O. 3	ISN3-1.2.1 Graphene Devices For Next-Generation Night Vision Systems	12.431	93,036
W911NF-13-D-0001, T.O. 3	ISN3-1.3.3 Enabling Architectures And Technologies for Next-Generation Fiber Devices	12.431	122,532
W911NF-13-D-0001, T.O. 4	ISN3-2.3.3 Delivery Of Brain Lipid Nanoparticles Using Microtech Devices for Treatment of Traum:	12.431	125,107
W911NF-13-D-0001, T.O. 4	ISN3-2.1.1 Nanotechnology For Stimulating, Sampling, and Monitoring Immunity	12.431	50,959
W911NF-13-D-0001, T.O. 4	ISN3-2.2.1 Rapid Reconstitution Packages of Lyophilized Medicines	12.431	103,587
W911NF-13-D-0001, T.O. 4	ISN3-2.3.4 Complementary Wound-Healing Strategies Enabled by Synthetic Biology and Nanotecr	12.431	90,643
W911NF-13-D-0001, T.O. 4	ISN3-2.3.1 Nano-Structured Biomaterials for Treatment of Hemorrhagic Shock	12.431	54,250
W911NF-13-D-0001, T.O. 4	ISN3-2.3.2 Multi-Component Nanolayer Assemblies for Soldier Wound Healing & Remediation	12.431	39,451
W911NF-13-D-0001, T.O. 5	ISN3-3.3.2 Electromechanical Interactions in Blast-Induced Traumatic Brain Injury	12.431	53,713
W911NF-13-D-0001, T.O. 5	ISN3-3.3.3 Molecular To Macroscale Exploration of Fundamental Properties of Gels	12.431	71,770
W911NF-13-D-0001, T.O. 5	ISN3-3.1.1 Nanocomposite Metamaterial Architectures for Guiding Energy Dissipation and Wave F	12.431	97,717
W911NF-13-D-0001, T.O. 5	ISN3-3.3.1 Blast-Induced Tbi: Connections Among the Physical, Biological and Behavioral Dimensi	12.431	72,615
W911NF-13-D-0001, T.O. 5	ISN3-3.4.1 Advanced Computational Tools for Multi-scale Modeling and Simulation of Multi-Threat	12.431	58,110

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-13-D-0001, T.O. 5	ISN3-3.5.1 Biological and Bio-Inspired Reconfigurable Flexible and Protective Joints	12.431	86,737
W911NF-13-D-0001, T.O. 5	ISN3-3.3.4 Predictive Multi-Scale Deformation and Injury of Soft Tissues	12.431	49,090
W911NF-13-D-0001, T.O. 5	ISN3-3.5.2 Design And Synthesis Of Carbon-based Chainmaille Structures for Flexible, Ultra-light	12.431	61,017
W911NF-13-D-0001, T.O. 5	ISN3-3.2.1 Layered /Graded Nanocrystalline & Superelastic-Fiber Alloys for Lightweight Protection	12.431	146,813
W911NF-13-D-0001, T.O. 5	ISN3-3.4.2 High-Performance Woven Fabrics and Woven Reinforced Composites for Soldier Prote	12.431	33,545
W911NF-13-D-0001, T.O. 6	ISN3-4.1.4 Molecular Recognition Using Carbon Nanotube Adsorbed Polymer and Bio-Polymer Ph	12.431	30,241
W911NF-13-D-0001, T.O. 6	ISN3-4.1.3 Rugged, High Sensitivity Integrated Photonic Chemical Sensing	12.431	70,512
W911NF-13-D-0001, T.O. 6	ISN3-4.1.1 Graphene Sensing For Detection of Foodborne and Other Pathogens	12.431	86,939
W911NF-13-D-0001, T.O. 6	ISN3-4.2.1 Chem-Bio Analyte Sensing with Hybrid Quantum Dot Constructs	12.431	43,994
W911NF-13-D-0001, T.O. 6	ISN3-4.1.2 Resistivity-Based Microfluidic Biosensing	12.431	138,912
W911NF-13-D-0001, T.O. 7	ISN3-5.2.1 Multifunctional Integrated Fabrics	12.431	97,302
W911NF-13-D-0001, T.O. 7	ISN3-5.2.2 Enabling Novel Lightwave Phenomena	12.431	63,660
W911NF-13-D-0001, T.O. 7	ISN3-5.1.1 Ferroelectric Acoustic Fibers	12.431	71,294
W911NF-13-D-0001, T.O. 7	ISN3-5.3.1 Novel Thermal Radiation Management Using Advanced Photonic Crystals	12.431	156,511
W911NF-13-D-0001, T.O. 7	ISN3-5.2.3 Spatial Awareness Around Corners	12.431	21,987
W911NF-13-D-0001, T.O. 8	Tuning the Optical Properties of Multi-Layered Nanoparticles Using Exciton-Plasmon Coupling	12.431	4,257
W911NF-13-D-0001, T.O. 8	Controlled Release From Surfaces For Battlefield Medicine	12.431	49,969
W911NF-13-D-0001, T.O. 8	Device For Non-Invasive Rapid Determination of Hydration State	12.431	29,031
W911NF-13-D-0001, T.O. 8	Novel Ultrasound Transducing Fabrics For the Continuous Monitoring and Early Detection of Pneu	12.431	70,034
W911NF-13-D-0001, T.O. 8	An Autonomous, Adaptive, Responsive and Modular Second Skin Based on Organohydrogels	12.431	50,913
W911NF-13-D-0001, T.O. 8	Devices For Monitoring Tissue Oxygenation in Compartment Syndrome Patients	12.431	71,055
W911NF-13-D-0001, T.O. 8	A Simulation Study to Assist the Development of a Standard Blast Test for Head Protection Equipm	12.431	897
W911NF-13-D-0001, T.O. 8	Materials For Non-Invasive And Cell-Targeted Drug Delivery	12.431	21,662

**3,530,239**

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-07-D-0004	ISN Management (no F&A)	12.CCC	174,900
W911NF-07-D-0004	Outreach for the ISN	12.CCC	125,867
W911NF-07-D-0004, T.O. 1	ISN Management & Outreach Task Order 1	12.CCC	68,103
W911NF-07-D-0004, T.O. 3	ISN SRA 1 Task Order: Light Weight, Multifunctional Nanostructured Fibers and Materials - Task O	12.CCC	-329
W911NF-07-D-0004, T.O. 3	ISN3-1.4.1 Tailored Nano-particles for Next-Generation Night Vision Systems	12.CCC	67,406
W911NF-07-D-0004, T.O. 3	ISN3-1.2.1 Graphene Devices for Next-Generation Night Vision Systems	12.CCC	71,952
W911NF-07-D-0004, T.O. 3	ISN 1.2.2 - Quantum Dot Photodetectors	12.CCC	54,598
W911NF-07-D-0004, T.O. 3	ISN3-1.3.3 Enabling Architectures and Technologies for Next-Generation Fiber Devices	12.CCC	114,119
W911NF-07-D-0004, T.O. 3	ISN3-1.1.1 Hybrid Quantum Dot-Based Imagers and Emitters with Broadly Tunable Spectral Chara	12.CCC	152,873
W911NF-07-D-0004, T.O. 3	ISN 1.2.3 - Smart Quantum Dot Sensors	12.CCC	-45,368

## Appendix A-1 - Detail

### Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-07-D-0004, T.O. 3	ISN 1.4.1 - Active Multimaterial Fibers	12.CCC	20,522
W911NF-07-D-0004, T.O. 3	ISN3-1.3.2 Responsive Surface Texturing and Coloring	12.CCC	95,370
W911NF-07-D-0004, T.O. 3	ISN3-1.3.1 Nanostructured Hybrid Interfaces	12.CCC	69,472
W911NF-07-D-0004, T.O. 3	ISN 1.1.1 - Surface Active Multifunctional Fabrics	12.CCC	119,857
W911NF-07-D-0004, T.O. 3	ISN 1.2.1 - Integrated Microfluidic Synthesis of Nanostructures	12.CCC	28,544
W911NF-07-D-0004, T.O. 3	ISN 1.3.1 Engineering Carbon Nanotubes for Trace Sensing and Dramatically Increased Individual	12.CCC	17,465
W911NF-07-D-0004, T.O. 4	ISN 2.1.1 - Nanostructured Actuators: First Principles to Fabrication	12.CCC	16,171
W911NF-07-D-0004, T.O. 4	ISN3-2.2.1 Rapid Reconstitution Packages of Lyophilized Medicines	12.CCC	115,021
W911NF-07-D-0004, T.O. 4	ISN 2.3.1 - MEMS Based Device for the Prevention of Hemorrhagic Shock	12.CCC	39,268
W911NF-07-D-0004, T.O. 4	ISN3-2.3.3 Delivery of Brain Lipid Nanoparticles Using Microtech Devices for Treatment of Trauma	12.CCC	127,218
W911NF-07-D-0004, T.O. 4	ISN 2.2.1 - New Controlled Release Films and Functional Surfaces for Battlefield Medicine	12.CCC	4,098
W911NF-07-D-0004, T.O. 4	ISN 2.3.3 - Integrated Amplifying Fluorescent Polymer Biosensory Systems	12.CCC	17,424
W911NF-07-D-0004, T.O. 4	ISN 2.3.2 - Non-invasive Delivery and Sensing	12.CCC	30,304
W911NF-07-D-0004, T.O. 4	ISN 2.2.2 - Environment-Sensitive Micellar Nanocapsules for Non-Invasive Drug Delivery	12.CCC	21,573
W911NF-07-D-0004, T.O. 4	ISN3-2.3.1 Nano-structured Biomaterials for Treatment of Hemorrhagic Shock	12.CCC	70,316
W911NF-07-D-0004, T.O. 4	ISN3-2.1.1 Nanotechnology for Stimulating, Sampling, and Monitoring Immunity	12.CCC	71,764
W911NF-07-D-0004, T.O. 4	ISN3-2.3.2 Multi-component Nanolayer Assemblies for Soldier Wound Healing	12.CCC	55,290
W911NF-07-D-0004, T.O. 4	ISN3-2.3.4 Complementary Wound-Healing Strategies Enabled by Synthetic Biology and Nanotech	12.CCC	87,049
W911NF-07-D-0004, T.O. 5	ISN 3.1.3 - Nanomechanical Heterogeneity As A Design Strategy In Natural and Biomimetic Body /	12.CCC	4,456
W911NF-07-D-0004, T.O. 5	ISN3-3.4.1 Advanced Computational Tools for Multi-scale Modeling and Simulation of Multi-Threat	12.CCC	85,656
W911NF-07-D-0004, T.O. 5	ISN3-3.2.1 Layered /Graded Nanocrystalline & Superelastic-Fiber Alloys for Lightweight Protection	12.CCC	150,492
W911NF-07-D-0004, T.O. 5	ISN3-3.3.2 Electromechanical Interactions in Blast-Induced Traumatic Brain Injury	12.CCC	80,033
W911NF-07-D-0004, T.O. 5	ISN3-3.4.2 High-Performance Woven Fabrics & Woven Reinforced Composites for Soldier Protecti	12.CCC	66,901
W911NF-07-D-0004, T.O. 5	ISN 3.2.2 - Nanoscale Chermomechanics of Soft Tissue Impact-Trauma Behind Rigid vs. Flexible A	12.CCC	-21,740
W911NF-07-D-0004, T.O. 5	ISN3-3.1.1 Nanocomposite Metamaterial Architectures for Guiding Energy Dissipation & Wave Pro	12.CCC	129,744
W911NF-07-D-0004, T.O. 5	ISN3-3.3.4 Predictive Multi-scale Deformation and Injury of Soft Tissues	12.CCC	85,225
W911NF-07-D-0004, T.O. 5	ISN 3.1.2 - Ultra Light Weight Micro Trusses and Photopatterned Nanocomposites	12.CCC	25,247
W911NF-07-D-0004, T.O. 5	ISN3-3.3.1 Blast-Induced TBI: Connections Among the Physical, Biological, and Behavioral Dimen:	12.CCC	60,626
W911NF-07-D-0004, T.O. 5	ISN 3.1.1 - Molecular Approaches to Mechanical Properties for Ballistic Protection	12.CCC	30,603
W911NF-07-D-0004, T.O. 5	ISN 3.3.1 - Light Nanocrystalline Alloy Fibers for Impact and Blast Protection	12.CCC	37,827
W911NF-07-D-0004, T.O. 5	ISN 3.1.7 - Morphometric Origins of Biological and Bio-inspired Exoskeleton Design via Mechanics	12.CCC	19,216
W911NF-07-D-0004, T.O. 5	ISN3-3.3.3 Molecular to Macroscale Exploration of Fundamental Properties of Gels	12.CCC	154,999
W911NF-07-D-0004, T.O. 5	ISN 3.2.1 - Materials and Structures for Blast Damage and Injury Mitigation	12.CCC	188,997
W911NF-07-D-0004, T.O. 5	ISN3-3.5.1 Biological and Bio-inspired Reconfigurable Flexible & Protective Joints	12.CCC	88,677
W911NF-07-D-0004, T.O. 5	ISN 3.1.5 - Nanoscale Superelastic Alloys for Integration Into Flexible Armor	12.CCC	40,877
W911NF-07-D-0004, T.O. 5	ISN3-3.5.2 Design and Synthesis of Carbon-based Chainmaille Structures for Flexible, Ultra-lightw	12.CCC	77,877

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-07-D-0004, T.O. 5	ISN 3.1.4 - Top Down Placement and Assembly of Graphene Chainmaille Structures	12.CCC	2,198
W911NF-07-D-0004, T.O. 6	ISN 4.1.3 - Virucidal Coatings	12.CCC	86,412
W911NF-07-D-0004, T.O. 6	ISN 4.2.1 - Fluorescence Microscopy at Sub 5-nm Scale	12.CCC	18,116
W911NF-07-D-0004, T.O. 6	ISN 4.1.2 - Switchable Surfaces and Novel Elastomers for Improving Cell Function and Device Performance	12.CCC	467
W911NF-07-D-0004, T.O. 6	ISN3-4.1.4 Molecular Recognition Using Carbon Nanotube Adsorbed Polymer and Bio-Polymer Ph	12.CCC	53,545
W911NF-07-D-0004, T.O. 6	ISN3-4.1.1 Graphene Sensing for Detection of Foodborne and Other Pathogens	12.CCC	75,841
W911NF-07-D-0004, T.O. 6	ISN 4.1.1 - Chemically Vapor Deposited (CVD) Functional Polymeric Nanocoatings	12.CCC	31,003
W911NF-07-D-0004, T.O. 6	ISN3-4.1.2 Resistivity-Based Microfluidic Biosensing	12.CCC	98,515
W911NF-07-D-0004, T.O. 6	ISN3-4.2.1 Chem-Bio Analyte Sensing with Hybrid Quantum Dot Constructs	12.CCC	47,083
W911NF-07-D-0004, T.O. 6	ISN 4.3.1 - Nanostructured Origami	12.CCC	55,985
W911NF-07-D-0004, T.O. 6	ISN3-4.1.3 Rugged, High Sensitivity Integrated Photonic Chemical Sensing	12.CCC	110,194
W911NF-07-D-0004, T.O. 7	ISN3-5.3.1 Novel Thermal Radiation Management Using Advanced Photonic Crystals	12.CCC	143,542
W911NF-07-D-0004, T.O. 7	ISN 5.1.2 Graphene Devices for Future Multifunctional Battle Suits	12.CCC	4,625
W911NF-07-D-0004, T.O. 7	ISN 5.3.1 - Nanophotonics for the Enhancement of Optical Nonlinear Functionalities	12.CCC	64,591
W911NF-07-D-0004, T.O. 7	ISN 5.4.1 - Nanophotonics for Enhancement of Nonlinear Operations	12.CCC	48,304
W911NF-07-D-0004, T.O. 7	ISN 5.1.1 - Nanoelectronics	12.CCC	82,066
W911NF-07-D-0004, T.O. 7	ISN 5.2.1 - Fabric Systems That See	12.CCC	17,712
W911NF-07-D-0004, T.O. 7	ISN3-5.2.1 Multifunctional Integrated Fabrics	12.CCC	111,457
W911NF-07-D-0004, T.O. 7	ISN3-5.2.2 Enabling Novel Lightwave Phenomena	12.CCC	69,526
W911NF-07-D-0004, T.O. 7	ISN3-5.1.1 Ferroelectric Acoustic Fibers	12.CCC	94,559
W911NF-07-D-0004, T.O. 7	ISN 5.1.2 Graphene Devices for Future Multifunctional Battle Suits.	12.CCC	6,434
W911NF-07-D-0004, T.O. 7	ISN3-5.2.3 Spatial Awareness Around Corners	12.CCC	65,013
W911NF-07-D-0004, T.O. 8	Tuning the Optical Properties of Multi-Layered Nanoparticles Using Exciton-Plasmon Coupling	12.CCC	343
W911NF-07-D-0004, T.O. 8	Fabricated Equipment: Computing Workstation	12.CCC	-1,074
W911NF-07-D-0004, T.O. 8	Development of Superoleophobic Coated Materials for CB Protective Clothing	12.CCC	39,403
W911NF-07-D-0004, T.O. 8	High Performance Polymer Nanofibers for Ballistic and Blast Protection	12.CCC	110,877
W911NF-07-D-0004, T.O. 8	Improving the Performance of Electrospun Materials and Their Composites Under End-Use Conditions	12.CCC	48,773
W911NF-07-D-0004, T.O. 8	Controlled Release from Surfaces for Battlefield Medicine	12.CCC	53,508
W911NF-07-D-0004, T.O. 8	Novel Ultrasound Transducing Fabrics for the continuous monitoring and early detection of pneumonia	12.CCC	110,929
W911NF-07-D-0004, T.O. 8	Device For Non-Invasive Rapid Determination Of Hydration State	12.CCC	72,321
W911NF-07-D-0004, T.O. 8	Engineering Carbon Nanotubes for Trace Sensing and Mechanical Reinforcement	12.CCC	1,805
W911NF-07-D-0004, T.O. 8	3D Hydrogel Scaffolding for Cell and Tissue Support	12.CCC	-238
W911NF-07-D-0004, T.O. 8	Materials for non-invasive and cell-targeted drug therapy	12.CCC	43,222
W911NF-07-D-0004, T.O. 8	Devices For Monitoring Tissue Oxygenation In Compartment Syndrome Patients	12.CCC	137,525
W911NF-07-D-0004, T.O. 8	Design of Nanostructured Enzyme-Micelle Conjugate for Decontamination of Aircraft Surfaces	12.CCC	199,286
W911NF-07-D-0004, T.O. 9	Xtalic 6.2 Project Funds	12.CCC	2,910

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-07-D-0004, T.O. 9	(SIMM) Fibers For Multianalyte Explosive	12.CCC	34,335
W911NF-07-D-0004, T.O. 9	UV-IR Focal Plane Array Imager	12.CCC	88,793
W911NF-07-D-0004, T.O. 9	UV-IR Focal Plane Array Imager	12.CCC	4,839
W911NF-07-D-0004, T.O. 9	FY 2011: ISN Technology 6.2	12.CCC	681,783
W911NF-07-D-0004, T.O. 9	FY 2012: ISN Technology 6.2	12.CCC	1,302,738
W911NF07-D-0004, T.O. 2	ISN Research Enrichment Task Order 2	12.CCC	1,930,888
			<b>9,246,714</b>
			<b>12,776,953</b>

**Total for ARO-ISN UARC**

### Asian Office of Aerospace Research and Development

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA2386-10-1-4135	DOD Appropriations - Uncapped Funds	12.800	227,989
FA2386-11-1-4074	Silicon nano-tips and related nano-systems involving fluid and carrier transport for miniaturized spa	12.800	96,971
FA2386-12-1-3029	A DURIP Instrument to Characterize Water-Splitting Catalysts to Enable	12.800	114,806
			<b>439,766</b>
			<b>439,766</b>

**Total for Asian Office of Aerospace Research and Development**

### Defense Advanced Research Projects Agency

Contract Number	Government Contract Title	CFDA#	FY Expenses
HR0011-12-1-0003	Living Foundries: Bio Fab Lab	12.190	439,611
			<b>439,611</b>
			<b>439,611</b>

  

Contract Number	Government Contract Title	CFDA#	FY Expenses
W911NF-12-1-0540	Competition for Shared Resources in the Cellular Chassis: Impact on Synthetic Circuits	12.431	203,346
W911NF-12-2-0039	ALM: Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Construct S	12.431	68,052
W911NF-12-2-0039	TASK 5. Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Constr	12.431	265,266
W911NF-12-2-0039	LAUFFENBURGER: Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tiss	12.431	98,464
W911NF-12-2-0039	TASK 1. Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Constr	12.431	448,445
W911NF-12-2-0039	IRVINE: Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Constr	12.431	52,270
W911NF-12-2-0039	Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Construct System:	12.431	2,502,485
W911NF-12-2-0039	TASK 2. Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue Constr	12.431	254,357
W911NF-12-2-0039	TANNENBAUM: Barrier?Immune?Organ: Microphysiology, Microenvironment Engineered Tissue (	12.431	615,086
			<b>4,507,771</b>

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

Contract Number	Government Contract Title	CFDA#	FY Expenses
HR0011-09-1-0048	Absolute Algebraic Geometry, Arithmetic Cohomology, and the Riemann Hypothesis	12.910	-55,553
HR0011-11-2-0008	Generalized Grounding Models for Robotic Language Acquisition	12.910	330,547
HR0011-12-1-0013	MIT PRIMES: Program for Research in Mathematics, Engineering, and Science for High School Students	12.910	125,118
HR0011-12-1-0013	Participant Support	12.910	4,006
HR0011-12-2-0007	Subcontract to CSNE - E-PHI	12.910	807,497
HR0011-12-2-0007	DARPA E-Phi-Equipment	12.910	125,040
HR0011-12-2-0007	DRAPA E-PHI Watts child account	12.910	275,910
HR0011-12-2-0007	DRAPA E-PHI Ippen child account	12.910	90,069
HR0011-12-2-0007	Fabricated Equipment: Microphotonic Probe Station	12.910	42,721
HR0011-12-2-0007	DRAPA E-PHI Kolodziejski child account	12.910	135,196
HR0011-12-2-0007	Watts Child Acct - Supplement Project	12.910	273,628
HR0011-12-2-0007	E-PHI Kaertner Child Account	12.910	121,579
HR0011-12-2-0007	Ebrium Silicon Photonic Integrated Oscillator and RADAR (ESPIOR)	12.910	-18
HR0011-12-2-0007	DRAPA E-PHI Stojanovic child account	12.910	146,850
HR0011-12-C-0067	Chris Voigt - child account	12.910	677,984
HR0011-12-C-0067	Ron Weiss - child account	12.910	115,482
HR0011-12-C-0067	Establishment of an MIT Foundry for Massively Multi-Part System Engineering	12.910	589,183
HR0011-12-C-0068	Living Foundries: Synthetic Physiology: High-speed Closed-Loop Control of Synthetic Biology Systems	12.910	950,492
HR0011-13-2-0005	Carbon: Embedded Organic Computing	12.910	133,375
HR0011-13-2-0009	Membrane-Enhanced Evaporative Cooling for High Flux Thermal Management	12.910	20,433
W31P4Q-11-1-0007	Fabricated Equipment - Electrospays Vacuum Chamber	12.910	14,570
W31P4Q-11-1-0007	High-Throughput MEMS/NEMS Electrospinning Sources for Low-Cost Multifunctional Soldier Protection	12.910	42,497
W31P4Q-11-1-0007	Fabricated Equipment - Tool to Study Absorption and Spreading of Liquid Samples	12.910	5,426
			<b>4,972,032</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
FA8650-11-C-7192	Williams - Mission-oriented Resilience through Risk-sensitive Processes and Model-based Execution	12.CCC	194,894
FA8650-11-C-7192	Cloud Intrusion Detection and Repair	12.CCC	947,989
HR0011-10-9-0009	Angstrom: Locality	12.CCC	3,418
HR0011-10-9-0009	Shavit Child	12.CCC	38,879
HR0011-10-9-0009	Angstrom: Zetabricks / Learning	12.CCC	109,984
HR0011-10-9-0009	Angstrom: Network Links	12.CCC	75,612
HR0011-10-9-0009	Angstrom: MPC Child	12.CCC	178,162
HR0011-10-9-0009	Angstrom: SEFOS, ATAC, PEP, Graphite Sim	12.CCC	32,368
HR0011-10-9-0009	Angstrom: Adaptive Net	12.CCC	476,252



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
HR0011-10-9-0009	Angstrom: Arvind Child	12.CCC	40,641
HR0011-10-9-0009	Angstrom: Management	12.CCC	499,205
HR0011-10-9-0009	Angstrom: MTL Child	12.CCC	196,929
HR0011-10-9-0009	Angstrom: Subcontracts	12.CCC	516,271
HR0011-10-9-0009	Angstrom: Coherence	12.CCC	310
HR0011-10-9-0009	Angstrom: RLE Child - Optical / EE Links	12.CCC	1,124
HR0011-10-9-0009	The Angstrom Project: Universal Technologies for Exascale Computing	12.CCC	362
HR0011-10-9-0009	Fabricated Equipment: EM2 System	12.CCC	23,912
HR0011-10-9-0009	Angstrom: Goal Programming	12.CCC	210,955
HR0011-10-9-0009	Fabricated Equipment - Self Aware Core Test Chip System	12.CCC	49,095
			<b>3,596,362</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
HR0011-11-C-0100	MTL Technical Staff	20.CCC	64,424
HR0011-11-C-0100	Stojanovic POEM Research	20.CCC	330,674
HR0011-11-C-0100	ICSI Berkeley Subaward	20.CCC	439,239
HR0011-11-C-0100	Ram POEM Research	20.CCC	289,439
HR0011-11-C-0100	Memory System with Monolithic CMOS Photonic Networks for High-Performance, Energy-efficient	20.CCC	395,720
HR0011-11-C-0100	Smith POEM Research	20.CCC	72,350
HR0011-11-C-0100	MTL Fabrication Processing	20.CCC	52,152
HR0011-11-C-0100	Watts POEM Research	20.CCC	159,084
HR0011-11-C-0100	UC/ Boulder Subaward	20.CCC	442,616
			<b>2,245,698</b>

### Total for Defense Advanced Research Projects Agency

**15,761,474**

### Defense Threat Reduction Agency

Contract Number	Government Contract Title	CFDA#	FY Expenses
HDTRA1-09-01-0012	University of Michigan Subcontract	12.351	31,550
HDTRA1-09-01-0012	Hatton Child Account	12.351	40,553
HDTRA1-09-1-0012	Iterative Experimental and Computational Approaches Toward Highly Efficient Surface-Structured	12.351	6,818
HDTRA1-09-1-0042	Frontier Studies of Single Stage Superconducting Cyclotron-Based Primary Accelerators for Topic	12.351	76,719
HDTRA1-09-1-0042	Fab Eq - High Intensity Ion Source Tested Stand	12.351	375
HDTRA1-10-1-0001	DoD UnCap Funds FY 11 Appropriation	12.351	131,709
HDTRA1-10-1-0001	DoD Cap Funds - FY 10 Appropriation	12.351	-7,932
HDTRA1-10-1-0032	FY12 Appropriations - No Cap	12.351	107,754

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
HDTRA1-11-1-0062	Powder Processing of Amorphous Tungsten-Bearing Alloys Composites	12.351	283,824
HDTRA1-12-1-0008	Blast Wave Manipulation Using Hierarchical Metamaterial Structures	12.351	175,244
HDTRA1-12-1-0008	Blast Wave Manipulation Child A	12.351	51,374
HDTRA1-12-1-0044	Fabricated Equipment THz Shock Generation	12.351	1,477
HDTRA1-12-1-0044	Intense Terahertz Fields for Fast Energy Release	12.351	139,209
HDTRA1-13-1-0001	Evaluation of Radiation-Induced Photonic Defects in Si, Ge, Chalcogenides and Polymers	12.351	229,124
			<b>1,267,798</b>
			<b>1,267,798</b>

### Naval Postgraduate School

Contract Number	Government Contract Title	CFDA#	FY Expenses
N00244-09-1-0064	DOD Cap Funds - FY10 Appropriation	12.300	478,954
N00244-10-1-0070	TRL-Based Modeling for Cost and Schedule Uncertainty	12.300	7,024
			<b>485,978</b>
			<b>485,978</b>

### Naval Research Laboratory

Contract Number	Government Contract Title	CFDA#	FY Expenses
N00173-11-P-0985	Damage Documentation of Composite Test Specimens	12.CCC	13,446
			<b>13,446</b>
			<b>13,446</b>

### Navy - ONR

Contract Number	Government Contract Title	CFDA#	FY Expenses
MURI N00014-07-1-0749	MURI: U Washington Subaward	12.300	2,748
MURI N00014-07-1-0749	MURI: Stanford Subaward	12.300	82,099
MURI N00014-07-1-0749	MURI: Cynthia Breazeal Child Account: Cognitively Compatible Human-Robot Teaming	12.300	50,211
MURI N00014-07-1-0749	MURI: Vanderbilt Subaward	12.300	74,833
MURI N00014-07-1-0749	MURI: Nick Roy Child Account: Cognitively Compatible Human-Robot Teaming	12.300	115,430
MURI N00014-07-1-0749	MURI: Jonathan How Child Account: Cognitively Compatible Human-Robot Teaming	12.300	77,665
MURI N00014-07-1-0749	MURI: UMass Subaward	12.300	96,617
N00014-06-1-0459	Response of Energetic Materials to Dynamic Stimuli (MURI)	12.300	20,720

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-07-1-0230	DOD Cap Funds - FY10 Appropriation	12.300	53,985
N00014-07-1-0230	Human Spervisory Control Models for Coman and Control of Unmanned Systems	12.300	2,211
N00014-07-1-0326	FY11 UNCAPPED Allocation: Oceanographic Variability	12.300	236,720
N00014-08-1-0011	Multi-Static, Concurrent Detection, Classification and Localization Concepts for Autonomous, Shall	12.300	92,268
N00014-08-1-0261	DOD Funds - FY11 Appropriation UNCAPPED	12.300	37,705
N00014-08-1-0610	FY12 UNCAPPED Allocation: Prediction of Ocean Wavefields	12.300	51,186
N00014-08-1-0680	PLUS-SEAS: Persistent Littoral Undersea Surveillance: Simulation, Estimation, and Assimilation S	12.300	29,679
N00014-08-1-0826	DURIP: A Distributed System for Robust and Accurate Location-Awareness	12.300	27,446
N00014-08-1-0844	DoD FY2011 Funding - Uncapped	12.300	-43,479
N00014-08-1-0844	DOD Cap Funds - FY10 Appropriation	12.300	29,661
N00014-08-1-1247	DOD CAP Funds - FY11	12.300	156,582
N00014-09-1-0112	DOD Cap: Funds FY11 Appropriation	12.300	55,259
N00014-09-1-0112	Fab-E Maddox MDS Robot	12.300	24,947
N00014-09-1-0124	A Framework for Core Cognition	12.300	168,504
N00014-09-1-0177	Child Account for PUF/FACE Year 1 Cost Sharing under 6922893 ? Not subject to DoD cap	12.300	41,431
N00014-09-1-0177	Child Account for PUF/FACE Cost Sharing under 6922893 ? subject to DoD Cap	12.300	-41,431
N00014-09-1-0177	Cost Sharing PUF Y2	12.300	12,030
N00014-09-1-0177	DOD Funding FY2011 - Uncapped	12.300	30,807
N00014-09-1-0187	FY11 Uncapped funding	12.300	58,617
N00014-09-1-0282	FY11 UNCAPPED Allocation: Lab. Modeling of Int Wave Gen. in Straits	12.300	95,380
N00014-09-1-0282	Grenoble France Experiment	12.300	1,160
N00014-09-1-0458	DOD FY2011 Funding - Uncapped	12.300	2,647
N00014-09-1-0458	DoD Capped Funds - FY10 Appropriation	12.300	100,244
N00014-09-1-0458	Collaborative Proposal: Studies of Stirring and Mixing at the Submesoscale in the Ocean	12.300	47,981
N00014-09-1-0591	DoD Cap - FY10 Appropriation	12.300	218
N00014-09-1-0591	Uncapped: Rate and Constraint Dependence	12.300	84,663
N00014-09-1-0597	CSAIL - Micali - FY'11 - FY'14 Expenses	12.300	10,238
N00014-09-1-0597	Political Science - FY'10 Expenses	12.300	-37,521
N00014-09-1-0597	CSAIL Winston - FY'11 - FY'14 Expenses	12.300	35,840
N00014-09-1-0597	CSAIL SCLark - FY'11 - FY'14 Expenses	12.300	504,450
N00014-09-1-0597	Political Science - FY'11 - FY'14 Expenses	12.300	1,310,001
N00014-09-1-0625	Child - How Uncapped Funds FY11 + FY12	12.300	121,704
N00014-09-1-0625	Child - Cummings - DoD FY 09 & 10 capped funds	12.300	2,111
N00014-09-1-0625	Child-How - DoD FY 09 & 10 capped funds	12.300	-155
N00014-09-1-0625	Child-Frazzoli - DoD FY 09 & 10 capped funds	12.300	-18,888
N00014-09-1-0625	Integrating Global and Local Situational Awareness in Distributed Unmanned and Manned Ground	12.300	330

**Appendix A-1 - Detail  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-09-1-0625	Child - Frazzoli Uncapped Funds FY11 + FY12	12.300	18,888
N00014-09-1-0625	Child - Roy Uncapped Funds FY11 + FY12	12.300	899
N00014-09-1-0625	Child - Davis Uncapped Funds FY11 + FY12	12.300	60,164
N00014-09-1-0625	Child - Cummings Uncapped Funds FY11 + FY12	12.300	103,964
N00014-09-1-0625	Child-Davis - DoD FY 09 & 10 capped funds	12.300	-7,029
N00014-09-1-0625	Child-Roy - DoD FY 09 & 10 capped funds	12.300	1,707
N00014-09-1-0641	Autonomy for Micro Air Vehicles to Support Dismounted Marines	12.300	498
N00014-09-1-0641	FY11 - non capped funds	12.300	179,930
N00014-09-1-0676	UNCAPPED Funds: FY11+ appropriation	12.300	228,564
N00014-09-1-0679	DOD Cap Funds - FY10 Appropriations	12.300	-176
N00014-09-1-0845	DOD Cap - FY10 Appropriation	12.300	4,464
N00014-09-1-0845	DoD FY2011 Funding - Uncapped	12.300	3,924
N00014-09-1-0864	DoD cap - FY10 Appropriation	12.300	-30,554
N00014-09-1-0864	DoD FY2011 Funding - Uncapped	12.300	117,273
N00014-09-1-0902	DoD FY11 Uncapped	12.300	77,002
N00014-09-1-0952	DoD Cap Funds-FY09 Appropriation	12.300	9,108
N00014-09-1-0952	DOD CAP Funds - FY10 Appropriation	12.300	9,431
N00014-09-1-1000	Uncapped Allocation: Nanoengineered Surfaces	12.300	55,229
N00014-09-1-1051	FY Appropriations Uncapped Funds	12.300	1,264,685
N00014-09-1-1051	Kaelbling Child	12.300	-18
N00014-09-1-1051	SMART Adaptive Reliable Teams for Persistent Surveillance (SMARTS)	12.300	6,342
N00014-09-1-1051	Cummings Child	12.300	-15,412
N00014-09-1-1051	FY11 DoD Uncapped funds	12.300	61,460
N00014-09-1-1051	Lozano-Perez Child	12.300	-32
N00014-09-1-1051	FY10 Dod Capped Funds	12.300	864
N00014-09-1-1063	Strano	12.300	213,225
N00014-09-1-1063	Harvard Subaward 6921406	12.300	57,271
N00014-09-1-1063	Kong	12.300	108,121
N00014-09-1-1063	Dresselhaus	12.300	100,500
N00014-09-1-1063	Palacios	12.300	187,770
N00014-09-1-1063	Jarillo	12.300	128,367
N00014-09-1-1063	Subcontract - BU - 6923044	12.300	40,556
N00014-09-1-1103	Intense Long Wavelength Irradiation of IED Energetic	12.300	227,746
N00014-09-1-1149	DOD Cap Funds - FY09 Appropriation	12.300	117,063
N00014-10-1-0562	DoD FY2011 Funding - Uncapped	12.300	158,890
N00014-10-1-0562	DOD Cap Funds - FY10 Appropriation	12.300	-16,904

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-10-1-0630	Uncapped: Multiphase Turbulence Modeling	12.300	156,922
N00014-10-1-0693	Fabricated Equipment - Small Wave Tank	12.300	3,408
N00014-10-1-0693	DOD UNCAPPED: FY11+ Appropriation funds	12.300	85,305
N00014-10-1-0758	Dod UNCapped Funds - FY11 Appropriation	12.300	110,641
N00014-10-1-0758	Dod Capped Funds - FY10 Appropriation	12.300	8,819
N00014-10-1-0759	Fabricated Equipment - Reef Explorer III	12.300	19,231
N00014-10-1-0759	DoD Capped Funds - FY10 Appropriation	12.300	-37,091
N00014-10-1-0759	Fabricated Equipment - Didemnum Cruiser AUV	12.300	12,010
N00014-10-1-0759	DoD Non Capped Funds - FY11 and 12 Appropriation	12.300	151,501
N00014-10-1-0841	DoD Funds Uncapped	12.300	108,019
N00014-10-1-0841	DOD FY10 Capped Funds	12.300	98
N00014-10-1-0843	Fabricated Equipment - Cold Atom Optical Lattice	12.300	91,467
N00014-10-1-0843	FY11 Uncapped Funds: Strongly Interacting Fermi Gases in Two Dimensions	12.300	111,312
N00014-10-1-0843	Strongly Interacting Fermi Gases in Two Dimensions	12.300	70
N00014-10-1-0877	Fabricated Equipment: BEC 4	12.300	32,384
N00014-10-1-0877	DoD FY2011 Funding - Uncapped	12.300	49,141
N00014-10-1-0877	DoD Cap - FY10 Appropriation	12.300	9,876
N00014-10-1-0951	FY10 Appropriations: Subject to DoD Cap.	12.300	-424
N00014-10-1-0951	Fabricated Equipment - Set of Five Unmanned Aerial Vehicles	12.300	2,277
N00014-10-1-0951	FY Appropriations Uncapped Funds	12.300	1,771,747
N00014-10-1-0957	DoD FY11 Funding Uncapped - 6922536	12.300	52,987
N00014-11-1-0053	Algorithms for Combinatorial Optimization through Rounding ? UNCAPPED	12.300	55,776
N00014-11-1-0056	Stochastic Optimization, Approximation Algorithms, and Computing Equilibria	12.300	105,627
N00014-11-1-0064	A Unified Approach to Passive and Active Ocean Acoustic Waveguide Remote Sensing	12.300	333,914
N00014-11-1-0091	Expansion of A Direct Simulation-Based Study of Radiance in a Dynamic Ocean	12.300	13,579
N00014-11-1-0097	GOATS '11: Adaptive and Collaborative Exploitation of 3-Dimensional Environmental Acoustics in C	12.300	480,810
N00014-11-1-0212	New Technologies through Computational Materials Design	12.300	405,151
N00014-11-1-0337	Active Transfer Learning For Ocean Modeling	12.300	84,668
N00014-11-1-0397	Network Localization and Navigation in GPS-Challenged Environments	12.300	477,634
N00014-11-1-0413	Free Space Optical Wireless Network	12.300	5,568
N00014-11-1-0486	MOOS-IvP Autonomous Decision Making Using Multi-Objective Optimization	12.300	58,967
N00014-11-1-0545	Investigation of droplet size distribution generated by unsteady, turbulent sheet breakup	12.300	59,676
N00014-11-1-0598	CFD Methods for seakeeping and propeller analysis of swath hull forms	12.300	293,401
N00014-11-1-0598	Low Speed USV Tender	12.300	91,538
N00014-11-1-0598	CFD Methods for seakeeping and propeller analysis of swath hull forms - Travel Costs	12.300	1,866
N00014-11-1-0657	A New Environmentally Sound Technology for Metals Extraction: a Technical Feasibility Study of R	12.300	158,259

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-11-1-0687	Engineering Multifunctional and Multiscale Nanomaterials with Synthetic Biology	12.300	217,672
N00014-11-1-0688	Nonparametric Bayesian Models to Represent Knowledge and Uncertainty for Decentralized Plann	12.300	1,326,295
N00014-11-1-0713	A Certified Reduced Basis Element Method for Interactive and Reliable Design and Parameter Esti	12.300	135,892
N00014-11-1-0852	DURIP: Laser System for Optical-Transition Squeezed Clock Below the Standard Quantum Limit	12.300	-3,801
N00014-11-1-0852	Fabricated Equipment: High-finesse Resonator System for Laser Frequency Stabilization	12.300	22,039
N00014-12-1-0020	Robust and Persistent Feature-based Navigation for Multiple AUVs	12.300	222,839
N00014-12-1-0033	Online and Dynamic Optimization Under Uncertainty	12.300	171,197
N00014-12-1-0050	Vector Sensor Array Signal Processing	12.300	93,827
N00014-12-1-0064	Control of Heterogeneous Wireless Networks: From Theory to Practice	12.300	231,193
N00014-12-1-0071	Prospective Human-Guided Teleautonomy for Agile Mobility and Dexterous Manipulation	12.300	698,798
N00014-12-1-0071	Shah ONR Child	12.300	92,533
N00014-12-1-0093	Hover ONR: Michael Kaess child	12.300	62,208
N00014-12-1-0093	Extended Capabilities for the HAUV Ship-Inspection Vehicle	12.300	111,790
N00014-12-1-0096	Fundamental understanding of oxygen reduction and evolution electrocatalysis on perovskites and	12.300	66,588
N00014-12-1-0128	Joint US-Norway Ocean Acoustic Experiments in the Nordic Seas Waters of the Arctic Circle	12.300	103,755
N00014-12-1-0411	ONR Graduate Traineeship Award in Ocean Acoustics for Ankit Deepak Jain	12.300	37,709
N00014-12-1-0427	VAMPIRE: Accessing a Life-Blood of Information for Acoustic Signature Assessment and Condition	12.300	74,839
N00014-12-1-0458	Programmable Synthetic Combinatorial Sensors in Bacteria	12.300	130,334
N00014-12-1-0521	A New Technology for Metals Extraction: High-temperature electrolysis of Molten Sulfide/Oxide Ele	12.300	330,665
N00014-12-1-0530	Direct real-time measurement of energetic materials under dynamic shock loading	12.300	102,536
N00014-12-1-0590	Fab EQ: ExpApp Testing Hybrid Jrnl Bearings	12.300	9,835
N00014-12-1-0590	Hybrid Journal Bearings for Large Ships	12.300	73,207
N00014-12-1-0600	HYDRODYNAMIC MODELING TO SUPPORT NAVAL ENGINEERING DESIGN	12.300	20,000
N00014-12-1-0621	Computer-Aided Engineering for Nucleic Acid-Based Nanotechnology	12.300	191,681
N00014-12-1-0624	Advanced Nanoengineered Thermal Management Devices	12.300	91,294
N00014-12-1-0665	Characterizing Surface Transport Barriers in the East Sea of Vietnam	12.300	127,759
N00014-12-1-0784	Proposal for MIT Reef Explorer III Unmanned Underwater Vehicle and Unmanned Surface Vehicle	12.300	23,075
N00014-12-1-0787	Advanced High-Speed Three-Dimensional Imaging Array for Multiphase flows and Sprays	12.300	291,132
N00014-12-1-0802	Distributed Mobile Robotics for Field Assembly, Repair and Maintenance	12.300	382,440
N00014-12-1-0915	Ultra-High Performance ADC's in GaN ? Lee Child	12.300	19,877
N00014-12-1-0915	Ultra-High Performance ADC's in GaN ? Palacios Child	12.300	40,407
N00014-12-1-0928	DURIP: An Optical Lattice Quantum Simulator with Hundredfold Increased Clock Rate	12.300	100,500
N00014-12-1-0928	Fabricated Equipment: Apparatus for Delivering High Power Laser Beams	12.300	6,404
N00014-12-1-0944	Stochastic Forcing for Ocean Uncertainty Predictions	12.300	321,564
N00014-12-1-0959	Low Dimensionality Transistors for High Performance Electronics	12.300	209,632
N00014-12-1-0974	Understanding and Prediction of Nonlinear Effects in Wave Propagation	12.300	70,000

**Appendix A-1 - Detail  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-12-1-0999	Decentralized online optimization in multi-agent systems in dynamic and uncertain environments	12.300	122,013
N00014-12-1-1000	persistent Decentralized Online Tasks (pDOT): An Online Optimization Approach to Multi-Agent Pe	12.300	52,832
N00014-13-1-0059	PhD Student Support on Prediction and Cancellation of Vortex Induced Vibrations of Towed Cable	12.300	31,470
N00014-13-1-0074	Next-generation Genetic Devices: Model-guided Discovery and Optimization of Navy-relevant Cell	12.300	126,160
N00014-13-1-0074	Next-generation Genetic Devices: Domatilla DelVecchio	12.300	23,013
N00014-13-1-0074	Next-generation Genetic Devices: Michael Laub	12.300	86,617
N00014-13-1-0213	Nanostitched Composites with Improved Interlaminar and Intralaminar Strengths for Advanced Airfr	12.300	29,846
N00014-13-1-0213	Fabricated Equipment: Mass Flow Control Box	12.300	7,005
N00014-13-1-0260	Categorical Informatics	12.300	45,486
N00014-13-1-0301	Exchange interaction at the interface in Dirac systems and organic radicles Understanding the phel	12.300	77,291
N00014-13-1-0332	Hybrid Planning Hulls for Reduced Powering Demand and Increased Seakeeping Performance	12.300	8,719
N00014-13-1-0333	Probabilistic Programming and Computational Cognitive Science	12.300	2,332
N00014-13-1-0352	Quantifying the Dynamic Ocean Surface Using Underwater Radiometric Measurements	12.300	37,185
N00014-13-1-0398	Underway Wireless Recharging of AUVs	12.300	32,538
N00014-13-1-0403	Inversion, uncertainties, and multiple scattering in synthetic aperture radar/sonar	12.300	6,626
N00014-13-1-0424	Ultra-High-Throughput Design and Optimization of Sense-and-Actuate Circuits in Marine and Soil E	12.300	48,802
N00014-13-1-0447	Quantifying Breaking-Wave Dissipation Using Nonlinear Phase-Resolved Wavefield Simulations	12.300	14,109
N00014-13-1-0518	Multiscale Data Assimilation	12.300	12,202
N00014/09-1-0177	DoD Cap Funds - FY10 Appropriation	12.300	-28,798
			<b>19,587,931</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
N00014-13-1-0487	Continuation of Oceanographic Variability and the Performance of Passive and Active Sonars in the	13.200	31,742
			<b>31,742</b>
	<b>Total for Navy - ONR</b>		<b>19,619,673</b>
<b>Navy Non-Pool</b>			
Contract Number	Government Contract Title	CFDA#	FY Expenses
N00189-08-C-Z104	Engineering Support for the Interagency Mark IV Correlator and Recorder Hardware	12.CCC	245,924
N00189-10-C-Z079	Next Generation Geodetic-VLBI Signal Processing Chain for the USNO Kokee/Kauai Antenna	12.CCC	150,220
			<b>396,144</b>
	<b>Total for Navy Non-Pool</b>		<b>396,144</b>

**Space and Naval Warfare Systems Center**

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
N66001-13-1-4022	Weinstein Child	12.91	44,846
<b>44,846</b>			
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
N66001-09-1-2028	DoD Cap Funds-FY09 Appropriation	12.910	55,689
N66001-09-1-2028	Task A Equipment	12.910	-105,377
N66001-09-1-2028	Task C OPs	12.910	63,037
N66001-09-1-2028	Fabricated Equipment - Multi-Color Infrared Laser Apparatus	12.910	13,967
N66001-09-1-2028	Task A Fabrication: SR+ Cavity to Comb Locking Apparatus	12.910	79,545
N66001-09-1-2028	Task A OPs	12.910	108,184
N66001-09-1-2028	Task B OPs	12.910	104,010
N66001-09-1-2087	Dod Capped Funds - FY09	12.910	-1,969
N66001-09-1-2087	Dod Capped Funds - FY10	12.910	30,094
N66001-10-1-4041	DOD Cap Funds - FY10 Appropriation	12.910	49,752
N66001-10-1-4046	DOD Cap FY11 - Uncapped	12.910	28,825
N66001-10-1-4046	DoD Cap Funds - FY10 Appropriation	12.910	47,794
N66001-10-1-4047	DoD FY 2011 Funding - Uncapped	12.910	85,061
N66001-10-1-4047	DoD Cap Funds - FY10 Appropriation	12.910	-559
N66001-10-1-4050	FY11 Appropriation - Not Subject to DoD CAP	12.910	135,369
N66001-10-1-4050	DoD Cap Funds - FY 10 Appropriation	12.910	-134,804
N66001-10-1-4050	Fabricated Equipment - Cold atom Optical Lattice Emulator	12.910	-360
N66001-10-1-4050	Fabricated Equipment: Cold Atom Optical Lattice Emulator.	12.910	-32,696
N66001-10-1-4062	Gershenfeld Child	12.910	293,288
N66001-10-1-4062	Fly Quantum Sensor Gershenfeld FY13 Supplement	12.910	20,100
N66001-10-1-4062	Fly Quantum Sensor Gershenfeld Supplement	12.910	57,572
N66001-10-1-4062	FY11 Uncapped funding	12.910	118,788
N66001-10-1-4062	Subcontract - Fleming Institute - 6922712	12.910	674,109
N66001-10-1-4063	DOD FY 11 Appropriation: Quantum Coherence and Decoherence in Molecular Biosensors	12.910	478,653
N66001-10-2-4089	CANDOR: Clean-Slate System Integrity using Selective Redot	12.910	897,066
N66001-10-2-4089	Child Account Davis/Solar Lezama	12.910	89,619
N66001-11-1-4164	Fast-Pulsed High-Current Cold Cathodes with Temporal & Spatial Uniformity	12.910	85,563
N66001-11-1-4164	Fabricated Equipment - Vacuum Chamber System	12.910	81,755
N66001-11-1-4182	Brigham & Women's Hospital	12.910	126,792
N66001-11-1-4182	Voldman Research	12.910	211,914
N66001-11-1-4182	Continuous Monitoring and Separation of Blood for Mitigation of Sepsis	12.910	287,939



**Appendix A-1 - Detail  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
N66001-11-1-4192	SPAWAR Child Kaertner	12.910	626,781
N66001-11-1-4192	Fabricated Equipment - CUBIX Cryo-Yb:YLF driver for THz electron acceleration	12.910	104,567
N66001-11-1-4192	SPAWAR Child Berggren	12.910	271,042
N66001-11-1-4192	Fabricated Equipment - UHV Chamber System	12.910	63,321
N66001-11-1-4192	Fabricated Equipment: High Vacuum Chamber for Electron Emission Testing	12.910	20,623
N66001-11-1-4192	CUBIX - Coherent Ultrabright Inverse Compton Scattering X-Ray Sources	12.910	-1,157
N66001-11-1-4192	Fabricated Equipment - Seed Laser for Yb-Amplifier	12.910	116,019
N66001-11-1-4192	Fab Eq - High-Power X-Band RF Transmitter	12.910	143,966
N66001-11-1-4192	RLE - CUBIX	12.910	152,191
N66001-11-1-4192	SPAWAR Child Graves	12.910	518,662
N66001-11-1-4192	SPAWAR Subcontract University of Northern Illinois	12.910	103,276
N66001-11-C-4147	Child - Myerson - 6924712	12.910	607,128
N66001-11-C-4147	Fab Eq - Pharmacy on Demand System	12.910	100,266
N66001-11-C-4147	Fab Equipment - Pharmacy on Demand	12.910	110,418
N66001-11-C-4147	Compact, On-Demand Continuous Flow Manufacturing of Pharmaceuticals	12.910	659,730
N66001-11-C-4147	Child - Jamison - 6924712	12.910	419,822
N66001-12-1-4212	Field Emission Arrays for Dynamic Pattern Generation	12.910	547,712
N66001-12-1-4242	Fabricated Equipment - 3D Printer	12.910	27,949
N66001-12-1-4242	High-fidelity Mapping from Specification to Fabrication	12.910	157,670
N66001-13-1-4027	Chip Intergrated Timing and Inertial Measurement	12.910	48,748
			<b>8,747,454</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
N66001-12-C-0082	Accountable Information Usage in Distributed Information Sharing Environments	12.CCC	632,631
N66001-12-C-4016	Lu-CLIO SRAWAR	12.CCC	264,794
N66001-12-C-4016	Voigt-CLIO SRAWAR	12.CCC	181,746
N66001-12-C-4016	Carr-CLIO SRAWAR	12.CCC	112,968
N66001-12-C-4016	Synthetic Single-Invertase Memory Modules for Persistent Biological Encoding	12.CCC	6,838
N66001-12-C-4187	Redundant Safety Switches for the Environmental Confinement of Engineered Organisms	12.CCC	595,889
			<b>1,794,866</b>
	<b>Total for Space and Naval Warfare Systems Center</b>		<b>10,587,166</b>

**U.S. Army Medical Research and Material Command**

Contract Number	Government Contract Title	CFDA#	FY Expenses
W81XWH-09-2-0143	Prosthetic knee-ankle-foot system with biomechatronic sensing, control, and power generation	12.420	465,957

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
W81XWH-10-1-0290	T-Pharmacies for Prostate Cancer Immunotherapy	12.420	117,157
W81XWH-10-1-0291	T-Pharmacies for Prostate Cancer Immunotherapy	12.420	117,298
W81XWH-10-1-0292	T-Pharmacies for Prostate Cancer Immunotherapy	12.420	171,064
W81XWH-10-1-0370	Dev of a High-Content Neuronal Assay to Screen Therapeutics on the Indictment of Cognitive Dist	12.420	185,069
W81XWH-10-1-1013	Escape from Tumor Cell Dormancy	12.420	-25,821
W81XWH-11-1-0252	Role of Altered mGluR activity in Cognitive Impairments	12.420	177,330
W81XWH-11-1-0676	Model-based, Noninvasive Monitoring of Intracranial Pressure	12.420	114,899
W81XWH-11-2-0179	PT100120: Using Real-Time Functional Imaging to Speed Recovery from TBI	12.420	373,677
W81XWH-12-1-0432	Investigating the mechanism of K-RAS independent growth of murine pancreatic ductal adenocarci	12.420	104,470
W81XWH-12-2-0016	Post-Traumatic Stress Innovations: U.S. Military Enterprise Analysis	12.420	1,884,496
W81XWH-12-2-0016	Child: Collaborative Initiatives	12.420	31,771
<b>Total for U.S. Army Medical Research and Material Command</b>			<b>3,717,367</b>
<b>Total for U.S. Army Medical Research and Material Command</b>			<b>3,717,367</b>

### United States Air Force Academy

Contract Number	Government Contract Title	CFDA#	FY Expenses
FA7000-11-2-0012	Space Engineering Research	12.800	-28,879
<b>Total for United States Air Force Academy</b>			<b>-28,879</b>
<b>Total for United States Air Force Academy</b>			<b>-28,879</b>
<b>Total for Department of Defense</b>			<b>90,810,440</b>

### Department of Energy Argonne National Laboratory

Contract Number	Government Contract Title	CFDA#	FY Expenses
2F-33101	CFD simulations of unsteady mixing phenomena	81.CCC	54,211
9F-32142	ANL Post Stop-Work Order child	81.CCC	47,954
IF-32302	Methods Development for Exascale Simulation of SMRS	81.CCC	222,666
OF-34642	Technologies and Concepts to Reduce the US Dependence on Imported Petroleum and Emission	81.CCC	101,757
SUBCONTRACT NO. 3F-31144	Child: Kamrin	81.CCC	21,521
SUBCONTRACT NO. 3F-31144	Solution ? Phase Redox Molecules [70087-10-168-JCESR-4010100]	81.CCC	3,360
SUBCONTRACT NO. 3F-31144	Child: Slocum	81.CCC	7,592

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
SUBCONTRACT NO. 3F-31144	Child: McKinley	81.CCC	4,156
SUBCONTRACT NO. 3F-31144	High Concentration Solution Structure [70087-20-168-JCESR-4020100]	81.CCC	2,443
SUBCONTRACT NO. 3F-31144	Solution-Phase Electrode Reactions [70087-30-168-JCESR-4030100]	81.CCC	31,469
SUBCONTRACT NO. 3F-31144	Theory and Modeling of New Intercalation Host Structure [70085-10-168-JCESR-2010101]	81.CCC	3,799
SUBCONTRACT NO. 3F-31144	Child: Carter	81.CCC	37,076
SUBCONTRACT NO. 3F-31144	High Density Suspensions [70087-10-168-JCESR-4010200]	81.CCC	16,601

**554,605**  
**554,605**

### Total for Argonne National Laboratory

#### DOE - Chicago

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-01ER54648	Center for Simulation of Wave Plasma Interactions	81.049	133,926
DE-FC02-04ER54802	Center for Extended Magnetohydrodynamic Modeling	81.049	61,918
DE-FC02-06ER54855	SWIM: Incorporating TORIC in the IPS	81.049	11
DE-FC02-06ER54855	SWIM: Extended - MHD Closure Models in the Presence of RF	81.049	-7
DE-FC02-08ER54966	Center for the Study of Microturbulence	81.049	160,766
DE-FC02-08ER54969	Center for Extended Magnetohydrodynamic Modeling	81.049	75,600
DE-FC02-93ER54186	Operations (6769700)	81.049	143,261
DE-FC02-93ER54186	Porkolab N.I. (6395200)	81.049	-152,754
DE-FC02-93ER54186	HTS Tape Test Device-Fab E	81.049	-10,142
DE-FC02-93ER54186	Personnel (6770100)	81.049	756,893
DE-FC02-93ER54186	Fab. Eq. HTS Joint Test Apparatus	81.049	11,204
DE-FC02-93ER54186	Temkin Task 02 (6394300)	81.049	323,944
DE-FC02-93ER54186	Design Activities for Steady State Tokamah with High Temperature Walls	81.049	134
DE-FC02-93ER54186	FAB-Temkin (6395800)	81.049	37,931
DE-FC02-94ER40818	Heavy Ion High Level Trigger	81.049	6,901
DE-FC02-94ER40818	Task K DarkLight Experiment	81.049	-3,278
DE-FC02-94ER40818	Logistic Support HPG	81.049	158,484
DE-FC02-94ER40818	Computer	81.049	746
DE-FC02-94ER40818	BLAST Physics	81.049	201
DE-FC02-94ER40818	Bates R&E Lab-Safety	81.049	2,032
DE-FC02-94ER40818	Bates R&E Lab-Administration	81.049	53,053
DE-FC02-94ER40818	Heavy Ion Off	81.049	488,083
DE-FC02-94ER40818	Heavy Ion CMS-OFF	81.049	147,427
DE-FC02-94ER40818	LNS Research MEBR	81.049	1,225

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-94ER40818	Fabricated Equipment - OLYMPUS Scattering Chamber and Vacuum System	81.049	89,377
DE-FC02-94ER40818	Nuclear Theory	81.049	848,961
DE-FC02-94ER40818	Williams DOE Support OFF	81.049	6,073
DE-FC02-94ER40818	Redwine Support Off	81.049	233,445
DE-FC02-94ER40818	Olympus Project at BATES	81.049	-60,275
DE-FC02-94ER40818	Heavy Ion Phobos Management	81.049	460
DE-FC02-94ER40818	Computing Resources and Operations for U.S. CMS HI Research	81.049	129,822
DE-FC02-94ER40818	Bates Accelerator Physics	81.049	58,866
DE-FC02-94ER40818	MEBO-B&R KB010202 EQU	81.049	-2
DE-FC02-94ER40818	Mechanical Engineering	81.049	1,024,379
DE-FC02-94ER40818	Matthews Support Off	81.049	10,431
DE-FC02-94ER40818	Heavy Ion Research	81.049	-2
DE-FC02-94ER40818	Milner Support Off-Site Research	81.049	306,077
DE-FC02-94ER40818	LNS Research HIR Off	81.049	-1
DE-FC02-94ER40818	Kowalski Support Off	81.049	191,896
DE-FC02-94ER40818	Donnelly Support Off-Site Research	81.049	167,850
DE-FC02-94ER40818	Polarized Source	81.049	196,094
DE-FC02-94ER40818	OJI Stewart	81.049	-93
DE-FC02-94ER40818	Electrical Engineering	81.049	315,994
DE-FC02-94ER40818	Bernstein Support Off	81.049	6,112
DE-FC02-94ER40818	Surrow Support-Off-site - OFF	81.049	151,860
DE-FC02-94ER40818	Accelerator Physics	81.049	149,198
DE-FC02-94ER40818	Nuclear Theory Off	81.049	146,065
DE-FC02-94ER40818	Logistical Support	81.049	13,651
DE-FC02-94ER40818	OLYMPUS GEM Tracker	81.049	5,723
DE-FC02-94ER40818	Bertozzi Support OFF	81.049	361,638
DE-FC02-94ER40818	Redwine Support Off-Site Research	81.049	354,330
DE-FC02-94ER40818	Lattice Hadron Physics Initiative	81.049	178,345
DE-FC02-94ER40818	Williams DOE Support ON	81.049	77,660
DE-FC02-94ER40818	Surrow Support-Off-site - ON	81.049	318,974
DE-FC02-94ER40818	Kowalski Support Off-Site Research	81.049	6,882
DE-FC02-94ER40818	Bernstein Support Off-Site Research	81.049	106,361
DE-FC02-94ER40818	Heavy Ion	81.049	458,374
DE-FC02-94ER40818	Heavy Ion Phobos Off	81.049	86,684
DE-FC02-94ER40818	Matthews Support Off-Site Research	81.049	10,546
DE-FC02-94ER40818	MEBR-B&R KB010101-1 EDU	81.049	28,295

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-94ER40818	LNS Research MEBR Off	81.049	-719
DE-FC02-94ER40818	Nuclear Theory Research	81.049	-5
DE-FC02-94ER40818	Star Upgrade	81.049	1,336
DE-FC02-94ER40818	Milner Support Off	81.049	366,505
DE-FC02-94ER40818	NIG Group Off-Site Research	81.049	255,550
DE-FC02-99ER54512	ARRA - TAS::89 0227: :TAS RECOVERY ACT ALCATOR C-MOD FUSION RESEARCH PROGR	81.049	-1,130
DE-FC02-99ER54512	Fab Eq - C-Mod Data Server	81.049	13,204
DE-FC02-99ER54512	Alcator C-Mod Radio Frequency	81.049	14,986
DE-FC02-99ER54512	Alcator CMOD - Project Engineering	81.049	434
DE-FC02-99ER54512	Fabricated: CMOD Diag X-Ray Tomography Lab	81.049	-318
DE-FC02-99ER54512	Fab: Divertor Probe Data Acquisition	81.049	701
DE-FC02-99ER54512	Alcator C-Mod	81.049	-73,562
DE-FC02-99ER54512	Alcator CMOD Alternator House	81.049	34,963
DE-FC02-99ER54512	FAB: Laser Blow-Off System (Impurity Injector)	81.049	1,571
DE-FC02-99ER54512	Alcator C-Mod Diagnostics	81.049	64,203
DE-FC02-99ER54512	FAB-E - CMOD Engineering Data Acquisition Upgrade	81.049	26,174
DE-FC02-99ER54512	Alcator CMOD Vacuum Shop	81.049	43,521
DE-FC02-99ER54512	Fabricated: 2-D Bolometry	81.049	-317
DE-FC02-99ER54512	New Initiatives Alcator-Whyte	81.049	19,978
DE-FC02-99ER54512	Fab Eq CECE Diagnostic	81.049	22,983
DE-FC02-99ER54512	Fabricated: Fast Optical Fluctuation Diagnostic	81.049	7,356
DE-FC02-99ER54512	Fab Eq - EUV Spectrometer	81.049	30
DE-FC02-99ER54512	K Star	81.049	39,231
DE-FC02-99ER54512	Fab Equip: Scanning Probe Modifications & Upgrades	81.049	97
DE-FC02-99ER54512	Fabricated: Lower Hybrid Fast Ferrite Tuner	81.049	3,193
DE-FC02-99ER54512	Alcator C-Mod New Initiative	81.049	361,217
DE-FC02-99ER54512	Fabricated: Equip Alcator C-Mod	81.049	8,048
DE-FC02-99ER54512	Alcator C-Mod Operations	81.049	1,123,342
DE-FC02-99ER54512	Fab: DNB Upgrade	81.049	3,938
DE-FC02-99ER54512	Alcator C-Mod Research	81.049	35,069
DE-FC02-99ER54512	Fab Eq - CXRS Dalphadiodes / PMTS	81.049	8,473
DE-FC02-99ER54512	Alcator C-Mod Computers	81.049	108,377
DE-FC02-99ER54512	Alcator CMOD Electronics Computer	81.049	34,032
DE-FC02-99ER54512	Fab Eq - Divertor Spectroscopy Phase II	81.049	25,895
DE-FC02-99ER54512	Divertor OPS account	81.049	37,129
DE-FC02-99ER54512	Dr. Anne White New Initiatives	81.049	46,500

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-99ER54512	Fabricated: Alcatel CMOD - Magnetic System Fab	81.049	-253
DE-FC02-99ER54512	MDSplus Development	81.049	151,188
DE-FC02-99ER54512	Child - Felix Parra Diaz Initiatives Funding	81.049	28,282
DE-FC02-99ER54512	Fab Eq - ICRF Power/Match Upgrade Phase II	81.049	25,525
DE-FC02-99ER54512	Fab Eq Upgrade for Fast Optical Fluctuation Diagnostic	81.049	1,462
DE-FC02-99ER54512	Fab Eq - ICRF Transmitter: FMIT#5	81.049	11,540
DE-FC02-99ER54512	Jet	81.049	5,519
DE-FC02-99ER54512	Fabricated: Two-Color Interferometer Upgrade	81.049	8,098
DE-FC02-99ER54512	Alcatel CMOD Stockroom Expense	81.049	-23
DE-FC02-99ER54512	Fabricated: Control Systems Upgrade	81.049	911
DE-FC02-99ER54512	Alcatel CMOD-Radiology/Safety	81.049	13,056
DE-FC02-99ER54512	Alcatel C-Mod Travel	81.049	377,939
DE-FC02-99ER54512	Fab Eq - Outer Divertor Upgrade Phase 2	81.049	33,226
DE-FC02-99ER54512	Lower Hybrid Materials and Services	81.049	38,822
DE-FC02-99ER54512	Alcatel C-Mod Personnel	81.049	14,377,394
DE-FC02-99ER54512	Fabricated: Charge Exchange Spectroscopy	81.049	13,215
DE-FC02-99ER54512	USBPO Support	81.049	50,209
DE-FC02-99ER54512	Alcatel C-Mod Administration	81.049	81,945
DE-FC02-99ER54512	Fab Eq - EF 2 System Upgrade	81.049	81,200
DE-FC02-99ER54512	Fabricated: C-Mod Polarimeter Diagnostic	81.049	6,134
DE-FC02-99ER54512	Fab Eq - 4/6 GHz Reflectometer	81.049	199
DE-FC02-99ER54512	Alcatel C-Mod Subcontracts	81.049	192,995
DE-FC02-99ER54512	Fabricated: Machine Upgrade	81.049	650
DE-FC02-99ER54512@2005300	ARRA - Fab Eq - Fourth Cart and Control Upgrades for Lower Hybrid	81.049	137,509
DE-FC02-99ER54512@2005300	ARRA - Fab Eq - ICRF Power/Match Upgrade/FFT	81.049	712,262
DE-FC02-99ER54512@2005300	ARRA - Fab Eq - Second 4 Strap Antenna	81.049	81,512
DE-FC02-99ER54512@2005300	ARRA - Fab Eq - Advanced 4-Strap ICRF Antenna	81.049	3,260
DE-FG02-00ER15087	Ultrafast Coherent Soft X-Rays: A Novel Tool for Spectroscopy of Collective Behavior in Complex	81.049	168,770
DE-FG02-02ER45977	FabEq-AFM CantileverBasedInfraredSpectrSys	81.049	3,004
DE-FG02-02ER45977	FabEq-AFM Cantilever Derived SpectrSys	81.049	9,037
DE-FG02-02ER45977	Heat Conduction in Nanowire Structures	81.049	141,776
DE-FG02-02ER45977	Supplement on Near-field Thermal Radiation between Two Objects at Extreme Separations	81.049	114,234
DE-FG02-03-ER54700	Physics of High Energy Plasmas	81.049	328,206
DE-FG02-03ER46076	Strongly Correlated Electronic Systems: Local Moments and Conduction Electrons	81.049	140,480
DE-FG02-04ER46134	Establishing a United Effort to Crystal Growth, Neutron Scattering, and X-ray Scattering Studies of	81.049	168,076
DE-FG02-04ER46149	Self-Assembling Biological Springs Force Transducers on the Micron Nanoscale	81.049	193,757

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FG02-05ER15728	Instability of Noble Metal Catalysts in Proton Exchange Membrane Fuel Cells: Experiments and Th	81.049	-334
DE-FG02-05ER15745	Hangman Catalysis for Phot- and Photoelectro- Chemical Activation of Water	81.049	192,219
DE-FG02-05ER41360	Phobus	81.049	764
DE-FG02-05ER41360	Fabricated Equipment - AMS-02 Computing Systems	81.049	130,609
DE-FG02-05ER41360	Particle Theory On	81.049	1,128,766
DE-FG02-05ER41360	Fabrication: AMS-02 Gas Systems	81.049	2,524
DE-FG02-05ER41360	EMI A&C	81.049	236,620
DE-FG02-05ER41360	AMS-02 Operations	81.049	318,244
DE-FG02-05ER41360	LNS Research Fund ON	81.049	7,657
DE-FG02-05ER41360	Lepton Quark	81.049	372,615
DE-FG02-05ER41360	Fabrication: AMS-02 Detector and Integration	81.049	26,578
DE-FG02-05ER41360	Fabrication: AMS Thermal Control System	81.049	128,675
DE-FG02-05ER41360	Particle Theory Off	81.049	217,424
DE-FG02-05ER41360	EMI Operations	81.049	3,159,277
DE-FG02-05ER41360	PPC-General	81.049	116,115
DE-FG02-05ER41360	LQS Detector R&D	81.049	87,192
DE-FG02-05ER41360	Lepton Quark Studies-Task F	81.049	139,096
DE-FG02-05ER41360	OJL-Hong Liu	81.049	8,444
DE-FG02-05ER41360	PPC-CDF	81.049	1,210,501
DE-FG02-05ER54836	Exploration of Plasma Jets Approach to High Energy Density Physics	81.049	29,852
DE-FG02-06ER54891	Interactions of a Flowing Plasma with a Collecting Sphere	81.049	52,924
DE-FG02-07ER15839	Rheological Properties of Earth's Upper Mantle at High Pressure: Roles of Melt, Water and Pressur	81.049	57,908
DE-FG02-07ER46454	Probing nanocrystal electronic structure and dynamics in the limit of single nanocrystals	81.049	189,951
DE-FG02-07ER46474	T. Van Voorhis: High Efficiency Biomimetic Organic Solar Cells	81.049	235,716
DE-FG02-07ER46474	High Efficiency Biomimetic Organic Solar Cells	81.049	49,591
DE-FG02-08ER25858	Large-Scale Optimization for Bayesian Inference in Complex Systems	81.049	84,066
DE-FG02-08ER46488	Self Assembly & Self-Repair of Novel Photosynthetic Reaction Center/Single Walled Carbon Nano	81.049	176,317
DE-FG02-08ER46488	Fab Equipment: Femtosecond Transient Absorption Spectrometer	81.049	25,551
DE-FG02-08ER46488	Child - Braatz - 6916988	81.049	114,292
DE-FG02-08ER46488	Fab Equipment - Carbon Nanotube Automated Separation System	81.049	6,274
DE-FG02-08ER46514	Novel Temperature Limited Tunneling Spectroscopy of Quantum Hall Systems	81.049	177,754
DE-FG02-08ER46515	Measurement of Single Electronic Charging of Semiconductor Nano-Crystal	81.049	179,520
DE-FG02-08ER46521	Ultrafast Electronic and Structural Dynamics in Complex Materials	81.049	261,454
DE-FG02-08ER46521	Routing Optics for Optical Parametric Amplifier Fabricated Equipment	81.049	1,686
DE-FG02-08ER64592	Collaborative Research: Abrupt Climate Change and the Atlantic Meridional Overturning Circulatio	81.049	5,217
DE-FG02-08ER64597	Quantifying Climate Feedbacks from Abrupt Changes in High-Latitude Trace-Gas Emissions	81.049	23,086

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FG02-09ER46556	Optics for Advanced Neutron Imaging	81.049	273,203
DE-FG02-86ER13564	Catalysts for the Living Polymerizations of Olefins	81.049	186,593
DE-FG02-87ER13671	Spectroscopic and Dynamical Studies of Highly Energized Small Polyatomic Molecules	81.049	122,082
DE-FG02-90ER45429	Neutron and X-Ray Scattering Studies of Kinetic Glass Transition in Colloidal Systems	81.049	355,905
DE-FG02-91ER40648	Task A High Gradient Acceleration	81.049	391,043
DE-FG02-91ER40648	RF Gun	81.049	45,383
DE-FG02-91ER40648	Electron Spectrometer	81.049	7,553
DE-FG02-91ER54109	Plasma Turbulence Transport	81.049	55,656
DE-FG02-91ER54109	Fusion Theory	81.049	1,071,301
DE-FG02-94ER40818	Neutrino Physics Group	81.049	193,791
DE-FG02-94ER40818	Task W	81.049	-8,956
DE-FG02-94ER54235	Interferometer Diagnostics	81.049	3,920
DE-FG02-94ER54235	Fabricated Equipment	81.049	12,552
DE-FG02-94ER54235	Off Campus: CODA	81.049	235,769
DE-FG02-94ER54235	Development of an Accelerator-Based Diagnostic for Plasma Facing Surfaces in Magnetic Confinement	81.049	114,247
DE-FG02-94ER61937	An Integrated Framework for Climate Change Assessment	81.049	963,748
DE-FG02-95ER40919	Focused Intense Charged Particle Beams	81.049	152,614
DE-FG02-96ER45571	First Principles Determination of Structure, Thermodynamics, and Transport in Metals and Oxides	81.049	180,472
DE-FG02-97ER14760	Evolution of Pore Structure and Permeability of Rocks Under Hydrothermal Conditions	81.049	375,408
DE-FG02-98ER14914	Computer-Aided Construction of Chemical Kinetic Models	81.049	144,775
DE-FG02-98ER54458	Levitated Dipole Experiment	81.049	5,306
DE-FG02-98ER54458	Levitated Dipole Experiment-Fabricate Equi	81.049	2,901
DE-FG02-98ER54458	ARRA - TAS::89 0227::Recovery Act - Levitated Dipole Experiment, Project 2005350	81.049	-3
DE-FG02-98ER54458	Levitated Dipole Experiment-Personnel	81.049	6,610
DE-FG02-98ER54458	Levitated Dipole Experiment-Operations	81.049	-4,892
DE-FG02-98ER54458	Levitated Dipole Experiment-Parent	81.049	-5,779
DE-FG02-99ER14988	Structural Dynamics in Complex Liquids Studied with Multidimensional Vibrational Spectroscopy	81.049	230,232
DE-FG02-99ER14988	Water Spectroscopy	81.049	1,637
DE-FG02-99ER15004	Physics of Channelization: Theory, Experiment, and Observation	81.049	202,976
DE-FG02-99ER54525	Full Wave Studies of High Harmonic Heating in NSTX with Application to Transport Analysis, Fast I	81.049	26,310
DE-FG02-99ER54563	Fast Particle-wave Interaction and Alfvén Eigenmodes in the JET Tokamak Plasma	81.049	51,841
DE-FG02-99ER54563	Fabricated Equipment - Active Alfvén Eigenmode Control	81.049	52,833
DE-SC0001088	ARRA - Excitonics Van Voorhis	81.049	28,937
DE-SC0001088	ARRA - DINCA M&S and Travel	81.049	10,997
DE-SC0001088	ARRA - Excitonics Katz/Olsen M&S	81.049	13,802
DE-SC0001088	ARRA - Excitonics Admin Travel	81.049	22,849



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-SC0001088	ARRA - CAO M&S and Travel	81.049	10,957
DE-SC0001088	ARRA - Excitonics Swager	81.049	33,496
DE-SC0001088	ARRA - Excitonics Bawendi	81.049	53,156
DE-SC0001088	ARRA - Excitonics Baldo	81.049	164,498
DE-SC0001088	ARRA - Excitonics Core Activities	81.049	141,486
DE-SC0001088	ARRA - Excitonics Bulovic	81.049	83,404
DE-SC0001088	ARRA - Buchwald M&S	81.049	3,527
DE-SC0001088	ARRA - Recovery Act - Harvard Subward	81.049	561,532
DE-SC0001088	ARRA - Recovery Act - Harvard Sub - Loncar	81.049	112,525
DE-SC0001088	ARRA - Tisdale M&S - Travel	81.049	14,871
DE-SC0001088	ARRA - Fabricated Equipment: SNSPD Array	81.049	22,421
DE-SC0001088	ARRA - Brookhaven	81.049	198,233
DE-SC0001088	ARRA - Seed Funding	81.049	255,085
DE-SC0001088	ARRA - Excitonics Research Assistants	81.049	1,473,219
DE-SC0001088	ARRA - Excitonics Postdocs and Research Staff	81.049	664,480
DE-SC0001088	ARRA - EFRG Englund M&S and Travel	81.049	18,697
DE-SC0001088	ARRA - Excitonics Nelson	81.049	45,940
DE-SC0001088	ARRA - Excitonics Barton	81.049	168
DE-SC0001088	ARRA - Excitonics Gradedak	81.049	64,691
DE-SC0001088	ARRA - Excitonics Berggren	81.049	37,096
DE-SC0001088	ARRA - Excitonics Pl's	81.049	190,569
DE-SC0001299	Boston College Sub-Award-EFRC-S3TEC Center	81.049	259,909
DE-SC0001299	DE-FG02-09ER4657: Vacuum Chamber with Data Logging/Control System	81.049	54,155
DE-SC0001299	DE-FG02-09ER4657: Optical Emission Vacuum Setup - Fabricated Equipment	81.049	6,951
DE-SC0001299	DE-FG02-09ER4657: Fabricated Equipment: Micro-thermophotovoltaic Characterization Facility	81.049	3,900
DE-SC0001299	DE-FG02-09ER4657: Fabricated Equipment: Sample Characterization Vacuum System	81.049	7,166
DE-SC0001299	DE-FG02-09ER4657: Temperature/Pressure/Humidity Controlled Vacuum System	81.049	5,562
DE-SC0001299	DE-FG02-09ER4657: Solid-State Solar-Thermal Energy Conversion Center (S3TEC Center)	81.049	119,687
DE-SC0001299	DE-FG02-09ER4657: Fabricated Equipment - Optical setup (photonic crystal laser devices)	81.049	17,928
DE-SC0001299	DE-FG02-09ER4657: S3Tec Seed Funding - Jarillo-Herrero	81.049	79,343
DE-SC0001299	DE-FG02-09ER4657: Fabricated Equipment: Data Acquisition System for Thermophotovoltaic System	81.049	19,229
DE-SC0001299	DE-FG02-09ER4657: EFRG-S3TEC Center-Research	81.049	2,138,799
DE-SC0001299	DE-FG02-09ER4657: RPI subaward (seed funding)	81.049	98,935
DE-SC0001299	DE-FG02-09ER4657: Solid-State Solar-Thermal Energy Conversion Center (S3Tec Center)	81.049	381,588
DE-SC0002060	ARRA - TAS::89 0227::TAS RECOVERY ACT - PLASMA SCIENCE CENTER BRIDGING THE PS	81.049	500,720
DE-SC0002060	ARRA - Fab Eq - DIONISOS Experiment Upgrade	81.049	2,204

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-SC0002517	Large-Scale Optimization for Bayesian Inference in Complex Systems	81.049	113,186
DE-SC0002626	Electrochemically-Driven Phase Transitions in Battery Storage Compounds	81.049	237,792
DE-SC0002626	Child - Carter [6920590]	81.049	26,670
DE-SC0002633	SISGR: Chemomechanics of Far-From Equilibrium Interfaces	81.049	852,457
DE-SC0003564	ARRA - TAS::89 0227::TAS Recovery Act - Analysis and Reduction of Complex Networks under U	81.049	126,703
DE-SC0003906	ARRA - TAS:89 0227::TAS Recovery Act - Methods for Decision under Technological Change Unc	81.049	142,201
DE-SC0003907	ARRA - TAS:89 0227::TAS Recovery Act - Nonequilibrium Physics and Phase-Field Modeling of M	81.049	290,596
DE-SC0003908	ARRA - TAS:89 0227::TAS Recovery Act - Predictive Modeling of Complex Physical Systems: New	81.049	58,919
DE-SC0005262	Key Laser Technologies for X-ray FELs	81.049	174,576
DE-SC0005262	Child Account - Graves Supplement	81.049	15,415
DE-SC0005262	Fabrication: Sub-Femtosecond Timing Distribution	81.049	-3,060
DE-SC0005288	ZettaBricks: A Language Compiler and Runtime System for Anyscale Computing	81.049	714,179
DE-SC0005372	Software Synthesis for High Productivity Exascale Computing	81.049	166,160
DE-SC0005712	Development of a Polarized 3He Ion Source for RHIC	81.049	15,564
DE-SC0005712	Fabricated Equipment - Polarized 3He Ion Source	81.049	32,299
DE-SC0005807	Fabricated Equipment - High Intensity Polarized E-Gun Prep Chamber	81.049	32,740
DE-SC0005807	High Intensity Polarized Gun	81.049	-80,021
DE-SC0006389	Interpreting New Data from the High Energy Frontier	81.049	161,156
DE-SC0006418	Fabricated Equipment - Rotated Stage Cryostat	81.049	19,915
DE-SC0006418	Quantum Transport in Topological Insulator Nanoelectronic Devices	81.049	140,519
DE-SC0006419	Electron Temperature Fluctuation Measurements and Transport Model Validation at Alcatraz C-Mod	81.049	141,285
DE-SC0006423	Fabricated Equipment - Spectrometer for THz Magneto-Spectroscopy	81.049	1,176
DE-SC0006423	Optical Manipulation and Detection of Emergent Phenomena in Topological Insulators	81.049	113,073
DE-SC0006544	The Electron Diffusion Region in 3D Spontaneous Magnetic Reconnection	81.049	83,217
DE-SC0006937	Electronic and Ionic Conductors from Ordered Microporous Materials	81.049	166,509
DE-SC0007099	Quantification of Uncertainty in Extreme Scale Computations (QUEST)	81.049	101,014
DE-SC0007106	Thermodynamics of Self-Assembly in Globular Protein-Polymer Conjugates	81.049	258,102
DE-SC0007114	Collaborative Research: Quantifying Climate Feedbacks of the Terrestrial Biosphere under Thawin	81.049	139,202
DE-SC0007883	Nonlinear and Extended MHD Plasmas	81.049	85,279
DE-SC0008059	Graphene Membranes with Tunable Nanometer-Scale Pores	81.049	157,971
DE-SC0008060	Predicting Ice Sheet and Climate Evolution at Extreme Scales (PICEES)	81.049	75,945
DE-SC0008435	Spontaneous Generation of Rotation in Tokamak Plasmas	81.049	125,160
DE-SC0008736	Automated Metadata, Provenance Cataloging and Navigable Interfaces: Ensuring the Usefulness c	81.049	129,282
DE-SC0008737	Partnership for Edge Physics Simulation	81.049	23,951
DE-SC0008737	Partnership for Edge Physics Simulation - LNS Expenses	81.049	54,073
DE-SC0008739	Unconventional Metals in Strongly Correlated Systems	81.049	66,478

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-SC0008740	Polarized 3He Ion Source - Fabricated Equipment	81.049	24,318
DE-SC0008740	Development of a Polarized 3He Ion Source for RHIC	81.049	38,678
DE-SC0008741	High Intensity Polarized Electron Gun - Fabricated Equipment	81.049	20,876
DE-SC0008741	High Intensity Polarized Electron Gun	81.049	186,835
DE-SC0008742	Lewis Acid Pairs for the Activation of Biomass-derived Oxygenates in Aqueous Media	81.049	129,910
DE-SC0008743	Polz - Child: Assembling Reusable Genetic Modules for Efficient Biofuel Production from Marine M.	81.049	78,462
DE-SC0008743	Assembling Reusable Genetic Modules for Efficient Biofuel Production from Marine Macroalgae	81.049	149,258
DE-SC0008744	Optimizing oil production in oleaginous yeast by cell-wide measurements and genome-based mod	81.049	51,367
DE-SC0008766	Computing Properties of Hadrons, Nuclei and Nuclear Matter from Quantum Chromodynamics	81.049	243,475
DE-SC0008923	Child - O'Reilly	81.049	16,001
DE-SC0008923	Child - Solar-Lezama	81.049	35,282
DE-SC0008923	CAP3: A Computer Aided Performance Programming Platform	81.049	457,892
DE-SC0008923	Child - Shavit	81.049	68,996
DE-SC0008923	Child - Marzouk	81.049	31,944
DE-SC0008926	Child - Schuh - 6926594	81.049	92,020
DE-SC0008926	Child - Demkowicz - 6926594	81.049	37,037
DE-SC0008926	Inferring grain boundary properties from measurements on grain boundary networks	81.049	10,484
DE-SC0008926	Child - Marzouk - 6926594	81.049	62,221
DE-SC0009297	DiaMonD child acct-Juanes	81.049	86,769
DE-SC0009297	DiaMonD: An Integrated Multifaceted Approach to Mathematics at the Interfaces of Data, Models, ε	81.049	142,495
DE-SC0009297	DiaMonD child acct-Marzouk	81.049	42,860
DE-SC0009833	Development of an accelerator-based diagnostic for plasma-facing surfaces in magnetic confine	81.049	54,680
DE-SC0010075	Fabricated Equipment - HGA Test Stand	81.049	3,724
DE-SC0010075	High Gradient Accelerator Research	81.049	580
DE-SC0010076	Theoretical and Computational Investigation of High-Brightness Beams	81.049	54,621
TBD	Imaging Interfacial Electric Fields on Ultrafast Timescales	81.049	5,893
<b>DOE - Chicago - Equipment</b>			<b>58,320,959</b>
<b>Total for DOE - Chicago</b>			<b>58,320,959</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-99ER54512	Fabricated: X-Ray Pulse-Height Analysis	81.049	12,977
DE-FC02-99ER54512	Fabricated: Omegatron Probe	81.049	1,805
DE-FC02-99ER54512	Fabricated: ECE Grating Polychromator	81.049	-3,226
DE-FC02-99ER54512	Fabricated: High Resolution X-Ray Spectrometer	81.049	-5,373

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FC02-99ER54512	Fab Equip/RF Instrumentation & Control	81.049	2,511
DE-FC02-99ER54512	Fabricated: Diborine System	81.049	10,606
DE-FC02-99ER54512	Fab Equip/Divertor Cryopump	81.049	98
DE-FC02-99ER54512	Fabricated: Two-color CO2 Interferometer	81.049	-4,235
DE-FC02-99ER54512	Fabricated: Reflectometer	81.049	3,218
DE-FC02-99ER54512	Fabricated: YAG Laser Scattering System	81.049	-3,484
			<b>14,897</b>
			<b>14,897</b>

### Total for DOE - Chicago - Equipment

### DOE - Idaho Falls

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-NE0000308	Infrastructure Upgrade to the MITR Research Reactor	81.121	6,332
DE-NE0000322	General Scientific Infrastructure Support	81.121	51,924
			<b>58,256</b>
			<b>58,256</b>

### Total for DOE - Idaho Falls

### DOE - Office of ARPA-E

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-AR0000047	ARRA - Electrovillie: High-Amperage Energy Storage Device-Energy Storage for the Neighborhood	81.135	780,228
DE-AR0000056	ARRA - Engineering Ralstonia eutropha for Production of Isobutanol (IBT) Motor Fuel from Carbon	81.135	464,143
DE-AR0000059	ARRA - Subcontract - U Delaware - 6922110	81.135	215,252
DE-AR0000059	ARRA - Subcontract - Harvard - 6922110	81.135	154,588
DE-AR0000059	ARRA - Bioprocess and Microbe Engineering For Total Carbon Utilization in Biofuel Production, Pr	81.135	928,813
DE-AR0000065	ARRA - Semi-Solid Rechargeable Power Sources: Flexible, High Performance Storage for Vehicle	81.135	397,554
DE-AR0000065	ARRA - Subcontract: Rutgers 6922361	81.135	190,359
DE-AR0000065	ARRA - Child - Carter - 6922361	81.135	192,933
DE-AR0000065	ARRA - Child - Belcher - 6922361	81.135	303,425
DE-AR0000083	ARRA - Electrochemically mediated separation for carbon capture and mitigation, Project 2010000	81.135	243,818
DE-AR0000123	ARRA - ARPA-E Perreault Child	81.135	103,718
DE-AR0000123	ARRA - ARPA-E Other Personnel	81.135	196,267
DE-AR0000123	ARRA - ARPA-E Dartmouth Sub	81.135	255,919
DE-AR0000123	ARRA - Advanced Technologies for Integrated Power Electronics, Project 2010000	81.135	45,416
DE-AR0000123	ARRA - ARPA-E RA's	81.135	364,676
DE-AR0000123	ARRA - ARPA-E del Alamo Child	81.135	11,196

**Appendix A-1 - Detail**  
**Massachusetts Institute of Technology**  
**Federal Research Support - On Campus**  
**Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-AR0000123	ARRA - ARPA-E Lang Child	81.135	30,657
DE-AR0000123	ARRA - ARPA-E U Penn Sub	81.135	153,242
DE-AR0000123	ARRA - ARPA-E Palacios	81.135	122,903
DE-AR0000123	ARRA - ARPA-E Georgia Tech Sub	81.135	162,816
DE-AR0000180	Child: Schmidt	81.135	166,726
DE-AR0000180	Child: Bulovic	81.135	225,988
DE-AR0000180	Hybrid nanostructures for high-energy-density solar thermal fuels	81.135	701,169
DE-AR0000180	Child: Slocum	81.135	164,643
DE-AR0000180	ARPA E TT&O expenses	81.135	52,881
DE-AR0000180	Child: Nocera	81.135	145,082
DE-AR0000181	Metallic Composites Phase-Change Materials for High-Temperature Thermal Energy Storage	81.135	268,202
DE-AR0000185	FabEq: SynVess for Temp Controlled IonExch	81.135	2,855
DE-AR0000185	ARPA E TT&O expenses	81.135	58,912
DE-AR0000185	Advanced Thermo-Adsorptive Battery Climate Control System (ATB)	81.135	785,172
DE-AR0000185	ARPA-E ATB: Gang Chen child	81.135	106,001
DE-AR0000185	Fab Eq: Monolithically Integrated ATB	81.135	3,777
DE-AR0000294	Scalable, self-powered purification technology for brackish and heavy metal-contaminated water	81.135	42,949
DE-AR0000321	Authorized Pre-Award Expenses	81.135	30,122
DE-AR0000321	Compact, Inexpensive Micro-Reformers for Distributed GTL Systems	81.135	120,934
DE-AR0000321	FAB-E Experimental Engine	81.135	23,148
			<b>8,216,484</b>
			<b>8,216,484</b>

**Total for DOE - Office of ARPA-E**

**DOE-Golden Colorado**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-EE0005756	Continuous Processing of High Thermal Conductivity Polyethylene Fibers and Sheets	81.086	230,920
DE-EE0005756	FAB EQ: Polymer Processing System	81.086	21,995
			<b>252,915</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-EE0002743	ARRA - Recovery Act: Decision Analysis for Enhanced Geothermal Systems	81.087	118,450
DE-EE0005320	FAB EQ: External Quantum Efficiency System	81.087	49,089
DE-EE0005320	Scalable High-Efficiency Thin-Crystalline Si Cells Enabled by Light Trapping Nanostructures	81.087	328,575
DE-EE0005329	Fabricated Equipment - Tin Sulfide Film Growth System	81.087	16,892
DE-EE0005329	Fabricated Equipment - H2S Annealing Furnace	81.087	7,690

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-EE0005329	Next-Generation Sulfide Materials: Optimizing CZTS and Developing SnS by Systematic Defect En	81.087	550,886
DE-EE0005806	Concentrated Solar Thermoelectric Power	81.087	104,141
DE-EE0006131	Evaluating the causes of photovoltaics cost reduction: Why is PV different?	81.087	3,997
DE-FG36-08GO18190	Detection and Characterization of Natural and Induced Fractures for the Development of Enhancec	81.087	-5,580
DE-FG36-08GO18197	Monitoring and Modeling Fluid Flowdown in Developing Enhanced Geothermal System (EGS) Res	81.087	45,579
DE-FG36-09GO19001	Defect Engineering, Cell Processing, and Modeling for High-Performance, Low-Cost Crystalline Sil	81.087	19,676
			<b>1,239,395</b>
			<b>1,492,310</b>

### Total for DOE-Golden Colorado

#### DOE-NETL

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-EE0005444	High Compression Ratio Turbo Gasoline Engine Operation Using Alcohol Enhancement	81.086	298,623
DE-EE0005445	Lubricant Formulations to Enhance Engine Efficiency in Modern Internal Combustion Engines	81.086	439,550
			<b>738,173</b>
			<b>585,382</b>

  

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FE0004271	Integrated Electrochemical Processes for CO2 Capture and Conversion to Commodity Chemicals	81.089	340,568
DE-FE0004271	Subcontract - Siemens - 6922747	81.089	133,823
DE-NT004117	Chemistry of SOFC Cathode Surfaces: Fundamental Investigation and Tailoring of Electronic Beha	81.089	110,991
			<b>202,817</b>
			<b>1,526,372</b>

#### DOE/NNSA/ALB

Contract Number	Government Contract Title	CFDA#	FY Expenses
DE-FG52-09NA29553	Fabricated Equipment Particle Accelerator	81.112	2,053
DE-FG52-09NA29553	Studying Fields and Matter in Head Plasmas	81.112	6,294

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-NA0000877	Stipends for OLUG 2011	81.112	5,180
DE-NA0000877	Charged-particle probing of inertial-confinement -fusion implosions and high-energy-density	81.112	83,654
DE-NA0001857	OLUG 2013	81.112	41,336
DE-NA0001857	HEDLP Studies of Fields, Matter, Transport, Nuclear Physics, and ICF with New Diagnostics at the	81.112	718,561
			<b>857,078</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-NA0001523	3D Variations in Seismic Wavespeed and Mass Density in the Crust and Upper Mantle of SE Asia	81.CCC	69,537
			<b>69,537</b>
			<b>926,615</b>

**Total for DOE/NNSA/ALB**

**DOE/NNSA/Washington**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DE-AC52-08NA28539	A Unified Approach to Joint Regional and Telesismic Calibration and Event Location with a 3-D E:	81.113	9,068
			<b>9,068</b>
			<b>9,068</b>

**Total for DOE/NNSA/Washington**

**Fermilab**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
PO 563385-REVISION 9	US CMS DAQ Subsystem	81.CCC	286,246
PO-602735	CDF Monte Carlo Processing Facility at MIT (Network and Computing Support)	81.CCC	29,877
PO-606230	US CMS SiTrk Subsystem	81.CCC	50,335
PO-606667	US CMS HCAL Subsystem	81.CCC	14,364
PO-607300	US CMS Software and Computing Subsystem (Data Operation)	81.CCC	107,246
			<b>488,068</b>
			<b>488,068</b>

**Total for Fermilab**

**Lawrence Livermore National Security, LLC**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
B600100	High Density Implosions on the National Ignition Facility	81.CCC	393,667
B601821	Structurally Robust Materials with Ultra-Low Thermal Expansion via Designed Microscale Architect	81.CCC	138,695
B602126	Chemical Threat Responsive Carbon Nanotube Membranes	81.CCC	230,631

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
B603090	Study of ionic transport in TIBr and its impact on electrode performance	81.CCC	19,643
NO B596165	Scalable High-Volume Micromanufacturing Techniques for Three-Dimensional Mesoscale Compon	81.CCC	130,492
SUBCONTRACT NO. B580243	Travel Supplement for High Density Implosions on OMEGA and the NIF	81.CCC	9,550
SUBCONTRACT NO. B580243	High Density Implosions on OMEGA and the NIF	81.CCC	-846
SUBCONTRACT NO. B597367	Support of Nuclear Physics Experiments on the NIF and Omega Laser Facilities	81.CCC	169,260
			<b>1,091,092</b>

**Total for Lawrence Livermore National Security, LLC**

**1,091,092**

**Total for Department of Energy**

**72,698,726**

**Dept. of Health and Human Services**

**DHHS - Miscellaneous**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
HH5P233201200367P	CISR Multi-Sponsored Consortium	12.000	33,311

**33,311**

**NIH**

**Total for DHHS - Miscellaneous**

**33,311**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
2-R01-ES015818-05A1	Mechanism of Eukaryotic Environmental Mutagenesis	93.113	350,490
2-R56-ES015818-05	Mechanism of Eukaryotic Environmental Mutagenesis	93.113	92,875
3-U01-ES016045-04S1	Comet-Chip: A High-Throughput DNA Damage Sensor for Environmental Health Studies	93.113	40,078
5-P30-ES002109-32	YR32: Pilot Proj Tomakoff	93.113	41,666
5-P30-ES002109-32	CF PP-Nolan	93.113	7,434
5-P30-ES002109-32	YR32: Pilot Proj Runstadler	93.113	16,524
5-P30-ES002109-32	CF Transl PP-Kun/Tannenbaum	93.113	27,711
5-P30-ES002109-32	CF PP-Erdman	93.113	5,025
5-P30-ES002109-32	Admin Core-YR32	93.113	161,156
5-P30-ES002109-32	YR32: Pilot Proj Calvo	93.113	34,022
5-P30-ES002109-32	YR32: Pilot Proj Wogan	93.113	27,694
5-P30-ES002109-32	Genomics Fac Core-YR32	93.113	190,962
5-P30-ES002109-32	Bioanalytical Fac Core-YR32	93.113	278,290



**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
5-P30-ES002109-32	YR32: Transl Pilot Proj Engelward	93.113	8,335
5-P30-ES002109-32	COEC-YR32	93.113	74,661
5-P30-ES002109-32	Integrative Health Fac Core-Year 32	93.113	28,132
5-P30-ES002109-32	Carryforward from YR31-YR32	93.113	30,309
5-P30-ES002109-32	YR32: Transl Pilot Proj Dedon	93.113	39,642
5-P30-ES002109-32	CF Transl PP-Missmer (sub)	93.113	61,479
5-P30-ES002109-32	YR32: Pilot Proj Sikes	93.113	32,996
5-P30-ES002109-32	Animal Models Fac Core-YR32	93.113	179,213
5-P30-ES002109-32	Director's Fund-YR32	93.113	63,603
5-R01-ES015339-05	Protein Kinase Signaling and Cell Cycle Control	93.113	24,364
5-R01-ES016313-04	The Environment as a Variable to Calibrate Mouse Models of Human Disease - Tannenbaum Chilc	93.113	67,603
5-R01-ES016313-04	The Environment as a Variable to Calibrate Mouse Models of Human Disease - Wogan Child	93.113	68,455
5-R01-ES016313-05	The Environment as a Variable to Calibrate Mouse Models of Human Disease	93.113	100,350
5-R01-ES016450-12	DNA Oxidation Products and Endogenous DNA Adducts	93.113	-13,606
5-R21-ES019498-02	CometChip: Enabling Translation of DNA Damage and Repair Assays	93.113	139,227
5-R21-ES020466-02	Phospho-Binding Ligands and Substrates of BRCA1	93.113	149,717
5-T32-ES007020-37	Training Grant in Environmental Toxicology	93.113	-1,417
5-T32-ES007020-38	Training Grant in Environmental Toxicology	93.113	504,540
5-U01-ES016045-04	Comet-Chip: A High-Throughput DNA Damage Sensor for Environmental Health Studies	93.113	6,711
5-U01-ES016045-04	CF 6919727 / 6921345	93.113	57,748
5P30ES002109-33	Genomics Fac Core-YR33	93.113	59,012
5P30ES002109-33	CF YR32 Transl PP Engelward	93.113	1,728
5P30ES002109-33	CF YR32 PP Wogan	93.113	7,434
5P30ES002109-33	Admin Core -YR33	93.113	79,701
5P30ES002109-33	Animal Models Fac Core-YR33	93.113	59,489
5P30ES002109-33	Bioanalytical Fac Core-YR33	93.113	135,110
5P30ES002109-33	Integrative Health Fac Core-YR33	93.113	4,227
5P30ES002109-33	CF YR32 PP Calvo	93.113	7,655
5P30ES002109-33	CF YR32 PP Runstadler	93.113	7,586
5P30ES002109-33	COEC-YR33	93.113	23,764
8-DP1-ES022576-04	Developing novel methods to measure DNA repair capacity in human populations	93.113	1,047,535
9R01-ES022872-21A1	Eukaryotic DNA Alkylation Repair	93.113	78,874
			<b>4,408,104</b>

FY Expenses  
30,351

CFDA#  
93.121

Government Contract Title  
Subcontract - MGH- - 6921553

Contract Number  
5-R01-DE013023-14

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-R01-DE016516-09	High Throughput Craniofacial Tissue Engineering	93.121	466,132
5-R01-DE019523-13	Bioengineering Polymers for Parsing Cell Responses	93.121	252,959
5_R01-DE013023-14REVISED	Novel Polymers for Tissue Engineering	93.121	306,052
			<b>1,055,494</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
3-RC1-HG005334-02S1	Integrative analysis of genomic and epigenomic datasets in multiple cell types	93.170	227,540
			<b>227,540</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-U01-HG007037-01	Integrated Genome Discovery at Single Base Pair Resolution	93.172	120,820
3-RC2-HG005639-02S1	Subawards Child Account	93.172	453,015
3-RC2-HG005639-02S1	A Data Analysis Center for integration of fly and worm modENCODE datasets	93.172	151,661
5-R01-HG002439-12	Regulation and Evolution of Alternative mRNA Isoform Expression in Mammals	93.172	589,254
5-R01-HG004037-06	Regulatory Motif Discovery in the Human Genome Using Comparative Genomics	93.172	313,072
5-R01-HG006781-02	Development of technologies for genome-wide identification of RNA branch points	93.172	265,924
5-T32-HG002295-09	Training Program in Bioinformatics and Integrative Genomics	93.172	78,478
5-T32-HG004947-03	MIT/Whitehead/Broad Computational Genetics Training Program	93.172	-70
5-T32-HG004947-04	MIT/Whitehead/Broad Computational Genetics Training Program - Yr 4	93.172	157,199
			<b>2,129,353</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-K99-DC012321-01	The role of cortico-hippocampal interactions in encoding auditory memories	93.173	89,066
1-R01-DC011339-01A1	Brain Bases of Language Deficits in SLI and ASD	93.173	22,775
2-R01-DC000117-33A1	Hearing Aid Research	93.173	201,332
5-R01-DC000238-28	Experimental - Theoretical Studies of Cochlear Mechanisms	93.173	383,342
5-R01-DC000238-28	Fabricated Equipment: FO-DOCM System	93.173	730
5-R01-DC003007-15	Effects of Hearing Status on Audit Speech Production	93.173	18,508
5-R01-DC007152-05	Aids for the Deaf: Models of Speech Intelligibility	93.173	1,225
5-R01-DC009183-05	Neuronal Mechanisms of Motor Exploration in the Songbird	93.173	263,966
5-R01-DC011339-02	Brain Bases of Language Deficits in SLI and ASD	93.173	596,001
5-T32-DC000038-20	Training for Speech and Hearing Sciences	93.173	-1,376
			<b>1,575,569</b>

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
1-K99-MH099654-01	Cortical mechanisms of learned spatial-temporal sequence coding	93.242	41,852
1-R01-MH097104-01A1	Shank3 in Synaptic Function and Autism	93.242	295,514
1-R21-MH092564-01A1	Learned regulation of the limbic network via combined EEG and fMRI - Child Account	93.242	44,215
1-R21-MH097680-01A1	Using Drosophila to Characterize the Molecular Pathogenesis of Autism	93.242	31,837
2-R01-MH065252-11	Neural Basis of Categories	93.242	371,850
5-P20-MH66239-03	Detection and Recognition of Objects in the Visual Cortex	93.242	-1
5-R00-MH080310-05	Signaling Scaffold Of NMDA Receptor-Dependent Long-Term Plasticity	93.242	-259
5-R01-MH060379-12	Ensemble activity in rat corticostriatal circuits during habit learning	93.242	525,715
5-R01-MH061976-10	Hippocampal and Prefrontal Cortical Interactions in Rodent Memory Formation	93.242	25
5-R01-MH065252-10	Neural Basis of Categories	93.242	22,847
5-R01-MH067105-09	Performance Error Signals in Basal Ganglia-Forebrain Circuits of the Songbird	93.242	604,447
5-R01-MH080344-04	Development of Declarative Memory	93.242	12,506
5-R01-MH080344-05	Development of Declarative Memory	93.242	259,292
5-R01-MH081201-05	Roles of SAPAP proteins in Synaptic Functions and Compulsive-like Behavior	93.242	-185
5-R01-MH084966-05	Opposing Effects of Chronic Stress on Amygdala and Hippocampus	93.242	415,491
5-R01-MH085802-04	Mechanisms and Therapeutics for Rett Syndrome	93.242	487,644
5-R01-MH091115-04	Chemical Genomic Approaches to Neurobiology of DISC1	93.242	813,325
5-R01-MH091174-03	Capacity Limitations in the Cortex	93.242	484,590
5-R01-MH091220-04	The Role of GABAergic Synaptic Plasticity in Neural Circuit Functions	93.242	608,452
5-R01-MH096914-02	Impairments of Theory of Mind disrupt patterns of brain activity	93.242	192,574
5-R21-MH092564-02	Learned regulation of the limbic network via combined EEG and fMRI	93.242	111,162
5-R37-MH087027-04	Cortical Circuits for Attention and Decisions	93.242	308,966
			<b>5,631,859</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-R21-EB007043-02	Design and Testing of New Additives for the Stabilization of Biopharmaceuticals	93.256	1,692
			<b>1,692</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-R01-DA029639-01	Fabricated Equipment - Neural Device Assembly	93.279	4,822
1-R01-DA029639-01	Fonstad Child	93.279	22,568
5-R01-DA028299-04	MRI Probes for Functional Imaging of Plasticity Signals in the Brain	93.279	762,449
5-R01-DA029639-03	Novel Platforms for Systematic Optical Control of Complex Neural Circuits in Vivo	93.279	339,343
5-R21-DA027742-03	Neural Mechanisms of Associative Learning from Negative Reward Prediction Errors	93.279	6,731
			<b>1,135,913</b>

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-K99-MH092715-02	Controlling Interareal Gamma Coherence by Optogenetics, Pharmacology and Behavior	93.281	56,704
			<b>56,704</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-T32-MH074249-06	Training Program in the Neurobiology of Learning and Memory	93.282	168,169
5-T32-MH082718-04	Developmental Cognitive Neurosciences	93.282	164,644
			<b>332,813</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-R01-EB013231-01A1	Fabricated Equipment - 1.5T/75-mm RT Bore MAF Magnet System	93.286	13,064
1-R01-EB016101-01A1	A New Device for Electrical & Chemical Modulation of Pathological Neural Activity	93.286	151,484
1-R21-EB013764-01A1	A 7-T/54-mm compact no-insulation HTS magnet for NMR applications	93.286	99,639
2-R01-EB002804-23A1	Fabricated Equipment - Probes for 140 GHz DNP	93.286	5,424
2-R01-EB002804-23A1	500 MHz DNP Apparatus	93.286	12,359
2-R01-EB002804-23A1	Fabricated Equipment - 700MHz DNP Probe	93.286	7,640
2-R01-EB002804-23A1	Fabricated Equipment - 250 GHz Gyrotron Rebuild	93.286	12,102
2-R01-EB002887-04A2	Fabricated Equip: MgB2 Whole-Body MRI Magnet: Phase I	93.286	16,865
2-R01-EB003151-31	Fab E: P&P Probe	93.286	3,797
2-R01-EB003151-35A1	Fabricated Equipment - P&P Probe #1	93.286	7,478
2-R01-EB004866-05A1	Fabricated Equip: High Frequency Gyrotron	93.286	14,375
2-R01-EB006365-06A2	Subcontract Case Western - 6915916	93.286	116,694
2-R01-EB006365-06A2	Subcontract Johns Hopkins - 6915916	93.286	104,825
2-R01-EB006365-06A2	Child -Cima - 6915916	93.286	29,457
5-K99-EB013630-02	3D Microvascular Networks in Hydrogels Fabricated with Sacrificial Structures	93.286	86,033
5-P41-EB002026-34	Child Account: Advisory Board Meeting Restricted Funds	93.286	9,437
5-P41-EB002026-38	Harvard/MIT Center for Magnetic Resonance	93.286	1,180,867
5-P41-EB015871-27	MIT Laser Biomedical Research Center	93.286	801,360
5-R01-EB000351-20	Expanding the Clinical Utility of Ultrasound-Assisted Transdermal Drug Delivery	93.286	384,507
5-R01-EB000351-20	Child - Blankschtein - 6921819	93.286	5,487
5-R01-EB001659-07	Peter Szolovits - 6918054	93.286	247,462
5-R01-EB001659-07	George Verghese - 6918054	93.286	137,780
5-R01-EB001659-10	Integrating Data, Models, and Reasoning in Critical Care	93.286	863,857
5-R01-EB001960-36	Solid State NMR Studies of Membrane Proteins	93.286	554,399
5-R01-EB001965-07	Fabricated Equipment: A Gyrotron Amplifier Tube	93.286	71,043

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
5-R01-EB001965-09	High Power Millimeter Wave/Terahertz Sources for Magnetic Resource	93.286	131,312
5-R01-EB002804-25	High Field DNP and EPR in Biological Systems	93.286	655,001
5-R01-EB002887-06	MgB2 0.5-T/800-mm Whole-Body MRI Magnet: Phase I	93.286	274,929
5-R01-EB003151-34	Solid State NMR Studies of Peptides and Proteins	93.286	140,633
5-R01-EB003151-36	Solid State NMR Studies of Peptides and Proteins	93.286	650,753
5-R01-EB003805-03	Child Grodzinsky - 6898360	93.286	26,335
5-R01-EB004866-07	High Frequency Gyrotron for DNP/NMR Research	93.286	606,340
5-R01-EB006365-10	Microchip Drug Delivery System	93.286	182,015
5-R01-EB007942-04	Spiral Spectroscopic Human Neuroimaging	93.286	131,818
5-R01-EB013231-02	A 1.5-T superconducting solenoid-dipole magnet for a magic-angle spinning field	93.286	518,158
5-R21-EB008177-02	Continuous-flow, Ampholyte-free pl-based Sorting Peptides/proteins at Extreme pH Conditions	93.286	-493
5-R21-EB008814-02	Barcoded Hydrogel Microparticles and Scanner for Multiplexed Biomolecule Assays	93.286	-14,335
5-R37-EB000244-33	Controlled Release of Macromolecules	93.286	350,569
5-T32-EB001680-07	Neuroimaging Training Program	93.286	25,776
5-T32-EB001680-08	Neuroimaging Training Program	93.286	138,017
5-T32-EB006348-05	Molecular, Cell and Tissue Biomechanics Training Grant	93.286	7,643
9-P41-EB015871-26A1	Child: Dasari	93.286	37,690
9-P41-EB015871-26A1	Child: Tokmakoff	93.286	71,821
9-P41-EB015871-26A1	Child: Mounji Bawendi	93.286	75,415
9-P41-EB015871-26A1	Child: Peter So_2	93.286	52,158
9-P41-EB015871-26A1	Child: Peter So	93.286	78,613
			<b>9,077,603</b>
<b>Contract Number</b>	<b>Government Contract Title</b>	<b>CFDA#</b>	<b>FY Expenses</b>
1-DP2-AG044279-01	Early Warning Indicators of Tipping Points in Biological Systems	93.310	122,082
1-DP2-OD002002-01	Director's New Innovator Award: Novel Tools and Principles for Precisely Controlling Brain Activity	93.310	37,902
1-DP2-OD002114-01	Director's New Innovator Award: Genetically-Controlled MRI Contrast Agents for Functional Brain II	93.310	-6,252
1-DP2-OD002989-01	Fabrication: High Throughput Small Animal Screening	93.310	1,179
1-DP2-OD002989-01	Director's New Innovator Award: Development of On-Chip Ultra High-Throughput Whole-Animal As	93.310	27,873
1-DP2-OD007045-01	Antibacterial Peptides and Zinc in Innate Immunity and Mammalian Physiology	93.310	507,373
1-DP2-OD007124-01	Engineered Regulated RNA Localization and Transport in Biological Systems	93.310	630,334
1-DP2-OD008435-01	Director's New Innovator Award: High-Throughput Nanoscale Approaches to Studying and Inhibitin	93.310	1,185,974
1-R01-GM104948-01	Redesigning General Anesthesia	93.310	498,140
1-R21-AI106025-01	Highly Multiplexed Single-cell Transcript Analysis Using DNA-barcoded Nanowells	93.310	77,090
5 R03 MH096549-02	Inhibition of Glycoprotein Biosynthesis in Gram-Negative Pathogens	93.310	42,102
5-R01-EB010246-04	Perfused 3D Tissue Surrogates for Complex Cell-Cell Communication Systems	93.310	851,542

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Contract Number	Government Contract Title	CFDA#	FY Expenses
5-R01-GM096466-03	Very large datasets and new models to predict and design protein interactions	93.310	400,169
5-R01-NS073127-04	High-Throughput in Vivo Subcellular-Resolution Vertebrate Screening Platform	93.310	481,194
5-R01-NS076462-03	Noninvasive imaging-based electrophysiology using microelectronic devices	93.310	702,643
8-DP1-CA174420-05	Stochastic Gene Expression in Differentiation and Development	93.310	1,302,185
8-DP1-GM105381-05	NIH Director's Pioneer Award	93.310	436,376
8-DP1-NS082101-02	Fabricated equipment: High-Throughput Cell Culture Screening System	93.310	12,848
8-DP1-NS082101-02	Generating Transplantable Neurons by in Vivo Combinatorial Screening of Transcription Regulator	93.310	889,886
			<b>8,200,640</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
1-UH2-TR000496-01	All-Human Microphysical Model of Metastasis Therapy	93.350	624,932
			<b>624,932</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
2-T32-OD010978-26	Biomedical Research Training for Veterinary Scientists - Year 1	93.351	30,063
5-R01-OD011141-03	Diagnosis and Pathobiology of Emerging Enteropathic Helicobacter spp. in Mice	93.351	386,117
5-T32-OD010978-25	Biomedical Research Training for Veterinary Scientists	93.351	343,200
7-R21-OD011193-03	Targeted genome modification of guinea pig and sheep using engineered nucleases	93.351	39,807
			<b>799,187</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
2-R01-RR015034-06	RESTRICTED FUNDS Fabricated Equipment: Phase 3A LTS/HTS NMR Magnet	93.389	302,171
3-P41-RR02594-25S1	MIT Laser Biomedical Research Center	93.389	15,907
5-R01-RR015034-09	Phase 3A of a 3-phase 1.3-GHz LTS/HTS NMR Magnet	93.389	162,678
			<b>480,756</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
5-DP1-OD001022-05REVISED	NIH Director's Pioneer Award	93.390	739,186
5-DP1OD001022-05	UIUC Subaward-6914429	93.390	59,559
			<b>798,745</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
2-P01-CA42063-26	Characterization of Pathways Controlling Cancer at the Level of Gene Regulation - Core	93.393	172,416

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Contract Number	Government Contract Title	CFDA#	FY Expenses
2-P01-CA42063-26	Characterization of Pathways Controlling Cancer at the Level of Gene Regulation - T Jacks (Projec	93.393	484,560
2-P01-CA42063-26	Characterization of Pathways Controlling Cancer at the Level of Gene Regulation - J. Lees (Project	93.393	298,578
4-R37-CA080024-16	Intra and Extra-Chromosomal Probes for Mutagenesis by Carcinogens	93.393	135,497
5-P01-CA026731-34	NO PPG Core 1 Wogan	93.393	37,573
5-P01-CA026731-34	No PPG - Core 2 - Fox	93.393	224,041
5-P01-CA026731-34	No PPG Project 3 Wogan	93.393	182,847
5-P01-CA026731-34	NO PPG Core 1 Parent	93.393	197,349
5-P01-CA026731-34	NO PPG Project 4A - Fox	93.393	71,600
5-P01-CA026731-34	NO PPG Project 4B - Engelward	93.393	50,772
5-P01-CA026731-34	No PPG Project 3 Essigmann	93.393	152,035
5-P01-CA026731-34	No PPG Project 2 Dedon	93.393	188,455
5-P01-CA026731-34	Project 2 Tannenbaum	93.393	244,171
5-P01-CA026731-34	Endogenous Nitrite Carcinogenesis in Man	93.393	52,119
5-P01-CA026731-34	NO PPG - Core 3 Admin	93.393	68,272
5-P01-CA42063-24	Pathways Controlling Cancer - Tyler Jacks	93.393	-4,569
5-P01-CA42063-25	Characterization of Pathways Controlling Cancer - Prof. Sharp	93.393	-1,154
5-P01-CA42063-27	Characterization of Pathways Controlling Cancer at the Level of Gene Regulation	93.393	385,770
5-R01-CA055042-20	Eukaryotic DNA Alkylation Repair	93.393	15,524
5-R01-CA075576-14	In Vivo Role of DNA Alkylation Repair	93.393	47,330
5-R01-CA079827-09	Mechanisms of Damage-Induced Homologous Recombination	93.393	57,454
5-R01-CA103146-10	Chemistry and Biology of Deoxyribose Oxidation in DNA	93.393	324,049
5-R01-CA108854-06	Role of IL1O and TGFB1 in Colon Cancer	93.393	183,607
5-R01-CA133404-05	Stress and Proliferation States Impact MicroRNA-Mediated Regulation in Cancer	93.393	439,783
5-R01-CA149261-04	The influence of DNA repair on inflammation associated carcinogenesis	93.393	220,652
5-R01CA021615-36	Mutagenesis and Repair of DNA	93.393	390,141
5-R37-CA080024-15	Intra and Extra-Chromosomal Probes for Mutagenesis by Carcinogens	93.393	218,752
			<b>4,837,624</b>
<b>Contract Number</b>	<b>Government Contract Title</b>	<b>CFDA#</b>	<b>FY Expenses</b>
1-R01-CA77044-02	Capillary Hybridization for Identification of Mutations	93.394	175
5-R01-CA034992-31	Chemistry and Biology of Platinum Anticancer Drugs	93.394	580,256
5-R01-CA140476-05	Nanoparticle-Mediated Support of Cancer Immunotherapy	93.394	269,613
5-R21-CA137695-03	Developing a Single Cell Growth Monitor for Classifying Therapeutic Response	93.394	45,815
5-R21-CA137695-03	Fabricated Equipment -- SMR Resonant Frequency Monitor	93.394	19,889
			<b>915,748</b>

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Contract Number	Government Contract Title	CFDA#	FY Expenses
1-R01-CA172164-01	Targeting immunosuppression blockade to T cells for cancer immunotherapy	93.395	99,932
2-P30-CA14051-40	Administration	93.395	-3,504
2-P30-CA14051-40	Program Planning and Evaluation	93.395	-1,576
2-R01-CA096504-06	Lauff - Child - 6915834	93.395	3,861
2-R01-CA096504-06	MSKCC Subaward - 6915834	93.395	29,134
2-R01-CA096504-06	Child - White 6915834	93.395	7,815
2-R01-CA096504-06	UCB Subaward - 6915834	93.395	89,873
2-R01-CA096504-11	Engineered Antibody EGFR Antagonist Cancer Therapeutics	93.395	41,516
5-P30-CA14051-41	Developmental Funds Pilot Project (Yaffe)	93.395	67,465
5-P30-CA14051-41	Bioinformatics and Computing	93.395	314,508
5-P30-CA14051-41	Developmental Funds Pilot Project (Belcher)	93.395	12,878
5-P30-CA14051-41	Developmental Pilot Project (Yaffe)	93.395	97,649
5-P30-CA14051-41	Developmental Pilot Project (White)	93.395	125,912
5-P30-CA14051-41	Flow Cytometry Facility	93.395	237,563
5-P30-CA14051-41	Developmental Funds Pilot Project (Guarente)	93.395	3,740
5-P30-CA14051-41	Biopolymers & Proteomics Core Facility	93.395	360,359
5-P30-CA14051-41	Applied Therapeutics & Whole Animal Imaging	93.395	114,221
5-P30-CA14051-41	Microscopy Core Facility	93.395	145,341
5-P30-CA14051-41	Developmental Funds Pilot Project (Jacks)	93.395	9,583
5-P30-CA14051-41	Developmental Pilot Project (Hynes)	93.395	85,041
5-P30-CA14051-41	Developmental Funds (HTS Core)	93.395	176,215
5-P30-CA14051-41	Developmental Pilot Project (Orr-Weaver)	93.395	143,000
5-P30-CA14051-41	Developmental Pilot Project (Vander Heiden)	93.395	95,752
5-P30-CA14051-41	Glassware Preparation Facility	93.395	157,779
5-P30-CA14051-41	Shared Research Resources	93.395	221,681
5-P30-CA14051-41	Histology Core Facility	93.395	184,853
5-P30-CA14051-41	Developmental Funds (Nano Core)	93.395	13,196
5-P30-CA14051-41	Program Planning and Evaluation	93.395	105,760
5-P30-CA14051-41	Micro-Array Technology Facility	93.395	82,011
5-P30-CA14051-41	Developmental Funds (High End Mass Spec)	93.395	70,649
5-P30-CA14051-41	ES Cell & Transgenics Core Facility	93.395	311,608
5-P30-CA14051-41	Developmental Funds Pilot Project (Amon)	93.395	41,644
5-P30-CA14051-42	Developmental Funds (HTS Core)	93.395	57,502
5-P30-CA14051-42	Pilot (Yaffe): Mutagenesis Pathway Underlying Early Tumor	93.395	20,690
5-P30-CA14051-42	ES Cell & Transgenics Core Facility	93.395	53,918
5-P30-CA14051-42	Applied Therapeutics & Whole Animal Imaging	93.395	17,209



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
5-P30-CA14051-42	Microscopy Core Facility	93.395	32,052
5-P30-CA14051-42	Pilot (Yaffe): Appl of BRCA1 in Breast and Ovarian Cancer	93.395	17,824
5-P30-CA14051-42	Bioinformatics and Computing	93.395	70,170
5-P30-CA14051-42	Flow Cytometry Facility	93.395	43,444
5-P30-CA14051-42	Pilot (Vander Heiden): Evaluating the Role of Protein Catabolism in Cancer	93.395	5,040
5-P30-CA14051-42	Biopolymers & Proteomics Core Facility	93.395	63,470
5-P30-CA14051-42	Micro-Array Technology Facility	93.395	16,258
5-P30-CA14051-42	Glassware Preparation Facility	93.395	22,646
5-P30-CA14051-42	Shared Research Resources	93.395	28,696
5-P30-CA14051-42	Developmental Funds (High End Mass Spec)	93.395	3,081
5-P30-CA14051-42	Administration	93.395	261,182
5-P30-CA14051-42	Pilot (Hynes): Imagine the EarlySteps of Metastatic Seeding in Zebrafish	93.395	12,431
5-P30-CA14051-42	Histology Core Facility	93.395	45,085
5-P30-CA14051-42	Developmental Funds (Nano Core)	93.395	30,747
5-R01-CA075289-16	Optical Biopsy Using Coherence Tomography	93.395	124,536
5-R01-CA096504-10	Engineered Antibody EGFR Antagonist Cancer Therapeutics	93.395	225,216
5-R01-CA101830-08	Foundations of Pretargeted Radioimmunotherapy	93.395	156,950
5-R01-CA128803-05	Identifying Determinants of Chemotherapeutic Response In Vivo	93.395	94,427
5-R01-CA155320-03	MicroRNA Expression Profiling Circuits for Detection and Destruction of Cancer	93.395	602,833
5-R21-CA159132-02	Synergistic innate immune activation and cell killing by RIG-I ligands in HCV-HCC	93.395	182,603
			<b>5,633,469</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
1-R01-CA-173712-01	Genetic circuits for high-throughput, multi-sensory, live cell microRNA profiling	93.396	52,283
1-R01-CA168653-01A1	Regulation of glucose metabolism to allow tumor initiation and growth	93.396	27,046
1-R33-CA174550-01	Microfluidic 3D Assays for Metastatic Cancer	93.396	31,551
5-R01-CA118705-05	Quantitative Analysis of Epidermal Growth Factor Receptor Signaling Networks	93.396	158,650
5-R01-CA118757-05	Dissecting E2f3's Role in Tumorigenesis	93.396	-656
5-U01-CA084306-13	Integrative genomic characterization of lung cancer metastasis in mouse and human	93.396	-98,586
5-U01-CA084306-14	Integrative genomic characterization of lung cancer metastasis in mouse and human	93.396	601,632
5-U01-CA084306-15	Integrative genomic characterization of lung cancer metastasis in mouse and human	93.396	274,216
5-U01-CA164337-01A1	GI Tract Dysbiosis and Breast Cancer	93.396	790,417
			<b>1,836,553</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
1-U54-CA163109-01	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 2: T. Jacks	93.397	16,315

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Contract Number	Government Contract Title	CFDA#	FY Expenses
1-U54-CA163109-01	Impact of Cellular and Extracellular Host Components on Tumor Progression - Administration	93.397	14,395
1-U54-CA163109-01	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 1: R.Hynes	93.397	116,652
1-U54-CA163109-01	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 3: Whitehea	93.397	116,310
5-U54-CA112967-08	Tumor Cell Network Center: DNA Damage Networks/Lauffenburger	93.397	29,314
5-U54-CA112967-08	Tumor Cell Network Center: Computational & Modeling Core/Lauffenburger	93.397	146,361
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/Griffith	93.397	34,306
5-U54-CA112967-08	Tumor Cell Network Center: Migration Network/Hynes	93.397	67,921
5-U54-CA112967-08	Tumor Cell Network Center: Pilot Project/Yaffe	93.397	33,814
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/Imperiali	93.397	25,612
5-U54-CA112967-08	Tumor Cell Network Center: Migration Network/Gertler	93.397	92,182
5-U54-CA112967-08	Tumor Cell Network Center: Computational & Modeling Core/Tidor	93.397	45,302
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/Lauffenburger	93.397	84,241
5-U54-CA112967-08	Tumor Cell Network Center: Migration Network/Lauffenburger	93.397	57,459
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/Fraenkel	93.397	54,707
5-U54-CA112967-08	Tumor Cell Network Center: DNA Damage Networks/Hemann	93.397	41,226
5-U54-CA112967-08	Tumor Cell Network Center: Migration Network/Hemann	93.397	35,649
5-U54-CA112967-08	Tumor Cell Network Center: Pilot Project/Lauffenburger	93.397	10,557
5-U54-CA112967-08	Tumor Cell Network Center: Computational & Modeling Core/Fraenkel	93.397	39,867
5-U54-CA112967-08	Tumor Cell Network Center: Migration Network/Sharp	93.397	64,584
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/Sorger	93.397	120,000
5-U54-CA112967-08	Tumor Cell Network Center: Administration	93.397	46,322
5-U54-CA112967-08	Tumor Cell Network Center: DNA Damage Networks/Samson	93.397	2,836
5-U54-CA112967-08	Tumor Cell Network Center: Mitogenesis Networks/White	93.397	120,127
5-U54-CA112967-08	Tumor Cell Network Center: Computational & Modeling Core/ Yaffe	93.397	42,951
5-U54-CA112967-08	Tumor Cell Network Center: MENA INV EXPRESSION AS AN EGFR NETWORK PROGNOSTIC	93.397	38,739
5-U54-CA112967-08	Tumor Cell Network Center: Education	93.397	288,419
5-U54-CA112967-08	Tumor Cell Network Center: DNA Damage Networks/Yaffe	93.397	162,502
5-U54-CA112967-09	Tumor Cell Network Center: Migration Network/Hemann	93.397	16,781
5-U54-CA112967-09	Tumor Cell Network Center: Administration (PARENT)	93.397	33,487
5-U54-CA112967-09	Tumor Cell Network Center: Education	93.397	147,447
5-U54-CA112967-09	Tumor Cell Network Center: Migration Network/Lauffenburger	93.397	34,835
5-U54-CA112967-09	Tumor Cell Network Center: DNA Damage Networks/Lauffenburger	93.397	16,591
5-U54-CA112967-09	Tumor Cell Network Center: Computational & Modeling Core/Lauffenburger	93.397	56,528
5-U54-CA112967-09	Tumor Cell Network Center: Mitogenesis Networks/Griffith	93.397	11,954
5-U54-CA112967-09	Tumor Cell Network Center: Migration Network/Hynes	93.397	35,347
5-U54-CA112967-09	Tumor Cell Network Center: Mitogenesis Networks/Fraenkel	93.397	19,617

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Contract Number	Government Contract Title	CFDA#	FY Expenses
5-U54-CA112967-09	Tumor Cell Network Center: Computational & Modeling Core/Yaffe	93.397	20,089
5-U54-CA112967-09	Tumor Cell Network Center: Mitogenesis Networks/Lauffenburger	93.397	40,944
5-U54-CA112967-09	Tumor Cell Network Center: DNA Damage Networks/Yaffe	93.397	75,524
5-U54-CA112967-09	Tumor Cell Network Center: Mitogenesis Networks/Imperiali	93.397	6,102
5-U54-CA112967-09	Tumor Cell Network Center: Migration Network/Gertler	93.397	69,641
5-U54-CA112967-09	Tumor Cell Network Center: DNA Damage Networks/Samson	93.397	6,129
5-U54-CA112967-09	Tumor Cell Network Center: Computational & Modeling Core/Fraenkel	93.397	11,180
5-U54-CA112967-09	Tumor Cell Network: DNA Damage Networks/Hemann	93.397	31,982
5-U54-CA112967-09	Tumor Cell Network Center: Migration Network/Sharp	93.397	23,005
5-U54-CA112967-09	Tumor Cell Network Center: Computational & Modeling Core/Tidor	93.397	29,624
5-U54-CA112967-09	Tumor Cell Network Center: Mitogenesis Networks/White	93.397	20,726
5-U54-CA126515-05	Tumor Stroma Interactions in the Tumor Environment - Administration	93.397	-1,125
5-U54-CA126515-05	Tumor Stroma Interactions in the Tumor Microenvironment - Project 1 - R. Hynes	93.397	725
5-U54-CA143874-03	Education and Training	93.397	20,686
5-U54-CA143874-03	Chromatin Trans-Network Project / van Oudenaarden	93.397	21,838
5-U54-CA143874-03	Project 4 (Geitz)	93.397	7,058
5-U54-CA143874-03	Pilot Project (Roose)	93.397	95,576
5-U54-CA143874-03	Project 3 (Amon)	93.397	1,460
5-U54-CA143874-03	Administration	93.397	26,164
5-U54-CA143874-03	Outreach Plan: Prime Project	93.397	8,382
5-U54-CA143874-03	Project 1 (Jacks)	93.397	19,371
5-U54-CA143874-03	Project 3 (FEA Manalis)	93.397	833
5-U54-CA143874-03	Genotypic Determinants (Moffit)	93.397	37,448
5-U54-CA143874-03	Project 3 (Manalis)	93.397	5,645
5-U54-CA143874-03	Project 3 (Kirschner)	93.397	9,188
5-U54-CA143874-03	Heterogeneity (Roose)	93.397	100,000
5-U54-CA143874-03	Pilot Project/Yaffe	93.397	3,029
5-U54-CA143874-03	Project 2 (Chakraborty)	93.397	4,620
5-U54-CA143874-03	Chromatin Trans-Network Project / Mirny	93.397	29,953
5-U54-CA143874-03	SingleMolRNA	93.397	13,284
5-U54-CA143874-03	Project 1 (Jaenisch)	93.397	82,892
5-U54-CA143874-03	Pilot Project/Irvine	93.397	-10,420
5-U54-CA143874-03	CellWeighing/Microfab Core	93.397	24,723
5-U54-CA143874-03	Genotypic Determinants (Sherman)	93.397	6,717
5-U54-CA143874-03	Project 4 (Mirny)	93.397	6,717
5-U54-CA143874-03	Genotypic Determinants (Mirny)	93.397	14,889

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
5-U54-CA143874-03	Project 2 (Roose)	93.397	43,636
5-U54-CA143874-03	Project 1 (Clevers)	93.397	74,456
5-U54-CA143874-03	Outreach and Dissemination (Pilot)	93.397	19,704
5-U54-CA143874-03	Heterogeneity (Van Oudenaarden)	93.397	22,588
5-U54-CA143874-03	Project 4 (Sherman)	93.397	64,657
5-U54-CA143874-03	Pilot Project (van Oudenaarden)	93.397	16,943
5-U54-CA143874-03	Project 4 (Sunyaev)	93.397	103,046
5-U54-CA143874-03	Outreach and Dissemination	93.397	1,141
5-U54-CA143874-03	Project 1 (Van Oudenaarden)	93.397	-11,084
5-U54-CA143874-04	Project 4 (Sunyaev)	93.397	82,893
5-U54-CA143874-04	Project 2 (Roose)	93.397	285,059
5-U54-CA143874-04	Education and Training	93.397	180,266
5-U54-CA143874-04	Project 3 (Amon)	93.397	78,702
5-U54-CA143874-04	Outreach and Dissemination	93.397	39,799
5-U54-CA143874-04	Project 1 (Jacks)	93.397	118,484
5-U54-CA143874-04	Pilot Project (Roose)	93.397	55,065
5-U54-CA143874-04	Pilot Project (Felsner)	93.397	50,345
5-U54-CA143874-04	Project 4 (Mirny)	93.397	217,230
5-U54-CA143874-04	Administration	93.397	114,641
5-U54-CA143874-04	Project 4 (Getz)	93.397	29,552
5-U54-CA143874-04	Chromatin Trans-Network (Mirny)	93.397	4,605
5-U54-CA143874-04	Outreach Plan: Prime Project	93.397	38,100
5-U54-CA143874-04	Project 2 (Chakraborty)	93.397	36,266
5-U54-CA143874-04	SingleMolRNA	93.397	117,795
5-U54-CA143874-04	Chromatin Trans-Network (van Oudenaarden)	93.397	18,207
5-U54-CA143874-04	Project 4 (Sherman)	93.397	35,691
5-U54-CA143874-04	CellWeighing/Microfab Core	93.397	246,924
5-U54-CA143874-04	Project 3 (Manalis)	93.397	284,432
5-U54-CA143874-04	Project 1 (Van Oudenaarden)	93.397	114,120
5-U54-CA143874-04	Genotypic Determinants Trans-Network (Mirny)	93.397	19,100
5-U54-CA143874-04	Project 1 (Jaenisch)	93.397	140,736
5-U54-CA143874-04	Fabricated Equipment - SMRC System	93.397	1,001
5-U54-CA143874-04	Fabricated Equipment: Readout & Fluid Delivery System for the SMR	93.397	10,633
5-U54-CA143874-04	Project 3 (Kirschner)	93.397	151,788
5-U54-CA151884-03	Pilot Project (Lippard)	93.397	51,064
5-U54-CA151884-03	Project 4 (Cima)	93.397	255,035

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
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Contract Number	Government Contract Title	CFDA#	FY Expenses
5-U54-CA151884-03	Alliance Challenge Project (Hammond)	93.397	123,506
5-U54-CA151884-03	Project 1 (Langer)	93.397	192,449
5-U54-CA151884-03	Project 2 (Bhatia)	93.397	218,729
5-U54-CA151884-03	Project 3 (Weissleder/MGH)	93.397	259,301
5-U54-CA151884-03	Educational/Outreach (Langer)	93.397	153,912
5-U54-CA151884-03	Project 5 (Becher)	93.397	140,383
5-U54-CA151884-03	Project 5 (Bawendi)	93.397	174,167
5-U54-CA151884-03	Administration	93.397	114,584
5-U54-CA151884-03	Project 2 (Anderson)	93.397	110,826
5-U54-CA151884-03	Project 2 (Sharp)	93.397	141,544
5-U54-CA151884-03	Project 1 (Farokhzad/BWH)	93.397	97,011
5-U54-CA151884-03	Alliance Project Project (Bhatia)	93.397	114,104
5-U54-CA163109-02	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 2: T.Jacks	93.397	212,220
5-U54-CA163109-02	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 1: R.Hynes	93.397	141,283
5-U54-CA163109-02	Impact of Cellular and Extracellular Host Components on Tumor Progression - Project 3: Whitehea	93.397	233,773
5-U54-CA163109-02	Impact of Cellular and Extracellular Host Components on Tumor Progression - Administration	93.397	18,416
			<b>8,744,684</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-K99-CA169512-01	Investigating microRNA miR-34a in lung cancer development and therapy	93.398	90,739
5-K99-CA158581-02	Establishing therapeutic efficacy and uncovering mechanisms of tumor suppression	93.398	48,650
			<b>139,389</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5 U54 CA151884-02	Alliance Project Project (Bhatia)	93.399	177
5 U54 CA151884-02	CCNE - Becher - Project 5	93.399	14,983
5 U54 CA151884-02	CCNE - Bhatia - Project 2	93.399	8,089
5 U54 CA151884-02	CCNE - Langer - Project 1	93.399	20,000
5 U54 CA151884-02	CCNE - Anderson - Project 2	93.399	13,996
5 U54 CA151884-02	CCNE - Sharp - Prject 2	93.399	45,369
5 U54 CA151884-02	CCNE - Farokhzad - Project 1	93.399	21,148
5 U54 CA151884-02	CCNE - Cima - Project 4	93.399	34,364
5 U54 CA151884-02	CCNE - Educational/Outreach	93.399	8,515
5 U54 CA151884-02	CCNE - Weissleder - Project 3	93.399	4,606
5 U54 CA151884-02	CCNE -Hammond Alliance Challenge	93.399	25,697

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
5 U54 CA151884-02	CCNE - Bawendi - Project 5	93.399	-2,226
5 U54 CA151884-02	CCNE - Administration	93.399	10,116
5 U54 CA151884-02	Pilot Project: Stephen Lippard	93.399	6,248
5 U54 CA151884-02	Pilot Project: Darrell Irvine	93.399	1,378
			<b>212,460</b>
Contract Number	Government Contract Title	CFDA#	FY Expenses
1-R01-EB006422-01A2	ARRA - Fabricated Equipment: NMR-Class Annulus Magnet	93.701	2,397
1-R01-EB006422-01A2	ARRA - Compact, Neon/Cryocooled NMR Magnets Assembled from Superconducting YBCO Annu	93.701	177,058
1-R01-EY019262-01	ARRA - Mechanisms for the Perception of Surfaces and Materials	93.701	3,408
1-R01-HL090856-01A1	ARRA - The Role of Glycocalyx in Mechanotransduction	93.701	1,148
1-RC1-AI086152-01	ARRA - Subcontract - Yale U. - 69205665	93.701	10,804
1-RC1-AI086152-01	ARRA - Analytical microtools for discovering autoreactive lymphocytes	93.701	-8,098
1-RC1-AI086152-01	ARRA - Subcontract - DFCI - 69205665	93.701	45,473
1-RC1-DE020761-01	ARRA - Subcontract - Whitehead - 6921554	93.701	78,735
1-RC1-HG005334-01	ARRA - Integrative analysis of genomic and epigenomic datasets in multiple cell types	93.701	32,961
1-RC1-MH088316-01	ARRA - The Functional Circuitry of Category Learning	93.701	80,005
1-RC1-MH088912-01	ARRA - Ubiquitous Games for Biology-Developing Understanding of Biology and Biological Practic	93.701	16,107
1-RC1-RR028241-01	ARRA - Entrainment-based mechanical ventilation - MGH Subcontract	93.701	-124,964
1-RC1-RR028241-01	ARRA - Entrainment-based mechanical ventilation - carry forward	93.701	-50
1-RC1-RR028241-01	ARRA - Entrainment-based mechanical ventilation	93.701	166,212
1-RC1-RR028302-01	ARRA - Integrating and Evaluating the Modeling Applied to Problem Solving Pedagogy	93.701	-2,210
1-RC2-DE020919-01	ARRA - Y2 MGH Becerra Subaward	93.701	6,294
1-RC2-DE020919-01	ARRA - Modulating Cortical and Sub-Cortical Brain Circuits in Chronic Facial Pain	93.701	562
1-RC2-DE020919-01	ARRA - Y2 MGH Brenner Subaward	93.701	16,253
1-RC2-HG005624-01	ARRA - Deep Sequencing Analysis of mRNA Isoform Expression Changes in Myotonic Dystrophy	93.701	293,173
1-RC2-HG005639-01	ARRA - A Data Analysis Center for integration of fly and worm modENCODE datasets	93.701	12,449
1-RC2-HG005639-01	ARRA - A Data Analysis Center for integration of fly and worm modENCODE datasets - Subaward	93.701	31,523
1-RC2-HL101721-01	ARRA - Characterization of Anticoagulant Heparin and Related Polysaccharides - RPI Subcontract	93.701	24,453
1-RC2-HL101721-01	ARRA - Characterization of Anticoagulant Heparin and Related Polysaccharides	93.701	9,029
1-U01-AI082204-01	ARRA - Development of a Therapy for Smallpox, Vaccinia, and Monkeypox	93.701	-3,047
1RC1DE020761-01REVISED	ARRA - Human Pluripotent Stem Cell Differentiation with Defined O2 & Protein Engagement	93.701	137,019
2-R01-EY016674-04A1	ARRA - Fabricated equipment: Retinal Prosthesis	93.701	10,280
2-R01-EY016674-04A1	ARRA - Advanced Engineering Development of a Chronic Retinal Implant	93.701	572
2-R01-EY016674-04A1	ARRA - Recovery Act - Florida International University Subaward	93.701	-156
2-R01-EY016674-04A1	ARRA - Recovery Act - University of Alabama Huntsville Subaward	93.701	5,129

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
2-R01-HL067966-05A2	ARRA - Pontomedullary Integration of Respiratory Afferents	93.701	26,225
3-R01-CA124427-04S1	ARRA - Engineering Multifunctional Nanoparticles	93.701	-36
3-R01-DC007152-04S1	ARRA - Aids for the Deaf: Models of Speech Intelligence	93.701	-576
3-R01-ES015818-03S1	ARRA - Mechanism of Eukaryotic Environmental Mutagenesis	93.701	14,915
3-R01-GM031030-27S1	ARRA - Molecular Genetics of Rhizobium Nodulation Plasmids	93.701	184
3-R01-GM059281-12S1	ARRA - Neutrophil Priming in Trauma and Sepsis	93.701	4,001
3-R01-GM085323-02S1	ARRA - Subcontract - RPI - 6922018	93.701	48,340
3-R01-GM085323-02S1	ARRA - Subcontract - SUNY - 6922018	93.701	48,957
3-R01-GM085323-02S1	ARRA - Metabolic Engineering for Microbial Taxol Biosynthesis	93.701	-366
			<b>1,164,163</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-R03-HL50614-02	Detecting Chaos in Cardiac Arrhythmia	93.837	-1,502
5-P01-HL066105-07	Molecular Analysis Core D	93.837	74,344
5-P01-HL066105-07	Molecular Analysis Project I	93.837	47,289
5-P01-HL066105-07	Molecular Analysis Core A	93.837	76,368
5-P01-HL066105-07	Molecular Analysis Core B	93.837	18,544
5-P01-HL066105-07	Molecular Analysis Project V	93.837	78,340
5-P01-HL066105-10	Molecular Analysis of Cardiovascular Biology and Pathology	93.837	3,886
5-R01-HL052212-18	Scavenger Receptors: Ligand Binding and Pathophysiology	93.837	401,240
5-R01-HL107503-03	Scalable Units for Building Vascularized Cardiac Graft	93.837	480,371
5-U01-HL091737-04	Enabling Population-Scale Physical Activity Measurement on Common Mobile Phones	93.837	1,753
			<b>1,180,633</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-R01-HL093225-04	Cytoarchitecture of Central Respiratory Afferents Processing	93.838	490,733
			<b>490,733</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
1-R01-AR060331-01A1	Cartilage Repair Using Self Assembling Peptide Scaffolds	93.846	145,174
			<b>145,174</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
5-R01-DK087984-03	HRI-eIF2a Phosphorylation Signaling in Oxidative Stress and Erythropoiesis	93.847	212,714

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

**212,714**

FY Expenses  
-23,201

CFDA#  
93.848

Government Contract Title  
Elucidating Modulators of Hepatic Metabolism by Quantitative Flux Analysis

Contract Number  
5-R01-DK075850-05

**-23,201**

FY Expenses

CFDA#

Government Contract Title

Contract Number

1-K99-NS076364-01	93.853	85,097	Role of Arc in synaptic/experience-dependent plasticity in mouse visual cortex
5-K99-NS067062-02	93.853	48,219	Basal Ganglia-Thalamic Interactions in Behaving Songbirds During Learning
5-P01-NS055923-05	93.853	571,413	Transcriptional Regulation of Stem Cell Differentiation into Motor Neurons
5-R01-NS025529-23	93.853	377,905	Extrapyramidal Systems
5-R01-NS035145-15	93.853	123,649	Integrative Functions of Prefrontal Cortex
5-R01-NS040296-12	93.853	432,989	Characterization of the Drosophila Synaptotagmin Family
5-R01-NS043244-09	93.853	325,410	Drosophila as an Experimental Model for Epilepsy
5-R01-NS051874-18	93.853	315,819	The Cdk5/p35 Kinase
5-R01-NS052203-05	93.853	180	Modeling Huntington's Disease in Drosophila
5-R01-NS056140-03	93.853	-21,222	Low Power Analog Electronics for an Implantable Cortical Prosthetic
5-R01-NS066352-04	93.853	109,249	High-Throughput Single-Cell-Resolution Genetic and Pharmacological Screens Using Sub-Micron-
5-R01-NS075421-02	93.853	17,951	Fabricated Equipment - Autopatcher II
5-R01-NS075421-03	93.853	356,467	Genetically-Encoded Tools for Manipulation of Ion Channel and Receptor Functions
5-R01-NS078839-02	93.853	700,976	The Epigenetics of Alzheimer's Disease
5-R21-NS075883-02	93.853	-145,772	Structure-Function of the Nuclear Envelope Bridge and its Role in Laminopathies
5-R21-NS079992-02	93.853	217,009	Cell Type-Specific Halorhodopsin Mice for Neuronal Silencing

**3,515,339**

FY Expenses

CFDA#

Government Contract Title

Contract Number

1-R21-AI088590-01	93.855	39,710	Subcontract-Children's H-6921560
1-R21-AI100190-01	93.855	201,829	MMDx: A rapid multiplexed matrix code diagnostic for real time epidemiology
1-R21-AI101807-01A1	93.855	73,755	PGT Inhibitors Mapped From a Tunicamycin Blueprint
1-R56-AI104274-01	93.855	105,933	Nanowell-based single-cell technology for characterizing clinical samples ex vivo
2-R01-AI016892-34	93.855	142,502	Proteolytic and chaperone machines implicated in virulence and disease
2-R56-AI067699-07A1	93.855	291,126	System Dynamics of the Salmonella Virulence Regulatory Network
5-P01-AI071195-02	93.855	96	Project 2 - Wash U. Subcontract
5-P01-AI071195-02	93.855	66,144	Project 3-NYU Subcontract
5-P01-AI071195-02	93.855	555	Project 1 - Stanford Subcontract
5-R01-AI016892-33	93.855	547,401	Bacterial Protein Tagging, Degradation and Ribosome Rescue



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
5-R01-A1069208-05	Development and Maintenance of Memory CD8 T Cells	93.855	673
5-R01-A1080621-05	Toxoplasma Strain-Specific Modulation of Mouse Immune Cells	93.855	409,071
5-R01-A1095109-03	Engineered lipid vesicles as potent vaccine vectors for HIV	93.855	226,042
5-R21-A1084032-02	High-resolution analysis of diversity and variation in the human microbiome	93.855	-18,454
5-R21-A1088590-02	Analysis of Food Specific T cells by a Novel Microengraving Technology	93.855	56,824
5-R21-A1090121-02	Investigating Complex Glycans on Biological Surfaces	93.855	145,059
5-R33-A1065354-04	Proteomics of Central Tolerance in NOD vs. B6 mice	93.855	-2,266
5-U01-A1074443-05	Bi-functional Polymer Attached Inhibitors of Influenza Viruses	93.855	19,862
7-R01-A1067699-06	System Dynamics of the Salmonella Virulence Regulatory Network	93.855	6,416

**2,312,278**

Contract Number	Government Contract Title	CFDA#	FY Expenses
1-K99-GM104166-01	Regulation of noncoding RNA biogenesis and function	93.859	36,585
1-R01-GM081336-01A1	UPit Subaward - 6918665	93.859	32,748
1-R01-GM085457-01	High Throughput Monitoring of Mass, Density and Fluorescence of Single Cells	93.859	2,749
1-R01-GM102311-01A1	Cooperation and Cheating in the Evolution of Antibiotic Resistance in Bacteria	93.859	15,753
1-R01-GM105984-01	Investigating the generation of mechanical forces during tissue invagination	93.859	16,272
1-T32-GM008334-23	Interdepartmental Biotechnology Training Program	93.859	-14,475
2 R01 GM081393-05A1	MEI12_Y_Me_Fe_Mn_Cluster Assembly and Maintenance in Ribonucleotide Reductase	93.859	155,351
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Manalis - Core 1	93.859	23,978
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Keating - P6	93.859	29,276
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Manalis - P3	93.859	-4,826
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - MIT Outreach - Core 6b	93.859	33,600
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - MIT Admin	93.859	56,307
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - HMS Sub	93.859	603,315
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Lauffenburger - P2	93.859	69,274
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Yaffe - P7	93.859	52,016
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - NMSU Sub	93.859	17,820
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - MIT Education - Core 5	93.859	17,192
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Griffith - P4	93.859	580
2-P50-GM068762-09	Systems Biology of Cell Decision Processes - Han - P10	93.859	5,336
2-R01-GM024663-36	Genetic Analysis of Nematode Egg Laying and Co-regulated Behavioral Systems	93.859	21,094
2-R01-GM049039-18	Vascular Drug Delivery	93.859	300,633
2-R01-GM068957-10	Controlling gene expression fluctuations during development and stem cell differentiation	93.859	335,966
2-R01-GM077537-06A1	High Resolution Assembly Structure of The Nuclear Pore Complex	93.859	442,737
2-R01-GM082899-06	Cell Cycle Regulation in Caulobacter Crescentus	93.859	157,787

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
2-T32-GM007287-37	Pre-Doctoral Grant in the Biological Sciences	93.859	907
2-T32-GM007484-36	Integrative Neuronal Systems-Year 36	93.859	457,463
3-R01-GM046059-20S1	Catalytic Methods for Organic Synthesis	93.859	65,023
3-R01-GM058160-14S1	Late Transition Metal Catalysts for Organic Synthesis	93.859	65,023
3-R01-GM081393-04S1	Ribonucleotide Reductase Regulation: Diferric Y* assembly/maintenance and Sml1	93.859	61,131
3-R01-GM084477-05S1	Molecular Genetics of Innate Immunity in C. elegans	93.859	41,246
3-R01-GM096466-03S1	Very large datasets and new models to predict and design protein interactions	93.859	46,595
5-K99-GM100008-02	Structural Characterizations of Transient and Heterogeneous Protein Complexes	93.859	77,463
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Manalis Project 3	93.859	61,780
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Lauffenburger Core 5	93.859	125,504
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Griffith Project 4	93.859	50,168
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Han Project 10	93.859	55,646
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Yaffe Project 7	93.859	81,140
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Lauffenburger Admin	93.859	52,379
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Manalis Core 1	93.859	55,406
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Keating Project 6	93.859	96,838
5-P50-GM068762-10	Systems Biology of Cell Decision Processes - Lauffenburger Project 2	93.859	138,673
5-P50-GM068762-10	Systems Biology of Cell Decision Processes	93.859	719,626
5-R00-GM085279-04	Cooperation and Conflict in Microbial Systems: Sucrose Metabolism in Yeast	93.859	367,157
5-R00-GM089826-04	Investigating the Molecular and mechanical Regulation of Pulsed Actomyosin Contraction	93.859	322,286
5-R01-GM017151-40	Structure and Function of Transfer Ribonucleic Acids	93.859	512,238
5-R01-GM024663-35	Genetic Analysis of Nematode Egg Laying	93.859	451,921
5-R01-GM029595-34	Ribonucleotide Reductase: Structure and Function	93.859	444,055
5-R01-GM031030-31	Molecular Genetics of Rhizobium Nodulation Plasmids	93.859	441,236
5-R01-GM032134-31	Nonheme Diiron Centers and the Biological Oxidation of Hydrocarbons	93.859	598,833
5-R01-GM034277-28	Regulation of mRNA Processing	93.859	280,018
5-R01-GM039334-26	N-linked Protein Glycosylation: Pathways and Processes	93.859	304,862
5-R01-GM046059-21	Catalytic Methods for Organic Synthesis	93.859	948,178
5-R01-GM046941-21	Molecular Genetics of Intracellular Protein Transfer	93.859	192,570
5-R01-GM049224-21	Protein Recognition for Remodeling and Degradation by Bacterial AAA+ ATPases	93.859	307,929
5-R01-GM050895-16	Cell-Cell Signaling, Gene Expression, and Horizontal Gene Transfer in Bacillus	93.859	216,559
5-R01-GM052339-17	Initiation of DNA Replication of Yeast Chromosomes	93.859	24,702
5-R01-GM052339-19	Initiation of DNA Replication of Yeast Chromosomes	93.859	296,883
5-R01-GM056800-18	Regulation of MITOSIS by Proteolysis in Yeast	93.859	290,512
5-R01-GM057034-15REVISED	Asymmetric Nucleophilic Catalysis	93.859	-2,565
5-R01-GM058160-15REVISED	Late Transition Metal Catalysts for Organic Synthesis	93.859	593,929

**Appendix A-1 - Detail**  
**Massachusetts Institute of Technology**  
**Federal Research Support - On Campus**  
**Fiscal 2013 Expenditures**

Contract Number	Government Contract Title	CFDA#	FY Expenses
5-R01-GM058801-13	Cellular and Developmental Function of Mena	93.859	77,663
5-R01-GM059281-14	Neutrophil Priming in Trauma and Sepsis	93.859	140,418
5-R01-GM059426-14 REVISED	Catalytic Stereoselective Olefin Metathesis Reactions	93.859	566,302
5-R01-GM062207-12	Regulation of the meiotic cell cycle	93.859	277,090
5-R01-GM063755-09	Convergent Synthesis via Asymmetric Catalysis	93.859	101,739
5-R01-GM063857-11	ELECTROPORATION MECHANISM, MICROSOMETRY AND INCREASINGLY REALISTIC CEI	93.859	273,705
5-R01-GM065418-08	Packing and Electrostatic Effects on Folding and Binding	93.859	146,699
5-R01-GM065519-12 REVISED	Investigation of Zinc Neurochemistry by Fluorescent Sensing and MRI	93.859	408,971
5-R01-GM067681-09	Analysis and Design of Coiled Coil Partnering	93.859	234,594
5-R01-GM068678-08	Cytoskeletal Regulation During Growth Cone Migration and Axon Guidance	93.859	155,078
5-R01-GM069857-08	Complex Metallocluster Structure and Assembly	93.859	177,413
5-R01-GM072566-08	Synthetic strategies based on epoxide-coupling reactions	93.859	231,536
5-R01-GM072670-09 REVISED	Site-specific protein labeling in cells with engineered LpIA	93.859	367,958
5-R01-GM074825-08	Synthesis and Study of Complex Natural Products	93.859	220,462
5-R01-GM077537-05 REVISED	High Resolution Assembly Structure of the Nuclear Pore Complex	93.859	-19,297
5-R01-GM081336-04	Computational Modeling of Cell Migration in 3D Matrices	93.859	-24,483
5-R01-GM081393-04 REVISED	Ribonucleotide Reductase Regulation: Diferric Y* assembly/maintenance and Sml1	93.859	-180,728
5-R01-GM081871-04	Structure-Based Prediction of the Interactome	93.859	-3,386
5-R01-GM081871-06	Structure based prediction of the interactome	93.859	220,923
5-R01-GM082209-04	Computational Design of Inhibitor Specificity	93.859	81,130
5-R01-GM082899-05	Cell Cycle Regulation in Caulobacter Crescentus	93.859	213,367
5-R01-GM084181-04	Analysis and Design of Interaction Specifically in Proteins Regulating Apoptosis	93.859	39,984
5-R01-GM084477-05 REVISED	Molecular Genetics of Innate Immunity in C. elegans	93.859	61,188
5-R01-GM085319-04 REVISED	Identification and Function of Sequence-Specific Splicing Regulators	93.859	18,315
5-R01-GM085319-06	Function of Sequence-Specific Regulators of RNA Splicing	93.859	272,010
5-R01-GM085323-03	Subcontract - SUNY - 6919490	93.859	175,144
5-R01-GM085323-03	Subcontract - RPI - 6919490	93.859	246,185
5-R01-GM085323-04	Metabolic Engineering for Microbial Taxol Biosynthesis	93.859	100,112
5-R01-GM085457-02	High Throughput Monitoring of Mass, Density and Fluorescence of Single Cells	93.859	21
5-R01-GM085457-04	High Throughput Monitoring of Mass, Density and Fluorescence of Single Cells	93.859	23,547
5-R01-GM086214-04	Single-molecule imaging with super-resolution	93.859	540,962
5-R01-GM087465-02	Analysis of poly(ADP-ribose) function in the cytoplasmic stress response	93.859	416,222
5-R01-GM089732-04 REVISED	Synthesis and Study of Dimeric Diketopiperazine Alkaloids	93.859	318,308
5-R01-GM089903-04	A Systems Biology Approach to Reveal Huntington's Disease Mechanisms	93.859	438,176
5-R01-GM090194-04	Cell-Based Sensors for Measuring Impact of Microsystems on Cell Physiology	93.859	320,264
5-R01-GM094303-02	Functional Consequences of Ribosome Heterogeneity	93.859	255,286

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
5-R01-GM095733-02	Probing the real-time kinetics and steady-state dynamics of gene expression	93.859	327,724
5-R01-GM095765-03	Characterization of Gradient-Responsive Genetic Programs Using Light Sensors	93.859	131,753
5-R01-GM095843-03	Radicals and Polyradicals for Dynamic Nuclear Polarization	93.859	270,564
5-R01-GM097241-02	Inhibition of prokaryote-specific saccharide biosynthesis in microbial pathogens	93.859	225,494
5-R01-GM101988-35	Sequence Determinants of Protein Structure and Stability	93.859	484,054
5-R24-GM098650-02	Legacy Informatics Resources for Glycomics	93.859	561,991
5-R37-GM041934-22	Cell Cycle and Sporulation in Bacillus Subtilis	93.859	589,024
5-R37-GM057073-15	Structure-Function Relationship of Glycosaminoglycans	93.859	290,857
5-R37-GM062871-11REVISED	Metal-Catalyzed Coupling Reactions	93.859	-215
5-T32-GM007287-38	Pre-Doctoral Grant in the Biological Sciences	93.859	1,895,412
5-T32-GM008334-24	Interdepartmental Biotechnology Training Program	93.859	732,259
5-T32-GM087237-03	Graduate Training in Computational and Systems Biology -Year-03	93.859	2,218
5-T32-GM087237-04	Graduate Training in Computational and Systems Biology -Year-04	93.859	213,888
			<b>23,868,283</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
1-R01-HD067312-01	Using Cognitive Neuroscience to Predict Dyslexia among Kindergarten Children	93.865	60,107
5 P01 HD061315-03	Year 3 NIH Funding	93.865	536,526
5 P01 HD061315-03	Year 3 - Harvard Project 4	93.865	29,941
5 P01 HD061315-03	Year 3 -Duke	93.865	22,021
5-P01-HD061315-02	Year 2 - UCLAPProject 3	93.865	162,735
5-P01-HD061315-02	Year 2 NIH Funding	93.865	70,123
5-P01-HD061315-02 REVISED	Year 2 NIH Funding	93.865	62,380
5-R01-HD046943-09	Mechanisms and Functions of FMRP in Neuronal Development	93.865	315,262
5-R01-HD057606-10	Constraints on Phonological & Morphological Development	93.865	73,285
5-R01-HD067312-03	Using Cognitive Neuroscience to Predict Dyslexia among Kindergarten Children	93.865	374,148
5-R37-HD028341-20	Novel Second Messenger Signaling in the Striatum	93.865	346,062
7-R01-HD057606-09	Macquarie University -Subcontract	93.865	51,429
			<b>2,104,019</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
1-RF1-AG042978-01	Epigenomic Characterization of Alzheimer's Disease Neurons from iPSCs	93.866	94,517
5-R01-AG011119-21	Function of SIRT1 in Growth and Reproduction	93.866	420,624
5-R01-AG015339-14	Function of Mammalian SIRT1 in Aging	93.866	230,086
5-R01-AG029601-05	Nanoscale Electrostatic Assemblies for Multi-Agent Drug Delivery from Orthopedic Implant Surface	93.866	-5,147

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

740,080

Contract Number	Government Contract Title	CFDA#	FY Expenses
1-K99-ES022639-01	Impact of Infection and Inflammation on the Toxicity of Environmental Chemicals	93.867	6,341
1-K99-EY022671-01	The role of cortical feedback in visual face processing	93.867	61,087
1-K99-EY022924-01	The causal role of inferior temporal cortex in object recognition	93.867	35,407
1-R01-EY021473-01A1	Making Sense of Visual Search	93.867	259,505
1-R01-EY023173-01	High-throughput robotic analysis of integrated neuronal phenotypes	93.867	305,244
1-R01-EY023173-01	Fabricated Equipment - Multipatcher	93.867	8,986
1-R01-EY02484-01A1	Oliva - Child Account	93.867	-75,833
1-R21-EY023053-01	Time delimited neural silencing to dissect the basis of visual object perception	93.867	41,561
2-R01-EY011894-15	A Molecular Genetic Analysis of Cortical Plasticity	93.867	252,019
5-P30-EY002621-33	Core - Vision Processes - Electronics Shop	93.867	151,569
5-P30-EY002621-33	Core - Vision Processes - Machine Shop	93.867	266,825
5-P30-EY002621-33	Core - Vision Processes - Imaging Core	93.867	272,699
5-P30-EY002621-35	Core - Vision Processes	93.867	1,872
5-R01-EY006039-28	Experiments on the Development of Neural Pathways	93.867	-149
5-R01-EY007023-24	Cell-Specific Circuits in Visual Cortex	93.867	323,450
5-R01-EY011289-27	Novel Diagnostics With Optical Coherence Tomography	93.867	291,534
5-R01-EY011894-14	A Molecular Genetic Analysis of Cortical Plasticity	93.867	176,431
5-R01-EY012309-13	Experience Dependent Visual Cortical Development	93.867	4,926
5-R01-EY012848-10	Dynamic Basal Ganglia Saccade Networks	93.867	-53,478
5-R01-EY013455-15	Feedback of Peripheral Visual Information to Foveal Cortex	93.867	443,596
5-R01-EY014074-18	Developmental Regulation of Glutamate Receptor Function	93.867	508,288
5-R01-EY014970-08	Construction of Invariant Shape Selectivity in the Ventral Visual Stream	93.867	547,712
5-R01-EY015834-05S2	Supplement: Human gammaD-crystallin Folding Misfolding and Fibril F	93.867	1,285
5-R01-EY015834-09	Compounds blocking crystallin aggregation in vitro; path to anti-cataract agents	93.867	343,054
5-R01-EY017292-07	Neural Mechanisms of Selective Attention	93.867	429,613
5-R01-EY017656-05	In vivo Imaging of Neuronal Plasticity in Mouse Visual Cortex	93.867	149,787
5-R01-EY017921-05	Neural Mechanisms Mediating Visual Search	93.867	62,372
5-R01-EY018648-05	Cortical Representation and Plasticity: Neurons and Astrocytes	93.867	320,621
5-R01-EY019271-03	Haptic Virtual Environments to Enhance Navigation and Mobility of Blind People	93.867	348,095
5-R01-EY020484-03	The gist of the space: A space centered approach to visual scene perception	93.867	520,415
5-R01-EY020517-03	Project Prakash: Development of Object Perception After Late Sight Onset	93.867	300,135
5-R21-EY019366-02	A Texture Analysis/Synthesis Model of Visual Crowding	93.867	-7,750
5-R21-EY019741-02	Rapid Material Perception	93.867	19,615

**6,316,834**

**Appendix A-1 - Detail  
 Massachusetts Institute of Technology  
 Federal Research Support - On Campus  
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<u>Contract Number</u> 5-R01-LM009723-03	<u>Government Contract Title</u> Capturing Patient-Provider Encounter through Text Speech and Dialogue Processing	<u>CFDA#</u> 93.879	<u>FY Expenses</u> 8,561
			<b>8,561</b>
	<b>Total for NIH</b>		<b>100,892,441</b>
	<b>Total for Dept. of Health and Human Services</b>		<b>100,925,752</b>

**Miscellaneous Federal Govt  
 Department of Homeland Security**

<u>Contract Number</u> HSHQDC-10-C-00210	<u>Government Contract Title</u> Novel Thallium Haide Ionic Junction Radiation Detector	<u>CFDA#</u> 97.121	<u>FY Expenses</u> 95,600
<u>Contract Number</u> HSHQDC-11-C-00018	<u>Government Contract Title</u> Computer Programming Tools in Schools	<u>CFDA#</u> 97.121	<u>FY Expenses</u> 34,859
			<b>130,459</b>
	<b>Total for Department of Homeland Security</b>		<b>130,459</b>

**Intelligence Advanced Research Projects Activity (IARPA)**

<u>Contract Number</u> FA8650-12-C-7265	<u>Government Contract Title</u> Predicting Adults' Language Learning Abilities From Pre-Learning MRI and Cognitive Measures	<u>CFDA#</u> 12.CCC	<u>FY Expenses</u> 98,527
			<b>98,527</b>
	<b>Total for Intelligence Advanced Research Projects Activity (IARPA)</b>		<b>98,527</b>

**National Endowment For The Humanities**

<u>Contract Number</u> HD-51509-12	<u>Government Contract Title</u> Annotation Studio: multimedia text annotation for students	<u>CFDA#</u> 45.169	<u>FY Expenses</u> 49,979
<u>Contract Number</u> HJ-50085-12	<u>Government Contract Title</u> ELVIS: Electronic Locator of Vertical Interval Successions	<u>CFDA#</u> 45.169	<u>FY Expenses</u> 93,544
			<b>143,523</b>
	<b>Total for National Endowment For The Humanities</b>		<b>143,523</b>

**National Institute of Justice**

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
2011-IJ-CX-K016	Divert and Alert: Mitigating and Warning of Traffic Threats to Police Stopped Along the Roadside	16.560	312,505
2011-IJ-CX-K016	Fabricated Equipment - Mounted Vehicular Movement Detector	16.560	5,515
2011-IJ-CX-K016	Divert and Alert: Mitigating and Warning of Traffic Threats to Police Stopped Along the Roadside: Y	16.560	141,406
			<b>459,426</b>
	<b>Total for National Institute of Justice</b>		<b>459,426</b>

**NAVSUP Fleet Logistics Center, San Diego**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
N00244-12-1-0060	Affordability Trade-offs Under Uncertainty using Epoch-Era Analysis	12.300	99,022
	<b>Total for NAVSUP Fleet Logistics Center, San Diego</b>		<b>99,022</b>

**U.S. Agency for International Development**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
AID-OAA-A-12-00095	CTL USAID Project Budget	98.001	141,905
AID-OAA-A-12-00095	D-Lab Project Budget	98.001	131,841
AID-OAA-A-12-00095	SSRC Project Budget	98.001	89,623
AID-OAA-A-12-00095	CITE	98.001	57,290
AID-OAA-A-12-00095	DUSP Project Budget	98.001	181,979
AID-OAA-G-10-00002	Urban Resilience and Chronic Violence	98.001	80,023
	<b>Total for U.S. Agency for International Development</b>		<b>682,661</b>

**U.S. Department of Agriculture**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
58-6000-2-0099	Climate Change and Water Resource Impacts	10.250	23,810
	<b>Total for U.S. Department of Agriculture</b>		<b>23,810</b>

**U.S. Department of Commerce - NOAA**

	<b>Total for U.S. Department of Agriculture</b>		<b>23,810</b>
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## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
NA100AR4170086	Touch-at-a-Distance: Pressure Microsensor Arrays for AUV Navigation	11.417	30,601
NA100AR4170086	Development and Validation of the Water Quality Model System for Massachusetts Coastal Waters	11.417	67,057
NA100AR4170086	Interdisciplinary Science Outreach Proposal	11.417	104,281
NA100AR4170086	Assessing the Bioactivity of Estrogens, Including Halogenated Derivatives, in Chlorinated Sewage	11.417	81,812
NA100AR4170086	Autonomous Vehicle Exploration and Sampling of Deep Water Corals	11.417	43,876
NA100AR4170086	Using Technology to Assess the Invasive Sea Squirt, Didemnum Vexillum, Impacts on Fisheries and	11.417	9,771
NA100AR4170086	Development of a Scientific Management Framework to Support the Ecosystem-Based Management	11.417	37,877
NA100AR4170086	Development of Real-time Instrumentation for the Robotic Detection of Paralytic Shellfish Poisoning	11.417	81,196
NA100AR4170086	Consortium for Ocean Sensing in the Nearshore Environment	11.417	219,162
NA100AR4170086	Re-Design of Reef Explorer Modem and Antennas	11.417	8,000
NA100AR4170086	Enabling high and low molecular weight AUV based chemical analysis: complementing mass spect	11.417	-1,261
NA100AR4170086	Sea Grant Program Development Opportunities	11.417	6,000
NA100AR4170086	Water Quality and Marine Ecosystem Monitoring for Teachers: E/E-71-PD	11.417	3,058
NA100AR4170086	Combating Nitrogen-Driven Coastal Eutrophication: A Selective Ion Array Approach to Rapid In-Situ	11.417	21,599
NA100AR4170086	Communications	11.417	220,541
NA100AR4170086	DeepFSL - a low cost bimodal observation system for deep sea ecosystem research	11.417	-15,928
NA100AR4170086	Sea Grant Climate Adaptation Capacity Building Initiative: Engaging Citizen Scientists Through Tec	11.417	2,367
NA100AR4170086	Active Samplers: Development of Biomarkers for Coastal Pollution in the Blue Mussel, Mytilus Edu	11.417	137,700
NA100AR4170086	REG. PROP TO TEST SEN FOR DETECT THE SEA SQUIRT DIDEMNUM SP	11.417	259
NA100AR4170086	Education Program	11.417	101,969
NA100AR4170086	Climate Change Adaptation and Ecosystem Service Resilience in Northeast Coastal Communities:	11.417	37,168
NA100AR4170086	Sea Grant Program Management	11.417	439,096
NA100AR4170086	Fabricated Equipment - Model Seal Whisker Experiment Apparatus II	11.417	14,001
NA100AR4170086	Development of an Inundation Forecast System for Massachusetts Coastal Waters	11.417	26,840
NA100AR4170086	Assessment of Salt Marsh Buffering Capacity and Vulnerability to Climate-Related Impacts	11.417	7,365
NA100AR4170086	Energy Efficient AUV Using a Lateral Line Sensor	11.417	11,404
NA100AR4170086	High Productivity on a Coastal Bank: Physical and Biological Interactions	11.417	39,981
NA100AR4170086	Publications	11.417	4,896
NA100AR4170086	The Governance Role of Local Authorities in Marine Spatial Planning: A Legal Assessment of Pros	11.417	29,505
NA100AR4170086	Development of an Automated Seepage Meter for Quantifying Submarine Ground Water Discharge	11.417	71,707
NA100AR4170086	MIT Sea Grant: Undergraduate Research Opportunities Program (UROP)	11.417	6,995
NA100AR4170086	Improving Understandings of Consequences, Vulnerabilities, and Adaptation Strategies to Climate	11.417	24,814
NA100AR4170086	Marine Social Sciences	11.417	12,549
NA100AR4170086	Acoustic Communication Networks for Distributed Autonomous Underwater Platforms	11.417	49,177
NA100AR4170086	Coastal Resources Focus Area	11.417	268,486
NA100AR4170086	Investigation of bioluminescent algae cultures response to motion waves, produced by various exci	11.417	1,345



**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

Contract Number	Government Contract Title	CFDA#	FY Expenses
NA100AR4170086	Assessing the Distribution, Spreading Rate, and In Site Growth of Didemnum Vexillum and Other In Ship time MIT SeaGrant	11.417	14,892
NA100AR4170086	Marine Center for Development of Biomimetic Underwater Sensors	11.417	9,205
NA100AR4170086	An Assessment of the Tidal Kinetic Energy Resource off the Massachusetts Coast and Potential In	11.417	1,983
NA100AR4170086	Microbial community composition of permeable reactive barriers: who is really doing the work?	11.417	4,573
NA100AR4170086			48,049
			<b>2,283,968</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
NA10NMF4270208	Socioeconomic Impacts of Herring Fishery Management in the Northeast: Looking Back to Move F	11.427	29,153
			<b>29,153</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
NA09OAR4310069	Modeling Ecological Regulation of the Ocean Carbon Cycle	11.431	252,359
NA09OAR4310165	A Collaborative Investigation of the Mechanisms, Predictability, and Climate Impacts of Simulated /	11.431	49,740
NA10OAR4310106	Measurements of Semivolatile Organic Compounds, Intermediate-Volatility Organic Compounds ar	11.431	48,662
NA10OAR4310135	Sensitivity Patterns of Atlantic Meridional Overturning and related Climate Diagnostics Over the Ins	11.431	145,938
NA11OAR4310092	Collaborative Research: Tropical Cyclone Tracks in Present and Future Climates	11.431	12,941
NA11OAR4310159	Resolving the Role of Contact Ice Nucleation on the Earth's Climate System Using Laboratory and	11.431	168,893
NA11OAR4310159	Fabricated Equipment: Resolving the Role of Contact Ice Nucleation on the Earth's Climate System	11.431	17,629
NA12OAR4310064	Sources and Impacts of Ammonia on PM loading during CalNex	11.431	61,569
			<b>757,731</b>

**Total for U.S. Department of Commerce - NOAA**

**U.S. Department of Commerce-NIST (Nat'l Inst of Stand & Tech)**

Contract Number	Government Contract Title	CFDA#	FY Expenses
60NANB10D014N	ARRA - The Science of Concrete with Fly Ash: Fundamental Models that Enable New Technology	11.609	626,633
60NANB12D269	Optics for Cold Neutron Imaging facility at NCNR	11.609	25,026
			<b>651,659</b>

**Total for U.S. Department of Commerce-NIST (Nat'l Inst of Stand & Tech)**

**U.S. Department of Education**

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
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Contract Number ED-05E-10-C-0067	Government Contract Title Web Accessibility Initiative (WAI) Core	CFDA# 84.CCC	FY Expenses 460,243
			<b>460,243</b>
			<b>460,243</b>

**Total for U.S. Department of Education**

**U.S. Department of Interior-Fort Huachuca**

Contract Number D11AP00250	Government Contract Title Perceptual Priming for Language Learning	CFDA# 12.910	FY Expenses -5,045
D12AF00018	Jumpstarting and Focusing the N2 Program via a Deeply-Annotated Corpus of Narratives	12.910	38,117
D12AP00077	Neurobiology of Narrative Influence in Inter-group Conflict	12.910	468,792
D12AP00210	Modeling and Shaping Narrative Influence	12.910	389,201
D13AP00008	Assessing and Monitoring Subtle and Cognitive Markers	12.910	2,393
			<b>893,458</b>

Contract Number N10PC20125	Government Contract Title Spatially- and Temporally- Resolved Electron Emitters for Radiation Imaging & Energy Detection	CFDA# 12.CCC	FY Expenses -210,214
			<b>-210,214</b>
			<b>683,244</b>

**Total for U.S. Department of Interior-Fort Huachuca**

**U.S. Department of Transportation TSC**

Contract Number DTRT-RVT-91-1073	Government Contract Title Advanced Solutions to Capture Mobility Data (ASCMD)	CFDA# 20.CCC	FY Expenses 1,979
DTR157-07-D-30006	Human Factors Recommendations for the Design of Instrument procedures and Associated Chartir	20.CCC	69,260
DTR157-07-D-30006	TASK ORDER 1 Design of pilot procedures & instrument	20.CCC	12,573
DTR157-07-D-30006	TASK ORDER 5 CO2 Emission Metrics for Commercial Aircraft Certification and Fleet Performance Monitoring	20.CCC	58,199
DTR157-07-D-30006	TASK ORDER 9 Solar Glare Mitigation Study at Manchester Airport	20.CCC	10,621
DTR157-10-C-10015	Assessing Metrics and Simplified Aviation Climate Impact Models	20.CCC	104,291
			<b>256,923</b>
			<b>256,923</b>

**Total for U.S. Department of Transportation TSC**

**U.S. Department of Transportation**

Contract Number DTR07-G-0001	Government Contract Title Assessing Costs & Benefits of Alternative Approaches to High Speed-Rail	CFDA# 20.701	FY Expenses 74,770
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**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

Contract Number	Government Contract Title	CFDA#	FY Expenses
DTRT07-G-0001	UTC 20: UVM-Research and Fellowships	20.701	-552
DTRT07-G-0001	UTC21 - UMass Amherst - Research, Education and Fellowships	20.701	734
DTRT07-G-0001	UTC 23: Harvard-Research, Education & Fellowships	20.701	99,351
DTRT07-G-0001	UTC22: URI - Research & Fellowships	20.701	170
DTRT07-G-0001	Travel Behavior of the Aging Boomers: Evidence From Naturally Occurring Retirement Communities	20.701	19
DTRT07-G-0001	UTC 20: Program Management	20.701	30,400
DTRT07-G-0001	UTC22 - Technology Transfer	20.701	-296
DTRT07-G-0001	UTC 23: UVM -Research	20.701	29,632
DTRT07-G-0001	Linking Mileage to Auto Accident Risk and Urban Form	20.701	18,606
DTRT07-G-0001	UTC 20: Harvard-Research and Education	20.701	1,823
DTRT07-G-0001	UTC22 - UMass Amherst - Research & Fellowship	20.701	921
DTRT07-G-0001	UTC 23: UNH-Research & Fellowships	20.701	30,114
DTRT07-G-0001	UTC21 - UMaine - Research, Education and Fellowships	20.701	-5
DTRT07-G-0001	Capturing well being in activity pattern models with activity-based travel demand models	20.701	6,353
DTRT07-G-0001	Tracking Older Adult Travel Behavior Using Smartphones	20.701	42,049
DTRT07-G-0001	UTC22 - Program Management	20.701	233,763
DTRT07-G-0001	UTC 20: URI-Research and Fellowships	20.701	94
DTRT07-G-0001	UTC 23: Technology Transfer	20.701	73,527
DTRT07-G-0001	MIT Employee Commuter Behavior Using Real-Time Mobile Technology	20.701	999
DTRT07-G-0001	UTC 23: UMassAmherst-Research	20.701	45,650
DTRT07-G-0001	UTC 23: UConn-Research & Fellowships	20.701	5,155
DTRT07-G-0001	UTC22 - Harvard Research & Education	20.701	78,204
DTRT07-G-0001	New Data for Relating Land Use and Urban Form to Private Passenger Vehicle Miles	20.701	6,094
DTRT07-G-0001	Reimer - Individual Differences in Driver Physiology and Drive State	20.701	12,886
DTRT07-G-0001	Environmental and Economic Impacts of Alternative Transportation Technologies	20.701	35,275
DTRT07-G-0001	UTC 23: URI-Research & Fellowships	20.701	21,596
DTRT07-G-0001	D'Ambrosio-Keeping Fit and Fit to Drive	20.701	7,251
DTRT07-G-0001	UTC 23: UMaine-Research	20.701	42,698
DTRT07-G-0001	Transportation Strategy Development Under Economic Uncertainty	20.701	35,732
DTRT07-G-0001	UTC21 - Fellowships	20.701	19,583
DTRT07-G-0001	Travel Behavior of Aging Boomers: Evidences from Age Restricted Communities	20.701	37,693
DTRT07-G-0001	UTC22: UVM - Graduate Fellowships	20.701	5,400
DTRT07-G-0001	Measuring and Modeling Travel Being in a Dynamic Context	20.701	33
DTRT07-G-0001	UTC 23: Program Management	20.701	282,839
DTRT07-G-0001	Disruptive Technologies, Strategy and MBTA	20.701	4,715
DTRT07-G-0001	Alternative Transportation Option, Well-Being and Livable Communities	20.701	59,929

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DTRT12-G-UTC01	Kendall Square: Lessons Drawn from Its Past Development to Guide Its Future	20.701	107,656
DTRT12-G-UTC01	Assessing Alternative Transportation Options for Older Users	20.701	96
DTRT12-G-UTC01	Spoken Dialog Planning to Reduce User Distraction in Mobile Environments	20.701	11,947
DTRT12-G-UTC01	Technology Adoption and Use Across the Lifespan	20.701	18,081
DTRT12-G-UTC01	Development of a Universal Residential Public Transportation Pass, as Part of a Comprehensive N	20.701	87,228
DTRT12-G-UTC01	UTC 24: UMassAmherst-Research, Education & Fellowships	20.701	341,640
DTRT12-G-UTC01	UTC 24: UMaine-Research, Education & Fellowships	20.701	47,481
DTRT12-G-UTC01	Capturing the Relationship Between Motility, Mobility, and Well-Being Using Smart Phones	20.701	6,788
DTRT12-G-UTC01	UTC 24: Uconn-Research, Education & Fellowships	20.701	132,298
DTRT12-G-UTC01	UTC 24: Technology Transfer	20.701	14,509
DTRT12-G-UTC01	UTC 24: Program Management	20.701	155,007
DTRT12-G-UTC01	Transportation Model in the Boston Metropolitan Area from Origin Destination Matrices Generated	20.701	69,899
DTRT12-G-UTC01	Simulation-Based Energy-Efficient Transit Signal Priority Strategies	20.701	37,679
			<b>2,373,514</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DTR157-07-D-30006	Human Factors Research in Support of NHTSA Rule Making on Keyless Ignition	20.CCC	88,095
DTR157-12-C-10029	Library Services for DOT	20.CCC	48,547
			<b>136,642</b>
	<b>Total for U.S. Department of Transportation</b>		<b>2,510,156</b>

**U.S. DOT-Federal Railroad Administration**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DTRF53-11-C-00016	Development and Evaluation of a High Speed Rail Scheduling and HUD Display	20.CCC	209,156
			<b>209,156</b>
	<b>Total for U.S. DOT-Federal Railroad Administration</b>		<b>209,156</b>

**U.S. Environmental Protection Agency**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
XA-83505101-0	Transportation - Related Policies and Economy - Wide Impacts	66.034	100,021
XA-83600001-1	Integrated Assessment of Greenhouse Gases	66.034	342,872
			<b>442,893</b>

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<u>Contract Number</u> 83503301 83522801 RD-83427901-0 RD-8350331-0	<u>Government Contract Title</u> Investigating the effects of atmospheric aging on the radiative properties and climate impacts of bla Using advanced statistical techniques to identify the drivers and occurrence of historical and future Air Pollution, Health and Economic Impacts of Global Change Policy and Future Technologies: An Investigating the effects of atmospheric aging on the radiative properties and climate impacts of bla	<u>CFDA#</u> 66.509 66.509 66.509 66.509	<u>FY Expenses</u> 168,325 70,737 67,385 59,007  <b>365,454</b>
<u>Contract Number</u> RD 83456001	<u>Government Contract Title</u> Emissions of Gas-phase LVOCs from Mobile Sources	<u>CFDA#</u> 66.516	<u>FY Expenses</u> 117,989  <b>117,989</b>
<b>U.S. Geological Survey</b>			<b>926,336</b>
<b>Total for U.S. Environmental Protection Agency</b>			
<u>Contract Number</u> G12AP20032	<u>Government Contract Title</u> Contemporary strain rates across the Yakima fold-thrust belt estimated with GPS: Collaborative res	<u>CFDA#</u> 15.807	<u>FY Expenses</u> 8,393  <b>8,393</b>
<b>U.S. Miscellaneous Agencies</b>			<b>8,393</b>
<u>Contract Number</u> CONTRACT #2008*1260924*000	<u>Government Contract Title</u> CISR Multi-Sponsored Consortium	<u>CFDA#</u> 12.000	<u>FY Expenses</u> 29,403  <b>29,403</b>
<b>U.S. Nuclear Regulatory Commission</b>			<b>29,403</b>
<u>Contract Number</u> NRC-HQ-11-6-04-0060	<u>Government Contract Title</u> Evaluating the Safety of Digital Instrumentation and Control	<u>CFDA#</u> 77.CCC	<u>FY Expenses</u> 67,388  <b>67,388</b>
<b>U.S. Veterans Administration</b>			<b>67,388</b>
<b>Total for U.S. Nuclear Regulatory Commission</b>			<b>67,388</b>

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Contract Number VA118-12-C-0040	Government Contract Title Quasi-Passive Prosthetic Socket Technology with Optimal Shape and Dynamic Properties	CFDA# 64.CCC	FY Expenses 471,493
			<b>471,493</b>
	<b>Total for U.S. Veterans Administration</b>		<b>471,493</b>

**US DOT - Federal Aviation Administration**

Contract Number 11-G-016	Government Contract Title FAA Joint University Program for Air Transportation Proposal for Activities by the Massachusetts In	CFDA# 20.108	FY Expenses 50,204
			<b>50,204</b>

Contract Number 09-C-NE-MIT	Government Contract Title Understanding the Relationship between Aviation Economics and the Broader Economy	CFDA# 20.109	FY Expenses 46,687
09-C-NE-MIT	ECBA of Alternative Jet Fuels (P28)	20.109	27,401
09-C-NE-MIT	Improving Aviation Climate Policy Analysis Tools using ACCRI Results	20.109	73,300
09-C-NE-MIT	Phase 3 Program Management for Aircraft Noise and Emissions Mitigation COE	20.109	448,784
09-C-NE-MIT	Sustainability Assessment: DLA Energy	20.109	233,551
09-C-NE-MIT	Development of a Distributed Approach to System Level Uncertainty Quantification	20.109	51,009
09-C-NE-MIT	Low Power/Low Drag Approaches to Mitigate Environmental Impacts of Aviation	20.109	25,235
09-C-NE-MIT	Sustainability Assessment: FAA	20.109	233,852
09-C-NE-MIT	CGCS Alternative Fuels (P28)	20.109	55,044
09-C-NE-MIT	System-level Implications of Changes in Future Aircraft Mission Specifications	20.109	74,446
09-C-NE-MIT	Alternative Jet Fuels DLA energy Analysis	20.109	44,558
09-C-NE-MIT	Sustainability Assessment: AFRL	20.109	84,870
09-C-NE-MIT	Development of Aviation Air Quality Assessment Tools	20.109	108,712
			<b>1,507,449</b>

Contract Number DTFAWA-05-D-00012	Government Contract Title Task Order 0009 EPPA Child (P31)	CFDA# 20.CCC	FY Expenses 20,396
DTFAWA-05-D-00012	Task Order 0009 - Advancing the Aviation Environmental Portfolio Management Tool (APMT) and 1	20.CCC	328,967
DTFAWA10F00057	Performance Metrics Development and Analysis Support	20.CCC	-13
DTFAWA10F00077	Benefits Analysis of Near-Term Deployment of Next Gen Controller Support Technologies	20.CCC	7,229
			<b>356,579</b>
	<b>Total for US DOT - Federal Aviation Administration</b>		<b>1,914,232</b>

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### Va Hospital - Boston

Contract Number	Government Contract Title	CFDA#	FY Expenses
523C30077/VA241-13-D-0053	Task Order 1: Traveling Veterans	64.CCC	11,409
523C30105/VA241-13-D-0053	Task Order 2: Urban and Rural Telehealth	64.CCC	10,242
VA241-13-F-0635	VA Task Order PO Bridge Funding	64.CCC	19,116
VA241-13-J-0777	VA Task Order PO Bridge Funding	64.CCC	20,174
VA241-P-0743_523C28025/523C3801	VA Enterprise Systems Engineering Analysis	64.CCC	108,980
VA241-P-0743_523C38011	Child: Tracking Extended Efforts 10/1/12-12/31/12	64.CCC	46,527
			<b>216,448</b>

**Total for Va Hospital - Boston**

### VA Medical Center

Contract Number	Government Contract Title	CFDA#	FY Expenses
B3688-C	Task Oriented Exercise and Robotics in Neurological Disease	64.CCC	267,725
VA254-MU-0633	Evaluation of Robot-Assisted Neuro-Rehabilitation	64.CCC	9,206
VA254-MU-0633	Option Y1 Expenses	64.CCC	54,609
			<b>331,540</b>

**Total for VA Medical Center**

**13,444,894**

**Total for Miscellaneous Federal Govt**

### Nat'l Aroo & Space Administration

#### NASA - Ames Research Center

Contract Number	Government Contract Title	CFDA#	FY Expenses
NNA06CN23A	Cognitively Based Traffic complexity Metrics for Future NGATS Concepts of Operations	43.000	137,887
NNA08CN84A	Requirements for the Development and Maintenance of Multicellular Life	43.000	1,459,534
NNA08CN84A	Bowring Child Account: Requirements for the Development and Maintenance of Multicellular Life	43.000	122,798
NNA09DB36A	The Moon as Cornerstone to the Terrestrial Planets: the Formative Years	43.000	300,811
NNX12AB20A	Realtime Assessment of Emissions Impacts of Airports	43.000	304,060
			<b>2,325,090</b>

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNA13AA90A	Bosak child: Foundations of Complex Life: Evolution , Preservation & Detection on Earth & Beyond	43.001	4,151
NNA13AA90A	Foundations of Complex Life: Evolution, Preservation & Detection on Earth & Beyond	43.001	95,921
NNX10AJ98G	Geometric Control for Design Through Analysis	43.001	71,735
			<b>171,807</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNA06CN24A	Optimization of Super-Density Multi-Airport Terminal Area Systems in the Presence of Uncertainty	43.CCC	25,007
NNA11AB46C	MIT/SPHERES Transition Support	43.CCC	29,614
NNX10AN92A	Methodologies to Evaluate Trade-offs Between Environmental Impacts and Air Transportation Syst	43.CCC	205,428
			<b>260,049</b>
			<b>2,756,946</b>
			<b>Total for NASA - Ames Research Center</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX11AI66A	Geometry Interface for the NASA OpenMDAO Framework	43.002	268,129
			<b>268,129</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX12AN89G	Shear History Extensional Rheology Experiment II (SHERE II)	43.003	78,912
			<b>78,912</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNC09CA14C	SiC-Based MEMS Sensors for Real-Time Plasma Diagnosis During Spacecraft Re-Entry	43.CCC	2,100
NNX07AO10A	Advanced Multidisciplinary Optimization Techniques for Efficient Subsonic Aircraft Design	43.CCC	14
NNX11AB35A	Aircraft and Technology Concepts for an N+3 Subsonic Transport	43.CCC	1,400,268
			<b>1,402,382</b>
			<b>1,749,423</b>
			<b>Total for NASA - Glenn Research Center</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX10AV02G	THE OUTER LIMITS OF RICH CLUSTERS: SUZAKU OBSERVATIONS TO R200 (Suzaku 51115)	43.00	34,893
			<b>34,893</b>



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX12AQ59G	High Temperature Superconductors as Electrodynamic Deployment and Support Structures in Spa	43.00 1	132,905
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNH11PQ68P	CISR - NASA Agreement	43.000	31,970
NNX07AR02G	Phase Equilibrium Investigations of Melting and Early Differentiation on Mars	43.000	-6,668
NNX08AC04G	Direct Space Weathering of Icy Surfaces for Solar System Bodies in the Outer Heliosphere	43.000	17,161
NNX08AE92G	Deciphering Pluto's Atmosphere: Synthesis of Occultation Observations and Theoretical Models	43.000	9,619
NNX08AK68G	Off-Campus Account: U.S. Participation in the Marco Polo Mission	43.000	20,428
NNX08AK68G	U.S. Participation in the Marco Polo Mission	43.000	6,223
NNX08AL45G	Solar System Dynamics	43.000	60,140
NNX08AM24G	Geophysics of Terrestrial Planets	43.000	90,062
NNX08AR33G	Application of Satellite Altimetry Gravity Winds and in Situ Data to Problems of the Ocean Circulation	43.000	94,026
NNX08AT14G	Laboratory Study of the Effect of Impurities on the Flow and Fracture of Icy Materials On Mars	43.000	10,751
NNX08AV89G	Atlantic MOC Observing System Studies Using Adjoint Models	43.000	11,479
NNX08AX15G	A Search for Extra-Terrestrial Genomes (SETG): An In-situ Detector for Life on Mars Ancestrally	43.000	190,719
NNX08AY59A	Research on the Natural Variability of Climate and the Impact on Anthropogenic Forcing on Climate	43.000	82,300
NNX08AY96G	Measuring Paleomagnetism and Orienting Samples on the Moon	43.000	106,198
NNX09AE44G	Phytoplankton Community Organization by Cell Size, Optical Properties and Meso-Scale Motions	43.000	87,400
NNX09AE58G	Continuing MIT Participation in the Monitoring and Interpretation of Data from the Suzaku XIS	43.000	297,886
NNX09AE73G	Reanalysis of Cassini/Titan Radar Altimetry	43.000	3,855
NNX09AK26G	Shifts in Extreme Precipitation Events Based on Resolved Atmospheric Changes	43.000	214,608
NNX09AK68G	Improvements to the Accuracy of Global Geodesy	43.000	128,125
NNX09AM88G	Molecular and Isotopic Studies of Two Contrasting Mass Extinction Events.	43.000	-10,514
NNX10AB27G	Exploring the Outer Solar System with Stellar Occultations	43.000	227,772
NNX10AC70G	NRA/Research Opportunities in Space & Earth Sciences	43.000	332,165
NNX10AD41G	Atomic Data Unleashed: Interactive, Scriptable Interfaces to Databases and Codes for X-RAY Spectroscopy	43.000	127,982
NNX10AD67G	Studying Exoplanet Atmospheres with Spitzer Archival Data	43.000	61,882
NNX10AE25G	Detector System for Micro-X Sounding Rocket Payload - Fabrication.	43.000	69,228
NNX10AE25G	Supernova remnant and galaxy cluster observations with the Micro-X high resolution microcalorimeter	43.000	121,927
NNX10AE50G	High Performance Three-Dimensionally Integrated Active Pixel X-Ray Sensors	43.000	82,170
NNX10AE68G	Astro-comb Visible Wavelength Calibrator as Supporting Technology for Exoplanet Research	43.000	148,461
NNX10AE68G	Subaward to Smithsonian Astrophysical Observatory	43.000	65,250
NNX10AF59G	Development of high-resolution lightweight x-ray telescope optics	43.000	603,849

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Contract Number	Government Contract Title	CFDA#	FY Expenses
NNX10AF59G	Fabricated Equipment - Upgraded Mirror Slumping Process	43.000	38,431
NNX10AG27G	SMASS-Next: Next Generation Neo Spectroscopic Survey	43.000	18,304
NNX10AH32G	Search for Records of Early Solar System Magnetic Fields	43.000	98,596
NNX10AH84G	Multiwavelength Spectroscopy of 330.2 1.0 (Suzaku 41312)	43.000	11,597
NNX10AK91G	A UNIQUE EXPERIMENT: MONITORING THE OBSCURING CLOUDS IN THE BROAD LINE RE	43.000	4,194
NNX10AL11G	Electron Beam Heating During Magnetotail Reconnections	43.000	185,891
NNX10AP35G	The Wind SWE/Faraday Cup: Mission Operation and Data Analysis	43.000	68,548
NNX10AR85G	Laboratory Photochemistry Experiments to Identify the Source Reaction	43.000	124,074
NNX10AR96G	ACCRETION DISKS IN STRONG GRAVITY: FE LINES VS. KHZ QPOS AND SPECTRAL STATE: 3	43.000	3
NNX11AC86G	Hunting For The Variable Iron Line in NGC 42	43.000	3,325
NNX12AP83G	CMS Flux Pilot Project	43.000	41,900
			<b>3,881,317</b>

Contract Number	Government Contract Title	CFDA#	FY Expenses
NNX11AF17G	Advanced Global Atmospheric Gases Experiment (AGAGE) Collaborative Research Project	43.001	928,639
NNX11AF30G	Fab Eq - Plasma Therm 770 Reactive ion Etcher End-Point Detector	43.001	5,124
NNX11AF30G	Development of a critical-angle transmission grating spectrometer	43.001	840,704
NNX11AF30G	Fab Eq - Hydrogen Panel for Reactive-Ion Etcher	43.001	9,549
NNX11AF30G	Fab Eq - Upgraded Nanoruler	43.001	26,476
NNX11AG85G	Exoplanetary Spin-Orbit Angles	43.001	173,912
NNX11AI02G	A Major Addition to the Number of Sources in the RX/TE/ASM Light Curve Data Base	43.001	162,175
NNX11AJ28G	Development of a Magnetometer for a Planetary Lander	43.001	178,591
NNX11AK30G	Lunar Laser Altimetry and Comparative Planetology	43.001	59,379
NNX11AL79G	Quantifying rates of heat and carbon uptake in ocean models and its implication for climate change	43.001	214,691
NNX11AN37G	Laboratory studies of the effects of impurities on the flow of icy materials on mars	43.001	103,897
NNX11AN72G	A modeling analysis of the impact of anthropogenic aerosols on actinic fluxes and photolysis rates	43.001	250,652
NNX11AO19G	THE GBM ALL-SKY X-RAY BURST MONITOR (FERMI 41270)	43.001	37,981
NNX11AP37G	A Simulator for Gems	43.001	-173
NNX11AQ12G	Estimating the Circulation and Climate of the Ocean, Phase III (ECCO3): Improved Representation	43.001	377,486
NNX11AR70G	Comprehensive Systems Architecting of Exploration Infrastructures	43.001	206,578
NNX12AC25G	Organics on Titan?s Surface	43.001	111,630
NNX12AC76G	Obliquities of Kepler stars: clues to planet migration	43.001	55,189
NNX12AD56G	THE FINAL STAGES OF OUTBURSTS IN SOFT X-RAY TRANSIENTS (SWIFT 6090645)	43.001	14,631
NNX12AE14G	Lense-Thirring precession in neutron-star low-mass X-ray binaries	43.001	49,065
NNX12AE37G	Leveraging High Resolution Spectra to Understand the Disk and Relativistic Iron Line of Cygnus X-	43.001	18,514
NNX12AE60G	A Swift study of neutron star transients between outburst and quiescence (SWIFT 7100048)	43.001	10,527

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX12AE63G	THE FINAL STAGES OF OUTBURSTS IN SOFT X-RAY TRANSIENTS	43.001	5,184
NNX12AE83G	THE SEYFERT 1 H0557-385: A LONG TRANSITION FROM UNOBSERVED TO OBSERVED TY1	43.001	8,807
NNX12AF21G	Development of Fabrication Process for Critical-Angle X-ray Transmission Gratings	43.001	90,893
NNX12AF22G	Directly-Deposited Blocking Filters for Imaging X-ray Detectors: Technology Development for the Ir	43.001	38,245
NNX12AG58G	Heterogeneous chemistry of organic haze in planetary atmospheres: Laboratory studies of the kine	43.001	97,441
NNX12AH12G	Laboratory Verification of Instrumentation for Soft X-ray Polarimetry	43.001	78,878
NNX12AH80G	Phase Equilibrium Investigation of Planetary Materials	43.001	44,462
NNX12AJ93G	Gravity data for ocean circulation and climate studies	43.001	148,098
NNX12AL26G	Identifying Disrupted Differentiated Bodies in the Main Asteroid Belt	43.001	55,560
NNX12AO26G	Solid-Earth Lead for DESDynI-R Science Definition Team	43.001	57,975
NNX13AC34G	Interpreting ecological variability using remotely observed optical properties and ocean models	43.001	58,415
NNX13AD02G	Supernova Remnant Observations with Micro-X	43.001	117,220
NNX13AF80G	Communication of solar variability to the Earth's surface via the stratosphere	43.001	27,225
NNX13AH91A	Research on the Natural Variability of Climate and the Impact on Anthropogenic Forcing on Climate	43.001	30,558
NNX13AI62G	Characterization of the Stratospheric, Lower Thermospheric, and Ionospheric Variability Related to	43.001	33,945
			<b>4,728,123</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX09AM53G	Lunar and Planetary Gravity and Topography	43.003	416,184
			<b>416,184</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX11AQ21A	MIT Participation in the Station Experiment for X-ray Timing and Navigation Technology (SEXTANT)	43.007	422,933
NNX11AR35G	High-temperature superconductors as electromagnetic deployment and support structures in space	43.007	31,270
			<b>454,203</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNG10HP00C	Continued Development and Operation of the NASA Mark IV and Next Generation Very Long Base	43.CCC	1,964,221
NNG10HP00C	VLBI Antenna System - Fabrication	43.CCC	194,246
NNG12FD70C	EAPS - Regolith X-Ray Imaging Spectrometer (REXIS)	43.CCC	18,812
NNG12FD70C	Regolith X-ray Imaging Spectrometer (REXIS) - Phase C & D	43.CCC	9,768
NNG12FD70C	Fabricated Equipment: REXIS Spectrometer	43.CCC	49,663
NNG12FD70C	Kavli - Regolith X-Ray Imaging Spectrometer (REXIS)	43.CCC	63,743
NNG12FD70C	Regolith X-ray Imaging Spectrometer (REXIS) - Phase B	43.CCC	228,868
NNG12FD70C	Kavli - Regolith X-Ray Imaging Spectrometer (REXIS) - Phase C & D	43.CCC	6,368

**Appendix A-1 - Detail  
 Massachusetts Institute of Technology  
 Federal Research Support - On Campus  
 Fiscal 2013 Expenditures**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNG12FD70C	Fabricated Equipment: REXIS Spectrometer - Phase C & D	43.CCC	2,217
NNG12FG09C	Fab Eq - Camera Assembly	43.CCC	38,737
NNG12FG09C	Fab Eq - Focal Plane Electronics	43.CCC	5,106
NNG12FG09C	Transiting Exoplanet Survey Satellite (TESS)	43.CCC	81,148
NNG12LD59P	Graphene-based strain sensors	43.CCC	20,434
NNH10CC27C	Supporting the SPHERES Facility aboard the ISS for STEM Educational Objectives	43.CCC	244,397
NNH11CC25C	Visual Estimation and Relative Tracking for Inspection of Generic Objects (VERTIGO)	43.CCC	497,627
NNH11CC25C	Leonard Vertigo Child	43.CCC	58,490
NNH11CC26C	Zero Robotics	43.CCC	290,310
			<b>3,774,155</b>
	<b>Total for NASA - Goddard Space Flight Center</b>		<b>13,421,780</b>

**NASA - Johnson Space Center**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX09AE50G	A Critical Benefit Analysis of Artificial Gravity as a Microgravity Countermeasure	43.000	10,325
NNX12AC09G	Spacesuit Trauma Countermeasure System for Intravehicular and Extravehicular Activities	43.000	223,078
			<b>233,403</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX12AM16G	NRI-Small: A Novel Powered Leg Prosthesis Simulator for Sensing and Control Development	43.009	261,248
			<b>261,248</b>
	<b>Total for NASA - Johnson Space Center</b>		<b>494,651</b>

**NASA - Langley Research Center**

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX12AJ75A	Higher-Order Space-time adaptive methods for complex turbulent flows	43.001	129,025
NNX12AJ75A	Pre-Award Expenses	43.001	8,378
			<b>137,403</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
NNX11AR11G	GPS- and Compass- Denied Flight in Outdoor, Unstructured Environments	43.009	41,845
			<b>41,845</b>

**Appendix A-1 - Detail  
 Massachusetts Institute of Technology  
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<u>Contract Number</u> NNL10AA13C	<u>Government Contract Title</u> Assuring Safety using System Theoretic Concepts CLIN 2 Non-ARRA Funded Tasks	<u>CFDA#</u> 43.CCC	<u>FY Expenses</u> 376,855
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**376,855**

**556,103**

**Total for NASA - Langley Research Center**

**NASA - Marshall Space Flight Center**

<u>Contract Number</u> NNM13AA03G	<u>Government Contract Title</u> A New Modeling Approach for Rotating Cavitation Instabilities in Rocket Engine Turbopumps	<u>CFDA#</u> 43.007	<u>FY Expenses</u> 82,888
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**82,888**

<u>Contract Number</u> NNM08AA18C	<u>Government Contract Title</u> GRAIL	<u>CFDA#</u> 43.CCC	<u>FY Expenses</u> 1,819,494
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**1,819,494**

**1,902,382**

**Total for NASA - Marshall Space Flight Center**

**NASA - Washington (USE FOR PROPOSALS ONLY)**

<u>Contract Number</u> LETTER DATED 22 MAY 13	<u>Government Contract Title</u> TESS Bridge Preaward	<u>CFDA#</u> 43.CCC	<u>FY Expenses</u> 95,416
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**95,416**

**95,416**

**Total for NASA - Washington (USE FOR PROPOSALS ONLY)**

**20,976,701**

**Total for Nat'l Aereo & Space  
Administration**

**National Science Foundation**

**NSF**

<u>Contract Number</u> CBET-0845347	<u>Government Contract Title</u> CAREER:Technologies for Genome-Wide In Vivo Study of Neuronal (Axonal) Degeneration	<u>CFDA#</u> 47.041	<u>FY Expenses</u> 105,160
<u>Contract Number</u> CBET-0852235	<u>Government Contract Title</u> DNA Polymer Dynamics in Nanoconfinement	<u>CFDA#</u> 47.041	<u>FY Expenses</u> 96,914
<u>Contract Number</u> CBET-0853866	<u>Government Contract Title</u> Assessing Environmental Sustainability using FLAG: A case study of a novel semiconductor mater	<u>CFDA#</u> 47.041	<u>FY Expenses</u> 15,173

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CBET-0933095	Advances in Global Dynamic Optimization	47.041	70,963
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Colum	47.041	28,303
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Brig ar	47.041	237,660
CBET-0939511	R. Weiss RTC	47.041	265,154
CBET-0939511	H. Asada STC	47.041	138,488
CBET-0939511	L. Boyer STC	47.041	148,093
CBET-0939511	P. Hammond STC	47.041	109,885
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - UGA R	47.041	113,103
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems	47.041	484,024
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Univ. c	47.041	1,390,938
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Voldm	47.041	10,019
CBET-0939511	B. Imperiali - STC	47.041	102,007
CBET-0939511	L. Griffith STC	47.041	131,769
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Georgi	47.041	1,589,835
CBET-0939511	P. So RTC	47.041	133,583
CBET-0939511	R. Kamm STC	47.041	239,526
CBET-0952493	CAREER: CELL SEPARATION BY ROLLING ON ASYMMETRIC RECEPTOR PATTERNS	47.041	56,590
CBET-0952564	CAREER: Fundamental Studies of Condensation Phenomena on Heterogeneous and Hierarchical	47.041	136,377
CBET-0954986	CAREER: Design, Construction and Characterization of Metabolite Valves	47.041	49,494
CBET-0966000	Collaborative Proposal: Chiral Objects in Microfluidic Shear Flows: Chiral Separation and Microbial	47.041	38,652
CBET-0966452	Bouncing droplets: from fundamentals to digital microfluidics	47.041	35,513
CBET-1033316	Probing Delays and Memory in Gene Activation Using a Gene Oscilloscope	47.041	56,195
CBET-1033533	Directed Assembly of Nanoscale Process Systems	47.041	185,240
CBET-1053233	Fabricated Equipment - Autopatcher Control Boxes	47.041	4,674
CBET-1053233	CAREER: A Neurophotonic Platform for Causal Brain Analysis	47.041	58,672
CBET-1066566	Collaborative Research: Swimming and Settling in Stratified Fluids	47.041	116,772
CBET-1133286	Collaborative Research: Reducing the Burden of Global Materials Manufacture, Enabling Increase	47.041	84,306
CBET-1133813	Fundamental Studies of Graphene Solutions: Exfoliation, Dispersion, and Stability	47.041	21,853
CBET-1133813	Child-Strano-6924474	47.041	68,622
CBET-1150615	CAREER: Dielectric Phenotyping of Bacteria for Energy and Medicine	47.041	74,022
CBET-1159695	Collaborative Research: Using a Fully Autonomous Brain-Body Interface to Study the Cortical Dyn	47.041	15,412
CBET-1224898	Collaborative Research: Cyberplasm - An autonomous micro-robot constructed using synthetic biol	47.041	36,022
CBET-1239073	EAGER: Continuous, Catalyzed Thermopower Wave Generators Powered by Renewable Biofuels:	47.041	79,334
CBET-1240696	1066469 - Collaborative Research: Developing A Complete Membrane-Cytoskeleton Model for Hur	47.041	160,647
CBET-1253228	CAREER: Predicting granular flows: Amorphous continuum modeling with a length-scale	47.041	3,799
CBET-1253890	CAREER: Optoelectronic neural scaffolds: materials platform for investigation and control of neur	47.041	27,834

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CMMI-0642545	CAREER: Mechanics of Chemically Complex, Hierarchical Nanostructured Protein-Based Materials	47.041	160,055
CMMI-0758061	Price of Anarchy and its Applications	47.041	3,791
CMMI-0758069	Nearly Optimal Solutions for Stochastic Optimization Problems	47.041	19,677
CMMI-0758651	Nanomechanics of Cartilage Extracellular Matrix Macromolecules from Aged, Diseased, and Engin	47.041	972
CMMI-0824674	Alleviating Travel Delay Uncertainties in Traffic Assignment and Traffic Equilibrium	47.041	4,801
CMMI-0830134	CAREER: A Design Data Analysis Approach to Early Stage Design Process Modeling	47.041	-4,327
CMMI-0846554	CAREER: New Algorithmic Approaches to Computationally Challenging Stochastic Supply Chain a	47.041	54,078
CMMI-0856063	Collaborative Research: Adaptive Allocation Rules in High Dimensional Settings, with Applications	47.041	101,337
CMMI-0856171	Collaborative Research: Mechanical and Electrical Reliability Maximization of Rechargeable Lithiur	47.041	8,568
CMMI-0856325	Debonding in Bi-layer Material Systems under Moisture Effects: A Multi-scale Fracture Approach	47.041	27,657
CMMI-0918571	Cavern Design for the Deep Underground Science and Engineering Laboratory (DUSEL)	47.041	-7,566
CMMI-0926349	Preparing Cities for Climate Change: An International Comparative Assessment of Urban Adaptation	47.041	11,477
CMMI-0926671	A Robust Methodology for the Standoff Condition Assessment of FRP-Retrofitted Concrete System	47.041	47,456
CMMI-0970017	Collaborative Research: Optimal Gaits and Design for Locomoting Systems	47.041	88,360
CMMI-1000727	A Multi-Cellular PZT Actuator/Generator with Tunable Stiffness and Resonant Frequencies	47.041	83,965
CMMI-1029260	What Do Customers Like: A New Approach That Lets The Data Decide	47.041	69,976
CMMI-1029603	Online Optimization for Dynamic Resource Allocation Problems	47.041	6,265
CMMI-1031332	Statistical physics methods and algorithmic applications in graphical games and combinatorial optir	47.041	143,791
CMMI-1054034	CAREER: Large Scale Stochastic Control: A Math Programming & Discrete Optimization Lens	47.041	44,461
CMMI-1063626	A chemo-thermo-mechanics theory: Application to high-temperature thermal barrier coatings	47.041	32,974
CMMI-1120724	SNM:: Digital Optofluidic Self Assembly of Heterogeneous Metamaterials	47.041	360,182
CMMI-1120724	SNM: Doyle child	47.041	28,311
CMMI-1129894	Collaborative Research: Experimental and computational foundations for nonlinear pattern formatic	47.041	90,033
CMMI-1152550	Fab Eq - 3D Printing Apparatus	47.041	7,944
CMMI-1152550	Bio-Beams: Functionally Graded Rapid Design & Fabrication	47.041	20,628
CMMI-1153509	EAGER - Collaborative Research: New Concept of Sorption Hysteresis and Disjoining Pressure in	47.041	31,844
CMMI-1156478	EAGER: Scaled Down Manufacturing	47.041	25,038
CMMI-1161893	GOALI:Hybrid Dynamic Feedback to Design Provably Correct Driving Support Systems for Safety ;	47.041	8,222
CMMI-1162034	Tractable Markdown Optimization for an E-tailer	47.041	16,479
CMMI-1162182	EAGER: Ionic Liquid Ion Sources and Nanomanufacturing	47.041	87,368
CMMI-1234062	The Power Of Limited Flexibility And Resource Pooling	47.041	57,936
CMMI-1234113	DynSyst_Special_Topics/Collaborative Research: A New Braid Theoretic Approach To Uncovering	47.041	2,365
CMMI-1234169	Templated Self-Assembly for Nanomanufacturing	47.041	21,021
CMMI-1235109	DMREF-GOALI- Computational and Experimental Discovery and Development of Additives for Nov	47.041	29,748
CMMI-1246740	SNM: Inverse Design of Nanostructured Heterogeneous Materials	47.041	60,464
CMMI-1246740	Child - Ross - 6926506	47.041	43,496

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CMMI-1246740	Child - Berggren: 6926506	47.041	18,060
CMMI-1246740	Child - Olsen - 6926506	47.041	48,346
ECCS-0745237	CAREER: Practical Algorithms for Next Generation Air Transportation Systems Control Over Networks	47.041	137,311
ECCS-0801549	Collaborative Research CDI-Type II Advanced Theory and Computational Methods for Modular An	47.041	231
ECCS-0835623	CDI Type I: Collaborative Research: Integration of relational learning with ab-initio methods for prec	47.041	-28,176
ECCS-0941043	Development of Tunable THz Wire Lasers	47.041	57,289
ECCS-0968633	Organic Polariton Microcavities for Ultra-Low Energy Switching	47.041	101,893
ECCS-1001994	Octave Spanning Gain by Cavity Enhanced Optical Parametric Amplification	47.041	102,712
ECCS-1002286	A New Paradigm for Understanding and Controlling Systemic Risks in Financial Markets	47.041	383
ECCS-1027905	Novel Game-Theoretic Tools and Solution Concepts with Applications to Network Dynamics and C	47.041	15,827
ECCS-1027922	Low Energy Magnetic Domain Wall Logic	47.041	18,792
ECCS-1101798	C Ross Child: Low Energy Magnetic Domain Wall Logic	47.041	103,177
ECCS-1101798	EPAS: Hierarchical Characterization of Optoelectronic Hyperdoped Silicon Devices for Terawatt-Sc	47.041	59,251
ECCS-1102050	Decision making under coupled multi-timescale uncertainty: advanced electric power systems plani	47.041	103,437
ECCS-1128147	Engineering and Physics of Superconducting Nanowire Single-Photon Detectors	47.041	86,770
ECCS-1128222	Energy-Efficient Compressed Sensing: A Joint Algorithmic/Implementation Approach Using Determ	47.041	165,684
ECCS-1128226	Collaborative Research: Power Grid Spectroscopy	47.041	113,134
ECCS-1128437	CPS:Medium:Collaborative Research:Smart Power Systems of the Future:Foundations for Underst	47.041	94,665
ECCS-1135843	CAREER: Active Transducers for MEMS Resonators in Integrated Circuit Technology	47.041	80,172
ECCS-1150493	CAREER: Toward robust, scalable, and non-intermittent solar power: Silicon-based multijunction d	47.041	103,006
ECCS-1150878	Intermolecular Informatics System	47.041	51,667
ECCS-1150878	High Temperature Terahertz Quantum Cascade Lasers	47.041	67,210
ECCS-1201649	Collaborative Research: Monolithic on-chip resonant cavity isolators for photonic integrated circuits	47.041	102,907
ECCS-1231348	Electric Field Control of Spin Dynamics in Metal Spintronic Devices	47.041	164,644
ECCS-1128439	CPS: Medium: Collaborative Research: Co-Design of Multimodal CPS Architectures and Adaptive	47.041	230,069
ECCS-1135815	EFRI-ARESCI: Theory and Algorithms for Autonomous Reconfigurability of the National Air Transf	47.041	216,852
EFRI-0735905	EFRI-ARESCI: Controlling the Autonomously Reconfiguring Factory	47.041	168,767
EFRI-0735953	EFRI-ARESCI: Foundations for Reconfigurable and Autonomous Cyber-Physical Systems; Cyber-	47.041	295,311
EFRI-0735956	Megretski-EFRI	47.041	39,101
EFRI-0835947	EFRI-COPN: Dynamics of Neural Networks on a Planar Patch-Clamp Array: Training, Identification	47.041	4,748
EFRI-0835947	Layered Systems, Industries and Organizations	47.041	31,426
EFRI-1023152	Kim - Child	47.041	69,594
EFRI-1240383	EFRI-ODISSEI: Programmable Origami for Integration of Self-Assembling Systems in Engineered ;	47.041	27,150
EFRI-1240383	I-Corps Knowledge Markets	47.041	207,022
IIP-1217250	I-Corps: RetiCue: Interactive Retinal Imaging for Improved Global Eye Health	47.041	11,183
IIP-1248374		47.041	50,000

**11,629,089**



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
IOS-1048133	Culturing the Uncultured: Custom Microfluidic Systems for Growth and Isolation of Environmental Microbes	47.047	94,226
<b>94,226</b>			
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
AST-0647787	REU Site: Astronomy and Atmospheric Science at the MIT Haystack Observatory	47.049	2,927
AST-0705058	Collaborative Research: Ultra-Precision Silicon Immersion Gratings for Infrared Spectroscopy	47.049	3
AST-0707609	Exploring the Kuiper Belt with the Magellan Telescopes	47.049	28,266
AST-0708106	Collaborative Proposal: Models of the Deep Circulation of Gas Giants: Solar Heating, Convection, and Storms	47.049	-6,674
AST-0747154	CAREER: Building Rocky Planets: From Mercury and Vesta to GL 581C	47.049	36,607
AST-0907766	SMASS- Next: Next Generation Asteroid Spectroscopic Survey	47.049	157,904
AST-0908920	Chemical Abundances in the Intergalactic Medium: Evolution and Constraints on Feedback from Galaxies	47.049	-47
AST-1006507	Collaborative Research: Development of a Green-Orange Astro-Comb for Exoplanet and Cosmological Studies	47.049	9,766
AST-1009644	The HI 21-cm Line as a Probe of Stellar Mass-Loss and Evolution	47.049	42,712
AST-1105835	MITeOR: a HERA Pathfinder Instrument for cheaper 21 cm precision cosmology	47.049	134,491
AST-1105835	Fab Eq -HERA Pathfinder Instrument for Precision Cosmology	47.049	24,065
AST-1108595	Spin-Orbit Alignment in Binary Stars	47.049	120,822
AST-1109115	Feedback from the First Stars: Chemical Abundances in the First Billion Years after the Big Bang	47.049	134,038
AST-1109152	Investigations of Black Holes, Neutron Stars, and Accretion Physics with High-Resolution Infrared Spectroscopy	47.049	104,544
AST-1156504	REU Site: Astronomy and Atmospheric Science at MIT Haystack Observatory	47.049	90,453
CHE-0714189	Collaborative Research: Jensen Child	47.049	13,946
CHE-0714189	Collaborative Research: Bawendi Child	47.049	11,711
CHE-0714189	Collaborative Research: High Throughput and Massively Parallel Synthesis of Materials	47.049	8,578
CHE-0907905	Metal Coordination Compounds as Reporters for Biological NO	47.049	175,592
CHE-0911107	Two-dimensional infrared spectroscopy of protein conformational dynamics (M+S)	47.049	100
CHE-0911107	Two-dimensional infrared spectroscopy of protein conformational dynamics	47.049	-41,359
CHE-1012809	Detailed studies of the chemistry of alkoxy and alkylperoxy radicals in the multiphase oxidation of olefins	47.049	162,940
CHE-1019990	The Chemical Biology of Phosphorothioate Modifications of DNA in Bacteria	47.049	152,504
CHE-1058219	Accurate Photochemistry in the Condensed Phase	47.049	65,037
CHE-1058709	Fabricated Equipment: Buffer Gas Cooled Ablation Source	47.049	39,229
CHE-1058709	The Impact of Chirped Pulse Millimeter-Wave Technology on the Spectroscopy, Dynamics, and Mechanisms of Chemical Reactions	47.049	267,748
CHE-1111133	Multiple Metal-Carbon Bonds, Metallacycles and Catalytic Olefin Metathesis Reactions	47.049	199,200
CHE-1111357	Synthesis Using Group 15 Elements	47.049	260,503
CHE-1111557	Coherent spectroscopy and Coherent control of collective modes through shaped optical fields	47.049	171,771
CHE-1111567	New Cycloaddition and Annulation Strategies for Organic Synthesis	47.049	226,929

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Contract Number	Government Contract Title	CFDA#	FY Expenses
CHE-1112154	Metal Platforms for the Photoactivation of Metal-Hydride, -Halide and -Oxo Bonds	47.049	38,498
CHE-1112825	Theoretical studies of coherent energy transfer in photosynthetic systems	47.049	19,998
CHE-1212527	Highly Convergent and Stereoselective Synthesis of Heterodimeric Polycyclic Alkaloids	47.049	19,249
CHE-1212557	Two-Dimensional Infrared Spectroscopy of the Conformational Dynamics of Biomolecules	47.049	93,896
CHE-1213622	Near Infrared Fluorescent Single Walled Carbon Nanotubes as Novel Solution Phase Optical Sens	47.049	184,633
DMR-0645323	CAREER: Structure-Property Relationships for Mixed Ligand Rippled Nanoparticles and their Poly	47.049	-259
DMR-0745555	CAREER: Semiconductor Nanowires: Structure-Property Relationships and Applications in Nanopr	47.049	72,099
DMR-0803315	Constrained Fluctuations	47.049	48,952
DMR-0804449	Periodic Polymeric Materials: Deaf and Blind Structures	47.049	530
DMR-0819762	CMSE - IRG-3 - Johnson	47.049	47,637
DMR-0819762	CMSE - SEED - Dinca	47.049	64,950
DMR-0819762	CMSE - IRG-2 Buehler	47.049	78,754
DMR-0819762	CMSE SEED Jarillo-Herrero	47.049	11,151
DMR-0819762	CMSE - IRG-1 - Hamad-Schifferli	47.049	6,458
DMR-0819762	CMSE - Initiative 1 - Wardle	47.049	113,910
DMR-0819762	CMSE - SEED - Roman	47.049	61,545
DMR-0819762	CMSE - MRSEC Undergrad/REU	47.049	134,174
DMR-0819762	CMSE - MRSEC Administration	47.049	209,932
DMR-0819762	CMSE - MRSEC Education Support	47.049	192,268
DMR-0819762	CMSE - IRG - 1 - NOCERA	47.049	67,609
DMR-0819762	CMSE - IRG-2 Cohen	47.049	125,508
DMR-0819762	CMSE - IRG-2 Van Vliet	47.049	72,472
DMR-0819762	CMSE - IRG-3 - Joannopoulos	47.049	88,396
DMR-0819762	CMSE SEED Ribbeck	47.049	513
DMR-0819762	CMSE - IRG-2 Hammond	47.049	123,639
DMR-0819762	CMSE - Initiative 1 - Cohen	47.049	126,415
DMR-0819762	CMSE - IRG-2 Boyce	47.049	67,911
DMR-0819762	CMSE - SUPER SEED - KATZ	47.049	95,815
DMR-0819762	CMSE - IRG-1 - Ceder	47.049	43,112
DMR-0819762	CMSE - Subcontract - Univ. of Pittsburgh	47.049	39,814
DMR-0819762	CMSE - MRSEC Day Camp	47.049	19,656
DMR-0819762	CMSE - Initiative 1 - Rubner	47.049	127,345
DMR-0819762	CMSE - IRG-3 - Soljacic	47.049	70,309
DMR-0819762	CMSE - IRG-3 - Ippen	47.049	66,274
DMR-0819762	CMSE - SEED - Lu	47.049	3,906
DMR-0819762	CMSE - IRG - 1 - VAN VOORHIS	47.049	98,644

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Contract Number	Government Contract Title	CFDA#	FY Expenses
DMR-0819762	CMSE - IRG-2 Ortiz	47.049	5,539
DMR-0819762	CMSE - IRG-3 - Fink	47.049	56,624
DMR-0819762	CMSE - Major Equipment	47.049	315,854
DMR-0819762	CMSE - Initiative 2 - Moodera	47.049	110,434
DMR-0819762	CMSE - Initiative 2 - Chu	47.049	2,652
DMR-0819762	CMSE - SEED - Wang	47.049	74,471
DMR-0819762	CMSE - IRG 3 - Anikeeva	47.049	71,868
DMR-0819762	CMSE - Initiative 2 - Jarillo-Herrero	47.049	98,290
DMR-0819762	CMSE - Initiative 2 - Gedik	47.049	63,082
DMR-0819762	MRSEC Supplement - Reconfigurable Array Magnetic Automata	47.049	4,536
DMR-0819762	CMSE - Subaward - University of Central Florida	47.049	57,988
DMR-0819762	CMSE - IRG-1 - Shao-Horn	47.049	133,680
DMR-0819762	CMSE - IRG-1 - Belcher	47.049	56,793
DMR-0819762	CMSE - IRG-1 - Thompson	47.049	44,341
DMR-0819762	CMSE MRSEC Grant Supplement - MRSEC Website	47.049	68,628
DMR-0819762	CMSE - MRSEC Special Projects	47.049	92,925
DMR-0845287	CAREER: Exploration of novel quantum phenomena and relativistic-like quantum dynamics in grap	47.049	109,286
DMR-0845358	CAREER: Understanding the Chemical Vapor Deposition Synthesis of Graphene Science, Applicat	47.049	104,566
DMR-0906838	Surface Modification and Bioconjugation of Gold Nanorods	47.049	-184
DMR-1004147	Photophysical Studies of Nanocarbons	47.049	128,048
DMR-1005434	Physics Near the Mott Transition	47.049	64,263
DMR-1005541	Physical Properties of Strongly Correlated Quantum Liquids	47.049	67,006
DMR-1005810	Synthesis and Organization of Electronic Molecular and Polymeric Materials	47.049	103,908
DMR-1005926	Spin Bath of a Central Spin System in Diamond: Polarization and Coherent Control	47.049	75,700
DMR-1006147	Collaborative Research: Hierarchically Assembled Viral-Synthetic Hybrid Microentities	47.049	110,644
DMR-1007760	Materials World Network: Triblock Terpolymers for Self-assembled Nanolithography	47.049	91,648
DMR-1007793	Materials World Network: Novel Catalyst Systems for Carbon Nanotube (CNT) Synthesis and their	47.049	101,962
DMR-1054671	CAREER: Self-Healing Under Flow: From Single Molecule Dynamics to Regenerative Scaffold For	47.049	86,458
DMR-1055583	CAREER "Stretching" Oxides to Low Temperature Transport and Reactivity	47.049	144,445
DMR-1104394	Tunneling and Bulk Resistance Measurements in the Fractional Quantum Hall States	47.049	105,558
DMR-1104498	Physics of Strong Disorder and Correlation	47.049	167,067
DMR-1104610	Mechanisms of Stress and Structure Evolution During Processing of Polycrystalline Thin Films	47.049	138,565
DMR-1104912	Ferromagnetic Magneto-optical Oxides for Nonreciprocal Photonic Devices	47.049	177,056
DMR-1107339	Materials World Network: Quantum Size Effects in Semiconducting V2VI3 and IV-VI-based Thin Fil	47.049	60,704
DMR-1150862	Career: Connecting interface structure to interface-defect interactions in metals	47.049	33,943
DMR-1206323	Perturbed Fluctuations & Patterns	47.049	13,251

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
DMR-1207469	Investigating Two-Dimensional Systems and Surface States Under the Influence of an Internal Exc	47.049	150,857
DMR-1240933	Materials World Network: Collaborative Research: Modeling Ferroelastic Strain Glasses	47.049	187,162
DMR-1253306	CAREER: Self-Assembly of Fusion Proteins to Form Biofunctional Materials	47.049	4,446
DMS-0545904	CAREER: Cohomological Methods in Algebraic Geometry and Number Theory	47.049	3,211
DMS-0757207	FRG: Collaborative Research: Semidefinite Optimization and Convex Algebraic Geometry	47.049	-1,043
DMS-0758262	Mathematical Sciences Geometric Methods in the Representation Theory of Affine Hecke Algebras	47.049	114,791
DMS-0805841	Low Dimensional Topology and Gauge Theory	47.049	167,683
DMS-0813648	Capturing subgrid structures with level set methods	47.049	40,722
DMS-0854764	FRG: Collaborative Research: Quantum Cohomology, Quantized Algebraic Varieties, and Repr	47.049	61,099
DMS-0854774	FRG: Collaborative Research: Mean curvature flow as a tool in low dimensional topology	47.049	153,105
DMS-0854877	FRG: Collaborative Research: Characters, Liftings, and Types: Investigations in P-Adic	47.049	77,178
DMS-0900996	Algebraic Structures Arising in Physics	47.049	62,795
DMS-0905950	Collaborative Research: Homotopy Theory: Applications and New Dimensions	47.049	223,444
DMS-0907955	The stability of hydraulic jumps: analysis, computation, and experiment	47.049	32,740
DMS-0908122	Nonlinear Wave Propagation in Fluid Flows	47.049	2,811
DMS-0934689	CMG Collaborative Research: Imaging Magnetization Distributions in Geological Samples	47.049	63,165
DMS-0943787	EMSW21-RTG: Geometry and Topology	47.049	123,682
DMS-0946296	CAREER: Random Surfaces and Conformal Probability	47.049	83,485
DMS-0952486	CAREER: Lattices and Sphere Packings, Arithmetic Geometry and Computational Number Theory	47.049	78,300
DMS-0967272	FRG: Collaborative Research: Atlas of Lie groups and Representations: Unitary Representations	47.049	78,387
DMS-0969745	Semiclassical Analysis in Inverse Problems; on Kac's problem and Calderon's problem	47.049	2,827
DMS-1000113	Tensor categories, quantum groups, and Hecke algebras	47.049	161,551
DMS-1005288	Cohomological methods in symplectic topology	47.049	52,763
DMS-1005365	Symplectic homology and Stein manifolds	47.049	3,325
DMS-1005539	High Dimensional Inference and Signal Recovery - revised budget	47.049	59,816
DMS-1005696	Spectral problems in semi-classical analysis, wave and heat trace asymptotics and group actions	47.049	90,983
DMS-1005944	Compactifications, resolution and differential equations	47.049	81,486
DMS-1007790	Geometrical algorithms for the inverse scattering of waves	47.049	13,666
DMS-1007967	Collaborative Research: Phantom traffic jams, continuum modeling, and connections with detonatic	47.049	56,918
DMS-1016125	Collaborative Research: Theory and Algorithms for Beta Random Matrices: The Random Matrix M	47.049	78,959
DMS-1022356	The Fluid Dynamics of Respiratory Disease Transmission	47.049	163,869
DMS-1025302	CMG Collaborative Research: Nonlinear elastic-wave inverse scattering and tomography - from cre	47.049	313,295
DMS-1035400	Jeffrey Grossman	47.049	187,960
DMS-1035400	Troy Van Voorhis	47.049	143,714
DMS-1035400	Alan Edelman	47.049	166,388
DMS-1050466	CAREER: ARITHMETIC STRUCTURE OF HOMOTOPY THEORY	47.049	59,561

**Appendix A-1 - Detail**  
**Massachusetts Institute of Technology**  
**Federal Research Support - On Campus**  
**Fiscal 2013 Expenditures**

Contract Number	Government Contract Title	CFDA#	FY Expenses
DMS-1054622	Minimal Model Program	47.049	111,972
DMS-1056390	Growth of Random Surfaces	47.049	99,302
DMS-1068625	Studies in Algebraic and Enumerative Combinatorics	47.049	65,257
DMS-1068815	New perspectives on dispersive equations	47.049	74,231
DMS-1069197	Problems in Ramsey theory and extremal combinatorics	47.049	100,986
DMS-1069225	Free Boundaries, Level Surfaces, and Stochastic Growth	47.049	87,661
DMS-1069236	Random maximal isotropic subspaces and Selmer groups	47.049	97,291
DMS-1100147	Algebraic and Geometric Combinatorics	47.049	53,903
DMS-1100943	Representation Theory of Reductive Groups over Local Fields	47.049	46,282
DMS-1102434	Categories of sheaves, canonical bases and harmonic analysis	47.049	83,964
DMS-1104392	Mean Curvature Flow, Manifolds with Ricci curvature bounds, Representations of Isometry groups,	47.049	36,511
DMS-1104690	Contact manifolds and Heegaard Floer homology	47.049	22,287
DMS-1107335	Dynamics of Nonlinear Internal Wave Beams in Stratified Flows	47.049	27,071
DMS-1115278	Collaborative Research: Numerical approaches for incompressible viscous flows with high order ac	47.049	16,904
DMS-1115455	Computational methods in arithmetic geometry	47.049	36,433
DMS-1161129	Electromagnetic Inverse Problems: Visibility and Invisibility	47.049	46,281
DMS-1162211	The Global Analysis of Fluids in General Relativity	47.049	58,467
DMS-1162250	Arithmetic Applications of the Trace Formula	47.049	45,639
DMS-1162385	AFFINE CRYSTALS: COMBINATORICS, ALGEBRA AND GEOMETRY	47.049	13,958
DMS-1200656	Boundedness and Termination	47.049	41,712
DMS-1208998	Exact solvability of the Kardar-Parisi-Zhang stochastic partial differential equation	47.049	37,244
DMS-1209044	Liouville quantum gravity and conformal probability	47.049	59,998
DMS-1211517	Qualitative dynamics in the Stefan problem with and without surface tension	47.049	50,930
DMS-1238309	MIT PRIMES: Program for Research In Mathematics, Engineering, and Science for High School St	47.049	37,201
PHY-0847342	CAREER: Increasing the Dark Matter Science Reach of the SuperCDMS Experiment	47.049	166,612
PHY-0903906	Interaction of A Flowing Plasma With Collecting Objects	47.049	494
PHY-0967299	Research in Theoretical Elementary Particle Physics	47.049	41,362
PHY-0968893	Fabricated Equipment - Wavelength Shifting Plates and Rod	47.049	1,345
PHY-0969311	Strongly Interacting Quantum Mixtures of Ultracold Atoms	47.049	189,639
PHY-0969731	Fabricated Equipment - Bec 5	47.049	57,641
PHY-0969731	A Program in Ultra-Low-Temperature Atomic Physics	47.049	152,166
PHY-0969731	Fabricated Equipment: Li-7 Experiment	47.049	11,871
PHY-0970047	Distinguishing Dark Matter Signals from Neutron Backgrounds	47.049	79,874
PHY-0970047	Off campus child for Year 3 of Distinguishing Dark Matter Signals from Neutron Backgrounds	47.049	83,051
PHY-1004592	Fabricated Equipment - DMTPCino Fabrication	47.049	4,727
PHY-1004592	Exploring Spin-Dependent Interactions of Dark Matter with DMTPCino	47.049	1,808

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
PHY-1005373	Noise Characterization and Dynamic Decoupling in Superconducting Qubits	47.049	211,799
PHY-1027890	CDI-Type I: Collaborative Research: High-dimensional phase-space subdivisions for seismic imagi	47.049	107,809
PHY-1055154	CAREER: Exploration of Evolutionary Dynamics on Rugged Fitness Landscapes	47.049	31,188
PHY-1068720	Gravitational-wave and strong-gravity astrophysics	47.049	106,122
PHY-1068772	Quantum Opto-mechanics on Multiple Scales	47.049	346,994
PHY-1125846	Fabricated Equipment - BEC 2 Apparatus	47.049	235,400
PHY-1125846	Vuletic Project	47.049	283,975
PHY-1125846	Cappellaro Project	47.049	121,875
PHY-1125846	Center for Ultracold Atoms	47.049	1,624
PHY-1125846	Chuang Project	47.049	42,753
PHY-1125846	Fabricated Equipment - Fermi Gas Microscope	47.049	97,066
PHY-1125846	Harvard University Sub	47.049	1,414,290
PHY-1125846	Ketterle Project	47.049	412,826
PHY-1125846	Zwierlein Project	47.049	207,799
PHY-1125846	Seminar Program	47.049	53,347
PHY-1125846	Fabricated Equipment: Laser System for Measurements Below the Standard Quantum Limit	47.049	81,126
PHY-1125846	Visitors Program	47.049	48,210
PHY-1125846	Core Project	47.049	48,704
PHY-1148134	Fabricated Equipment - Central Region System	47.049	15,063
PHY-1148134	EAGER: H2+ Ion Source Studies at the BEST Cyclotrons, Inc. Test Stand	47.049	79,727
PHY-1201896	Collaborative Research: Understanding Turbulent Mixing in Laboratory Magnetospheres	47.049	83,578
PHY-1205100	Project 8: Measuring Neutrino Masses Using Radio-Frequency Techniques	47.049	79,653
PHY-1205175	Neutrino Physics at MIT	47.049	13,279
PHY-1205175	Neutrino Physics at MIT AGEP-GRS Child	47.049	51,947
PHY-1205175	Neutrino Physics Off-Campus	47.049	399,193
PHY-1205554	Atomic Ensembles Entangled by Light for Measurements Below the Standard Quantum Limit	47.049	67,114
			<b>18,501,255</b>
AGS-0733510	Government Contract Title	CFDA#	FY Expenses
AGS-0733510	Fabricated Equipment: Millstone Hill UHF Radar Exciter	47.050	523
AGS-0733510	Fabricated Equipment: TCA Safety Interface	47.050	80
AGS-0733510	Fab Eq - Rhino RX Receiver	47.050	-712
AGS-0733510	Solar Maximum Studies at the Millstone Hill Observatory	47.050	555,525
AGS-0940685	Collaborative Research: Intermittent Turbulence Study of Space Plasmas Using ROMA and DSRG	47.050	97,256
AGS-0944121	Tropospheric Anthropogenic Aerosols and Climate	47.050	247,985
AGS-1005480	Collaborative Research: Dispersion of particles within and above plant canopies	47.050	108,698

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
AGS-1023098	Space Weather Investigations: Ionospheric effects at the longitudes of maximum geomagnetic/geo	47.050	94,237
AGS-1025467	Transition of the CEDAR Database to Madrigal	47.050	60,458
AGS-1032244	Collaborative Research: Convective Organization and Climate	47.050	37,994
AGS-1042569	Climate Change in the Upper Atmosphere	47.050	45,122
AGS-1042622	Support for the CEDAR Science Steering Committee 2010-2012	47.050	29,003
AGS-1053648	CAREER: Understanding Chemistry, Transport and Fate of Mercury and Persistent Organic Pollut	47.050	182,729
AGS-1056225	DSEI Instrument	47.050	7,581
AGS-1056225	CAREER: Photochemical aging of atmospheric organic aerosol: Chamber studies of the chemical	47.050	144,058
AGS-1121026	Collaboration for the Development of an Advanced Geospace Radar	47.050	80,211
AGS-1132267	Ionospheric Disturbances Related to the Stratospheric Sudden Warnings	47.050	58,581
AGS-1136480	Collaborative Research: The Effect of Near-Equatorial Islands on Climate	47.050	22,990
AGS-1148594	Improved Understanding of Moist Atmospheric circulations Through an Effective Static Stability Fra	47.050	79,543
AGS-1202078	Theory of Trace Gas Distributions in the Lower Stratosphere and Near the Tropopause	47.050	126,787
AGS-1216707	Collaborative Research: Mercury in the Atmosphere Over the Eastern United States	47.050	9,471
AGS-1238109	Impacts of the Biosphere on Global Tropospheric Chemistry and Climate	47.050	65,678
AGS-1242204	The Millstone Hill Geospace Facility	47.050	1,073,695
AGS-1318307	RAPID: Measurement of Low-Volatility Gas-Phase Organic Compounds during the Southern Oxida	47.050	7,407
EAR-0409373	Collaborative Research: Multi-disciplinary Experiments for Dynamic Understanding of Subductio	47.050	56,894
EAR-0507486	Collaboration Research: Understanding the Causes of Continental Intraplate Tectonomagmatism	47.050	18,792
EAR-0711139	Microstructure of Marble: Comparison of Dislocation and Grain Structure Produced in Natural	47.050	40
EAR-0720253	Collab Res: Testing Orbital Forcing of Terrestrial Greenhouse Climate U/Pb Zircon Geochronology	47.050	25,823
EAR-0738352	Predicting In-Canopy Velocity and Retention Time of Aquatic Canopies	47.050	-3,790
EAR-0746205	Collaborative Research: Thermal Evolution of North American Lower Crust U-Pb Thermochronolog	47.050	-828
EAR-0807475	Collaborative Research: The Siberian Traps and the End-Permian Extinction: Coincidence and Cal	47.050	139,471
EAR-0807476	Collaborative Research: The Siberian Traps and the End-Permian Extinction: Coincidence and Cal	47.050	184,350
EAR-0807585	Collaborative Research: The Siberian Traps and the End-Permian Extinction: Coincidence and Cal	47.050	95,682
EAR-0807585	Off Campus: Collaborative Research: The Siberian Traps and the End-Permian Extinction: Coincid	47.050	21,500
EAR-0838488	Present-Day Kinematics and Dynamics of The Eastern Mediterranean	47.050	27,349
EAR-0838488	Off Campus: Present-Day Kinematics and Dynamics of The Eastern Mediterranean	47.050	134,582
EAR-0930166	Collaborative Research: Analytical Techniques and Software: Development of Cyberinfrastructure	47.050	5,492
EAR-0944122	Understanding the Complexity of The 660-km Seismic Discontinuity	47.050	21
EAR-0946280	Environmental Determinants of Malaria Transmission in Africa: Hydrology of water Pools Near Vill	47.050	94,953
EAR-0947969	Collaborative Research: Space-Based Measurements of Crustal Deformation Along the Entire Dea	47.050	13,416
EAR-0948388	Collaborative Research: tectonic links, magma fluxes, and single mineral geochemistry in plutonic	47.050	82,116
EAR-0951672	Field and numerical studies of self-organization in high-order drainage networks	47.050	42,493
EAR-0951901	Collaborative Research: Multiscale travel time tomography of Earth's mantle to 1000 km depth ben	47.050	11,749

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
EAR-0968685	CSEDI Collaborative Research: Valence state of iron in the lower mantle	47.050	69
EAR-0968863	Collaborative Research: CSEDI - Grand Challenge for Experimental study of Plastic Deformation U	47.050	103,183
EAR-1024196	Collaborative Research: High-Precision U-Pb Zircon Geochronology of the Late Triassic Chinle Flu	47.050	42,865
EAR-1045193	Collaborative Research: Characterization and Mechanistic Modeling of Methane Production, Flow	47.050	125,755
EAR-1045193	Fabricated Equipment - Lake-Bottom Sonar Lander	47.050	31,699
EAR-1114161	Collaborative Research: Water and Carbon Dynamics in Tropical Peat Lands - Comparison of a Fo	47.050	90,743
EAR-1118562	Microstructure in Marble: Evolution of strength in natural and laboratory deformation	47.050	135,732
EAR-1118598	Experimental Investigations on the Role of H2O in Subduction Zone Processes	47.050	112,046
EAR-1118883	Collaborative Research: Evaluating the Influence of Eocene Ridge Subduction on Magmatism, De	47.050	58,479
EAR-1140970	The Impact of Blade Motion on the Flux to a Blade Surface	47.050	35,258
EAR-1141812	Interferometric Imaging of Subduction Zones	47.050	74,915
EAR-1147685	Collaborative Research: Using Molecular Fossils to Investigate Environmental Perturbation During t	47.050	124,609
EAR-1147755	Investigating the Biological Function of Sterols and Hopanoids in the Bacterium Methylococcus cap	47.050	42,648
EAR-1152535	Digital, Layered and Manipulatable Maps for the SE and E part of the Tibetan Plateau: a new type	47.050	12,599
EAR-1159318	Physiological underpinnings of sulfur isotope effects produced by sulfate reducing microbes	47.050	94,546
EAR-1219778	Collaborative Research: Absolute-dated records of Lake Quaternary paleohydrology in the bonnevi	47.050	53,493
EAR-1225865	Collaborative research: Laboratory and numerical experiments on the response of wave ripples to c	47.050	6,246
EAR-1226293	Off-Campus - EAGER: Determining When Earth's Magnetic Field Originated	47.050	44,942
EAR-1226293	EAGER: Determining When Earth's Magnetic Field Originated	47.050	23,606
EAR-1246577	Collaborative Proposal: Postseismic deformation of the Izmit-Duzce, Turkey earthquake sequence	47.050	39,525
OCE-0645529	CAREER: From the Lab to the Ocean: Experimental Modeling for Internal Tide Generation by Topc	47.050	15,938
OCE-0744641	CAREER: Motility of Marine Bacteria: Observing, Modeling, Teaching and Playing	47.050	79,223
OCE-0751358	Fabricated Equipment - Pump System for Water Channel	47.050	8,776
OCE-0751358	Mass Exchange Between Flexible Submerged Canopies and Adjacent Open Water	47.050	81,536
OCE-0825147	Geochronological and Geochemical Studies of Recently Dredged Basalt from the Ninetyeast Ridge	47.050	19,074
OCE-0825376	Collaborative Research Critical Layers and Isopycnal Mixing in the Southern Ocean	47.050	78,710
OCE-0849233	Collaborative Research: Quantifying The Kinetic Energy Pathways To Dissipation in The World Oca	47.050	71,954
OCE-0926204	Collaborative Research: Management and Logistics Operations for the U.S. GEOTRACES Zonal N	47.050	241,247
OCE-0930866	Collaborative Research ETBC: Combined Experimental and Theoretical Study of the Physical Mec	47.050	108,819
OCE-0960826	Collaborative Research: Impact of Bottom Boundary Layer Drag and Topographic Wave Drag on tr	47.050	11,256
OCE-0960892	Collaborative Research: Growth of Oceanic Lower Crust: An Integrated High-Precision Geochronol	47.050	129,130
OCE-0961711	Studies of Multiple Equilibria in Ocean-Atmosphere-Ice Simulations of Aquaplanets	47.050	246,933
OCE-0961713	Collaborative Research: The Physics and Statistics of Global Sea Level Change	47.050	311,922
OCE-1024198	CMG Collaborative Research: From internal waves to mixing in the ocean	47.050	68,548
OCE-1023900	The Biogeography of primary producers in the subpolar North Atlantic	47.050	285,965
OCE-1048926	Collaborative Research Type 2 - MOBY: Modeling Ocean Variability and Biogeochemical Cycles	47.050	463,987



## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
OCE-1060735	Collaborative Research: Beyond the Instrumental Record - the Ocean Circulation at the last Glacial	47.050	133,315
OCE-1061160	Collaborative Research: Causes and Effects of Shelf-edge Internal Tide Variability	47.050	166,731
OCE-1129359	Fabricated Equipment - SMR Single Cells	47.050	6,953
OCE-1129359	Linking single-cell growth rates and genomics of bacterioplankton	47.050	137,491
OCE-1129746	Collaborative Research: Submarine Melting of Greenland's Glaciers: What are the relevant ocean c	47.050	129,430
OCE-1129757	Assessing the importance of deep ocean topographic scattering of low mode internal tides	47.050	95,184
OCE-1153588	Nitrate assimilation and the ecology of Prochlorococcus: Features and implications of intraspecific	47.050	81,811
OCE-1155205	Collaborative Research: Forcing and the North Atlantic Spring Bloom	47.050	67,398
OCE-1155295	Models of the Ocean Carbonate cycle and the Glacial-Interglacial CO2 Variations	47.050	85,511
OCE-1232725	4D Imaging of Oceanic Transform Fault Material Properties Variations During the Earthquake Cycl	47.050	82,069
OCE-1233749	Collaborative Research: GEOTRACES Pacific section: Spatial variability of lead concentrations an	47.050	33,658
OCE-1233832	Collaborative Research: Diagnosing Eddy mixing in DIMES	47.050	61,237
OCE-1259388	Ocean carbon reservoirs and the air-sea flux of CO2 in a changing climate	47.050	4,755
OCE-1265343	Mapping Saharan dust fluxes through the onset and termination of the African Humid Period in a tr	47.050	129,557

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**8,776,081**

Contract Number	Government Contract Title	CFDA#	FY Expenses
CCF-0702670	Extending the Power and Applicability of the Timed Input/Output Automata Framework	47.070	-270
CCF-0726514	Theoretical Foundations for Reliable Computing in Unreliable Mobile ad Hoc Networks	47.070	14,565
CCF-0728554	Collaborative Research: Flow Level Models and the Design of Flow-Aware Networks	47.070	8,703
CCF-0811397	CCF-CPA: Automatic Parallelization Using Semantic Commutativity Analysis	47.070	-13,791
CCF-0811724	CPA-CSA-T: ATAC: Enhancing Multicore Programmability Through All-to-All Computing	47.070	29,994
CCF-0811724	Child - Kimerling	47.070	-50,265
CCF-0829421	EMT/QIS: Physics Based Approaches to Quantum Algorithms	47.070	79,972
CCF-0829672	Invariance in property Testing	47.070	78,631
CCF-0829878	Polyhedral Techniques for the Design of Approximation Algorithms	47.070	1,727
CCF-0829893	EMT/MISC: Collaborative Research: Harnessing Statistical Physics for Computing and Communic	47.070	41,753
CCF-0832997	Petabricks: CSAIL	47.070	51,491
CCF-0832997	Petabricks: A Language and Compiler for Scalability and Robustness	47.070	11,747
CCF-0836720	Collaborative Research: CDI-Type II: Discovery of Succinct Dynamical Relationships in Large Scal	47.070	26,446
CCF-0843915	CAREER: Geometric Techniques for Algorithm Design	47.070	116,194
CCF-0904305	GIF: Medium Collaborative Research Understanding and Managing Interference in Communication	47.070	187,631
CCF-0904598	SHF: Medium Collaborative Research: Throughput -Driven Multi-Core Architecture and a Compliat	47.070	39,700
CCF-0905244	SHF: medium: Exposing and Eliminating Errors at Component Boundaries	47.070	82,906
CCF-0937274	CCF-AF: Abstract MAC Layers	47.070	172,952
CCF-0937860	HECURA: Collaborative: Multidimensional and String Indexes for Streaming	47.070	155,275

## Appendix A-1 - Detail

### Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CCF-0953960	CAREER: Towards a Constructive Theory of Networked Interactions	47.070	108,454
CCF-0964106	SHF: Medium: Intelligent and efficient data movement for multicore systems	47.070	193,792
CCF-0964646	CIF: Medium: Collaborative Research: From Retroactivity to Modularity: Design and Implementati	47.070	66,268
CCF-1008325	NSF Collaborative Research: CPA-CSA:CMP Architectures with Global Communication	47.070	17,388
CCF-1012042	AF: Large: Collaborative Research: Compact Representations and Efficient Algorithms for Distribut	47.070	74,095
CCF-1017772	CIF: Small: Theory and Codes for Intermittent and Sparse Communication	47.070	109,398
CCF-1018064	TC: Small: Securing Programs and data in Remote and Hostile Environments	47.070	343,764
CCF-1036241	EAGER: Profile and Transformation Driven Automatic Parallelization with interactive Reports	47.070	30,149
CCF-1049457	Eager: Technologies for Elastic OS Services in fos	47.070	38,871
CCF-1058127	CIF: Medium: Collaborative Research: From Retroactivity to Modularity: Design and Implementatio	47.070	126,953
CCF-1065125	AF: Medium: Taming massive data with sub-linear algorithms	47.070	155,970
CCF-1101147	ICES: Small: Decision Making with Bounded Categorization	47.070	130,142
CCF-1101491	A Probabilistic Look At Algorithmic Game Theory	47.070	93,044
CCF-1111109	AF: Large: Collaborative Research: Algebraic Graph Algorithms: The Laplacian and Beyond	47.070	126,574
CCF-1111337	AF: Large: Collaborative Research: Reliable Quantum Communication and Computation in the Pres	47.070	38,382
CCF-1115159	Quantization for Acquisition and Computational Networks	47.070	164,935
CCF-1115849	AF: Small: New Approaches to Fundamental Problems in Network Design	47.070	140,127
CCF-1116362	SHF: Small: Human-Centered Software Synthesis	47.070	113,038
CCF-1116372	SHF: Small: Directoryless Shared Memory Using Execution Migration	47.070	36,376
CCF-1116501	CIF: Small: Foundations for Intrinsically Secure Networks: the Role of Network Interference	47.070	25,269
CCF-1117381	AF: Small: Applied Algorithms: Tech Transfer from the Algorithms Toolbox II	47.070	74,282
CCF-1124247	NSF NEB - Child Sarpeshkar	47.070	188,564
CCF-1124247	NSF NEB - Child Lu	47.070	208,185
CCF-1124247	NEB: Integrated Biological and Electronic Computation at the Nanoscale	47.070	-6,543
CCF-1138967	Collaborative Research: An Expedition in Computing for Compiling Functional Physical Machines	47.070	421,166
CCF-1138967	Child - Kim	47.070	95,914
CCF-1138967	Fabricated Equipment - Mobile Robots	47.070	20,181
CCF-1138967	Child - Matusik	47.070	225,639
CCF-1138986	Collaborative Research: Socially Assistive Robots	47.070	398,681
CCF-1138986	Fabricated Equipment - Huggable Bears	47.070	7,623
CCF-1139056	Collaborative Research: Expeditions in Computer Augmented Program Engineering (ExCAPE): Ha	47.070	48,269
CCF-1161413	CIF: Medium: Space-from-Time Imaging: Fundamental Limits, Algorithms, and Preliminary Demonst	47.070	366,348
CCF-1161626	AF: Medium Collaborative Research General Frameworks for Approximation and Fixed Parameter	47.070	5,234
CCF-1161775	SHF: Medium Collaborative Research Marrying Program Analysis and numerical Search	47.070	12,432
CCF-1162148	SHF AF Medium Collaborative Research The Pochoir Stencil Compiler	47.070	6,726
CCF-1162148	SHF: AF: Medium: Collaborative Research: The Pochoir Stencil Compiler	47.070	355,471

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CCF-1216476	CIF:Small: The Linear Information Coupling Problem	47.070	34,264
CCF-1217043	CIF: Small: Message Passing Networks	47.070	22,921
CCF-1217423	AF: Small: Local Computation Algorithms	47.070	57,828
CCF-1217498	SHF:Small-Fine Grain Tasking and Virtual Memory for Massively Parallel Computing	47.070	82,573
CCF-1217501	SHF: Small: Capitalizing on First-Class SQL Support in the Ur/Web Programming Language	47.070	87,504
CCF-1217506	AF: Small: Bounded-Contention Coding for Wireless Networks	47.070	49,898
CCF-1217921	SHF: Small: Multicore Data-Structures: Relaxed, Flat, and Randomized	47.070	86,272
CCF-1218176	AF: Small: Physics Based Approaches to Quantum Information Science	47.070	97,350
CCF-1218547	AF: Small: Sliding Scale Problems in Probabilistic Checking of Proofs	47.070	30,293
CCF-1253205	CAREER: Information Theory Beyond Capacity	47.070	7,584
CCF-1253229	CAREER: A Formal Verification Platform Focused on Programmer Productivity	47.070	7,535
CNS-0707612	CRI: CRID: - Development of Alloy Tools, Technology and Materials	47.070	189,779
CNS-0708375	CRI: CRD Development of Longitudinal Home Activity Datasets as a Shared Resource	47.070	-317
CNS-0721702	NeTS-WN: Bit-Switched Wireless Networks	47.070	50,615
CNS-0721702	Fabricated Equipment - Airblue Network	47.070	-2,306
CNS-0830961	NECO Cross-Layer Survivability in WDM-based Networks	47.070	27,513
CNS-0831442	CT-M: Theory and Practice of Accountable Systems	47.070	95,413
CNS-0831660	NeTS-NEDG: Adaptive Wideband Networks for the Multimedia Home	47.070	69,194
CNS-0831660	Fabricated Equipment - Wireless Testbed (Continuation of WBS 6923027)	47.070	16,164
CNS-0831664	NeTS-ANET: One Video Multicast to Serve Diverse Wireless Receivers	47.070	-4,385
CNS-0834239	CSR-DMSS,SM: Aeolus:Secure Support for Preserving Confidentiality and Integrity in a Distributed	47.070	29,107
CNS-0834415	CSR-PSCE,SM:An Operating System for Multi-Core Processors	47.070	329
CNS-0836555	Future Innovative Network Design (FIND) Architecture Planning and Coordination	47.070	-7,393
CNS-0915629	NeTS: Small: KPBase: Core of the Knowledge Place for Network Management	47.070	74,359
CNS-0931550	CPS:Medium: Vehicular Cyber-Physical Systems	47.070	530,035
CNS-0940520	Collaborative Research: BPC-DP: A Cultural Shift in Computer Science: Introducing Computatin th	47.070	54,140
CNS-1016213	CSR:Small:Incremental Sampling Methods for On-line Reactive Motion Planning With Formal Spec	47.070	90,461
CNS-1017058	CSR: Small: Using Thread-Local Memory Mapping to Support Memory Abstractions for Dynamic M	47.070	169,972
CNS-1017800	TC: Small: Collaborative Research: Protecting Networks from Large-Scale Physical Attacks and D	47.070	46,892
CNS-1035199	CPS:MEDIUM:Collaborative Research: Geometric Distributed Algorithms for Multi-Robot Coordinat	47.070	135,404
CNS-1040020	FIA: Collaborative Research: Mobility First: A Robust and Trustworthy Mobility Architecture for th	47.070	66,683
CNS-1040023	FIA: Collaborative Research: NEBULA: A Future Internet that Supports Trustworthy Cloud Compl	47.070	68,060
CNS-1040072	FIA: Collaborative Research: Architecting for Innovation	47.070	14,590
CNS-1046733	CAREER: A Partial Order Approach to Dynamic Feedback in Multi-agent Decision and Control Sys	47.070	2,169
CNS-1053143	CAREER: System-Wide Intrusion Recovery Using Selective Re-execution	47.070	17,454
CNS-1065114	CSR:Medium:Collaborative Research:Programming parallel in memory data-center applications wit	47.070	138,260

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
CNS-1111383	NeTS:Large:Collaborative Research: HyperFlow: A Novel Hybrid IP/ Flow Architecture	47.070	222,110
CNS-1116209	Nets: Small: Protection and Restoration in Wireless Mesh Networks	47.070	74,319
CNS-1116294	CSR:SHF:Small:Propagator-Based Computing---A Programming Foundation for Decentralized Sys	47.070	59,568
CNS-1116864	Wireless testbed	47.070	28,370
CNS-1116864	NeTS:Small:Encryption on the Air:Non-Invasive Security for Wireless Medical Devices	47.070	106,152
CNS-1117194	NeTS: Small: Random Access Heterogenous MIMO Networks	47.070	59,844
CNS-1117194	Wireless Testbed	47.070	14,776
CNS-1161964	NeTS: Medium: Cortex: Rateless Wireless Networking Using Spinal Codes	47.070	92,423
CNS-1161964	NeTS: Medium: Cortex: Rateless Wireless Networking using Spinal Code	47.070	10,300
CNS-1205402	CRI: CI-P: Collaborative: Reciprocity - A Repository for Prosodically Annotated Material	47.070	2,900
CNS-1212597	NeTs: LARGE: Collaborative Research: Exploration and Exploitation in Actuated Communication N	47.070	102,439
CNS-1212597	Fab Eq: NSF Robotic Kayak System	47.070	5,067
CNS-1217048	NeTS: Small: Toward Reducing Control Overheads in Wireless Networks	47.070	1,714
CNS-1219557	Integrated Future Internet Architecture	47.070	176,076
CNS-1228687	TWC: Medium: Collaborative Research: Policy Compliant Integration of Linked Data	47.070	12,438
CNS-1239054	CPS: Frontiers: FORCES - Hamsa Balakrishnan	47.070	7,315
CNS-1239054	CPS: Frontiers: Collaborative Research: Foundations of Resilient Cyber-physical Systems (FORCE	47.070	12,777
CNS-1239054	CPS: Frontiers: FORCES - Asuman Ozdaglar	47.070	1,741
CNS-1239182	LIDS Expenses: CPS: Synergy:Collaborative Research: Formal Design of Semi-Autonomous Cybe	47.070	63,378
CNS-1239182	CPS: Synergy:Collaborative Research: Formal Design of Semi-autonomous Cyberphysical Transp	47.070	2,472
CNS-1255761	First Steps in Exploring Pervasive Persistent Identification for Information Centric Networking	47.070	61,723
CNS-1339471	Workshop: Spring 2013 Future Internet Architecture investigator meeting	47.070	5,773
IIS-0546467	Career: Model Probability Planning for Mobile Robots	47.070	10,480
IIS-0642971	CAREER: Computational Modeling of Spatial Activation Patterns in fMRI	47.070	25,670
IIS-0704424	III-COR - ChunkyStore: Physical Database Design for Next-Generation Databases	47.070	169,419
IIS-0746194	CAREER: Machine Learning Control of Underactuated Mechanical Systems	47.070	61,045
IIS-0747120	CAREER: Integrated System for Object and Scene Recognition	47.070	164,510
IIS-0827483	Collaborative proposal: Object and action recognition in time sequences of images: computational	47.070	2,125
IIS-0835652	CDI-Type II: Exploiting Collective Human Knowledge to understand and Evolve Complex Networke	47.070	69,548
IIS-0835652	Fabricated Equipment - Wireless Testbed	47.070	29,981
IIS-0835652	Katabi-Child	47.070	139,968
IIS-0835652	Barzilai-Child	47.070	6,815
IIS-0855773	Collaborative Major Computation Textiles as Materials for Creativity: Participatory Design Commur	47.070	21,618
IIS-0904594	Computational Mechanisms for Storing Motor Memories in Noisy Neural Circuits: How Activity Pattr	47.070	278,388
IIS-0904625	Finding Structure in the Space of Activation Profiles in fMRI	47.070	28,855
IIS-0904625	Kanwisher Child	47.070	31,878

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

Contract Number	Government Contract Title	CFDA#	FY Expenses
IIS-0915148	RI:Small:Randomized Feedback Motion Planning with Computational Lyapunov Certificates	47.070	91,504
IIS-0963285	Collaborative Research: Measuring Collective Intelligence	47.070	141,170
IIS-0964004	III: Medium: Collaborative Research: Frankencamera - an open-source camera for research and te	47.070	185,202
IIS-0964269	RI: Medium: Collaborative Research: Unlocking Biologically-Inspired Computer Vision: A High-Thrc	47.070	109,287
IIS-1002713	Major: Scratch 2.0: Cultivating Creativity and Collaboration in the Cloud	47.070	347,295
IIS-1010363	US-German Collaboration: The Role of Astrocytes in Information Processing	47.070	192,536
IIS-1016862	RI: Small: Hierarchical Visual Scene Understanding	47.070	102,950
IIS-1016998	HCC-Small: Tactile communication in human-computer interactions	47.070	149,638
IIS-1017862	Srinivasan NSF Support	47.070	18,130
IIS-1017862	High resolution tactile sensing	47.070	136,205
IIS-1017992	RI: Small: Plan Execution for Continuous Dynamical Risk Bounds	47.070	34,236
IIS-1018055	HC: Small: Enabling and Exploring Natural Interaction	47.070	128,775
IIS-1028163	CDI-Type II: Collaborative Research: A Paradigm Shift in Ecosystem & Environmental Modeling: A	47.070	75,415
IIS-1029585	Collaborative Research: Behavior Imaging: Enabling a Quantitative Science of Behavior through C	47.070	212,698
IIS-1053235	CAREER: Material Computing for Everyone: Democratizing Creative Computing via Unexpected N	47.070	94,108
IIS-1053398	CAREER Digital Privacy and Regulation	47.070	119,120
IIS-1064495	CAREER: Computing for Advanced Identity Representation	47.070	125,739
IIS-1065079	SHB: Collaborative Research:Medium:Novel Computational Techniques for Cardiovascular Risk St	47.070	135,495
IIS-1065219	III: Medium Scalable and Secure Database as a Service	47.070	158,776
IIS-1111044	Collaborative Research: Programming with Crowds: Models and Tools for General-Purpose Crowd	47.070	63,894
IIS-1111371	III Large: Collaborative Research: SciDB- An Array oriented Data Management System for Massi	47.070	121,022
IIS-1111415	Matusik Child	47.070	124,444
IIS-1111415	RI:Large:Collaborative Research:Analyzing images through time	47.070	104,536
IIS-1115680	CGV:RI:Small:Inverse Light Transport under Femto-Photography and Transient Imaging	47.070	125,950
IIS-1116057	Fab-E TinkRBook	47.070	16,726
IIS-1116057	Collaborative Research:HCC:Small:Cloud Primer: Leveraging Common Sense Computing to Learn	47.070	117,886
IIS-1116296	HCC:CGV:Small:Collaborative Research:From Virtual to Real	47.070	93,908
IIS-1116303	CGV: Small: Collaborative Research: Sparse Reconstruction and Frequency Analysis for Compute	47.070	116,093
IIS-1116452	Collaborative Research:CGV:RI:Small:AdaCID:Adaptive Coded Imaging and Displays	47.070	98,030
IIS-1117093	Fabricated Equipment - Advanced Retinal Implant	47.070	20,396
IIS-1117093	HCC:Small:Packaging Optimization for Next-Generation Implantable Human-Computer Interface D	47.070	63,793
IIS-1117178	Fabricated Equipment - Optical Modern System	47.070	3,296
IIS-1117178	RI:Small:Collaborative Research:Adaptive Sampling with Robots for Marine Observations	47.070	33,159
IIS-1117325	RI:Small:Hierarchical Planning For Robots in Complex Uncertain Domains	47.070	217,835
IIS-1122886	Fab Eq - Augmented Play Table	47.070	433
IIS-1122886	Fab Eq - Dragonbot	47.070	23,528

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
IIS-1122886	DIP: Collaborative Research: Social Robots as Mechanisms for Language Instruction, Interaction,	47.070	119,887
IIS-1133224	EAGER: Underwater Optical Communication and Perception	47.070	8,379
IIS-1144663	EAGER :The Climate CoLab: A System for Very Large-Scale Model-Based Group Problem-Solving	47.070	182,113
IIS-1161731	CGV: Medium: Collaborative Research: Understanding Translucency: Physics, Perception, and Co	47.070	37,818
IIS-1161909	RI: Medium: Collaborative Research: Hybrid Unmanned Aerial Vehicles that Interact with Surfaces	47.070	89,584
IIS-1212849	RI: Large: Collaborative Research: Reconstructive recognition: Uniting statistical scene understand	47.070	10,934
IIS-1218411	CGV: Small: Collaborative Research: Diffraction masks and algorithms for light field capture	47.070	5,179
IIS-1226883	Soft Snake Robot	47.070	11,118
IIS-1226883	NRI-Large: Collaborative Research: Soft Compliant Robotic Augmentation for Human-Robot Team	47.070	9,921
IIS-1227504	Collaborative Research: NRI-Large: Purposeful Prediction: Co-robot Interaction via Understanding	47.070	81,736
IIS-1237136	SHB: Type II (INT): Collaborative Research: Algorithmic Approaches to Personalized Health Care	47.070	33,053
IIS-1248066	INSPIRE: Kreyol-based Cyberteaching for a New Perspective on the Teaching of STEM in local Lar	47.070	64,835
			<b>14,754,476</b>

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DBI-0644282	CAREER Comparative Genomics and Biological Signal discovery in the Human Genome	47.074	159,773
DBI-0852654	IDBR: Development of an Iso-dielectric Separation System for Large-Scale Quantitative Cell Screen	47.074	99,221
DBI-1120200	MPS-BIO: Collaborative Research: Physical Mechanisms Regulating Sperm Chemotaxis	47.074	172,528
DBI-1146747	ABI Innovation: Interactive Learning Tools for Individual Identification in Large Biological Image Da	47.074	30,477
DEB-0918333	MSB: Genomics of Ecologically Defined Bacterial Populations	47.074	32,323
DEB-0936234	Assembling the Tree of Life: Can Phylogenomics Resolve Deep Phylogeny?	47.074	542,930
DEB-1145734	Microevolution and population dynamics of <i>Prochlorococcus</i> cells in the ocean: Insights through sir	47.074	113,882
EF-1137306	Type 2: The Future of Ecosystems and Extremes: Using Diverse Environmental Data Sets in	47.074	686,246
IOS-1146634	Collaborative Research: evolution of Multicellularity: Fluid Mechanics of Feeding by Unicellular vs.	47.074	73,914
MCB-0543833	Crystallographic Snapshots of Adenosyl Radical Enzymes	47.074	14,631
MCB-0744483	Collaborative Research: Lanthanide Binding Tags: Biophysical Tools for Investigating Protein Structu	47.074	-1,614
MCB-0745638	CAREER: The Structure of Collagen and Collagenolysis	47.074	43,747
MCB-0844442	Career Dissecting the Molecular Determinants of Specificity in Two Component Signal Transductio	47.074	158,863
MCB-0950233	Coiled-coil modules for molecular engineering and synthetic biology	47.074	221,520
MCB-1337431	Creating a Research Agenda for the Ecological Implications of Synthetic Biology	47.074	28,488
			<b>2,376,929</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
BCS-0955818	CAREER: Typical and atypical development of brain regions for Theory of Mind	47.075	112,084
BCS-1023596	Collaborative Research: Integrating shape, scaling, and alignment in a global approach to F0 event	47.075	16,957

## Appendix A-1 - Detail Massachusetts Institute of Technology Federal Research Support - On Campus Fiscal 2013 Expenditures

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
BCS-1134780	Automatic Detection of Cortical Networks Across Frequencies in Audiovisual Speech Integration	47.075	216,332
BCS-1226731	Collaborative Research: Grounding the Behavioral Immune System in Mental and Physiological Processes	47.075	2,206
BCS-1251717	Doctoral Dissertation Research: Experimental Investigations of Multiple Wh-Questions	47.075	382
SBE-0965259	Predictive Modeling of the Emergence and Development of Scientific Fields	47.075	124,789
SBE-0965364	Collaborative Research: New Methods to Enhance Our Understanding of the Diversity of Science	47.075	97,124
SES-0825915	An Improved Model of Endogenous Technical Change Considering Uncertain R&D Returns and Uncertainty	47.075	13,693
SES-1061841	Collaborative Research: Nonparametric Distributional and Quantile Methods in Econometrics	47.075	28,375
SES-1061889	Collaborative Research on Kidney Exchange with NBERI	47.075	92,154
SES-1123747	Collaborative Research: SBP: From School to Work: A Longitudinal Study of Gender Stratification in the Labor Market	47.075	32,837
SES-1132399	Unrestricted Individual Heterogeneity in Three Econometric Models	47.075	44,942
SES-1155143	Collaborative Research: The American Mass Public in the Early Cold War Years	47.075	8,889
SES-1226924	Collaborative Proposal: Unintended Consequences of Behavior Change: An Examination of the Impact of Policy	47.075	49,747
SMA-1158765	Managing Community: The Organization and Management of Federal Research Funding Agencies	47.075	157,102
			<b>997,613</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
DRL-0744213	CAREER: Curiosity, exploratory play, and the foundations of scientific inquiry	47.076	131,516
DRL-0917442	Mass Extinction: A Curated Game	47.076	611
DRL-1019228	DRK12-BioGraph: Graphical Programming for Constructing complex Systems Understanding in Biology	47.076	498,989
DRL-1019396	ScratchEd: Working with Teachers to Develop Design-Based Approaches to the Cultivation of Computational Thinking	47.076	435,600
DRL-1022684	Origins of numerical competence: Assessment of number sense in Pirahã	47.076	51,431
DRL-1049718	Kreyol-Based and Technology-Enhanced Learning of Reading, Writing, Math, and Science in Haiti	47.076	24,700
DRL-1118682	Collaborative Research: ScratchJr: Computer Programming in early childhood education as a pathway to STEM	47.076	227,603
DRL-1258448	Understanding the edX MOOC: How can "Circuits and Electronics" (6.002x) help us understand the future of education?	47.076	54,690
DUE-1043632	Mathematics Communication Space: Resource for Educators	47.076	25,713
DUE-1122616	Development and evaluation of StarCellBio: a cell biology experiment simulator for science education	47.076	169,817
			<b>1,620,670</b>

<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
ANT-0739726	Collaborative Research: High Precision U-Pb Geochronology of the Jurassic Ferrar Large Igneous Province	47.078	86,095
ANT-0944519	Parameterization of Tracer Transport By Geostrophic Eddies in the Southern Ocean	47.078	147,924
ANT-11141923	Investigation of the Relationship between Storm Enhanced Density and Scintillation in Antarctica	47.078	65,701
ARC-0806228	Collaborative Research: TransArctic Paleoclimate of the Eocene	47.078	15,707
ARC-0934404	CMG Collaborative Research: Enabling Ice Sheet Sensitivity and Stability Analysis with a large-scale ice sheet model	47.078	83,234
ARC-1023499	Collaborative Research: An Eddy-permitting Arctic & Sub-Polar State Estimate for climate research	47.078	86,951

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<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
ARC-1118473	Collaborative Research: An Eddy-Permitting Arctic & Sub-Polar State Estimate For Climate Resea	47.078	72,288
ARC-1203526	Collaborative Research: Evaluating the Competing Impacts of Global Emissions Reductions and Cl	47.078	10,798
			<b>568,698</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
AST-1338510	NSF Wireless Spectrum R&D Senior Steering Group Workshop	47.079	24,956
OISE-1048974	Microbial Successions in the Aftermath of a Snowball Earth Event	47.079	86,791
OISE-1132813	Building an Ecology of Online Laboratories	47.079	28,607
OISE-1258574	G8 Initiative: Structural Bamboo Products	47.079	81,605
			<b>221,959</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
OCI-1027848	CDI-Type II: Collaborative Research: Preparing the Next Generation of Computational Thinkers: Tr	47.080	422,848
OCI-1047955	SI2-SSE: SciDB- A Scientific Data Management System	47.080	104,647
OCI-1135423	Collaborative Research: CI-TEAM Demo: Harnessing Cyberinfrastructure for K-12 STEM Educatio	47.080	32,770
OCI-1147503	SI2-SSI Collaborative Research: A Computational Materials Data and Design Environment.	47.080	46,542
			<b>606,807</b>
<u>Contract Number</u>	<u>Government Contract Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
AGS-0959280	ARRA - MRI-R2: Development and Deployment of Automated Continuous Wave Quantum Cascac	47.082	24,008
AGS-0959280	ARRA - MRI-R2: Development and Deployment of Automated Continuous Wave Quantum Cascac	47.082	88,109
AST-0908884	ARRA - Low-Frequency Radio Transient Science with the MWA	47.082	12,910
AST-0908884	ARRA - Low-Frequency Radio Transient Science with the MWA (Subcontract in yrs 2 & 3)	47.082	23,636
ATM-0842751	ARRA - Merging of Observations and Models for the Earth's Schumann Resonances	47.082	58,334
ATM-0844620	ARRA - Fab Eq - Reconnection Drive	47.082	1,363
ATM-0844620	ARRA - CAREER Three-Dimensional Onset and Evolution of Spontaneous Reconnection	47.082	64,490
ATM-0850639	ARRA - Collaborative Research Environmental control of Tropical Cyclone Activity	47.082	145,316
ATM-0852384	ARRA - Transport in Baroclinic Flows	47.082	-285
ATM-0856093	ARRA - Studies of Plasmasphere Boundary Layer with a Distributed Array of Radio Instruments	47.082	99,196
BCS-0844472	ARRA - Collaborative Research: Bayesian Cue Integration in Probability-Sensitive Language Proce	47.082	-16,048
CBET-0854026	ARRA - Science and Engineering of Ion Concentration Polarization and Enhanced Electrokinetic Flo	47.082	-11,765
CBET-0941312	ARRA - CDI: Type I: Geometric Algorithms for Staged Nanomanufacturing	47.082	333
CCF-0844626	ARRA - CAREER: Efficient Computation in the Physical World	47.082	116,504
CMMI-0900255	ARRA - Linguistics-based preference information modeling for design decision-making	47.082	101,337



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Contract Number	Government Contract Title	CFDA#	FY Expenses
CNS-0915164	ARRA - CSR: Small: Dynamic Computation Migration for Multicore System Software	47.082	130,060
CNS-0915988	ARRA - NeTS: Small Collaborative Research: Effective Control of Wireless Networks Via Topology	47.082	113,273
DMR-0845296	ARRA - CAREER: Non-equilibrium Dynamics in Cuprate Superconductors Studied by Coherent Ultrafast Spectroscopy	47.082	144,050
DMR-0855402	ARRA - Quantifying Material Microstructures with Quaternions	47.082	-14,919
DMR-0906931	ARRA - Collaborative Research: Development of an Additive Selection Criteria based on Interface	47.082	-76
DMR-0908627	ARRA - Materials World Network: In-situ Investigation of Model Multi-component Catalyst Systems	47.082	46,903
DMS-0844188	ARRA - CAREER: The Symplectic Category, Floer Field Theory, and Relations to Gauge Theory	47.082	301,649
DMS-0853488	ARRA - FRG: Collaborative Research: Mathematical Modeling of Rechargeable Batteries	47.082	4,940
DMS-0900907	ARRA - W-algebras and Algebraic Group Actions	47.082	45,788
DMS-0948071	ARRA - FRG: Collaborative Research: Mathematical Modeling of Rechargeable Batteries	47.082	6,015
EAR-0910618	ARRA - Structure and Deformation of the Crust and Upper Mantle Beneath SE Tibet	47.082	33,139
EAR-0910721	ARRA - New Theory and Methods for Rainfall Extremes	47.082	196,583
EAR-0931839	ARRA - Acquisition of a Thermal Ionization Mass Spectrometer For EARTHTIME	47.082	34,343
ECCS-0844994	ARRA - CAREER: Circuit and System Techniques for High-Throughput, Energy-efficient Silicon Photonics	47.082	41,063
ECCS-0846628	ARRA - CAREER: Terahertz Electronics based on Nitride Nanowire Transistors	47.082	111,185
ECCS-0853470	ARRA - High Temperature Terahertz Quantum Cascade Lasers	47.082	-202
ECCS-0900901	ARRA - Quantum Limits to Timing Jitter in Femtosecond Lasers	47.082	46,053
ECCS-0901034	ARRA - Cooperative Tracking in Harsh Environments: Statistical Framework and Network Experiment	47.082	93,901
ECCS-0901394	ARRA - Integrated Actuation, Alignment, and Latching for Assembled 3D MEMS	47.082	48,056
ECCS-0925147	ARRA - Collaborative Research: Stacked Controlled-Cell Power Conversion Architecture for Grid-tied Power	47.082	-409
OCE-0926197	ARRA - Lead and Lead Isotopes Sample Collection and Analysis for the U.S. GEOTRACES Zonal	47.082	185,781
OCE-0926372	ARRA - Collaborative Research: We're protists the beginning of the end for stromatolites?	47.082	-407
OCI-0904338	ARRA - Petascale Arctic, Atlantic and Antarctic Virtual Experiment	47.082	295,310
OCI-0926191	ARRA - Cloud-computing infrastructure and technology for education (C.I.T.E)	47.082	226,449
OCI-0943139	ARRA - VOSS: Empirical Analysis of Large-Scale Argumentation	47.082	42,496
PHY-0847843	ARRA - Neutrino Physics Off-Campus	47.082	1,100
PHY-0847843	ARRA - Neutrino Physics at MIT	47.082	-5,261
PHY-0855052	ARRA - Fabricated Equipment - Atomic Clock Set up	47.082	-29,295
PHY-0855052	ARRA - Atomic Ensembles Entangled by Light for Measurements Below the Standard Quantum Limit	47.082	-26,525
PHY-0959057	ARRA - MRI-R2: Laser Acquisition and Modernization Program (LAMP) for Quantum Science and Information	47.082	116,879
PHY-1205175	Fabricated Equipment - Movable Muon Telescope	47.082	12,798
PHY-1205175	Fabricated Equipment - Double Chooz TPC	47.082	55,890
			<b>2,964,048</b>

FY Expenses  
86,834

Government Contract Title  
Collaborative Research: A Field Expansion Method For Acoustic Scattering From Topography: Experimental

Contract Number  
DMS-1115406

CFDA#  
47.149

**Appendix A-1 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - On Campus  
Fiscal 2013 Expenditures**

86,834

Total for NSF

63,198,685

**63,198,685**

**Total for National Science Foundation**

**362,055,198**

**Total On Campus Federal Research Support**

Appendix A-2 Detail  
 Massachusetts Institute of Technology  
 Schedule of Expenditures of Federal Awards - Lincoln Laboratory  
 By Sponsor & Contract - FY 2013

Sponsor	Program	Program Name	Total
<b>DIRECT AWARDS / CONTRACT NUMBER</b>			
<b><u>DEPARTMENT OF DEFENSE</u></b>			
<b>AIR FORCE</b>			
FA8721-05-C-0002	Various		273,443,764
<b>ARMY</b>			
FA8721-05-C-0002	Various		62,355,636
<b>NAVY</b>			
FA8721-05-C-0002	Various		35,899,430
<b>DEFENSE ADVANCED RESEARCH PROJECT AGENCY</b>			
FA8721-05-C-0002	Various		38,814,979
<b>BALLISTIC MISSILE DEFENSE AGENCY</b>			
FA8721-05-C-0002	Various		52,477,373
<b>NATIONAL SECURITY AGENCY</b>			
FA8721-05-C-0002	Various		9,290,527
<b>CLASSIFIED</b>			
FA8721-05-C-0002	Various		158,630,930
<b>OTHER DEPARTMENT OF DEFENSE</b>			
FA8721-05-C-0002	Various		180,438,754
<b>TOTAL DEPARTMENT OF DEFENSE</b>			<b>\$ 811,351,393</b>
<b>NON-DEPARTMENT OF DEFENSE</b>			
<b>DEPARTMENT OF ENERGY</b>			
FA8721-05-C-0002	Various		3,999,880
<b>DEPARTMENT OF HUMAN SERVICES</b>			
FA8721-05-C-0002	Various		16,042,359
<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION-Prime</b>			
FA8721-05-C-0002	Various		14,476,057
<b>FEDERAL AVIATION ADMINISTRATION</b>			
FA8721-05-C-0002	Various		26,872,802
<b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</b>			
FA8721-05-C-0002	Various		6,203,838
<b>OTHER Classified</b>			
FA8721-05-C-0002			200,129
FA8721-05-C-0002			867,044
FA8721-05-C-0002			95,297
FA8721-05-C-0002			42,849
FA8721-05-C-0002			324,049
FA8721-05-C-0002			550,924
FA8721-05-C-0002			378,389
FA8721-05-C-0002			22,520
			\$ 2,481,201
<b>Total NON-DEPARTMENT OF DEFENSE</b>			<b>\$ 70,076,137</b>
<b>Total Direct Awards</b>			<b>\$ 881,427,530</b>

**Appendix A-2 Detail**  
**Massachusetts Institute of Technology**  
**Schedule of Expenditures of Federal Awards - Lincoln Laboratory**  
**By Sponsor & Contract - FY 2013**

<u>Sponsor</u>	<u>Federal Contract Number</u>	<u>Program Name</u>	<u>Total</u>
<b><u>PASSTHROUGH AWARDS</u></b>			
<b>DEPARTMENT OF DEFENSE</b>			
Research Corporation of the University of Hawaii	FA9451-06-2-0338	OTA Dev. & Device Processing	388,862
Applied Radar	W9113M09C0030	CDA Radar Modules	76,521
EOS Photonics	N68335-11-C-0431	Monolithic Beam-Combined Mwir Laser	20,189
QmagiQ	HQ0147-12-C-7188	Digital-Pixel Focal Plane Array	8,018
Out of the Fog Research	N00014-09-C-0610	Cryogenic RF Excision Phase II	107,150
			\$ <u>600,740</u>
<b>DEPARTMENT OF HUMAN SERVICES</b>			
Harvard University	5U54AI057159-08 REVISED	ARRA - PANACEA NERCE	359,277
Center for Psychological Research	1R41AG042218-01	Vocal Biomarkers	5,278
			\$ <u>364,555</u>
<b>NATIONAL SCIENCE FOUNDATION</b>			
California Association for Research in Astronomy (CARA)	AST-0132798	Adv Adaptive Optics	51,334
University Corp. for Atmospheric Research	Z10-80484	ARRA - University Corp. for Atmospheric Research	235,271
			\$ <u>286,605</u>
<b>Total Passthrough Awards</b>			<b>\$ <u>1,251,900</u></b>
<b>Total Federal Expenditures</b>			<b>\$ <u><u>882,679,430</u></u></b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

<b>Harvard University</b>						
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6923592	01-137270	Mapping Regional Innovation Clusters	11.303	199,723		
		<b>Total for 11.303</b>		<b>199,723</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6924340	123662	Measuring, Understanding, And Responding	12.31	126,957		
		<b>Total for 12.31</b>		<b>126,957</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6915782	SUBAWARD NO. 133486-09	Muri - Fy07 Quantum Simulations Of Conde	12.800	-253,186		
6916411	SUBAWARD NO. 133486-08	Fabrication: Cold Atom Machine	12.800	97,041		
		<b>Total for 12.800</b>		<b>-156,145</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6920140	AGREEMENT NO. 123546	Control And Manipulation Of Casimir Forc	12.910	28,799		
6927492	5054559-167837	Smart Extotendon Suit: Biomechanically Sy	12.910	91,845		
		<b>Total for 12.910</b>		<b>120,644</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6925058	133534-5044541	Development Of A Diamond Nanoscale Magne	12.CCC	87,423		
		<b>Total for 12.CCC</b>		<b>87,423</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6925151	130759-5041928	Exploring Cryogenian Biological And Envi	43.001	6,805		
6927184	130759-5041928	Exploring Cryogenian Biological And Envi	43.001	33,644		
		<b>Total for 43.001</b>		<b>40,449</b>		
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>		
6914400	#123365	Science Of Nanoscale Systems And Their D	47.049	-65		
6914401	#123365	Science Of Nanoscale Systems And Their D	47.049	-227		
		<b>Total for 47.049</b>		<b>-292</b>		

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920743	133512	Transport And Imaging Of Mesoscopic Phen	81.049	156,707
6923937	133512-02	Quantum Electronic Device Measurement Ap	81.049	8,310
		<b>Total for 81.049</b>		<b>165,017</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921775	23515.112096	Superfund Basic Research And Training Pr	93.143	-5,305
6925385	23515.112096	Superfund Basic Research And Training Pr	93.143	-33,600
6926045	23515.112096	Superfund Basic Research And Training Pr	93.143	210,699
6927120	23515.112096	Fabricated Equipment- Monitoring Statio	93.143	14,629
6928011	112096.5028856	Year 4: Superfund Basic Research And Tra	93.143	10
		<b>Total for 93.143</b>		<b>186,433</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6916842	5013444-00-132502	Pancreatic Islet Design And Engineering	93.310	65,936
6925662	138062-5042320	High Resolution Connectomics Of Mammalia	93.310	371,181
		<b>Total for 93.310</b>		<b>437,117</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925079	SUB 149047.5059022.1071	Nerp017: Genetic Analysis Of Innate Imm	93.855	228,907
6925110	SUBAWARD 160502-0873	Harvard University Center For Aids Resea	93.855	4,414
6926994	SUBAWARD 160502-0973	Year 2: Harvard University Center For Ai	93.855	45,549
6927646	SUB 149047.5059022.1071	Nerp017: Genetic Analysis Of Innate Imm	93.855	71,410
		<b>Total for 93.855</b>		<b>350,280</b>
		<b>Total for Harvard University</b>		<b>1,557,606</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925804	12-085	Gulf Of Maine Regional Aquatic Nuisance	11.417	9,653
		<b>Total for 11.417</b>		<b>9,653</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924091	SUBCONTRACT NO. 11-133	Continuing Mit Support Of The Interstell	43.CCC	36,839
		<b>Total for 43.CCC</b>		<b>36,839</b>
		<b>Total for University of New Hampshire</b>		<b>16,402</b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

Total for University of New Hampshire

40,492

**Woods Hole Oceanographic Institution**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6899353	A100462	Seasonal Forcing Of Submarine Groundwater	11.417	683
<b>Total for 11.417</b>				<b>683</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6915893	AGMT. NO. A100529	A. Baggeroer Child	12.300	55,694
6921145	AGMT. NO. A100529	G. Wornell Child	12.300	74,414
6922136	A100706	Full-Scale Measurement And Prediction Of	12.300	3,091
6924238	A100847	Makris-Whoi: Unified Four-Dimensional Mo	12.300	127,924
6924239	A100847	Yue-Whoi: Unified Four-Dimensional Model	12.300	185,434
6924544	A100847	Unified Four-Dimensional Multi-Resolutio	12.300	117,822
<b>Total for 12.300</b>				<b>564,379</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925215	A100899	Collaborative Research: Microbial Influe	47.050	25,033
<b>Total for 47.050</b>				<b>25,033</b>
<b>Total for Woods Hole Oceanographic Institution</b>				<b>590,095</b>

**Consensus Building Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927248	NA09NOS4190153	Nerrs New England Climate Adaptation Pro	11.419	148,597
<b>Total for 11.419</b>				<b>148,597</b>
<b>Total for Consensus Building Institute</b>				<b>148,597</b>

**New England Fishery Management Council**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923391	RES. AGMT. DTD. 1/1/11	Nefmc Herring Management Impact Plan Soc	11.441	18,186
<b>Total for 11.441</b>				<b>18,186</b>
<b>Total for New England Fishery Management Council</b>				<b>18,186</b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

**Research Foundation of SUNY-Albany**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919154	SUBCONTRACT AGMT. #08-58	Nri/Index Program: Supplemental Project	11.CCC	-2,447
6919155	SUBCONTRACT AGMT. #08-58	Nri/Index Program: Supplemental Project	11.CCC	-257
6919725	SUBCONTRACT AGMT. #08-58	Index Program: Supplemental Projects	11.CCC	114,475
6919726	SUBCONTRACT AGMT. #08-58	Index Program: Supplemental Projects	11.CCC	157,295
		<b>Total for 11.CCC</b>		<b>269,066</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920792	09-18	Rna Modifications As Biomarkers Of Envir	93.113	240,422
6927628	09-18	Rna Modifications As Biomarkers Of Envir	93.113	4,346
		<b>Total for 93.113</b>		<b>244,768</b>
		<b>Total for Research Foundation of SUNY-Albany</b>		<b>513,834</b>

**Lincoln Laboratory**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924246	PO 7000162136	Electrophoretic Infiltration Of Superwic	12.000	57,546
		<b>Total for 12.000</b>		<b>57,546</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6898674	PO 3070557+7000049429	Npoess Program Science Team Support	12.CCC	12,487
6917259	PO NO. 7000031361	Campus/Lincoln Photonics Initiative	12.CCC	2,313
6919415	PO 7000063327	Dynamically Composable Systems	12.CCC	3,611
6919653	PO 7000074210	Joint Position-Amplitude Modeling For Co	12.CCC	39,593
6919750	PO 7000074667	Variability Compensation Techniques For	12.CCC	233,241
6919781	PO 7000077806	Information Access For Multi-Sensor Deci	12.CCC	132
6919982	PO #7000079784	Optimization Of Airport Configurations	12.CCC	46,096
6920775	7000087748	Architecture Study Of Defense Communicat	12.CCC	484,662
6921635	PO #7000105486	Characterizing Coherence In Long-Lived S	12.CCC	36,946
6921685	P.O. 7000105224	Advanced Communication Techniques For Bi	12.CCC	23,669
6921970	7000114032	Bio-Inspired Cellular Systems	12.CCC	90,904
6922621	PO NO. 7000031361	Campus/Lincoln Photonics Initiative - Ko	12.CCC	1,058
6922828	7000126589	The Airtraffic Flow Management Problem I	12.CCC	12,934
6922829	7000126525	Small Deployable Uav Systems	12.CCC	66,135
6923013	7000132466	Lincoln Laboratory-Mit Joint Research On	12.CCC	298,382
6923089	7000146526	Computational Sensing	12.CCC	-83



## Appendix A-3 - Detail Massachusetts Institute of Technology Federal Research Support - Passthrough - On Campus Fiscal 2013 Expenditures

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923198	7000130142	Polarization Entanglement Sources With Hi	12.CCC	80,428
6923230	7000136110	Exploratory Development Of Gan Silicon P	12.CCC	-3,975
6923385	7000139390	High Power-Per-Weight Organic Solar Cell	12.CCC	68,499
6923394	7000139220	Autonomous Robot Control Via Autonomy Le	12.CCC	91,017
6923505	PO 7000143501	4.155 Masters Of Architecture Studio - D	12.CCC	5,080
6923506	7000126525	Fabricated Equipment - Locusts Mirco-Uav	12.CCC	67
6923521	7000139180	Development Of The Micro-X Sounding Rock	12.CCC	1,818
6923685	7000147776	A Knowledge Discovery Framework For Thre	12.CCC	97,176
6923693	PO 7000147774	Development Of A Microfluidic Gene Assem	12.CCC	25,018
6923783	7000151056	Designing Optimal Clinical Trials For Ca	12.CCC	82,850
6924009	PO NO. 7000031361	Campus/Lincoln Photonics Initiative - M.	12.CCC	8,474
6924430	PO 7000159789	Onchip Miniature Optical Isolator	12.CCC	181
6924693	7000167306	Demonstration Of A Metastable Rf Squid Q	12.CCC	75,485
6924753	PO 7000167206	Auv System Modification For Long Enduran	12.CCC	94,503
6924802	PO 7000172094	Nanopore-Coupled Surface Enhanced Raman	12.CCC	2,724
6924852	PO 7000170673	LI/Mit Research Initiative On Advanced E	12.CCC	92,171
6924890	PO 7000173472	Us Transcom Living Plan Project	12.CCC	69,221
6924935	PO #7000174667	Husir Admin Mgmt 1247-112 Fy2012	12.CCC	3,698
6924936	PO #7000174667	Husir Integration + Testing 1247-25 Fy20	12.CCC	86,110
6924937	PO #7000174667	Ssa Admin Project + Network 1800-12 Fy20	12.CCC	33,282
6924938	PO #7000174667	Ssa Sys Eng Common 1800-212 Fy2012	12.CCC	448
6924939	PO #7000174667	Ssa Sys Eng Mhr 1800-213 Fy2012	12.CCC	125,589
6924940	PO #7000174667	Ssa Sys Eng Lrir 1800-214 Fy2012	12.CCC	53,910
6924941	PO #7000174667	Ssa Sys Hax 1800-215 Fy2012	12.CCC	103,430
6924942	PO #7000174667	Ssa Mission Execution Analysis 1800-542	12.CCC	55,572
6924943	PO #7000174667	Debris Data Collection 10102-14 Fy2012	12.CCC	16,066
6924944	PO #7000174667	Firepond Optics 331-83032 Fy2012	12.CCC	1,420
6924945	PO #7000174667	Mission Support 10087-11 Fy2012	12.CCC	3,106
6924994	PO #7000174667	Radar Reliability Improv 35-8060	12.CCC	26,833
6924995	7000174664	Phase Ii: Demonstration Of Reduced Surfa	12.CCC	77,127
6925129	PO 7000179605	Volume Hologram Filter Development For M	12.CCC	82,784
6925166	PO 7000180267	Human-Machine Team Planning	12.CCC	4,487
6925167	PO 7000180264	Single-Spatiotemporal-Mode Photons For Q	12.CCC	66,732
6925177	PO 7000180079	Energy Efficient Frequency-Agile Radio F	12.CCC	25,584
6925198	PO 7000180623	Computational Modeling Collaboration	12.CCC	119,980
6925300	PO 7000167206	Fabreq: Unmanned Underwater Vehicle (Uuv)	12.CCC	7,951
6925358	PO 7000181751	Natural Language Query For Extracting Kn	12.CCC	40,885
6925360	PO 7000183422	In Vitro And In Vivo Analysis Of Optical	12.CCC	20,031
6925434	PO #7000184872	Support Of The Radio Communication Link	12.CCC	382,606

## Appendix A-3 - Detail Massachusetts Institute of Technology Federal Research Support - Passthrough - On Campus Fiscal 2013 Expenditures

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925435	PO 7000186174	Detector Characterization Of Enable Spac	12.CCC	65,764
6925436	PO #7000174667	Servo Engineering 1247-6181 Fy2012	12.CCC	-30,665
6925438	PO 7000187016	Trust Framework/Personal Data Store	12.CCC	61,000
6925516	PO 7000186588	10 Kv Gan-On-Silicon Transistors For Mid	12.CCC	512,209
6925545	PO 7000186174	Fabricated Equipment - Intrapixel Test B	12.CCC	14,649
6925546	PO 7000180248	Micromas	12.CCC	111,834
6925651	PO 7000180264	Fabricated Equipment - Parametric Down-C	12.CCC	1,030
6925657	PO 7000180248	Micromasfm Fabricated Equipment	12.CCC	183,936
6925780	PO 7000194800	Campus/Lincoln Photonics Initiative	12.CCC	61,270
6925784	PO # 7000193736	High-Fidelity Dispersive Readout Of A Su	12.CCC	99,686
6926027	7000200659	Repeatable Large Systems Cyber Impact An	12.CCC	68,873
6926149	PO# 7000203003	Assessing The Impact Of Team Dynamics On	12.CCC	24,929
6926152	PO 7000202804	Silicon Photonics Integration	12.CCC	49,705
6926167	PO #7000201843	Computational Imaging And Compressive Se	12.CCC	61,451
6926248	PO 7000180267	Human-Machine Team Planning	12.CCC	113,905
6926416	7000202257	Robust, Query-Driven Coordination Of Veh	12.CCC	105,212
6926437	PO 7000206296	Earth-Abundant Photovoltaic Device Utili	12.CCC	55,906
6926565	PO 7000210605	Stable Carbenes As General Surface Ancho	12.CCC	86,353
6926591	7000211420	Connectivity Analysis: Latent Structure	12.CCC	86,339
6926600	PO 7000210670	Acc Funding For Self-Assembling, Alterna	12.CCC	105,360
6926703	7000213340	Automated Dynamic Resource Allocation	12.CCC	71,377
6926742	PO 7000194800	Lincoln Lab Campus: Child Account Watts	12.CCC	49,984
6926784	PO 7000186174	Fabricated Equipment - Duplicate Intrapi	12.CCC	32,680
6926896	PO #7000216756	Husir Admin Mgmt 1247-112	12.CCC	9,697
6926897	PO #7000216756	Husir Integration & Testing 1247-26	12.CCC	264,907
6926898	PO #7000216756	Ssa Admin Project & Network 1800-12	12.CCC	86,884
6926899	PO #7000216756	Ssa Sys Eng Common 1800-212	12.CCC	16,906
6926900	PO #7000216756	Ssa Sys Eng Mhr 1800-213	12.CCC	359,220
6926901	PO #7000216756	Ssa Sys Eng Lrir 1800-214	12.CCC	195,489
6926902	PO #7000216756	Ssa Sys Hax 1800-215	12.CCC	240,972
6926903	PO #7000216756	Ssa Mission Execution-Analysis 1800-542	12.CCC	141,047
6926904	PO #7000216756	Debris Data Collection 10102-14	12.CCC	24,645
6926905	PO #7000216756	Firepond Optics 331-83032	12.CCC	2,572
6926906	PO #7000216756	Mission Support 10087-11	12.CCC	6,569
6926907	PO #7000216756	Radar Reliability Improv 35-8060	12.CCC	54,784
6926908	PO #7000216756	Servo Engineering 1247-6181 Fy2012	12.CCC	92,989
6926977	7000214572	Investigation And Development Of An Alum	12.CCC	80,239
6927084	PO 7000219234	Magnetically Suspended Reaction Sphere (	12.CCC	52,755
6927127	7000221325	High-Fidelity Dispersive Readout And Noi	12.CCC	83,980

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927259	PO 7000229853	Nanofluidic Devices For Rapid Sizing Of	12.CCC	26,872
6927414	7000224798	Modular Uav Demonstration Program	12.CCC	18,914
6927457	7000224798	Fabricated Equipment: Flexible Uav	12.CCC	19,446
6927470	P. O. 7000229740	Lithium Ion Battery Cycle Life	12.CCC	37,526
6927537	7000227558	Robust Communication And Navigation For	12.CCC	19,444
6927548	PO 7000233404	Tbo Risk Assessment	12.CCC	33,831
6927558	PO 7000215206	Us Transcom Living Plan Project	12.CCC	293,143
6927652	P. O. 7000233700	Ingestible Electronics For Physiological	12.CCC	989
6927761	PO #7000216756	Gu Support 2063 Task 14	12.CCC	438
		<b>Total for 12.CCC</b>		<b>7,637,493</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926777	7000213564	En-Route And Terminal Speed & Altitude O	20.CCC	46,730
		<b>Total for 20.CCC</b>		<b>46,730</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925037	PO 7000176101	Rare Earth Spatial/Spectral Barcodes For	81.CCC	1,626
6925218	PO 7000182281	Trust Framework For Sociological Sensing	81.CCC	99,653
		<b>Total for 81.CCC</b>		<b>101,279</b>
		<b>Total for Lincoln Laboratory</b>		<b>7,843,048</b>

**CREATE, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923333	SUBCONTRACT NO. 60081	Current Leads For High Current Supercond	12.300	107,208
6925764	SUBCONTRACT NO. 60081	Fab Eq - Cable With Superconducting Tape	12.300	22,992
6927809	SUBCONTRACT NO. 60081	Fab-E Superconducting Cables Experimenta	12.300	111
		<b>Total for 12.300</b>		<b>130,311</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925009	SUBCONTRACT NO 63228	Strr: Wave Front Imaging For Dense Spray	12.CCC	160,088
		<b>Total for 12.CCC</b>		<b>160,088</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926382	SUBCONTRACT NO 66244	Computer Simulation Model For Igcc-Ccs P	81.049	45,000

**Appendix A-3 - Detail  
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Total for 81,049  
Total for CREARE, Incorporated  
**45,000**  
**335,399**

**University of Illinois**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917203	2007-02206-01/GCA4399	Capitalizing On Research On Animal And H	12.300	14,834
<b>Total for 12.300</b>				<b>14,834</b>
<b>Total for University of Illinois</b>				<b>14,834</b>

**Boston University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922340	4500000228	Muri: Topic #2 Adaptive Cognitive Maps F	12.300	29,816
6923207	4500000228	Muri: Topic #2 Adaptive Cognitive Maps F	12.300	207,192
6923208	4500000228	Muri: Topic #2 Adaptive Cognitive Maps F	12.300	170,331
6924737	4500000552	Bu-Onr-Child Lu	12.300	207,771
6924738	4500000552	Bu-Onr-Child Weiss	12.300	140,528
6924739	4500000552	Bu-Onr-Child Voigt	12.300	51,043
6926213	4500000552	Fabricated Equipment -Oem Laser Modules	12.300	5,319
<b>Total for 12.300</b>				<b>812,000</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924758	4500000571	Synthetic Mammalian Gene Regulatory Circ	12.431	262,683
<b>Total for 12.431</b>				<b>262,683</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919757	GC 206006NGD	Investigation Of Ionospheric Turbulence &	12.800	20,650
<b>Total for 12.800</b>				<b>20,650</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927087	2012.1218112455757	Establishing Exclusion Criteria And Teh	16.560	12,056
<b>Total for 16.560</b>				<b>12,056</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917890	4500000220	A Sounding Rocker Measurement Of D/H Rat	43.CCC	6,400

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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		<b>Total for 43.CCC</b>		<b>6,400</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6922469	4500000225	Efri-Seed Framework For Advanced Sustain	47.041	218,984	
				<b>218,984</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6922936	4500001216	Cognitive Rhythms Collaborative: A Disc	47.049	21,634	
6923882	GC208258NGA	Fab Equipment: Wired 1000Channel System	47.049	22,725	
6925771	4500000227	Cognitive Rhythms Collaborative: A Disc	47.049	26,539	
6927634	4500001216	Cognitive Rhythms Collaborative: A Disc	47.049	70,589	
6927635	4500001216	Cognitive Rhythms Collaborative: A Disc	47.049	56,963	
				<b>198,450</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6921761	LTR. AWARD GC-208001NGA 4500000224	Slc Center: Celest: A Center For Learnin	47.075	186,137	
				<b>186,137</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924445	SUBAWARD NO. 4500000995	Auditory Feature And Conjunction Process	93.173	45,209	
				<b>45,209</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924888	4500000674	Prefrontal And Medial-Temporal Interacti	93.242	-1,163	
6927030	4500001138	Prefrontal And Medial-Temporal Interacti	93.242	225,446	
				<b>224,283</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926862	4500001071	Center For Innovation In Point Of Care T	93.286	110,401	
				<b>110,401</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6920709	SUBAWARD NO. 4500000222	Crons: Gamma Rythms And Cell Assemblies	93.853	23,671	
6925849	SUBAWARD NO. 4500000222	Fabricated Equipment - Virtual Reality E	93.853	2,679	
6927158	SUBAWARD NO. 4500001147	Crons: Gamma Rythms And Cell Assemblies	93.853	122,932	

**Appendix A-3 - Detail  
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Total for 93.853

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924814	4500000646	Complex Chemotypes: Discovery, Methodol	93.859	51,178
6927075	4500001148	Complex Chemotypes: Discovery, Methodol	93.859	89,755
				<b>140,933</b>
Total for Boston University				<b>2,387,468</b>

**University of California-Santa Barbara**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917883	KK8152	Muri - Jesus Del Alamo	12.300	70,908
6917884	KK8152	Drift Muri - Tomas Palacios	12.300	129,919
6917885	KK8152	Muri - Carl Thompson	12.300	171,513
6923035	KK 1131	Define Dielectric Enhancements For Innov	12.300	88,446
				<b>460,786</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925317	KK1238	Multi-Scale Systems Biology Of Military-	12.431	127,045
6925612	KK1238	Multi-Scale Systems Biology Of Military-	12.431	73,926
				<b>200,971</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923170	SUBAGREEMENT KK1124	Photonic Integration For Coherent Optics	12.910	187,662
				<b>187,662</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923710	KK6142-06	Development Of Cdkd5 Inhibitors	93.853	57
				<b>57</b>
Total for 93.853				<b>849,476</b>
Total for University of California-Santa Barbara				

**University of California-Riverside**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919683	S-0000343	Graphene Strain-Tronics	12.300	5,626
				<b>5,626</b>
Total for 12.300				<b>5,626</b>

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919960	S-000354	Casimir Force Neutralization And Dynamic	12.910	-974
		<b>Total for 12.910</b>		<b>-974</b>
		<b>Total for University of California-Riverside</b>		<b>4,652</b>

**University of Southern California**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920416	10025393	Intelligent Coordination And Adaptive CI	12.300	71,005
6920504	138802, P.O.#10058889	Antidote: Adaptive Networks For Threat A	12.300	331,038
6926002	137760	Fab Eq: Autonomous Boat Testing System	12.300	11,093
		<b>Total for 12.300</b>		<b>413,136</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921489	P.O. 141193	Neuromorphic Visual System For Intellige	12.CCC	11,543
6921551	P.O. 141193	Desimone Child Account	12.CCC	1,054
		<b>Total for 12.CCC</b>		<b>12,597</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927488	34714188	Land Information System For Snap Tier-1	43.001	36,062
		<b>Total for 43.001</b>		<b>36,062</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920793	138822	ARRA - Ri: Medium: Deciphering National Langaug	47.082	82,927
		<b>Total for 47.082</b>		<b>82,927</b>
		<b>Total for University of Southern California</b>		<b>544,722</b>

**University of Michigan**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926853	3002453814	Passive And Active Friction Drag Reducti	12.300	63,343
		<b>Total for 12.300</b>		<b>63,343</b>

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924853	SUBCONTRACT 3001996313	Value-Centered Information Theory For Ad	12.431	113,542
6924976	SUBCONTRACT 3001996313	Child-How	12.431	77,260
		<b>Total for 12.431</b>		<b>190,802</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917323	SUBCONTRACT #3000913650	Michigan/Afrl Collaborative Center For C	12.800	153,619
6924558	3002085646	Michigan/Afrl Collaborative Center In Co	12.800	140,788
		<b>Total for 12.800</b>		<b>294,407</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925267	SUBCONTRACT NO 3002139437	Creation Of The Naval Engineering Educat	12.CCC	101,224
6925396	SUBCONTRACT NO 3002139437	Neec Patrikalakis Child	12.CCC	42,506
6925491	SUBCONTRACT NO 3002139437	Neec Administrative Cost Child	12.CCC	60,616
6927198	3002531249	Neec: Flow Structure Interaction: Dam Br	12.CCC	104,385
6927199	3002531248	Neec: Quantification Of Extreme Events I	12.CCC	64,198
6927214	3002565045	The Center For Future Architectures Rese	12.CCC	35,590
		<b>Total for 12.CCC</b>		<b>408,519</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921217	3001431889	Ground Network Design And Dynamic Operat	43.000	68,624
		<b>Total for 43.000</b>		<b>68,624</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924108	3001889485	Geomach: Geometry Fo Mdao Of Aircraft C	43.002	36,489
		<b>Total for 43.002</b>		<b>36,489</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923720	3001735556	Airborne Microwave Observatory Of Subcan	43.CCC	28
		<b>Total for 43.CCC</b>		<b>28</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921877	SUBCONTRACT # 3001478930	Subaward Umich: Cps: Smali: Control Of D	47.070	86,299
		<b>Total for 47.070</b>		<b>86,299</b>



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Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925547	3002219006	Cerc-Cvc: Period 1 & 2	81.087	37,931
6925645	3002219006	Cerc-Cvc: Heywood Yr 1-2	81.087	88,813
6925646	3002219006	Cerc-Cvc: Shao-Horn Yr 1-2	81.087	71,533
6925647	3002219006	Cerc-Cvc: Ceder Yr 1-2	81.087	67,114
		<b>Total for 81.087</b>		<b>265,391</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921585	SUBCONTRACT NO. 3001396971	A University Consortium On High Pressure	81.117	190,448
		<b>Total for 81.117</b>		<b>190,448</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925773	SUBCONTRACT #3002272312	Transient Safety Analysis Of Fast Spectr	81.CCC	116,269
		<b>Total for 81.CCC</b>		<b>116,269</b>
		<b>Total for University of Michigan</b>		<b>1,720,619</b>

**Dartmouth College**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918261	SUBAWARD NO. 490	Modular Social Intelligence For Teaming	12.300	85,129
		<b>Total for 12.300</b>		<b>85,129</b>
		<b>Total for Dartmouth College</b>		<b>85,129</b>

**Florida State University Foundation, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918453	SUBAWARD NO. R01017	Fighter Jet Aircraft Noise Suppression U	12.300	831
6926070	SUBAWARD NO. R01545	Esrdc - Stochastic Tools Based On Polyno	12.300	27,287
		<b>Total for 12.300</b>		<b>28,118</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917413	SUBAWARD NO. R00907	Task 3.4 Slip Ring Motors For Ship Propu	12.CCC	52,587
6917414	SUBAWARD NO. R00907	Task 3.5 Electric Distribution Systems S	12.CCC	100,103
6917415	SUBAWARD NO. R00907	Task 3.5 Electric Distribution Systems S	12.CCC	22,278
6917416	SUBAWARD NO. R00907	Task 3.6 Control And Protection Systems	12.CCC	123,165

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917417	SUBAWARD NO. R00907	Task 3.7 Research Integration And Techno	12.CCC	42,562
6917497	SUBAWARD NO. R00907	Esrdc Integration And Technology	12.CCC	79,787
6917498	SUBAWARD NO. R00907	Esrdc Board	12.CCC	-3,309
6926166	SUBAWARD NO. R00907	Fabricated Equipment - Z-Breaker	12.CCC	1,597
		<b>Total for 12.CCC</b>		<b>418,770</b>
		<b>Total for Florida State University Foundation, Incorporated</b>		<b>446,888</b>

**University of California**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925029	1015GNA126	Year 3 Torralba	12.300	90,238
6925030	1015GNA126	Year 3 Tenenbaum	12.300	38,710
6927565	1015GNA126	Knowledge Representaion, Reasoning And L	12.300	126,307
6927566	1015GNA126	Knowledge Representaion, Reasoning And L	12.300	28,690
6927669	0157GQA206	Tailoring The Conformality And Electroni	12.300	3,699
		<b>Total for 12.300</b>		<b>287,644</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919767	KK9151-1	lcb Task 1 Manalis	12.431	352,467
6919783	KK9151	lcb Task 3 Lauffenburger	12.431	75,716
6919784	KK9151	lcb Task 4.1: Spinning - Belcher	12.431	268,719
6919785	KK9151	lcb Task 4.2: Virus - Belcher	12.431	376,343
6920091	KK9151-13	lcb Task 13 Belcher	12.431	26,853
6923979	KK9151	lcb Task 3- Fraenkel	12.431	133,838
6923986	KK9151	lcb - Task 5 Prather	12.431	227,355
6923987	KK9151	lcb - Task 5 Doyle	12.431	103,615
6924037	KK9151	lcb Task 4 Ortiz	12.431	59,072
6925494	KK9151	lcb Task 4 Voigt	12.431	-9,764
6925721	KK9151-1	lcb Task 1 Weiss	12.431	158,248
6925894	KK9151-24	lcb: Ultra-Lightweight Nano-Assembled Ba	12.431	244,073
6926410	KK9151-24	Child: Lockheed Subcontract	12.431	63,866
6927066	KK9151	lcb - Task 5 Buie	12.431	48,896
		<b>Total for 12.431</b>		<b>2,129,297</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921633	SUBCONTRACT NO. 2090-S-MA838	Dawn A Journey To The Beginning Of Teh S	43.CCC	92,497

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Total for 43.CCC **92,497**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925057	SUBAWARD NO. 0130 G PA291	Dynamic Metabolic Model Building Based O	81.049	104,013
		<b>Total for 81.049</b>		<b>104,013</b>
		<b>Total for University of California</b>		<b>2,613,451</b>

**Liquid Metal Battery Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924168	AGMT. DTD. 6/30/11	Strr Agreement Dated 6/30/11	12.300	-852
		<b>Total for 12.300</b>		<b>-852</b>
		<b>Total for Liquid Metal Battery Corporation</b>		<b>-852</b>

**University of Virginia**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6915786	GG10931-128299	An Integrated Cellulr Materials Approa	12.300	72,179
		<b>Total for 12.300</b>		<b>72,179</b>
		<b>Total for University of Virginia</b>		<b>72,179</b>

**Georgia Institute of Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918937	R0897-G15	Game Theoretic Learning For Distributed	12.300	33,701
6920742	R0897-G15	Game Theoretic Learning For Distributed	12.300	87,413
		<b>Total for 12.300</b>		<b>121,114</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923504	RB492-G1	Neuro-Inspired Adaptive Perception And C	12.431	100,886
6923520	RB492-G1	Neuro-Inspired Event-Driven Preception A	12.431	119,831
		<b>Total for 12.431</b>		<b>220,717</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920198	R6756-G2	Muri-09: Distributed Learning And Inform	12.800	160,572
6920503	R6756-G2	Muri-09: Distributed Learning And Inform	12.800	197,539

**Appendix A-3 - Detail  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920755	R6756-G2	Muri-09: Distributed Learning And Inform	12.800	192,224
6925152	RC413-G3	Muri: Multi-Functional Light-Matter Inte	12.800	197,115
6927930	RC413-G3	Englund Child: Multi-Functional Light-M	12.800	15,978
		<b>Total for 12.800</b>		<b>763,428</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923405	RB220-G3	Multimodal Multiplexed Integrated Photon	12.910	69,480
6923562	RB220-G3	Prof. Johnnyoon Han, Rle	12.910	52,693
		<b>Total for 12.910</b>		<b>122,173</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921023	RA306-S1	Focus Center Research Program	12.CCC	16,318
6921035	RA306-S1	Ifc Research Program For Connectivity -	12.CCC	29,953
6925226	SUBCONTRACT RC051-S1	Optimized Resources And Architectures Fo	12.CCC	9,836
6927178	SUBCONTRACT RC051-S1	Option 1: Optimized Resources And Archit	12.CCC	52,127
		<b>Total for 12.CCC</b>		<b>108,234</b>
		<b>Total for Georgia Institute of Technology</b>		<b>1,335,666</b>

**Carnegie-Mellon University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921196	1141207-236214	Decentralized Reasoning In Reduced Infor	12.300	193,474
		<b>Total for 12.300</b>		<b>193,474</b>
6923891	1130128-258552	Omnitrans: An Omnivorovous Framework For T	12.431	154,560
		<b>Total for 12.431</b>		<b>154,560</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918868	1150069-218432	Human Automated Planner Interaction For	12.800	231,380
		<b>Total for 12.800</b>		<b>231,380</b>
		<b>Total for Carnegie-Mellon University</b>		<b>579,414</b>

**University of Rochester**

**Appendix A-3 - Detail  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6916723	PO #414005-G, UR ACCOUNT #5-27939	Muri (Omr): Complex Learning And Skill T	12.300	111,056
		<b>Total for 12.300</b>		<b>111,056</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923028	415337-G, UR 5-29617	Theory - U. Rochester	12.431	104,991
6923029	415337-G, UR 5-29617	Experiment - U Rochester	12.431	162,209
		<b>Total for 12.431</b>		<b>267,200</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917101	414090-G	National Interital Confinement Fusion Pr	81.049	117,963
6921558	PO #415023-G, UR ACCOUNT #5-24431	Fusion Science Ceneter For Extreme State	81.049	260,977
6928068	416107-G	Magnet Ptof	81.049	15,140
		<b>Total for 81.049</b>		<b>394,080</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926798	415935-G	Charged-Particle Spectroscopy On Omega	81.112	269,528
		<b>Total for 81.112</b>		<b>269,528</b>
		<b>Total for University of Rochester</b>		<b>1,041,864</b>

**Princeton University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926616	SUBAWARD NO 00002068	Cars: A Platform For Scaling Formal Veri	12.300	163,849
		<b>Total for 12.300</b>		<b>163,849</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921113	SUBAWARD NO 00001760	Gsrc Marco: Network-Driven Computing	12.910	70,601
		<b>Total for 12.910</b>		<b>70,601</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925294	SUBAWARD NO. 00002019	U.S. Cms Operations At The Lhc	47.049	95,513
6926579	SUBAWARD NO. 00002019	U.S. Cms Software And Computing Subsystem	47.049	32,727

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926786	SUBAWARD NO. 00002019	Fabricated Equipment - Tier -2 Computing	47.049	220,859
		<b>Total for 47.049</b>		<b>349,099</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920547	SUBAWARD NO. 00001702	Energy Frontier Research Center In Combu	81.049	255,760
		<b>Total for 81.049</b>		<b>255,760</b>
		<b>Total for Princeton University</b>		<b>839,309</b>

**Florida State University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926476	SUBAWARD NO. R01562	The Swamp Works Program	12.300	69,191
		<b>Total for 12.300</b>		<b>69,191</b>
		<b>Total for Florida State University</b>		<b>69,191</b>

**MIT - Internal Cost Sharing**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927845	13-DARPA-1075 (PRIME AWD NO = W911NF-13-1-0096)	Stochastic Computing Machines Enabled By	12.341	3,686
		<b>Total for 12.341</b>		<b>3,686</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925191	SUBCONTRACT UNDER DOE PRIME AWARD NO. DE-EE0005314	Cost Share Child	81.087	37,138
		<b>Total for 81.087</b>		<b>37,138</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923288	SUBCONTRACT NO. 6947174	Natural Ventilation For Cooling In Comme	81.CCC	22,227
		<b>Total for 81.CCC</b>		<b>22,227</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927135	6145892/RFS2013072	Internal Cost Sharing	93.172	3,301

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	<u>FY Expenses</u>
6927031	4500001138	Prefrontal And Medial-Temporal Interacti	93.242	50,741	50,741
<b>Total for 93.172</b>				<b>3,301</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926674	SHOPPING CART NO. 101686700 PRIME AWARD NO. 5-PN-2EY016525-08	Center For Protein Folding Machinery - H	93.867	55,376	
<b>Total for 93.242</b>				<b>50,741</b>	
<b>Total for 93.867</b>				<b>55,376</b>	
<b>Total for MIT - Internal Cost Sharing</b>				<b>172,469</b>	

**Columbia University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	<u>FY Expenses</u>
6927546	1(GG007792)	Power Grid Vulnerability And Resilience	12.351	1,716	1,716
<b>Total for 12.351</b>				<b>1,716</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	<u>FY Expenses</u>
6923058	1(ACCT#5-21132)	Theory Columbia	12.431	119,367	
6923059	1(ACCT#5-21132)	Experiment-B Columbia	12.431	142,127	
6923060	1(ACCT#5-21132)	Experiment-W Columbia	12.431	97,360	
6925452	1(ACCT#5-21132)	Fabricated Equipment - Two High-Speed In	12.431	1,132	
6925655	1(ACCT#5-21132)	Silicon Photonic Chip Alignment Apparatu	12.431	9,139	
6925797	1(ACCT#5-21132)	Fabricated Equipment - Dip-Probe	12.431	-1,299	
6926974	2 (GG008784)	Imaging How A Neuron Computes	12.431	35,844	
6927216	2 (GG008784)	Imaging How A Neuron Computes	12.431	26,703	
6927691	1(GG001532)	Columbia Child Englund / Postdoc	12.431	55,694	
6927968	2 (GG008784)	Fabricated Equipment: Confocal Microscop	12.431	1,575	
<b>Total for 12.431</b>				<b>487,642</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	<u>FY Expenses</u>
6925765	1 (GG006126)	Ri:Small:Statistical Machine Translation	47.070	93,438	93,438
<b>Total for 47.070</b>					<b>93,438</b>

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920909	3 (ACCT # 5-24747)	ARRA - Collaborative Research: Enhancing The Su	47.082	1,469
		<b>Total for 47.082</b>		<b>1,469</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921054	1(ACCT # 5-22620)	Petascale Hierarchical Modeling Via Paral	81.049	113,105
		<b>Total for 81.049</b>		<b>113,105</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926040	1(ACCT.#5-76948)/PO G03292	Health Effects Of Geochemistry Of Arseni	93.286	25,276
6927144	3(GG007773)	Integrated Heart-Liver-Vascular Systems	93.286	130,167
		<b>Total for 93.286</b>		<b>155,443</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6914853	3-5-32255 UDR. NIH R01	Stern Cells And Gastric Cancer	93.393	-440
6917022	5-32460	Mouse Models Of Gastric Cancer	93.393	10,268
		<b>Total for 93.393</b>		<b>9,828</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927142	PO G03501 AWARD 1(GG007522)	Motor Neuron Selector Genes And Mechanis	93.853	111,490
		<b>Total for 93.853</b>		<b>111,490</b>
		<b>Total for Columbia University</b>		<b>974,131</b>
<b>University of Minnesota</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920941	A000649301	Towards A Theory For Network Robustness	12.351	70,833
		<b>Total for 12.351</b>		<b>70,833</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917008	X5336545105	Radiation Belt Storm Probe Elw Project	43.CCC	51,984
		<b>Total for 43.CCC</b>		<b>51,984</b>



**Appendix A-3 - Detail  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926981	H002341903	Data Net Full Proposal: Terra Populus:	47.080	33,057
		<b>Total for 47,080</b>		<b>33,057</b>
		<b>Total for University of Minnesota</b>		<b>155,874</b>

**Clemson University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923393	1501-203-2008185	Gradient Films From Shape Memory Nanofoa	12.351	90,777
		<b>Total for 12:351</b>		<b>90,777</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923026	1483-225-2007743	Compact, Highly Selective And Specific,	81.113	82,195
		<b>Total for 81,113</b>		<b>82,195</b>
		<b>Total for Clemson University</b>		<b>172,972</b>

**Rehabilitation Institute of Chicago**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920877	AGREEMENT DATED 10/29/2009	Development Of A Neural Interface For Po	12.42	117,024
		<b>Total for 12.42</b>		<b>117,024</b>
		<b>Total for Rehabilitation Institute of Chicago</b>		<b>117,024</b>

**Rutgers University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917789	1043530/4-29429/10578	Afirm: Langer Nerve Project	12.420	435,919
6918003	00003418/4-29429/10578	Bioactive Polymer Scaffolds For Repair O	12.420	-1,840
6922010	W18XWH-08-2-0034	Isolation And Expansion Of Native Vascul	12.420	339,441
		<b>Total for 12.420</b>		<b>773,520</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924848	4482/PO#S1579843/ACCT#43388 5/ORGID10648	Transient Behaviors Of Adapting Biologic	93.859	225,682

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925862	4677/PO#S1685723/ACCT#43442 8/ORGID10648	Collaborative Research: Transient Behavi	93.859	90,981
		<b>Total for 93.859</b>		<b>316,663</b>
		<b>Total for Rutgers University</b>		<b>1,090,183</b>

**Massachusetts General Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924987	W81XWH-09-2-0001-218193	Mit-Cimit-A Label-Free Viral Detection M	12.420	20,461
		<b>Total for 12.420</b>		<b>20,461</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925139	SUBAWARD #219877	A Portable Distributed X-Ray Source For	12.910	126
6925187	SUBAWARD #219877	Mgh - Pax	12.910	408,591
6925188	SUBAWARD #219877	Lanza Coded Source Imaging	12.910	138,216
6926924	SUBAWARD #219877	Barbaatathis - Pax	12.910	65,586
6926986	SUBAWARD #219877	Autonomous Vacuum Chamber For Generation	12.910	98,601
6927871	TBA	(Advance) Rapid Immunity Via Gene Transf	12.910	41,140
		<b>Total for 12.910</b>		<b>752,260</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924451	217736	Linear Regression Analysis Of 2D Project	93.000	11,969
		<b>Total for 93.000</b>		<b>11,969</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925861	SUBAWARD NO. 220701	Ambulatory Monitoring Of Vocal Function	93.173	55,092
		<b>Total for 93.173</b>		<b>55,092</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920923	SUBAWARD 215009	Small-Molecule Probes And Methods For Mo	93.279	147,866
6924435	218459	Enhancing Self-Control Of Cigarette Crav	93.279	104,910
6924885	218459	Enhancing Self-Control Of Cigarette Crav	93.279	23,768
		<b>Total for 93.279</b>		<b>276,544</b>

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924807	219658	Parallel Excitation Methods For High Fie	93.286	281,165
		<b>Total for 93.286</b>		<b>281,165</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919916	SUBAWARD NO. 206505	A System Neuroscience Approach For The S	93.310	-13,301
		<b>Total for 93.310</b>		<b>-13,301</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918124	207607	Probing The Tumor Microenvironment Using	93.395	274,150
6918459	207607	Probing The Tumor Microenvironment Using	93.395	129,977
		<b>Total for 93.395</b>		<b>404,127</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921228	R01 HL096576-04 MGH # 214844	Cluster-Imaging Of Emerging Biomarker Ne	93.837	24,159
		<b>Total for 93.837</b>		<b>24,159</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917295	SUBAWARD 205852	Multiscale Dynamic Measurements And Mode	93.853	50,706
6918492	5-P50-NS038372-10	The Mgh/Mit Parkinson'S Disease Research	93.853	-246
		<b>Total for 93.853</b>		<b>50,460</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927610	222103	Optimizing Human B And T Cell Vaccines A	93.855	26,891
		<b>Total for 93.855</b>		<b>26,891</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920550	214763	In Vivo Systems Biology Of Inflammatory	93.859	117,281
		<b>Total for 93.859</b>		<b>117,281</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924915	SUBAWARD 219501	In Vivo Systems Biology Of Neurodegenera	93.866	35,378
6926604	SUBAWARD 221141	Hypoxia-Induced Metabolic Changes In Can	93.866	82,881
		<b>Total for 93.866</b>		<b>118,259</b>

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Total for Massachusetts General Hospital **2,125,367**

**Center for Integration of Medicine & Innovative Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925044	W81XWH-09-2-0001 / 219747	Combat Fluid Warmer Device	12.420	22,598
<b>Total for 12.420</b>				<b>22,598</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924342	W81XWH-09-2-0001 218154	A Novel Algorithm To Detect The End Of A	12.CCC	24,855
<b>Total for 12.CCC</b>				<b>24,855</b>

**Total for Center for Integration of Medicine & Innovative Technology 47,453**

**University of Innsbruck**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922724	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Scalable Quantum Information Processing	12.431	77,646
6923143	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabrication: Qubit Control System	12.431	-3,178
6923144	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabrication: Qubit Cooling Laser System	12.431	-5,203
6925262	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Ultra-High Vacuum	12.431	42,737
6925263	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Optics System For	12.431	18,665
6925264	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Laser Stabilizati	12.431	12,814
6926812	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Scalable Quantum Information Processing	12.431	194,854
6926821	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Ultra-High Vacuum	12.431	57,129
6926822	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Optics System For	12.431	80,974
6926826	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment - Laser Stabilizati	12.431	82,681
6927740	SQUIP AGREEMENT UNDER W911NF-10-1-0284	Fabricated Equipment: Microcavity Test A	12.431	9,308
<b>Total for 12.431</b>				<b>568,427</b>

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568,427

Total for University of Innsbruck

**University of California - Santa Cruz**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918633	SO182209	Metal-Semiconductor Nanocomposites For H	12.431	-22,712
		<b>Total for 12.431</b>		<b>-22,712</b>
		<b>Total for University of California - Santa Cruz</b>		<b>-22,712</b>

**University of Pennsylvania**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6897818	544252	Swarms: Scallable Swarms Of Autonomous R	12.431	1,827
6926839	560102	Evolution Of Cultural Norms And Dynamics	12.431	12,212
6927220	560102	Evolution Of Cultural Norms And Dynamics	12.431	1,188
6927221	560102	Evolution Of Cultural Norms And Dynamics	12.431	8,902
6927407	560102	Evolution Of Cultural Norms And Dynamics	12.431	2,557
		<b>Total for 12.431</b>		<b>26,686</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926928	550561	Pecase: First Principles Modeling Of Mec	12.800	183,277
		<b>Total for 12.800</b>		<b>183,277</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918026	549969	Coverage By Teams Of Autonomous Ground A	12.CCC	-429
6921931	549969	Child Account: Roy: Coverage By Teams Of	12.CCC	19,587
		<b>Total for 12.CCC</b>		<b>19,158</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920502	R01-EB008396-04	Engineering Multicellular Tissue Structu	93.286	291,827
		<b>Total for 93.286</b>		<b>291,827</b>
		<b>Total for University of Pennsylvania</b>		<b>520,948</b>

**University of Maryland**

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Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923071	Z841801	Muri: Atomtronics: Material And Device P	12.431	105,369
6923511	Z841801	Chuang Child	12.431	21,637
6924354	Z841801	Fabricated Equipment: Atomtronics Appara	12.431	212,590
		<b>Total for 12.431</b>		<b>339,596</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926034	Z903706	Predicting Language Learning Ability In	12.CCC	20,896
		<b>Total for 12.CCC</b>		<b>20,896</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926608	Z908802	Five-Year Operational Expectations For T	20.CCC	69,956
		<b>Total for 20.CCC</b>		<b>69,956</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924118	Z660401	Emif-Iss Testbed Program	43.CCC	22,939
		<b>Total for 43.CCC</b>		<b>22,939</b>
		<b>Total for University of Maryland</b>		<b>453,387</b>

**Yale University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926770	C13J11492(J00210)	Ketterle Research	12.431	60,082
6926771	C13J11492(J00210)	Zwierlein Research	12.431	43,880
6927741	C13J11492(J00210)	Fabricated Equipment: System For Two-Ph	12.431	780
6927857	C13J11492(J00210)	Fabricated Equipment: Molecular Spectros	12.431	2,605
		<b>Total for 12.431</b>		<b>107,347</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924927	C12R11221(R06033)	Design Of Gmt Readout Board For Star	81.CCC	15,071
		<b>Total for 81.CCC</b>		<b>15,071</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924466	M12A11190(A08389)	Defining Signatures For Immune Responsiv	93.855	27,726
6924773	M12A11190(A08389)	Lauffenburger Child Account	93.855	15,177

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926249	M12A11190(A08872)	Defining Signatures For Immune Responsiv	93.855	115,893
6926250	M12A11190(A08389)	Lauffenburger Child Account	93.855	53,332
		<b>Total for 93.855</b>		<b>212,128</b>
		<b>Total for Yale University</b>		<b>334,546</b>

**General Dynamics**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923153	PURCHASE ORDER #2010-01628	Interpretation Of Spatial Language	12.431	-391
6925049	PURCHASE ORDER #2010-01628	Child - Roy	12.431	391
6926019	PURCHASE ORDER #2012-00706	Interpretation Of Spatial Language	12.431	119,855
		<b>Total for 12.431</b>		<b>119,855</b>
		<b>Total for General Dynamics</b>		<b>119,855</b>

**Draper Laboratory Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924912	SC001-484	Envelope: Glycan Chemistry	12.431	443,475
		<b>Total for 12.431</b>		<b>443,475</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925206	SC001-0000000593	Algorithms To Limit Viral Epidemics (Ali	12.910	67,682
		<b>Total for 12.910</b>		<b>67,682</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923669	SC001-547	Aggregative Contingent Estimation (Ace)	12.CCC	339,850
6924141	SC001-555	Energy Management Within Microgrids: Mod	12.CCC	333
6924159	SC001-474	A Core Microfluidic Technology For Bacte	12.CCC	-519
6924178	SC001-0000000556	Chip-Scale Atomic Sensors Beyond The Sta	12.CCC	56,894
6924581	SC001-453	Fy12 Irad -Yr2	12.CCC	532
6925223	SC001-587	Dialysis Like Therapeutics (Dlt)	12.CCC	135,955
6925295	SC001-589	Recovery Algorithms For Folded Compressi	12.CCC	13,274
6925819	SC001-0000000636	Human Social Cultural And Behavioral Sci	12.CCC	42,692
6926233	SC001-630	Robust Collision Avoidance Planning Algo	12.CCC	99,987
6926234	SC001-616	Grid Modeling And Control - Fy13 Irad	12.CCC	107,287

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926235	SC001-622	Analysis And Control Of Opinion Dynamics	12.CCC	155,299
6926301	SC001-0000000621	Design Of Accurate And Repeatable Fixtur	12.CCC	124,325
		<b>Total for 12.CCC</b>		<b>1,075,909</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925106	SC001-592	Research Opportunities In Space And Eart	43.001	91,564
		<b>Total for 43.001</b>		<b>91,564</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926830	SC001-0000000696	Variable Vector Countermeasure Suit (V2S	43.009	78,068
		<b>Total for 43.009</b>		<b>78,068</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924691	SC001-417	Microfluidic 3D Scaffold Assay For Cance	93.396	25,941
		<b>Total for 93.396</b>		<b>25,941</b>
		<b>Total for Draper Laboratory Incorporated</b>		<b>1,782,639</b>

**Arizona State University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926159	SUBAWARD NO. 13-950	Translating Biochemical Pathways To Non-	12.431	126,653
		<b>Total for 12.431</b>		<b>126,653</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924664	SUBAWARD NO. 12-725	Eric For Quantum Energy And Sustainable S	47.041	197,950
6925371	SUBAWARD NO. 12-725	Nsf-Erc Grossman Child	47.041	130,634
6925372	SUBAWARD NO. 12-725	Nsf-Erc Gradecak Child	47.041	108,450
6926052	SUBAWARD NO. 12-920	Edges-2: Detecting First Light And Reion	47.041	98,161
6927703	SUBAWARD NO. 12-920	Fab Eq - Edges System	47.041	9,586
		<b>Total for 47.041</b>		<b>544,781</b>
		<b>Total for Arizona State University</b>		<b>671,434</b>

**Northwestern University**



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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920867	SUBAWARD SP0005442 - PROJ0001738	Multiscale Design And Manufacturing Of H	12.431	164,898
		<b>Total for 12.431</b>		<b>164,898</b>
		<b>Total for Northwestern University</b>		<b>164,898</b>

**The Ohio State University Foundation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918097	60014918	Stochastic Control Of Multi-Scale Networ	12.431	200,883
		<b>Total for 12.431</b>		<b>200,883</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921207	PO RF01227732 / RF01192687 PROJECT NO. 60023094	Automated, Flexible And Massively Parall	47.041	70,016
		<b>Total for 47.041</b>		<b>70,016</b>
		<b>Total for The Ohio State University Foundation</b>		<b>270,899</b>

**University of Utah**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926864	10022273-MIT	Visualization Of Discontinuous Galerkin	12.431	21,993
		<b>Total for 12.431</b>		<b>21,993</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921157	10014858-02	Improving Health Outcomes Through Comput	93.847	26,347
		<b>Total for 93.847</b>		<b>26,347</b>
		<b>Total for University of Utah</b>		<b>48,340</b>

**University of Washington**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918384	SUBAWARD NO. 548656	A Unified Approach To Abductive Inferenc	12.431	104,618
		<b>Total for 12.431</b>		<b>104,618</b>

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Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924726	724454	Nst Engineering Research Center For Sens	47.041	20,937
6925083	724454	Travel	47.041	22,578
6925084	724454	Education/Outreach To Women - Lang	47.041	23,187
6925085	724454	Education/Outreach -Young	47.041	62,252
6925086	724454	Education/Outreach - Jones	47.041	41,417
6925087	724454	Lang Research Child	47.041	109,896
6925088	724454	Tedrake Research Child	47.041	122,465
6925089	724454	Voldman Research Child	47.041	146,784
6925090	724454	Weinstein Research Child	47.041	127,650
6926679	724454	Anikeeva Research	47.041	22,988
		<b>Total for 47.041</b>		<b>700,154</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6916796	SUBCONTRACT NO. 431135	Center For Enabling New Technologies Thr	47.049	-2,463
6926728	SUBCONTRACT NO. 744910	Center For Enabling New Technologies Thr	47.049	121,174
		<b>Total for 47.049</b>		<b>118,711</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925444	733082	Northwest Reference Epigenome Mapping Ce	93.113	213,893
6926444	743356	Northwest Reference Epigenome Mapping Ce	93.113	514,494
		<b>Total for 93.113</b>		<b>728,387</b>
		<b>Total for University of Washington</b>		<b>1,651,870</b>

**Rensselaer Polytechnic Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921314	A71357	Social And Cognitive Networks Academic R	12.630	142,638
		<b>Total for 12.630</b>		<b>142,638</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924635	SUBAWARD A12141	Tms: Defect Modeling Beyond Density Func	81.049	20,027
		<b>Total for 81.049</b>		<b>20,027</b>
		<b>Total for Rensselaer Polytechnic Institute</b>		<b>162,665</b>

**Brown University**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6916449	PO #P996642	Biologically Inspired Flight For Micro A	12.800	7,142
6920882	00000272	Multi-Scale Fusion Of Information For Un	12.800	324,727
6920918	00000272	Willcox Child Account	12.800	247,738
		<b>Total for 12.800</b>		<b>579,607</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924113	SUBAWARD 00000276; P.O. P261163	Multiscale Modeling And Parallel Simulat	93.839	247,491
		<b>Total for 93.839</b>		<b>247,491</b>
		<b>Total for Brown University</b>		<b>827,098</b>

**University of Illinois-Urbana Champaign**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918707	SUBAWARD NO. 2008-02016-3, GRANT CODE A3718	Uliuc Muri: Passive And Active Control Of	12.800	148,144
		<b>Total for 12.800</b>		<b>148,144</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925791	2012-02061-03	Intercity Passenger Rail	20.701	46,765
		<b>Total for 20.701</b>		<b>46,765</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925648	2010-04478-01	Optimizing The Nonlinear Optical Respons	47.041	62,927
		<b>Total for 47.041</b>		<b>62,927</b>
		<b>Total for University of Illinois-Urbana Champaign</b>		<b>257,836</b>

**Aurora Flight Sciences Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922175	AFS10-0454	Afri Sbir Phase Ii Coordinated Sensor Fu	12.800	9,727
6922843	AFS10-0823	Afri Sstr Phase Ii Development Of Multid	12.800	42,537
		<b>Total for 12.800</b>		<b>52,264</b>

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924059	AFS11-0391	Mothercube For Cubesat-Based Synthetic A	12.CCC	3,301
6925161	AFS11-1225	Autonomous Landing At Unprepared Site Fo	12.CCC	110,669
6925498	AFS12-0208	Cubesat Electropray Thruster Assembly	12.CCC	51,190
6925499	AFS12-0207	Distributed Satellite Systems	12.CCC	44,986
6926953	AFS12-1645	Autonomous Aerial Cargo Utility System	12.CCC	231
		<b>Total for 12.CCC</b>		<b>210,377</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924254	AFS11-0557	Aurora Sbir Phase Ii	43.000	103,867
		<b>Total for 43.000</b>		<b>103,867</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926396	AFS12-1121	Control And Propulsion Support For Darpa	43.002	328,934
6926642	AFS12-1121	Lozano - Phoenix Account	43.002	19,356
		<b>Total for 43.002</b>		<b>348,290</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922882	AFS10-0736	Multi-Robot Planetary Exploration Archit	43.CCC	27,401
6924614	AFS11-1222	Spheres Mosr Rdos Phase 2	43.CCC	54,912
		<b>Total for 43.CCC</b>		<b>82,313</b>
		<b>Total for Aurora Flight Sciences Corporation</b>		<b>797,111</b>
<b>Ohio State University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922491	RF01224242	Cryogenic Peltier Cooling	12.800	149,442
6923049	RF01224242	Cryogenic Peltier Cooling - Child Millie	12.800	164,604
		<b>Total for 12.800</b>		<b>314,046</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925099	RF01275008	Iii-V/Active-Si Integration For Low-Cost	81.087	73,799
		<b>Total for 81.087</b>		<b>73,799</b>

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6925945	60030782-PO RF01288377	Role Of Stress-Induced Reduction In Lact	93.213	41,879
		<b>Total for 93.213</b>		<b>41,879</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924149	60032145	Developing A Scientific Workforce Analys	93.859	184
6926603	60037082, PO RF01301723	Developing A Scientific Workforce Analys	93.859	74,357
		<b>Total for 93.859</b>		<b>74,541</b>
		<b>Total for Ohio State University</b>		<b>504,265</b>

**University of California - Berkeley**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920545	SUBAWARD #00006517	Thermodynamics Of Large-Scale Heterogene	12.800	171,831
		<b>Total for 12.800</b>		<b>171,831</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921299	00006931/PO 1607607	Nano-Electro-Mechanical Technologies And	12.910	100,093
		<b>Total for 12.910</b>		<b>100,093</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6914148	SA5284-11210	Synberc: Child Prather	47.041	291,393
6914151	SA5284-11210	Synberc: Child Rettberg	47.041	-6,824
6917043	SA5284-11210	Synberc: Child Kuldell	47.041	12,069
6921117	SA5284-11210	Synberc:Synthetic Biology Engineering	47.041	155,862
6921118	SA5284-11210	Synberc:Synthetic Biology Engineering	47.041	271,148
6921230	00006934	Nsec: Center For Scalable & Integrated N	47.041	65,566
6923299	00007444	Research	47.041	161,793
6923300	00007444	Management	47.041	54,309
6923301	00007444	Equipment	47.041	45,226
6923302	00007444	Research	47.041	164,953
6923303	00007444	Research	47.041	207,970
6923304	00007444	Research	47.041	266,799
6923305	00007444	Research	47.041	165,812
6923306	00007444	Research	47.041	113,888
6923638	00007481	A Study Of Fidelity In Systems Level Des	47.041	76,970

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924793	SA5284-11210	Synerc:Synthetic Biology Engineering	47.041	206,838
6925775	00007444	Research - Swager	47.041	79,341
6926945	00007444	Seed	47.041	20,711
6926946	00007444	Mites	47.041	37,665
6927464	00008052	6927190 Year 1 Funding	47.041	60,515
		<b>Total for 47.041</b>		<b>2,452,004</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923514	00007454/PO 2000018838	Supercdms Soudan	47.049	51,677
		<b>Total for 47.049</b>		<b>51,677</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921266	00006900	Modeling Analysis And Control Of Distrib	47.070	179,809
		<b>Total for 47.070</b>		<b>179,809</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925374	SUB # 7822 PO # 2000087747	Self-Sustaining Thorium Boiling Water Re	81.CCC	64,902
6927700	SUB # 7822 PO # 2000087747	Year 2 Funding	81.CCC	56,722
		<b>Total for 81.CCC</b>		<b>121,624</b>
		<b>Total for University of California - Berkeley</b>		<b>3,077,038</b>
<b>University of Connecticut</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921256	FRS NO. 525227	Chuang Research	12.800	15,828
6921257	FRS NO. 525227	Ketterle Research	12.800	48,472
		<b>Total for 12.800</b>		<b>64,300</b>
		<b>Total for University of Connecticut</b>		<b>64,300</b>
<b>University of California - Irvine</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925016	SUBAWARD NO. 2011-2695	Electrosprayed Heavy Ion And Nanodrop Be	12.800	29,565
6925115	SUBAWARD NO. 2011-2695	Electrosprayed Heavy Ion And Nanodrop Be	12.800	98,548
		<b>Total for 12.800</b>		<b>128,113</b>

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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128,113

128,113

Total for University of California - Irvine

<b>University of New Mexico</b>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>					
6926768		SUBCONTRACT: 271387-875J	(Muri) Innovative Use Of Metamaterials I	12.800	117,232
6927965		SUBCONTRACT: 271387-875J	Metamaterial High Power Microwave Fab-E	12.800	278
			<b>Total for 12.800</b>		<b>117,510</b>
<u>WBS #</u>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925887		433396-433A	Mems Based Millimeter-Scale Advanced The	12.CCC	187,232
			<b>Total for 12.CCC</b>		<b>187,232</b>
			<b>Total for University of New Mexico</b>		<b>304,742</b>

<b>Stanford University</b>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>					
6922501		25081590-44868-B	Muri: Robust And Complex On-Chip Nanopho	12.800	145,494
			<b>Total for 12.800</b>		<b>145,494</b>
<u>WBS #</u>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924341		27834090-50339-A	Securing End Hosts Through Decentralized	12.910	48,253
			<b>Total for 12.910</b>		<b>48,253</b>
<u>WBS #</u>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918770		SUBAWARD 22244450-42533-C	Efri-Copri: Deep Learning In The Mammalia	47.041	2,736
			<b>Total for 47.041</b>		<b>2,736</b>
<u>WBS #</u>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922504		25433430-40367-C	Quantification Of Epistemic Uncertainti	81.124	69,983
			<b>Total for 81.124</b>		<b>69,983</b>
<u>WBS #</u>		<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925013		26699040-47281-C - REQ # 28575360	Center For Cancer Nanotechnology Excell	93.397	47,161

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927103	26699040-47281-C - REQ # 3079615	Center For Cancer Nanotechnology Excellence	93.397	101,440

**Total for 93.397      148,601**

**Total for Stanford University      415,067**

**University of Wisconsin-Madison**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919979	SUBAWARD 124K784	Basic Studies Of Distributed Limiters Fo	12.800	187,447

**Total for 12.800      187,447**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926808	424K351	Enhancement Of Sofc Cathode Electrochemi	81.089	94,049

**Total for 81.089      94,049**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925532	375K351	Resistance And Resiliency In A Natural H	93.859	13,898
6927748	375K351	Year 2: Resistance And Resiliency In A N	93.859	10,834

**Total for 93.859      24,732**

**Total for University of Wisconsin-Madison      306,228**

**Pennsylvania State University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924378	4463-MIT-AFOSR-0192	Unconventional High Density Vertically A	12.800	160,016

**Total for 12.800      160,016**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923446	S11-07	High Intensity Superconducting Cyclotron	12.CCC	266
6923450	S11-07	2.3 Rf System	12.CCC	769,010
6925637	S12-07	Sonar Ping Evading Cloak For Autonomous	12.CCC	22,943

**Total for 12.CCC      792,219**



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Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6895256	2834-MIT-SAO-4018	Data Analysis Of The Advanced Ccd Imagin	43.CCC	172,074
		<b>Total for 43.CCC</b>		<b>172,074</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924565	4482-MIT-NSF-0437	Ionic Electroactive Polymer Actuators Wi	47.041	82,109
6925694	4625-MIT-NSF-8264	Creating Opportunities For Adapation Bas	47.041	50,837
6926596	4654-MIT-DOE-4261	Greater Philadelphia Innovation Cluster	47.041	72,171
6927069	4762-MIT-DOE-4261	Greater Philadelphia Innovation Cluster	47.041	202,777
		<b>Total for 47.041</b>		<b>407,894</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927137	4751-MIT-NSF-0507	What Are Sustainable Climate-Risk Manage	47.05	10,603
		<b>Total for 47.05</b>		<b>10,603</b>
		<b>Total for Pennsylvania State University</b>		<b>1,542,806</b>
<b>Rice University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924728	SUBAWARD NO. R17371	Tunable Phoxonic Band Gap Materials From	12.800	78,368
		<b>Total for 12.800</b>		<b>78,368</b>
		<b>Total for Rice University</b>		<b>78,368</b>
<b>The Broad Institute, Inc.</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926927	5050030-5500000527	Mit-Broad Center For High-Throughput Syn	12.91	113,214
		<b>Total for 12.91</b>		<b>113,214</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924851	SUB NO: 7215130-5500000398	High-Throughput Sequencing Of Chromatic	93.172	2,529
6927074	7210121-6000000617	High-Throughput Sequencing Of Chromatin	93.172	138,917
		<b>Total for 93.172</b>		<b>141,446</b>

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925095	SUB NO: 5500000428-6030040	Functional Genomics Of Neuroplasticity I	93.242	4,951
6926597	SUB NO: 5500000428-6030040 -YR 2	Functional Genomics Of Neuroplasticity I	93.242	222,669
		<b>Total for 93.242</b>		<b>227,620</b>
		<b>Total for The Broad Institute, Inc.</b>		<b>482,280</b>

**University of Memphis**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925964	UI5-40057; PO112113	Design And Implementation Of Negative Au	12.91	10,993
		<b>Total for 12.91</b>		<b>10,993</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925963	UI5-40057; PO0112113	Design And Implementation Of Negative Au	12.CCC	178,513
		<b>Total for 12.CCC</b>		<b>178,513</b>
		<b>Total for University of Memphis</b>		<b>189,506</b>

**Ginkgo BioWorks**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926117	AGRMT DTD 2/9/2012	Environment Dependent Copy Protection Of	12.910	267,201
		<b>Total for 12.910</b>		<b>267,201</b>
		<b>Total for Ginkgo BioWorks</b>		<b>267,201</b>

**Florida Institute for Human and Machine Cognition**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924329	W91CRB-11-1-0001-IHMC1	Fastrunner: High Speed, Efficient, Dynam	12.910	151,948
		<b>Total for 12.910</b>		<b>151,948</b>
		<b>Total for Florida Institute for Human and Machine Cognition</b>		<b>151,948</b>

**University of California-San Diego**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927945	39244040	Porous Si-Based Therapeutic Nanoplatform	12.910	9,421
		<b>Total for 12.910</b>		<b>9,421</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924845	P.O. 10320917	Task 1.2.6 Freeman Child	12.CCC	3,675
6924846	P.O. 10320917	Task 1.1.2 Raskar Child	12.CCC	17,751
6925411	P.O. 10320917	Task 1.2.6 Raskar Child	12.CCC	82,600
6925874	P.O. 10320917	3D Computational Optic Systems For Soldi	12.CCC	77,727
		<b>Total for 12.CCC</b>		<b>181,753</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922644	10307757	Ocean Observatories Initiative	47.050	229,100
6926781	10307757	Lermusiaux Ooi Child	47.050	14,557
		<b>Total for 47.050</b>		<b>243,657</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920513	PO #10261302-005	Center For Nanotechnology For Treatment,	93.399	-1,171
		<b>Total for 93.399</b>		<b>-1,171</b>
		<b>Total for University of California-San Diego</b>		<b>433,660</b>
<b>Raytheon Company</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924506	PO NO. 4400354854	Mit-Bates Linac Infrastructure Work For	12.CCC	199,575
6927038	4200555166	Sensitive Operational Fissionable Threat	12.CCC	120,419
		<b>Total for 12.CCC</b>		<b>319,994</b>
		<b>Total for Raytheon Company</b>		<b>319,994</b>
<b>CFD Research Corporation</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926484	20120074	Design Of Acoustic Metamaterials For Pas	12.CCC	125,565
		<b>Total for 12.CCC</b>		<b>125,565</b>
		<b>Total for CFD Research Corporation</b>		<b>125,565</b>

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**Microelectronics Advanced Research Corp.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920985	NO. 2009-MT-2051	Columbia University	12.CCC	65,608
6920986	NO. 2009-MT-2051	Cornell University	12.CCC	240,293
6920987	NO. 2009-MT-2051	Harvard University	12.CCC	167
6920988	NO. 2009-MT-2051	Penn State	12.CCC	115,698
6920989	NO. 2009-MT-2051	University Of Pennsylvania	12.CCC	64,756
6920990	NO. 2009-MT-2051	Purdue University	12.CCC	303,667
6920991	NO. 2009-MT-2051	Stanford University	12.CCC	259,106
6920992	NO. 2009-MT-2051	Suny Albany	12.CCC	35,981
6920993	NO. 2009-MT-2051	University Of California Berkley	12.CCC	386,444
6920994	NO. 2009-MT-2051	University Of California San Diego	12.CCC	39,164
6920995	NO. 2009-MT-2051	University Of Illinois Chicago	12.CCC	73,400
6920997	NO. 2009-MT-2051	University Of Texas Austin	12.CCC	34,056
6920998	NO. 2009-MT-2051	University Of Texas Dallas	12.CCC	179,392
6921000	NO. 2009-MT-2051	Antoniadis	12.CCC	104,173
6921002	NO. 2009-MT-2051	Dealamo	12.CCC	33,790
6921003	NO. 2009-MT-2051	Fitzgerald	12.CCC	88,004
6921004	NO. 2009-MT-2051	Hoyt	12.CCC	75,069
6921005	NO. 2009-MT-2051	Jing Kong	12.CCC	-2,299
6921006	NO. 2009-MT-2051	Tomas Palacios	12.CCC	10,453
6921010	NO. 2009-MT-2051	Dana Weinstein	12.CCC	28,810
6921011	NO. 2009-MT-2051	Program Admin	12.CCC	187,918
<b>Total for 12.CCC</b>				<b>2,323,650</b>
<b>Total for Microelectronics Advanced Research Corp.</b>				<b>2,323,650</b>

**Quantum Signal LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924764	AGMT. DTD. 9/23/11	Str: Terrain-Dependent Driving Control	12.CCC	-3,214
6925729	SUBAWARD AGMT DTD MAY 15, 2012	High Performance Terrain Modeling	12.CCC	129,208
<b>Total for 12.CCC</b>				<b>125,994</b>
<b>Total for Quantum Signal LLC</b>				<b>125,994</b>

**Duke University**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921607	10-AFRL-1022	Aeromechanics Response In High Performan	12.CCC	92,314
		<b>Total for 12.CCC</b>		<b>92,314</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924916	U19-AIO67798-07	Mechanisms And Mitigation Of Radiation-I	93.855	28,422
		<b>Total for 93.855</b>		<b>28,422</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924804	12-DHS-1036	X-Ray Scatter And Phase Imaging For Expl	97.065	410,356
		<b>Total for 97.065</b>		<b>410,356</b>
		<b>Total for Duke University</b>		<b>531,092</b>

**HDR Engineering**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926583	AGREEMENT DATED 10/1/12	Quantifying Polychlorinated Biphenyls (P	12.CCC	33,315
		<b>Total for 12.CCC</b>		<b>33,315</b>
		<b>Total for HDR Engineering</b>		<b>33,315</b>

**Advanced Technology Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926813	2013-432	Production In An Innovation Economy - Ta	12.CCC	134,147
		<b>Total for 12.CCC</b>		<b>134,147</b>
		<b>Total for Advanced Technology Institute</b>		<b>134,147</b>

**Raytheon BBN Technologies Corp.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925682	14141	Narrative Networks	12.CCC	111,455
6925683	P11412-BBN	Pre-Award Expenses	12.CCC	1,869
		<b>Total for 12.CCC</b>		<b>113,324</b>
		<b>Total for Raytheon BBN Technologies Corp.</b>		<b>113,324</b>

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<b>Metis Design Corporation</b>			<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>		
6923387	AGRMT DATED 1/11/11	Multi-Physics, Multi-Functional Nano-Eng	12.CCC	149,332
6924898	AGMT. DTD. 10/28/11	Cnt-Based Composite Self-Monitoring & De	12.CCC	24,057
6926466	AGRMT DTD. 7/1/12	Integrated Damage Detection System For C	12.CCC	97,309
		<b>Total for 12.CCC</b>		<b>270,698</b>
		<b>Total for Metis Design Corporation</b>		<b>270,698</b>
<b>Kitware, Inc</b>			<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>		
6924171	K000193-S08	Darpa Virat Phase Ii	12.CCC	4,322
		<b>Total for 12.CCC</b>		<b>4,322</b>
		<b>Total for Kitware, Inc</b>		<b>4,322</b>
<b>Digital Fusion Solutions, Inc.</b>			<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>		
6925686	SC-2012-706	Theoretical Studies In Support Of The Da	12.CCC	150,164
6926584	SC-2012-706	Sri Subcontract - Child Hageistein	12.CCC	59,784
		<b>Total for 12.CCC</b>		<b>209,948</b>
		<b>Total for Digital Fusion Solutions, Inc.</b>		<b>209,948</b>
<b>BBN Technologies Corporation</b>			<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>		
6923068	PO #9500010544	Integrated Cognitive Neuroscience Archt	12.CCC	1,470
6925111	PO# 9500011034 BBN 13974	Mobile Reality Analysis For Psychologica	12.CCC	432,983
6925286	PO #9500010544	Integrated Cognitive Neuroscience Archt	12.CCC	520,452
6925307	P.O. #9500010426; BBN REF ID #13901	Piecomm Theory	12.CCC	177,036
6925308	P.O. #9500010426; BBN REF ID #13901	Piecomm Experiment - W	12.CCC	55,080
6925309	P.O. #9500010426; BBN REF ID #13901	Piecomm Experiment B	12.CCC	163,708
6925448	PO 9500010798	Multi-Language Wireless Communication-Ba	12.CCC	102,353

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925497	PO #9500011262	Babelon	12.CCC	191,172
6925644	PO# 9500011034 BBN 13974	Fab Eq - Sociometer System	12.CCC	149
6926362	BBN #14126 UNDER PRIME AWARD W911NF-12-C-0013	Babelon	12.CCC	278,565
6926560	P.O. #9500010426; BBN REF ID #13901	Fabricated Equipment - Vibration-Free Cr	12.CCC	11,632
6926588	PO# 9500011034 BBN 13974	Phase 2 Option	12.CCC	409,982
6926940	PO 9500010798	Multi-Language Wireless Communication-Ba	12.CCC	24,564
6927051	P.O. #9500010426; BBN REF ID #13901	Piecomm Theory Shapiro	12.CCC	99,321
6927052	P.O. #9500010426; BBN REF ID #13901	Piecomm Experiment Wong	12.CCC	39,508
6927089	PO #9500010544	Integrated Cognitive Neuroscience Archit	12.CCC	468,923
		<b>Total for 12.CCC</b>		<b>2,976,898</b>
		<b>Total for BBN Technologies Corporation</b>		<b>2,976,898</b>

**Busek Company, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923199	259-SUB1	Variable Thrust/Specific Impulse Electro	12.CCC	55,855
6923900	N00014-11-M-0193	Strr - Massive Arrays Of Monodisperse Na	12.CCC	1
6925980	AGMT. DTD. 5/23/12	Ultra-High Density Ion Propulsion From I	12.CCC	47,396
		<b>Total for 12.CCC</b>		<b>103,252</b>
		<b>Total for Busek Company, Incorporated</b>		<b>103,252</b>

**BAE Systems Info & Electronic Systems Integration, Inc**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923517	741274	Coverage By Teams Of Autonomous Ground A	12.CCC	76,552
6924057	741274	Roy-Child	12.CCC	47,762
6925100	739532-SLIN 0002	Service-Oriented Netcoded Architecture F	12.CCC	35,363
6925101	739532-SLIN 0002	Service-Oriented Netcoded Architecture F	12.CCC	3,442
6926891	739532-SLIN 0003	Service-Oriented Netcoded Architecture F	12.CCC	43,919
		<b>Total for 12.CCC</b>		<b>207,038</b>
		<b>Total for BAE Systems Info &amp; Electronic Systems Integration, Inc</b>		<b>207,038</b>

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**Boston Dynamics, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924165	AGREEMENT DTD 7/26/11	Cheetah: Fast-Running Quadruped Robot	12.CCC	501,030
6924777	AGREEMENT DTD 7/26/11	Advanced Actuators And High -Speed Maneu	12.CCC	62,573
6925179	AGREEMENT DTD 7/26/11	Fabeq: Test Eq For Hispeed Quad Robots	12.CCC	52,925
6926915	AGREEMENT DTD 7/26/11	Fab Eq: Quadruped Robots	12.CCC	100,086
		<b>Total for 12.CCC</b>		<b>716,614</b>
		<b>Total for Boston Dynamics, Incorporated</b>		<b>716,614</b>

**Lockheed Martin Advanced Technology Laboratories**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924319	4100153694 CLIN 0002	Knowledge Enhanced Compressive Measureme	12.CCC	-4,001
6926035	4100153694	Knowledge Enhanced Compressive Measureme	12.CCC	4,990
6926729	PO 4100734299	Optimus - Open Architecture	12.CCC	21,009
		<b>Total for 12.CCC</b>		<b>21,998</b>
		<b>Total for Lockheed Martin Advanced Technology Laboratories</b>		<b>21,998</b>

**Johns Hopkins University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920512	CONTRACT NO. 960101	Anti-Threat Control Systems (Atcs)	12.CCC	19,124
		<b>Total for 12.CCC</b>		<b>19,124</b>
6924816	SUBAWARD AGMT. NO.2001325344	Efri-M3C: Robust Decoder-Compensator Arc	47.041	118,339
		<b>Total for 47.041</b>		<b>118,339</b>
6918308	SUB UNDER NIH PRIME 2-P01-ES006052	Molecular Biomarkers For Environmental T	93.113	182,510
6918309	SUB UNDER NIH PRIME 2-P01-ES006052	Child - Wogan 6918308	93.113	169,576
		<b>Total for 93.113</b>		<b>352,086</b>



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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924123	2000336980	Institute For Clinical And Translational	93.389	111
		<b>Total for 93.389</b>		<b>111</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925275	SUB U01 CA155758	Analysis Of Signaling And Mechanical Cue	93.396	108,314
6926647	SUB U01 CA155758	Analysis Of Signaling And Mechanical Cue	93.396	53,042
		<b>Total for 93.396</b>		<b>161,356</b>
		<b>Total for Johns Hopkins University</b>		<b>651,016</b>

**Vanderbilt University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925193	VU-DSR #21806-S7	Meta Multi Model Language Suite For Cybe	12.CCC	110,469
6925543	VU-DSR #21807-S8	Meta Ii Design Flow And Implementation	12.CCC	171,777
6926452	VU-DSR #22666-S3	Model-Based Amphibious Racing Challenge	12.CCC	174,371
6927633	VU#1723-S7	Meta Ii Design Flow And Implementation	12.CCC	70,740
6927701	VU#1723-S5	Stochastic Process Decision Methods For	12.CCC	34,610
		<b>Total for 12.CCC</b>		<b>561,967</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924552	VUMC36112	Etiological Studies Of Gastric Carcinoma	93.393	9,782
6926510	VUMC 36112	Etiological Studies Of Gastric Carcinoma	93.393	154,023
		<b>Total for 93.393</b>		<b>163,805</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926720	VUMC38861	Vanderbilt Proteome Characterization Cen	93.394	104,469
		<b>Total for 93.394</b>		<b>104,469</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924991	VUMC 38902	Child - Gifford	93.847	11,887
6926371	VUMC 38902	Rational Maturation Of Beta Cells Based	93.847	308,083
		<b>Total for 93.847</b>		<b>319,970</b>
		<b>Total for Vanderbilt University</b>		<b>1,150,211</b>

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**Scientific Systems Company, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922820	STTR AGMT 1518-1	Real-Time Determination And Prediction O	12.CCC	157,474
6926767	1570-MIT-SSCI	Automated Bayesian Crosscat (Abc) Family	12.CCC	111,188
6927394	1571-MIT-SSCI	Ir/Rf Spark: Ir/Rf Fusion With Stochasti	12.CCC	27,969
		<b>Total for 12.CCC</b>		<b>296,631</b>
		<b>Total for Scientific Systems Company, Incorporated</b>		<b>296,631</b>

**Weston Geophysical Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920794	FA8718-09-C-0013	Estimating The Uncertainty And Predictiv	12.CCC	21,831
6926327	FA9453-12-C-0220	Three-Dimensional Crust And Upper Mantle	12.CCC	48,655
		<b>Total for 12.CCC</b>		<b>70,486</b>
		<b>Total for Weston Geophysical Corporation</b>		<b>70,486</b>

**Zona Technology, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925663	AGMT. DTD. 3/22/12	Sensitivity Analysis For Complex, Multid	12.CCC	29,622
		<b>Total for 12.CCC</b>		<b>29,622</b>
		<b>Total for Zona Technology, Inc.</b>		<b>29,622</b>

**APIC Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921852	AGMT DATED 5-1-10	Flip Program Task E Ge Laser	12.CCC	-1,560
6923897	SUBCONTRACT/PO 27287	Low Power, Wide-Band, Wdm Microphotonic	12.CCC	-2,287
		<b>Total for 12.CCC</b>		<b>-3,847</b>
		<b>Total for APIC Corporation</b>		<b>-3,847</b>

**Teledyne Scientific & Imaging LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920026	G9U535369, LLC GENERAL ORDER 71327	Carbon Based Nanothermal Interface	12.CCC	65,167

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922939	BOU541911, LLC GENERAL ORDER 71327	Cnt/Solder And Graphene/Solder Interface	12.CCC	11,186
		<b>Total for 12.CCC</b>		<b>76,353</b>
		<b>Total for Teledyne Scientific &amp; Imaging LLC</b>		<b>76,353</b>

**International Business Machine**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922817	AGREEMENT NUMBER 4910018860.0	Machine Reading	12.CCC	52,071
6925544	AGREEMENT NUMBER 4911028171.0	Broad Operational Language Translation (	12.CCC	15,462
		<b>Total for 12.CCC</b>		<b>67,533</b>
		<b>Total for International Business Machine</b>		<b>67,533</b>

**Navatek. Ltd.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927535	SUBCONTRACT NO. SCN08096	Hydrodynamic Design And Optimization Of	12.CCC	1,425
		<b>Total for 12.CCC</b>		<b>1,425</b>
		<b>Total for Navatek. Ltd.</b>		<b>1,425</b>

**Triquint Semiconductor, LP**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925290	PO5103795	Gan E/D P Process Development Support For	12.CCC	347,962
6925291	PO #5103199	Darpa Next Project Phase li & lii	12.CCC	139,783
		<b>Total for 12.CCC</b>		<b>487,745</b>
		<b>Total for Triquint Semiconductor, LP</b>		<b>487,745</b>

**Kestrel Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922988	10-C-7026-MIT	Confinement Of New Executable Software B	12.CCC	900,105
		<b>Total for 12.CCC</b>		<b>900,105</b>

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900,105

Total for Kestrel Institute

**Applied Physical Sciences Corp.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925603	APS-11-15-3352-215 ST 2.3	Dsop Subtask 2.3	12.CCC	21,194
6925604	APS-11-15-3352-215 ST 2.4	Dsop Subtask 2.4	12.CCC	-7,150
6925605	APS-11-15-3352-215 ST 2.5	Dsop Subtask 2.5	12.CCC	10,237
6925606	APS-11-15-3352-215 ST 2.6	Dsop Subtask 2.6	12.CCC	12,722
6925607	APS-11-15-3352-215 ST 2.7	Dsop Subtask 2.7	12.CCC	-496
6927664	APS-13-10 SLIN 0001 S.P. 3413-367	Dsop Phase Iii: Slin 0001	12.CCC	36,769
6927665	APS-13-10 SLIN 0001 S.P. 3413-367	Dsop Phase Iii: Slin 0001 (Pre-Award)	12.CCC	85,926

**Total for 12.CCC**

**159,202**

**Total for Applied Physical Sciences Corp.**

**159,202**

**BAE Systems, PLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925496	797597	Finder Program	12.CCC	193,333

**Total for 12.CCC**

**193,333**

**Total for BAE Systems, PLC**

**193,333**

**ThermoAnalytics, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926409	TAI CONTRACT #3428	Prediction Of Near-Field Waves Created B	12.CCC	50,000

**Total for 12.CCC**

**50,000**

**Total for ThermoAnalytics, Inc.**

**50,000**

**Propulsor Technology, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926912	PO 12517	Reliability Prediction For Naval Shaftin	12.CCC	48,534

**Total for 12.CCC**

**48,534**

**Total for Propulsor Technology, Inc.**

**48,534**

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**Q-Peak, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922676	PO55097	Sstr: Phase Ii: Mid-Ir Precision Frequen	12.CCC	13,525
6922851	PO55097	Sstr: Phase Ii: Mid-Ir Precision Frequen	12.CCC	21,020
		<b>Total for 12.CCC</b>		<b>34,545</b>
		<b>Total for Q-Peak, Inc.</b>		<b>34,545</b>

**Science Applications International Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923858	P010069889	Identifying Individual Susceptibility To	12.CCC	106,598
		<b>Total for 12.CCC</b>		<b>106,598</b>
		<b>Total for Science Applications International Corporation</b>		<b>106,598</b>

**Physical Sciences, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924098	SC55664-6290-001	Sstr: Miniature Quantum Gas System Based	12.CCC	8,953
		<b>Total for 12.CCC</b>		<b>8,953</b>
		<b>Total for Physical Sciences, Incorporated</b>		<b>8,953</b>

**URS Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925929	271223/39449823.56520.50000/11 69625	Prospects For Large Scale Production Of	12.CCC	120,179
		<b>Total for 12.CCC</b>		<b>120,179</b>
		<b>Total for URS Corporation</b>		<b>120,179</b>

**ERC, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925056	RS111592	Dynamic Wettability Studies And Oleophob	12.CCC	41,601
		<b>Total for 12.CCC</b>		<b>41,601</b>

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Total for ERC, Inc. **41,601**

**Louis Berger International, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925928	CJF311B3	Cornell-Dubilier Electronics Superfund S	12.CCC	10,989
		<b>Total for 12.CCC</b>		<b>10,989</b>

Total for Louis Berger International, Incorporated **10,989**

**Logos Technologies, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923061	SUB-258-MIT1	Microbial Processes For Jet Fuel Precurs	12.CCC	54,484
		<b>Total for 12.CCC</b>		<b>54,484</b>

Total for Logos Technologies, Inc. **54,484**

**DCG Systems, Inc**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923294	SUBCONTRACT UDR. FA8650-11-C-7105	Development Of Superconducting Nanowire	12.CCC	326,559
		<b>Total for 12.CCC</b>		<b>326,559</b>

Total for DCG Systems, Inc **326,559**

**Aerodyne Research Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922930	STTR AGMT. DTD 9/24/10	Characterizing Jp-10 High Temperature De	12.CCC	65,803
		<b>Total for 12.CCC</b>		<b>65,803</b>
6922883	ARI-10609-03	Sbir Phase Ii: Volatility-Resolved Meas	81.049	11,545
6926516	SUBCONTRACT ARI 10750-2	Biomass To Hydrocarbons By Catalytic Fas	81.049	48,523
		<b>Total for 81.049</b>		<b>60,068</b>

Total for Aerodyne Research Incorporated **125,871**

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<b>Cambridge Electronics, Inc</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926913	AGRMT DATED 11/21/2012	1000-V Gan Power Transistors	12.CCC	25,991	
		<b>Total for 12.CCC</b>		<b>25,991</b>	
		<b>Total for Cambridge Electronics, Inc</b>		<b>25,991</b>	
<b>Sri International</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924161	SUBCONTRACT #206-000035	Plug And Play Navigation Algorithms And	12.CCC	7,405	
		<b>Total for 12.CCC</b>		<b>7,405</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926048	SUBCONTRACT NO. 119-000223	Amisr Operations And Management: Looking	47.050	38,782	
		<b>Total for 47.050</b>		<b>38,782</b>	
		<b>Total for Sri International</b>		<b>46,187</b>	
<b>SYSTEMS &amp; TECHNOLOGY RESEARCH LLC</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6927554	AGREEMTN DATED 2/1/13	Sstr - Forecasting Dynamic Group Behavior	12.CCC	27,613	
		<b>Total for 12.CCC</b>		<b>27,613</b>	
		<b>Total for SYSTEMS &amp; TECHNOLOGY RESEARCH LLC</b>		<b>27,613</b>	
<b>General Electric Global Research</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924910	PO 400103882 ITEM #1	Develop Vehicleforge Crowdsourcing Colla	12.CCC	69,780	
		<b>Total for 12.CCC</b>		<b>69,780</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6925066	PO 400103962, ITEM #1	Modeling Creep-Fatigue-Environment Inter	81.000	75,290	
		<b>Total for 81.000</b>		<b>75,290</b>	
		<b>Total for General Electric Global Research</b>		<b>145,070</b>	

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<b>Illinois Institute of Technology</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926144	SA468-0512-7920	Scalable Robust Metaphor Identification	12.CCC	102,427
		<b>Total for 12.CCC</b>		<b>102,427</b>
<b>Total for Illinois Institute of Technology</b>				<b>102,427</b>
<b>Purdue University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918661	AGMT. NO. 4104-23214	Nanoscale Optical Antenna Array For Cont	12.CCC	-46,879
		<b>Total for 12.CCC</b>		<b>-46,879</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921215	SUBAWARD #4101-32475	Ncn@Mit University Partnership	47.041	-14,715
6924355	AGMT. NO. 4101-43959	A Scalable Nanomanufacturing Machine For	47.041	69,038
6924611	SUBAWARD #4101-44669	Terahertz Field Control For Signal Proce	47.041	102,198
6927170	4101-51804	Network For Computational Nanotechnology	47.041	70,051
		<b>Total for 47.041</b>		<b>226,572</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922873	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	82,263
6922874	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	135,229
6922875	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	162,309
6922876	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	100,982
6924018	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	71,538
6925962	SUBAWARD #4101-38045	Emerging Frontiers Of Science Of Informa	47.070	83,887
		<b>Total for 47.070</b>		<b>636,208</b>
<b>Total for Purdue University</b>				<b>815,901</b>
<b>Industrial Economics, Inc.</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922249	5600-MIT	Identification Of Ocs Renewable Energy S	15.CCC	21,566
		<b>Total for 15.CCC</b>		<b>21,566</b>
<b>Total for Industrial Economics, Inc.</b>				<b>21,566</b>



**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

**Boston University Medical Campus**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925487	9500300555	Low-Temperature Dna Mixture Interpretati	16.560	16,819
<b>Total for 16.560</b>				<b>16,819</b>
<b>Total for Boston University Medical Campus</b>				<b>16,819</b>

**Honeywell**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925813	PO 4204413358	Clean Technologies Development - Option	20.106	76,644
<b>Total for 20.106</b>				<b>76,644</b>
<b>Total for Honeywell</b>				<b>76,644</b>

**National Academy of Sciences**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920927	HR 20-83 (001)	Economic Changes Driving Future Freight	20.200	-1,288
<b>Total for 20.200</b>				<b>-1,288</b>
<b>Total for National Academy of Sciences</b>				<b>-1,288</b>

**University of Maryland - College Park**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924930	Z988401	Ads-B Airb With Alerting Research (Deliv	20.CCC	1,400,778
6924931	Z985801	Ato Strategy And Performance Business Un	20.CCC	17,934
6924989	Z987501	Distributed Mechanisms For Determining N	20.CCC	46,213
6924992	Z987701	Analysis And Modeling Of Passenger Delay	20.CCC	142,635
6925061	Z988203	The Impact Of Oil Prices On The Air Tran	20.CCC	57,455
6925072	Z990301	The Impact Of Air Transportation On U.S.	20.CCC	80,645
6925073	Z990002	Wake Turbulence Analysis And Research To	20.CCC	78,153
<b>Total for 20.CCC</b>				<b>1,823,813</b>
<b>Total for University of Maryland - College Park</b>				<b>1,823,813</b>

**Smithsonian Inst. - Astrophysical Observatory**

## Appendix A-3 - Detail Massachusetts Institute of Technology Federal Research Support - Passthrough - On Campus Fiscal 2013 Expenditures

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6915198	GO7-8099X	Flux Ratio Anomalies In Gravitationally	43.000	29,626
6919581	GO9-0025B	Chandra Observation Of A New Galactic GI	43.000	2,718
6921249	GO9-0018X	The True Nature Of Hd 110432: The Most E	43.000	43,864
6921432	GO0-11054X	Cygnus X-1 Viewed Outside Of Its Seconda	43.000	6,498
6922325	GO0-11058B	Following A Black Hole Candidate X-Ray T	43.000	98
6922844	GO0-11068X	The Cooling Neutron Star In The Super-Ed	43.000	7,306
6923117	GO0-11057B	Transient Lmxbs In Globular Clusters: Mo	43.000	5,334
6923118	GO1-12063X	Validating Neutron Star Radius Measureme	43.000	142
6923396	GO1-12065X	Filling The Gap In Understanding The Win	43.000	3,773
6923397	GO1-12165X	The Outer Limits Of Clusters With Chandr	43.000	17,903
6923398	GO1-12018X	Magnetic Activity In Very Young O-Stars	43.000	18,889
6923494	GO1-12039X	Close Binary Populations In Metal-Rich G	43.000	3,621
6923719	GO1-12054X	Investigating New Integral Sources With	43.000	5,544
6924511	GO1-12062X	Spectral State Dependence Of The Extende	43.000	43,635
6924539	GO1-12119X	Probing The Flaring Activity And Submill	43.000	3,992
6924540	GO1-12049B	Following A Black Hole Candidate X-Ray T	43.000	13,193
6924541	GO1-12181B	Effects Of Coronal Mass Ejection (Cme) P	43.000	1,431
6924542	GO1-12017B	Understanding The Weak Winds: High-Resol	43.000	1,148
6924743	GO2-13006B	Cosmology And Cluster Evolution From The	43.000	34,993
6924744	GO2-13052X	Quasi-Persistent Neutron-Star X-Ray Bina	43.000	15,742
6924745	GO2-13003A	Probing The Unique Morphology And Plasma	43.000	22,690
6924746	GO1-12045X	Crustal Cooling Of The Neutron Star In E	43.000	13,567
6924820	GO1-12055B	Transient Lmxbs In Globular Clusters: Mo	43.000	1,807
6925032	GO2-13105B	Colliding Galaxies Arp 256 And Ngc 5754/	43.000	5,014
6925397	GO1-12058B	A Long Multiwavelength Study Of Grs 1915	43.000	38
6925402	GO2-13050A	Testing The Wind-Jet Connection In A Bla	43.000	10,003
6925445	GO2-13110A	Chandra Hetg Ultra-Deep Gratings Spectro	43.000	62,987
6925446	GO2-13152X	To The Outer Limits Of Clusters With Cha	43.000	17,103
6925474	AR2-13009B	A Serendipitous 695-Ks Hetg Observation	43.000	4,398
6925507	GO2-13048X	An Accurate X-Ray Position Of The Neutro	43.000	6,076
6925654	GO2-13034X	A Further Drop Into Quiescence By The Ne	43.000	8,175
6925681	GO2-13029X	Close Binary Populations In Metal-Rich G	43.000	7,770
6925685	GO2-13035X	Investigating New Integral Sources With	43.000	9,488
6926392	GO2-13061X	The Shortest Orbital Period Black-Hole X	43.000	15,167
6926859	GO2-13101B	Hot Gaseous Halos Around Superthin Galax	43.000	4,972
6927154	GO3-14031X	Crust Cooling Of Accretion Heated Neutro	43.000	5,739
6927223	GO2-13045B	Transient Lmxbs In Globular Clusters: Mo	43.000	1,898
6927390	GO3-14092B	Galaxies In Collision: Ngc 2207 & Ic 216	43.000	11,608
6927479	GO3-14080X	Studying Particle Acceleration And Eject	43.000	28,729
<b>Total for 43.000</b>				<b>496,679</b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927465	GO2-13060X	The Cooling Neutron Star In The Super-Ed	43.001	2,992
		<b>Total for 43.001</b>		<b>2,992</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6895251	SV3-73016	Support Of The Chandra X-Ray Center (Cxc	43.CCC	167,011
6895252	SV3-73016	Support Of The Chandra X-Ray Center (Cxc	43.CCC	1,284,182
6895253	SV3-73016	Support Of The Chandra X-Ray Center (Cxc	43.CCC	8,656
6895254	SV3-73016	Support Of The Chandra X-Ray Center (Cxc	43.CCC	1,555,910
6895255	SV3-73016	Support Of The Chandra X-Ray Center (Cxc	43.CCC	686,874
6919170	SV9-79008	Professional Services Related To The Tra	43.CCC	458
6923825	GO1-12053X	Precise Localization Of Transient Low-Ma	43.CCC	3,513
6925506	SV2-82011	Participation In The Stability Issues An	43.CCC	22,541
6926090	G02-13038X	Precise Localization Of Transient Low-Ma	43.CCC	14,716
6926210	G02-13131A	Variability And Particle Acceleration In	43.CCC	3,313
6926645	SV2-82023	Acis Science Support For The Chandra Pro	43.CCC	281,305
6927059	SV3-83001	Mit Participation In Phase C/D Activitie	43.CCC	29,693
		<b>Total for 43.CCC</b>		<b>4,058,172</b>
		<b>Total for Smithsonian Inst. - Astrophysical Observatory</b>		<b>4,557,843</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919144	131225-02	Astro-Comb Optical Wavelength Calibrator	43.000	32,819
		<b>Total for 43.000</b>		<b>32,819</b>
		<b>Total for Harvard College Observatory</b>		<b>32,819</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6899477	HST-GO-10518.01-A	Dark Matter And The Missing Imaging Of	43.000	25,642
6922949	HST-GO-12008.03-A	Primordial Formation Of Close Binaries I	43.000	74
6923081	HST-GO-12181.08-A	The Atmospheric Structure Of Giant Hot E	43.000	19,743
6923688	HST-GO-12261-01-A	Resolving The Pictor A Jet	43.000	2,556
6925695	HST-GO-12746.01-A	Close Binary Populations In Metal-Rich G	43.000	71
6925805	HST-GO-11622.03-A	A Search For Water And Methane On A Nept	43.000	21,406
		<b>Total for 43.000</b>		<b>69,492</b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

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69,492

Total for Space Telescope Science Institute

**Baylor College of Medicine**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917899	SA01604	Sensorimotor Display And Control To Enha	43.000	1,405
6920367	HFP02001	Human Automation Interactions And Perfor	43.000	186,063
6924078	SA01604	Sensorimotor Display And Control To Enha	43.000	92,359
6924079	NBPF 02001	Validation Of Assessment Tests And Count	43.000	5,636
6926355	NBPF 02001	Validation Of Assessment Tests And Count	43.000	214,188
<b>Total for 43.000</b>				<b>499,651</b>

**Baylor College of Medicine**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922879	PO 5600594550-101321035	Modulation Of Nf-Kb Signaling By Immunop	93.847	63,029
<b>Total for 93.847</b>				<b>63,029</b>

**Baylor College of Medicine**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924866	SHOPPING CART NO. 101532959 PRIME AWARD NO. 5-PN-2EY016525-08	Center For Protein Folding Machinery	93.867	25,538
6924913	SHOPPING CART NO. 101532959 PRIME AWARD NO. 5-PN-2EY016525-08	Center For Protein Folding Machinery - H	93.867	34,343
6925052	PO 101539551, PRIME 2-R56-AI075208-03	Structures Of The Portal Vertex In Ds Dn	93.867	49,188
6926557	SHOPPING CART NO. 101686700 PRIME AWARD NO. 5-PN-2EY016525-08	Center For Protein Folding Machinery: Ye	93.867	141,108
6926558	SHOPPING CART NO. 101686700 PRIME AWARD NO. 5-PN-2EY016525-08	Center For Protein Folding Machinery: Ye	93.867	288,684
<b>Total for 93.867</b>				<b>538,861</b>

Total for Baylor College of Medicine

**California Institute of Technology**

1,101,541

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
Federal Research Support - Passthrough - On Campus  
Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922881	65P-1089493	High-Resolution Mars Polar Stratigraphy	43.000	23,270
		<b>Total for 43.000</b>		<b>23,270</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927547	44A-1093689	Analysis Of Nustar Observations Of Sgr A	43.CCC	18,016
		<b>Total for 43.CCC</b>		<b>18,016</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917535	SUBAWARD NO. 75ADV-1085563	Project Management - Salaries And Wages	47.049	399,416
6917537	SUBAWARD NO. 75ADV-1085563	System Engineering - Salaries And Wages	47.049	80,587
6917539	SUBAWARD NO. 75ADV-1085563	Si.12.M.Laa Seismic Lead - Salaries And	47.049	56,146
6917541	SUBAWARD NO. 75ADV-1085563	Seismic Fabrication - Salaries And Wages	47.049	46,809
6917545	SUBAWARD NO. 75ADV-1085563	Suspensions Fabrication - Salaries And W	47.049	25,627
6918488	SUBAWARD #68D-1086050	Powering The Planet: A Chemical Bonding	47.049	258,769
6918489	SUBAWARD #68D-1086050	Powering The Planet: A Chemical Bonding	47.049	239,374
6918865	SUBAWARD #68D-1086050	Powering The Planet: A Chemical Bonding	47.049	391,224
6918882	SUBAWARD NO. 75-1086390	Ligo Operations: Detector Alignment Desi	47.049	709,627
6918883	SUBAWARD NO. 75-1086390	Ligo Operations: Detector Length Control	47.049	184,872
6918884	SUBAWARD NO. 75-1086390	Ligo Operations: Laboratory Operations	47.049	570,682
6918885	SUBAWARD NO. 75-1086390	Ligo Operations:Project Management	47.049	202,088
6918886	SUBAWARD NO. 75-1086390	Ligo Operations: Project Administration	47.049	149,136
6918887	SUBAWARD NO. 75-1086390	Ligo Operations: General Computing Supp	47.049	906,667
6918889	SUBAWARD NO. 75-1086390	Ligo Operations: Stochastic Forces S&W	47.049	259,369
6918890	SUBAWARD NO. 75-1086390	Ligo Operations: Fabrication - Adaptive	47.049	895
6922385	SUBAWARD NO. 75ADV-1085563	Interferometer Sensing And Control Fabri	47.049	67,692
6922568	SUBAWARD NO. 75ADV-1085563	Is.12.M.Laa Isc Subsystem Management - S	47.049	39,329
6922569	SUBAWARD NO. 75ADV-1085563	In.10.M.Laa Installation Mgmt Mit	47.049	122,014
6922570	SUBAWARD NO. 75ADV-1085563	In.20.M.Laa Installation Technical Sup	47.049	295,446
6923033	SUBAWARD NO. 75-1086390	Ligo Ops Fabe Suspended Instrument Platf	47.049	4,805
6925472	SUBAWARD NO. 75-1086390	Ligo Ops Filter Cavity	47.049	51,306
6926807	SUBAWARD NO. 75-1086390	Ligo Ops 1.1.5 Ligo India (Cit)	47.049	43,598
6927157	SUBAWARD NO. 75ADV-1085563	Pm.15.M.Laa H2 Storage Labor Mit	47.049	14,197
		<b>Total for 47.049</b>		<b>5,119,675</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924765	19-1091542	Efri: Miks: Notch Signaling In Colon Can	47.074	154,879
		<b>Total for 47.074</b>		<b>154,879</b>

**Appendix A-3 - Detail  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921338	51A-1088245	ARRA - Edges: An Ultra-Clean Spectrometer For F	47.082	19,864
		<b>Total for 47.082</b>		<b>19,864</b>
		<b>Total for California Institute of Technology</b>		<b>5,335,704</b>

**Applied Physics Lab of Johns Hopkins**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927060	111556	Are Saturn Tori Variable?	43.000	10,968
		<b>Total for 43.000</b>		<b>10,968</b>
		<b>Total for Applied Physics Lab of Johns Hopkins</b>		<b>10,968</b>

**CalTech - Jet Propulsion Lab**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6899758	1283622	Voyager Interstellar Mission (Vim) Plasm	43.000	335,707
		<b>Total for 43.000</b>		<b>335,707</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917472	SUBCONTRACT NO. 1335484	Soil Moisture Mission Science And Produc	43.CCC	258,015
6919652	RSA NO. 1376303	Exoplanet Hht-P.11B Secondary Transit Ob	43.CCC	1,914
6922367	RSA NO. 1421387	A Survey Of Exoplanetary Spin-Orbit Angl	43.CCC	178
6922750	RSA NO. 1417386	Towards Earth And Beyond: The GJ1214 Opp	43.CCC	69,815
6923676	SUBCONTRACT 1428190	Estimating The Circulation And Climate O	43.CCC	278,042
6924809	RSA NO. 1443398	Minimalistic Robot For All Access Surfac	43.CCC	1,138
6924867	SUBCONTRACT 1444168	Strelley Pool Formation	43.CCC	10,204
6925312	SUBCONTRACT 1449788	Benchmarking Thermolysis And Pyrolysis O	43.CCC	313,693
6925531	SUBCONTRACT 1453629	Planning For Mit Comet Magnetization Inv	43.CCC	15,501
6925716	RSA NO. 1455459	Surp: The Science Data Pipeline And Obse	43.CCC	41,733
6925925	SUBCONTRACT NO. 1458540	Statistical Risk Estimation For Communic	43.CCC	43,603
6926224	RSA NO. 1463042	Keck 2012 B Award: Critical Support Data	43.CCC	11,669
6927191	RSA 1474483	Characterization Of A Low-Density Exo-Ne	43.CCC	36,048
6927192	RSA 1472797	The Eccentric Exoplanets: A Survey Of A	43.CCC	26,033
6927224	RSA 1474090	Critical Support Data For Seasonal Chang	43.CCC	4,904
6927476	PO NO. 1475853	Trade Space Evaluation Of Multi-Mission	43.CCC	5,312
		<b>Total for 43.CCC</b>		<b>1,117,802</b>
		<b>Total for CalTech - Jet Propulsion Lab</b>		<b>1,453,509</b>

**Appendix A-3 - Detail**  
**Massachusetts Institute of Technology**  
**Federal Research Support - Passthrough - On Campus**  
**Fiscal 2013 Expenditures**

UNIVERSITY OF CALIFORNIA - FEDERAL PURCHASES LAW

1,400,000

<b>University of Colorado</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6924661	PO # 1000017191	Thermospheric Oxygen Mapper	43.002
6925120	PO # 1000017191	Fabricated Equipment - Ftir For Thz Freq	43.002
		<b>Total for 43.002</b>	<b>97,812</b>
		<b>Total for University of Colorado</b>	<b>97,812</b>
<b>University of Alabama in Huntsville</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6925492	SUB2012-055	Informal Representation And Team Decisio	43.008
		<b>Total for 43.008</b>	<b>39,399</b>
		<b>Total for University of Alabama in Huntsville</b>	<b>39,399</b>
<b>Valador, Inc.</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6925860	AGMT DTD 3/28/12	Nasa Innovative Mars Habitat Design Conc	43.CCC
		<b>Total for 43.CCC</b>	<b>30,963</b>
		<b>Total for Valador, Inc.</b>	<b>30,963</b>
<b>National Institute of Aerospace</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6924548	T09-6200-MIT	Propulsion/Airframe Noise Scattering Pre	43.CCC
		<b>Total for 43.CCC</b>	<b>71,133</b>
		<b>Total for National Institute of Aerospace</b>	<b>71,133</b>
<b>University of Arizona</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6924918	PURCHASE ORDER 6473	Osiris-Rex Near-Earth Asteroid Sample Re	43.CCC
6926427	PURCHASE ORDER 30938	Gussto Phase A: Gal/Xgal U/Lbd Spectrosc	43.CCC
		<b>Total for 43.CCC</b>	<b>67,668</b>

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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 Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926403	PO 47602	Biosynthesis Of Deazapurine_Containing M	93.859	1,819
		<b>Total for 93.859</b>		<b>1,819</b>
		<b>Total for University of Arizona</b>		<b>69,487</b>

**Florida Institute of Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926774	201632	Utilizing Spheres For Acquisition Of Low	43.CCC	156,516
		<b>Total for 43.CCC</b>		<b>156,516</b>
		<b>Total for Florida Institute of Technology</b>		<b>156,516</b>

**Advanced Mechanical Technologies, Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919874	AMTI-JN2415	Sstr: Cryogenic Cooling Technologies For	43.CCC	-674
		<b>Total for 43.CCC</b>		<b>-674</b>
		<b>Total for Advanced Mechanical Technologies, Incorporated</b>		<b>-674</b>

**ExplorationWorks**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920945	AGREEMENT DATED 10/9/09	Montana'S Big Sky Space Education: The N	43.CCC	44,167
		<b>Total for 43.CCC</b>		<b>44,167</b>
		<b>Total for ExplorationWorks</b>		<b>44,167</b>

**Boeing Research & Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927658	PURCHASE CONTRACT NO. 769209	Revolutionary Computational Aerosciences	43.CCC	14,780
		<b>Total for 43.CCC</b>		<b>14,780</b>
		<b>Total for Boeing Research &amp; Technology</b>		<b>14,780</b>



**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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**Washington University in St. Louis**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925859	SUB WU-12-250 PO 2917814T	Path Planning And Retrieval Of Terrain P	43.CCC	29,173
6927471	SUB WU-12-250 PO 2917814T	Single Wheel Terramechanics Test Rig	43.CCC	2,164
		<b>Total for 43.CCC</b>		<b>31,337</b>
		<b>Total for Washington University in St. Louis</b>		<b>31,337</b>

**Arkyd Astronautics, Inc**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926039	AGREEMENT DATED 9/19/12	Multi-Functional Object Subsystem Enabli	43.CCC	62,498
		<b>Total for 43.CCC</b>		<b>62,498</b>
		<b>Total for Arkyd Astronautics, Inc</b>		<b>62,498</b>

**University of Hawaii**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923680	NNX11AB32G SUBAWARD NO. Z	Lunar Paleomagnetism	43.CCC	10,455
		<b>Total for 43.CCC</b>		<b>10,455</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6914649	Z792093-11 UNDER PRIME AWARD DBI-424599	C-More Child - Chisholm	47.074	247,198
6914650	Z792093-11 UNDER PRIME AWARD DBI-424599	C-More Child - Delong	47.074	178,826
6914651	Z792093-11 UNDER PRIME AWARD DBI-424599	C-More Child - Boyle	47.074	160,799
		<b>Total for 47.074</b>		<b>586,823</b>
		<b>Total for University of Hawaii</b>		<b>597,278</b>

**Lowell Observatory**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6666200	PO# 24081/ PRIME CONTRACT NAS2-97-001	Sofia Instrument Development And Operati	43.CCC	100,741
		<b>Total for 43.CCC</b>		<b>100,741</b>

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Total for Lowell Observatory **100,741**

**Carnegie Institution of Washington**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920454	SUBCONTRACT NO. DTM-325-1018	Messenger Discovery Mission To Mercury	43.CCC	225,644

**Total for 43.CCC**

**Total for Carnegie Institution of Washington**  
**225,644**

**Southwest Research Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6893453	299433Q/SUB UNDER NASW-02008	New Horizon Science Team Member 05310-So	43.CCC	31,231

**Total for 43.CCC**

**Total for Southwest Research Institute**  
**31,231**

**LongWave Photonics LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924219	STTR AGMT UNDERNNX11CC66C	Phase II Sttr: Terahertz Quantum Cascade	43.CCC	137,053

**Total for 43.CCC**

**Total for LongWave Photonics LLC**  
**137,053**

**ESPACE**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925357	SBIR UNDER NSF-IIP-1143131	Sbir Phase I: Tunable Terahertz Quantum	47.041	-4,535

**Total for 47.041**

**Total for LongWave Photonics LLC**  
**-4,535**

**ESPACE**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925018	AGMT. DTD. 6/1/12	Peta Phase 2	43.CCC	151,522

**Total for 43.CCC**

**Total for ESPACE**  
**151,522**

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**University of Louisville Research Foundation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920973	SUBAWARD NO. ULRF 09-0532-01	Enhancement Of Exciton Dissociation In	47.000	9,624
<b>Total for 47.000</b>				<b>9,624</b>
<b>Total for University of Louisville Research Foundation</b>				<b>9,624</b>

**Auburn University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924843	SUBAGREEMENT 11-PHYS-200373-MIT	Design Of A Superconducting Magnet Syste	47.041	160,673
<b>Total for 47.041</b>				<b>160,673</b>
<b>Total for Auburn University</b>				<b>160,673</b>

**University of Texas - Austin**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918867	UTA08.950	The Interface Of Infracr, Markets, & Nat	47.041	237,312
<b>Total for 47.041</b>				<b>237,312</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926041	UTA12-000624	Analysis Of Dynamic, Flexible Nox And So	66.509	69,578
<b>Total for 66.509</b>				<b>69,578</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6914675	SUBAWARD UTA06-845	Neti: Mechanisms Leading To Co-Existence	81.089	9,532
<b>Total for 81.089</b>				<b>9,532</b>
<b>Total for University of Texas - Austin</b>				<b>316,422</b>

**Cambrian Innovation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926855	AGMT DATED 11/24/2012	A Low-Cost Real-Time Bio-Electrochemical	47.041	16,443

**Appendix A-3 - Detail  
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16,443  
16,443

Total for 47.041

Total for Cambrian Innovation

**University of Massachusetts - Amherst**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924482	11-006642 E 00	Metrology And Process Modeling For Roll-	47.041	105,592
<b>Total for 47.041</b>				<b>105,592</b>
<b>Total for University of Massachusetts - Amherst</b>				<b>105,592</b>

**NEROC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6899471	AST-0457585	Mileura Wide-Field Array Science And Tec	47.049	-10,241
6918926	AST-0821321	Mri: Acquisition Of An Archive For The M	47.049	107,787
6920030	AST-0908731	Ultra Wideband Vibi:Origins Of Extragala	47.049	745
6920133	AST-0905844	Ati: High Sensitivity Vibi Arrays: Towar	47.049	688,331
6920405	AST-09222984	Mri: Acquisition Of Stable Hydrogen-Maser	47.049	29,239
6924648	AST-1126433	Mri: Development Of An Alma Beamformer F	47.049	401,624
6924649	AST-1126433	Mri: Development Of An Alma Beamformer -	47.049	321,194
6925414	AST-0905844	Fab Equip - Mark 5C/Mark 6 Recording Sys	47.049	21,985
6926388	AST-1211539	Spatially Resolving The Black Hole Event	47.049	166,417
<b>Total for 47.049</b>				<b>1,727,081</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918253	DUE-0817136	Undergraduate Science And Technology Edu	47.076	69
<b>Total for 47.076</b>				<b>69</b>
<b>Total for NEROC</b>				<b>1,727,150</b>

**University of Chicago**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920629	CHE-0943639	Center For Energetic Non-Equilibrium Che	47.049	-1,657
<b>Total for 47.049</b>				<b>-1,657</b>
<b>Total for University of Chicago</b>				<b>-1,657</b>

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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<b>Emory University</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926702	S880659/CHE-1205646	Cci Center In Selective C-H Functionaliz	47.049	70,431	
		<b>Total for 47.049</b>		<b>70,431</b>	
		<b>Total for Emory University</b>		<b>70,431</b>	
<b>University of Wisconsin</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926610	123405535	Data Handling And Analysis Infrastructur	47.049	20,617	
		<b>Total for 47.049</b>		<b>20,617</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6923278	162K971	Multistability In Biological Networks	93.859	-4,469	
6927040	162K971	Multistability In Biological Networks	93.859	30,861	
		<b>Total for 93.859</b>		<b>26,392</b>	
		<b>Total for University of Wisconsin</b>		<b>47,009</b>	
<b>Northeastern University</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924880	501936	Neu Sub Years 1-2	47.050	88,551	
		<b>Total for 47.050</b>		<b>88,551</b>	
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6923334	5001937050	Acquisition Of Prosodic Control In Typic	93.865	7,265	
		<b>Total for 93.865</b>		<b>7,265</b>	
		<b>Total for Northeastern University</b>		<b>95,816</b>	
<b>UNAVCO</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6917525	SUB. UNDER EAR-735156-01	Unavco Community And Facility: Geodesy A	47.050	56,287	
6927138	EAR-1042906	Unavco Gps Analysis Center Coordinator:	47.050	115	
		<b>Total for 47.050</b>		<b>56,402</b>	

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 Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918636	SUB. UNDER EAR-0732947-03	Pbo Analysis Center Coordinator: Collabo	47.082	230,351
		<b>Total for 47.082</b>		<b>230,351</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927739	S13-EAR1255679-S1	Unavco Community And Facility Bridge Pro	47.CCC	54,070
		<b>Total for 47.CCC</b>		<b>54,070</b>
		<b>Total for UNAVCO</b>		<b>340,823</b>

**Univ. Corporation For Atmos. Research**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925131	SUBAWARD Z12-54911	Favar, Integration, Release, Testing And	47.050	41,150
		<b>Total for 47.050</b>		<b>41,150</b>
		<b>Total for Univ. Corporation For Atmos. Research</b>		<b>41,150</b>

**University of California - San Francisco**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924823	6759SC & DPA 557686-2117	Collaborative Research: Programming The	47.070	290
		<b>Total for 47.070</b>		<b>290</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924455	6680SC	Project 1	93.855	165,945
6924456	6681SC	Project 2	93.855	99,696
		<b>Total for 93.855</b>		<b>265,641</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926089	541079-21400	A Toolkit For Light-Control Of Molecular	93.859	117,139
		<b>Total for 93.859</b>		<b>117,139</b>
		<b>Total for University of California - San Francisco</b>		<b>383,070</b>

**University of North Texas**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927582	PO NT752-0000139990 SUBAWARD NO. GF1646-1	Mri: Cloudcar - Development Of A Diverse	47.070	12,906
		<b>Total for 47.070</b>		<b>12,906</b>
		<b>Total for University of North Texas</b>		<b>12,906</b>

**Indiana University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920381	PO 645036 SUB IUB-4840215-MIT	Transactive Art: An Inclusive Game-Base	47.070	9,330
		<b>Total for 47.070</b>		<b>9,330</b>
		<b>Total for Indiana University</b>		<b>9,330</b>

**Children's Hospital Boston**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920942	80295	Cps: Medium: Programmable Second Skin To	47.070	60,381
		<b>Total for 47.070</b>		<b>60,381</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925412	0000448921	Developmental Biology Of Human Erythro	93.839	105,369
		<b>Total for 93.839</b>		<b>105,369</b>
		<b>Total for Children's Hospital Boston</b>		<b>165,750</b>

**National Bureau of Economic Research, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925482	'SUBAWARD NO. 223557000796617000	Year 1 Expenses-Property Tax Experiment:	47.075	45,158
		<b>Total for 47.075</b>		<b>45,158</b>
		<b>Total for National Bureau of Economic Research, Inc.</b>		<b>45,158</b>

**Brooklyn College of the City University of New York**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926992	40C68A	Learning Mathematics Of The City In The	47.076	31,719
		<b>Total for 47,076</b>		<b>31,719</b>
		<b>Total for Brooklyn College of the City University of New York</b>		<b>31,719</b>

**Missouri Botanical Garden**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927023	NSF05702MIT	A Full Scale Development Proposal Inform	47.076	140,676
		<b>Total for 47,076</b>		<b>140,676</b>
		<b>Total for Missouri Botanical Garden</b>		<b>140,676</b>

**Civilian Research and Development Foundation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924702	ARBI-7036-BA-11	Identification Of Anti-Dengue Virus Host	47.079	1,032
6925536	RUB2-2991-NO-10	Measuring, Monitoring, Modeling And Pred	47.079	1,648
		<b>Total for 47,079</b>		<b>2,680</b>
		<b>Total for Civilian Research and Development Foundation</b>		<b>2,680</b>

**SimBiotic Software**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926892	1227245	Dip: Using Dynamic Models To Assess High	47.080	36,864
		<b>Total for 47,080</b>		<b>36,864</b>
		<b>Total for SimBiotic Software</b>		<b>36,864</b>

**Wayne State University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924618	WSU11095	Mri: Development Of A Chirped-Pulse, Fou	47.081	35,425
		<b>Total for 47,081</b>		<b>35,425</b>
		<b>Total for Wayne State University</b>		<b>35,425</b>

**Drexel University**



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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924175	235660	ARRA - Miri-R2: Development Of A Common Platform	47.082	123,234
		<b>Total for 47.082</b>		<b>123,234</b>
		<b>Total for Drexel University</b>		<b>123,234</b>

**Veterans Affairs Maryland Health Care System, VAMHCS**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927562	PO#512-C30134	Skywalker Safety: Rehabilitation Potenti	64.CCC	30,316
		<b>Total for 64.CCC</b>		<b>30,316</b>
		<b>Total for Veterans Affairs Maryland Health Care System, VAMHCS</b>		<b>30,316</b>

**Cypress Hills Local Development Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927606	X5-96298512-0	Cypress Hills Air Quality (Chaq) Initiat	66.610	1,043
		<b>Total for 66.610</b>		<b>1,043</b>
		<b>Total for Cypress Hills Local Development Corporation</b>		<b>1,043</b>

**Calabazas Creek Research, Inc**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927699	AGMT. DTD. 4/10/13	Gyrotron Internal Mode Converter Researc	81.049	100,164
		<b>Total for 81.049</b>		<b>100,164</b>
		<b>Total for Calabazas Creek Research, Inc</b>		<b>100,164</b>

**Plasma Processes, LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926127	1012-001-JSO-06152012	Advanced Icrf Antennas For Fusion Energy	81.049	76,363
		<b>Total for 81.049</b>		<b>76,363</b>
		<b>Total for Plasma Processes, LLC</b>		<b>76,363</b>

**Jefferson Science Associates, LLC**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926116	12-P2092	Moller Engineering	81.049	12,775
		<b>Total for 81.049</b>		<b>12,775</b>
		<b>Total for Jefferson Science Associates, LLC</b>		<b>12,775</b>

**Supercon**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925509	PO 104250	Development Of High Current 2G Hts Condu	81.049	199,314
6925873	PO NO. 104708	Development Of Joint Methods For 2G Hts	81.049	50,030
		<b>Total for 81.049</b>		<b>249,344</b>
		<b>Total for Supercon</b>		<b>249,344</b>

**Luna Innovations, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922086	STTR SUBCONTRACT UNDER DE - C8ER86348 (1927-DOE-2T)	Low Drift Temperature Sensor Gen Iv Simu	81.049	40,426
6924925	STTR SUBCONTRACT UNDER DE - C8ER86348 (1927-DOE-2T)	Fab Eq - Luna Htif Assembly	81.049	3,371
		<b>Total for 81.049</b>		<b>43,797</b>
		<b>Total for Luna Innovations, Inc.</b>		<b>43,797</b>

**SURA / Jefferson Lab**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921867	P.O. 10-P2471	Experimental Research Supervision At Jef	81.049	11,856
		<b>Total for 81.049</b>		<b>11,856</b>
		<b>Total for SURA / Jefferson Lab</b>		<b>11,856</b>

**Advanced Conductor Technologies LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925486	AGMT. DTD. 2/20/12	Recco Coated Conductor Cables For Fusion	81.049	27,703
6927560	AGMT. DTD. 2/19/13	Development Of Joints For Corc (Cable-Ov	81.049	17,490
6927763	AGMT. DTD. 4/22/13	Recco Coated Conductor Cables For Fusion	81.049	5,880

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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Total for 81,049 51,073  
 Total for Advanced Conductor Technologies LLC 51,073

<b>University of Delaware</b>		<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926757	30190		ARRA - Macromolecular Acid Catalysts For Lignoc	81,049		33,143
<b>Total for 81,049</b>						<b>33,143</b>
<b>University of Delaware</b>		<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925185	PO NO. 28002		Low Cost Back Contact Heterojunction Sol	81,087		526,611
<b>Total for 81,087</b>						<b>526,611</b>
<b>Total for University of Delaware</b>						<b>559,754</b>

<b>University of California/Davis</b>		<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6914503	SUBAWARD NO. SUB 0600176		Institute For Quantum Simulations Of Mat	81,049		4,183
<b>Total for 81,049</b>						<b>4,183</b>

<b>University of California/Davis</b>		<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926330	SUBAWARD AGREEMENT NO. 201017009-01		Mechanisms Of How Nuclear Envelope Bridg	93,859		64,518
<b>Total for 93,859</b>						<b>64,518</b>
<b>Total for University of California/Davis</b>						<b>68,701</b>

<b>Nemometrics LLC</b>		<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920781	AGMT DTD 11/03/09 UNDER DE-SC0002231		Strr Phase I: Lighting With No Watt Lef	81,049		32,373
<b>Total for 81,049</b>						<b>32,373</b>
<b>Total for Nemometrics LLC</b>						<b>32,373</b>

**Detroit Diesel Corporation**

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923260	PO # 1590013151	ARRA - Fuel-Economy Improvement Via Low-Engine-	81.049	198,628
		<b>Total for 81.049</b>		<b>198,628</b>
		<b>Total for Detroit Diesel Corporation</b>		<b>198,628</b>

**The Research Foundation - Stony Brook University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920499	51055	Northeastern Chemical Energy Storage Cen	81.049	260,690
		<b>Total for 81.049</b>		<b>260,690</b>
		<b>Total for The Research Foundation - Stony Brook University</b>		<b>260,690</b>

**Alstom Power**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926029	4100198339 ITEM 10	Cost Of Energy Reduction For Offshore Te	81.087	58,782
		<b>Total for 81.087</b>		<b>58,782</b>
		<b>Total for Alstom Power</b>		<b>58,782</b>

**Bay Area Photovoltaic Consortium**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927896	J-A00-MIT-51077	Design Principles And Defect Tolerances	81.087	10,759
		<b>Total for 81.087</b>		<b>10,759</b>
		<b>Total for Bay Area Photovoltaic Consortium</b>		<b>10,759</b>

**General Motors Company**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923761	GVS01289 PRKY4001 001	Research, Development, And Demonstration	81.087	143,128
		<b>Total for 81.087</b>		<b>143,128</b>
		<b>Total for General Motors Company</b>		<b>143,128</b>

**National Renewable Energy Laboratory**

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925379	ZGV-2-22438-01	Development And Validation Of A Nonlinea	81.087	409
		<b>Total for 81.087</b>		<b>409</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923263	ZAM-1-40897-01	Wave Device Dynamics Modeling And Analys	81.CCC	15,564
6924557	UGA-0-41029-05	New Business Models To Enable Whole-Hous	81.CCC	155,872
6924592	UGA-0-41029-04	Ordering And Corssover In Metamorphic Al	81.CCC	159,193
6925413	ZGV-2-22438-01	Pre-Subcontract Costs For Nrel Subcontra	81.CCC	-34
6926590	UGA-0-41029-07	Systems Engineering For Wind Energy	81.CCC	38,377
6926772	UGA-0-41029-06	Development Of Novel Low-Cost Thin-Film	81.CCC	54,822
6926810	UGA-0-41029-08	Mit Solar Energy Study	81.CCC	43,550
6926838	UGA-0-41029-07	Tuition Preaward	81.CCC	4,641
6927564	UGA-0-41029-10	Residential Energy Efficiency	81.CCC	19,412
		<b>Total for 81.CCC</b>		<b>491,397</b>
		<b>Total for National Renewable Energy Laboratory</b>		<b>491,806</b>

**Impact Technologies, LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926076	AGMT DTD. 4/1/12	Advanced Millimeter Wave Drilling System	81.087	253,738
6926300	AGMT DTD. 4/1/12	Waveguide For 28 Ghz Gyrotron	81.087	40,024
		<b>Total for 81.087</b>		<b>293,762</b>
		<b>Total for Impact Technologies, LLC</b>		<b>293,762</b>

**Unity Power Alliance**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926819	AGMT. SIGNED 11/8/12	Optimization Of Pressurized Oxy-Combusti	81.089	138,934
		<b>Total for 81.089</b>		<b>138,934</b>
		<b>Total for Unity Power Alliance</b>		<b>138,934</b>

**University of Nebraska**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926701	SUBAWARD 25-1217-0013-003	Radiation Tolerance And Mechanical Prope	81.121	44,846
		<b>Total for 81.121</b>		<b>44,846</b>

**Appendix A-3 - Detail  
 Massachusetts Institute of Technology  
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44,846  
44,846

Total for 81.121

Total for University of Nebraska

**Westinghouse Electric Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926954	4500456715	High Temperature Accident Tolerant Cladd	81.121	70,539
<b>Total for 81.121</b>				<b>70,539</b>

Total for Westinghouse Electric Corporation

70,539

**Florida Power and Light Company**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923906	LETTER DTD 5/16/11	ARRA - Smart Energy Grid Associates Partnership	81.122	97,939
<b>Total for 81.122</b>				<b>97,939</b>

Total for Florida Power and Light Company

97,939

**Oak Ridge Associated Universities**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922200	4000102892	Consortium For Advanced Simulation Of Lw	81.CCC	13
6923808	4000102892	Pre-Awd Yip Mpo Task 4	81.CCC	-14,721
6923814	4000102892	Mpo Students	81.CCC	178,638
6923815	4000102892	Postawd Kazimi Mpo Clad	81.CCC	-1,945
6923816	4000102892	Postawd Demkowicz Mpo Gtrf	81.CCC	77,315
6923817	4000102892	Postawd Yildiz Mpo Crsn	81.CCC	27,993
6923818	4000102892	Postawd Yip Mpo Crud	81.CCC	2,318
6923820	4000102892	Postawd Buongiorno Mnm Th	81.CCC	329,332
6923821	4000102892	Postawd Forget Mnm Rt	81.CCC	132,586
6923822	4000102892	Postawd Directors	81.CCC	49,603
6923823	4000102892	Postawd Equipment	81.CCC	3,670
6923824	4000102892	Postawd Education	81.CCC	55,634
6925060	4000109825	Consortium For Advanced Simulation Of Lw	81.CCC	158,955
6925510	4000102892	Mpo Ballinger Crsn	81.CCC	49,372
6925511	4000102892	Mpo Kamrin/Parks Gtrf	81.CCC	132,996
6925512	4000102892	Mpo Yip Gtrf	81.CCC	9,344
6925513	4000102892	Mgt/Voc	81.CCC	30,376
6925855	4000102892	Kazimi/Short Mpo Crud	81.CCC	110,191

**Appendix A-3 - Detail  
Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925896	4000102892	Fab Eq - Pll Flow Chamber	81.CCC	21,864
		<b>Total for 81.CCC</b>		<b>1,353,534</b>

**Total for Oak Ridge Associated Universities**

**1,353,534**

**Battelle Energy Alliance, LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920548	RELEASE #000033/CONTRACT#00000063	-09-095:Heterogeneous Recycling In Fast	81.CCC	664
6920549	RELEASE35/CONTRACT63	Millimeter-Wave Thermal Analysis Develop	81.CCC	54,303
6924978	RELEASE46/CONTRACT63	Mit Neutronics And Reactor Physics Suppo	81.CCC	122,721
6925045	RELEASE 48/CONTRACT63	Uncertainty Quantification Of Safety Cod	81.CCC	117,154
6925168	RELEASE #000050/CONTRACT#63	High-Temperature Salt-Cooled Reactor For	81.CCC	954,439
6925178	RELEASE49/CONTRACT63	3117 Life Prediction Of Spent Fuel Stora	81.CCC	94,530
6925181	RELEASE47/CONTRACT63	Fuel Cycle Technology And Advanced Appli	81.CCC	131,760
6925211	RELEASE #000050/CONTRACT#00000063	Irp - Uc Berkeley	81.CCC	1,125,490
6925212	RELEASE #000050/CONTRACT#00000063	Irp - Univ Wisconsin	81.CCC	292,127
6925222	RELEASE 51 /CONTRACT63	Protectiveness And Stability Of The Zirc	81.CCC	155,797
6925406	RELEASE52/CONTRAC63	University Lead For The Nuclear Hybrid S	81.CCC	22,746
6926209	00126858	Optimization Of Deep Borehole Systems Fo	81.CCC	127,293
6926607	128728	Scholarship For Nuclear Communications A	81.CCC	80,099
6926985	RELEASE53/CONTRACT63	Multi-Scale Full Core Reactor Physics Si	81.CCC	39,200
6927129	RELEASE #000050/CONTRACT#63	Iosa Filibe Irradiation Rig	81.CCC	25,554
6927529	RELEASE52/CONTRAC63	6925406 Forsberg Child	81.CCC	107,296
6927656	RELEASE55/CONTRAC63	Nuclear Hybrid System For Variable Elect	81.CCC	24,490
		<b>Total for 81.CCC</b>		<b>3,475,663</b>

**Total for Battelle Energy Alliance, LLC**

**3,475,663**

**Brookhaven Science Associates, LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918383	137005	Construction Of The Forward Gem Tracker	81.CCC	-78,045
6919664	137005	Fabricated Equipment-Star Forward Gem Tr	81.CCC	5,091

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**Massachusetts Institute of Technology**  
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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924870	192272	1st Mechanical	81.CCC	243,938
6924871	192272	1st Electrical	81.CCC	263,353
6924872	192272	1st Assembly, Test, And Installation	81.CCC	71,216
6924873	192272	1st Management	81.CCC	21,622
6924874	192272	1st Assembly And Integration Of Ids	81.CCC	-11,344
6925911	192272	Fabricated Equipment - 1st Mechanical	81.CCC	68,419
6925912	192272	Fabricated Equipment - 1st Electrical	81.CCC	682,427
6925913	192272	Fabricated Equipment - 1st Assembly	81.CCC	3,175
6926828	192272	1st Data Acquisition	81.CCC	41,981
6927489	137005	Commissioning And Testing Of Forward Gem	81.CCC	56,515
<b>Total for 81.CCC</b>				<b>1,368,348</b>
<b>Total for Brookhaven Science Associates, LLC</b>				<b>1,368,348</b>

**Los Alamos National Security, L.L.C.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920708	SUBCONTRACT: 72297-001-09: TASK 2	Task 2: Extreme Environment-Tolerant Mat	81.CCC	256,327
6923901	SUBCONTRACT 139843-1	Framework And Models For Ice Sheet Dynam	81.CCC	45,213
6925156	SUBCONTRACT 160097-1	ARRA - Advancing Our Understanding Of Photonic	81.CCC	67,830
6925204	AGM7749674-001-10: 1702333-1	Stochastic Modeling Of Wind Turbines	81.CCC	25,323
6925382	SUBCONTRACT: 176683	Pmt Testing Specialist For Los Alamos Na	81.CCC	7,777
6925533	SUBCONTRACT 176033-1	Pb-Bi Corrosion Resistant Alloy Developm	81.CCC	65,618
6926363	SUBCONTRACT 160097-1	ARRA - Off-Campus At The Los Alamos National La	81.CCC	18,576
6926699	212197	Simulation Of Beam Dynamics For A 20 Mev	81.CCC	74,154
6927651	SUBCONTRACT #232591	Phase Stability Of Multi-Component Nanoc	81.CCC	4,156
<b>Total for 81.CCC</b>				<b>564,974</b>
<b>Total for Los Alamos National Security, L.L.C.</b>				<b>564,974</b>

**Lawrence Berkeley National Laboratory**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6893506	SUBCONTRACT #6806960	First Principles, Calculations And Nmr S	81.CCC	163,168
6899207	SUBCONTRACT NO. 6804921	Tem And Afrm Studies Of Nanoparticle Coat	81.CCC	170,061
6917334	SUBCONTRACT NO. 6838062	Molecular Determinants Of Community Acti	81.CCC	192,007
6920789	SUBCONTRACT NO. 6896518	Center For Nanoscale Control Of Geologic	81.CCC	161,180
6921874	SUBCONTRACT NO. 6920999	New Electrode Designs To Enable Ultrahig	81.CCC	193,923



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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922118	SUBCONTRACT NO. 6927716	Advanced 3D Geophysical Imaging Technolo	81.CCC	229,617
6923287	SUBCONTRACT NO. 6947174	Natural Ventilation For Cooling In Commo	81.CCC	141,882
6924914	SUBCONTRACT NO. 6989080	Mice Coupling Coils And Spectrometer Coi	81.CCC	3,526
6927117	SUBCONTRACT NO. 7038094	Ceder, Thrust 3: A Materials Design Envi	81.CCC	13,683
6927118	SUBCONTRACT NO. 7038094	Grossman, Thrust 1: Data Generation - Qu	81.CCC	61,025
6927619	7055896	Tem And Afm Studies Of Nanoparticle Coat	81.CCC	124,174
6927680	SUBCONTRACT NO. 7056411	First Principles Calculations Of Existin	81.CCC	15,569
6927681	SUBCONTRACT NO. 7056592	Design And Scalable Assembly Of High Den	81.CCC	13,058
<b>Total for 81.CCC</b>				<b>1,482,873</b>
<b>Total for Lawrence Berkeley National Laboratory</b>				<b>1,482,873</b>

**UT- Battelle LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923222	SUBCONTRACT NO. 4000100452	Iter Ech Transmission Line System: Resea	81.CCC	158,312
6924562	SUBCONTRACT NO. 4000107637	New Evaluations Of Cu-63 And Cu-65	81.CCC	72,506
6924877	SUBCONTRACT 4000109855	Assessing Electric Cooling Capacity Of T	81.CCC	52,611
6925601	SUBCONTRACT NO. 4000111680	Quench Detection In Iter Cs	81.CCC	236,155
6925602	SUBCONTRACT NO. 4000112466	Us Iter Central Solenoid (Cs) Mit Review	81.CCC	7,618
6925664	SUBCONTRACT NO. 4000112961	Document Review And Development Of Iter	81.CCC	76,345
6927578	SUBCONTRACT NO. 4000121480	Cs Modules Fmea Failure Modes Analysis	81.CCC	38,394
<b>Total for 81.CCC</b>				<b>641,941</b>
<b>Total for UT- Battelle LLC</b>				<b>641,941</b>

**Stevens Institute of Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927065	TECHNICAL TASK ORDER 0031	Task Order 0031: Rt 46 Tradespace And A	81.CCC	59,741
<b>Total for 81.CCC</b>				<b>59,741</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924350	SUBAWARD #526754-001	The National Center For Secure And Resil	97.061	1,333
6926344	SUBAWARD #527782-001	The National Center For Secure And Resil	97.061	33,170
<b>Total for 97.061</b>				<b>34,503</b>
<b>Total for Stevens Institute of Technology</b>				<b>94,244</b>

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**Sandia National Laboratories**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920907	AGREEMENT # 611557 P.O. # 960114	Tunable Thermodynamics And Kinetics For	81.CCC	-12
6921072	PO#966279, AGREEMENT #611557	Deep Borehole Disposal Of Spent Nuclear	81.CCC	23,345
6921362	971321	Quantifying Prediction Fidelity In Multi	81.CCC	9,334
6922572	PO #1059747 UNDER 611557	Micro- And Nanophotonics For A 2X2 Array	81.CCC	3,663
6923413	PO #1072678 UNDER 611557	Research For Next Generation Biofuels An	81.CCC	113,939
6924315	PO #1151093 UNDER 611557	Broadband Information Transduction Via O	81.CCC	-1,517
6925814	PO#1240287 UNDER 611557	Effects Of Load, Fatigue And Support On	81.CCC	255,112
6925838	PO#1240745	Understanding Dynamics Of Antibiotic Res	81.CCC	11,556
6927650	PO #1338950 UNDER 611557	Next Generation Biofuels	81.CCC	5,501
<b>Total for 81.CCC</b>				<b>420,921</b>
<b>Total for Sandia National Laboratories</b>				<b>420,921</b>

**Battelle-Pacific Northwest Laboratories**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924462	CONTRACT NO. 160724	Pnrl Compact Light Source	81.CCC	14,479
6926773	PURCHASE ORDER NO. 194173	Two Column Aerosol Project (Tcap)	81.CCC	24,716
<b>Total for 81.CCC</b>				<b>39,195</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925437	CONTRACT NO. 174694	Center For Application Of Advanced Clini	93.394	42,580
<b>Total for 93.394</b>				<b>42,580</b>
<b>Total for Battelle-Pacific Northwest Laboratories</b>				<b>81,775</b>

**UChicago Argonne, LLC**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919456	9F-30982	Feasibility Study For Leu Conversion Of	81.CCC	-5,093
6925853	AWARD #2J-30101-0002A	Fuel Plate Heat Transfer Area Measuremen	81.CCC	99,636
6925854	AWARD #2J-30101-0001A	Safety Analysis Of Accidents And Transie	81.CCC	447,355
6926139	AWARD #2J-30101-0003A	Element Design For Leu Conversion Of The	81.CCC	124,781
6926541	AWARD #2J-30101-0004A	Thermal Hydraulic Experiments	81.CCC	107,879
<b>Total for 81.CCC</b>				<b>774,558</b>

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Total for UChicago Argonne, LLC **774,558**

**Electric Power Research Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926037	EP-P43786/C19008	Co2 Sources In Secarb	81.CCC	22,397
<b>Total for 81.CCC</b>				<b>22,397</b>
<b>Total for Electric Power Research Institute</b>				<b>22,397</b>

**Brookhaven National Laboratory**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921421	157503	Brookhaven Sub: Platinum Monolayer Oxyge	81.CCC	124,110
<b>Total for 81.CCC</b>				<b>124,110</b>
<b>Total for Brookhaven National Laboratory</b>				<b>124,110</b>

**Bettis Atomic Power**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926212	PO#7009771	The Effect Of Environment, Chemistry And	81.CCC	161,972
<b>Total for 81.CCC</b>				<b>161,972</b>
<b>Total for Bettis Atomic Power</b>				<b>161,972</b>

**Princeton Plasma Physics Laboratory**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923499	SUBCONTRACT NO. S010550-G	Services Of Martin Greenwald As Fsp Depu	81.CCC	32,712
<b>Total for 81.CCC</b>				<b>32,712</b>
<b>Total for Princeton Plasma Physics Laboratory</b>				<b>32,712</b>

**Harvard Medical School**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927001	151529.5063638.0104	Training For Speech And Hearing Sciences	93.173	3,600
6927002	151529.5063638.0105	Training For Speech And Hearing Sciences	93.173	35,800
6927003	151529.5063638.0106	Training For Speech And Hearing Sciences	93.173	37,960

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927004	151529.5063638.0107	Training For Speech And Hearing Sciences	93.173	35,799
6927005	151529.5063638.0108	Training For Speech And Hearing Sciences	93.173	3,604
6927006	151529.5063638.0109	Training For Speech And Hearing Sciences	93.173	35,800
6927007	151529.5063638.0110	Training For Speech And Hearing Sciences	93.173	35,798
6927008	151529.5063638.0111	Training For Speech And Hearing Sciences	93.173	37,960
6927009	151529.5063638.0112	Training For Speech And Hearing Sciences	93.173	37,960
6927010	151529.5063638.0113	Training For Speech And Hearing Sciences	93.173	35,800
6927011	151529.5063638.0114	Training For Speech And Hearing Sciences	93.173	37,960
6927012	151529.5063638.0115	Training For Speech And Hearing Sciences	93.173	37,960
6927013	151529.5063638.0116	Training For Speech And Hearing Sciences	93.173	3,598
6927014	151529.5063638.0117	Training For Speech And Hearing Sciences	93.173	3,598
6927015	151529.5063638.0118	Training For Speech And Hearing Sciences	93.173	37,960
6927016	151529.5063638.0119	Training For Speech And Hearing Sciences	93.173	37,960
6927017	151529.5063638.0120	Training For Speech And Hearing Sciences	93.173	3,605
6927018	151529.5063638.0121	Training For Speech And Hearing Sciences	93.173	35,800
6927623	151538.5069733.0105	Training Program In Bioinformatics And I	93.173	36,340
6927624	151538.5069731.0104	Training Program In Bioinformatics And I	93.173	36,340
6927625	151529.5067921.0122	Training For Speech And Hearing Sciences	93.173	34,360
		<b>Total for 93.173</b>		<b>605,562</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923713	027343.3866541.04214	Harvard Clinical And Translational Scien	93.389	-1,288
6923869	149734.3866545.0423	Clinical Translational Science Award (Ct	93.389	1,189
6925868	149734.3866545.0523	Clinical Translational Science Award (Ct	93.389	172,439
		<b>Total for 93.389</b>		<b>172,340</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922704	149581-0502	The Role Of Cdk5 In The Dna Damage Respo	93.866	13,943
		<b>Total for 93.866</b>		<b>13,943</b>
		<b>Total for Harvard Medical School</b>		<b>791,845</b>

**ProCure Treatment Centers, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923549	RES. AGMT. EFF. 3/15/11	Sbir: Superconducting Magnet Assembly De	93.000	-2,485
		<b>Total for 93.000</b>		<b>-2,485</b>
		<b>Total for ProCure Treatment Centers, Inc.</b>		<b>0</b>

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Total for ProCure Treatment Centers, Inc. -2,485

**Trevisgen, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925944	AGREEMENT DATED 5/30/12	Sbir: Dna Repair-On-A-Chip: Spatially En	93.113	54,152
		<b>Total for 93.113</b>		<b>54,152</b>
		<b>Total for Trevisgen, Inc.</b>		<b>54,152</b>

**University of North Carolina-Chapel Hill**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925228	5-50741	Bioengineering Partnership To Improve Ch	93.114	49,017
		<b>Total for 93.114</b>		<b>49,017</b>
		<b>Total for University of North Carolina-Chapel Hill</b>		<b>49,017</b>

**University of Connecticut Health Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926485	UCHC6-34616290	Comprehensive Analysis Of Functional Rna	93.172	392,414
		<b>Total for 93.172</b>		<b>392,414</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925310	120712	Dynamics And Topology Of Phosphotyrosine	93.396	4,901
6926833	UCHC6-31827572	Dynamics And Topology Of Phosphotyrosine	93.396	138,696
		<b>Total for 93.396</b>		<b>143,597</b>
		<b>Total for University of Connecticut Health Center</b>		<b>536,011</b>

**The Wellcome Trust**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922856	SUBAWARD 0244-05	Integrated Human Genome Annotation: Gene	93.172	83,820
6924824	SUBAWARD 0244-05	Integrated Human Genome Annotation: Gene	93.172	-19,914
6926690	SUBAWARD 0244-05	Integrated Human Genome Annotation: Gene	93.172	67,406
6927934	SUBAWARD 2186-05	Year 1 - Gencode: Comprehensive Gene Ann	93.172	13,861
		<b>Total for 93.172</b>		<b>145,173</b>
		<b>Total for The Wellcome Trust</b>		<b>145,173</b>

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**University of Massachusetts Medical Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927133	6145892/RFS2013072	Year 1 Funds - Kellis	93.172	466,054
			<b>Total for 93.172</b>	<b>466,054</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925075	6135965/RFS2012038	A Mobile, Personalized Intervention With	93.279	71,254
			<b>Total for 93.279</b>	<b>71,254</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923380	6138788/RFS2012114	FRAENKEL Systems Biology Of Insulin Resistance	93.847	398,909
6923381	6138789/RFS2012115	LAUFFENBURGER Systems Biology Of Insulin Resistance	93.847	185,135
6923382	6138787/RFS2012113	WHITE Systems Biology Of Insulin Resistance	93.847	194,052
			<b>Total for 93.847</b>	<b>778,096</b>

**Total for University of Massachusetts Medical Center**

**1,315,404**

**Brigham & Women's Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925473	106335	High-Throughput Identification Of Tissue	93.172	5,405
			<b>Total for 93.172</b>	<b>5,405</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924357	106368	National Alliance For Medical Image Comp	93.286	-8,349
6924358	106370	National Alliance For Medical Image Comp	93.286	2,428
6925790	107958	Development Of Fcrr-Targeted Nanoparticl	93.286	253,606
6926351	106368	National Alliance For Medical Image Comp	93.286	180,009
6926353	106370	National Alliance For Medical Image Comp	93.286	26,210
			<b>Total for 93.286</b>	<b>453,904</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6921384	LETTER AGREEMENT 1-27-10	Letter Agreement: Philip Rolfe	93.310	-9,405
6922965	LETTER AGREEMENT 9/30/10	Letter Agreement: Philip Rolfe	93.310	-7,390
				<b>16,795</b>

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Total for 93.310 **-16,795**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924385	103891	Neuroimaging Analysis Center	93.389	8,943
6926062	103891	Neuroimaging Analysis Center	93.389	91,459
		<b>Total for 93.389</b>		<b>100,402</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920576	104771	ARRA - Inhibition Of Microflora-Induced Colitis	93.701	3,522
		<b>Total for 93.701</b>		<b>3,522</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925028	106458	Informatics For Integrating Biology And	93.704	61,684
6925373	106462	Informatics For Integrating Biology And	93.704	75,382
6927055	106458	Informatics For Integrating Biology And	93.704	50,904
6927249	106462	Informatics For Integrating Biology And	93.704	30,810
		<b>Total for 93.704</b>		<b>218,780</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925261	107667	Dii4 In Macrophage Activation	93.837	95,461
		<b>Total for 93.837</b>		<b>95,461</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922066	105888	Engineered Induction Of A Stem Cell Homi	93.939	24,922
		<b>Total for 93.939</b>		<b>24,922</b>
		<b>Total for Brigham &amp; Women's Hospital</b>		<b>885,601</b>

**Mass. Eye And Ear**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6918861	PO	Bilateral Cochlear Implants: Physiology	93.173	61,142
6922079	F272662/2-R01-DC005755-06A1 MEEI 30423	Auditory Neural Coding Of Speech	93.173	121,247
		<b>Total for 93.173</b>		<b>182,389</b>
		<b>Total for Mass. Eye And Ear</b>		<b>182,389</b>

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<b>Haskins Laboratories</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924609	CONSORTIUM AGMT. UNDER NIH R01-DC008780	Variability And Error In Speech Producti	93.173	61,330	
				<b>61,330</b>	
					<b>61,330</b>
					<b>Total for 93.173</b>
					<b>Total for Haskins Laboratories</b>
<b>Beth Israel Hospital</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926207	01025585	Brain Function And Structure In Young Ch	93.242	21,827	
				<b>21,827</b>	
					<b>Total for 93.242</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924510	5-U01-EB008577-05	Research Resource For Complex Physiologi	93.286	3,600	
				<b>3,600</b>	
					<b>Total for 93.286</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6924819	01025254	Cortical Connectivity, Physiology, And R	93.853	36,764	
6924887	01025254	Cortical Connectivity, Physiology, And R	93.853	114	
				<b>36,878</b>	
					<b>Total for 93.853</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926763	9 R01 GM104987-06	Research Resource For Complex Physiologi	93.859	348,010	
				<b>348,010</b>	
					<b>Total for 93.859</b>
					<b>Total for Beth Israel Hospital</b>
					<b>410,315</b>
<b>Universidad Central del Caribe</b>					
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>	
6926522	SUB UNDER PRIME R01-MH099557-02	Computational And Functional Characteriz	93.242	78,280	
				<b>78,280</b>	
					<b>Total for 93.242</b>



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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924633	SUB UNDER PRIME U54-NS039408-12	Snrp Program At Ucc	93.853	21,484
		<b>Total for 93.853</b>		<b>21,484</b>
		<b>Total for Universidad Central del Caribe</b>		<b>99,764</b>

**Mount Sinai Medical Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924421	0254-7833-4609	Neural Substrates Of Appetitive Behavior	93.242	2,581
6925931	0254-3161-4609	Epigenic Mechanisms Of Depression	93.242	83,750
		<b>Total for 93.242</b>		<b>86,331</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923327	MSSM NO. 0258-3921/HHSN268201000045C	Tranlational Nanomedical Therapies For C	93.CCC	1,021,847
6924815	MSSM NO. 0258-3561/HHSN266200700010C	Naiad Centers Of Excellence For Influenz	93.CCC	-107,550
6926302	MSSM NO. 0258-3561/HHSN266200700010C	Naiad Centers Of Excellence For Influenz	93.CCC	732,631
6927608	MSSM NO. 0258-3561/HHSN266200700010C	Naiad Centers Of Excellence For Influenz	93.CCC	177,348
		<b>Total for 93.CCC</b>		<b>1,824,276</b>
		<b>Total for Mount Sinai Medical Center</b>		<b>1,910,607</b>

**Mayo Clinic Rochester**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924776	5-R01-EB002640-13	Arterial Properties From Stimulated Acou	93.286	15,272
6926685	5-R01-EB002640-14	Arterial Properties From Stimulated Acou	93.286	26,149
		<b>Total for 93.286</b>		<b>41,421</b>
		<b>Total for Mount Sinai Medical Center</b>		<b>169,813</b>

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		Total for Mayo Clinic Rochester		211,234
<b>Tufts University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926449	HS4976 SUBCONTRACT AGMT	Models To Predict Protein Biomaterial Pe	93.286	47,298
			Total for 93.286	47,298
			Total for Tufts University	47,298
<b>Rockefeller University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924440	R01DK085713-03	Modeling Human Hepatotropic Infections I	93.310	482,315
			Total for 93.310	482,315
			Total for Rockefeller University	482,315
<b>Praevium Research Inc.</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923290	SBIR AGMT 2R44CA101067-05	Ultrahigh Speed And Resolution Oct/Ocm U	93.394	104,050
			Total for 93.394	104,050
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927188	AGMT. DTD. 9/30/12	Vcseel Technology For Ultrahigh Speed Oct	93.867	15,136
			Total for 93.867	15,136
			Total for Praevium Research Inc.	119,186
<b>Case Western Reserve University</b>				
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920554	RES504334	Raman Spectroscopy For Guidance Of Stere	93.394	74,672
			Total for 93.394	74,672
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920637	ROLLINS RES504358 INVOICE	Investigating The Early Embryonic Murine	93.837	80,244
6923587	RES504358; PARENT RES109575	Fabrication: Fourier Domain Mode-Locked	93.837	-13,554

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Total for 93.837 **66,690**  
 Total for Case Western Reserve University **141,362**

<b>Rhode Island Hospital</b>		<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>			
6917228	701-1457	Biomarker For Hepatocellular Carcinoma	93.394	-1,188
<b>Total for 93.394</b>				<b>-1,188</b>
<b>Total for Rhode Island Hospital</b>				

<b>Dana Farber Cancer Institute</b>		<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
<u>WBS #</u>	<u>Contract Number</u>			
6926764	1214501	Assaying Gbm Growth And Therapy Response	93.394	135,346
<b>Total for 93.394</b>				<b>135,346</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925352	P #1120206	Genetics And Biology Of Pancreatic Ducta	93.396	-170,912
<b>Total for 93.396</b>				<b>-170,912</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923374	5-P50-CA090381-10	Project 1 : Biguanides For The Treatment	93.397	10,186
<b>Total for 93.397</b>				<b>10,186</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927451	1216401	Impact Of Mhc Genotype On Ex Vivo T Cell	93.847	89,969
<b>Total for 93.847</b>				<b>89,969</b>

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924642	1188501	Eliciting B Cells To Produce Anti-Hiv Gp	93.855	63,053
6925195	1006713	Antigen Presentation In Human Autoimmune	93.855	53,216
6926480	1188503	Eliciting B Cells To Produce Anti-Hiv Gp	93.855	260,785
6927076	1006714/1006715	Antigen Presentation In Human Autoimmune	93.855	86,769
<b>Total for 93.855</b>				<b>463,823</b>
<b>Total for Dana Farber Cancer Institute</b>				
				<b>528,412</b>

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**Lankenau Institute for Medical Research**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6917787	SUBAWARD 5-R01-CA115527-04	Targeted Nanoparticle Dna Delivery To Pr	93.395	-12,093
6917796	SUBAWARD UDR. 5-R01-CA132091-03	Targeted Nanoparticle Dna Therapy For Ov	93.395	50,887
		<b>Total for 93.395</b>		<b>38,794</b>
		<b>Total for Lankenau Institute for Medical Research</b>		<b>38,794</b>

**University of Texas-MD Anderson Cancer Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926910	12062898/54444	Project 3: Models For Genetic Assessmen	93.396	356,107
6926911	00918640/54444	Genetics And Biology Of Pancreatic Ducta	93.396	166,820
		<b>Total for 93.396</b>		<b>522,927</b>
		<b>Total for University of Texas-MD Anderson Cancer Center</b>		<b>522,927</b>

**University of Massachusetts**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6922436	6114287/RFS900203	ARRA - A Mobile Enhancing Technology To Promote	93.701	-3,295
		<b>Total for 93.701</b>		<b>-3,295</b>
		<b>Total for University of Massachusetts</b>		<b>-3,295</b>

**Vivonics, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6920983	SUBCONTRACT #1359-S001	Catheter Guidance System For Rf Ablation	93.837	235,062
		<b>Total for 93.837</b>		<b>235,062</b>
		<b>Total for Vivonics, Inc.</b>		<b>235,062</b>

**J. David Gladstone Institutes**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924415	R2216-A	The Epigenetic Landscape Of Heart Develo	93.837	64,897
6926387	R2216-A	The Epigenetic Landscape Of Heart Develo	93.837	258,899
		<b>Total for 93.837</b>		<b>323,796</b>

**Appendix A-3 - Detail  
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Total for 93.837      323,796  
Total for J. David Gladstone Institutes      323,796

<b>University Health Network</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6924932	101875.2	The Ras/Mapk Pathway In Cardiovascular	93.837
			<u>FY Expenses</u>
			122,302
		<b>Total for 93.837</b>	<b>122,302</b>
		<b>Total for University Health Network</b>	<b>122,302</b>

<b>Rush University Medical Center</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6924854	1-R01-RO57066-01A2	Cartilage Degeneration And Repair By Ada	93.846
			<u>FY Expenses</u>
			88,686
		<b>Total for 93.846</b>	<b>88,686</b>
		<b>Total for Rush University Medical Center</b>	<b>88,686</b>

<b>Temple University</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6922585	238899	Evaluation Of Cartilage Tissue Engineeri	93.846
6926400	238899	Evaluation Of Cartilage Tissue Engineeri	93.846
			<u>FY Expenses</u>
			-20,203
			20,160
		<b>Total for 93.846</b>	<b>-43</b>
		<b>Total for Temple University</b>	<b>-43</b>

<b>Cytex Therapeutics, Inc.</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6923102	RES. AGMT. DTD. 11/23/10	Hip Joint Resurfacing With Functional Hu	93.846
			<u>FY Expenses</u>
			39,135
		<b>Total for 93.846</b>	<b>39,135</b>
		<b>Total for Cytex Therapeutics, Inc.</b>	<b>39,135</b>

<b>Mayo Clinic</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>
6925395	4U01A1089859-02	High-Throughput Immunophenotypic Analyse	93.855
			<u>FY Expenses</u>
			104,841

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926995	5U01A1089859-03	High-Throughput Immunophenotypic Analyse	93.855	28,145
		<b>Total for 93.855</b>		<b>132,986</b>
		<b>Total for Mayo Clinic</b>		<b>132,986</b>

**International AIDS Vaccine Initiative**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923588	MITRSA1001	Yr1 Child: Interplay Of B Cells And Hiv	93.855	-839
6925038	MITRSA1001	Yr2 Child: Interplay Of B Cells And Hiv	93.855	497
6926944	MITRSA1001 (1122)	Yr 3 Interplay Of B Cells And Hiv That L	93.855	49,435
		<b>Total for 93.855</b>		<b>49,093</b>
		<b>Total for International AIDS Vaccine Initiative</b>		<b>49,093</b>

**Fred Hutchinson Cancer Research Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924817	SUBAWARD 0000718900	Integrated Single-Cell Assays For Multid	93.855	8,463
6926982	SUBAWARD 0000750169	Integrated Single-Cell Assays For Multid	93.855	53,106
		<b>Total for 93.855</b>		<b>61,569</b>
		<b>Total for Fred Hutchinson Cancer Research Center</b>		<b>61,569</b>

**University of Pittsburgh**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925825	0025089 (120548-1)	Spatial Segregation Of Cell Functioning	93.859	103,963
		<b>Total for 93.859</b>		<b>103,963</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923091	0013954 (118082-3)	Novel Glaucoma Diagnostics For Structure	93.867	68,649
		<b>Total for 93.867</b>		<b>68,649</b>
		<b>Total for University of Pittsburgh</b>		<b>172,612</b>

**NORC at the University of Chicago**

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<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925278	SUBAWARD NO. 5672.MIT, AMD. 1	Continuation Of Risk, Insurance And The	93.864	82,222
		<b>Total for 93.864</b>		<b>82,222</b>
		<b>Total for NORC at the University of Chicago</b>		<b>82,222</b>

**Burke Medical Research Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925488	DE3849-01C	Transcranial Direct Current Stimulation	93.865	56,063
		<b>Total for 93.865</b>		<b>56,063</b>
		<b>Total for Burke Medical Research Institute</b>		<b>56,063</b>

**Oregon Health and Science University**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6923337	GCAEI0268A MIT	Advanced Imaging For Glaucoma	93.867	204,937
6925077	GCAEI0303A_MIT	Guiding The Treatment Of Anterior Eye Di	93.867	96,759
		<b>Total for 93.867</b>		<b>301,696</b>
		<b>Total for Oregon Health and Science University</b>		<b>301,696</b>

**Joslin Diabetes Center**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6919202	AGMT UNDER 1-R01-EY019029-01	Role Of The Kallikrein-Kinin System In D	93.867	75,212
		<b>Total for 93.867</b>		<b>75,212</b>
		<b>Total for Joslin Diabetes Center</b>		<b>75,212</b>

**Harvard School of Public Health**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6924631	5-P01-TP000307-04	Linking Assessment And Measurement To Ph	93.930	92,279
6926725	23600-116198(0513); 5P01TP000307	Linking Assessment And Measurement To Ph	93.930	75,896
		<b>Total for 93.930</b>		<b>168,175</b>

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Total for Harvard School of Public Health **168,175**

**Sensimetrics Corporation**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6927196	AGMT. DTD. 2/1/13	Development Of Physiologically Inspired	93.CCC	29,469
		<b>Total for 93.CCC</b>		<b>29,469</b>
		<b>Total for Sensimetrics Corporation</b>		<b>29,469</b>

**Radiation Monitoring Devices**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6926933	C13-16	Tibr Spectrometers With Improved Long Te	97.CCC	31,265
		<b>Total for 97.CCC</b>		<b>31,265</b>
		<b>Total for Radiation Monitoring Devices</b>		<b>31,265</b>

**Institute for Financial Management and Research**

<u>WBS #</u>	<u>Contract Number</u>	<u>WBS Title</u>	<u>CFDA#</u>	<u>FY Expenses</u>
6925661	AGRMT DTD. 4/10/2012	Bihar Voters - 2011	98.001	-1,747
		<b>Total for 98.001</b>		<b>-1,747</b>
		<b>Total for Institute for Financial Management and Research</b>		<b>-1,747</b>
		<b>Total Passthrough</b>		<b>103,869,854</b>



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**Department of Defense**

**Air Force Office of Scientific Research - AFOSR**

<u>Contract Number</u> FA9550-11-1-0168	<u>Contract Title</u> 2012 ISIT Workshop	<u>CFDA #</u> 12.800	<u>FY Expenses</u> 20,000
<b>Total for 12.800</b>			<b>20,000</b>
<b>Total for Air Force Office of Scientific Research - AFOSR</b>			<b>20,000</b>

**Army Research Office**

<u>Contract Number</u> W911NF-10-1-0497	<u>Contract Title</u> DoD Cap Funds - FY09 Appropriation - Ortiz	<u>CFDA #</u> 12.431	<u>FY Expenses</u> 362
<u>Contract Number</u> W911NF-12-1-0052	<u>Contract Title</u> 2012 Conference on Stochastic Networks	<u>CFDA #</u> 12.431	<u>FY Expenses</u> 15,001
<b>Total for 12.431</b>			<b>15,363</b>
<b>Total for Army Research Office</b>			<b>15,363</b>

**Defense Advanced Research Projects Agency**

<u>Contract Number</u> HR0011-09-1-0048	<u>Contract Title</u> Kedlaya - Conference Participant Support	<u>CFDA #</u> 12.910	<u>FY Expenses</u> 1,038
<b>Total for 12.910</b>			<b>1,038</b>
<b>Total for Defense Advanced Research Projects Agency 1,038</b>			

**Navy - ONR**

<u>Contract Number</u> N00014-09-1-0597	<u>Contract Title</u> ONR Workshop Supplement	<u>CFDA #</u> 12.300	<u>FY Expenses</u> 4,361
<u>Contract Number</u> N00014-13-1-0324	<u>Contract Title</u> Workshop on Micro and Nano Structures for Phase Change Heat Transfer	<u>CFDA #</u> 12.300	<u>FY Expenses</u> 9,812
<b>Total for 12.300</b>			<b>14,173</b>
<b>Total for Navy - ONR</b>			<b>14,173</b>

**U.S. Army Medical Research and Materiel Command**

<u>Contract Number</u> W81XWH-10-1-0040	<u>Contract Title</u> Systems Analysis of Cell Invasion - PDF - S.Alford	<u>CFDA #</u> 12.420	<u>FY Expenses</u> 31,498
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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
W81XWH-10-1-0733	Systems Level Analysis of EGFR - PDF M. Lee	12.420	74,067
W81XWH-11-1-0088	Molecular Regulatory Network Dysregulation - GF for A. Meyer	12.420	39,811
W81XWH-13-1-0031	Investigating the mechanism of MenaINV-driven metastasis (BC120078) - PDF for M. Oudin	12.420	43,393
	<b>Total for 12.420</b>		<b>188,769</b>
	<b>Total for U.S. Army Medical Research and Material Command</b>		<b>188,769</b>
	<b>Total for Department of Defense</b>		<b>239,343</b>

**Department of Energy**

**DOE - Idaho Falls**  
Contract Number  
 DE-NE0000102

Contract Title  
 MIT Nuclear Energy University Fellowship Program

FY Expenses  
 325,001  
**325,001**

CFDA #  
 81.121

**Total for 81.121**

**Total for DOE - Idaho Falls**

**325,001**

**DOE - Office of ARPA-E**

Contract Number  
 DE-AR0000363

Contract Title  
 Workshop on Micro and Nano Structures for Phase Change Heat Transfer

FY Expenses  
 19,802  
**19,802**

CFDA #  
 81.135

**Total for 81.135**

**Total for DOE - Office of ARPA-E**

**19,802**

**DOE-Golden Colorado**

Contract Number  
 DE-EE0005596

Contract Title  
 MIT Clean Energy Prize

FY Expenses  
 6,340  
**6,340**

CFDA #  
 81.117

**Total for 81.117**

**Total for DOE-Golden Colorado**

**6,340**

**Total for Department of Energy**

**351,143**

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**Dept. of Health and Human Services**

**NIH**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F32-EB014682-01A1	Fluorous-Templated J-Aggregates as Smart NIR Imaging Agents	93.286	34,929
1-F32-EB015835-01	A platform for image-guided, magneto-acoustic gene therapy of pancreatic cancer - PDF for B. Chertok	93.286	40,870
5-F32-EB008962-02	Dev. of Blood-brain - PDF - M. Royzen	93.286	5,433
5-F32-EB009623-02	I.D. and Analysis of Lipid - PDF. K. Whitehead	93.286	4,483
5-F32-EB011867-02	siRNA delivery by structured polymers synthesized via combinatorial RAFT & ATR-PDF for D. Siegwart	93.286	5,266
5-F32-EB012351-02	Mechanistic probe for siRNA-polyplex delivery towards potent cancer therapeutics - PDF - C. Alabi	93.286	6,926
5-F32-EB012362-02	Therapeutic cell engineering - PDF M. Stephan	93.286	-14,064
5-F32-EB012937-02	Polymer-Supported Nitroxide Radicals for Dynamic Nuclear Polarization- PDF - M.Kiesewetter	93.286	29,677
5-P41-EB002026-34	Harvard/MIT Center for Magnetic Resonance: 2013 WINTER SCHOOL	93.286	11,668
	<b>Total for 93.286</b>		<b>125,188</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
5-F32-HL104913-03	Dissecting the role of H2AZ in regulating early cardiac development - PDF for J. Wamstad	93.837	54,165
5-F32-HL110484-02	Alternative splicing in the vascular response to pathological shear stress -PDF P. Murphy	93.837	49,953
	<b>Total for 93.837</b>		<b>104,118</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F32-GM097771-01	Development of a Palladium-Catalyzed Direct N2-Arylation of Indazoles - PDF-Meredeth McGowan	93.859	3,938
1-F32-GM099257-01	Structural investigation of Helicobacter pylori transcription regulator NIKR - PDF S. Bowman	93.859	5,865

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F32-GM102992-01	A systems approach for profiling kinase activities in the DNA damage response - PDF for L. Peterson	93.859	42,561
1-F32-GM103089-01	Roles for Human PARPs in Regulating the Cytoskeleton and Cell Motility - PDF for M. Cataldo	93.859	12,940
1-F32-GM103211-01	Earth-Abundant Transition Metal Catalysts for HX Splitting - PDF for D. Powers	93.859	21,580
1-F32-GM105104-01	Developing a spectroscopic toolkit for probing protein structure and folding - PDF - C. Baiz	93.859	18,531
1-F32-GM66501-01	Postdoctoral Fellow: Matthew Clark	93.859	-320
1-R13-GM105346-01	3rd US-Canada Winter School on Biomolecular Solid State NMR	93.859	9,983
3-F32-GM095014-021	Epoxyde-Opening Cascade Approach to the Synthesis of Marine Ladder Polyethers-PDF for M. Beaver	93.859	24,411
5-F32-GM087034-03	Kinetics of Radical Initiation in the Ribonucleotide Reductase Holoenzyme - PDF for P. Holder	93.859	1,965
5-F32-GM088931-03	Shape Shifting Phosphines in Transition Metal Catalysis - PDF for Thomas Maimone	93.859	569
5-F32-GM094994-02	The functions and mechanism of SHSP degradation in Escherichia coli - PDF for E. Kloss	93.859	11,469
5-F32-GM095060-02	The role of nonsense-mediated mRNA decay in embryonic stem cell gene expression - PDF for J. Hurt	93.859	53,675
5-F32-GM096546-02	A Photo-triggered on-demand drug delivery system for chronic pain - PDF - B. Timko	93.859	23,575
5-F32-GM097776-02	Enantioselective Total Synthesis of Communesin F - PDF for S. Lathrop	93.859	41,364
5-F32-GM099168-02	Aneuploidy affects DNA metabolism and segregation to cause genomic instability - PDF -Heidi Blank	93.859	52,190
5-F32-GM099187-02	The Direct Oxidative Trifluoromethylation of Simple Heteroaromatic Systems - PDF - Nathan Jui	93.859	49,127
5-F32-GM099202-02	Development of an Asymmetric Amination Process of Unactivated Olefins - PDF- J. Debergh	93.859	51,426
5-F32-GM101762-02	Metal Catalyzed CN and CS Bond Forming Reactions for Bioconjugation Targets - PDF for M. Spokoiny	93.859	48,756

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
5-F32-GM101860-02	Quantitative RNA affinity landscapes: implications for development and disease - PDF for N. Lambert	93.859	50,220
5-F32-GM101872-02	Elucidating Nuclear Argonate Function - PDF for T. Kelly	93.859	48,199
	<b>Total for 93.859</b>		<b>572,024</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F31-CA165735-01A1	Signaling Networks in Glioblastoma Drug Resistance - GF J. McFalline	93.398	39,382
1-F32-CA73118-03	Postdoctoral Fellow: J. Landers	93.398	607
5-F31-CA167872-02	Characterization of novel regulators of amino acid-sensitive mTORC1 signaling - GF for L. Schweitzer	93.398	42,376
5-F32-CA139902-03	In vivo Characterization of MicroRNA Regulation - PDF for Jesse Zamudio	93.398	10,897
5-F32-CA142144-03	Roles of Rho Proteins During Stages: PDF - J - Lamar	93.398	39,248
5-F32-CA157197-02	Array of Resistive Sensors for Detecting Lung Cancer in Exhaled Air - PDF for K. Mirica	93.398	48,735
5-F32-CA159496-02	Diagnostic peptide-nanoparticle probes for profiling tumor protease activity - PDF - Gabriel Kwong	93.398	49,582
5-F32-CA165484-02	Wavefront Corrected Multimodal optical coherence and two-photon microscopy for rapid breast tumor margin assessment - PDF for Y. Tao	93.398	38,321
5-F32-CA165700-02	Role of Phospho-Tyrosine Binding in Mena-Driven Metastasis - PDF for R. McConnell	93.398	45,604
5-F32-CA168057-02	New Approaches to the Selective Targeting of Cancer-associated Fibroblasts - PDF J. Van Deventer	93.398	47,111
	<b>Total for 93.398</b>		<b>361,863</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F31-MH098503-01	Identification and Manipulation of Active Memory Circuits - GF- K. Ramamoorthi	93.282	37,199
1-F31-MH098508-01	Closed-Loop Control of Hippocampal Output During a Working Memory Task - GF J. Siegel	93.282	36,340
5-F32-MH085454-03	Esemble Recording in Corticostraital Pathways-PDF for K. Smith	93.282	2,146
5-F32-MH095354-02	Development of Procedural Memory Systems in Children with and without ADHD-PDF A. Finn	93.282	51,932
	<b>Total for 93.282</b>		<b>127,617</b>

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F32-HD068086-01A1	Development of social comparison and its effect on empathy - PDF - Mina Cikara	93.865	3,199
1-F32-HD072748-01	Computational models of the acquisition of verb meaning - PDF - J. Hartshorne	93.865	47,269
1-F32-HD075427-01	Behavioral, fMRI, and Anatomical MRI Investigations of Attention in Autism - PDF for J. Fischer	93.865	33,080
5-F32-HD061180-03	Neural Correlates of Orthographic and Phonological Processing - PDF for Marianna Eddy	93.865	4,060
	<b>Total for 93.865</b>		<b>87,608</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
5-F31-NS076024-02	NCKX regulates glial calcium signaling and seizure susceptibility in Drosophila - GF for J. Melom	93.853	21,396
5-F32-NS064750-03	Molecular Mechanisms - PDF for Richard Cho	93.853	5,285
	<b>Total for 93.853</b>		<b>26,681</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F32-EY022264-01A1	Role of glial glutamate transporters in V1 plasticity and development - PDF for J. Petravicz	93.867	46,980
1-F32-EY022509-01	Functions of the pulvinar and pulvino-cortical interactions in visual attention - PDF for R. Schafer	93.867	27,128
1-F32-EY022845-01	Understanding the Neural Basis of Visual Face Processing	93.867	49,546
1-F32-EY023523-01	Modulation of cortical processing by engagement with the sensory environment	93.867	11,523
5-F32-EY019609-03	The Neural Organization of Face and Object Patches - PDF E. Issa	93.867	-58
5-F32-EY019622-03	Perception of Tactile Graphics - PDF - A. Kalia	93.867	49,155
5-F32-EY020066-03	The Role of MicroRNAs - PDF - N. Mellios	93.867	25,378
5-F32-EY020157-03	Updating Location Information across Object and Eye Movements - PDF - J. Golumb	93.867	6,525
5-F32-EY020692-03	Interactions Between LIP - PDF for G. Mulliken	93.867	58,895
	<b>Total for 93.867</b>		<b>275,072</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
1-F31-AG044061-01	A novel developmental pathway for genes involved in Alzheimer's Disease - GF for K. Villa	93.866	37,765
1-F31-AG044064-01	Understanding the mechanisms that govern Bst-1 induction upon caloric restriction	93.866	27,718
	<b>Total for 93.866</b>		<b>65,483</b>

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<u>Contract Number</u> 1-F31-A1075897-01A1	<u>Contract Title</u> Evaluation of Laboratory Information Systems-Graduate Fellowship-Blaya	<u>CFDA #</u> 93.855	<u>FY Expenses</u> -1
1-F31-AI104170-01	Investigating the role of inflammasome activation in the control of T. gondii - GF for K. Cirelli	93.855	16,291
	<b>Total for 93.855</b>		<b>16,290</b>
<u>Contract Number</u> 1-F32-DK095529-01	<u>Contract Title</u> Exosomes: Genetic delivery vehicles to enhance engineered hepatic tissue - PDF - K. Christine	<u>CFDA #</u> 93.847	<u>FY Expenses</u> 53,832
1-F32-DK095726-01A1	Regulation of Heme Synthesis and Mitochondrial Physiology by the ClpX Unfoldase - PDF - J. Kardon	93.847	38,832
1-F32-DK097858-01A1	Nanolayer Assemblies for Temporal Cytokine Therapy in Diabetic Ulcer Healing - PDF for Almquist	93.847	19,533
5-F32-DK091007-02	Micropatterned scaffold-free liver tissue - PDF - K. Stevens	93.847	13,216
	<b>Total for 93.847</b>		<b>125,413</b>
<u>Contract Number</u> 1-F31-MH099782-01A1	<u>Contract Title</u> Characterizing in-task corticostriatal circuit operation during habit learning	<u>CFDA #</u> 93.242	<u>FY Expenses</u> 1,836
	<b>Total for 93.242</b>		<b>1,836</b>
<u>Contract Number</u> 5-F32-HG005192-03	<u>Contract Title</u> Analysis and Integration of Expression Patterns in Embryonic Regulatory networks - PDF for C. Bristow	<u>CFDA #</u> 93.172	<u>FY Expenses</u> 311
	<b>Total for 93.172</b>		<b>311</b>
<u>Contract Number</u> 5-F32-AR062931-02	<u>Contract Title</u> Data-Driven Modeling of Signaling Dysregulation in Rheumatoid Arthritis - PDF D. Jones	<u>CFDA #</u> 93.846	<u>FY Expenses</u> 49,534
	<b>Total for 93.846</b>		<b>49,534</b>
	<b>Total for NIH</b>		<b>1,939,038</b>
	<b>Total for Dept. of Health and Human Services</b>		<b>1,939,038</b>

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**Miscellaneous Federal Govt.**

**Institute of Museum and Library Services**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
MA-04-10-0304-10	MFA - Engaging Communities	45.301	37,968

**Total for 45.301 37,968**

**Total for Institute of Museum and Library Services 37,968**

**National Endowment For The Humanities**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
GI-50353-11	Guastavino Vaulting: Palaces for the People	45.164	275,499

**Total for 45.164 275,499**

**Total for 45.164 275,499**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
PE-50100-13	Digital Preservation Management: Effective Short-Term Strategies for Long-Term Problems	45.149	14,735

**Total for 45.149 14,735**

**Total for National Endowment For The Humanities 290,234**

**U.S. Agency for International Development**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
AID-OAA-A-12-00095	IDIN Admin	98.001	127,645
AID-OAA-A-12-00095	IDDS Programs	98.001	94,537
AID-OAA-A-12-00095	IDIN Programs	98.001	46,085
AID-OAA-A-12-00095	IDIN Research	98.001	74,181

**Total for 98.001 342,448**

**Total for U.S. Agency for International Development 342,448**

**U.S. Department of Agriculture**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2011-67017-30669	Genetic Identification and Characterization of Cellulases and Cellulolytic Complexes from Fungi - PDF for M. O'Malley	10.310	4,059



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Total for 10.310 **4,059**  
Total for U.S. Department of Agriculture **4,059**

**U.S. Department of Commerce - NOAA**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NA 060AR4170203	Regional Ocean Science Plan to Support Ecosystem - Based Management	11.417	30,437
NA110AR4170184	Integrating Electronic Tag Information - GF- B. Galuardi	11.417	32,083
NA120AR4170041	Fern T Gibbons_ MIT Sea Grant _Knauss Fellowship 2012	11.417	27,075
NA130AR4170022	Sathiska Pather_ MIT Sea Grant _Knauss Fellowship 2013	11.417	16,270
	<b>Total for 11.417</b>		<b>105,865</b>
	<b>Total for U.S. Department of Commerce - NOAA</b>		<b>105,865</b>

**U.S. Department of Commerce-NIST (Natl Inst of Stand & Tech)**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
70NANB13H114	2012 Surf Summer Program - OK - Gaithersburg	11.609	7,886
	<b>Total for 11.609</b>		<b>7,886</b>
	<b>Total for U.S. Department of Commerce-NIST (Natl Inst of Stand &amp; Tech)</b>		<b>7,886</b>

**U.S. Department of Education**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
Q184H090103	Comprehensive, Campus/Community-Based Approach to Reducing Alcohol-Related Violence Among Fraternity and Sorority Students	84.184H	13,670
Q184N100013	Comprehensive Model to address High-Risk Alcohol Service and Consumption by Fraternity members	84.184H	28,241
	<b>Total for 84.184H</b>		<b>41,911</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
P047A080317-11	Jan 2012 supplemental funding	84.047A	-11,231
P047A080317-11	TRIO - Upward Bound	84.047A	-39,046
	<b>Total for 84.047A</b>		<b>-50,277</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
P116J100018	Policy Analysis for Complex Transport Systems	84.116J	12,975
	<b>Total for 84.116J</b>		<b>12,975</b>

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<u>Contract Number</u> P170B070010-10	<u>Contract Title</u> Javits Fellowship: Spinak	<u>CFDA #</u> 84.170B	<u>FY Expenses</u> -2,215
			<b>-2,215</b>
			<b>2,394</b>

**Total for 84.170B**  
**Total for U.S. Department of Education**

<b>U.S. Department of Interior-Fort Huachuca</b>			
<u>Contract Number</u> D12AF00018	<u>Contract Title</u> Third International Workshop on Computational Models of Narrative	<u>CFDA #</u> 12.910	<u>FY Expenses</u> 4,896
			<b>4,896</b>
			<b>4,896</b>

**Total for 12.910**  
**Total for U.S. Department of Interior-Fort Huachuca**

<b>U.S. Department of Justice</b>			
<u>Contract Number</u> 2009-WA-AX-0021	<u>Contract Title</u> MIT Violence Education, Prevention and Response Project	<u>CFDA #</u> 16.525	<u>FY Expenses</u> 82,276
			<b>82,276</b>
			<b>82,276</b>

**Total for 16.525**  
**Total for U.S. Department of Justice**

<b>U.S. Department of Transportation</b>			
<u>Contract Number</u> DTFH64-11-G-00031	<u>Contract Title</u> Eisenhower Graduate Fellowship: C. Brakewood.	<u>CFDA #</u> 20.215	<u>FY Expenses</u> 1,500
<u>Contract Number</u> DTFH64-12-G-00018	<u>Contract Title</u> Eisenhower Graduate Fellowship: R. Westrom	<u>CFDA #</u> 20.215	<u>FY Expenses</u> 11,499
			<b>12,999</b>

**Total for 20.215**

<u>Contract Number</u> DTRT07-G-0001	<u>Contract Title</u> Introducing Transportation-Related Careers to Minority High School Students in Massachusetts Underserved Communities	<u>CFDA #</u> 20.701	<u>FY Expenses</u> 89
<u>Contract Number</u> DTRT12-G-UTC01	<u>Contract Title</u> Engaging Emerging Minority Youth in Real-Time, Community-Based Transportation Research and Modeling	<u>CFDA #</u> 20.701	<u>FY Expenses</u> 9,998
			<b>10,087</b>
			<b>23,086</b>

**Total for 20.701**  
**Total for U.S. Department of Transportation**

<b>U.S. Environmental Protection Agency</b>			
<u>Contract Number</u> FP-91713401-0	<u>Contract Title</u> Graduate Fellow: David Griffith	<u>CFDA #</u> 66.514	<u>FY Expenses</u> 18,033

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FP-91732001-0	Graduate Fellow: R. Clewlow	66.514	346
FP-91743301-0	Graduate Fellow: J. Bryant	66.514	12,162
	<b>Total for 66.514</b>		<b>30,541</b>
	<b>Total for U.S. Environmental Protection Agency</b>		<b>30,541</b>

**U.S. Nuclear Regulatory Commission**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NRC-38-08-940	Child Account: Us Nuclear Regulatory Commission Nuclear Education Grant Program: Faculty Development	77.CCC	36,091
NRC-38-08-958	U.S. NRC Nuclear Education Graduate Fellowship Program	77.CCC	-25,000
	<b>Total for 77.CCC</b>		<b>11,091</b>
	<b>Total for U.S. Nuclear Regulatory Commission</b>		<b>11,091</b>
	<b>Total for Miscellaneous Federal Govt.</b>		<b>942,744</b>

**Nat'l Aero & Space Administration**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NNA08CN84A	Education Outreach Child Account: Requirements for Development and Maintenance of Multicellular Life - A Traveling Astrobiology Exhibit	43.000	5,868
	<b>Total for 43.000</b>		<b>5,868</b>
	<b>Total for NASA - Ames Research Center</b>		<b>5,868</b>

**NASA - Goddard Space Flight Center**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NGG12FD70C	REXIS - Child Educational Payload	43.CCC	218,537
NGG12FD70C	REXIS - Child Educational Payload - Phase C & D	43.CCC	7,305
NNH11CC26C	Space Grant Travel Grants for ZR	43.CCC	33,052
NNX10AT92H	Massachusetts Space Grant Consortium	43.CCC	548,352
	<b>Total for 43.CCC</b>		<b>807,246</b>

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NNX11AP34H	Laboratory Study Of The Flow Of Two-Phase Planetary Ices - GF for H. Lenferink	43.001	5,603
NNX11AP47H	Photochemistry of Super Earth - GF for R. Hu	43.001	32,282
NNX12AN38H	Algorithms for P-band SAR Root-zone soil moisture Retrieval - GF for A. Konings	43.001	23,201
NNX12AN39H	Delineating the role of Arctic forcing in extratropical extreme weather - GF for D. Whittleston	43.001	23,106
	<b>Total for 43.001</b>		<b>84,192</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NNX11AM62H	Development and Testing of Compression Technologies Using Advanced Materials for Mechanical Counter-Pressure Planetary Exploration Suits - GF for B. Holschuh	43.009	70,612
NNX11AM63H	A Compact, High-Precision Optical Payload enabling Earth-Sized Exoplanet Detection using Nanosatellites - GF for M. Smith	43.009	86,136
NNX11AN09H	Development of multi-modal, high-density electrospray porous metal thrusters - GF for C. Coffman	43.009	47,000
NNX11AN32H	Lifecycle Reusable Functional Digital Materials - GF for S. Hovsepian	43.009	11,758
NNX11AN33H	Small Satellite Attitude Determination and Control - GF for C. Pong	43.009	76,354
NNX11AN34H	Nano-Engineered Hierarchical Advanced Composite Materials for Space Applications - GF for S. Wicks	43.009	63,266
NNX11AN79H	3D Constitutive Relations for an Aligned Carbon Nanotube Polymer Nanocomposite as a Function of Morphology - GF for D. Handlin	43.009	62,449
NNX13AE13H	On-Chip quantum repeater in diamond for space-based quantum communication - GF for E. Chen	43.009	24,069
NNX13AE14H	Diamond Electron-Spin Clocks For Space Navigation and Communication - GF for H. Clevenson	43.009	20,659
	<b>Total for 43.009</b>		<b>462,303</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NNX09AF65G	CDIO in Aerospace Engineering Education	43.000	81,030
NNX10AJ90A	CAN/National Needs Grant: Summer of Innovation Pilot	43.000	110,783
NNX10AJ90A	MIT Edgerton Center (You Go Girls)	43.000	13,940
NNX10AN15H	NESSF - Integration, Testing, and Flight - GF for J. Rutherford	43.000	31,497
	<b>Total for 43.000</b>		<b>237,250</b>

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NNX12AM28H	Electrostatic and Electrochemical Optimization of Electro spray Thrusters - GF for L. Perna	43.008	43,894
NNX12AM29H	The Gravity Loading Countermeasure Skinsuit - GF for D. Kendrick	43.008	44,000
NNX12AM30H	CubeSat Deformable Mirror Demonstration - GF for A. Marinar	43.008	9,866
	<b>Total for 43.008</b>		<b>97,760</b>
	<b>Total for NASA - Goddard Space Flight Center</b>		<b>1,688,751</b>

**NASA - Marshall Space Flight Center**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
NINM08AA18C	Symposium child: GRAIL	43.CCC	5,500
	<b>Total for 43.CCC</b>		<b>5,500</b>
	<b>Total for NASA - Marshall Space Flight Center</b>		<b>5,500</b>
	<b>Total for Nat'l Aero &amp; Space Administration</b>		<b>1,700,119</b>

**National Science Foundation**

**NSF**

<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
BCS-1051566	Doctoral Dissertation Research: Online Control of Multisyllabic Speech Articulation based on Auditory Feedback - GF for S. Cai	47.075	-2,106
BCS-1227892	Doctoral Dissertation Research: Causal Representations in Children's Transitive Sentences - GF Kline	47.075	3,020
SES-1056580	Dark Energy, Fine-Tuning, and the Multiverse: Testing Theories in Modern Cosmology - PDF for A. Friedman	47.075	56,688
SES-1057311	Doctoral Dissertation Research: Making Mathematics Manifest Material and Virtual Modes in Mathematical Research and Pedagogy - Graduate Fellowship - A. Steingart	47.075	-68
SES-1057917	Doctoral Dissertation Research: Experimenting with Security: Mexican Biology and Biosecurity - GF for E. Wanderer	47.075	535

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
SES-1125858	Doctoral Dissertation Research: An Empire of Purity: Making the Modern Sugar Economy, 1875-1925 - GF for D. Singerman	47.075	7,967
SES-1223187	Doctoral Dissertation Research in Political Science: Citizen Input, Policy Outcomes, and Local Representation in the U.S. - GF for M. Sances	47.075	7,147
SES-1254653	Doctoral Dissertation Research: Cold War Dreams: Nuclear Arms Control in American Science, Politics, and Culture - B. Wilson	47.075	2,681
SMA-1103351	Minority Postdoctoral research fellowship - M. Friedner	47.075	8,790
SMA-1158763	Doctoral Dissertation Research in Science of Science and Innovation Policy: Organizations and the Diffusion of Scientific Knowledge - GF for M. Bikard	47.075	1,913
	<b>Total for 47.075</b>		<b>86,567</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
AST-0747154	Participant Costs Child Account: CAREER: Building Rocky Planets: From Mercury and Vesta to GL 581C	47.049	8,076
AST-1003139	Seeking the Lost Interstellar Medium of Red-Sequence Galaxies - PDF for Kathy Cooksey	47.049	159
AST-1156504	REU - Teachers	47.049	46,000
AST-1156504	REU - Students	47.049	104,887
AST-1241363	Radio Stars and Their Lives in Galaxy Workshop	47.049	10,204
AST-1241363	2745500 Workshop Participant Support	47.049	9,616
CHE-1041863	Directed Synthesis of a Pure Spin Liquid - Towards a Comprehensive theory of High-TC Superconductivity - PDF for D. Freedman	47.049	25,195
CHE-1041979	Ultrafast Energy Dynamics of Strongly Coupled Vibrational Systems	47.049	30,337
DMR-1242334	Future Faculty Workshop: Diverse Leaders of Tomorrow	47.049	41,478
DMS - 0903137	Postdoctoral Research Fellowship - A. Naber	47.049	4,985
DMS-0854764	FRG: Collaborative Research: Quantum Cohomology, Quantized Algebraic Varieties, and Representation Theory (budget revision)	47.049	22,371
DMS-0854774	FRG: Collaborative Research: Mean curvature flow as a tool in low dimensional topology-Participant Support	47.049	2,614
DMS-0943787	Participant Support Costs	47.049	267,492

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<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
DMS-1000113	Tensor categories, quantum groups, and Hecke algebras - Participants	47.049	13,944
DMS-1007096	Talbot Workshops: 2011 - 2013	47.049	21,883
DMS-1045217	A Celebration of Algebraic Geometry	47.049	142
DMS-1204946	Arithmetic of Abelian Varieties in Families	47.049	35,286
DMS-1205558	Automorphic forms, representations, and combinatorics: A conference in honor of Daniel Bump	47.049	30,400
DMS-1206449	The Legacy of Daniel Quillen: K-Theory And Homotopical Algebra	47.049	45,500
DMS-1238309	Participant Support Costs	47.049	16,052
PHY-0969311	Stongly Interacting Quantum Mixtures of Ultracold Atoms	47.049	1,521
PHY-1125846	Sponsored Workshops	47.049	22,252
PHY-1125846	CUA - Participant Support For TOPS Program	47.049	125,515
PHY-1143673	Particles and Nuclei International Conference (PANIC11) at MIT: Participation by an Extended Community	47.049	-284
<b>Total for 47.049</b>			<b>885,625</b>
<u>Contract Number</u>	<u>Contract Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Grad. Teaching Consort.	47.041	63,443
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems - Dist. Lectureship	47.041	7,594
CBET-0939511	NSF Science and Technology Center: Emergent Behaviors of Integrated Cellular Systems	47.041	16,896
CBET-1150615	REU Supplement to CAREER: Dielectric Phenotyping of Bacteria for Energy and Medicine	47.041	10,611
CBET-1340199	Japan-MIT Nano-Bio Symposium for young research exchange	47.041	1,300
CMMI-0830134	REU Supplement - CAREER: A Design Data Analysis Approach to Early Stage Design Process Modeling	47.041	623
CMMI-1153951	2012 Conference on Stochastic Networks	47.041	5,863
CMMI-1240826	Support of student travel to EIPBN 2	47.041	10,000

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<u>Contract Number</u> ECCS-1321752	<u>Contract Title</u> Support of student travel to the EIPBN conference To be Held At the Gaylord Opryland Resort, Nashville, Tennessee, May 28-31, 2013	<u>CFDA #</u> 47.041	<u>FY Expenses</u> 10,986
<b>Total for 47.041</b>			<b>127,316</b>
<u>Contract Number</u> ANT-1103375	<u>Contract Title</u> Postdoctoral Research Fellowship - D. Goldberg	<u>CFDA #</u> 47.078	<u>FY Expenses</u> -288
<b>Total for 47.078</b>			<b>-288</b>
<u>Contract Number</u> CCF-1058127	<u>Contract Title</u> REU Supplement - CIF: Medium: Collaborative Research: From Retroactivity to Modularity: Design and Implementation of a Genetic Insulation Device in Yeast	<u>CFDA #</u> 47.070	<u>FY Expenses</u> -887
<u>Contract Number</u> CCF-1244885	<u>Contract Title</u> CIF: Travel Grant for the IEEE International Symposium on Information Theory, July 1 to 6, 2012	47.070	10,000
<u>Contract Number</u> CCF-1249349	<u>Contract Title</u> 2012 Waterman Award	47.070	6,062
<u>Contract Number</u> CNS-1000965	<u>Contract Title</u> Workshop Future Internet Architecture Summit	47.070	7,519
<u>Contract Number</u> CNS-1046733	<u>Contract Title</u> Revised budget for REU-Career	47.070	4,734
<u>Contract Number</u> CNS-1049123	<u>Contract Title</u> NSF Workshop on Highly Controllable Dynamic Heterogeneous Networking	47.070	12,912
<u>Contract Number</u> CNS-1242938	<u>Contract Title</u> Live Demonstration Event At The 14th GEC In Boston	47.070	45,733
<u>Contract Number</u> CNS-1255761	<u>Contract Title</u> REU Supplement	47.070	1,205
<u>Contract Number</u> CNS-1258691	<u>Contract Title</u> Future Internet Architecture Investigator Meeting	47.070	53,786
<u>Contract Number</u> CNS-1258905	<u>Contract Title</u> Workshop on Multi-spectrum Metrics for Cyber Defense	47.070	6,962
<u>Contract Number</u> IIS-1047567	<u>Contract Title</u> Workshop on Collective Intelligence	47.070	18,453
<u>Contract Number</u> IIS-1053105	<u>Contract Title</u> Workshop: Frontiers in Computer Vision	47.070	2,556
<u>Contract Number</u> IIS-1116296	<u>Contract Title</u> REU Supplement	47.070	1,455
<u>Contract Number</u> IIS-1235666	<u>Contract Title</u> ACM SIGMOD 2012 Student Programming Contest: A Multidimensional Indexing System	47.070	21,098
<u>Contract Number</u> IIS-1313847	<u>Contract Title</u> WORKSHOP: Student Consortium at the 2013 ACM Conference on Intelligent User Interfaces	47.070	7,656
<b>Total for 47.070</b>			<b>199,244</b>
<u>Contract Number</u> SES-1246941	<u>Contract Title</u> Participant Support Costs	<u>CFDA #</u> 45.075	<u>FY Expenses</u> 37,411



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<u>Contract Number</u> SES-1246941	<u>Contract Title</u> Reckoning with the Risk of Catastrophe-Workshop scheduled for October 2012 in Washington, DC	<u>CFDA #</u> 45.075	<u>FY Expenses</u> 1,862
<b>Total for 45.075</b>			<b><u>FY Expenses</u> 94,753</b>
<u>Contract Number</u> DGE-0946798	<u>Contract Title</u> ARRA - Graduate Research Fellowship Program - '11-'12	<u>CFDA #</u> 47.082	<b><u>FY Expenses</u> 94,753</b>
<b>Total for 47.082</b>			<b><u>FY Expenses</u> 44,509</b>
<u>Contract Number</u> DBI-1005055	<u>Contract Title</u> REU Site: Biological Engineering Research Experience for Undergraduates (BE REU)	<u>CFDA #</u> 47.074	4,334
<u>Contract Number</u> DBI-1103600	NSF Postdoctoral Fellowship in Biology FY 2010 - GF for J. Girardo	47.074	
<b>Total for 47.074</b>			<b><u>FY Expenses</u> -2,994</b>
<u>Contract Number</u> AGS-0733510	<u>Contract Title</u> Participant Costs	<u>CFDA #</u> 47.050	8,051
<u>Contract Number</u> AGS-0733510	6917122 IPA Participant Support	47.050	-130
<u>Contract Number</u> AGS-0733510	Electrical Distribution Maintenance Cost	47.050	1,249
<u>Contract Number</u> AGS-1042622	Participants: CEDAR Science Steering Committee 2010-2012	47.050	24,007
<u>Contract Number</u> EAR-0807585	Workshop: The Siberian Traps and the End-Permian Extinction: Coincidence and Casualty	47.050	
<b>Total for 47.050</b>			<b><u>FY Expenses</u> 9,458</b>
<u>Contract Number</u> AST-1338510	<u>Contract Title</u> Participant Support Costs	<u>CFDA #</u> 47.079	<b><u>FY Expenses</u> 60,631</b>
<b>Total for 47.079</b>			<b><u>FY Expenses</u> 436</b>
<u>Contract Number</u> OCI-1152538	<u>Contract Title</u> Participant Support Costs	<u>CFDA #</u> 47.080	
<u>Contract Number</u> OCI-1152538	A Research Coordination Network Dedicated to Facilitating the Creation and Transfer of Knowledge	47.080	
<b>Total for 47.080</b>			<b>61,067</b>
<b>Total for NSF</b>			<b>1,582,041</b>
<b>Total for National Science Foundation</b>			<b>1,582,041</b>
<b>Total Federal Non-Research Support</b>			<b>6,754,428</b>

**Appendix C - Detail  
 Massachusetts Institute of Technology  
 Federal Non-Research Support - Passthrough - On Campus  
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**Department of Defense  
 American Society/Engineering Education**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2291100	LETTER DATED 8/11/99	Ndseg Fellowship Program	12.300	3,045,401
<b>Total for 12.300</b>				<b>3,045,401</b>

**Total for American Society/Engineering Education**

**Draper Laboratory Incorporated**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2744695	PO 001-0001020997	Draper Fellow - Laun	12.CCC	7,890
2745381	PO 001-0001024124	Draper Fellow - M. Graham	12.CCC	51,461
2745382	PO 001-0001024153	Draper Fellow - K. Kotru	12.CCC	53,317
2745383	PO 001-0001024154	Draper Fellow - J. Nash	12.CCC	50,533
2745384	PO 001-0001024152	Draper Fellow - N. Dunn - Usn	12.CCC	33,353
2745385	PO 001-0001024157	Draper Fellow - T. Steiner	12.CCC	53,317
2745386	PO 001-0001024156	Draper Fellow - N. Lowry	12.CCC	8,108
2745387	PO 001-0001024871	Draper Fellow - C. Witlock -Usaf	12.CCC	33,258
2745388	PO 001-0001024896	Draper Fellow - C. Horgan-Usaf	12.CCC	33,258
2745389	PO 001-0001024895	Draper Fellow - D. Montes, Usaf	12.CCC	33,258
2745390	PO 001-0001025310	Draper Fellow -J. Rize	12.CCC	43,015
2745391	PO 001-0001025309	Draper Fellow - M. Stoeckle	12.CCC	43,015
2745392	PO 001-0001025311	Draper Fellow - M. Galfond	12.CCC	43,015
2745393	PO 001-0001025504	Draper Fellow - N. Lowry	12.CCC	45,093
2745394	PO 001-0001025509	Draper Fellow - E. Leidy	12.CCC	40,556
2745395	PO 001-0001024441	Draper Fellow - Sun	12.CCC	47,207
2745396	PO 001-0001024155	Draper Fellow - Yee	12.CCC	31,060
2745397	PO 001-0001024894	Draper Fellow -D. Adams, Usaf	12.CCC	30,984
2745398	PO 001-0001025426	Draper Fellow - M. Raredon	12.CCC	43,015
2745399	PO 001-0001025306	Draper Fellow - J. Wang	12.CCC	30,617
2745401	PO 001-0001025135	Draper Fellow - E. Frost Usn	12.CCC	33,258
2745402	PO 001-0001025302	Draper Fellow - E. Robinson Usaf	12.CCC	33,258
2745403	PO 001-0001025308	Draper Fellow - L. Kim	12.CCC	43,015

**Appendix C - Detail  
Massachusetts Institute of Technology  
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<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745404	PO 001-0001024556	Draper Fellow - J. Jeon	12.CCC	8,069
2745405	PO 001-0001024641	Draper Fellow - M. Thomas	12.CCC	48,062
2745406	PO 001-0001024869	Draper Fellow - A. Laun, Usn	12.CCC	33,380
2745407	PO 001-0001025209	Draper Fellow - N. Byrne	12.CCC	43,121
2745408	PO 001-0001025239	Draper Fellow - A Ramierz	12.CCC	7,412
2745409	PO 001-0001025304	Draper Fellow - J. Nation	12.CCC	43,015
2745410	PO 001-0001024567	Draper Fellow - M. Van Camp	12.CCC	8,307
2745411	PO 001-0001024870	Draper Fellow - A. Arpa	12.CCC	50,780
2745412	PO 001-0001025211	Draper Fellow - M. Van Camp	12.CCC	45,597
2745570	PO 001-0001025696	Draper Fellow - S. Fast	12.CCC	43,015
2745571	PO 001-0001025695	Draper Fellow - I. Beerer	12.CCC	21,572
2745572	PO 001-0001025698	Draper Fellow - C. Dopart	12.CCC	43,015
2745573	PO 001-0001026229	Draper Fellow - B. Karlow	12.CCC	31,000
2745914	PO 001-0001028087	Draper Fellow - J. Nation	12.CCC	3,799
2745915	PO 001-0001028093	Draper Fellow - N. Byrne	12.CCC	3,799
2745916	PO 001-0001028088	Draper Fellow - M. Thomas	12.CCC	3,799
<b>Total for 12.CCC</b>				<b>1,302,603</b>
<b>Total for Draper Laboratory Incorporated</b>				<b>1,302,603</b>

**Lincoln Laboratory**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745266	PO #7000195946	Support Of The Security Studies Program	12.CCC	17,447
2745735	PO #7000228220	Support Of The Mit Security Studies Prog	12.CCC	22,987
<b>Total for 12.CCC</b>				<b>40,434</b>
<b>Total for Lincoln Laboratory</b>				<b>40,434</b>

**Massachusetts General Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388456	218227 MEMORANDUM OF	Mit-Cimit Medical Engineering Fellowship	12.420	490
2388457	220257 - MEMORANDUM OF	Mit-Cimit Medical Engineering Fellowship	12.420	32,780
2388614	BILLING AGREEMENT -	Letter Agreement: Meaghan O'Neil	12.420	33,000
<b>Total for 12.420</b>				<b>66,270</b>

**Appendix C - Detail**  
**Massachusetts Institute of Technology**  
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00,410  
**66,270**  
**4,454,708**

**Total for Massachusetts General Hospital**  
**Total for Department of Defense**

**Department of Energy**  
**Battelle-Pacific Northwest Laboratories**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745048	CONTRACT NO. 162002	Ctri Nuclear Security Education Initiati	81.CCC	386,273
<b>Total for 81.CCC</b>				<b>386,273</b>
<b>Total for Battelle-Pacific Northwest Laboratories</b>				<b>386,273</b>

**Krell Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2225900	FELLOWSHIP COMMITMENT	Doe-Csgf Krell Institute	81.049	14,467
2388139	LTR. DTD. 9/09	Doe Nnsa Stewardship Science Graduate Fe	81.049	2,152
2388330	LTR. AGREEMENT	Doe Nnsa Stewardship Science Graduate Fe	81.049	929
2388618	LTR. AGREEMENT	Doe Nnsa Stewardship Science Graduate Fe	81.049	772
<b>Total for 81.049</b>				<b>18,320</b>
<b>Total for Krell Institute</b>				<b>18,320</b>

**Sandia National Laboratories**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388430	PO 1154670 UNDER 611557	Sandia Fellowship - Dwyer	81.CCC	61,092
<b>Total for 81.CCC</b>				<b>61,092</b>
<b>Total for Sandia National Laboratories</b>				<b>61,092</b>
<b>Total for Department of Energy</b>				<b>465,685</b>

**Appendix C - Detail**  
**Massachusetts Institute of Technology**  
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**Dept. of Health and Human Services**  
**Harvard Medical School**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745347	HMS FUND #151844	Letter Agreement: Joel Brooks	93.879	27,700
2745348	HMS FUND #151844	Letter Agreement: Marzyeh Ghassemi	93.879	-2,085
2745595	HMS FUND #152433	Y21 Birt T15 Training Grant	93.879	29,061
2745701	HMS FUND #152433	Letter Agreement: Tristan Naumann	93.879	32,200
2745702	HMS FUND #152433	Letter Agreement: Marzyeh Ghassemi	93.879	32,200
		<b>Total for 93.879</b>		<b>119,076</b>
		<b>Total for Harvard Medical School</b>		<b>119,076</b>

**Massachusetts General Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745591	MGH ACCOUNT PS NO.	Letter Agreement: Eugene Lim	93.879	22,552
2745742	MGH ACCOUNT PS NO.	Letter Agreement: Eugene Lim	93.879	22,552
		<b>Total for 93.879</b>		<b>45,104</b>
		<b>Total for Massachusetts General Hospital</b>		<b>45,104</b>
		<b>Total for Dept. of Health and Human Serv</b>		<b>164,180</b>

**Nat'l Aero & Space Administration**  
**Baylor College of Medicine**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2744597	SA01701	Team Leader Funding - Seniorimotor Adapta	43.000	2,566
2744743	EO01001	Graduate Education Program In In Space L	43.000	3,194
2745496	EO02002	Mentored Research Program In Space Life	43.000	192,055
		<b>Total for 43.000</b>		<b>197,815</b>

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 Massachusetts Institute of Technology  
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 Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745499	SA02701	Team Leader Funding - Sensorimotor Adapt	43.002	64,980
		<b>Total for 43.002</b>		<b>64,980</b>
		<b>Total for Baylor College of Medicine</b>		<b>262,795</b>

**California Institute of Technology**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388332	2-10898-40 UNDER NASA	Sagan Postdoctoral Fellowship Program -	43.000	32,042
2388464	2-1090927 UNDER NASA	Sagan Postdoctoral Fellowship Program -	43.000	77,464
2388575	2-1092711	Sagan Postdoctoral Fellowship Program -	43.000	67,401
		<b>Total for 43.000</b>		<b>176,907</b>
		<b>Total for California Institute of Technology</b>		<b>176,907</b>

**CalTech - Jet Propulsion Lab**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388586	RSA NO. 1455459	Graduate Fellowship Surp Child - Mary Kna	43.CCC	45,767
2742809	1435198	Space Systems Product Development: Educa	43.CCC	-436
2745267	RSA NO. 1457621	Space Systems Product Development: Educa	43.CCC	20,704
		<b>Total for 43.CCC</b>		<b>66,035</b>
		<b>Total for CalTech - Jet Propulsion Lab</b>		<b>66,035</b>

**Center for Advancement of Science in Space**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745532	AGMT. DTD. 9/7/2012	Zero Robotics Programming Competition	43.007	97,508
		<b>Total for 43.007</b>		<b>97,508</b>
		<b>Total for Center for Advancement of Science in Space</b>		<b>97,508</b>

**Commonwealth of Massachusetts - Miscellaneous**

**Appendix C - Detail**  
**Massachusetts Institute of Technology**  
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<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2732483	MASSACHUSETTS SPACE	Massachusetts Space Grant Consortium	43.CCC	53
		<b>Total for 43.CCC</b>		<b>53</b>
		<b>Total for Commonwealth of Massachusetts - Miscellaneous</b>		<b>53</b>

**MIT - Internal Cost Sharing**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745502	EO02002	Mentored Research Program In Space Life	43.000	18,550
		<b>Total for 43.000</b>		<b>18,550</b>
		<b>Total for MIT - Internal Cost Sharing</b>		<b>18,550</b>

**Smithsonian Inst. - Astrophysical Observatory**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388425	PF1-120085	Dissecting Supernova Remnants And Hii Re	43.000	86,571
		<b>Total for 43.000</b>		<b>86,571</b>
<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388550	PF2-130102	The Nature Of The Fermi Bubble: Implicat	43.001	90,924
		<b>Total for 43.001</b>		<b>90,924</b>
		<b>Total for Smithsonian Inst. - Astrophysical Observatory</b>		<b>177,495</b>

**Space Telescope Science Institute**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388560	HST-HF-51308.01-A	The Present State Of Evolution - Pdf For	43.000	80,071
		<b>Total for 43.000</b>		<b>80,071</b>
		<b>Total for Space Telescope Science Institute</b>		<b>80,071</b>

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**Valador, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745530	AGMT DTD 3/28/12	Workshop Child - Nasa Innovative Mars Ha	43.CCC	39,717
		<b>Total for 43.CCC</b>		<b>39,717</b>
		<b>Total for Valador, Inc.</b>		<b>39,717</b>
		<b>Total for Nat'l Aero &amp; Space Administrator</b>		<b>919,131</b>

**National Science Foundation  
 Arizona State University**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745328	SUBAWARD NO. 12-725	Reu - Qesst: Erc For Quantum Energy And	47.041	2,777
		<b>Total for 47.041</b>		<b>2,777</b>
		<b>Total for Arizona State University</b>		<b>2,777</b>

**Brigham & Women's Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388208	104821	ARRA - Supplemental Fellowship Support - Gf H.	47.082	1,346
		<b>Total for 47.082</b>		<b>1,346</b>
		<b>Total for Brigham &amp; Women's Hospital</b>		<b>1,346</b>

**Computing Research Association**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388436	CIF-D-014	Computing Innovation Fellows Project - P	47.070	19,364
2388452	CIF-C-204	Computing Innovation Fellows Project - P	47.070	13,117
2388455	CIF-D-017	Computing Innovation Fellows Project - P	47.070	31,243
2388608	CIF-E-017 0937060	Computing Innovation Fellows Project - P	47.070	62,008
		<b>Total for 47.070</b>		<b>125,732</b>



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**125,732**

**Total for Computing Research Association**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745091	SA12-01 UNDER PRIME	National Ocean Science Bowl Online Game	47.050	42,789
		<b>Total for 47.050</b>		<b>42,789</b>
		<b>Total for Consortium of Ocean Leadership, Inc.</b>		<b>42,789</b>

**Massachusetts General Hospital**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388637	BILLING AGREEMENT -	Enabling Medical Device Interoperability	47.070	33,000
		<b>Total for 47.070</b>		<b>33,000</b>
		<b>Total for Massachusetts General Hospital</b>		<b>33,000</b>

**Missouri Botanical Garden**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2742101	DRL-0833663/NSF05848MI	Csi: Community Science Investigators	47.076	85,944
		<b>Total for 47.076</b>		<b>85,944</b>
		<b>Total for Missouri Botanical Garden</b>		<b>85,944</b>

**Sri International**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2741133	SUBCONTRACT NO.	Participant Costs	47.050	76
		<b>Total for 47.050</b>		<b>76</b>
		<b>Total for Sri International</b>		<b>76</b>

**University of Arizona**

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<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388462	P.O. Y562573-3698	The String Vacuum Project ( Svp) - Gr Da	47.049	27,068
		<b>Total for 47.049</b>		<b>27,068</b>
		<b>Total for University of Arizona</b>		<b>27,068</b>

**University of California**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745240	SUBAGREEMENT NO.	Ernesto Jimenez Scholarship	47.076	3,125
2745816	SUBAGREEMENT NO.	Ernesto Jimenez Scholarship	47.076	3,688
		<b>Total for 47.076</b>		<b>6,813</b>
		<b>Total for University of California</b>		<b>6,813</b>

**University of California - Berkeley**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2744256	00007444	Participant Support Costs	47.041	15,058
2744466	00007444	Mites	47.041	4,143
2744467	00007444	Msrp	47.041	20,000
2745158	SA5284-11210	Synberc:Synthetic Biology Engineering	47.041	23,603
2745623	00007444	Mostec	47.041	24,104
		<b>Total for 47.041</b>		<b>86,908</b>
		<b>Total for University of California - Berkeley</b>		<b>86,908</b>

**University of California-San Diego**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2742980	PO# 10298908	National Science Festival	47.076	177,284
		<b>Total for 47.076</b>		<b>177,284</b>
		<b>Total for University of California-San Diego</b>		<b>177,284</b>

**University of Hawaii**

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<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745706	Z792093-11 UNDER PRIME	C-More -- Center For Microbial Ocean Res	47.074	7,809
		<b>Total for 47.074</b>		<b>7,809</b>
		<b>Total for University of Hawaii</b>		<b>7,809</b>

**University of Illinois-Urbana Champaign**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2742015	2008-041111-01	Nsf-Gem4 Summer School On Cellular And M	47.041	68,220
		<b>Total for 47.041</b>		<b>68,220</b>
		<b>Total for University of Illinois-Urbana Champaign</b>		<b>68,220</b>

**University of Massachusetts - Amherst**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745417	11-006701-D-00	Neagap Summative Evaluation: Identifyin	47.076	2,530
		<b>Total for 47.076</b>		<b>2,530</b>
		<b>Total for University of Massachusetts - Amherst</b>		<b>2,530</b>

**University of Michigan**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745223	SUBCONTRACT #	Reu Supplement: Cps-Small-Delvecchio	47.070	3,736
		<b>Total for 47.070</b>		<b>3,736</b>
		<b>Total for University of Michigan</b>		<b>3,736</b>
		<b>Total for National Science Foundation</b>		<b>672,032</b>

**Other Federal Sponsors**  
**Consortium for Oceanographic Research & Education (Core)**

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**Fiscal 2013 Expenditures**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745721	SA #13-23 UNDER PRIME	Blue Lobster Bowl	11.431	12,408
		<b>Total for 11.431</b>		<b>12,408</b>
		<b>Total for Consortium for Oceanographic Research &amp; Education (Core)</b>		<b>12,408</b>

**Consortium of Ocean Leadership, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745116	SA #11-39 UNDER PRIME	National Ocean Sciences Bowl (Nosb) For	11.431	7,458
		<b>Total for 11.431</b>		<b>7,458</b>
		<b>Total for Consortium of Ocean Leadership, Inc.</b>		<b>7,458</b>

**Education Development Center, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2745737	#11452 SUBGRANT	Mit Collaboration With Edc To Develop An	98.001	45,957
2745864	#11452 SUBGRANT	Piloting Contemporary Approaches To Onli	98.001	69,474
		<b>Total for 98.001</b>		<b>115,431</b>
		<b>Total for Education Development Center, Inc.</b>		<b>115,431</b>

**Institute of International Education, Inc.**

<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>	<u>FY Expenses</u>
2388404	AGREEMENT DATED 7/1/11	Hubert H Humphrey Fellowship Program (Sp	19.CCC	53,072
		<b>Total for 19.CCC</b>		<b>53,072</b>
2388569	AGREEMENT DATED 7/1/12	Hubert H Humphrey Fellowship Program (Sp	19.010	156,679
		<b>Total for 19.010</b>		<b>156,679</b>
		<b>Total for Institute of International Education, Inc.</b>		<b>209,751</b>

**Appendix C - Detail**  
**Massachusetts Institute of Technology**  
**Federal Non-Research Support - Passthrough - On Campus**  
**Fiscal 2013 Expenditures**

<b>Social Impact, Inc</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>
2745842	MIT J-PAL	Impact Evaluation Workshop - Revised	12.CCC
		<b>Total for 12.CCC</b>	<b>28,806</b>
		<b>Total for Social Impact, Inc</b>	<b>28,806</b>
<b>University of Michigan</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>
2745713	3002453989	Dipir - Dissemination Information Packag	45.312
		<b>Total for 45.312</b>	<b>22,578</b>
		<b>Total for University of Michigan</b>	<b>22,578</b>
<b>University of Minnesota</b>			
<u>WBS #</u>	<u>Contract Number</u>	<u>Wbs Title</u>	<u>CFDA #</u>
2744558	H001344229	ARRA - Trade Adjustment Assistance Program For	10.315
		<b>Total for 10.315</b>	<b>43,297</b>
		<b>Total for University of Minnesota</b>	<b>43,297</b>
		<b>Total for Other Federal Sponsors</b>	<b>439,729</b>
		<b>Total Passthrough</b>	<b>7,115,465</b>



**SECTION III**

**REPORTS ON INTERNAL CONTROL AND  
COMPLIANCE AND SUMMARY OF AUDITOR'S  
RESULTS**







**Independent Auditor’s Report 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 Risk and Audit Committee of the  
Massachusetts Institute of Technology

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 the Massachusetts Institute of Technology (the “Institute”) and its subsidiaries, which comprise the consolidated statements of financial position as of June 30, 2013, and the related consolidated statement of activities and statement of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated September 13, 2013.

**Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Institute’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 opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Institute’s internal control. Accordingly, we do not express an opinion on the effectiveness of the Institute’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 the Institute’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

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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.

*PricewaterhouseCoopers LLP*

September 13, 2013



**Independent Auditor’s Report 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 OMB Circular A-133**

To the Risk and Audit Committee of the  
Massachusetts Institute of Technology

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

We have audited Massachusetts Institute of Technology’s (the “Institute”) compliance with the types of compliance requirements described in the *OMB Circular A-133 Compliance Supplement* that could have a direct and material effect on each of the Institute’s major federal programs for the year ended June 30, 2013. The Institute’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 the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

**Auditor’s Responsibility**

Our responsibility is to express an opinion on compliance for each of the Institute’s major federal programs based on our audit of the types of compliance requirements referred to above. We did not audit the Institute’s compliance with the billing, collections, and due diligence compliance requirements specified by the Federal Perkins Loan Program (“Perkins Loan”) and described in the *OMB Circular A-133 Compliance Supplement*. Compliance with these requirements was audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the Institute’s compliance with those requirements, is based solely on the report of the other auditors. 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 OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*. Those standards and OMB Circular A-133 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 the Institute’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 the Institute’s compliance.

**Opinion on Each Major Federal Program**

In our opinion, based on our audit and the report of other auditors, the Institute 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 June 30, 2013.

**Report on Internal Control over Compliance**

Management of the Institute 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

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audit of compliance, except as noted in the following paragraph, we considered the Institute'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 OMB Circular A-133, 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 the Institute's internal control over compliance.

We did not consider internal control over compliance with the billing collections and due diligence compliance requirements specified by the Federal Perkins Loan Program ("Perkins Loan") and described in the OMB Circular A-133 *Compliance Supplement*. Internal control over these compliance requirements was considered by the other auditors referred to above; and our report, insofar as it relates to the Institute's internal control over those compliance requirements, is based solely upon the report of the other auditors.

*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 and the other auditors' 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. Also, the report of the other auditors did not identify any deficiencies in internal control over compliance that they 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 OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

*PricewaterhouseCoopers LLP*

March 11, 2014

**Massachusetts Institute of Technology  
 Schedule of Findings and Questioned Costs  
 Year Ended June 30, 2013**

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**Section I Summary of Auditor's Results**

**Financial Statements**

Type of auditor's report issued Unmodified

Internal control over financial reporting  
 Material weakness(es) identified  Yes  No  
 Significant deficiency (ies) identified that are not  
 considered to be material weaknesses  Yes  None Reported

Noncompliance material to financial statements noted?  Yes  No

**Federal Awards**

Internal control over major programs  
 Material weakness (es) identified?  Yes  No  
 Significant deficiency (ies) identified that are not  
 considered to be material weaknesses?  Yes  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 section 510(a) of  
 OMB Circular A-133?  Yes  No

Identification of major programs

<b>CFDA Number</b>	<b>Name of Federal Program or Cluster</b>
Various	Student Financial Assistance Cluster
Various	Research & Development Cluster
12.300	Navy – ONR / American Society/Engineering Education NDSEG Fellowship Program

Dollar threshold used to distinguish between Type A and  
 Type B programs \$4,361,918

Auditee qualifies as a low-risk auditee?  Yes  No

**Section II Financial Statement Findings**

None noted.

**Section III Federal Award Findings and Questioned Costs**

None noted.

**Massachusetts Institute of Technology**  
**Summary Schedule of Prior Audit Findings**  
**Year Ended June 30, 2013**

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See the Institute's Schedule of Prior Audit Findings, beginning on page 268 of the package.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
LINCOLN LABORATORY  
244 WOOD STREET  
LEXINGTON, MASSACHUSETTS 02420-9185

Area Code 781  
981-8302

3 March 2014

PricewaterhouseCoopers, LLP  
125 High Street  
Boston, MA 02110

Attention: Lee Ann C. Leahy, Partner

Subject: Supplemental Response to Section III Federal Award Findings and Questioned Costs

Dear Ms. Leahy,

The following is Lincoln Laboratory's actions taken to PwC Finding No. 2012-1 in the FY12 A-133 Audit:

**Compliance Requirement: Davis-Bacon Act (D)**

**Action Taken:**

On 14 June, 2013, the Contracting Service Department (CSD) provided training to 12 members of the CSD entitled "Compliance with Davis-Bacon and Related Acts". Attendees included Contract Specialists, Business Analyst, CSD management/supervisor, and participants in the CSD Leadership Development Program. Training included definitions of the Davis-Bacon Act as well as the Copeland Act and Contract Work and Safety Standards Act. The training also identified Compliance checks and rules/questions that help determine if Davis-Bacon Applies.

Completion date: June 14, 2013

Issue Coordinator: David Pronchick  
Head of Technology & Contracts Office  
MIT LL Contracting Services Department.

Sincerely,



Patricia O'Riordan  
Financial Services Department Head