

California Institute of Technology

**Report on the Financial Statements
and on Federal Awards Programs in
Accordance with the Uniform Guidance
(exclusive of the Jet Propulsion Laboratory)**

**For the Year Ended September 30, 2023
EIN: 95-1643307**

California Institute of Technology
Index
For the Year Ended September 30, 2023

	Page
Report of Independent Auditors.....	1-3
Financial Statements and Notes to Financial Statements.....	4-39
Schedule of Expenditures of Federal Awards	40-49
Notes to Schedule of Expenditures of Federal Awards	50-51
Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	52-53
Report of Independent Auditors on Compliance for Each Major Program and on Internal Control Over Compliance Required by Uniform Guidance	54-56
Schedule of Findings and Questioned Costs	57
Summary Schedule of Prior Audit Findings and Status.....	58



Report of Independent Auditors

To the Board of Trustees of the California Institute of Technology

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the California Institute of Technology (the "Institute"), which comprise the balance sheets as of September 30, 2023 and 2022, and the related statements of activities and of cash flows for the years then ended, including the related notes (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Institute as of September 30, 2023 and 2022, 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.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Institute and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management 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, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Institute's ability to continue as a going concern for one year after the date the financial statements are issued.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS and *Government Auditing Standards*, will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may



involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Institute's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Institute's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Supplemental 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 for the year ended September 30, 2023 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the 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 24, 2024 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, 2023. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Institute's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

Los Angeles, California
January 24, 2024

California Institute of Technology
Balance Sheets
At September 30, 2023 and 2022
(Dollars in Thousands)

	2023	2022
ASSETS		
Cash and cash equivalents	\$ 55,368	\$ 44,866
Accounts and notes receivable, net		
United States government	191,420	224,196
Other	168,272	86,848
Contributions receivable, net	327,461	147,749
Investments	4,449,609	4,164,549
Prepaid expenses and other assets	310,375	260,017
Deferred United States government billings	211,422	242,327
Property, plant, and equipment, net	<u>1,224,140</u>	<u>1,165,563</u>
Total assets	<u>\$ 6,938,067</u>	<u>\$ 6,336,115</u>
LIABILITIES and NET ASSETS		
Liabilities:		
Accounts payable and accrued expenses	\$ 322,262	\$ 318,975
Accrued compensation and benefits	294,003	273,591
Deferred revenue, refundable advances, and other	132,124	70,666
Annuities, trust agreements, and agency funds	84,713	84,388
Bonds and notes payable, net	1,616,716	1,579,561
Accumulated postretirement benefit obligation	<u>190,751</u>	<u>246,767</u>
Total liabilities	<u>2,640,569</u>	<u>2,573,948</u>
Net assets:		
Without donor restrictions	706,033	528,841
With donor restrictions:		
Time or purpose	1,459,372	1,144,392
Perpetual	<u>2,132,093</u>	<u>2,088,934</u>
Total net assets with donor restrictions	<u>3,591,465</u>	<u>3,233,326</u>
Total net assets	<u>4,297,498</u>	<u>3,762,167</u>
Total liabilities and net assets	<u>\$ 6,938,067</u>	<u>\$ 6,336,115</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, 2023
(with summarized financial information for the year ended September 30, 2022)
(Dollars in Thousands)

	Without Donor Restrictions	With Donor Restrictions	2023 Total	2022 Total
Operating revenues:				
Tuition and fees, net of student financial aid	\$ 51,411	\$ -	\$ 51,411	\$ 50,996
Endowment spending, distributed	35,445	152,351	187,796	167,821
Gifts and pledges	42,883	35,546	78,429	99,097
Grants and contracts:				
Jet Propulsion Laboratory operations	2,673,772	-	2,673,772	2,450,465
United States government, Campus - direct	236,122	-	236,122	253,041
Other Campus - direct	97,192	4,215	101,407	93,214
Recovery of indirect costs and allowances	156,781	-	156,781	145,433
Sales and services	53,887	-	53,887	46,185
Other	89,662	-	89,662	3,522
Net assets released from restrictions	204,397	(204,397)	-	-
Total operating revenues and other support	3,641,552	(12,285)	3,629,267	3,309,774
Operating expenses:				
Compensation and benefits	468,550	-	468,550	452,521
Supplies and services	190,552	-	190,552	183,471
Subcontracts	52,829	-	52,829	59,681
Depreciation, accretion, and amortization	95,745	-	95,745	93,229
Utilities	32,737	-	32,737	21,898
Interest	43,686	-	43,686	43,428
Jet Propulsion Laboratory operations	2,673,772	-	2,673,772	2,450,465
Total operating expenses	3,557,871	-	3,557,871	3,304,693
Results of operations	83,681	(12,285)	71,396	5,081
Non-operating changes:				
Investment return in excess/(deficit) of endowment spending	102,464	103,631	206,095	(803,407)
Endowment spending, undistributed	4,021	4,498	8,519	11,499
Net assets released from restrictions	1,500	(1,500)	-	-
Gifts and pledges	2,921	277,635	280,556	119,488
Changes in fair value of interest rate swap	10,114	-	10,114	35,939
Changes in benefit obligations and related recoveries, net	4,375	-	4,375	44,476
Interest expense	(18,703)	-	(18,703)	(20,287)
Resignations, reclassifications, and other	(13,181)	(13,840)	(27,021)	(11,129)
Total non-operating activities	93,511	370,424	463,935	(623,421)
Increase/(decrease) in net assets	177,192	358,139	535,331	(618,340)
Net assets at beginning of year	528,841	3,233,326	3,762,167	4,380,507
Net assets at end of year	\$ 706,033	\$ 3,591,465	\$ 4,297,498	\$ 3,762,167

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

California Institute of Technology
Statement of Activities
For the Year Ended September 30, 2022
(Dollars in Thousands)

	Without Donor Restrictions	With Donor Restrictions	2022 Total
Operating revenues:			
Tuition and fees, net of student financial aid	\$ 50,996	\$ -	\$ 50,996
Endowment spending, distributed	33,266	134,555	167,821
Gifts and pledges	53,520	45,577	99,097
Grants and contracts:			
Jet Propulsion Laboratory operations	2,450,465	-	2,450,465
United States government, Campus - direct	253,041	-	253,041
Other Campus - direct	88,168	5,046	93,214
Recovery of indirect costs and allowances	145,433	-	145,433
Sales and services	46,185	-	46,185
Other	3,522	-	3,522
Net assets released from restrictions	181,771	(181,771)	-
Total operating revenues and other support	3,306,367	3,407	3,309,774
Operating expenses:			
Compensation and benefits	452,521	-	452,521
Supplies and services	183,471	-	183,471
Subcontracts	59,681	-	59,681
Depreciation, accretion, and amortization	93,229	-	93,229
Utilities	21,898	-	21,898
Interest	43,428	-	43,428
Jet Propulsion Laboratory operations	2,450,465	-	2,450,465
Total operating expenses	3,304,693	-	3,304,693
Results of operations	1,674	3,407	5,081
Non-operating changes:			
Investment return in (deficit) of endowment spending	(239,398)	(564,009)	(803,407)
Endowment spending, undistributed	3,821	7,678	11,499
Gifts and pledges	4,222	115,266	119,488
Changes in fair value of interest rate swap	35,939	-	35,939
Changes in benefit obligations and related recoveries, net	44,476	-	44,476
Interest expense	(20,287)	-	(20,287)
Resignations, reclassifications, and other	(3,643)	(7,486)	(11,129)
Total non-operating activities	(174,870)	(448,551)	(623,421)
(Decrease) in net assets	(173,196)	(445,144)	(618,340)
Net assets, beginning of year	702,037	3,678,470	4,380,507
Net assets, end of year	\$ 528,841	\$ 3,233,326	\$ 3,762,167

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, 2023 and 2022
(Dollars in Thousands)

	2023	2022
Cash flows from operating activities:		
Increase/(decrease) in net assets	\$ 535,331	\$ (618,340)
Adjustments to reconcile change in net assets to net cash used in operating activities:		
Depreciation, accretion, and amortization	95,745	93,229
Changes in postemployment benefit obligations	(23,246)	(129,198)
Contributions restricted for long-term investment and capital projects	(250,765)	(127,098)
Realized and unrealized (gains)/losses on investments and swap	(354,830)	657,728
Other non-cash items	(4,576)	15,419
Effects of changes in assets and liabilities (increase/(decrease) to cash):		
Accounts and notes receivable, net	(93,020)	(12,794)
Contributions receivable, net	12,214	15,961
Prepaid expenses and other assets	(38,585)	17,221
Deferred United States government billings	30,905	102,934
Accounts payable and accrued expenses	(17,526)	9,762
Accrued compensation and benefits	20,412	(38,534)
Deferred revenue, refundable advances, and other	60,128	(3,388)
Accumulated postretirement benefit obligation	(32,770)	(26,818)
Net cash used in operating activities	(60,583)	(43,916)
Cash flows from investing activities:		
Purchases of investments	(837,636)	(937,888)
Proceeds from sales and maturities of investments	932,723	950,626
Purchases of property, plant, and equipment	(137,949)	(99,374)
Proceeds from sale of property, plant, and equipment	229	41
Net cash used in investing activities	(42,633)	(86,595)
Cash flows from financing activities:		
Contributions restricted for long-term investment and capital projects	76,496	153,587
Investment return restricted for long-term investment and capital projects	1,433	1,274
Cash received under annuity and trust agreements	5,560	10,563
Cash payments made under annuity and trust agreements	(6,672)	(7,476)
Net borrowings/(repayments) of short-term debt	36,901	(45,000)
Net cash provided by financing activities	113,718	112,948
Net change in cash and cash equivalents	10,502	(17,563)
Cash and cash equivalents at beginning of year	44,866	62,429
Cash and cash equivalents at end of year	\$ 55,368	\$ 44,866

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 scholars 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 operations are reflected in the Institute’s balance sheets. The direct costs of JPL’s operations and the related reimbursement of those costs are reflected separately 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 (“GAAP”).

Net Assets

Under GAAP, the Institute classifies its resources for reporting purposes in two categories based on the existence or absence of donor-imposed restrictions. Those categories, and descriptions of the types of transactions affecting each category, are as follows:

- The category “Net assets without donor restrictions” consists of those net assets not subject to donor-imposed restrictions. Activities that affect this category generally consist of fees for services, research revenues, and related expenses associated with the Institute’s operating activities, as well as activities related to funds functioning as endowment and certain philanthropic support. Contributions not subject to donor-imposed restrictions and donor-restricted contributions that are received and either spent, or deemed spent, for the restricted purpose within the same year are reported as increases to net assets without donor restrictions.

“Net assets without donor restrictions” include certain funds that are board-designated as functioning as endowment. There are no other board-designated funds.

- The category “Net assets with donor restrictions” includes both net assets that are subject to donor-imposed time or purpose restrictions that are expected to be met and those subject to donor-imposed perpetual restrictions. Net assets with donor-imposed restrictions that are expected to be met include endowment investment returns that have not yet been appropriated for expenditures, certain funds restricted for capital projects, and certain life income and

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

annuity funds. The Institute meets such donor restrictions through the passage of time, the appropriation of endowment earnings, the placing of gift-funded capital projects into service, and/or the Institute's incurrence of expenditures or other payments. When such restrictions are met, the related net assets are released to net assets without donor restrictions.

Net assets with donor restrictions that are subject to perpetual restrictions include endowment gifts, related contributions receivable, and certain charitable life income and annuity funds for which donors have stipulated that the original value of their contributions and, if applicable, certain subsequent accumulations, be held in perpetuity.

For additional disclosures of the Institute's net assets, refer to Note H.

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.

Cash and Cash Equivalents

Cash (and cash equivalents) consists of bank account balances. The Institute classifies amounts held in money market funds or invested in short-term securities with remaining maturities of three months or less and those held as collateral by the counterparty to the Institute's interest rate swap as short-term investments. Such investments are not included in the line item "Cash and cash equivalents" in the statements of cash flows. Carrying amounts of short-term investments approximate fair value due to the relatively short maturities.

Accounts and Notes Receivable

Accounts receivable under contracts and grants are carried at cost, less an immaterial allowance for doubtful accounts. Net accounts receivable under contracts and grants totaled \$351,307 and \$258,162 at September 30, 2023 and 2022, respectively. Activity in the allowance accounts was not significant during the years ended September 30, 2023 and 2022. The carrying value of net accounts receivable approximates fair value. Accounts receivable included \$708 and \$45,079 related to investment transactions not yet settled at September 30, 2023 and 2022, respectively.

At September 30, 2023 and 2022, the Institute held aggregate accounts receivable from students and employees of \$2,639 and \$2,607, respectively, and loans receivable from students of \$5,038 and \$5,196, respectively. Both accounts and loans receivable are carried at cost, and only minor amounts of these receivables are expected to become uncollectible.

Investments

Investments are carried at 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.

Short-term investments included \$0 and \$8,739 held as collateral by the counterparty to the Institute's interest rate swap at September 30, 2023 and 2022, respectively, in accordance with the terms of the swap agreement.

Property, Plant, and Equipment

Property, plant, and equipment is recorded at the cost of construction, acquisition, or fair value of contributed assets at the date of gift. Interest costs related to debt used for construction of assets are capitalized and included in the cost of construction. 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 and building improvements 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 removal and disposal of asbestos and removal of buildings and improvements from leased property. Asset retirement cost, net of accumulated depreciation, was \$17,087 and \$18,570 at September 30, 2023 and 2022, respectively, and is included in the line item "Property, plant, and equipment, net" in the balance sheets. Conditional asset retirement obligations were \$39,726 and \$38,712 at September 30, 2023 and 2022, respectively, and are included in the line item "Accounts payable and accrued expenses" in the balance sheets.

The Institute contracts for the use of certain facilities and equipment for use in its operations, primarily at JPL. The Institute determines if such an arrangement is a lease at inception of a contract. A contract is determined to be a lease if the contract conveys the right to control the use of identified property, plant, or equipment ("identified asset") in exchange for consideration. The Institute elected to apply the practical expedient under ASC 842 that allows short-term leases (those with a lease term of twelve months or less) to be excluded from new lease recognition requirements. As noted in Note L, the Institute has recorded obligations related to agreement of greater than one year in duration.

Annuities, Trust Agreements, and Agency Funds

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 and totaled \$112,137 and \$104,433 at September 30, 2023 and 2022, respectively. 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 0.4% to 10.6% 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 2012 Individual Annuity Reserving (IAR) table was used to determine the liabilities recorded at September 30, 2023 and 2022. Split-interest agreement liabilities totaled \$63,111 and \$61,870 at September 30, 2023 and 2022, respectively, and are included in liabilities for "Annuities, trust agreements, and agency funds" in the balance sheets and classified in Level 3 of the valuation hierarchy described in Note K. The fair value of split-interest

agreement liabilities is determined using the income approach and calculated using a discounted cash flow analysis based on the expected payments to be made over the remaining life of each respective split-interest agreement. The primary unobservable inputs for split-interest agreement liabilities are the applicable discount rates, which range from 0.4% to 10.6%, and applicable estimated remaining life expectancies of benefactors, which range from 0 to 42 years. For the years ended September 30, 2023 and 2022, the weighted-average discount rate was 5.7% and the weighted-average life expectancy was 9.6 and 11.1 years, respectively. Significant increases or decreases in discount rates and life expectancies in isolation may result in significantly different values.

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 \$6,494 and \$6,080 at September 30, 2023 and 2022, respectively.

The Institute held assets totaling \$15,108 and \$16,438 in agency funds on behalf of other entities at September 30, 2023 and 2022, respectively. The assets held are primarily included in the line item “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.

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 estimated by multiplying the Institute’s percentage interest by the fair value of trust assets at the time that receipt of such interests is both probable and reasonably estimable. Subsequently, the value of the Institute’s interests in such trusts is adjusted for changes in the fair values of the underlying assets. Interests in perpetual trusts are recorded as revenue when 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 \$45,460 and \$32,500 at September 30, 2023 and 2022, respectively, and are included in the line item “Prepaid expenses and other assets” 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, 2023 and 2022, accrued compensated absences of \$131,595 and \$127,725, respectively, are included in the line item “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 the line item “Accrued compensation and benefits” in the balance sheets. At September 30, 2023 and 2022, liabilities for workers’ compensation were \$11,065 and \$10,837, respectively.

Revenue Recognition

The Institute's revenue recognition policies are as follows:

- *Investment return* – Investment income and realized and unrealized gains and losses, net of investment fees, are reported as increases or decreases to the appropriate net asset category.

The Institute presents total investment return in three components in the statements of activities. “Endowment spending, distributed” represents the amount distributed to operations from the endowment according to the Institute's endowment spending policy. The non-operating line item “Endowment spending, undistributed,” represents endowment spending available under the spending policy but reinvested in the endowment. “Investment return in excess/(deficit) of endowment spending” comprises the difference between return/loss on endowment investments and the amounts available under the spending policy plus the net return or loss on all other Institute investments.

- *Gifts* – Unconditional contributions, including promises to give, are recorded as revenues in the year received. Noncash 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.

Conditional contributions, which are characterized by both the presence of one or more donor-imposed barriers to the Institute’s entitlement to promised resources and the donor’s right of return of funds or the right to be released from obligations to transfer assets in the future, are recorded when the Institute overcomes such barriers. Barriers may include performance-related stipulations, limitations on the Institute’s discretion over the use of awarded funds, and/or other stipulations related to the purpose of the contribution. Conditional contributions, undiscounted, totaled \$30,158 and \$40,282, and advance payments on such contributions totaled \$2,672 and \$3,345, at September 30, 2023 and 2022, respectively. Substantially all conditional contributions include donor-imposed purpose or time restrictions related to education and research. Advance payments are recorded in deferred revenues.

- *Grants and contracts, Campus* – Revenues from grants and cooperative agreements designated for research generally are accounted for as contributions due to the lack of a commercial objective on the part of the sponsor. Such contributions generally are considered conditional due to the inclusion of barriers requiring adherence to specific costing principles and return-of-funds provisions. Generally, barriers to entitlement are removed, and revenue recognized, as allowable expenditures are incurred under such agreements. Cash and other assets received in excess of such expenditures, or otherwise subject to conditions, are recorded as deferred revenue.

Conditional contributions related to sponsored research, undiscounted, totaled \$195,923 and \$230,514 at September 30, 2023 and 2022, respectively, and are not recorded in the financial statements. The Institute includes in conditional contributions only the unexpended portions of sponsored awards that the Institute has the right to expend without further action from the sponsor and/or a funding agency. Advance payments related to sponsored research totaled \$23,725 and \$20,052 at September 30, 2023 and 2022, respectively.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

- *Recovery of indirect costs and allowances* – Substantially all Campus United States government grants and contracts provide for the reimbursement of indirect facilities and administrative costs and the recovery of graduate student tuition remission based on rates negotiated with the Office of Naval Research, the Campus’ federal cognizant agency for negotiation and approval of such rates. Such reimbursements generally are recognized as related direct costs are incurred on applicable awards. Recoveries of such facilities and administrative costs were \$97,168 and \$91,840 for the years ended September 30, 2023 and 2022, respectively.
- *Other* – Rental revenues from leased properties and miscellaneous gains and losses are recognized as earned or realized. See Note L for additional information on leases.

Recognition of revenue from contracts with customers occurs as the Institute satisfies one or more performance obligations, which are promises in a contract to transfer a distinct good or service to a customer. The timing of billings, cash collections, and revenue recognition may result in contract assets and contract liabilities (deferred revenues) in the balance sheets. A description of the Institute’s revenues from contracts with customers and contract assets and liabilities follows:

- *Tuition and fees* – All student tuition and fees and undergraduate room and board charges are recorded, net of applicable financial aid, as revenues during the year the related academic or other services are rendered and the Institute satisfies its performance obligations by providing instruction, room, and board, as applicable, to its students. Such charges totaled \$160,806 and \$154,719, and financial aid totaled \$109,395 and \$103,723, for the years ended September 30, 2023 and 2022, respectively.

Payments received in advance of academic terms are recorded as deferred revenue. Total deferred revenue related to tuition, fees, room and board was \$13,435 and \$13,463, and accounts receivable related to tuition, fees, room and board was \$1,650 and \$1,951 at September 30, 2023 and 2022, respectively. Substantially all deferred revenue balances at September 30, 2022 were recognized as revenue during the fiscal year ended September 30, 2023, as performance obligations to provide instruction, room, and board were satisfied.

- *Jet Propulsion Laboratory operations* – The Institute’s performance obligations under its cost-reimbursable contract with NASA for JPL (the “JPL Contract”) are contained within separately identifiable, individually NASA-approved task orders created under the JPL Contract. The task order is NASA’s stipulated method of planning, funding, and monitoring costs under the JPL Contract. The various task orders specify distinct scientific, engineering, and research scopes, from which NASA benefits directly or in combination with other work performed under the JPL Contract.

The Institute satisfies its performance obligations under the JPL Contract on an over-time basis as it incurs allowable direct costs under authorized, funded task orders, and therefore recognizes revenue as such costs are incurred. All goods and services furnished under the JPL Contract, which are measured by allowable costs incurred, immediately accrue to the benefit of NASA. NASA simultaneously receives and consumes the benefits of any services provided, obtains title to any assets purchased, and, by contract, prohibits the Institute from directing any alternative use of assets created under the JPL Contract.

California Institute of Technology

Notes to Financial Statements

September 30, 2023 and 2022

(Dollars in Thousands)

The Institute has a right to immediate reimbursement from NASA when allowable incurred costs are paid. The Institute collects its reimbursements under the JPL Contract through a letter of credit arrangement. JPL accounts receivable totaled \$168,135 and \$198,792 at September 30, 2023 and 2022, respectively, and are included in the line item “United States government” on the balance sheets.

The Institute records contract assets equal to costs incurred under, but not yet billed to, the JPL Contract. Such costs, which are not billable to NASA until paid, are equal to the total of the unfunded portion of the accumulated postretirement benefit obligation, accrued vacation, accrued workers’ compensation liabilities, and lease obligations and are described further in Note E. At September 30, 2023 and 2022, there were no deferred revenue or other contract liability balances related to JPL.

Under the JPL Contract, the Institute also receives an annual negotiated reimbursement in lieu of indirect costs (“lump sum”) and an annual fixed performance fee, which totaled \$59,613 and \$53,593 for the years ended September 30, 2023 and 2022, respectively. These recoveries are recorded on an over-time basis ratably over each fiscal year and are included in the line item “Recovery of indirect costs and allowances” in the statements of activities. The JPL Contract has no material variable consideration and no significant financing component.

The current JPL Contract began October 1, 2018. The JPL Contract has a five-year term and permits awards of up to five additional years based upon annual NASA evaluations of its performance. During the year ended September 30, 2022, NASA formally extended the contract by four years. At September 30, 2023, reimbursements of all costs and payments of all fixed-fees under the contract over the extended term were subject to an aggregate total of \$27,279,000.

The value of the Institute’s future performance obligations under the JPL Contract is subject to change according to NASA’s priorities and the results of JPL’s scientific and engineering initiatives. Such performance obligations are subject to the availability of future NASA funding and, in certain cases, the future renewal or extension of the JPL Contract. Based upon the JPL Contract’s maximum limit, the maximum remaining obligation potentially to be authorized under the JPL Contract was \$14,154,094 and \$16,622,836 at September 30, 2023 and 2022, respectively.

- *Sales and services* – Ancillary inflows from graduate housing, royalties, non-degree-granting educational activities, retail operations, and other agreements with customers are recorded as the Institute satisfies the related performance obligations. Generally, payment is due at the time goods or services are provided. There were no material deferred revenue or accounts receivable balances related to sales and services revenues at September 30, 2023 and 2022.

Campus recorded \$98,084 and \$137,885 in direct revenues from sponsored research activities accounted for as contracts with customers for the years ended September 30, 2023 and 2022, respectively. Those direct revenues are combined with conditional contribution revenues from either United States government or other Campus grants in the statements of activities. Related recoveries according to applicable indirect cost rates of \$14,412 and \$12,223 are included in the line item “Recovery of indirect costs and allowances” in the statements of activities for the years ended September 30, 2023 and 2022, respectively. There were no material deferred revenue or accounts receivable balances related to these contracts at September 30, 2023 and 2022.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Expenses

Campus expenses are reported in the statements of activities by natural classification. Institute expenses by functional classification were as follows for the years ended September 30, 2023 and 2022:

	<u>Campus Program Activities</u>					Total
	<u>Instruction and</u>			Institutional	JPL	
	Academic	Organized	Auxiliary			
September 30, 2023	Support	Research	Enterprises	Support	Operations	
Operating expenses:						
Compensation and benefits	\$ 228,480	\$ 162,489	\$ 13,594	\$ 63,987	\$ 1,463,385	\$ 1,931,935
Supplies and services	87,456	75,922	18,945	8,229	324,788	515,340
Subcontracts	3,680	49,149	-	-	867,203	920,032
Depreciation, accretion, and amortization	37,511	46,670	9,026	2,538	-	95,745
Utilities	15,357	15,410	695	1,275	18,396	51,133
Interest	18,043	20,483	4,449	711	-	43,686
Total functional expenses	<u>\$ 390,527</u>	<u>\$ 370,123</u>	<u>\$ 46,709</u>	<u>\$ 76,740</u>	<u>\$ 2,673,772</u>	<u>\$ 3,557,871</u>
Non-operating expenses:						
Interest				\$ 18,703		\$ 18,703
Net periodic benefit costs				196	\$ (15,359)	(15,163)

	<u>Campus Program Activities</u>					Total
	<u>Instruction and</u>			Institutional	JPL	
	Academic	Organized	Auxiliary			
September 30, 2022	Support	Research	Enterprises	Support	Operations	
Operating expenses:						
Compensation and benefits	\$ 216,516	\$ 156,003	\$ 11,656	\$ 68,346	\$ 1,335,604	\$ 1,788,125
Supplies and services	78,797	84,868	14,509	5,297	295,654	479,125
Subcontracts	3,581	56,100	-	-	805,431	865,112
Depreciation, accretion, and amortization	31,263	50,840	8,520	2,606	-	93,229
Utilities	9,258	11,115	588	937	13,776	35,674
Interest	18,224	19,747	4,624	833	-	43,428
Total functional expenses	<u>\$ 357,639</u>	<u>\$ 378,673</u>	<u>\$ 39,897</u>	<u>\$ 78,019</u>	<u>\$ 2,450,465</u>	<u>\$ 3,304,693</u>
Non-operating expenses:						
Interest				\$ 20,287		\$ 20,287
Net periodic benefit costs				562	\$ (16,172)	(15,610)

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Institutional Support expenses include certain costs related to the administration of the Institute's contract with NASA for the operation of JPL. The Institute is ultimately reimbursed for these costs through the annual negotiated reimbursement in lieu of indirect costs ("lump sum") as described in the JPL Contract. The total lump sum, yet to be negotiated, for the years ended September 30, 2023 and 2022 was \$28,613 and \$22,593, respectively.

Auxiliary Enterprises expenses include the costs associated with revenue-generating supporting services, including undergraduate room and board, graduate and faculty housing, retail stores, and dining facilities.

Facilities operation and maintenance costs incurred centrally are allocated back to the functional expense classifications as follows: Depreciation related to buildings and improvements and other central facilities' operating costs are allocated based on square footage occupancy of Institute facilities, equipment depreciation is allocated based on average equipment purchases attributed to each classification, and interest on external debt, net of amounts capitalized, is allocated to categories that benefit from the proceeds of such debt based on occupancy.

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 return 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 operating expenses and related reimbursements; 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, for refunding of other bonds, or for operating purposes; net gains or losses on nonrecurring transactions; actuarial adjustments related to annuity and trust agreements; changes in deferred tax assets and liabilities, gains and losses on retirement of indebtedness; and donor redesignations and other reclassifications of net assets.

Tax Status

Except as noted below, the Institute is generally exempt from federal taxes on income 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, 2023 and 2022, the Institute maintained a full valuation allowance on its deferred tax assets. The valuation allowance reduced net deferred tax assets, which are primarily due to tax losses from certain investment activities, to a value of \$0. Based on its analysis of the uncertainties surrounding both the timing and amounts of potential future net taxable income, the Institute has assumed that it is more likely than not that the Institute will not realize the deferred tax assets. The Institute has not provided for any uncertain tax positions at September 30, 2023 and 2022.

The Institute is subject to a federal excise tax on net investment income. The Institute's deferred tax liability related to the excise tax was \$10,947 and \$7,288 at September 20, 2023 and 2022, respectively, and is included in the line item "Deferred revenue, refundable advances, and other" in the balance sheets.

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. Transactions with such entities are conducted in the normal course of business and in accordance with the Institute’s policies and procedures governing potential conflicts of interest.

New Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, *Financial instruments - Credit losses (Topic 326): Measurement of credit losses on financial instruments*. Topic 326 amends guidance on reporting credit losses for certain assets. ASU 2016-13 is effective for the Institute’s fiscal year ending September 30, 2024. The Institute is evaluating the impact of this standard to its financial statements and disclosures.

C. Contributions Receivable, net

Contributions receivable consists of unconditional promises to give to the Institute in the future. Individual contributions receivable are initially recorded at fair value, including discounts to present values of the future cash flows at appropriate credit risk-adjusted rates, and are classified in Level 3 of the valuation hierarchy described in Note K. Discount rates on outstanding contributions receivable at September 30, 2023 and 2022 range from 0.32% to 4.68%.

Collections of contributions receivable were expected as follows at September 30, 2023 and 2022:

	2023	2022
Within one year	\$ 244,497	\$ 53,384
Between one year and five years	71,504	82,321
More than five years	<u>17,746</u>	<u>17,264</u>
Gross contributions receivable	333,747	152,969
Less:		
Unamortized discounts	5,923	4,908
Allowance for uncollectible contributions	<u>363</u>	<u>312</u>
Net contributions receivable	<u>\$ 327,461</u>	<u>\$ 147,749</u>

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Net contributions receivable carried the following donor-imposed restrictions at September 30, 2023 and 2022:

	2023	2022
Endowment	\$ 248,154	\$ 45,996
Building and building improvements	33,324	43,632
Other purpose and/or time restrictions	45,983	58,121
	<u> </u>	<u> </u>
Net contributions receivable	<u>\$ 327,461</u>	<u>\$ 147,749</u>

At September 30, 2023 and 2022, net promises totaling \$42,183 and \$63,045, respectively, were due from Institute trustees, their estates, and charitable entities founded by Institute trustees.

D. Investments

Investments consisted of the following at September 30, 2023 and 2022:

	2023	2022
Short-term investments	\$ 219,959	\$ 195,002
Fixed-income securities	98,342	121,616
Equity securities	1,575,871	1,454,624
Alternative investments:		
Alternative securities	1,053,327	975,550
Private equity	945,249	911,461
Real assets	556,861	506,296
	<u> </u>	<u> </u>
Total investments	<u>\$ 4,449,609</u>	<u>\$ 4,164,549</u>

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.

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

- *Short-term investments* consist primarily of investments in prime, U.S. government, government agency money market funds, and exchange-traded funds.
- *Fixed-income securities* consist primarily of corporate or sovereign entity debt instruments in both U.S. and foreign markets and investments in funds that hold such instruments.
- *Equity securities* consist primarily of publicly traded corporate equities in globally diversified domestic markets, developed international and emerging international markets, and

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

investments in funds that hold such investments. Investment managers invest according to each manager's particular investment strategy.

- *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 follow a variety of strategies such as high yield and distressed credit, long/short equity, event-driven, and relative value. Managers invest in various securities and financial instruments, including publicly traded and private domestic and foreign companies, corporate debt, bonds, swaps, options, futures contracts, and commodities.
- *Private equity* consists primarily of investments in funds that hold 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 funds are made either as in-kind transfers of company securities, or in cash.
- *Real assets* consist primarily of investments in illiquid funds that invest in foreign and/or domestic real estate and/or energy sectors. Real estate consists primarily of residential and commercial real estate assets, projects or land, and notes receivable secured by real estate. Energy consists primarily of oil and gas exploration and production or materials mining businesses, as well as related oil and gas services businesses.

Investments were held as follows at September 30, 2023 and 2022:

	2023	2022
Investment pool	\$ 3,595,777	\$ 3,386,008
Separately invested endowments	29,899	29,767
Trusts, annuities, and other	<u>823,933</u>	<u>748,774</u>
Total investments	<u>\$ 4,449,609</u>	<u>\$ 4,164,549</u>

At September 30, 2023 and 2022, endowment investments were \$3,598,221 and \$3,390,504, respectively. At September 30, 2023 and 2022, other investments included \$64,677 and \$27,336, respectively, held in separately invested accounts as required by donors and/or sponsors.

Investment return (loss), which consists of interest and dividend income and net realized and unrealized gains and losses, net of fees, was \$402,410 and (\$624,087) for the years ended September 30, 2023 and 2022, respectively.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

E. Deferred United States Government Billings

The Institute's contract with NASA provides for the reimbursement of certain employee benefit costs and other obligations 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, workers' compensation liabilities, and lease obligations 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 the related liabilities become payable by the Institute.

Deferred United States government billings related to deferred reimbursements of the following liabilities at September 30, 2023 and 2022:

	2023	2022
Unfunded postretirement benefit obligation	\$ 76,457	\$ 127,166
Accrued vacation	108,545	105,515
Accrued workers' compensation expense	3,700	2,980
Lease obligations	22,720	6,666
	<hr/>	<hr/>
Total deferred United States government billings	\$ 211,422	\$ 242,327
	<hr/>	<hr/>

F. Property, Plant, and Equipment, net

Property, plant, and equipment consisted of the following at September 30, 2023 and 2022:

	2023	2022
Land and land improvements	\$ 79,524	\$ 80,068
Buildings and building improvements	1,617,369	1,578,798
Equipment	698,084	682,234
Construction in progress	208,828	128,250
Less: accumulated depreciation	(1,379,665)	(1,303,787)
	<hr/>	<hr/>
Total property, plant, and equipment, net	\$ 1,224,140	\$ 1,165,563
	<hr/>	<hr/>

Depreciation expense for the years ended September 30, 2023 and 2022 was \$94,028 and \$91,771, respectively.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

G. Bonds and Notes Payable

Bonds and notes payable are uncollateralized, general obligations of the Institute and consisted of the following at September 30, 2023 and 2022:

	Maturity	Interest rate	Outstanding	
		2023 / 2022	2023	2022
Bonds payable:				
Taxable bonds (interest rates listed at coupon):				
Series 2019	2119	3.65%	\$ 500,000	\$ 500,000
Series 2016	2116	4.28%	150,000	150,000
Series 2015	2045	4.32%	400,000	400,000
Series 2011	2111	4.70%	350,000	350,000
California Educational Facilities Authority (CEFA)				
tax-exempt revenue bonds, with variable rates (prior to being synthetically fixed through swap agreements, where applicable):				
2006 Series A	2036	2.06% / 2.29%	82,500	82,500
2006 Series B	2036	2.50% / 2.20%	82,500	82,500
Series 1994	2024	2.50% / 2.20%	30,000	30,000
Total bonds payable, gross			1,595,000	1,595,000
Unamortized discounts and issuance costs, net			(15,185)	(15,439)
Total bonds payable, net			1,579,815	1,579,561
Notes payable:				
Maximum				
Variable rate facilities:				
General working capital and capital projects:				
JP Morgan Chase revolving bank credit facility	\$ 100,000	2025	- / -	-
U.S. Bank revolving bank credit facility	75,000	2025	- / -	-
U.S. Bank revolving bank credit facility	50,000	None	5.78% / -	36,901
Bank of America revolving bank credit facility	75,000	2025	- / -	-
PNC Bank revolving bank credit facility	50,000	2024	- / -	-
Supplemental liquidity for variable rate debt:				
Northern Trust revolving bank credit facility	50,000	2025	- / -	-
Northern Trust revolving bank credit facility	50,000	2023	- / -	-
TD Bank revolving bank credit facility	50,000	2025	- / -	-
Total notes payable			36,901	-
Total bonds and notes payable, net			\$ 1,616,716	\$ 1,579,561

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

As of September 30, 2023, the Institute had eight unsecured revolving lines of credit available (collectively, the “Lines of Credit”). Maturity dates for individual advances made under the Lines of Credit are determined at the time advances are made. At September 30, 2023 and 2022, the Institute had internally-mandated aggregate borrowing limits for the Lines of Credit as follows: \$100,000 for borrowings to finance working capital, \$100,000 for borrowings to finance acquisitions of real estate and temporary funding for capital projects, and \$200,000 for borrowings to preserve liquidity.

The \$50,000 line of credit from U.S. Bank is uncommitted.

During the year ended September 30, 2023, the Institute renewed two revolving bank credit facilities as follows: U.S. Bank with a permitted maximum draw of \$75,000 and another with Bank of America with a permitted maximum of draw of \$75,000.

Subsequent to September 30, 2023, the Institute extended its \$50,000 revolving line of credit with Northern Trust originally maturing in December 2023 to mature in December 2024 and extended its \$50,000 revolving line of credit with Northern Trust originally maturing in December 2025 to mature in December 2026.

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. As of September 30, 2023, the Institute was in compliance with all of its required financial covenants.

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 during the year ending September 30, 2023, in the following table.

Future principal repayments on bonds and notes payable were as follows at September 30, 2023:

Year Ending September 30	Amount
2024	\$ 231,901
2025	-
2026	-
2027	-
2028	-
Thereafter	1,400,000
Total	<u>\$ 1,631,901</u>

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 and was amended on March 23, 2023, the Institute pays the counterparty a fixed interest rate of 3.549% and receives a variable rate, equal to 67% of one-month SOFR plus an adjustment spread of 0.075%

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

(resulting in a rate of approximately 3.63% at September 30, 2023), on a \$165,000 underlying notional principal amount.

The interest rate 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. The fair value of the swap was a liability of \$10,290 and \$20,404 at September 30, 2023 and 2022, respectively, and is included in the line item “Accounts payable and accrued expenses” in the balance sheets. Costs of regular settlements with the counterparty of \$395 and \$4,836 during the years ended September 30, 2023 and 2022, respectively, are included in the expense line item “Interest” in the statements of activities. Changes in the swap’s fair value during the years ended September 30, 2023, and 2022 resulted in unrealized gains of \$10,114 and \$35,939, respectively, which are included in non-operating changes in net assets in the statements of activities.

H. Net Assets

Net Assets with Donor Restrictions

The Institute’s net assets with donor restrictions were held as follows at September 30, 2023 and 2022:

	2023	2022
Time or purpose:		
Endowment	\$ 877,511	\$ 773,140
Contributions receivable	279,307	101,753
Education and research funds	249,273	238,408
Life income and annuity funds	53,281	31,091
Total net assets with time or purpose restrictions	<u>\$ 1,459,372</u>	<u>\$ 1,144,392</u>
Perpetual:		
Endowment	\$ 2,024,838	\$ 1,981,965
Contributions receivable	48,154	45,996
Life income and annuity funds	39,403	41,627
Student loan funds	19,698	19,346
Total net assets with perpetual restrictions	<u>\$ 2,132,093</u>	<u>\$ 2,088,934</u>
Total net assets with donor restrictions	<u>\$ 3,591,465</u>	<u>\$ 3,233,326</u>

Endowment Net Assets (including Funds Functioning as Endowment)

Endowment net assets constitute the largest component of the Institute’s net assets and are comprised of more than 1,000 donor-restricted and board-designated funds held primarily for long-term investment that supports educational, research, and general operating activities of the Institute. All endowment assets are held in a consolidated investment pool unless special considerations or donor stipulations require that they be invested separately. Gift annuities, beneficial interests, contributions receivable, and unexpended endowment distributions 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 net assets with donor

restrictions that are perpetual in nature: 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 for which the remaining donor restrictions are not perpetual in nature, and which consist primarily of accumulated investment return, are considered donor-restricted as to time and purpose until those amounts are appropriated for expenditure by the Institute in a manner consistent with the standard of prudence prescribed by UPMIFA and by Institute policies, and are expended accordingly.

The Institute's endowment (including funds functioning as endowment) spending policy includes a Board of Trustees-approved endowment spending formula that takes into consideration the prior year's allowed formulaic spending, inflation factors, and endowment growth. In accordance with UPMIFA, the policy also includes the following factors for consideration by the Board of Trustees when determining the annual amount to be made available for distribution to the operating budget each year:

- The purposes of donor-restricted endowment funds
- The duration and preservation of such funds
- General economic conditions
- Possible effects of inflation and deflation
- The expected total return from investment income and the appreciation of investments
- Other resources of the Institute
- The investment policies of the Institute

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 expenditures based on authorized spending rates and, if applicable, the incurrence of specific expenditures in accordance with donor-imposed 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/depreciation (realized and unrealized gains/losses) and investment income (including interest, dividends, and royalties). The Institute targets a diversified asset allocation, including, but not limited to, investments in public markets, private equity, real assets, and alternative investments, within risk constraints deemed to be prudent.

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.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Endowment net assets consisted of the following at September 30, 2023 and 2022:

	Without Donor Restrictions	With Donor Restrictions	Total
September 30, 2023			
Donor-restricted endowment funds	\$ -	\$ 2,867,484	\$ 2,867,484
Board-designated endowment funds	696,434	34,865	731,299
Total endowment net assets	<u>\$ 696,434</u>	<u>\$ 2,902,349</u>	<u>\$ 3,598,783</u>
September 30, 2022			
Donor-restricted endowment funds	\$ -	\$ 2,733,170	\$ 2,733,170
Board-designated endowment funds	673,397	21,935	695,332
Total endowment net assets	<u>\$ 673,397</u>	<u>\$ 2,755,105</u>	<u>\$ 3,428,502</u>

Changes in endowment net assets for the years ended September 30, 2023 and 2022 were as follows:

	Without Donor Restrictions	With Donor Restrictions	Total
October 1, 2021	\$ 848,658	\$ 3,192,908	\$ 4,041,566
Investment return, net	(111,353)	(421,925)	(533,278)
Contributions and pledge payments	-	107,900	107,900
Additions to board-designated endowments	19,237	17,550	36,787
Available for expenditure	(37,087)	(142,233)	(179,320)
Resignations, reclassifications, and other	(46,058)	905	(45,153)
September 30, 2022	<u>\$ 673,397</u>	<u>\$ 2,755,105</u>	<u>\$ 3,428,502</u>
Investment return, net	65,285	259,191	324,476
Contributions and pledge payments	-	40,634	40,634
Additions to board-designated endowments	6,554	12,950	19,504
Available for expenditure	(39,466)	(156,849)	(196,315)
Resignations, reclassifications, and other	(9,336)	(8,682)	(18,018)
September 30, 2023	<u>\$ 696,434</u>	<u>\$ 2,902,349</u>	<u>\$ 3,598,783</u>

The line item “Resignations, reclassifications, and other” in the table above includes the effects of changes in donor-imposed restrictions or Institute designations and certain endowment management costs.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Under ASC 958, for accounting purposes the Institute must maintain the historical values of underwater donor-restricted endowment funds as net assets subject to donor restrictions that are perpetual in nature. Deficiencies in fair value of such funds relative to their historical values reduce the portion of net assets with donor restrictions that is subject to time and/or purpose restrictions, and diminish with fair value appreciation. Aggregate fair values and historical costs of underwater endowments at September 30, 2023 and 2022 were \$262,271 and \$277,283, and \$327,305 and \$350,056, respectively, causing deficiencies of \$15,012 and \$22,751, respectively.

The Institute's endowment spending policy and applicable laws permit the appropriation of endowment spending from underwater funds unless prohibited by donor-imposed restrictions. During the years ended September 30, 2023 and 2022, the Institute appropriated spending of \$10,534 and \$9,773 from funds that were underwater at September 30, 2023 and 2022, respectively. These appropriations were made in accordance with the Institute's policy, so as not to suspend certain Institute programs. The policy requires the Institute's management to monitor and approve spending from underwater funds annually on a fund-by-fund basis and to report annually to the Board of Trustees regarding underwater funds.

I. Postretirement and Postemployment Benefits

Postretirement Health and Life Insurance

The Institute provides postretirement health and life insurance benefits 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 at the end of this note.

Components of the funded status of postretirement benefits reported in the Institute's balance sheets and changes therein were as follows for the years ended September 30, 2023 and 2022. Additional detail regarding the JPL and Campus-related portions of the funded status of postretirement benefits is provided at the end of this note.

	2023	2022
Changes in the accumulated postretirement benefit obligation:		
Benefit obligation at beginning of year	\$ 428,970	\$ 612,978
Service cost	10,933	18,878
Interest cost	22,661	17,520
Benefits paid	(16,378)	(15,880)
Employee contributions	1,141	1,224
Actuarial gain	(34,576)	(205,750)
Benefit obligation at end of year	<u>412,751</u>	<u>428,970</u>
Changes in plan assets:		
Fair value of plan assets at beginning of year	182,203	210,195
Return on plan assets	26,494	(43,422)
Employer contributions	28,540	30,086
Employee contributions	1,141	1,224
Benefits paid	(16,378)	(15,880)
Fair value of plan assets at end of year	<u>222,000</u>	<u>182,203</u>
Funded status	<u>\$ (190,751)</u>	<u>\$ (246,767)</u>

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Benefits for Campus retirees and their dependents are funded on a pay-as-you-go basis. Benefits for JPL retirees and their dependents are funded by NASA according to an accrual accounting approach based on the Federal Acquisition Regulation. 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. At September 30, 2023 and 2022, trust investments consisted of short-term investments and non-publicly traded collective trust funds and mutual funds. Short-term investments are classified in Level 1 of the valuation hierarchy described in Note K, and the collective trust funds and mutual funds, which have readily determinable fair values, are classified within Level 2 of that hierarchy.

Trust investments were held as follows at September 30, 2023 and 2022:

	2023	2022
Short-term investments	\$ 444	\$ 514
Collective trust funds	66,614	53,296
Mutual funds	154,942	128,393
Total investments	<u>\$ 222,000</u>	<u>\$ 182,203</u>

Net periodic postretirement benefit cost ("NPBC"), or the amount recorded as expense related to postretirement health and life insurance benefits attributable to a particular year, was as follows for the years ended September 30, 2023 and 2022:

	2023	2022
Components of net periodic postretirement benefit cost:		
Service cost	\$ 10,933	\$ 18,878
Other components:		
Interest cost	22,661	17,520
Expected return on plan assets	(11,774)	(12,585)
Amortization of prior service credit	(26,050)	(26,305)
Amortization of loss	-	5,760
Total other components	<u>(15,163)</u>	<u>(15,610)</u>
Net periodic benefit cost	<u>\$ (4,230)</u>	<u>\$ 3,268</u>

The statements of activities include both the components of NPBC and the effects of changes in funded status that are not otherwise recognized in NPBC. For the years ended September 30, 2023 and 2022, service costs related to Campus totaling \$3,159 and \$4,888, respectively, are included in the financial statement line item "Compensation and benefits," and service costs related to JPL totaling \$7,774 and \$13,990, respectively, are included in the financial statement line item "Jet Propulsion Laboratory operations."

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

For the years ending September 30, 2023 and 2022, the following are included in the non-operating statement of activities line item “Changes in benefit obligations and related recoveries, net”:

	2023	2022
Other components of NPBC, Campus	\$ (196)	\$ (562)
Other components of NPBC, JPL	15,359	16,172
Non-periodic changes in obligation, Campus	4,571	45,038
Non-periodic changes in obligation, JPL	18,675	84,160
JPL Contract recoveries	<u>(34,034)</u>	<u>(100,332)</u>
Changes in benefit obligation and other recoveries, net	<u>\$ 4,375</u>	<u>\$ 44,476</u>

Non-periodic changes in the benefit obligation for both Campus and JPL represent changes in the benefit obligation not otherwise recognized in NPBC. JPL contract revenue equal to the sum of JPL’s other components of NPBC and non-periodic changes in the benefit obligation related to JPL is included as an offsetting recovery, as any costs associated with JPL are contractually recoverable from NASA.

At September 30, 2023 and 2022, the differences recognized in net assets without donor restrictions between cumulative net periodic postretirement benefit cost, less cumulative contributions, and funded status were as follows:

	2023	2022
Prior service credit	\$ -	\$ (6,122)
Net gain	<u>(20,312)</u>	<u>(9,619)</u>
Cumulative amounts recognized in net assets without donor restrictions	<u>\$ (20,312)</u>	<u>\$ (15,741)</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 \$14,146 will be amortized into net periodic benefit cost during the year ending September 30, 2024.

The following weighted-average assumptions were used to determine the Institute’s net periodic benefit cost under the plans for the years ended September 30, 2023 and 2022:

	2023	2022
Discount rate	5.40%	2.90%
Discount rate for service cost	5.20%	3.00%
Expected return on plan assets	5.75%	5.75%
Health care cost trend rate	6.25%	6.50%

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

To develop the expected long-term rates of return on assets noted above, 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 returns are based on expected returns for various asset categories. The evaluation of the historical and future returns resulted in the selection of 6.25% and 5.75% for the years ended September 30, 2023 and 2022.

The following weighted-average assumptions were used to determine the Institute's obligation under the plans at September 30, 2023 and 2022:

	2023	2022
Discount rate	6.00%	5.40%
Discount rate for service cost	5.90%	5.20%
Health care cost trend rate	6.00%	6.25%

The Institute's postretirement medical benefit plans provide a substantial portion of the Institute's retirees and their eligible dependents annual 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. 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 is expected to increase in the future based on health care cost trend rates. The assumed health care cost trend rate is a 6.0% increase in 2023, after which annual rates of increase are assumed to decrease approximately 0.25% per year until 2030, after which healthcare cost is assumed to increase 4.25% annually in all future years. The effects of changes in these rates are not expected to be material to the benefit obligation or to related amounts recoverable from NASA.

At September 30, 2023, the estimated future benefit payments are as follows:

Year Ending September 30	Campus	JPL	Total
2024	\$ 5,503	\$ 14,440	\$ 19,943
2025	5,856	15,102	20,958
2026	6,219	15,758	21,977
2027	6,561	16,455	23,016
2028	6,872	17,135	24,007
2029-2033	39,228	95,716	134,944

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

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, 2023 and 2022 is as follows:

	Campus	JPL	Total
September 30, 2023			
Benefit obligation at end of year	\$ 114,294	\$ 298,457	\$ 412,751
Fair value of plan assets at end of year	-	222,000	222,000
Funded status	<u>\$ (114,294)</u>	<u>\$ (76,457)</u>	<u>\$ (190,751)</u>
September 30, 2022			
Benefit obligation at end of year	\$ 119,601	\$ 309,369	\$ 428,970
Fair value of plan assets at end of year	-	182,203	182,203
Funded status	<u>\$ (119,601)</u>	<u>\$ (127,166)</u>	<u>\$ (246,767)</u>

Defined Contribution Program

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, 2023 and 2022 were \$31,869 and \$30,159, respectively, for the Campus and \$116,423 and \$106,820, respectively, for JPL. The Institute has no assets or liabilities related to these plans.

At September 30, 2023 and 2022, the balance sheet line item “Prepaid expenses and other assets” included \$142,010 and \$123,612, respectively, in assets held pursuant to IRC section 457 defined contribution retirement plans. These assets are invested with external investment managers and are stated at fair value as further described in Note K. Level 1 assets consist of mutual funds that are traded on exchanges and similar platforms. Level 2 assets include funds comprised of equity securities and fixed income instruments. Level 3 assets consist primarily of fixed annuity contracts. The Institute’s liabilities related to these funds were \$141,511 and \$123,172 at September 30, 2023 and 2022, respectively, and are included in the line item “Accrued compensation and benefits” in the balance sheets.

J. Liquidity and Funds Available for General Expenditure

The Institute manages its financial assets and liquidity resources in order to provide cash for payment of general expenditures, such as operating expenses, construction costs, and principal payments on debt. Financial assets classified below as available for general expenditure within one year, computed in accordance with ASC 958, are those that are considered both convertible to cash and free of donor-imposed and/or contractual restrictions that would limit or prevent the use of such cash to fund general expenditures.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

At September 30, 2023 and 2022, the Institute's financial assets and liquidity resources available for general expenditure within one year were as follows:

	2023	2022
Financial assets available within one year:		
Cash and cash equivalents	\$ 55,368	\$ 44,866
Accounts and notes receivable, net	354,033	267,338
Expected pledge payments available for operations	23,445	24,001
Other investments	361,013	369,050
Investments and gains subject to subsequent year's endowment spending	206,874	189,825
Total	<u>1,000,733</u>	<u>895,080</u>
Liquidity resources:		
Committed lines of credit	\$ 400,000	\$ 450,000
Less: current borrowings under lines of credit	<u>(36,901)</u>	<u>-</u>
Total	363,099	450,000
Total financial assets and liquidity resources available within one year	<u>\$ 1,363,832</u>	<u>\$ 1,345,080</u>

As detailed in Note G, the Institute maintains certain internally-imposed limits on the use of its lines of credit for operating, liquidity, and construction purposes. Those limits may be changed with the concurrence of the Institute's Board of Trustees and, therefore, such internally-mandated limits have been omitted from the Institute's determination of available liquidity resources.

Under the Institute's cash management policies, cash received from endowment spending related to either funds functioning as endowment or donor-restricted endowments is available for general expenditure. Endowment spending distributed from donor-restricted endowments is reflected in the Institute's records as net assets with donor restrictions until the expenditures actually are incurred; such expenditures are funded by available financial assets and/or liquidity resources at the time they are paid.

Although the Institute does not normally intend to use endowment resources in excess of amounts appropriated annually according to its endowment spending policy, at September 30, 2023 and 2022, the Institute had \$696,434 and \$673,397, respectively, in funds functioning as endowment and included in net assets without donor restrictions that were available for general expenditure, subject to the concurrence of the Board of Trustees. Various redemption restrictions on underlying endowment investments could reduce the amount of cash immediately available from a redemption of a significant amount of funds functioning as endowment.

As noted in Note L, the Institute was committed to fund certain construction and services contracts from available financial assets and liquidity resources in the amount of \$165,023 at September 30, 2023.

K. Fair Value

Fair value under GAAP 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 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 investments in private company securities, investments in real asset interests (comprised of oil and gas interests and real property), and beneficial interests.

Level 3 equity securities consists primarily of direct investments in equity securities of privately-held companies. The share price from the last round of financing is the unobservable input used in determining the fair value. At September 30, 2023, such share prices range from \$0.43 to \$83.60 per share, with a weighted average price of \$15.12. Significant increases or decreases in interest rates, equity market conditions and/or the companies' operating results may result in significantly different values.

The Institute's Level 3 private equity holdings consist of investments in private equity managers' investment funds. Private company investment valuations are obtained directly from the respective investment managers or from third-party appraisals and are determined using industry-standard methodologies that generally involve the use of valuation multiples or discounted cash flows. Significant increases or decreases in discount rates and valuation multiples in isolation may result in significantly different values.

Level 3 oil and gas interests primarily consist of investments in oil and gas investment managers' funds. The Institute obtains oil and gas fund valuations directly from investment managers. Valuations are determined using industry-standard methodologies that mainly employ market

comparables and discounted cash flows. Significant increases or decreases in commodity prices and discount rates in isolation may result in significantly different values.

Level 3 investments in real property consist of investments in real property investment managers' funds and direct holdings of real property. The Institute obtains real property fund valuations directly from the respective investment managers. The Institute obtains initial valuations of direct holdings from appraisals obtained at date of transfer and subsequently adjusts such valuations based on market value trends. Valuations are determined using industry-standard methodologies that generally involve the use of location-adjusted capitalization rates, market comparables, and discounted cash flows. Significant increases or decreases in real property capitalization rates, discount rates, and market prices may result in significantly different values.

Valuations of Level 3 beneficial interests are based on appraisals of trust and bequest assets. Significant increases or decreases in market prices may result in significantly different values.

Level 3 assets held in the defined contribution plans are investments in annuity contracts issued by leading insurers. These investments are recorded at a principal or contract value, which generally represents net accumulated contributions/withdrawals plus interest credited. Underlying investments include fixed income, equity, real estate, and other secured assets. However, inputs to contract values are not observable. Changes in these inputs, especially those of interest rates, may result in significantly different values.

The Institute regularly monitors the adequacy of its Level 3 fair value measurements. Fair value measurements derived using specific unobservable quantitative inputs developed by the Institute were not significant for the years ended September 30, 2023 and 2022.

The Institute generally uses net asset value ("NAV") as a practical expedient to determine the fair value of investments in funds that do not have readily determinable fair values and either have certain specific attributes of investment companies or prepare their financial statements consistent with the measurement principles of investment companies. For these funds, NAVs 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 fund's securities, prices of recent significant placements of securities of the same issuer, and subsequent developments concerning the companies to which the securities relate. The fair value of investments valued at NAV as a practical expedient are excluded from the fair value hierarchy.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

The following is a summary of the fair value of the Institute's financial instruments according to fair value level or NAV at September 30, 2023 and 2022. The fair value of assets held in trust for postretirement benefit plans, as disclosed in Note I, is excluded from the tables below.

	Level 1	Level 2	Level 3	NAV	2023 Total
September 30, 2023					
Investments:					
Short-term investments	\$ 219,959	\$ -	\$ -	\$ -	\$ 219,959
Fixed-income securities	65,106	33,236	-	-	98,342
Equity securities	505,935	498,335	46,387	525,214	1,575,871
Alternative investments:					
Alternative securities	-	-	-	1,053,327	1,053,327
Private equity	-	-	59,829	885,420	945,249
Real assets	-	-	205,406	351,455	556,861
Total investments	\$ 791,000	\$ 531,571	\$ 311,622	\$ 2,815,416	\$ 4,449,609
Other assets and liabilities:					
Beneficial interests	\$ -	\$ -	\$ 45,460	\$ -	\$ 45,460
Defined contribution plan assets	65,353	39,166	37,491	-	142,010
Defined contribution plan liabilities	(64,925)	(39,095)	(37,491)	-	(141,511)
Interest rate swap	-	(10,290)	-	-	(10,290)
September 30, 2022					
Investments:					
Short-term investments	\$ 195,002	\$ -	\$ -	\$ -	\$ 195,002
Fixed-income securities	92,250	29,366	-	-	121,616
Equity securities	506,149	444,076	31,547	472,852	1,454,624
Alternative investments:					
Alternative securities	-	-	-	975,550	975,550
Private equity	-	-	51,381	860,080	911,461
Real assets	-	-	196,664	309,632	506,296
Total investments	\$ 793,401	\$ 473,442	\$ 279,592	\$ 2,618,114	\$ 4,164,549
Other assets and liabilities:					
Beneficial interests	\$ -	\$ -	\$ 32,500	\$ -	\$ 32,500
Defined contribution plan assets	53,067	34,154	36,391	-	123,612
Defined contribution plan liabilities	(52,686)	(34,121)	(36,365)	-	(123,172)
Interest rate swap	-	(20,404)	-	-	(20,404)

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

At September 30, 2023 and 2022, additional details regarding the Institute's investments valued using NAV by major investment category were as follows:

	Fair Value	Unfunded Commitments	Normally Allowable Redemption Frequency	Redemption Notice Period in days	Lives in years
September 30, 2023					
Equity securities:					
Quarterly or less	\$ 254,353	\$ -	Quarterly or less	60 to 180	-
Greater than quarterly	267,845	-	Greater than Quarterly	60 to 90	-
Not actionable	3,016	-	Not actionable	-	-
Alternative investments:					
Alternative securities					
Quarterly or less	231,840	-	Quarterly or less	45 to 90	-
Greater than quarterly	449,789	-	Greater than Quarterly	60 to 180	-
Not actionable	371,698	147,139	Not actionable	-	up to 10
Private equity					
Greater than quarterly	62,926	10,991	Semi-Annual to Every four years	120 to 270	-
Not actionable	822,494	277,422	Not actionable	-	up to 10
Real assets	351,455	136,027	Not actionable	-	up to 12
Total	<u>\$ 2,815,416</u>	<u>\$ 571,579</u>			

	Fair Value	Unfunded Commitments	Normally Allowable Redemption Frequency	Redemption Notice Period in days	Lives in years
September 30, 2022					
Equity securities:					
Quarterly or less	\$ 239,070	\$ -	Quarterly or less	60 to 180	-
Greater than quarterly	220,796	22,752	Greater than Quarterly	60 to 90	-
Not actionable	12,986	-	Not actionable	-	-
Alternative investments:					
Alternative securities					
Quarterly or less	228,448	-	Quarterly or less	45 to 90	-
Greater than quarterly	421,570	-	Greater than Quarterly	60 to 180	-
Not actionable	325,532	205,472	Not actionable	-	up to 15
Private equity					
Greater than quarterly	56,286	18,914	Semi-Annual to Every four years	120 to 270	-
Not actionable	803,794	287,255	Not actionable	-	up to 10
Real assets	309,632	180,638	Not actionable	-	up to 12
Total	<u>\$ 2,618,114</u>	<u>\$ 715,031</u>			

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

In addition to the unfunded commitments noted above, at September 30, 2023 and 2022, the Institute was committed to invest an additional \$57,039 and \$50,160, respectively, in investments classified within the fair value hierarchy over approximately the next ten years. All such investment commitments are expected to be funded from existing or forecasted investment assets.

The methods described above may produce fair value calculations that might not be indicative of net realizable value or reflective of future fair values and do not include potential transaction costs or discounts or premiums, if any. Alternative investments may not be readily marketable or redeemable, and may contain penalties for early withdrawal from the related funds. Furthermore, while the Institute believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies and/or assumptions to determine fair values of certain financial instruments could result in different estimates of fair value.

The following table presents a summary of changes in the fair values of the Institute's Level 3 assets for the years ended September 30, 2023 and 2022:

	Beginning Balance	Gifts and Purchases	Sales and Maturities	Realized Gain/(Loss)	Unrealized Gain/(Loss)	Transfers In	Transfers Out	Ending Balance
September 30, 2023								
Investments:								
Equity securities	\$ 31,547	\$ 7,466	\$ (252)	\$ (750)	\$ 8,376	\$ -	\$ -	\$ 46,387
Alternative investments:								
Private equity	51,381	-	-	-	8,448	-	-	59,829
Real assets	196,664	30,724	(18,110)	(10,796)	6,924	-	-	205,406
Total investments	\$ 279,592	\$ 38,190	\$ (18,362)	\$ (11,546)	\$ 23,748	\$ -	\$ -	\$ 311,622
Other assets:								
Beneficial interests	\$ 32,500	\$ 23,809	\$ (10,143)	\$ (2,804)	\$ 2,098	\$ -	\$ -	\$ 45,460
Defined contribution plans	36,391	1,945	(1,715)	-	870	-	-	37,491
September 30, 2022								
Investments:								
Equity securities	\$ 20,959	\$ 11,713	\$ (307)	\$ 7	\$ (825)	\$ -	\$ -	\$ 31,547
Alternative investments:								
Private equity	79,717	-	-	-	6,164	-	(34,500)	51,381
Real assets	169,210	38,937	(8,207)	(2,839)	(437)	-	-	196,664
Total investments	\$ 269,886	\$ 50,650	\$ (8,514)	\$ (2,832)	\$ 4,902	\$ -	\$ (34,500)	\$ 279,592
Other assets:								
Beneficial interests	\$ 37,807	\$ 8,693	\$ (11,337)	\$ (544)	\$ (2,119)	\$ -	\$ -	\$ 32,500
Defined contribution plans	34,353	3,096	(1,789)	-	731	-	-	36,391

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. During the year ended September 30, 2023, there were no transfers between levels. During the year ended September 30, 2022, there were transfers of \$34,500 from Level 3 into the NAV classification as a result of the investment manager providing valuation information that was consistent with the Institute's private equity investments carried at NAV.

During the years ended September 30, 2023 and 2022, unrealized gains of \$1,951 and unrealized losses of \$1,476, respectively, related to Level 3 assets were recorded in the non-operating line item "Gifts and pledges" in the statements of activities. All other realized and unrealized gains related to Level 3 investments were recorded in the non-operating line item "Investment return in excess/(deficit) of endowment spending" in the statements of activities. Unrealized gains included in the statements of activities related to those Level 3 assets held at September 30, 2023 and 2022 were \$9,703 and \$5,558, respectively.

The Institute uses an interest rate swap to manage the interest rate exposure of a portion of its variable rate debt. 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. The interest rate swap is valued using observable inputs, such as quotations received from counterparties, dealers, or brokers, market prices for reference securities, credit curves, and assumptions for nonperformance risk, whenever available and considered reliable, and is therefore classified in Level 2 of the fair value hierarchy.

L. Contingencies and Commitments

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 of the NASA/JPL Superfund site, estimated to be in excess of \$100,000. 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.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

Commitments

The Institute was committed under certain construction and services contracts in the amounts of approximately \$165,023 and \$197,372 at September 30, 2023 and 2022, respectively.

The Institute is a member of an international consortium that was organized to construct and operate an advanced telescope. At September 30, 2023 and 2022, the Institute was committed to provide cash totaling approximately \$0 and \$18,141, respectively, to the consortium. 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, 2023 and 2022, the amounts of the letter of credit facility were \$6,930 and \$7,646, respectively. The letter of credit was not used during the years ended September 30, 2023 and 2022, 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. Current annual costs are not expected to exceed \$5,000. The expected duration of such annual payments is not determinable.

The Institute leases equipment and buildings, primarily for JPL, under operating leases expiring at various dates through 2033. Rent expense incurred under operating lease obligations was \$5,600 and \$5,469 for the years ended September 30, 2023 and 2022, respectively.

At September 30, 2023, accounts payable and accrued expenses included operating lease obligations of \$22,720 and deferred U.S. government billings included an offsetting \$22,720 for operating leases related to JPL. Future minimum payments under these operating leases were as follows at September 30, 2023:

Year Ending September 30	Amount
2024	\$ 8,457
2025	6,029
2026	5,039
2027	2,363
2028	128
2029-2033	704
Total	<u>\$ 22,720</u>

All of the \$22,720 of lease obligations listed above is expected to be recoverable from NASA 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 2028. Rental income under operating leases was \$3,831 and \$4,329 for the years ended September 30, 2023 and 2022, respectively.

California Institute of Technology
Notes to Financial Statements
September 30, 2023 and 2022
(Dollars in Thousands)

At September 30, 2023, minimum future rental revenues from operating leases of greater than one year in duration were as follows:

Year Ending September 30	Amount
2024	\$ 3,633
2025	3,467
2026	2,985
2027	2,986
2028	2,989
Total	<u>\$ 16,060</u>

M. Supplemental Cash Flow Information

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

	2023	2022
Cash paid during the year for interest	\$ 62,058	\$ 63,521
Income and excise tax paid	4,812	3,225
Non-cash investing and financing activities:		
Securities received to satisfy pledge payments	12,547	13,848
In-kind receipt of securities and property, plant, and equipment	9,659	23,473
Accrued purchases of property, plant, and equipment	29,007	11,945
Decrease/(increase) in net amounts receivable for pending investment transactions	43,769	(20,395)

N. Subsequent Events

Subsequent events were evaluated through January 24, 2024, which is the date the financial statements were issued.

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Research and Development Cluster					
Direct Funds					
Department of Commerce					
COVID-19 - National Oceanic and Atmospheric Administration	11.431	Climate and Atmospheric Research		\$ 197,403	\$ -
Department of Defense					
Air Force	12.800	Air Force Defense Research Sciences Program		6,125,558	2,274,134
Army	12.420	Military Medical Research and Development		368,004	-
Army	12.431	Basic Scientific Research		3,465,042	1,355,702
Defense Advanced Research Project Agency	12.RD	Not Available	HR00112290030	269,459	-
Defense Advanced Research Project Agency	12.RD	Not Available	HR001122C0054	436,574	91,005
Defense Advanced Research Project Agency	12.RD	Not Available	N6523623C8001	1,743,227	-
Defense Advanced Research Project Agency	12.910	Research and Technology Development		3,193,968	2,001,422
Defense Threat Reduction Agency	12.351	Basic Scientific Research - Combating Weapons Of Mass Destruction		249,700	133,805
Navy	12.300	Basic and Applied Scientific Research		6,329,069	425,017
Total Department of Defense				<u>22,180,601</u>	<u>6,281,085</u>
Department of Energy					
Department of Energy	81.049	Office of Science Financial Assistance Program		17,546,210	2,532,771
Department of Energy	81.135	Advanced Research Projects Agency - Energy		728,069	68,921
Total Department of Energy				<u>18,274,279</u>	<u>2,601,692</u>
Department of Health and Human Services					
National Institutes of Health	93.121	Oral Diseases and Disorders Research		937,413	-
National Institutes of Health	93.172	Human Genome Research		6,127,939	4,286,698
National Institutes of Health	93.242	Mental Health Research Grants		7,755,313	1,631,007
National Institutes of Health	93.279	Drug Abuse and Addiction Research Programs		1,513,265	-
National Institutes of Health	93.286	Discovery and Applied Research for Technological Innovations to Improve Human Health		3,251,515	236,692
National Institutes of Health	93.310	Trans-NIH Research Support		5,038,099	291,918
National Institutes of Health	93.351	Research Infrastructure Programs		112,540	-
National Institutes of Health	93.361	Nursing Research		16,360	16,360
National Institutes of Health	93.394	Cancer Detection and Diagnosis Research		916,581	250,659
National Institutes of Health	93.396	Cancer Biology Research		343,727	-
National Institutes of Health	93.398	Cancer Research Manpower		52,043	-
National Institutes of Health	93.837	Cardiovascular Diseases Research		695,441	67,081
National Institutes of Health	93.838	Lung Diseases Research		545,050	7,820
National Institutes of Health	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research		1,245,225	-
National Institutes of Health	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders		15,634,134	2,717,935
National Institutes of Health	93.855	Allergy, Immunology And Transplantation Research		3,376,916	297,681
National Institutes of Health	93.859	Biomedical Research and Research Training		12,451,848	346,809
National Institutes of Health	93.865	Child Health and Human Development Extramural Research		5,776,471	225,156
National Institutes of Health	93.866	Aging Research		2,626,094	443,593
National Institutes of Health	93.867	Vision Research		1,586,378	167,439
National Institutes of Health	93.879	Medical Library Assistance		473,087	-
Total Department of Health and Human Services				<u>70,475,439</u>	<u>10,986,848</u>
Department of Homeland Security					
Homeland Security Adv Research Projects Agency	97.RD	Not Available	MISC22TCDIPA02 - IPA 220082	250,376	-
Department of the Interior					
Bureau of Land Management	15.229	Wild Horse and Burro Resource Management		141,833	-
US Fish & Wildlife Service	15.671	Yukon River Salmon Research and Management Assistance		57,352	-
United States Geological Survey	15.RD	Not Available	IPA MARCHESI	12,003	-
United States Geological Survey	15.807	Earthquake Hazards Research Grants		239,951	-
United States Geological Survey	15.808	U.S. Geological Survey_ Research And Data Collection		5,026,300	-
Total Department of the Interior				<u>5,477,439</u>	<u>-</u>

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
National Aeronautics and Space Administration (NASA)					
NASA	43.RD	Not Available	80GSFC18C0011	\$ 17,416,426	\$ 5,845,972
NASA	43.RD	Not Available	80GSFC22CA003	6,799,422	-
NASA	43.RD	Not Available	80GSFC23CA028	1,776,117	1,369,822
NASA	43.RD	Not Available	80MSFC19C0042	12,662,891	11,810,135
NASA	43.RD	Not Available	80MSFC20C0043	4,596,364	20,330
NASA	43.RD	Not Available	NNG08FD60C	3,469,015	1,222,600
NASA	43.RD	Not Available	NNJ21OB05P	328,370	-
NASA	43.001	Science		18,212,182	1,043,338
NASA	43.003	Exploration		62,870	-
NASA	43.008	Education		83,390	17,909
NASA	43.012	Space Technology		283,743	-
Total NASA				<u>65,690,790</u>	<u>21,330,106</u>
National Historical Publications and Records Commission					
National Historical Publications and Records Commission	89.003	National Historical Publications and Records Grants		150,000	-
National Science Foundation					
National Science Foundation	47.RD	Not Available	2034238	168,953	-
National Science Foundation	47.RD	Not Available	2132388	223,269	-
National Science Foundation	47.041	Engineering		1,763,991	5,000
National Science Foundation	47.049	Mathematical and Physical Sciences		70,645,953	5,868,906
National Science Foundation	47.050	Geosciences		5,398,500	136,912
National Science Foundation	47.070	Computer and Information Science and Engineering		2,143,153	109
National Science Foundation	47.074	Biological Sciences		2,746,569	118,241
National Science Foundation	47.075	Social, Behavioral, and Economic Sciences		450,511	-
COVID-19 - National Science Foundation	47.075	Social, Behavioral, and Economic Sciences		(135)	-
National Science Foundation	47.076	Education and Human Resources		4,987,449	-
National Science Foundation	47.078	Polar Programs		129,829	-
National Science Foundation	47.084	NSF Technology, Innovation, and Partnerships		34,912	-
Total National Science Foundation				<u>88,692,954</u>	<u>6,129,168</u>
Total Research and Development - Direct Funds				<u>271,389,281</u>	<u>47,328,899</u>
Pass-Through Funds					
Department of Defense					
Air Force					
Applied Physics Systems	12.RD	Not Available	AI001P1	113,855	-
Brown University	12.800	Air Force Defense Research Sciences Program	00001655	605,885	-
Clarkson Aerospace Corporation	12.RD	Not Available	CIT 21-1-0460	197,891	-
Cornell University	12.800	Air Force Defense Research Sciences Program	80776-11006	174,554	-
Duke University	12.800	Air Force Defense Research Sciences Program	313-1120	275,826	-
Jump Aero, Inc.	12.RD	Not Available	JAERO.AFSTTRII	234,852	-
Massachusetts Institute Of Technology	12.RD	Not Available	7000545602	92,647	-
Massachusetts Institute Of Technology	12.800	Air Force Defense Research Sciences Program	MIT.MURI	420,547	-
Massachusetts Institute Of Technology	12.800	Air Force Defense Research Sciences Program	s5598	143,478	-
MIT Lincoln Laboratory	12.RD	Not Available	7000582930	74,999	-
Nodein Inc.	12.RD	Not Available	NODEIN.AFOSR22	286,033	-
Northeastern University	12.800	Air Force Defense Research Sciences Program	504333-78050	74,504	-
Pennsylvania State University	12.800	Air Force Defense Research Sciences Program	S003173-AFOSR	155,054	-
Queen's University At Kingston	12.800	Air Force Defense Research Sciences Program	6034414-1065980	135,256	-
Stevens Institute Of Technology	12.800	Air Force Defense Research Sciences Program	2102866-02	1,336	-
The Ohio State University	12.800	Air Force Defense Research Sciences Program	SPC-100006312 GR126336	162,198	-
University Of California Santa Barbara	12.800	Air Force Defense Research Sciences Program	KK2012	286,171	-
University Of Colorado At Boulder	12.800	Not Available	1560820	21,088	-
Total Air Force Pass-Through				<u>3,456,174</u>	<u>-</u>

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Army					
Harvard University	12.431	Basic Scientific Research	134371-5113610	\$ 146,592	\$ -
Massachusetts Institute Of Technology	12.431	Basic Scientific Research	s5523	99,716	-
Massachusetts Institute Of Technology	12.431	Basic Scientific Research	s5830	251,709	-
Quantum Ventura Inc.	12.RD	Not Available	N6893622C0032/CALTECH	70,000	-
Solvus Global, LLC	12.431	Basic Scientific Research	100501	120,487	-
Stanford University	12.431	Basic Scientific Research	62455186-163612	212,810	-
Stanford University	12.431	Basic Scientific Research	63209881-280813	5,277	-
Toyon Research Corporation	12.RD	Not Available	SC20-C195-1	62,126	-
University Of California Los Angeles	12.431	Basic Scientific Research	0160 G UA559	(15,103)	-
University Of California Los Angeles	12.431	Basic Scientific Research	0160 G ZB314	141,567	-
University Of California Los Angeles	12.431	Basic Scientific Research	W911NF-17-0402	153,545	-
University Of California Santa Barbara	12.431	Basic Scientific Research	KK1809	2,314	-
University Of California Santa Barbara	12.431	Basic Scientific Research	KK1816	43,855	-
University Of California Santa Barbara	12.RD	Not Available	KK1954	615,106	-
University Of California Santa Barbara	12.RD	Not Available	KK1956	736,412	-
University Of California, Davis	12.431	Basic Scientific Research	A20-2525-S001	109,561	-
University Of Minnesota	12.431	Basic Scientific Research	A006827503	154,580	-
University Of Southern California	12.431	Basic Scientific Research	118828831	221,169	-
Total Army Pass-Through				<u>3,131,723</u>	-
Navy					
Dartmouth College	12.300	Basic and Applied Scientific Research	R1685	149,053	-
New York University	12.300	Basic and Applied Scientific Research	F1168-04	178,334	-
Northwestern University	12.300	Basic and Applied Scientific Research	60059646 CALTECH	103,599	-
Quantum Ventura Inc.	12.RD	Not Available	NAVYSTTR-Caltech	60,000	-
University Of Massachusetts	12.300	Basic and Applied Scientific Research	18-010467 A 00	235,679	-
Total Navy Pass-Through				<u>726,665</u>	-
Defense Advanced Research Projects Agency					
Advanced Technology International	12.RD	Not Available	MCDC-18-01-01-007	(36)	-
Columbia University	12.RD	Not Available	3(GG012664)	(176,878)	-
University Of Arizona	12.351	Scientific Research - Combating Weapons of Mass Destruction	470205	117,891	-
University Of California San Diego	12.910	Research and Technology Development	110765856	1,774	-
University Of Illinois	12.910	Research and Technology Development	108335-18907	262,626	-
University Of Southern California	12.910	Research and Technology Development	108724411	(37,089)	-
Total Defense Advanced Research Projects Agency Pass-Through				<u>168,288</u>	-
Total Department of Defense Pass-Through				<u>7,482,850</u>	-
Department of Energy					
Aerosol Dynamics, Inc.	81.049	Office of Science Financial Assistance Program	6075	36,149	-
Aerosol Dynamics, Inc.	81.049	Office of Science Financial Assistance Program	6360	11,758	-
Argonne National Laboratory	81.RD	Not Available	1F-60519	262,530	-
Brookhaven National Laboratory	81.RD	Not Available	391077	416,468	-
Emory University	81.049	Office of Science Financial Assistance Program	A586085	298,478	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	656068	36,366	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	657924	33,684	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	659658	73,699	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	659952	73,714	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	661273	3,580	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	664429	81,356	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	668599	10,370	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	672112	39,753	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	675688	264	-

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Fermilab National Accelerator Laboratory	81.RD	Not Available	681459	\$ 40,546	\$ -
Fermilab National Accelerator Laboratory	81.RD	Not Available	683834	134,906	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	688358	159,569	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	688962	81,712	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	690829	100,719	-
Fermilab National Accelerator Laboratory	81.RD	Not Available	695540	118,601	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7486600	89,196	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7571817	717,244	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7579445	323,035	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7621465	294,474	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7627694	164,418	-
Lawrence Berkeley National Laboratory	81.RD	Not Available	7668386	73,423	-
Lawrence Livermore National Laboratory	81.RD	Not Available	B649623	168,738	-
Lawrence Livermore National Laboratory	81.RD	Not Available	B652222	19,319	-
Lawrence Livermore National Laboratory	81.RD	Not Available	B657604	40,840	-
Los Alamos National Laboratory	81.RD	Not Available	18849	37,378	-
Los Alamos National Laboratory	81.RD	Not Available	C2448	155,604	-
North Carolina A&T State University	81.049	Office of Science Financial Assistance Program	270181A	60,475	-
North Carolina A&T State University	81.086	Conservation Research and Development	270195B	194,732	-
Oak Ridge National Laboratory	81.RD	Not Available	4000166453	2,625	-
Oak Ridge National Laboratory	81.RD	Not Available	4000184579	(45,412)	-
Oak Ridge National Laboratory	81.RD	Not Available	4000210265	69,668	-
Oak Ridge National Laboratory	81.RD	Not Available	CW32722	164,912	-
Pacific Northwest National Laboratory	81.RD	Not Available	607988	101,037	-
Pacific Northwest National Laboratory	81.RD	Not Available	612971	8,758	-
Pacific Northwest National Laboratory	81.RD	Not Available	673893	4,466	-
Radiation Monitoring Devices, Inc.	81.049	Office of Science Financial Assistance Program	C23-10	76,023	-
Slac National Accelerator Laboratory	81.RD	Not Available	207820	37,543	-
Slac National Accelerator Laboratory	81.RD	Not Available	212199	(4,265)	-
Slac National Accelerator Laboratory	81.RD	Not Available	225521	79,580	-
Stanford University	81.049	Office of Science Financial Assistance Program	62990344-269636	64,852	-
Talos Tech LLC	81.049	Office of Science Financial Assistance Program	DOESTTR20532-SUB02	171,790	-
Tetramer Technologies, L.L.C.	81.049	Office of Science Financial Assistance Program	2022.05-CIT	161,852	-
The University Of Chicago	81.049	Office of Science Financial Assistance Program	AWD103403 (SUB00000736)	166,730	-
University At Buffalo	81.089	Fossil Energy Research and Development	R1198145	41,707	-
University Of California Los Angeles	81.049	Office of Science Financial Assistance Program	0980 G WD719	58,477	-
University Of California Riverside	81.049	Office of Science Financial Assistance Program	S-001653	39,078	-
University Of California, Davis	81.049	Office of Science Financial Assistance Program	A22-1532-S001	76,265	-
University Of California, Irvine	81.049	Office of Science Financial Assistance Program	2022-1817	161,692	-
University Of California, Irvine	81.049	Office of Science Financial Assistance Program	2022-1838	101,996	-
University Of Florida	81.049	Office of Science Financial Assistance Program	UFDSP00012324	82,663	-
University Of Maryland	81.049	Office of Science Financial Assistance Program	117765-Z7134201	20,966	-
University Of Montana	81.086	Conservation Research and Development	G241-20-W8196	2,297	-
University Of Notre Dame	81.049	Office of Science Financial Assistance Program	203208CIT	10,032	-
University Of Texas At Austin	81.089	Fossil Energy Research and Development	UTA20-000592	(94,470)	-
University Of Texas At Austin	81.089	Fossil Energy Research and Development	UTAUS-SUB00000767AM2	267,754	-
University Of Virginia	81.049	Office of Science Financial Assistance Program	AWD-004093.GR100826	100,917	-
Washington State University	81.112	Stewardship Science Grant Program	136018 G004120	(14,047)	-
Washington State University	81.112	Stewardship Science Grant Program	136018-SPC001536	135,128	-
Total Department of Energy Pass-Through				<u>6,403,712</u>	<u>-</u>

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
National Institutes of Health					
Allen Institute For Brain Science	93.242	Mental Health Research Grants	2017-0569	\$ (28,832)	\$ -
Allen Institute For Brain Science	93.242	Mental Health Research Grants	2020-0685	179,931	-
California Governor's Office of Emergency Services	93.497	Family Violence Prevention and Services/ Sexual Assault/Rape Crisis Services and Supports	CT21-03-9503	104,143	-
City of Hope	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	63305.2010119.669301	79,371	-
Columbia University	93.172	Human Genome Research	2(GG016389-01)	291,060	-
Columbia University	93.172	Human Genome Research	3(GG016389-02)	56,357	-
Columbia University	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	4(GG013057-39)	227,678	-
Dnatwo, Inc.	93.395	Cancer Treatment Research	CIT-CA272039-01	220,834	-
Duke University	93.866	Aging Research	303001105	244,938	-
Duke University	93.866	Aging Research	303001202	8,067	-
Duke University	93.866	Aging Research	303001235	343,740	-
Duke University	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	A034152	228,836	-
Emory University	93.213	Research and Training in Complementary and Integrative Health	A658494	320,606	-
Glycan Therapeutics	93.859	Biomedical Research and Research Training	CAL-002	199,837	-
Huntington Medical Research Institute	93.866	Aging Research	27800-21-002	70,459	-
Indiana University	93.310	Trans-NIH Research Support	9437	310,349	-
Indiana University	93.242	Mental Health Research Grants	9601	104,783	-
Johns Hopkins University	93.855	Allergy and Infectious Diseases Research	2003414413	(536)	-
Laureate Institute For Brain Research	93.242	Mental Health Research Grants	2022-008-YR1-Caltech	12,273	-
Leidos Biomedical Research, Inc.	93.RD	Not Available	20X022	(286)	-
Leidos Biomedical Research, Inc.	93.RD	Not Available	22X091	63,450	-
Massachusetts General Hospital	93.837	Cardiovascular Diseases Research	236181	35,728	-
Mount Sinai School Of Medicine	93.242	Mental Health Research Grants	0255-F661-4609	738,642	-
Mount Sinai School Of Medicine	93.242	Mental Health Research Grants	0255-F662-4609	152,887	-
Phoenix Nest	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	PNLNIHU44	15,225	-
Rancho Research Institute	93.433	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	503-2258000-002	7,100	-
Salk Institute For Biological Studies	93.242	Mental Health Research Grants	A22-0013-S001	106,244	-
Stanford University	93.286	Discovery and Applied Research for Technological Innovations to Improve Human Health	62278533-139609	128,213	-
Stanford University	93.310	Trans-NIH Research Support	62947481-247415	181,189	-
The Ohio State University	93.173	Research Related to Deafness and Communication Disorders	SPC-1000007548(GR130461	277,594	-
The Rockefeller University	93.855	Allergy and Infectious Diseases Research	ROCKU.P01A11389	563,059	-
COVID-19 - The Rockefeller University	93.855	Allergy and Infectious Diseases Research	SUB00000262	4,288	-
COVID-19 - The Rockefeller University	93.855	Allergy and Infectious Diseases Research	SUB00000263	998,501	-
The Rockefeller University	93.855	Allergy and Infectious Diseases Research	SUB00000269	112,730	-
The Rockefeller University	93.855	Allergy and Infectious Diseases Research	SUB00000358	57,481	-
The University Of Chicago	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	AWD103409 (SUB00000758)	123,193	-
University Of California Los Angeles	93.279	Drug Abuse and Addiction Research Programs	1505 G WA426	219,654	-
University Of California Los Angeles	93.837	Cardiovascular Diseases Research	1564 G XA044	12,246	-
University Of California Los Angeles	93.837	Cardiovascular Diseases Research	1564 G YA215	126,383	-
University Of California Los Angeles	93.286	Discovery and Applied Research for Technological Innovations to Improve Human Health	1564 G YA421	218,851	-
University Of California Los Angeles	93.866	Aging Research	1580 G WC775	154,445	-
University Of California Riverside	93.855	Allergy and Infectious Diseases Research	S-001419	82,571	-
University Of California San Diego	93.173	Research Related to Deafness and Communication Disorders	KR 705199	494,747	-
University Of California San Francisco	93.396	Cancer Biology Research	12155sc	127,857	-
University Of California, Irvine	93.172	Human Genome Research	2021-1588	809,688	-
University Of Minnesota	93.351	Research Infrastructure Programs	P008959401	323,654	-
University Of South Florida	93.838	Lung Diseases Research	6101-1050-00-A	321,001	-

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
University Of Southern California	93.242	Mental Health Research Grants	109001621	\$ 242,968	\$ -
University Of Southern California	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	137051695	50,730	-
University Of Southern California	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	142234151	96,833	-
University Of Southern California	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	143785557	75,779	-
University Of Southern California	93.395	Cancer Treatment Research	SCON-00002453	64,737	-
University Of Southern California	93.395	Cancer Treatment Research	SCON-00003782	128,322	-
University Of Southern California	93.172	Human Genome Research	SCON-00003905	580,908	-
University Of Utah	93.859	Biomedical Research and Research Training	10044932-11	(36,172)	-
University Of Utah	93.855	Allergy and Infectious Diseases Research	10062103-01-CIT	447,707	-
University Of Washington	93.847	Diabetes, Digestive, and Kidney Diseases Extramural Research	UWSC11572	85,747	-
Washington University In St. Louis	93.866	Aging Research	WU-21-383	64,541	-
XDemics	93.350	National Center for Advancing Translational Sciences	CT-SW1	42,936	-
Total National Institutes of Health Pass-Through				<u>11,275,265</u>	-
Department of the Interior					
United States Geological Survey (USGS)					
University Of Southern California	15.808	U.S. Geological Survey Research and Data Collection	SCON-00003718	181,832	-
University Of Southern California	15.807	Earthquake Hazards Program Assistance	SCON-00003725	145,614	-
Total Department of the Interior Pass-Through				<u>327,446</u>	-
Department of Transportation					
US Federal Aviation Administration (FAA)					
University of Illinois	20.109	Air Transportation Centers of Excellence	100421-17957	30,961	-
US Department of Agriculture (USDA)					
Resources for the Future, Inc.	10.310	Agriculture and Food Research Initiative (AFRI)	3471	2,142	-
National Aeronautics and Space Administration (NASA)					
Bay Area Environmental Research Institute	43.001	Science	K1327C	23,961	-
Baylor College Of Medicine	43.003	Exploration	7000000323	671,393	-
Boston University	43.001	Science	4500003539	1,936	-
Boston University	43.001	Science	4500004481	23,493	-
Cornell University	43.001	Science	138814-21066	39,561	-
Harvard University	43.001	Science	131612-5122868	5,107	-
Johns Hopkins University	43.RD	Not Available	173063	41,063	-
Northwestern University	43.001	Science	60064898 CIT	59,302	-
Pennsylvania State University	43.001	Science	S002156-NASA	227,086	-
Planetary Science	43.001	Science	1810-CALTECH	29,521	-
Predictive Science, Inc.	43.001	Science	22NAJL11-2	32,578	-
Princeton University	43.RD	Not Available	SUB0000157	646,844	-
Resources For The Future, Inc.	43.001	Science	1626	5,997	-
Rochester Institute Of Technology	43.001	Science	32447-01	(1,769)	-
Rochester Institute Of Technology	43.001	Science	32744-01	62,479	-
Rochester Institute Of Technology	43.001	Science	32804-01	141,396	-
SETI Institute	43.001	Science	SC 3919	3,953	-
Smithsonian Astrophysical Observatory	43.001	Science	AR0-21003X	16,547	-
Smithsonian Astrophysical Observatory	43.001	Science	DD1-22133X	21,462	-
Smithsonian Astrophysical Observatory	43.001	Science	G00-21067X	28,681	-
Smithsonian Astrophysical Observatory	43.001	Science	G01-22049X	68,194	-
Smithsonian Astrophysical Observatory	43.001	Science	G01-22083X	69	-
Smithsonian Astrophysical Observatory	43.001	Science	G02-23081X	25,520	-

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Southwest Research Institute	43.RD	Not Available	699047X	\$ 32,110	\$ -
Southwest Research Institute	43.RD	Not Available	699048X	188,838	-
Southwest Research Institute	43.001	Science	K99057JRG	70,018	-
Southwest Research Institute	43.001	Science	P99011JAR	20,357	-
Southwest Research Institute	43.001	Science	Q99086AKP	31,224	-
Space Science Institute	43.001	Science	SUBAWD 01033	44,565	-
Space Science Institute	43.001	Science	SUBAWD 01111	7,905	-
Space Telescope Science Institute	43.001	Science	HST-AR-15804.009-A	18,863	-
Space Telescope Science Institute	43.001	Science	HST-AR-16138.002-A	124,531	-
Space Telescope Science Institute	43.001	Science	HST-AR-16154.005-A	(91)	-
Space Telescope Science Institute	43.001	Science	HST-AR-16615.001-A	4,172	-
Space Telescope Science Institute	43.001	Science	HST-AR-16633.004-A	28,937	-
Space Telescope Science Institute	43.001	Science	HST-GO-15152.001-A	10,799	-
Space Telescope Science Institute	43.RD	Not Available	HST-GO-15212.019-A	16,265	-
Space Telescope Science Institute	43.001	Science	HST-GO-15425.002-A	5,962	-
Space Telescope Science Institute	43.001	Science	HST-GO-15692.001-A	8,365	-
Space Telescope Science Institute	43.001	Science	HST-GO-15702.006-A	13,982	-
Space Telescope Science Institute	43.001	Science	HST-GO-15853.001-A	6,928	-
Space Telescope Science Institute	43.001	Science	HST-GO-15897.006-A	54,718	-
Space Telescope Science Institute	43.001	Science	HST-GO-15902.027-A	(10,369)	-
Space Telescope Science Institute	43.001	Science	HST-GO-15910.003-A	10,890	-
Space Telescope Science Institute	43.001	Science	HST-GO-15925.001-A	29,581	-
Space Telescope Science Institute	43.001	Science	HST-GO-15940.007-A	2,070	-
Space Telescope Science Institute	43.001	Science	HST-GO-16044.001-A	(4,013)	-
Space Telescope Science Institute	43.001	Science	HST-GO-16165.004-A	6,547	-
Space Telescope Science Institute	43.001	Science	HST-GO-16180.004-A	43,125	-
Space Telescope Science Institute	43.001	Science	HST-GO-16214.003-A	4,320	-
Space Telescope Science Institute	43.001	Science	HST-GO-16276.004-A	17,801	-
Space Telescope Science Institute	43.001	Science	HST-GO-16319.002-A	10,741	-
Space Telescope Science Institute	43.001	Science	HST-GO-16418.004-A	6,556	-
Space Telescope Science Institute	43.001	Science	HST-GO-16657.001-A	44,571	-
Space Telescope Science Institute	43.001	Science	HST-GO-16659.030-A	7,338	-
Space Telescope Science Institute	43.001	Science	HST-GO-16671.002-A	13,165	-
Space Telescope Science Institute	43.001	Science	HST-GO-16702.001-A	21,033	-
Space Telescope Science Institute	43.001	Science	HST-GO-16703.007-A	37,834	-
Space Telescope Science Institute	43.001	Science	HST-GO-16715.001-A	(5,539)	-
Space Telescope Science Institute	43.RD	Not Available	HST-GO-16734.010-A	2,021	-
Space Telescope Science Institute	43.001	Science	HST-GO-16753.001-A	25,610	-
Space Telescope Science Institute	43.001	Science	HST-GO-16766.002-A	10,796	-
Space Telescope Science Institute	43.001	Science	HST-GO-16779.002-A	9,996	-
Space Telescope Science Institute	43.001	Science	HST-GO-16931.001-A	17,254	-
Space Telescope Science Institute	43.001	Science	HST-GO-17065.002-A	6,479	-
Space Telescope Science Institute	43.001	Science	HST-GO-17082.002-A	24,536	-
Space Telescope Science Institute	43.001	Science	HST-GO-17083.002-A	8,495	-
Space Telescope Science Institute	43.001	Science	HST-GO-17091.001-A	803	-
Space Telescope Science Institute	43.001	Science	HST-GO-17094.003-A	8,408	-
Space Telescope Science Institute	43.001	Science	HST-GO-17147.005-A	19,447	-
Space Telescope Science Institute	43.001	Science	HST-GO-17159.005-A	832	-
Space Telescope Science Institute	43.001	Science	HST-GO-17176.001-A	26,733	-
Space Telescope Science Institute	43.001	Science	HST-GO-17200.004-A	98	-
Space Telescope Science Institute	43.001	Science	HST-GO-17202.010-A	6,140	-
Space Telescope Science Institute	43.001	Science	HST-GO-17203.004-A	1,179	-

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Space Telescope Science Institute	43.001	Science	HST-GO-17205.002-A	\$ 9,817	\$ -
Space Telescope Science Institute	43.001	Science	HST-GO-17216.004-A	98	-
Space Telescope Science Institute	43.001	Science	HST-GO-17231.015-A	13,597	-
Space Telescope Science Institute	43.001	Science	HST-GO-17314.002-A	2,633	-
Space Telescope Science Institute	43.001	Science	HST-HF2-51478.001-A	97,059	-
Space Telescope Science Institute	43.001	Science	HST-HF2-51497.001-A	99,052	-
Space Telescope Science Institute	43.001	Science	HST-HF2-51503.001-A	112,317	-
Space Telescope Science Institute	43.001	Science	HST-HF2-51510.001-A	101,430	-
Space Telescope Science Institute	43.001	Science	HST-HF2-51542.001-A	8,138	-
Space Telescope Science Institute	43.001	Science	JWST-ERS-01328.001-A	171,567	-
Space Telescope Science Institute	43.001	Science	JWST-ERS-01349.002-A	56,639	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01571.005-A	23,798	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01618.008-A	421	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01633.005-A	52,818	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01701.002-A	1,704	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01747.007-A	286	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01762.008-A	12,662	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01835.002-A	30,015	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01863.002-A	15,850	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01869.002-A	54,552	-
Space Telescope Science Institute	43.001	Science	JWST-GO-01952.002-A	14,160	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02004.002-A	2,707	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02134.003-A	123	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02302.002-A	13,517	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02331.001-A	95,765	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02361.001-A	36,239	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02559.001-A	117,819	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02574.001-A	36,467	-
Space Telescope Science Institute	43.001	Science	JWST-GO-02666.004-A	9,509	-
Space Telescope Science Institute	43.001	Science	STI-510253	1,517,217	-
Space Telescope Science Institute	43.RD	Not Available	STScl-52607	67,827	-
The University Of Chicago	43.001	Science	AWD101399 (SUB00000342)	3,071	-
Universities Space Research Association	43.RD	Not Available	08-0237	9,686	-
Universities Space Research Association	43.001	Science	09_0534	18,642	-
Universities Space Research Association	43.001	Science	09-0094	3,914	-
Universities Space Research Association	43.RD	Not Available	SOF 07-0154	14,421	-
University Of Alabama In Huntsville	43.001	Science	2022-1575	20,669	-
University Of California Berkeley	43.001	Science	00010652	12,107	-
University Of California Berkeley	43.001	Science	00010815	481,763	-
University Of California Berkeley	43.001	Science	00011146	198,612	-
University Of Central Florida	43.001	Science	GR105863	17,339	-
University Of Colorado At Boulder	43.003	Exploration	1555629	7,499	-
University Of Colorado At Boulder	43.001	Science	1557892	3,612	-
University Of Delaware	43.001	Science	UDR0000367	3,434	-
University Of Maryland	43.001	Science	87921-Z6267201	15,667	-
University Of Montana	43.001	Science	PG21-26972-01	47,510	-
University Of Nevada	43.001	Science	UNR 19-33	22,783	-
Washington University In St. Louis	43.012	Space Technology	WU-23-0402	22,567	-
Total NASA Pass-Through				<u>6,946,399</u>	<u>-</u>

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
National Science Foundation					
American Society For Engineering Education	47.041	Engineering	769-2085	\$ 127,616	\$ -
American Society For Engineering Education	47.041	Engineering	769-2097	-	-
Assoc. Of Universities For Research In Astronomy	47.049	Mathematical and Physical Sciences	N00019514C	617,895	-
Assoc. Of Universities For Research In Astronomy	47.049	Mathematical and Physical Sciences	N51608C	128,716	-
California State University Northridge	47.049	Mathematical and Physical Sciences	A22-0075-S001	2,223	-
Clemson University	47.049	Mathematical and Physical Sciences	2339-206-2014878	48,947	-
Computing Research Association	47.070	Computer and Information Science and Engineering	CIF2020-CIT-61	60,827	-
Duke University	47.075	Social, Behavioral, and Economic Sciences	333-2366	5,999	-
Duke University	47.070	Computer and Information Science and Engineering	333-2654	(162)	-
Emory University	47.049	Mathematical and Physical Sciences	A373680	(849)	-
Georgia Institute Of Technology	47.050	Geosciences	AWD-002863-G3	97,080	-
Massachusetts Institute Of Technology	47.049	Mathematical and Physical Sciences	S5354	47,553	-
Michigan Technological University	47.050	Geosciences	210500321	103,656	-
Montana State University	47.049	Mathematical and Physical Sciences	G225-20-W7963	92,312	-
National Radio Astronomy Observatory	47.049	Mathematical and Physical Sciences	373496	6,327	-
National Radio Astronomy Observatory	47.049	Mathematical and Physical Sciences	375602	4,049	-
National Radio Astronomy Observatory	47.049	Mathematical and Physical Sciences	378694	12,125	-
Northeastern University	47.070	Computer and Information Science and Engineering	502864-78051	118,793	-
Oregon State University	47.049	Mathematical and Physical Sciences	S2270B-B	246,800	-
Pasadena City College	47.076	Education and Human Resources	B230121	9,821	-
Princeton University	47.049	Mathematical and Physical Sciences	SUB0000174	(29,087)	-
COVID-19 - Protabit LLC	47.084	NSF Technology, Innovation, and Partnerships	2136860	92,307	-
Smithsonian Astrophysical Observatory	47.078/47.083	Polar Programs/Integrative Activities	SV1-31016	1,442	-
Smithsonian Astrophysical Observatory	47.049	Mathematical and Physical Sciences	SVO-09001	990,462	-
Stanford University	47.049	Mathematical and Physical Sciences	61939855-134448	123,242	-
Stanford University	47.070	Computer and Information Science and Engineering	62358693-136731	243,415	-
Texas A&M Engineering Experiment Station	47.041	Engineering	M2301755	93,551	-
TFWireless Inc	47.041	Engineering	TFWIRE.NSFSTR	25,179	-
The University Of North Carolina at Charlotte	47.070	Computer and Information Science and Engineering	20160600-01-CIT	(7,274)	-
The University Of Southern Mississippi	47.050	Geosciences	8006748-01.01	66,622	-
University Of Arizona	47.070	Computer and Information Science and Engineering	661654	44,369	-
University Of Arizona	47.070	Computer and Information Science and Engineering	662140	82,810	-
University Of Arizona	47.070	Computer and Information Science and Engineering	686714	7,199	-
University Of Arizona	47.070	Computer and Information Science and Engineering	697404	60,093	-
University Of California Berkeley	47.049	Mathematical and Physical Sciences	00010433	274,969	-
University Of California Berkeley	47.049	Mathematical and Physical Sciences	00010821	163,030	-
University Of California Los Angeles	47.049	Mathematical and Physical Sciences	0160 G ZC427	268,014	-
University Of California Los Angeles	47.074	Biological Sciences	0518 G ZA565	164,128	-
University Of Colorado At Boulder	47.074	Biological Sciences	1559636	256,229	-
University Of Hawaii	47.049	Mathematical and Physical Sciences	MA1745	168,153	-
University Of Illinois	47.049	Mathematical and Physical Sciences	092992-18694	25,263	-
University Of Illinois	47.070	Computer and Information Science and Engineering	106262-19495	949	-
University Of Michigan	47.074	Biological Sciences	3004704539	112,773	-
University Of Nebraska-Lincoln	47.049	Mathematical and Physical Sciences	25-0521-0244-002	829,840	-
University Of Notre Dame	47.049	Mathematical and Physical Sciences	204512CT	441,863	-
University Of Southern California	47.083	Integrative Activities	66468073	42,231	-
University Of Southern California	47.050	Geosciences	91171011	35,000	-
University Of Southern California	47.041	Engineering	SCON-00002853	63,358	-
University Of Texas At Austin	47.070	Computer and Information Science and Engineering	UTA19-001216	17,499	-
University Of Utah	47.049	Mathematical and Physical Sciences	10055084-S3	450,841	-
University Of Virginia	47.041	Engineering	GA11355.PO#2180525	(6,057)	-
University Of Virginia	47.049	Mathematical and Physical Sciences	GA11618.169870	7,573	-
University Of Washington	47.074	Biological Sciences	UWSC12078	184,010	-
University Of Washington	47.070	Computer and Information Science and Engineering	UWSC13391	70,093	-
University Of Wisconsin-Milwaukee	47.049	Mathematical and Physical Sciences	203405459	(312)	-
University Of Wisconsin-Milwaukee	47.049	Mathematical and Physical Sciences	223405538	94,611	-
Total National Science Foundation Pass-Through				<u>7,308,713</u>	-
Total Research and Development - Pass-Through Funds				<u>39,777,488</u>	-
Total Research and Development Cluster				<u>311,166,769</u>	<u>47,328,899</u>

CALIFORNIA INSTITUTE OF TECHNOLOGY
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
Fiscal Period 10/1/2022 - 9/30/2023

Federal Grantor/Pass-Through Grantor	Federal ALN	Program Title	Grant/Contract or Pass-Through Number	Total Federal Expenditures	Pass-Through to Subrecipients
Student Financial Assistance Cluster					
Direct Funds					
Department of Education					
Federal Supplemental Educational Opportunity Grant	84.007	Federal Supplemental Educational Opportunity Grants		\$ 555,059	\$ -
Federal Work Study Program	84.033	Federal Work-Study Program		272,983	-
Federal Pell Grant Program	84.063	Federal Pell Grant Program		798,914	-
Federal Perkins Loan Program					
Outstanding Loans as of October 1, 2022	84.038	Federal Perkins Loan Program		1,157,203	-
New Loans Issued during 2023	84.038	Federal Perkins Loan Program		-	-
Federal Direct Loans	84.268	Federal Direct Student Loans		1,215,188	-
Total Department of Education				<u>3,999,347</u>	<u>-</u>
Total Student Financial Assistance Cluster				<u>3,999,347</u>	<u>-</u>
Other Programs					
Direct Funds					
Department of Homeland Security					
Federal Emergency Management Agency	97.036	COVID-19 - Disaster Grants - Public Assistance (Presidentially Declared Disasters)	FEMA-4482-DR-CA	<u>2,641,567</u>	<u>-</u>
Total Other Programs - Direct Funds				<u>2,641,567</u>	<u>-</u>
Pass-Through Funds					
Department of Justice					
Office of Justice Programs					
California Governor's Office of Emergency Services	16.575	Crime Victim Assistance	CT21-03-9503	43,877	-
California Governor's Office of Emergency Services	16.575	Crime Victim Assistance	CT22 04 9503	6,738	-
				<u>50,615</u>	<u>-</u>
California Governor's Office of Emergency Services	16.588	Violence Against Women Formula Grants	CT21-03-9503	15,602	-
California Governor's Office of Emergency Services	16.588	Violence Against Women Formula Grants	CT22 04 9503	12,196	-
				<u>27,798</u>	<u>-</u>
Total Department of Justice				<u>78,413</u>	<u>-</u>
Total Other Programs - Pass-Through Funds				<u>78,413</u>	<u>-</u>
Total Other Programs				<u>2,719,980</u>	<u>-</u>
Total Expenditures of Federal Awards				<u>\$ 317,886,096</u>	<u>\$ 47,328,899</u>

California Institute of Technology

Notes to Schedule of Expenditures of Federal Awards

For the Year Ended September 30, 2023

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. The Institute 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 the accompanying Schedule of Expenditures of Federal Awards (the "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. JPL has separate audited financial statements and an audit under the Uniform Guidance.

Basis of Presentation

The Schedule has been prepared on the cash basis of accounting and in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). The Schedule summarizes the expenditures of the Institute under programs of the federal government for the year ended September 30, 2023, 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 the Uniform Guidance. Under those cost principles, certain types of expenditures are not allowable or are limited as to reimbursement. Moreover, expenditures include a portion of costs associated with general institution activities (facilities and administrative costs) which are allocated to awards under negotiated formulas commonly referred to as indirect cost rates. The Institute has elected to use its own negotiated indirect cost rates rather than the 10% de minimis rate allowed by Uniform Guidance.

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.

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.

California Institute of Technology
Notes to Schedule of Expenditures of Federal Awards
For the Year Ended September 30, 2023

2. Loan Advances

The Federal Perkins Loan Program is administered directly by the Institute. The outstanding balance of loans at September 30, 2023 was \$826,139. Balances and transactions related to this program are included in the Institute's financial statements. The Institute did not charge any administrative cost allowance to the Federal Perkins Loan Program for the year ended September 30, 2023.

3. Commingled Assistance

California Student Aid Commission (CSAC) administers the State Cal Grant A and B Programs, selects the student recipients of these grant awards, and provides funds to participating institutions for disbursement. Federal Temporary Assistance for Needy Families (TANF) funds, CFDA Number 93.558, from the United States Department of Health and Human Services may comprise up to approximately 25% of the total funding for these Cal Grant awards. In fiscal year 2023, the Institute received Cal Grant A funds in the amount of \$191,931; however, CSAC is unable to determine the exact amount of TANF funds, if any, represented in those awards. Therefore, the Schedule does not include State Cal Grant A awards.

4. Federal Emergency Management Agency

The Institute applied for reimbursement of certain expenses related to the COVID-19 pandemic under Assistance Listing #97.036, FEMA Public Assistance through the California Governor's Office of Emergency Services. Expenditures are reflected in the Schedule in the year in which a project application is obligated and expenses have been incurred. The Schedule therefore includes federal assistance totaling \$2,641,567 related to projects obligated in 2023 that included expenditures incurred in fiscal years 2023, 2022, 2021 and 2020. Those expenses incurred prior to 2023 represent a reconciling item between the federal expenses in the Institute's financial statements and the amount included on the Schedule.



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

To the Board of 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 the California Institute of Technology (the "Institute"), which comprise the balance sheet as of September 30, 2023, and the related statements of activities and of cash flows for the year then ended, including the related notes (collectively referred to as the "financial statements"), and have issued our report thereon dated January 24, 2024.

Report on 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) as a basis for designing 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 or significant deficiencies may exist that were not identified.

Report on 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 financial statements. 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 Institute’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 Institute’s internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Los Angeles, California
January 24, 2024



Report of Independent Auditors on Compliance for Each Major Program and on Internal Control Over Compliance Required by Uniform Guidance

To the Board of Trustees of the California Institute of Technology

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited the California Institute of Technology's (the "Institute") compliance with the types of compliance requirements identified as subject to audit in the OMB *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, 2023. 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.

In our opinion, the Institute complied, in all material respects, with the 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, 2023.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (US GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditors' Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the Institute and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the Institute's compliance with the compliance requirements referred to above.

Other Matter – Federal Expenditures Not Included in the Compliance Audit

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 is not included in the Institute's schedule of expenditures of federal awards during the year ended September 30, 2023. Our compliance audit, described in the Opinion on Each Major Federal Program section of our report, does not include the operations of the Jet Propulsion Laboratory because it is audited separately under the Uniform Guidance.



Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the Institute's federal programs.

Auditors' Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the Institute's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material, if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the Institute's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with US GAAS, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the Institute's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the Institute's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on 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 Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

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

PricewaterhouseCoopers LLP

Los Angeles, California
May 20, 2024

**California Institute of Technology
 Schedule of Findings and Questioned Costs
 For the Year Ended September 30, 2023**

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 2 CFR 200.516(a)?	No

Identification of major programs:

Program Name	ALN Number
Research and Development Cluster COVID-19 – Disaster Grants - Public Assistance (Presidentially Declared Disasters)	Various 97.036
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 STATEMENT FINDINGS

None reported.

Section III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

None reported.

California Institute of Technology
Summary Schedule of Prior Audit Findings and Status
For the Year Ended September 30, 2023

There were no findings from prior years that require an update in this report.