

California Institute of Technology

EIN: 95-1643307

**Report on Audit of Financial Statements
and on Federal Awards Programs
in Accordance With OMB Circular A-133
(exclusive of the Jet Propulsion Laboratory)**

For the Year Ended September 30, 2015

California Institute of Technology
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For the Year Ended September 30, 2015

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Independent Auditor's Report

To The Board of Trustees of the
California Institute of Technology

Report on the Financial Statements

We have audited the accompanying financial statements of the California Institute of Technology (the "Institute"), which comprise the balance sheets as of September 30, 2015 and 2014, and the related statements of activities and of cash flows for the years then ended and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the 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 financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 financial statements referred to above present fairly, in all material respects, the financial position of the California Institute of Technology as of September 30, 2015 and 2014, and the



changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedule of expenditures of federal awards 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 financial statements. As described in Note 1 to the schedule of expenditures of federal awards, the accompanying schedule of expenditures of federal awards was prepared on the cash basis, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America. 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 financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the 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, on the basis of accounting described in Note 1, in relation to the 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 January 27, 2016 on our consideration of the Institute's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended September 30, 2015. 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 the Institute's internal control over financial reporting and compliance.

A handwritten signature in black ink that reads "PricewaterhouseCoopers LLP".

Los Angeles, California
January 27, 2016

California Institute of Technology
Balance Sheets
At September 30, 2015 and 2014
(Dollars in Thousands)

	2015	2014
ASSETS		
Cash and cash equivalents (Notes B and D)	\$ 5,257	\$ 10,092
Accounts and notes receivable, net		
United States government	215,801	209,368
Other	56,682	29,762
Contributions receivable, net	162,565	92,385
Investments	2,834,504	2,501,865
Prepaid expenses and other assets	115,157	110,066
Deferred United States government billings	349,940	346,160
Property, plant, and equipment, net	<u>865,023</u>	<u>866,706</u>
Total assets	<u>\$ 4,604,929</u>	<u>\$ 4,166,404</u>
LIABILITIES and NET ASSETS		
Liabilities:		
Accounts payable and accrued expenses	\$ 296,169	\$ 277,776
Accrued compensation and benefits	190,936	184,764
Deferred revenue and refundable advances	48,695	44,549
Annuities, trust agreements, and agency funds	87,821	90,327
Bonds and notes payable	1,176,942	682,362
Accumulated postretirement benefit obligation	<u>379,752</u>	<u>369,244</u>
Total liabilities	<u>2,180,315</u>	<u>1,649,022</u>
Net assets:		
Unrestricted	507,208	708,350
Temporarily restricted	688,071	750,967
Permanently restricted	<u>1,229,335</u>	<u>1,058,065</u>
Total net assets	<u>2,424,614</u>	<u>2,517,382</u>
Total liabilities and net assets	<u>\$ 4,604,929</u>	<u>\$ 4,166,404</u>

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

California Institute of Technology
Statement of Activities
For the Year Ended September 30, 2015
(with summarized financial information for the year ended September 30, 2014)
(Dollars in Thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	2015 Total	2014 Total
Operating revenues:					
Tuition and fees, net of student financial aid	\$ 38,065	\$ -	\$ -	\$ 38,065	\$ 36,307
Endowment spending distributed	53,818	59,674	-	113,492	108,086
Gifts and pledges	21,171	29,033	-	50,204	49,523
Grants and contracts:					
Jet Propulsion Laboratory - direct	1,758,660	-	-	1,758,660	1,560,024
United States government, Campus - direct	179,867	-	-	179,867	184,718
Other Campus - direct	26,220	-	-	26,220	22,521
Recovery of indirect costs and allowances	116,488	-	-	116,488	120,505
Auxiliary enterprises	28,127	-	-	28,127	27,562
Other	39,039	-	-	39,039	44,460
Net assets released from restrictions	93,956	(93,956)	-	-	-
Total operating revenues	2,355,411	(5,249)	-	2,350,162	2,153,706
Operating expenses:					
Compensation and benefits	355,953	-	-	355,953	351,490
Supplies and services	128,262	-	-	128,262	122,759
Subcontracts	38,107	-	-	38,107	38,355
Graduate fellowships	18,104	-	-	18,104	17,202
Depreciation, accretion, and amortization	65,794	-	-	65,794	67,170
Utilities	16,233	-	-	16,233	18,040
Interest	19,095	-	-	19,095	16,788
Jet Propulsion Laboratory	1,758,660	-	-	1,758,660	1,560,024
Total operating expenses	2,400,208	-	-	2,400,208	2,191,828
Results of operations	(44,797)	(5,249)	-	(50,046)	(38,122)
Non-operating changes:					
Investment return in (deficit)/excess of endowment spending	(104,524)	(74,952)	(774)	(180,250)	93,006
Endowment spending	3,357	3,740	643	7,740	5,445
Net assets released from restrictions	634	(634)	-	-	-
Gifts and pledges	1,366	14,351	159,804	175,521	71,623
Changes in fair value of interest rate swap	(14,743)	-	-	(14,743)	(7,792)
Non periodic changes in benefit obligations	(13,555)	-	-	(13,555)	40,627
Interest expense	(13,370)	-	-	(13,370)	(8,930)
Other	(4,087)	-	22	(4,065)	(1,039)
Resignations and reclassifications of net assets	(11,423)	(152)	11,575	-	-
Total non-operating activities	(156,345)	(57,647)	171,270	(42,722)	192,940
(Decrease)/increase in net assets	(201,142)	(62,896)	171,270	(92,768)	154,818
Net assets at beginning of year	708,350	750,967	1,058,065	2,517,382	2,362,564
Net assets at end of year	\$ 507,208	\$ 688,071	\$ 1,229,335	\$ 2,424,614	\$ 2,517,382

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

California Institute of Technology
Statement of Activities
For the Year Ended September 30, 2014
(Dollars in Thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	2014 Total
Operating revenues:				
Tuition and fees, net of student financial aid	\$ 36,307	\$ -	\$ -	\$ 36,307
Endowment spending distributed	45,723	62,363	-	108,086
Gifts and pledges	25,074	24,449	-	49,523
Grants and contracts:				
Jet Propulsion Laboratory - direct	1,560,024	-	-	1,560,024
United States government, Campus - direct	184,718	-	-	184,718
Other Campus - direct	22,521	-	-	22,521
Recovery of indirect costs and allowances	120,505	-	-	120,505
Auxiliary enterprises	27,562	-	-	27,562
Other	44,460	-	-	44,460
Net assets released from restrictions	100,252	(100,252)	-	-
Total operating revenues	2,167,146	(13,440)	-	2,153,706
Operating expenses:				
Compensation and benefits	351,490	-	-	351,490
Supplies and services	122,759	-	-	122,759
Subcontracts	38,355	-	-	38,355
Graduate fellowships	17,202	-	-	17,202
Depreciation, accretion, and amortization	67,170	-	-	67,170
Utilities	18,040	-	-	18,040
Interest	16,788	-	-	16,788
Jet Propulsion Laboratory	1,560,024	-	-	1,560,024
Total operating expenses	2,191,828	-	-	2,191,828
Results of operations	(24,682)	(13,440)	-	(38,122)
Non-operating changes:				
Investment return in excess of endowment spending	48,164	44,264	578	93,006
Endowment spending	1,975	2,712	758	5,445
Net assets released from restrictions	2,482	(2,482)	-	-
Gifts and pledges	-	2,871	68,752	71,623
Changes in fair value of interest rate swap	(7,792)	-	-	(7,792)
Non periodic changes in benefit obligations	40,627	-	-	40,627
Interest expense	(8,930)	-	-	(8,930)
Other	(1,057)	-	18	(1,039)
Redesignations and reclassifications of net assets	(7,522)	(8,802)	16,324	-
Total non-operating activities	67,947	38,563	86,430	192,940
Increase in net assets	43,265	25,123	86,430	154,818
Net assets at beginning of year	665,085	725,844	971,635	2,362,564
Net assets at end of year	\$ 708,350	\$ 750,967	\$ 1,058,065	\$ 2,517,382

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

California Institute of Technology
Statements of Cash Flows
For the Years Ended September 30, 2015 and 2014
(Dollars in Thousands)

	2015	2014
Cash flows from operating activities:		
(Decrease)/increase in net assets	\$ (92,768)	\$ 154,818
Adjustments to reconcile change in net assets to net cash used in operating activities:		
Depreciation, accretion, and amortization	65,794	67,170
Changes in postemployment benefit obligations	13,555	(40,627)
Contributions restricted for long-term investment and capital projects	(175,302)	(68,053)
Investment return restricted for long-term investment and capital projects	(1,444)	(1,298)
Realized and unrealized losses/(gains) on investments and swap	117,228	(152,178)
In-kind receipt of property, plant, and equipment	(720)	(1,337)
Changes in annuity and trust liabilities	4,623	932
Losses on disposals of property, plant, and equipment	1,035	1,201
Changes in assets and liabilities:		
Accounts and notes receivable, net	(8,544)	(10,985)
Contributions receivable, net	2,969	7,276
Prepaid expenses and other assets	(4,988)	(4,996)
Deferred United States government billings	(3,780)	110,757
Accounts payable and accrued expenses	14,632	13,618
Accrued compensation and benefits	6,172	15,999
Deferred revenue and refundable advances	4,146	9,944
Agency funds	57	1,172
Accumulated postretirement benefit obligation	(3,047)	(105,161)
Net cash used in operating activities	(60,382)	(1,748)
Cash flows from investing activities:		
Purchases of investments	(1,334,566)	(736,819)
Proceeds from sales and maturities of investments	869,786	797,199
Purchases of property, plant, and equipment	(69,015)	(59,632)
Proceeds from sale of property, plant, and equipment	3,051	2,270
Net cash (used in)/provided by investing activities	(530,744)	3,018
Cash flows from financing activities:		
Contributions restricted for long-term investment and capital projects	93,699	44,315
Investment return restricted for long-term investment and capital projects	1,444	1,298
Cash received under annuity and trust agreements	5,515	4,608
Cash payments made under annuity and trust agreements	(7,189)	(6,990)
Net (repayment)/borrowings of short-term debt	94,572	(44,618)
Bond issuance costs	(1,750)	-
Proceeds from issuance of long-term debt	400,000	-
Net cash provided by/(used in) financing activities	586,291	(1,387)
Net decrease in cash and cash equivalents	(4,835)	(117)
Cash and cash equivalents at beginning of year	10,092	10,209
Cash and cash equivalents at end of year	\$ 5,257	\$ 10,092

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

A. Description of California Institute of Technology

California Institute of Technology (the "Institute") is a private, not-for-profit institution of higher education based in Pasadena, California. Founded in 1891, the Institute provides education and training services, primarily for students at the undergraduate, graduate, and postdoctoral levels, and performs research, training, and other services under grants, contracts, and similar agreements with sponsoring organizations, primarily departments and agencies of the government of the United States of America.

B. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements include the accounts of the Institute's main campus and satellite facilities ("Campus"), as well as the Jet Propulsion Laboratory ("JPL"), a Federally Funded Research and Development Center managed by the Institute for the National Aeronautics and Space Administration ("NASA").

The Institute manages JPL under a cost-reimbursable contract with NASA. JPL's land, buildings, and equipment are owned by the United States government and are excluded from the Institute's financial statements. Receivables and liabilities arising from JPL's activities are reflected in the Institute's balance sheets. The direct costs of JPL's activities and the related reimbursement of those costs are segregated in the statements of activities. The management allowances earned under the NASA contract were \$21,000 for each of the years ended September 30, 2015 and 2014 and are included in recovery of indirect costs and allowances in the statements of activities.

The Institute's financial statements have been prepared on the accrual basis of accounting, in accordance with accounting principles generally accepted in the United States of America.

Net Assets

Net assets are classified into three categories according to donor-imposed restrictions or certain provisions of law or accounting standards: permanently restricted, temporarily restricted, and unrestricted.

Permanently restricted net assets include endowment gifts as well as certain charitable remainder trusts, pooled income funds, gift annuities, other split-interest agreements, and contributions receivable in which donors have stipulated that the original value of their contributions and, if applicable, any subsequent accumulations, be held in perpetuity.

Temporarily restricted net assets include investment return from permanent endowments that has not been appropriated for expenditures and gifts and related contributions receivable for which donor-imposed restrictions have not been met, including funds restricted for future capital and projects, certain charitable remainder trusts, pooled income funds, gift annuities, other split-interest agreements. These restrictions are expected to be removed through the passage of time, the appropriation of endowment earnings by the Institute, and/or the Institute's incurrence of expenditures that meet donors' restrictions. Expirations of temporary restrictions on net assets are reported as releases from temporarily restricted to unrestricted net assets in the statements of activities. Donor-restricted gifts that are received

and either spent or deemed spent within the same fiscal year are reported as unrestricted revenues.

Unrestricted net assets are those not subject to donor-imposed restrictions or requirements for classification imposed by law or accounting standards.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Redesignations

Net assets related to certain contributions received in prior periods have been transferred among net asset categories due to changes in donor designations.

Cash and Cash Equivalents

Cash and cash equivalents include bank account balances, investments in money market funds, and direct short-term investments that have remaining maturities of three months or less when purchased. Bank account balances at September 30, 2015 and 2014 were \$5,257 and \$10,092, respectively. The Institute classifies all cash and cash equivalents held as part of the investment portfolios as short-term investments. At September 30, 2015 and 2014, short-term investments, as disclosed in Note D, included \$172,149 and \$163,602, respectively, in cash and cash equivalents. Carrying amounts of cash and cash equivalents approximate fair value due to the relatively short maturities of these instruments.

Under the Institute's cash management system, checks issued by the Institute but not yet cashed by recipients may result in overdraft balances for accounting purposes and are included in accounts payable and accrued expenses in the balance sheets if an overdraft situation exists. There were no overdrafts at September 30, 2015 and 2014.

Accounts and Notes Receivable

Accounts receivable under contracts and grants are carried at cost, less an allowance for doubtful accounts. Accounts receivable under contracts and grants totaled \$222,940 and \$213,203 at September 30, 2015 and 2014, respectively. The related allowance for doubtful accounts was \$943 and \$885 at September 30, 2015 and 2014, respectively. Activity in the allowance account was not significant during the years ended September 30, 2015 and 2014. The carrying value of net accounts receivable approximates fair value.

Accounts receivable from students and employees of \$2,482 and \$717 at September 30, 2015 and 2014, respectively, are carried at cost and approximate fair value. Doubtful accounts are charged to expense when they are deemed to become uncollectible. During the years ended September 30, 2015 and 2014, only minor amounts were written off as uncollectible.

The Institute provides loans to students from both internal funds and from funds provided by the United States government under the Federal Perkins Loan Program. Loans that bear interest carry

fixed rates. Most loans carry ten-year terms. Student loans receivable of \$6,703 and \$6,608 at September 30, 2015 and 2014, respectively, are carried at cost. Determination of the fair value of such notes is impracticable.

The Institute currently holds all loans to maturity. Loans to students are considered delinquent 10-90 days after a borrower misses a required payment. Delinquent interest-bearing loans continue to accrue interest. At September 30, 2015 and 2014, only immaterial amounts of loans were delinquent. No allowances have been recorded, and only minor amounts of loans are expected to become uncollectible. The principal credit quality indicator for such loans is collection experience. The Institute manages its credit risk by limiting amounts loaned per term, monitoring aggregate loan levels, and maintaining an active collections process with the assistance of third-party collection agencies as necessary. Student loans generally are not dischargeable in bankruptcy. Loans are not considered uncollectible until all reasonable collection efforts have been made.

Investments

Investments are carried at fair value based on a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value as discussed in Note K. Purchases and sales of securities are recorded on trade dates, and realized gains and losses are determined based on the average cost of securities sold. Accounts receivable included \$38,192 and \$13,383 related to outstanding sales and accounts payable included \$7,024 and \$16,333 related to outstanding purchases of investments at September 30, 2015 and 2014, respectively.

At September 30, 2015, \$36,314 in short-term investments were held by the counterparty to the Institute's interest rate swap as collateral, in accordance with the terms of the swap agreement.

The Institute engages a number of outside investment managers to manage portions of its investment portfolios, which include an investment pool and other separately managed portfolios. The Institute's investment strategy incorporates certain financial instruments, which involve, to varying degrees, elements of market and credit risk.

Derivatives

The Institute uses an interest rate swap to manage the interest rate exposure of a portion of its variable rate debt. The swap is recorded at fair value, which is the estimated amount that the Institute would receive or pay to terminate the agreement, taking into account current interest rates and the current credit-worthiness of the swap counterparty. Costs of regular settlements with the counterparty of \$5,658 and \$5,679 during the years ended September 30, 2015 and 2014, respectively, are included in interest expense in the statements of activities. Changes in the swap's fair value during the years ended September 30, 2015 and 2014, resulted in unrealized losses of \$14,743 and \$7,792, respectively, which are included in non-operating changes in net assets in the statements of activities. The fair value of the swap was a liability of \$55,409 and \$40,666 at September 30, 2015 and 2014, respectively, and is included in accounts payable and accrued expenses in the balance sheets.

The Institute also directly transacts in options to manage equity risks of certain investments. The fair value of options is included in investments in the balance sheets and is classified as derivatives in disclosures of investments. Changes in the fair value of options are reported in investment return (loss).

The Institute does not designate any derivative instruments as hedging instruments under Generally Accepted Accounting Principles. Further disclosure of the fair value of derivatives is reported in Note K.

Property, Plant, and Equipment

Property, plant, and equipment is recorded at the cost of construction, acquisition, or the fair value of contributed assets at the date of the gift. Interest costs related to debt used for construction of assets are capitalized and included in the cost of construction. For the years ended September 30, 2015 and 2014, capitalized interest was \$478 and \$896, respectively. Depreciation on all assets subject to depreciation is calculated over the estimated useful lives as defined for each class of depreciable asset, which range from three to fifty years, using the straight-line method. Depreciation on buildings is calculated based on the useful lives of each major building component. The Institute provides for the renewal and replacement of assets from various sources set aside for this purpose.

The Institute routinely acquires or constructs equipment under federally and non-federally funded research awards. The costs of such assets for which title does not ultimately transfer to the Institute are charged to expense.

The Institute's conditional asset retirement obligations are primarily related to future asbestos removal and disposal. Asset retirement cost, net of accumulated depreciation, at September 30, 2015 and 2014 was \$1,015 and \$1,209, respectively, and is included in property, plant, and equipment in the balance sheets. Conditional asset retirement obligations at September 30, 2015 and 2014 were \$13,918 and \$13,285, respectively, and are included in accounts payable and accrued expenses in the balance sheets.

Annuity and Trust Agreements

The Institute's split-interest agreements with donors consist primarily of charitable gift annuities and charitable remainder trusts for which the Institute serves as trustee. For irrevocable agreements, assets contributed are included in investments at fair value. Contribution revenue is recognized at the date each trust is established after recording liabilities for the actuarially-determined present value of the estimated future payments to be made to beneficiaries. Actuarial liabilities are discounted at an appropriate credit risk-adjusted rate determined at the inception of each agreement. Discount rates on split-interest agreements range from 1.20% to 11.20% per annum. The liabilities are adjusted during the terms of the agreements for changes in the fair value of the assets, accretion of discounts, and other changes in the estimates of future benefits. The Annuity 2000 Mortality Table was used for the determination of the actuarial liability for the year ended September 30, 2014. The 2012 Individual Annuity Reserving (IAR) table was adopted for the year ended September 30, 2015. Split-interest agreement liabilities totaled \$67,478 and \$69,676 at September 30, 2015 and 2014, respectively, and are included in liabilities for annuities, trust agreements and agency funds in the balance sheets.

The Institute is also the trustee for certain revocable agreements. Assets contributed are included in Institute investments at fair value, and amounts equal to the value of assets are included in liabilities for annuities, trust agreements, and agency funds in the balance sheets. Total assets and liabilities for revocable agreements were \$7,562 and \$7,375 at September 30, 2015 and 2014, respectively.

Beneficial Interests

The Institute is the beneficiary of both charitable remainder and perpetual trusts held and administered by others and interests in certain estates bequeathed by donors. The fair value of the Institute's interests in charitable and perpetual trusts is calculated by multiplying the Institute's percentage interest by the fair value of trust assets. The carrying value of the Institute's interest in such trusts is adjusted for changes in the fair values of the underlying assets. Remainder interests are recognized in contribution revenues at the date the trusts are established. Distributions from perpetual trusts are recorded as contributed by the trustee. Interests in estates are recognized based on estimates of cash flows from estate settlements at the time such cash flows are probable and reasonably estimable. Beneficial interests totaled \$22,379 and \$26,517 at September 30, 2015 and 2014, respectively, and are included in prepaid expenses and other assets in the balance sheets.

Retirement Plans

The Institute provides a defined contribution retirement program for eligible academic and administrative employees. Contributions to Internal Revenue Code "IRC" Section 403(b) defined contribution plans for the years ended September 30, 2015 and 2014 were \$24,151 and \$23,258, respectively, for the Campus and \$73,934 and \$67,365, respectively, for JPL. The Institute has no assets or liabilities related to these plans.

At September 30, 2015 and 2014, respectively, prepaid expenses and other assets included \$69,731 and \$67,697 in assets held pursuant to IRC section 457 defined contribution retirement plans. These assets are invested with external investment managers and are recorded at fair value. The Institute's liabilities related to these funds were \$69,562 and \$66,872 at September 30, 2015 and 2014, respectively, and are included in accrued compensation and benefits in the balance sheets.

Funds Held for Others

The Institute held assets totaling \$12,781 and \$13,276 in agency funds at September 30, 2015 and 2014, respectively. The assets held are primarily included in investments in the balance sheets. The corresponding liability, which is equal to assets held, is included in annuities, trust agreements, and agency funds in the balance sheets.

Compensated Absences

Institute employees are entitled to paid vacation based upon length of service and other factors. Certain employees also accrue benefits related to sick leave. The Institute records a liability for these benefits that employees have earned but not yet taken. At September 30, 2015 and 2014, accrued compensated absences of \$79,240 and \$75,532, respectively, are included in accrued compensation and benefits in the balance sheets. Other compensated absences do not accumulate and are treated as current period costs.

Workers' Compensation Insurance

The Institute provides workers' compensation insurance to its employees. Liabilities for the Institute's retained risk related to such coverage are determined by an actuary and are included in accrued compensation and benefits in the balance sheets. At September 30, 2015 and 2014, the liabilities for workers' compensation were \$9,845 and \$9,560, respectively.

Revenue Recognition

The Institute's revenue recognition policies are as follows:

- *Tuition and fees* - Student tuition and fees are recorded as revenues during the year the related academic services are rendered and are displayed net of financial aid on the statements of activities. Tuition and fees totaled \$93,319 and \$88,279 for the years ended September 30, 2015 and 2014, respectively. Student financial aid totaled \$55,254 and \$51,972 for the years ended September 30, 2015 and 2014, respectively. Student tuition and fees received in advance of services to be rendered, net of applicable financial aid, are recorded as deferred revenue.
- *Investment return (loss)* - Investment transactions are recorded on the trade date. Investment income and realized and unrealized gains and losses, net of investment management fees, are reported as increases or decreases to the appropriate net asset category.
- *Gifts* - Unconditional promises to give are recorded as revenues in the year received. Non-cash gifts are recorded at fair value using quoted market prices, market prices for similar assets, independent appraisals, or as estimated by Institute management. Gift revenue from contributions to be collected in the form of securities or other investments is adjusted at each year end to reflect the year-end value of securities and/or investments to be contributed.

Donor-restricted gifts, which are received and either spent, or deemed spent, within the same year are reported as unrestricted revenue. Gifts of long-lived assets with no donor-imposed time restrictions are reported as unrestricted revenue in the year received. Gifts restricted to the acquisition or construction of long-lived assets are reported as temporarily restricted revenue and released to unrestricted net assets when long-lived assets are placed in service. Gifts that are subject to time or other purpose restrictions are reported as temporarily restricted revenue and released to unrestricted net assets when donor restrictions are met. Gifts received for endowment investment are held in perpetuity and recorded as permanently restricted revenue.

Conditional promises to give are not recorded until donor-imposed conditions have been substantially met. Conditional promises to give totaled \$113,922 and \$114,635 at September 30, 2015 and 2014, respectively. Payments received related to conditional promises totaled \$19,602 and \$13,800 at September 30, 2015 and 2014, respectively, and are included in deferred revenue and refundable advances in the balance sheets.

- *Grants and contracts* - Revenues from grants and contracts generally are recognized in unrestricted net assets as allowable expenditures under such agreements are incurred. Substantially all United States government grants and contracts awarded to the Campus provide for the reimbursement of indirect facilities and administrative costs based on rates negotiated with the Office of Naval Research, the Campus' federal cognizant agency for the negotiation and approval of facilities and administrative and other indirect cost rates. Costs related to the performance of activities under the JPL contract are reimbursable by NASA. Amounts received in excess of expenditures are recorded as deferred revenue.

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- *Auxiliary enterprises* - Revenues from supporting services, such as dining facilities, faculty and student housing, and retail stores are recorded at the time of delivery of products or services. Amounts received in advance of deliveries of products or services are recorded as deferred revenue.

Expenses

Expenses are generally reported as decreases in unrestricted net assets. Campus expenses are reported in the statements of activities by natural classification. Campus expenses by functional classification were as follows for the years ended September 30, 2015 and 2014:

	2015	2014
Instruction and academic support	\$ 274,934	\$ 266,766
Organized research	252,677	251,374
Institutional	81,225	83,198
Auxiliary enterprises	<u>32,712</u>	<u>30,466</u>
Total Campus functional expenses	<u>\$ 641,548</u>	<u>\$ 631,804</u>

Building and improvements depreciation and plant operation expenses are allocated to functional classifications based on square footage occupancy of Institute facilities. Equipment depreciation is allocated to functional classifications based on average equipment purchases attributed to each classification. Interest expense on external debt, net of amounts capitalized, is allocated to the functional categories that have benefited from the proceeds of such debt.

Operating and Non-operating Activities

The statements of activities report the changes in net assets from the Institute's operating and non-operating activities. Operating activities exclude investment returns/losses in excess/deficit of endowment spending, endowment spending available but not distributed to operations, revenues and releases from restrictions related to gifts for construction, endowments, and annuity and trust agreements, changes in postemployment benefit obligations that are not otherwise recognized in net periodic benefit cost, changes in fair value of interest rate swaps, interest expense related to any bonds issued for which the proceeds have not yet been used for capital projects or to refund other bonds, gains or losses on disposal of plant, property and equipment, net gains or losses on nonrecurring transactions, actuarial adjustments related to annuity and trust agreements, and donor redesignations or other reclassifications of net assets.

Tax Status

The Institute is generally exempt from federal income taxes related to its charitable purpose under the provisions of IRC Section 501(c)(3) and from California and other state income taxes under corresponding state laws. The Institute is subject to both federal and state income taxes on income from certain activities not substantially related to its exempt purpose. At September 30, 2015 and 2014, the Institute maintained a full valuation allowance on its immaterial deferred tax assets, which are primarily due to tax losses from certain investment activities. Due to uncertainties surrounding both the timing and amounts of potential future net taxable income, the Institute has concluded that it is more likely than not that the Institute will not realize the deferred tax assets.

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The Institute has not provided for any uncertain tax positions for the years ended September 30, 2015 and 2014.

Related Party Transactions

Members of the Institute’s Board of Trustees and senior management may, from time to time, be associated, either directly or indirectly, with entities doing business with the Institute. These transactions are conducted in the normal course of business at an arm’s length, and in accordance with the Institute’s policies and procedures governing potential conflicts of interest.

New Accounting Pronouncements

In April 2015, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2015-03 to simplify the presentation of debt issuance costs. ASU 2015-03 is effective for the Institute’s fiscal year ending September 30, 2016. The Institute is evaluating the impact this standard may have on its financial statement disclosures.

In May 2015, FASB issued ASU 2015-07. The ASU excludes net assets measured at net asset value, as a practical expedient for fair value, from the fair value hierarchy. ASU 2015-07 is effective for the Institute’s fiscal year ending September 30, 2016. The Institute is evaluating the impact this standard may have on its financial statements and disclosures.

In May 2014, FASB issued ASU 2014-09 regarding the recognition of revenue from contracts with customers. ASU 2014-09 is effective for the Institute’s fiscal year ending September 30, 2019. The Institute is evaluating the impact this standard may have on its financial statements and disclosures.

C. Contributions Receivable, net

Contributions receivable consist of unconditional promises to give to the Institute in the future. Contributions receivable are initially recorded at fair value, including a discount to the present value of the future cash flows at an appropriate credit risk-adjusted rate. Discount rates on outstanding contributions at September 30, 2015 and 2014 range from 0.74% to 4.56%.

Contributions receivable are expected to be collected as follows at September 30, 2015 and 2014:

	2015	2014
Within one year	\$ 58,247	\$ 32,961
Between one year and five years	89,597	44,421
More than five years	<u>21,045</u>	<u>19,197</u>
Gross contributions receivable	168,889	96,579
Less:		
Unamortized discounts	6,133	4,017
Allowance for uncollectible contributions	<u>191</u>	<u>177</u>
Net contributions receivable	<u>\$ 162,565</u>	<u>\$ 92,385</u>

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Net contributions receivable carried the following restrictions at September 30, 2015 and 2014:

	2015	2014
Endowment	\$ 135,405	\$ 62,676
Building construction	388	389
Other purpose and/or time restrictions	<u>26,772</u>	<u>29,320</u>
Net contributions receivable	<u>\$ 162,565</u>	<u>\$ 92,385</u>

At September 30, 2015 and 2014, net contributions receivable of \$139,034 and \$65,437, respectively, were due from board members and/or charitable entities founded by board members.

D. Investments

Investments consisted of the following at September 30, 2015 and 2014:

	2015	2014
Short-term investments	\$ 205,579	\$ 163,602
Fixed-income securities	192,666	139,945
Equity securities	1,032,853	934,130
Alternative investments:		
Alternative securities	776,106	675,277
Private equity	224,986	174,412
Real assets	397,447	414,499
Derivatives, net	<u>4,867</u>	<u>-</u>
Total investments	<u>\$ 2,834,504</u>	<u>\$ 2,501,865</u>

Below is a description of the holdings included within each investment classification:

- *Short-term investments* consist primarily of cash and cash equivalents invested in U.S. government and government agency money-market funds, as well as deposits with financial institutions.
- *Fixed-income securities* consist primarily of debt instruments issued by corporate or sovereign entities in both U.S. and foreign markets and investments in funds that hold such instruments.
- *Equity securities* consist primarily of investments in publicly traded corporate equities in globally diversified public markets including domestic, developed international, and emerging markets. Investment managers invest according to each manager's particular investment strategy.

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- *Alternative securities* consist primarily of investments in funds in which redemption options and/or distributions are determined by the respective investment managers. Alternative securities managers pursue returns through a variety of strategies such as high yield and distressed credit, long/short equity, event-driven, and relative value. Managers invest and trade in various securities and financial instruments, including publicly traded and privately issued common and preferred shares of domestic and foreign companies, corporate debt, bonds, swaps, options, futures contracts and commodities.
- *Private equity* consists of investments in limited partnership interests that invest primarily in the securities of privately held companies. Investment managers utilize leveraged buyout and venture capital strategies in a wide variety of industries and company sizes. Distributions from these investments are made either in-kind as distributions of publicly tradeable equity securities after initial public offerings, or in cash after liquidation of the underlying securities by the investment manager.
- *Real assets* consist primarily of investments in limited partnerships that invest in foreign and/or domestic real estate and/or energy sectors and/or domestic timber industries. Real estate consists primarily of illiquid investments in residential and commercial real estate assets, projects or land, and notes receivable secured by real estate. Such holdings are either held directly or in partnership funds. Energy holdings consist primarily of illiquid investments in oil and gas exploration and production or materials mining businesses, as well as related oil and gas services businesses, held in limited partnerships. Timber holdings consist primarily of illiquid investments in timber land and harvesting businesses held in limited partnerships.
- *Derivatives, net* consist of options in which the Institute directly transacts to manage equity risks of certain investments and interest and currency futures of minor value.

The Institute may include publicly traded funds in the alternative investments category when such investments are made pursuant to the Institute's alternative investment strategy. Alternative investments may not be readily marketable or redeemable, and may specify penalties for early withdrawal from the related funds.

Investments were categorized as follows at September 30, 2015 and 2014:

	2015	2014
Investment pool	\$ 2,053,675	\$ 2,272,817
Separately invested endowments	35,643	26,564
Trusts, annuities, and other	<u>745,186</u>	<u>202,484</u>
Total investments	<u>\$ 2,834,504</u>	<u>\$ 2,501,865</u>

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At September 30, 2015 and 2014, endowment investments were \$2,078,954 and \$2,118,100, respectively. At September 30, 2015, and 2014, other investments included \$32,476 and \$42,055, respectively, held in separately invested accounts as required by donors and/or sponsors.

Investment return consisted of the following for the years ended September 30, 2015 and 2014:

	2015	2014
Interest and dividend income	\$ 37,809	\$ 40,888
Net realized gains	86,041	76,825
Net unrealized (depreciation)/appreciation	<u>(182,868)</u>	<u>88,824</u>
Total investment (loss)/return	<u>\$ (59,018)</u>	<u>\$ 206,537</u>

E. Deferred United States Government Billings

The Institute's contract with NASA provides for the reimbursement of certain employee benefit costs incurred but not yet billed to the JPL contract. Therefore, the Institute has recorded deferred United States government billings related to the unfunded postretirement benefit obligation, accrued vacation, and workers' compensation liabilities attributable to JPL, as the Institute is able to recover these amounts through future charges to JPL contracts. Although these deferred billing amounts may not be currently funded, and therefore may need to be funded as part of future NASA budgets, the Institute has the contractual right to require that such funding be made available at the time these employee benefit liabilities become payable by the Institute.

Deferred United States government billings related to deferred reimbursements of the following liabilities at September 30, 2015 and 2014:

	2015	2014
Unfunded postretirement benefit obligation	\$ 282,313	\$ 281,714
Accrued vacation	63,138	59,768
Accrued worker's compensation expense	<u>4,489</u>	<u>4,678</u>
Total deferred United States government billings	<u>\$ 349,940</u>	<u>\$ 346,160</u>

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F. Property, Plant, and Equipment, net

Property, plant, and equipment consisted of the following at September 30, 2015 and 2014:

	2015	2014
Land and land improvements	\$ 67,703	\$ 66,218
Buildings and building improvements	1,031,295	998,115
Equipment	564,443	553,520
Construction in progress	65,845	62,014
Less: accumulated depreciation	<u>(864,263)</u>	<u>(813,161)</u>
Total property, plant, and equipment, net	<u>\$ 865,023</u>	<u>\$ 866,706</u>

Depreciation expense for the years ended September 30, 2015 and 2014 was \$64,998 and \$66,410, respectively.

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G. Bonds and Notes Payable

Bonds and notes payable are uncollateralized, general obligations of the Institute and consisted of the following at September 30, 2015 and 2014:

Bonds payable:	2015	2014
Taxable bonds:		
Series 2015 due August 1, 2045, with interest at 4.32% (issued at par)	\$ 400,000	\$ -
Series 2011 due November 1, 2111, with interest at 4.70% (net of discount of \$3,075 and \$3,106, respectively)	346,925	346,894
California Educational Facilities Authority (CEFA) tax-exempt revenue bonds:		
2009 Series due November 1, 2039, with interest at 5.00% (gross of issue premium of \$553 and \$576, respectively)	80,553	80,576
2006 Series A due October 2036, with variable interest rates reset weekly (0.01% and 0.03%, respectively)	82,500	82,500
2006 Series B due October 2036, with variable interest rates reset weekly (0.01% and 0.04%, respectively)	82,500	82,500
Series 1994 due January 2024, with variable interest rates reset weekly (0.01% and 0.03%, respectively)	30,000	30,000
	<hr/>	<hr/>
Total bonds payable	1,022,478	622,470
Notes payable:		
Bank of America revolving bank credit facility expiring November 2017, with variable interest rates (0.57% at September 30, 2015)	31,790	-
Bank of America revolving bank credit facility expiring August 2016, with variable interest rates (0.40% and 0.40%, respectively)	25,000	50,000
Bank of New York Mellon money market loan program with no expiration date, with variable interest rates	-	-
JPMorgan Chase revolving bank credit facility expiring May 2016, with variable interest rates (0.46% at September 30, 2014)	-	9,892
Northern Trust revolving bank credit facility expiring July 2018, with variable interest rates	-	-
U.S. Bank revolving bank credit facility expiring October 2017, with variable interest rates (0.37% at September 30, 2015)	47,674	-
Wells Fargo revolving bank credit facility expiring June 2018, with variable interest rates (0.54% at September 30, 2015)	50,000	-
Wells Fargo revolving bank credit facility expiring June 2018, with variable interest rates	-	-
	<hr/>	<hr/>
Total notes payable	154,464	59,892
	<hr/>	<hr/>
Total bonds and notes payable	\$ 1,176,942	\$ 682,362

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As of September 30, 2015, the Institute had eight unsecured revolving lines of credit available (collectively, the “Lines of Credit”) consisting of seven unsecured revolving bank credit facilities and one unsecured revolving money market loan program. The Institute has internally-mandated aggregate borrowing limits under the Lines of Credit as follows: \$100,000 for borrowings to finance working capital, \$50,000 for borrowings to finance acquisitions of real estate and temporary funding for capital projects, and \$200,000 for borrowings secured to preserve liquidity.

The table below summarizes the material terms of the Lines of Credit, including permitted uses of any funds drawn and permitted maximum draws under each individual line of credit at September 30, 2015:

Financial Institution	Maximum Permitted	Outstanding Amounts	Facility Maturity
General working capital and capital projects:			
Bank of America	\$ 100,000	\$ 31,790	2017
Bank of America	50,000	25,000	2016
Bank of New York Mellon	50,000	-	None
JPMorgan Chase	50,000	-	2016
U.S. Bank	50,000	47,674	2017
Wells Fargo	50,000	50,000	2018
Supplemental liquidity for variable rate debt:			
Northern Trust	100,000	-	2018
Wells Fargo	50,000	-	2018

The lines of credit from Bank of New York Mellon, JPMorgan Chase, and the Bank of America line of credit with a permitted maximum of \$50,000 are all uncommitted. Maturity dates for individual advances made under these lines of credit are determined at the time advances are made.

A JPMorgan Chase money market loan program with no expiration date and a permitted maximum draw of \$62,000 was terminated effective September 30, 2015. There were no outstanding balances at September 30, 2015 and 2014.

The Institute is required to comply with financial covenants in certain line of credit agreements, including maintaining minimum ratios of unrestricted cash and investments to total adjusted debt outstanding.

Under certain circumstances, the CEFA Series 1994, 2006 Series A, and 2006 Series B variable rate revenue bonds, which have contractual maturities commencing in 2024, could fail to be remarketed, requiring the Institute to repurchase the outstanding bonds totaling approximately \$195,000. Therefore, those bonds have been classified as repayable in the year ending September 30, 2016 in the following table.

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Future principal repayments on bonds and notes payable were as follows at September 30, 2015:

Year Ending September 30	Amount
2016	\$ 349,464
2017	-
2018	-
2019	-
2020	-
Thereafter	<u>827,478</u>
Total	<u>\$ 1,176,942</u>

The aggregate fair value of bonds payable is estimated based on quoted market prices for the bonds or similar financial instruments and was \$1,040,399 and \$643,999 at September 30, 2015 and 2014, respectively. The fair value of bonds payable is classified as a Level 2 measurement within the hierarchy for such measurements used by the Institute. Notes payable are carried at cost, which approximates fair value.

As disclosed in Note B, the Institute uses an interest rate swap to manage the interest rate exposure of the 2006 Series A and B variable rate revenue bonds. Under the terms of the agreement, which expires October 1, 2036, the Institute pays the counterparty a fixed interest rate of 3.549% and receives a variable rate, indexed at 67% of one-month LIBOR (0.13% at September 30, 2015), on a \$165,000 underlying notional principal amount.

During the year ended September 30, 2015, the Institute issued \$400,000 in Series 2015 taxable bonds.

H. Temporarily and Permanently Restricted Net Assets

Temporarily restricted net assets were available for the following purposes at September 30, 2015 and 2014:

	2015	2014
Educational and research funds	\$ 127,903	\$ 122,049
Contributions receivable	27,402	30,195
Capital projects	577	1,276
Life income and annuity funds	30,803	32,844
Endowments	<u>501,386</u>	<u>564,603</u>
Total temporarily restricted net assets	<u>\$ 688,071</u>	<u>\$ 750,967</u>

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Permanently restricted net assets were available for the following purposes at September 30, 2015 and 2014:

	2015	2014
Student loan funds	\$ 17,820	\$ 17,345
Contributions receivable	135,163	62,190
Life income and annuity funds	34,595	39,718
Endowments	<u>1,041,757</u>	<u>938,812</u>
Total permanently restricted net assets	<u>\$ 1,229,335</u>	<u>\$ 1,058,065</u>

I. Endowment

Endowment net assets are those held for long-term investment in support of the Institute. All endowment assets are held in the investment pool unless special considerations or donor stipulations require that they be invested separately. Endowment net assets are comprised of donor-restricted and board-designated funds that support educational, research, and general operating activities of the Institute. Gift annuities, beneficial interests, contributions receivable, and unexpended endowment distributions that are subject to remaining purpose restrictions are not considered endowment net assets.

Pursuant to its interpretation of the Uniform Prudent Management of Institutional Funds Act (“UPMIFA”) as enacted in California, the Institute classifies the following as permanently restricted net assets: the original value of initial gifts to permanent endowments, the original value of subsequent gifts to permanent endowments, and the value of accumulations to permanent endowments made in accordance with the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portions of donor-restricted endowment funds that are not classified as permanently restricted net assets are classified as temporarily restricted net assets until those amounts are appropriated for expenditure by the Institute in a manner consistent with the standard of prudence prescribed by UPMIFA and Institute policies.

Under the Institute’s endowment spending policy, a Board of Trustees-approved endowment spending formula determines the annual amount available for distribution to the operating budget each year. In accordance with UPMIFA, the Institute considers the following factors among those used in determining annual spending from endowment funds:

- The purpose of each donor-restricted endowment fund
- The duration and preservation of each fund
- General economic conditions
- The possible effects of inflation and deflation
- The expected total return from income and the appreciation of investments
- Other resources of the Institute
- The investment policies of the Institute

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Any excess of endowment spending over current-year investment income and gains (losses) is funded by prior years' accumulated investment return. The Institute appropriates endowment funds for expenditure based on current spending rates and, if applicable, the incurrence of specific expenditures in accordance with donors' purpose restrictions.

The Institute invests endowment assets targeted to earn an average annual total return that exceeds inflation by at least the amount required to support the endowment spending. Total return includes both capital appreciation (realized and unrealized gains) and investment income (including interest, dividends, and royalties). The Institute targets a diversified asset allocation, including investments in both public markets and in alternative investments, within prudent risk constraints.

The portion of endowment available for spending that is transferred to operating accounts each year is shown as endowment spending distributed in the statements of activities. Any endowment spending available for expenditure but not distributed remains invested in the Institute's endowment and is included in non-operating changes to net assets in the statements of activities.

Under Accounting Standards Codification 958, for accounting purposes the Institute must record the historical values of donor-restricted endowment funds as permanently restricted net assets even in cases where the fair values of those funds are less than historical values. Such deficits are recorded as reductions of unrestricted net assets.

As a result of market declines, the fair values of certain donor-restricted endowment funds are less than the historical values of such funds. The aggregate deficiencies for such funds were \$42,362 and \$19,001 at September 30, 2015 and 2014, respectively, and are recorded in unrestricted net assets. Such deficiencies reverse with market value appreciation. Reversals of these deficiencies increase unrestricted net assets.

Endowment net assets consisted of the following at September 30, 2015 and 2014:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
September 30, 2015				
Donor-restricted endowment funds	\$ (51,061)	\$ 495,392	\$ 1,041,757	\$ 1,486,088
Board-designated endowment funds	<u>622,527</u>	<u>5,994</u>	<u>-</u>	<u>628,521</u>
Total endowment net assets	<u>\$ 571,466</u>	<u>\$ 501,386</u>	<u>\$ 1,041,757</u>	<u>\$ 2,114,609</u>
 September 30, 2014				
Donor-restricted endowment funds	\$ (21,435)	\$ 564,603	\$ 938,812	\$ 1,481,980
Board-designated endowment funds	<u>633,750</u>	<u>-</u>	<u>-</u>	<u>633,750</u>
Total endowment net assets	<u>\$ 612,315</u>	<u>\$ 564,603</u>	<u>\$ 938,812</u>	<u>\$ 2,115,730</u>

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Changes in endowment net assets for the years ended September 30, 2015 and 2014 were as follows:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Balance as of October 1, 2013	\$ 557,307	\$ 528,761	\$ 875,243	\$ 1,961,311
Investment return:				
Investment income	15,885	21,569	209	37,663
Net appreciation in market value	63,539	86,276	834	150,649
Total investment return	79,424	107,845	1,043	188,312
Contributions and pledge payments	-	-	45,594	45,594
Additions to board-designated endowments	28,458	-	-	28,458
Available for expenditure	(47,698)	(65,074)	(758)	(113,530)
Redesignations, reclassifications and other	(5,176)	(6,929)	17,690	5,585
Balance as of September 30, 2014	612,315	564,603	938,812	2,115,730
Investment return:				
Investment income	16,941	16,034	157	33,132
Net depreciation in market value	(36,836)	(34,864)	(341)	(72,041)
Total investment return	(19,895)	(18,830)	(184)	(38,909)
Contributions and pledge payments	-	10,825	91,272	102,097
Additions to board-designated endowments	47,095	5,991	-	53,086
Available for expenditure	(57,174)	(63,415)	(643)	(121,232)
Redesignations, reclassifications and other	(10,875)	2,212	12,500	3,837
Balance as of September 30, 2015	\$ 571,466	\$ 501,386	\$ 1,041,757	\$ 2,114,609

J. Postretirement and Postemployment Benefits

The Institute provides postretirement health and life insurance benefit plans to eligible retirees and their dependents. The Institute's obligation related to these benefits is actuarially determined based on a September 30 measurement date. The Institute also provides defined contribution retirement plans, which are described in Note B.

Components of the funded status of postretirement benefits reported in the Institute's balance sheet and changes therein were as follows for the years ended September 30, 2015 and 2014. Additional detail regarding the JPL and Campus-related portions of the funded status of postretirement benefits is provided at the end of this note.

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	2015	2014
Change in the accumulated postretirement benefit obligation:		
Benefit obligation at beginning of year	\$ 369,244	\$ 515,032
Service cost	9,982	15,999
Interest cost	15,843	25,811
Participant contributions	1,654	6,626
Plan amendments	-	(250,636)
Benefits paid	(17,486)	(22,203)
Actuarial loss	21,758	78,615
Benefit obligation at end of year	<u>400,995</u>	<u>369,244</u>
Changes in plan assets:		
Fair value of plan assets at beginning of year:	-	-
Return on plan assets	(933)	-
Employer contributions	38,008	15,577
Participant contributions	1,654	6,626
Benefits paid	(17,486)	(22,203)
Fair value of plan assets at end of year	<u>21,243</u>	<u>-</u>
Funded status	<u>\$ (379,752)</u>	<u>\$ (369,244)</u>

During the year ended September 30, 2014, the Institute amended its postretirement medical benefit plan for both campus and JPL participants, effective January 1, 2015. For a substantial portion of the Institute's retirees and their eligible dependents, the amendments replaced the Institute's provision of medical benefit subsidies based upon the costs of various health plans with awards of defined-dollar credits that are available to be used by retirees for medical premiums and other eligible medical expenses. The defined-dollar credits may be changed in future years at the Institute's discretion. The amendments significantly reduced the expected future benefit payments to retirees and eligible dependents, and, therefore, reduced the accumulated postretirement benefit obligation by \$250,636 during the year ended September 30, 2014.

Pursuant to a modification of the JPL contract, NASA changed its method of funding postretirement benefits for JPL retirees and their dependents from the pay-as-you-go basis to an accrual-accounting approach based on the Federal Acquisition Regulation during the year ended September 30, 2015. Benefits for campus retirees and their dependents continue to be funded on a pay-as-you-go basis.

JPL-related contributions in excess of benefits paid are held in a trust for the benefit of JPL retirees and are invested according to the related plan's investment policies. As described in Note K, the Institute uses a hierarchy to report the fair value of such assets. All investments fall within Level 2 of that hierarchy.

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Investments were held as follows at September 30, 2015. There were no plan assets at September 30, 2014.

	2015	2014
Short-term investments	\$ 442	\$ -
Fixed income securities	8,345	-
International equity securities	6,232	-
Domestic equity securities	6,224	-
	<hr/>	<hr/>
Total	\$ 21,243	\$ -

Net periodic postretirement benefit cost was as follows for the years ended September 30, 2015 and 2014:

	2015	2014
Components of net periodic postretirement benefit cost:		
Service cost	\$ 9,982	\$ 15,999
Interest cost	15,843	25,811
Expected return on plan assets	(470)	-
Amortization of prior year service credit	(29,642)	(3,337)
Amortization of loss	3,348	-
	<hr/>	<hr/>
Net periodic benefit cost	\$ (939)	\$ 38,473

The statements of activities include the effects of changes in funded status that are not otherwise recognized in net periodic postretirement benefit cost. The effect related to JPL for the years ended September 30, 2015 and 2014 was an increase of \$35,900 and a decrease of \$128,057, respectively, in both JPL direct expense and revenue and in deferred U.S. government billings, as any cost associated with this adjustment related to JPL is contractually recoverable from NASA. The effect of those changes for the Campus was a decrease of \$13,555 and an increase of \$40,627 in unrestricted net assets for the years ended September 30, 2015 and 2014, respectively, and is recorded in non-operating changes in unrestricted net assets in the statements of activities.

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At September 30, 2015 and 2014, the differences recognized in unrestricted net assets between cumulative net periodic postretirement benefit cost, less cumulative contributions, and funded status were as follows:

	2015	2014
Amounts recognized in unrestricted net assets:		
Prior service credit	\$ (51,259)	\$ (58,334)
Net loss	<u>16,671</u>	<u>10,191</u>
Cumulative amounts recognized in unrestricted net assets	<u>\$ (34,588)</u>	<u>\$ (48,143)</u>

Any actuarial deferrals resulting from changes in the accumulated postretirement benefit obligation are amortized over the average future working lifetime of Institute employees. An estimated prior service credit of \$28,188 and actuarial loss of \$4,544 will be amortized into net periodic benefit cost during the year ending September 30, 2016.

The following weighted-average assumptions were used to determine the Institute's net periodic benefit cost under the plan for the years ended September 30, 2015 and 2014:

	2015	2014
Discount rate	4.40%	5.10%
Discount rate for service cost	4.40%	5.10%
Expected return on plan assets	5.75%	N/A
Health care cost trend rate	7.50%	8.25%

To develop the expected long-term rate of return on assets, the Institute considers the historical returns and future expectations for each asset class, as well as the asset allocation of the retirement plan's investment portfolio. Estimated future return was based on expected returns for various asset categories. The evaluation of the historical and future returns resulted in the selection of 5.75% for the expected return on plan assets.

The following weighted-average assumptions were used to determine the Institute's obligation under the plan at September 30, 2015 and 2014:

	2015	2014
Discount rate	4.60%	4.40%
Discount rate for service cost	4.80%	4.40%
Health care cost trend rate	7.50%	7.50%

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Certain grandfathered retirees and eligible dependents remain eligible for future medical benefits at no cost through an Institute-sponsored plan. The cost of these benefits are expected to increase in the future according to health care cost trend rates. The assumed health care cost trend rate is 7.50% in 2016, and annual rates are assumed to decrease approximately 0.25% per year until 2028, after which healthcare cost is assumed to increase 4.25% in all future years.

A one-percentage point change in assumed health care cost trend rates would have the following effects:

	1% Increase	1% Decrease
Effect on the total of service and interest cost components	\$ 51	\$ (46)
Effect on accumulated postretirement benefit obligation	\$ 1,472	\$ (1,291)

A substantial majority of the above effects would be related to JPL and therefore would result in corresponding changes in amounts expected to be recoverable from NASA.

At September 30, 2015, the estimated future benefit payments are as follows:

Year Ending September 30	Campus	JPL	Total
2016	\$ 4,160	\$ 14,394	\$ 18,554
2017	4,189	14,346	18,535
2018	4,236	14,240	18,476
2019	4,286	14,094	18,380
2020	4,449	14,472	18,921
2021-2025	25,679	80,903	106,582

Additional detail regarding the JPL and campus-related portions of the funded status of postretirement benefits and changes therein for the years ended September 30, 2015 and 2014, is as follows:

	Campus	JPL	Total
At September 30, 2015:			
Benefit obligation at end of year	\$ 97,439	\$ 303,556	\$ 400,995
Fair value of plan assets at end of year	-	21,243	21,243
Funded status	\$ (97,439)	\$ (282,313)	\$ (379,752)
At September 30, 2014:			
Benefit obligation at end of year	\$ 87,530	\$ 281,714	\$ 369,244
Fair value of plan assets at end of year	-	-	-
Funded status	\$ (87,530)	\$ (281,714)	\$ (369,244)

K. Fair Value

Fair value is defined as the price that the Institute would receive upon selling an asset or would pay to settle a liability in an orderly transaction between market participants. The Institute evaluates the fair value of financial instruments using an established hierarchy that ranks the inputs to valuation techniques used to measure fair value. Inputs refer broadly to the assumptions that market participants would use in such fair value determinations, including assumptions regarding various risks. A financial instrument's level within the fair value hierarchy is based on the least-transparent level of any input that is significant to the fair value measurement. The classification of financial instruments within the hierarchy is based upon the transparency of the inputs to valuation techniques used to measure fair value and does not necessarily correspond to the Institute's perceived risk of those instruments. The three levels of the fair value hierarchy are described below.

Level 1 fair value measurements are based upon unadjusted quoted prices for identical assets or liabilities in active, accessible markets. Market price data is generally obtained from exchange dealer markets.

Level 2 fair value measurements are generally based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the instruments. Inputs to Level 2 measurements include, but are not limited to, interest rates, credit risk adjustments, and prices for similar instruments, and are obtained from various sources, including market participants, dealers, and brokers.

Level 3 fair value measurements are those that use significant inputs that are unobservable. Assets and liabilities included in Level 3 primarily consist of the Institute's ownership in alternative investments. The Institute records the fair value of substantially all of the Institute's alternative investments at the unadjusted net asset values provided by investment fund managers as a practical expedient. Those estimated fair values may differ from the values that could have been determined had a ready market for these securities existed. The Institute regularly monitors the valuation methodologies and practices of these investment managers.

Other financial instruments classified in Level 3 are valued according to investment managers' estimates using industry-standard methodologies, independent appraisals, and Institute models. Those estimated fair values may differ from the values that could have been determined had a ready market for those securities existed. The Institute regularly monitors the adequacy of these fair value measurements. Fair value measurements derived using specific unobservable quantitative inputs developed by the Institute were immaterial for the years ended September 30, 2015 and 2014.

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The following is a summary of the levels within the fair value hierarchy for the Institute's financial instruments carried at fair value at September 30, 2015:

	Level 1	Level 2	Level 3	2015 Total
Investments:				
Short-term investments	\$ 205,579	\$ -	\$ -	\$ 205,579
Fixed-income securities	31,496	150,542	10,628	192,666
Equity securities	565,645	165,200	302,008	1,032,853
Alternative investments:				
Alternative securities	-	-	776,106	776,106
Private equity	-	-	224,986	224,986
Real assets	-	19,152	378,295	397,447
Derivative assets	8,866	-	-	8,866
Derivative liabilities	(3,999)	-	-	(3,999)
Total investments	<u>\$ 807,587</u>	<u>\$ 334,894</u>	<u>\$ 1,692,023</u>	<u>\$ 2,834,504</u>
Other assets and liabilities:				
Cash and cash equivalents	\$ 5,257	\$ -	\$ -	\$ 5,257
Beneficial interests	-	-	22,379	22,379
Defined contribution plan assets	22,501	23,740	23,490	69,731
Defined contribution plan liabilities	(22,422)	(23,661)	(23,479)	(69,562)
Interest rate swap	-	(55,409)	-	(55,409)

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The following is a summary of the levels within the fair value hierarchy for the Institute's financial instruments carried at fair value at September 30, 2014:

	Level 1	Level 2	Level 3	2014 Total
Investments:				
Short-term investments	\$ 163,602	\$ -	\$ -	\$ 163,602
Fixed-income securities	40,862	99,083	-	139,945
Equity securities	521,723	195,459	216,948	934,130
Alternative investments:				
Alternative securities	-	-	675,277	675,277
Private equity	-	-	174,412	174,412
Real assets	25,071	-	389,428	414,499
Derivative assets	-	-	-	-
Derivative liabilities	-	-	-	-
Total investments	\$ 751,258	\$ 294,542	\$ 1,456,065	\$ 2,501,865
Other assets and liabilities:				
Cash and cash equivalents	\$ 10,092	\$ -	\$ -	\$ 10,092
Beneficial interests	-	-	26,517	26,517
Defined contribution plan assets	21,544	23,389	22,764	67,697
Defined contribution plan liabilities	(21,266)	(22,944)	(22,662)	(66,872)
Interest rate swap	-	(40,666)	-	(40,666)

The fair value of assets held in trust for postretirement benefit plans and bonds and notes payable, as disclosed in Notes J and G, respectively, are excluded from the tables above.

The Institute generally uses net asset value ("NAV") to determine the fair value of investments in funds that do not have readily determinable fair values and either have certain specific attributes of an investment company or prepare their financial statements consistent with the measurement principles of an investment company. Funds valued using NAV invest in both marketable securities and securities that do not have readily determinable fair values. The fair values of the securities that do not have readily determinable fair values are determined by each fund's general partner or investment manager and are based on appraisals or other estimates that include considerations such as 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. At September 30, 2015 and 2014, the Institute's related investments valued using NAV by major investment category were as follows:

- *Fixed-income securities:* Investments with total fair values of \$10,628 and \$43,849, respectively, were held in funds that generally allowed for monthly redemptions with notice of up to ninety days.

- *Equity securities:* Investments with total fair values of \$229,724 and \$256,567, respectively, were held in funds that generally allowed either daily or monthly redemptions with notice periods ranging from zero to 90 days. Investments with total fair values of \$171,459 and \$123,681, respectively, were held in funds that generally allowed redemptions from annually to triennially, with notice periods ranging from 60 to 120 days. At September 30, 2015 and 2014, this category also included investments of \$54,710 and \$25,772, respectively, in funds that generally allowed quarterly redemptions, with a 180-day notice period.
- *Alternative securities:* Investments with total fair values of \$388,883 and \$366,331, respectively, were held in funds that generally allowed redemptions from annually to triennially, with notice periods ranging from 30 to 180 days. Investments with total fair values of \$227,223 and \$171,571, respectively, generally allowed quarterly redemptions with notice periods ranging from 60 to 90 days. In addition, at September 30, 2015 and 2014, investments with total fair values of \$125,938 and \$137,375, respectively, and unfunded commitments of \$124,195 and \$79,890, respectively, did not allow redemptions and have estimated remaining lives of up to ten years.
- *Private equity:* All investments in this category are held at net asset value. The total unfunded commitment for these investments was \$145,135 and \$116,019 at September 30, 2015 and 2014, respectively. The Institute does not have any redemption rights in these investments and the investments have estimated remaining lives of up to ten years.
- *Real assets:* Investments with total fair values of \$331,587 and \$355,664, respectively, were held in funds that did not permit the Institute any redemption rights and that had estimated remaining lives of up to ten years. At September 30, 2015, one investment with a fair value of \$19,152 allowed daily redemptions. Total unfunded commitments were \$120,585 and \$109,949 at September 30, 2015 and 2014, respectively.

The methods described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Institute believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies or assumptions to determine fair values of certain financial instruments could result in different estimates of fair value.

The Institute uses an interest rate swap to manage the interest rate exposure of a portion of its variable rate debt. The interest rate swap has inputs that can generally be corroborated by market data and is therefore classified as Level 2. The interest rate swap is valued using observable inputs, such as quotations received from counterparties, dealers, or brokers, whenever available and considered reliable. In instances in which models are used, the value of the interest rate swap depends upon the contractual terms of, and specific risks inherent in, the instrument, as well as the availability and reliability of observable inputs. Such inputs include market prices for reference securities, credit curves, assumptions for nonperformance risk, and correlations of such inputs.

The Institute uses exchange-traded equity derivatives, including put and call options, to manage its market exposure related to certain equity exchange-traded funds. At September 30, 2015, derivative assets with notional values of \$99,373 were valued at \$8,866 and derivative liabilities with notional values of \$204,468 were valued at \$3,999. The total value of investments pledged with respect to

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equity derivatives contracts at September 30, 2015 was \$99,139. Investment return (loss) for the year ended September 30, 2015 included realized gains of \$1,411 and unrealized gains of \$2,870 related to equity derivatives.

The following table is a summary of changes in the fair values of the Institute's Level 3 assets for the years ended September 30, 2015 and 2014:

September 30, 2015	Beginning Balance	Gifts and Purchases	Sales and Maturities	Realized Gain/Loss	Unrealized Gain/Loss	Ending Balance
Investments:						
Fixed-income securities	\$ -	\$ 10,000	\$ -	\$ -	\$ 628	\$ 10,628
Equity securities	216,948	85,504	(504)	-	60	302,008
Alternative investments:						
Alternative securities	675,277	268,146	(151,363)	18,313	(34,267)	776,106
Private equity	174,412	45,291	(37,553)	19,612	23,224	224,986
Real assets	389,428	66,831	(64,118)	22,155	(36,001)	378,295
Total investments	<u>1,456,065</u>	<u>475,772</u>	<u>(253,538)</u>	<u>60,080</u>	<u>(46,356)</u>	<u>1,692,023</u>
Other assets:						
Beneficial interests	26,517	2,849	(6,060)	-	(927)	22,379
Defined contribution plans	22,765	2,961	(3,021)	-	785	23,490
September 30, 2014						
Investments:						
Equity securities	\$ 113,457	\$ 91,548	\$ (100)	\$ -	\$ 12,043	\$ 216,948
Alternative investments:						
Alternative securities	651,642	143,676	(185,033)	39,616	25,376	675,277
Private equity	196,644	47,154	(98,998)	(10,371)	39,983	174,412
Real assets	341,840	52,672	(42,774)	14,252	23,438	389,428
Total investments	<u>1,303,583</u>	<u>335,050</u>	<u>(326,905)</u>	<u>43,497</u>	<u>100,840</u>	<u>1,456,065</u>
Other assets:						
Beneficial interests	32,221	9,904	(16,955)	-	1,347	26,517
Defined contribution plans	20,791	1,983	(851)	-	842	22,765

The Institute classifies defined contribution plan liabilities in the fair value hierarchy based upon the investments of the related plan assets. Accordingly, liabilities classified within Level 3 approximate the value of plan investments that also are classified within Level 3, and increase or decrease in value according to contributions, withdrawals, vesting, and investment performance.

The Institute records transfers between levels in the current fiscal year when there is a change in circumstances that affects the liquidity of the assets and/or the ability to observe and measure the fair value. The Institute records such transfers based on the market value at the beginning of the reporting period. There were no transfers among levels during the years ended September 30, 2015 and 2014.

During the years ended September 30, 2015 and 2014, unrealized (losses)/gains related to Level 3 assets of (\$702) and \$1,199 respectively, were recorded in non-operating gifts and pledges in the statements of activities. All other realized and unrealized gains related to Level 3 investments were recorded in non-operating investment return in excess of payout in the statement of activities.

Unrealized (losses)/gains included in the statements of activities related to those Level 3 assets held at September 30, 2015 and 2014 were (\$38,270) and \$73,193, respectively.

L. Commitments and Contingencies

Contingencies

The Institute receives funding or reimbursement from agencies of the United States government for various activities that are subject to audit, and is a defendant in various legal actions incident to the conduct of its activities. Except as specifically discussed below, management does not expect that liabilities, if any, related to these audits or legal actions will have a material impact on the Institute's financial position. However, the settlement of audits or legal actions is subject to inherent uncertainties, and it is possible that such liabilities, if any, will differ materially from management's current expectations.

In 1997, the Institute was named as a potentially responsible party ("PRP") by NASA under the Comprehensive Environmental Response, Compensation, and Liability Act, as amended. As a PRP, the Institute may be jointly liable for contribution towards clean-up costs, estimated to be in excess of \$100,000, of the NASA/JPL Superfund site.

Officials of the Institute presently are not able to predict the impact, if any, that final resolution of this matter will have on the Institute's financial position or changes in its net assets. However, the Institute believes that it will have recourse to the United States government for any liabilities it may incur in connection with being named a PRP for that site.

Commitments

The Institute was committed under certain construction and services contracts in the amounts of approximately \$49,148 and \$46,214 at September 30, 2015 and 2014, respectively.

At September 30, 2015 and 2014, the Institute had outstanding commitments to invest \$389,915 and \$305,858, respectively, with alternative investment managers and/or limited partnerships over the next ten years.

The Institute is a member of an international consortium that was organized to construct and operate an advanced telescope. At September 30, 2015 and 2014, the Institute was committed to provide a combination of cash and in-kind assets totaling approximately \$102,000 and \$110,000, respectively, to the consortium over approximately the next ten years. Payments and other transfers related to this commitment are subject to certain contingencies.

The Institute's workers' compensation insurance carrier requires that the Institute maintain an unsecured letter of credit for claims that do not exceed certain deductible amounts. At September 30, 2015 and 2014, the amounts of the letter of credit facility were \$9,300 and \$8,425, respectively. The

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letter of credit was not used during the years ended September 30, 2015 and 2014, and therefore no liability has been recorded in the balance sheets.

The Institute is currently providing funding for the operation of certain local water treatment facilities, subject to reimbursement from NASA. Annual costs are not expected to exceed \$9,000.

The Institute leases equipment and buildings, primarily for JPL, under operating leases expiring at various dates through 2018. Rent expense incurred under operating lease obligations was \$5,971 and \$8,063 for the years ended September 30, 2015 and 2014, respectively.

At September 30, 2015, future minimum payments under operating leases of greater than one year in duration were as follows:

Year Ending September 30	Amount
2016	\$ 3,254
2017	1,897
2018	1,002
2019	-
2020	-
Total	<u>\$ 6,153</u>

Approximately \$5,595 of the future minimum lease payments listed above is expected to be recoverable from JPL under the Institute's cost-reimbursable contract with NASA.

The Institute rents housing, equipment, and building space to students, faculty, and other organizations under operating leases expiring at various dates through 2020. Rental income under operating leases was \$9,484 and \$10,777 at September 30, 2015 and 2014, respectively.

At September 30, 2015, minimum future rentals from operating leases of greater than one year in duration were as follows:

Year Ending September 30	Amount
2016	\$ 8,755
2017	8,373
2018	6,501
2019	3,649
2020	2,831
Total	<u>\$ 30,109</u>

M. Supplemental Cash Flow Information

The following are additional supplemental disclosures related to the statements of cash flows:

	2015	2014
Cash paid during the year for interest, net of amounts capitalized	\$ 29,590	\$ 25,714
Income taxes paid	1,450	1,219
Non-cash investing and financing activities:		
Securities received to satisfy pledge payments	186	815
In-kind receipt of securities, property, plant, and equipment	30,726	15,396
Accrued purchases of property, plant, and equipment at year end	3,353	5,665
Net amounts receivable/(payable) for pending investments transactions	31,168	(2,950)

N. Subsequent Events

Subsequent events were evaluated through January 27, 2016, which is the date the financial statements were available to be issued.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster			
Direct Funds			
Department of Commerce			
National Oceanic & Atmospheric Administration	11.431		\$ 178,939
Department of Defense			
Air Force	12.630		580,143
Air Force	12.800		5,660,862
Army	12.431		2,729,984
Army	12.910		214,006
Defense Advanced Research Project Agency	12.UNKNOWN	W30950	(2,840)
Defense Threat Reduction Agency	12.351		370,214
Defense Advanced Research Project Agency	12.431		239,655
Defense Advanced Research Projects Agency	12.910		6,428,942
Navy	12.300		2,201,638
Navy	12.910		524,344
Total Department of Defense			18,946,948
Department of Energy			
Department of Energy	81.UNKNOWN	IPA CHANNING AHN	127,504
Department of Energy	81.049		21,038,841
Department of Energy	81.064		250,246
Department of Energy	81.086		186,661
Department of Energy	81.087		12,851
Department of Energy	81.112		988,502
Department of Energy	81.135		1,422,080
Total Department of Energy			24,026,685

The accompanying notes are an integral part of this Schedule.

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Research and Development Cluster (Continued)			
Direct Funds (Continued)			
Department of Health and Human Services			
National Institutes of Health	93.077		\$ 289,003
National Institutes of Health	93.121		618,816
National Institutes of Health	93.172		3,078,836
National Institutes of Health	93.173		268,956
National Institutes of Health	93.242		4,882,556
National Institutes of Health	93.279		2,866,126
National Institutes of Health	93.286		1,680,892
National Institutes of Health	93.310		5,023,022
National Institutes of Health	93.351		402,312
National Institutes of Health	93.389		39,279
National Institutes of Health	93.395		3,572,908
National Institutes of Health	93.396		495,122
National Institutes of Health	93.397		2,256,803
National Institutes of Health	93.398		145,356
National Institutes of Health	93.837		89,955
National Institutes of Health	93.838		420,813
National Institutes of Health	93.839		501,264
National Institutes of Health	93.846		53,204
National Institutes of Health	93.847		1,359,237
National Institutes of Health	93.853		5,602,798
National Institutes of Health	93.855		5,291,671
National Institutes of Health	93.859		16,447,251
National Institutes of Health	93.865		5,092,817
National Institutes of Health	93.866		340,049
National Institutes of Health	93.867		1,200,017
Total Department of Health and Human Services			62,019,063

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Direct Funds (Continued)			
Department of the Interior			
United States Geological Survey	15.UNKNOWN	4500072148	\$ 73,530
United States Geological Survey	15.UNKNOWN	4500047679	118,388
United States Geological Survey	15.807		1,499,768
United States Geological Survey	15.808		663,952
Total Department of the Interior			2,355,638
Environmental Protection Agency			
United States Environmental Protection Agency (EPA)	66.514		855
General Services Administration			
General Services Administration	39.UNKNOWN	GP0478497	47,437
National Aeronautics and Space Administration (NASA)			
NASA	43.UNKNOWN	JSCNNJ13ZA01P	156,076
NASA	43.UNKNOWN	NNH15IA26P	105,308
NASA	43.UNKNOWN	NNG08FD60C	3,336,870
NASA	43.UNKNOWN	JSCNNJ13ZA02P	(703)
NASA	43.UNKNOWN	NAS5-98034	(18,283)
NASA	43.UNKNOWN	NNH11IA02P	5,763
NASA	43.UNKNOWN	NNH08IA03P	(1,197)
NASA	43.UNKNOWN	NNH14IA13P	226,387
NASA	43.001		6,346,341
NASA	43.002		9,148
NASA	43.007		4,869
NASA	43.008		183,431
NASA	43.009		570,500
NASA	43.012		6,487
Total NASA			10,930,997

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Direct Funds (Continued)			
National Endowment for the Humanities			
National Endowment for the Humanities	45.161		\$ 33,347
National Science of Foundation			
National Science Foundation	47.UNKNOWN	1501208	1,753
National Science Foundation	47.UNKNOWN	1400366	240,270
National Science Foundation	47.UNKNOWN	1158655	(1,574)
National Science Foundation	47.041		4,087,886
National Science Foundation	47.049		68,209,528
National Science Foundation	47.050		4,439,225
National Science Foundation	47.070		3,442,475
National Science Foundation	47.074		746,535
National Science Foundation	47.075		1,052,719
National Science Foundation	47.076		4,622,798
National Science Foundation	47.080		256,333
ARRA - National Science Foundation	47.082		7,884
Total National Science Foundation			87,105,832
Total Research and Development - Direct Funds			205,645,741
Pass-Through Funds			
Agency for International Development			
Development Alternatives, Inc.	98.UNKNOWN	1001624-13S-19790	209,191
Department of Agriculture			
Citrus Research and Development Foundation, Inc.	10.309	13-009NU-788	372,645

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Department of Defense			
Air Force			
Brown University	12.800	00000271	\$ 156,325
Brown University	12.800	00000553	103,638
Carnegie Mellon University	12.800	1150119-294707	118,305
IBM Corporation	12.910	AH3.IBMH	59,739
Massachusetts Institute of Technology	12.800	5710003606	254,920
Northrop Corporation	12.800	2876556	221,839
Northwestern University	12.800	PROJ0003600	72,641
Ohio State University	12.800	RF01220513	221,507
Ohio State University	12.800	60035093/GRT00027335	48,228
Princeton University	12.800	00002050	136,507
Stanford University	12.800	29018150-51649-C	409,469
University of California Berkeley	12.800	00007817	153,158
University of California Los Angeles	12.800	0160 G QA874	79,039
University of California Los Angeles	12.800	0205GSA600	136,983
University of California San Diego	12.800	10312818	166,798
University of California Santa Barbara	12.800	KK1224	386,874
University of Chicago	12.800	RF01220513	264,795
University of Colorado at Boulder	12.800	1552227	243,370
University of Missouri	12.800	C00043936-2	166,002
University of Notre Dame	12.800	201943	132,525
University of Southern California	12.800	34278403	63,219
University of Southern California	12.UNKNOWN	Y85620	40,952
Total Air Force Pass-Through			3,636,833
Department of Defense (Continued)			
Army			
Cornell University	12.910	63222-9803	200,045
Johns Hopkins University	12.630	2001515018	854,322
Rutgers University	12.910	5654	56,611
Telaris Genesis, Inc.	12.400	1 0-2014	60,000

The accompanying notes are an integral part of this Schedule.

California Institute of Technology
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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Department of Defense (Continued)			
Army			
Tissue Genesis, Inc.	12.420	20150721-01	\$ 946
University of California Davis	12.431	201301077-01	237,198
University of California Santa Barbara	12.UNKNOWN	KK1502	66,629
University of California Santa Barbara	12.UNKNOWN	KK9150	1,924,042
University of Illinois	12.420	2009-03197-01	38,241
University of Illinois	12.420	2010-04699-03	14,151
University of Pennsylvania	12.910	561587	191,126
University of Utah	12.630	10028801-CAL-BPP	22,888
Total Army Pass-Through			3,666,199
Navy			
BAE Systems, Inc.	12.UNKNOWN	739533	16,690
Massachusetts Institute of Technology	12.300	5710003358	206,230
University of California Los Angeles	12.300	0980 G RE457	148,997
University of California Los Angeles	12.300	0980 G SB033	288,737
University of California Los Angeles	12.300	0980 G PK234	57,929
University of California Los Angeles	12.300	1015 G NA127	155,435
Total Navy Pass-Through			874,018
Defense Advanced Research Projects Agency			
Department of the Interior	12.910	D14AP00050	355,065
HRL Laboratories, LLC	12.910	10008-002329	73,388
Hughes Research Laboratory	12.910	9085-303500-DS	11,535
Northrop Corporation	12.431	10296067	75,315
Ohio State University	12.351	60047783	96,166
Purdue University	12.910	4104-65926	64,784
University of California Berkeley	12.910	00008161/BB00143380	294,813

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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Defense Advanced Research Projects Agency (Continued)			
University of California Los Angeles	12.UNKNOWN	0142SQA028	\$ 181,489
University of California Los Angeles	12.910	Sub 0157 G PA105	(4)
University of California Santa Barbara	12.910	KK1540	118,964
Total Defense Advanced Research Projects Agency Pass-Through			1,271,515
Total Department of Defense Pass- Through			9,448,565
Department of Energy			
Aerosol Dynamics, Inc.	81.049	3519	48,041
Amerigon, Inc.	81.086	AMERGN.DOE	88,847
Argonne National Laboratory	81.UNKNOWN	3F-30421	42,973
Arizona State University	81.087	14-377	367,893
Battelle	81.UNKNOWN	251198	94,940
Brookhaven National Laboratory	81.UNKNOWN	284849	29
Carnegie Institute	81.049	4-10114-02 B	189,240
Carnegie Institute	81.112	4-10469-02	141,163
Fermilab National Accelerator Laboratory	81.UNKNOWN	554897	57,744
Fermilab National Accelerator Laboratory	81.UNKNOWN	570788	47,853
Fermilab National Accelerator Laboratory	81.UNKNOWN	608666	678,090
Fermilab National Accelerator Laboratory	81.UNKNOWN	610159	53,792
Fermilab National Accelerator Laboratory	81.UNKNOWN	612044	116,911
Fermilab National Accelerator Laboratory	81.UNKNOWN	613639	91,981
Fermilab National Accelerator Laboratory	81.UNKNOWN	615210	212,490
Fermilab National Accelerator Laboratory	81.UNKNOWN	620106	55,824
Fermilab National Accelerator Laboratory	81.UNKNOWN	620353	50,860
Fermilab National Accelerator Laboratory	81.UNKNOWN	622268	47,198

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Department of Energy (Continued)			
Krell Institute	81.UNKNOWN	KRELL.GRADPT	\$ 311
Krell Institute	81.UNKNOWN	KRELL.KLEISER	873
Lawrence Berkeley National Laboratory	81.UNKNOWN	7038034	830
Lawrence Berkeley National Laboratory	81.UNKNOWN	7080503	(1,505)
Lawrence Livermore National Laboratory	81.UNKNOWN	B602077	2,632
Lawrence Livermore National Laboratory	81.UNKNOWN	B609604	192,509
Lawrence Livermore National Laboratory	81.UNKNOWN	B611977	58,415
Liox Power	81.086	102679	132,029
Los Alamos National Laboratory	81.UNKNOWN	259078	252,391
Los Alamos National Laboratory	81.UNKNOWN	273448	170,211
Los Alamos National Laboratory	81.UNKNOWN	305963	102,000
Los Alamos National Laboratory	81.UNKNOWN	217155-1/74372-001-09	60,791
National Security Technologies, LLC	81.UNKNOWN	146428 SP0024973- PROJ0007275	41,200
Northwestern University	81.135	4000115818	173,109
Oak Ridge National Laboratory	81.UNKNOWN	P-0011396	152,132
Protabit LLC	81.049	C14-23	20,061
Radiation Monitoring Devices, Inc.	81.049	C2014.0025	10,000
Safcell, Inc.	81.135	1263763	356,035
Sandia National Laboratories	81.UNKNOWN	1416776	(92)
Sandia National Laboratories	81.UNKNOWN	DOE DE-AC02- 76SF00515	78,644
Stanford University	81.UNKNOWN	60212342-51077-I	230
Stanford University	81.087	60962301-51077	91,922
Stanford University	81.087	11404	4,586
Telescent, Inc.	81.049	2603180	27,103
United Technologies Corporation	81.135	37733	169,846
University of Delaware	81.049	A002601001	132,994
University of Minnesota	81.135	GQ10044-134466	295,448
University of Virginia	81.049		(14,217)
Total Department of Energy Pass-Through			4,896,357

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Department of Health and Human Services			
National Institutes of Health			
Academyhealth	93.226	CIT2017.731.001SGD	\$ 28,943
Allen Institute for Brain Science	93.242	14-215	296,947
Brandeis University	93.242	402473	59,802
Children's Hospital Los Angeles	93.855	000480	2,528
Children's Hospital Los Angeles	93.855	512	87,446
City of Hope	93.701	51013.914960.6692	139,721
Harvard University	93.310	138062-5061610	335,962
Hudsonalpha Institute for Biotechnology	93.172	2013-01	1,606,562
Jackson Laboratory	93.172	202909	122,936
Jackson Laboratory	93.172	JACKSON.GOCON15	177,289
Massachusetts Institute of Technology	93.279	5710002669	8,632
Mount Sinai School of Medicine	93.UNKNOWN	0258-3615 / HHSN272201000054C	70,146
Princeton University	93.853	SUB0000038	240,709
Science Applications International Corporation	93.UNKNOWN	11XS287	527,690
Symbiotix Biotherapies, Inc.	93.847	SBI-003	124,190
The Scripps Research Institute	93.279	5-50657	49,754
The Scripps Research Institute	93.279	5-52172	10,719
The Scripps Research Institute	93.853	5-52423	145,216
University of California Los Angeles	93.286	0845 G KB564	14,796
University of California Los Angeles	93.286	0845 G SB495	135,140
University of California Los Angeles	93.837	1564GRA556	168,435
University of California Los Angeles	93.837	1564GSA123	168,568
University of California Los Angeles	93.286	1713 G RA348	40,215
University of California San Francisco	93.394	8849sc	17,133
University of California Santa Cruz	93.172	S0184278	175,958
University of Georgia	93.855	RR182-434/4708841	83,250
University of Kansas Center for Research, Inc	93.310	FY2014-061	114,370
University of Miami	93.395	660215/MR82521	18,979
University of New Mexico	93.242	3RJ60	152,875

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
Department of Health and Human Services (Continued)			
National Institutes of Health (Continued)			
University of Southern California	93.859	159431	\$ 27,072
University of Southern California	93.000	56294097	671,429
University of Southern California	93.866	64259929	11,452
University of Southern California	93.853	65883161	104,626
University of Utah	93.859	10027535-05	295,039
University of Utah	93.859	10027535-06	356,343
University of Washington	93.847	UWSC7927	200,032
University of Washington	93.173	UWSC8030	64,007
University of Wisconsin	93.859	348K434	<u>67,372</u>
Total National Institutes of Health Pass-Through			<u>6,922,283</u>
Total Department of Health and Human Services Pass-Through			<u>6,922,283</u>
 Department of the Interior			
United States Geological Survey (USGS)			
University of Southern California	15.808	Y80804	203,732
University of Southern California	15.808	Y86581	<u>219,783</u>
Total Department of the Interior Pass- Through			<u>423,515</u>

The accompanying notes are an integral part of this Schedule.

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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
National Aeronautics and Space Administration (NASA)			
Analytical Mechanics Associates, Inc.	43.001	1601-TEAMS2-CAL	\$ (41,000)
Carnegie Institution of Washington	43.001	7-10349-01	6,862
Center for the Advancement of Science in Space	43.001	GA-2013-101	50,226
Chromologic LLC	43.UNKNOWN	MSA-150622 - PO 2015CL2395	408
Harvard University	43.001	131299-5039010	14,517
Harvard University	43.001	131396-5071107	38,251
Johns Hopkins University	43.001	108898	23,555
Johns Hopkins University	43.001	2002128886	44,008
Massachusetts Institute of Technology	43.001	5710003277	992
Massachusetts Institute of Technology	43.001	5710003373	28,028
New Mexico State University	43.UNKNOWN	P0144736	43,935
Orbital Science Corporation	43.UNKNOWN	25P0144736	98,405
Pennsylvania State University	43.001	4984-CIT-NASA-D22G	2,293
Princeton University	43.001	00002046	228,240
Smithsonian Astrophysical Observatory	43.001	AR4-15001X	36,938
Smithsonian Astrophysical Observatory	43.001	DD3-14069X	8,736
Smithsonian Astrophysical Observatory	43.001	GO3-14052X	9,473
Smithsonian Astrophysical Observatory	43.000	GO3-14087X	17,451
Smithsonian Astrophysical Observatory	43.001	GO3-14091A	32,298
Smithsonian Astrophysical Observatory	43.001	GO5-16149X	10,262
Smithsonian Astrophysical Observatory	43.001	PF1-120089	(7,484)
Smithsonian Astrophysical Observatory	43.001	PF2-130099	81,924
Smithsonian Astrophysical Observatory	43.001	PF3-140114	89,047
Smithsonian Astrophysical Observatory	43.001	PF4-150124	69,294
Smithsonian Astrophysical Observatory	43.001	PF5-160136	15,417
Southwestern Research Institute	43.001	1415GC0042	65,419
Southwestern Research Institute	43.001	699047X	114,349
Southwestern Research Institute	43.001	699048X	108,067
Southwestern Research Institute	43.001	699049X	21,946
Southwestern Research Institute	43.001	D99029L	1,914,442

The accompanying notes are an integral part of this Schedule.

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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
National Aeronautics and Space Administration (NASA)			
(Continued)			
Space Telescope Science Institute	43.UNKNOWN	HST-AR-13345.01-A	\$ 679
Space Telescope Science Institute	43.001	HST-AR-13917.007-A	22,142
Space Telescope Science Institute	43.UNKNOWN	HST-GO-12549.013-A	2,957
Space Telescope Science Institute	43.UNKNOWN	HST-GO-12888.01-A	14,247
Space Telescope Science Institute	43.UNKNOWN	HST-GO-12902.08-A	9,553
Space Telescope Science Institute	43.UNKNOWN	HST-GO-12930.001-A	59,067
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13178.01-A	150,471
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13341.001-A	22,751
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13352.010-A	62,165
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13364.40-A	1,828
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13431-001-A	3,628
Space Telescope Science Institute	43.001	HST-GO-13501.01-A	9,554
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13621.002-A	7,698
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13665.005-A	99,064
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13683.001-A	716
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13826.004-A	12,265
Space Telescope Science Institute	43.UNKNOWN	HST-GO-13867.014-A	9,999
Space Telescope Science Institute	43.UNKNOWN	HST-HF2-51334.001-A	102,694
Space Telescope Science Institute	43.UNKNOWN	HST-HF2-51365.001-A	26,303
Space Telescope Science Institute	43.UNKNOWN	STI-506645 / T047844	369,788
Space Telescope Science Institute	43.UNKNOWN	STI-506645/T049036	164,778
Space Telescope Science Institute	43.UNKNOWN	STSCI-49296	42,407
Space Telescope Science Institute	43.001	HST GO-12286.04-A	18,797
Space Telescope Science Institute	43.001	HST-GO-11702.04-A	(1,008)
Space Telescope Science Institute	43.000	HST-GO-12568.08-A	24,892
Space Telescope Science Institute	43.000	HST-GO-11622.01-A	29,292
Space Telescope Science Institute	43.001	HST-GO-12060.49-A	15,561
Space Telescope Science Institute	43.000	HST-GO-12181.13-A	26,374
Space Telescope Science Institute	43.000	HST-GO-12234.02-A	1,565
Space Telescope Science Institute	43.001	HST-GO-12283.08-A	1,003

The accompanying notes are an integral part of this Schedule.

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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
National Aeronautics and Space Administration (NASA)			
(Continued)			
Space Telescope Science Institute	43.000	HST-GO-12473.11-A	\$ 18,878
Space Telescope Science Institute	43.000	HST-GO-12481.001-A	30,938
Space Telescope Science Institute	43.000	HST-GO-12490.03-A	805
Space Telescope Science Institute	43.000	HST-GO-12498.01-A	17,250
Space Telescope Science Institute	43.000	HST-GO-12524.04-A	164
Space Telescope Science Institute	43.000	HST-GO-12534.001-A	9,410
Space Telescope Science Institute	43.000	HST-GO-12949.01-A	4,321
Space Telescope Science Institute	43.000	HST-HF-51296.01-A	225
Space Telescope Science Institute	43.000	HST-HF-51313.01-A	91,889
Universities Space Research Association	43.001	02212-01	54,051
Universities Space Research Association	43.UNKNOWN	03-0151	881
Universities Space Research Association	43.UNKNOWN	08521-017	2,740
Universities Space Research Association	43.UNKNOWN	SOF 03-0098 Morris	8,105
Universities Space Research Association	43.UNKNOWN	SOF-0084	(4)
Universities Space Research Association	43.UNKNOWN	USRA.000964	2,000
University of California Berkeley	43.001	00008864	42,571
University of California Berkeley	43.001	SA2715-26309	133,291
University of California Los Angeles	43.001	0995 G SA431	12,731
University of California San Diego	43.001	32377315	60,937
University of Colorado Boulder	43.001	1551484	22,455
University of Houston	43.001	R-13-0027	32,915
University of Southern California	43.001	38485892	125,344
University of Wisconsin-Milwaukee	43.001	474K961	23,541
Total NASA Pass-Through			5,132,967

The accompanying notes are an integral part of this Schedule.

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Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
National Science Foundation			
Arizona State University	47.041	12-729	\$ 344,757
Assoc. of Universities for Research In Astronomy	47.UNKNOWN	N506723	54,036
Assoc. of Universities for Research In Astronomy	47.049	N51608C	1,546,773
Carnegie Mellon University	47.079	1121550-259731	169,276
Carnegie Mellon University	47.050	1122215-343879	86,865
Columbia University	47.050	9(GG009393)	25,907
Consortium for Ocean Leadership	47.050	T337A89	3,568
Cornell University	47.049	63433-10071	140
Emory University	47.049	T443838	141,741
Harvard University	47.078	5064956-131340	459,750
Incorporated Research Institute for Seismology	47.050	90-CalTech-ECBB	95,699
Large Synoptic Survey Telescope Corporation	47.049	C44040L	24,490
Michigan State University	47.049	RC105065CIT	775
National Bureau of Economic Research, Inc.	47.075	343586010799817700	2,392
National Radio Astronomy Observatory	47.UNKNOWN	339998	(54)
National Radio Astronomy Observatory	47.049	340516	14,892
National Radio Astronomy Observatory	47.049	346351	182,365
National Radio Astronomy Observatory	47.049	346844	3,000
National Radio Astronomy Observatory	47.049	347299	12,501
National Radio Astronomy Observatory	47.049	347359	18,089
National Radio Astronomy Observatory	47.049	350315	10,000
Princeton University	47.049	00002009	494,681
Protabit LLC	47.041	1332185	28,980
Stanford University	47.049	60078899-105579-C	173,527
University of Arizona	47.041	Y502628	114,300
University of Chicago	47.041	FP057790-A	8,972
University of California Berkeley	47.041	00008795	24,604
University of California San Francisco	47.041	7726sc	7,801
University of Connecticut	47.041	7150	17,929
University of Michigan	47.049	3002828221	37,512

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Research and Development Cluster (Continued)			
Pass-Through Funds (Continued)			
National Science Foundation (Continued)			
University of Minnesota	47.050	A003176705	\$ 20,352
University of Minnesota	47.049	A003778901	18,239
University of Southern California	47.050	51822192	44,345
University of Southern California	47.050	51920235	52,183
University of Southern California	47.041	55096262	101,229
University of Southern California	47.041	59997380	3,996
University of Southern California	47.041	H31068	(3,420)
University of Wisconsin-Milwaukee	47.049	123405532	45,045
University of Wisconsin-Milwaukee	47.049	153405540	13,683
Virtual Astronomical Observatory, Inc.	47.049	2010-08-1	(11,124)
W.M. Keck Observatory	47.049	11523	1,450,694
Washington University	47.041	120239 G003227	24,159
Total National Science Foundation Pass-Through			5,864,649
Total Research and Development - Pass-Through Funds			33,270,172
Total Research and Development Cluster			238,915,913

The accompanying notes are an integral part of this Schedule.

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Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Grant/Contract or Pass-Through Number	Federal Expenditures
Student Financial Aid Cluster			
Direct Funds			
Department of Education			
Federal Work Study Program	84.033		\$ 337,781
Federal Supplemental Educational Opportunity Grant	84.007		323,991
Federal Pell Grant Program	84.063		<u>536,331</u>
		Total Student Financial Aid Cluster	<u>1,198,103</u>
		Total Expenditures of Federal Awards	<u><u>\$ 240,114,016</u></u>

The accompanying notes are an integral part of this Schedule.

California Institute of Technology

Notes to Schedule of Expenditures of Federal Awards

For the Year Ended September 30, 2015

1. Summary of Significant Accounting Policies

General

The California Institute of Technology (the "Institute") is a private, not-for-profit institution of higher education based in Pasadena, California. The Institute provides education and training services, primarily for students at the undergraduate, graduate, and postdoctoral levels, and performs research, training, and other services under grants, contracts, and similar agreements with sponsoring organizations, primarily departments and agencies of the United States government. The awards set forth in this Schedule do not include amounts related to the Jet Propulsion Laboratory ("JPL") which is a National Aeronautics and Space Administration ("NASA") Federally Funded Research and Development Center ("FFRDC") managed by the Institute. Please refer to the separate audited financial statements and related OMB Circular A-133 reports for JPL.

Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") has been prepared on the cash basis of accounting and in accordance with the Office of Management and Budget ("OMB") Circular A-133, *Audits of States, Local Governments and Not-for-Profit Organizations*. The Schedule summarizes the expenditures of the Institute under programs of the federal government for the year ended September 30, 2015, except those related to JPL. Because the Schedule presents only a selected portion of the operations of the Institute, and is prepared on the cash basis of accounting, it is not intended to and does not present the financial position, changes in net assets or cash flows of the Institute in accordance with accounting principles generally accepted in the United States of America.

Expenditures for direct costs are recognized as incurred using the cash basis of accounting and the cost accounting principles contained in OMB Circular A-21, *Cost Principles for Educational Institutions* and, effective December 26, 2014, OMB 2 CFR 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, as applicable. Under those cost principles, certain types of expenditures are not allowable or are limited as to reimbursements. Moreover, expenditures include a portion of costs associated with general institution activities (facilities and administrative costs) which are allocated to awards under negotiated formulas commonly referred to as indirect cost rates.

Negative balances reflected in the Schedule represent adjustments to expenditures under awards made in prior years.

The Institute receives funding or reimbursement from Federal Government agencies primarily for research under government grants and contracts. Grants and contracts provide for reimbursement of indirect costs based on rates negotiated with the Department of Defense's Office of Naval Research ("ONR"), the Institute's cognizant federal agency. ONR has approved predetermined rates for FY2008, FY2011, FY2012, and FY2013 and fixed with carry forward rates for FY2009, FY2010, FY2014 and FY2015. ONR engages the Defense Contract Audit Agency ("DCAA") to audit indirect charges to the Institute's grants and contracts. Actual incurred costs for the year ended September 30, 2007 have been audited by DCAA but not yet finalized and, in the opinion of management, the results of such audit will not have a material impact on the Schedule. Actual incurred costs for FY2009, FY2010, and FY2014 have been submitted to ONR pending audits by DCAA and, in the opinion of management, the results of such audits will not have a material impact on the Schedule. An incurred cost rate audit will not be required for FY 2008, FY2011, FY2012, or FY2013 because those rates are predetermined.

California Institute of Technology

Notes to Schedule of Expenditures of Federal Awards

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1. Summary of Significant Accounting Policies (Continued)

The Institute discloses its accounting policies for the purposes of direct costs and facilities and administrative costs in a Disclosure Statement in accordance with Cost Accounting Standards. All amendments and updates through Revision 11 have been approved by ONR. Revision 12, effective October 1, 2014, was submitted to ONR on July 31, 2014 and is pending audit by DCAA. When 2 CFR 200 became effective, ONR instructed Caltech not to submit administrative changes that were only necessary due to the promulgation of 2 CFR 200. They requested that Caltech incorporate these administrative changes into the next DS-2 revision for cost accounting changes consistent with the guidance in 2 CFR 200 FAQ .110-3. Revision 13, effective October 1, 2015, was submitted to ONR on March 31, 2016. Revision 13 includes these administrative changes in addition to other changes and is pending audit by DCAA.

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.

2. Loan Advances

During the year ended September 30, 2015, the Institute advanced loans totaling \$834,425 for the Federal Perkins Loan Program (CFDA Number 84.038). The outstanding balance at September 30, 2015 was \$5,174,541. The Federal Perkins Loan Program is administered directly by the Institute. Balances and transactions related to this program are included in the Institute's financial statements. The Institute charged \$11,606 of administrative cost allowance to the Federal Perkins Loan Program for the year ended September 30, 2015.

3. Federal Direct Loan Program

During the year ended September 30, 2015, the Institute processed \$640,087 of new loans under the Federal Direct Loan Program (CFDA Number 84.268), (which includes Subsidized Stafford Loans, Parent Loans for Undergraduate Students and Unsubsidized Stafford Loans). The amount disbursed to students (excluding origination fees) was \$622,955. There are no outstanding balances under these loan programs.

4. Transfers

During the year ended September 30, 2015, the Institute transferred \$137,697 from the Federal Work Study Program ("FWS") to the Federal Supplemental Educational Opportunity Grant Program ("FSEOG"). The transferred amounts are reflected as revenues/expenditures recognized in the program in which the funds were expended.

5. Federal Work Study Carry-forwards

During the year ended September 30, 2015, there were no FWS carry-forwards from the year ended September 30, 2014. The Institute carried back no funds from the year ended September 30, 2015 that were spent in the year ended September 30, 2014. The Institute charged \$74,301 of administrative cost allowance to the Federal Work Study Program for the year ended September 30, 2015.

California Institute of Technology
Notes to Schedule of Expenditures of Federal Awards
For the Year Ended September 30, 2015

6. Subrecipient Pass-Through

Of the federal expenditures presented in the Schedule, the Institute provided federal awards to subrecipients from the Institute's Research and Development Cluster as follows:

<u>Program Title</u>	<u>Amount Provided to Subrecipients</u>
Department of Defense	
Air Force Office of Scientific Research	\$ 1,651,267
Army Research Office	776,416
Defense Advanced Research Projects Agency	3,571,432
US Navy	306,187
	<u>6,305,302</u>
Department of Energy	<u>2,819,919</u>
National Institutes of Health	<u>11,338,766</u>
National Aeronautics & Space Administration	<u>2,223,211</u>
National Science Foundation	<u>8,122,344</u>
United States Geological Survey	<u>1,475</u>
Total Amount Provided to Subrecipients	<u>\$ 30,811,016</u>



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 Board of Trustees of the
California Institute of Technology

We have audited, 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, the financial statements of California Institute of Technology (the “Institute”), which comprise the balance sheet as of September 30, 2015, and the related statement of activities and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated January 27, 2016.

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 opinion 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 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

Los Angeles, California
January 27, 2016



**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 Board of Trustees of the
California Institute of Technology

Report on Compliance for Each Major Federal Program

We have audited the California 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 September 30, 2015. 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.

The Institute's financial statements include the operations of the Jet Propulsion Laboratory (a Federally Funded Research and Development Center managed by the Institute), which incurred \$1,755,482,000 in federal expenditures. These expenditures are not included in the Institute's schedule of expenditures of federal awards for the year ended September 30, 2015. Our audit of the Institute's federal awards did not include the operations of the Jet Propulsion Laboratory because it is audited and reported upon as a separate entity pursuant to Section 200(e) of OMB Circular A-133 and is, therefore, not within the scope of this audit.

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 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, 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 September 30, 2015.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with OMB Circular A-133 and which are described in the accompanying schedule of findings and questioned costs as items 2015-001 and 2015-002. Our opinion on each major federal program is not modified with respect to these matters.

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

Report on Internal Control Over Compliance

Management of 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 audit of compliance, 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.

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

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



deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of OMB Circular A-133. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Los Angeles, California
May 20, 2016

California Institute of Technology
Independent Auditor's Schedule of Findings and Questioned Costs
For the Year Ended September 30, 2015

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? No
- Significant deficiency(ies) identified that are not considered to be material weakness(es)? None Reported

Noncompliance material to the financial statements noted? No

Federal Awards

Internal control over major programs:

- Material weakness(es) identified? No
- Significant deficiency(ies) identified that are not considered to be material weakness(es)? None Reported

Type of auditor's report issued on compliance for major programs: Unmodified

Any audit findings that are required to be reported in accordance with OMB Circular A-133? Yes

Identification of major programs:

Program Name	CFDA Number
Research and Development Cluster	Various
Student Financial Aid Cluster	Various

Dollar threshold used to distinguish between Type A and Type B programs: \$3,000,000

Auditee qualified as a low-risk auditee? Yes

SECTION II – FINANCIAL REPORTING FINDINGS

None reported

California Institute of Technology

Independent Auditor's Schedule of Findings and Questioned Costs

For the Year Ended September 30, 2015

Section III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

Finding 2015-001 - Service Center Charges:

Program: Research & Development Cluster

Sponsor Award Number: N51608C

Sponsoring Agency: National Science Foundation

CFDA Number: 47.049

Institute Award Number: AURA.000002

Award Period: 2014 – 2015

Condition

In testing the Institute's conformity with the compliance requirements for certain non-salary direct costs, we selected 21 charges, comprising \$1.8 million of costs stemming from 20 federally funded awards. Total expenditures for these cost types, for these awards, was \$20.3 million. We noted one charge for a new service center in the amount of \$41,848. The service center charges were based on budgeted hours rather than actual hours and therefore were not determined on a basis generally consistent with charges from other service centers. The Institute's policies and procedures do not indicate that rates are required to be based on actual hours rather than budgeted hours. However, the Institute assumes that charges will be based on actual hours unless otherwise noted by the service center. The service center provides curation and archive services, and primarily services non-federal awards for the Institute. This was the only Institute federal award to which the service center charged costs.

The service center noted above was also included in a sample of five service centers tested from a population of 30. We noted no errors in our testing as all centers were using break even rates.

Citation

Circular A-21 Subpart C Paragraph 2

Criteria

Circular A-21 states that in order for costs in general to be allowable they must be reasonable, allocable, given consistent treatment and conform to the agreement terms. Additionally, service center charges are required to be based on actual usage of the services on the basis of a schedule of rates or established methodology.

Questioned Costs

\$41,848

Cause

Beyond providing the policy to service centers, the Institute does not provide further training on application of service center rates.

Effect

The concept of applying rates based on actual rather than budgeted time is not apparent to all and resulted in an incorrect charge.

California Institute of Technology
Independent Auditor's Schedule of Findings and Questioned Costs
For the Year Ended September 30, 2015

Recommendation

We recommend the Institute's policy be modified to address the application of rates and specific training in this area be provided.

Management's Views and Corrective Action Plan

Management's views and corrective action plan are included at the end of this report.

California Institute of Technology

Independent Auditor's Schedule of Findings and Questioned Costs

For the Year Ended September 30, 2015

Finding 2015-002 - Foreign Subrecipient Monitoring:

Program: Research & Development Cluster

Sponsor Award Number: U41 HG002223D

Sponsoring Agency: National Institutes of Health (NIH)

CFDA Number: 93.172

Institute Award Number: NIH.WB2013

Award Period: 2014 – 2015

Condition

In testing the Institute's compliance with the monitoring of subrecipient requirements, we sampled 30 subrecipient agreements out of a total population of 155. We identified two subawards with foreign entities, for which the Institute did not perform the appropriate monitoring procedures as it did not evaluate whether the entities were subject to audit requirements for federal expenditures. In both cases, the Institute did not engage in discussions to understand whether these subrecipients had sufficient federal expenditures in the subrecipients' fiscal year to make them subject to either an A-133 audit or audit under *Government Auditing Standards*. In both cases, as part of its award monitoring procedures, the Institute did review and approve the invoices and associated costs, which provided evidence that the costs incurred were appropriate. The expenditures included in the accompanying schedule of expenditures of federal awards for these two subawards are \$512,000 and \$480,000, respectively.

Citation

National Institutes of Health Grant Policy Statement Section 16.7.4 and 18.4.5

Criteria

OMB Circular A-133, which applies to the NIH award funding the foreign subrecipients identified above, exempts foreign subrecipients from its requirements. However, NIH requires awardees to ensure that foreign subrecipients expending more than the threshold outlined in NIH Grant Policy Statement 16.7.4 during the fiscal year audited, have an A-133 audit or a program specific audit.

Questioned Costs

None

Cause

The process for monitoring subrecipient compliance with audit requirements rests with the Institute's Procurement Services. Procurement Services' process did not include the monitoring of foreign subrecipients' compliance with NIH audit requirements.

Effect

Foreign subrecipients that are required to have a compliance audit of US federal funds expended are not monitored by the Institute to ensure compliance with this requirement as intended by the awarding agency.

California Institute of Technology
Independent Auditor's Schedule of Findings and Questioned Costs
For the Year Ended September 30, 2015

Recommendation

We recommend that the Institute establish a formal process for evaluating the specific audit requirements of all federal agencies for foreign subrecipients and for ensuring conformance by foreign subrecipients to such requirements.

Management's Views and Corrective Action Plan

Management's views and corrective action plan are included at the end of this report.

California Institute of Technology

Summary Schedule of Status of Prior Audit Findings and Questioned Costs

For the Year Ended September 30, 2015

Condition

Finding 2014-001: In testing the Institute's compliance with the National Institutes of Health ("NIH") salary limitation, PwC sampled \$2.9 million of salaries and related costs stemming from seven NIH awards. Total expenditures for PwC's sample of NIH awards were \$17.4 million. They noted one award for which the salary rate of an individual working on the award was greater than the allowable rate. This resulted in an award overcharge of \$420. During their testing of other labor transactions, they identified one additional NIH award that was overcharged by \$36. Both awards were active as of September 30, 2014.

Current Status

The Institute issued the National Institutes of Health Salary Cap policy effective January 2016. In addition, the Institute updated its internal controls documentation to ensure that roles and responsibilities of each department were clearly stated as well as provide a threshold to define immaterial amounts. The Institute's Post Award Administration (PAA) office provided refresher training to grant managers in order to ensure that they fully understand how to utilize the tools that are available to them. Additionally, the Institute's PAA provided semi-annual NIH Salary Cap reports to grant managers during fiscal year 2015. The Institute's PAA and academic divisions continue to work together to identify any overcharges of salary to NIH awards and adjust salaries accordingly.



Office of Financial Services
1200 E. California Blvd.
MC 105-15
Pasadena, CA 91125
(626) 395-3937

May 20, 2016

PricewaterhouseCoopers LLP
601 South Figueroa Street
Los Angeles, CA 90017

Subject: California Institute of Technology Management's Views and Corrective Action Plan
Reference: OMB Circular A-133 Audit for Fiscal Year 2015

Enclosed is the California Institute of Technology's OMB Circular A-133 Management's Views and Corrective Action Plan for fiscal year ended September 30, 2015.

Please feel free to call me if any further information or clarification is required.

Sincerely,

A handwritten signature in black ink that reads "Sharon E. Patterson". The signature is written in a cursive style with a long, sweeping underline.

Sharon E. Patterson
Associate Vice President for Finance and Treasurer

Enclosure

Fiscal Year 2015

Finding Number	Condition	Management's Views and Corrective Action Plan	Responsible Individual	Planned Completion Date
2015-001	<p>In testing the Institute's conformity with the compliance requirements for certain non-salary direct costs, we selected 21 charges, comprising \$1.8 million of costs stemming from 20 federally funded awards. Total expenditures for these cost types, for these awards, was \$20.3 million. We noted one charge for a new service center in the amount of \$41,848. The service center charges were based on budgeted hours rather than actual hours and therefore were not determined on a basis generally consistent with charges from other service centers. The Institute's policies and procedures do not indicate that rates are required to be based on actual hours rather than budgeted hours. However, the Institute assumes that charges will be based on actual hours unless otherwise noted by the service center. The service center provides curation and archive services, and primarily services non-federal awards for the Institute. This was the only Institute federal award to which the service center charged costs.</p> <p>The service center noted above was also included in a sample of five service centers tested from a population of 30. We noted no errors in our testing as all centers were using break even rates.</p>	<p>In general, the Institute's Service Centers use actual hours to charge out to federal awards. In this case, the Service Center used budgeted hours. The Institute will update the Service Centers policy to include guidance on acceptable methodologies for determining charges to federal awards for center services and will provide training on this topic. In addition, new service centers will be required to provide their methodology and related procedures for determining charges for services prior to the authorization of the service center.</p>	<p>Virginia Baker Senior Director, Cost Studies and Property Services Office of Financial Services virginia.baker@caltech.edu</p>	9/30/2016
2015-002	<p>In testing the Institute's compliance with the monitoring of subrecipient requirements, we sampled 30 subrecipient agreements out of a total population of 155. We identified two subawards with foreign entities, for which the Institute did not perform the appropriate monitoring procedures as it did not evaluate whether the entities were subject to audit requirements for federal expenditures. In both cases, the Institute did not engage in discussions to understand whether these subrecipients had sufficient</p>	<p>The Institute is in the process of issuing a new subaward policy and associated procedures that will address compliance with Sponsor audit requirements, including foreign subrecipients. Foreign subrecipients reporting they do not receive annual A-133 or equivalent audits will be required to complete a Subrecipient Audit Questionnaire annually. Foreign subrecipients reporting they do receive annual A-133 or</p>	<p>Tina Lowenthal Director of Procurement Purchasing Services Tina.lowenthal@caltech.edu</p>	9/30/2016

	<p>federal expenditures in the subrecipients' fiscal year to make them subject to either an A-133 audit or audit under <i>Government Auditing Standards</i>. In both cases, as part of its award monitoring procedures, the Institute did review and approve the invoices and associated costs, which provided evidence that the costs incurred were appropriate. The expenditures included in the accompanying schedule of expenditures of federal awards for these two subawards are \$512,000 and \$480,000, respectively.</p>	<p>equivalent audits will be required to certify annually.</p>		
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