



**Carnegie
Mellon
University**



**“EACH ONE OF US HAS
A ROLE TO PLAY
IN BRINGING BEAUTY
AND DIGNITY
TO OUR MISSION.”**

FINANCIAL REPORT 2019

“I AM INSPIRED BY YOU.”

Here, the world’s most ambitious students collaborate at the intersections of diverse fields and go on to change the world as alumni.

Here, faculty leave an indelible mark on society through their scholarship.

Here, professional and dedicated staff create an environment that supports our shared success.

These are the people and the ideals that set CMU apart.

Excerpt from President Farnam Jahanian's inauguration speech

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FACTS AND FIGURES

TYPE OF UNIVERSITY

Private, coeducational, research, granting about 5,200 bachelor's, master's and doctoral degrees each year

COLLEGES AND SCHOOLS

College of Engineering
College of Fine Arts
Dietrich College of Humanities
and Social Sciences
Heinz College of Information Systems
and Public Policy
Mellon College of Science
School of Computer Science
Tepper School of Business

NUMBER OF STUDENTS¹

6,843 undergraduates, 5,633 master's and 1,988 doctoral students and 161 non-degree students

NUMBER OF EMPLOYEES¹

6,216 total employees
725 tenure-stream faculty
683 non-tenure-stream faculty
4,808 staff

NUMBER OF ACTIVE ALUMNI²

109,945+ alumni

CARNEGIE MELLON FACULTY AND ALUMNI AWARD HIGHLIGHTS²

- 20 Nobel Laureates
- 59 Members, National Academy of Engineering
- 18 Members, National Academy of Sciences
- 127 Emmy Award Winners
- 47 Tony Award Winners
- 10 Academy Award Winners
- 5 Members, National Academy of Medicine
- 12 Turing Awards

ATHLETICS³

Team name is "The Tartans"; NCAA Division III classification; founding member of the University Athletic Association; 19 varsity sports; 23 club sports; and over 40 intramural activities.

COMPUTERS

Carnegie Mellon is one of the most technologically sophisticated campuses in the world. When it introduced its "Andrew" computing network in the mid-1980s, it pioneered educational applications of technology. The "Wireless Andrew" system, developed in the mid-1990s, covers the majority of the 148-acre Pittsburgh campus.

HISTORY

Founded in 1900 by industrialist and philanthropist Andrew Carnegie as a technical school for working-class Pittsburgh; became Carnegie Institute of Technology in 1912; merged with the Mellon Institute in 1967 to become Carnegie Mellon University.

PHYSICAL SIZE¹

148-acre Pittsburgh campus; 115 campus-owned buildings; two branch campuses.

LOCATION

Pittsburgh, Pennsylvania: Five miles east of downtown Pittsburgh, bordered by 500-acre Schenley Park and three culturally active residential neighborhoods.

ADDITIONAL BRANCH CAMPUSES

Doha, Qatar, and Silicon Valley, California

Carnegie Mellon is expanding its international presence with many graduate programs and research partnerships across the globe.

For more information about Carnegie Mellon, please contact:

Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213-3890
Phone: 412-268-2000
cmu.edu

¹[University Factbook 2017-2018, Volume 32](#)

²[CMU Fact Sheet, March 2018](#)

³[Carnegie Mellon Office of Admission](#)

INDEPENDENT
AUDITORS'
REPORT *and*
CONSOLIDATED
FINANCIAL
STATEMENTS

**“WE ARE INVESTING IN
INFRASTRUCTURE
THAT SUPPORTS THE
NEW WAYS THAT
STUDENTS LEARN AND
COLLABORATE.”**





**INDEPENDENT AUDITORS' REPORT
TO THE BOARD OF TRUSTEES OF
CARNEGIE MELLON UNIVERSITY AND ITS SUBSIDIARIES**

We have audited the accompanying consolidated financial statements of Carnegie Mellon University and its subsidiaries, which comprise the consolidated statement of financial position as of June 30, 2019, the related consolidated statements of activities and cash flows for the year then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

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

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Carnegie Mellon University and its subsidiaries as of June 30, 2019, and the changes in their net assets and their cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

continued



Emphasis of Matters

As discussed in Note 2 to the consolidated financial statements, in 2019, Carnegie Mellon University and its subsidiaries adopted Accounting Standards Update (ASU) No. 2016-14, *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements for Not-for-Profit Entities*; ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, as amended; ASU No. 2018-08, *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*; and ASU No. 2016-02, *Leases (Topic 842)*, as amended. Our opinion is not modified with respect to these matters.

Other Matter

The accompanying consolidated financial statements of Carnegie Mellon University and its subsidiaries as of June 30, 2018 and for the year then ended were audited by other auditors whose report thereon dated October 8, 2018, expressed an unmodified opinion on those consolidated financial statements, before the adjustments to adopt ASU No. 2016-14 as described in Note 2 to the 2019 consolidated financial statements. As part of our audit of the 2019 consolidated financial statements, we also audited the adjustments described in Note 2 that were applied to adopt ASU No. 2016-14 retrospectively in the 2018 consolidated financial statements. In our opinion, such adjustments are appropriate and have been properly applied. We were not engaged to audit, review, or apply any procedures to the 2018 consolidated financial statements of Carnegie Mellon University and its subsidiaries other than with respect to the adjustments and, accordingly, we do not express an opinion or any other form of assurance on the 2018 consolidated financial statements as a whole.

KPMG LLP

Pittsburgh, Pennsylvania
October 25, 2019

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

June 30, 2019 and 2018 (dollars in thousands)

	2019	2018
Assets		
Cash and cash equivalents <i>(Note 2)</i>	\$514,765	\$481,288
Accrued interest and dividends	1,822	1,521
Accounts receivable, net <i>(Note 4)</i>	75,133	61,222
Pledges receivable, net <i>(Note 5)</i>	85,103	104,893
Student loans receivable, net <i>(Note 4)</i>	14,531	17,464
Investments <i>(Note 6 and Note 8)</i>	2,521,844	2,385,406
Assets held in trust by others <i>(Note 8)</i>	10,702	11,066
Prepaid expenses and other assets <i>(Note 2)</i>	47,717	46,983
Right-of-use assets <i>(Note 9)</i>	74,860	-
Land, buildings and equipment, net <i>(Note 10)</i>	1,066,641	965,934
Total assets	\$4,413,118	\$4,075,777
Liabilities		
Accounts payable and other liabilities <i>(Note 2)</i>	\$220,926	\$202,082
Deferred revenue <i>(Note 4)</i>	149,834	104,779
Federal student loan funds <i>(Note 2)</i>	15,115	14,828
Present value of split interest agreements payable <i>(Note 2)</i>	14,983	17,028
Right-of-use liabilities <i>(Note 9)</i>	73,174	-
Debt obligations <i>(Note 11)</i>	540,818	546,290
Total liabilities	\$1,014,850	\$885,007
Net assets		
Without donor restrictions <i>(Note 12)</i>	\$1,564,490	\$1,464,533
With donor restrictions <i>(Note 12)</i>	1,833,778	1,726,237
Total net assets	\$3,398,268	\$3,190,770
Total liabilities and net assets	\$4,413,118	\$4,075,777

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

CONSOLIDATED STATEMENT OF ACTIVITIES

Year ended June 30, 2019 (*dollars in thousands*)

	Without Donor Restrictions	With Donor Restrictions	Total
Revenue and other support			
Tuition and other educational fees revenue, net of financial aid	\$561,835	\$ -	\$561,835
Sponsored projects revenue (<i>Note 4</i>)			
Software Engineering Institute	141,750	-	141,750
Advanced Robotics for Manufacturing Institute	8,089	-	8,089
Other grants and contracts	274,954	-	274,954
Investment income	62,870	12,412	75,282
Contributions revenue (<i>Note 5</i>)	26,283	116,522	142,805
Auxiliary services revenue	68,205	-	68,205
Other revenue sources	89,811	408	90,219
Net assets released from donor restrictions	73,611	(73,611)	-
Total revenue and other support	\$1,307,408	\$55,731	\$1,363,139
Expenses			
Salaries	\$685,913	\$ -	\$685,913
Benefits	148,056	-	148,056
Other operating expenses	329,005	-	329,005
Depreciation and amortization	72,739	-	72,739
Interest expense	14,837	-	14,837
Total expenses	\$1,250,550	\$ -	\$1,250,550
Increase in net assets before nonoperating activities	\$56,858	\$55,731	\$112,589
Nonoperating activities			
Net realized/unrealized gains on investments (<i>Note 6</i>)	\$19,171	\$93,532	\$112,703
Other (<i>Note 2</i>)	(4,940)	(15,762)	(20,702)
Post-retirement plan changes other than net periodic benefit costs (<i>Note 16</i>)	2,908	-	2,908
Net assets released from restrictions for capital	25,960	(25,960)	-
Total nonoperating activities	\$43,099	\$51,810	\$94,909
Increase in net assets	\$99,957	\$107,541	\$207,498
Net assets			
Beginning of year	\$1,464,533	\$1,726,237	\$3,190,770
End of year	\$1,564,490	\$1,833,778	\$3,398,268

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

CONSOLIDATED STATEMENT OF ACTIVITIES

Year ended June 30, 2018 (dollars in thousands)

	Without Donor Restrictions	With Donor Restrictions	Total
Revenue and other support			
Tuition and other educational fees revenue, net of financial aid	\$542,351	\$ -	\$542,351
Sponsored projects revenue (Note 4)			
Software Engineering Institute	142,740	-	142,740
Advanced Robotics for Manufacturing Institute	3,861	-	3,861
Other grants and contracts	247,872	-	247,872
Investment income	55,026	11,286	66,312
Contributions revenue (Note 5)	22,019	132,289	154,308
Auxiliary services revenue	65,325	-	65,325
Other revenue sources (Note 2)	90,086	509	90,595
Net assets released from donor restrictions	72,973	(72,973)	-
Total revenue and other support	\$1,242,253	\$71,111	\$1,313,364
Expenses			
Salaries	\$653,143	\$ -	\$653,143
Benefits	144,883	-	144,883
Other operating expenses	311,208	-	311,208
Depreciation and amortization	67,360	-	67,360
Interest expense	13,370	-	13,370
Total expenses	\$1,189,964	\$ -	\$1,189,964
Increase in net assets before nonoperating activities	\$52,289	\$71,111	\$123,400
Nonoperating activities			
Net realized/unrealized gains on investments (Note 6)	\$47,816	\$126,703	\$174,519
Other (Note 2)	941	(7,178)	(6,237)
Post-retirement plan changes other than net periodic benefit costs (Note 16)	4,807	-	4,807
Net assets released from restrictions for capital	84,469	(84,469)	-
Reclassification (Note 2)	(1,000)	1,000	-
Total nonoperating activities	\$137,033	\$36,056	\$173,089
Increase in net assets	\$189,322	\$107,167	\$296,489
Net assets			
Beginning of year	\$1,275,211	\$1,619,070	\$2,894,281
End of year	\$1,464,533	\$1,726,237	\$3,190,770

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

**CONSOLIDATED
STATEMENTS OF
CASH FLOWS**

Year ended June 30, 2019
and 2018
(dollars in thousands)

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

	2019	2018
Cash flows from operating activities		
Increase in net assets	\$207,498	\$296,489
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Realized and unrealized (gains) on investments	(147,426)	(208,354)
Depreciation and amortization	72,739	67,360
Amortization of bond premium and bond issuance costs, net	(4,411)	(2,986)
Gifts in kind	(530)	(415)
Loss on asset dispositions	78	727
Cash received from contributions for land, building, and equipment and endowment	(75,626)	(81,119)
Provision for bad debt and other allowances	14,131	10,909
Assets held in trust by others	(57)	(356)
(Increase) decrease in assets:		
Accrued interest and dividends	(301)	250
Accounts receivable, net	(12,230)	(3,366)
Pledges receivable, net	3,978	(7,123)
Prepaid expenses and other assets	(3,633)	(4,110)
Increase (decrease) in liabilities:		
Accounts payable and other liabilities	13,906	(1,189)
Deferred revenue	45,055	(1,630)
Present value of split interest agreements payable	(2,045)	3,516
Net cash provided by operating activities	\$111,126	\$68,603
Cash flows from investing activities		
Proceeds from sale and maturity of investments	\$1,362,454	\$1,439,359
Purchases of investments	(1,351,466)	(1,215,792)
Purchases of land, buildings and equipment	(166,843)	(148,195)
Federal loan programs	287	43
Disbursements of loans to students	(656)	(3,442)
Repayments of loans from students	3,589	3,196
Net cash (used for) provided by investing activities	\$(152,635)	\$75,169
Cash flows from financing activities		
Proceeds from issuance of indebtedness	\$120,000	\$25,394
Repayments of debt obligations	(120,633)	(26,117)
Payment of debt issuance costs	(428)	(477)
Cash received from contributions for land, building, and equipment and endowment	76,047	87,196
Net cash provided by financing activities	\$74,986	\$85,996
Net increase in cash and cash equivalents	\$33,477	\$229,768
Cash and cash equivalents at beginning of year	481,288	251,520
Cash and cash equivalents at end of year	\$514,765	\$481,288
Non-cash transactions:		
Non-cash gift in kind	530	415
Changes in accounts payable for land, building and equipment	5,813	262
Non-cash stock contributions	77	54
Debt refunding and re-issuance	-	52,430

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. CARNEGIE MELLON

Carnegie Mellon University (“Carnegie Mellon” or “the university”) is a private, not-for-profit educational and research institution. Carnegie Mellon currently enrolls approximately 14,625 students and granted approximately 5,200 bachelor’s, master’s and doctoral degrees in the last academic year. Approximately 78% of undergraduate students are from the United States of America. International students comprise approximately 22% of undergraduate, 65% of master’s and 57% of Ph.D. students.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting and Reporting

The accompanying consolidated financial statements have been prepared on the accrual basis of accounting in accordance with U.S. generally accepted accounting principles (“GAAP”) and include the accounts of Carnegie Mellon as well as the Software Engineering Institute, a federally funded research and development center, and other majority-owned entities. The consolidated entities are Advanced Robotics for Manufacturing Institute (“ARM Institute”), Benjamin Garver Lamme Scholarship Fund, Jack G. Buncher Charitable Fund for Carnegie Mellon, iCarnegie, Inc., and Carnegie Innovations, LLC. All significant inter-entity transactions and balances have been eliminated in consolidation. Carnegie Mellon is a joint sponsor with the University of Pittsburgh in MPC Corporation (“MPC”), a beneficiary of The Dietrich Foundation, and an owner as a tenant in common of the Bellefield Boiler Plant. The activities of MPC, The Dietrich Foundation and the Bellefield Boiler Plant are not consolidated in Carnegie Mellon’s consolidated financial statements (see [Note 17](#)).

In January 2017, the U.S. Department of Defense awarded the ARM Institute, a nonprofit venture led by Carnegie Mellon, a contract to launch an advanced robotics manufacturing institute in Pittsburgh.

Carnegie Mellon’s net assets and revenue, expenses, gains and losses are classified based on the existence or absence of donor imposed restrictions. Accordingly, net assets and changes therein are classified and reported as follows:

Without Donor Restrictions

Net assets that are not subject to donor imposed stipulations.

With Donor Restrictions

Net assets subject to specific donor imposed or legal stipulations that can be fulfilled by actions of Carnegie Mellon pursuant to those stipulations or that expire by the passage of time. Also included in this category are net assets subject to donor imposed stipulations requiring the assets be maintained in perpetuity. Generally, the donors of these assets permit Carnegie Mellon to use all or part of the income earned on the related investments for general or specific purposes. Other restricted items in this category include annuity and life income gifts where the ultimate purpose of the proceeds is donor restricted.

Revenues are reported as increases in net assets without donor restrictions unless use of the related assets is limited by donor imposed restrictions. Expenses are reported as decreases in net assets without donor restrictions. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in net assets without donor restrictions unless their use is restricted by the donor or by law. Expiration or satisfaction of donor restrictions on net assets are reported as net assets released from donor restrictions.

Income and net gains and losses on investments are reported as follows:

- As changes in net assets with donor restrictions, if so restricted by donor; or if the terms of the gift or relevant state law impose restrictions on the use of the income or gains and losses; and
- As changes in net assets without donor restrictions, in all other cases.

Cash Equivalents

Cash equivalents include highly liquid investments with original maturities of three months or less when purchased. Cash equivalents are recorded at cost which approximates fair value. These balances are held at the university's custodians, prime brokers, clearing agents and banking institutions for investment and working capital purposes.

Investments

All investments held by Carnegie Mellon are reported at fair value. The fair value of marketable debt and equity securities is based on published current market prices in active securities markets. The fair value of certain investments structured as investment companies is based on the net asset value of such investments and generally is estimated by external investment managers.

As a practical expedient, the university is permitted under the authoritative guidance on fair value measurements to estimate fair value of an investment in an investment company at the measurement date using the reported net asset value ("NAV") without further adjustment unless the university expects to sell the investment at a value other than NAV or if the NAV is not calculated in accordance with GAAP. Investments measured under the net asset value practical expedient primarily consist of the university's ownership in alternative investments (principally limited partnership interests in private equity, real estate, natural resources and hedge funds) and certain investments in commingled funds.

Carnegie Mellon reviews and evaluates the valuation methods and assumptions used by investment managers in determining fair value NAV. Those estimated fair values may differ significantly from values that would result had a ready market for these securities existed. [Note 8](#) - Fair Value provides additional information about inputs used to determine fair value for investments.

Investments received as a gift are reflected as contributions at their fair value at the date of the gift.

Gains and losses, dividends and interest income from investments are reported in the consolidated statements of activities. Internal and external investment management fees and expenses are netted against investment returns.

Investment securities, in general, are exposed to various risks, such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities, changes could materially affect the amounts reported in the Consolidated Statements of Financial Position.

Endowment

Investment policy for endowment assets is the responsibility of the Investment Committee of the Board of Trustees. Substantially all endowment assets are managed by outside investment managers and overseen by the university's Investment Office.

Endowment net assets without donor restrictions include Carnegie Mellon funds, gifts without restrictions from donors, and any accumulated income, gains and appreciation thereon, which is intended to remain in the endowment for the long-term support of Carnegie Mellon activities, but may be expended under trustee authorization. Also included is interest and dividend income on donor restricted endowment assets where distribution of such income is not subject to a donor restriction.

Endowment net assets with donor restrictions include gifts and any accumulated income, gains and appreciation thereon which donor restrictions require to be retained in perpetuity to provide a permanent source of support for the university. Also included are accumulated income, gains and appreciation on endowment assets where distribution/spending of such returns is restricted by the donor. The Trustees of

Carnegie Mellon must annually authorize release of endowment gains according to Pennsylvania law. This classification also includes term endowments and endowment gifts whereby the donor permits distributions of the principal amount of the gift and accumulated appreciation.

All endowment funds participate in a Carnegie Mellon investment pool. The investment pool provides income to its respective participants. Such income is used for the specific purpose prescribed by the donor or, if the purpose was not prescribed by the donor, the income is deemed to be without donor restrictions and used for general purposes. New endowment funds or additions to existing funds are assigned shares in the investment pool based upon the per share market value at the end of the previous month. Income distributions from the investment pool are based upon the number of shares held by each participant and the approved spending rate (see [Note 7](#)). Income distributions from the investment pool are based upon the "total return concept." Component amounts of total return not distributed currently are reinvested in the investment pool and are available for distribution from the endowment assets in future years.

Assets Held in Trust by Others

Assets held in trust by others include the value of Carnegie Mellon's beneficial interest in perpetual trusts and irrevocable trusts held by outside trustees. The present value of the perpetual trusts' estimated future cash receipts, which are measured by the fair value of the assets contributed to the trust, are recognized as assets and contribution revenues at the dates the trusts are established. The assets are adjusted periodically for changes in market values.

Various donors have established irrevocable trusts whereby Carnegie Mellon holds a remainder interest in the trust or is entitled to distributions over the life of the trusts. The present value of the portion of the trusts estimated to be distributable to Carnegie Mellon over the life of the trusts or upon the termination of the trusts are recorded as assets and contribution revenues at the dates the trusts are established. The assets are adjusted periodically for changes in market value.

Prepaid Expenses and Other Assets

Prepaid expenses represent items such as prepaid insurance, prepaid rentals and other contractual payments made in advance of their use or consumption. Amounts are expensed and amortized over the periods to which the charges relate.

Other assets include deferred compensation plan assets, swap assets and other costs incurred that will result in benefits to future periods.

Right of Use Assets and Liabilities

Operating lease right of use ("ROU") assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. As the university's leases generally do not provide an implicit rate, the university's incremental borrowing rate at commencement date is used to determine the present value of future payments. The operating lease ROU asset also includes any lease payments made and excludes lease incentives and any initial direct costs incurred. The university's operating lease ROU assets and operating lease liabilities are calculated including options to extend the lease when it is reasonably certain that the university will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

Land, Buildings and Equipment

Land, buildings and equipment are recorded at cost at the date of acquisition or, if acquired by gift, at the estimated fair value as of the date of the gift. Additions to plant assets are capitalized while scheduled maintenance and minor renovations are expensed to operations. Buildings and equipment are reflected net of accumulated depreciation which is calculated on a straight-line basis over the estimated useful lives. Carnegie Mellon capitalizes interest during periods of construction. Carnegie Mellon reviews its land, buildings, equipment and other long-lived assets for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable.

Donated works of art, historical treasures and similar assets have been recognized at their estimated fair value based upon appraisals or similar valuations at the date of acquisition or donation. If purchased, the assets are recognized at cost. The assets are depreciated over 99 years.

Accounts Payable and Other Liabilities

Accounts payable and other liabilities include accounts payable, accrued payroll and benefits, swap liabilities and other accrued expenses.

Federal Student Loan Funds

This liability represents Perkins loan funds provided to students by the federal government through Carnegie Mellon. Carnegie Mellon is required to collect the loans on behalf of the federal government. The federal government did not renew the Perkins loan program after September 30, 2017, and did not allow disbursements to be made after June 30, 2018. The university has elected to retain the outstanding loans in lieu of assigning the loans to the federal government. The liability will be repaid over the years that loan repayments are received from student borrowers. The amount due from the students is reported in the Consolidated Statements of Financial Position as a component of student loans receivable, net.

Present Value of Split Interest Agreements Payable

Carnegie Mellon's split interest agreements with donors consist primarily of gift annuities, unitrusts, lead trusts, charitable remainder annuity trusts and life income agreements. Assets held under these agreements are included in investments. Generally, contribution revenues are recognized at the dates the agreements are established, after recording liabilities for the present value of the estimated future payments to be made to the beneficiaries. The liabilities are adjusted during the term of the trusts for changes in the value of the assets, accretion of the discount and other changes in the estimates of future benefits. The discount rates utilized for split interest agreements range from 1.2% to 6.0%. Distributions from the trusts are recorded in accordance with the donor's stipulations as contributions and the carrying value of the assets are adjusted for changes in the fair value of the trust assets.

Operating Activities

Carnegie Mellon's measure of operations without donor restrictions includes revenue from tuition, sponsored projects, investment return distributed according to Carnegie Mellon's spending policy, contributions without donor restrictions, revenues from auxiliary services and other sources, and net assets released from donor restrictions. Operating expenses are reported by natural classification.

Revenue Recognition

For the year ended June 30, 2018, the university recognized revenue when persuasive evidence of an arrangement existed, the fees were fixed or determinable, the revenue was earned and collectability was assured.

Beginning with the adoption of Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC 606") on July 1, 2018, revenue is recognized when control of the promised goods or services is transferred to customers in an amount that reflects the consideration the university expects to be entitled to receive in exchange for those goods and services.

Contributions Revenue

Contributions include gifts, grants and unconditional promises to give that are recognized as revenue, at fair value, in the period such commitments are received. Conditional promises to give may be subject to both a barrier to entitlement and a right of return of unused funds. Such contributions are recognized as revenue when the barrier is satisfied. Unconditional promises to give to be received in future years are discounted, as of the date of the gift, at a rate commensurate with the pledge payment schedule. A discount rate commensurate with fair value is used. An allowance is estimated for uncollectible contributions based upon historical patterns and any known uncollectible accounts or accounts in arrears.

Capital Contributions

Donors' contributions to fund construction projects are classified as net assets with donor restrictions and are released from donor restriction through nonoperating activities when the facility is placed in service. \$26.0 million and \$84.5 million of capital contributions were released from donor restriction during fiscal years 2019 and 2018, respectively, and were reclassified from net assets with donor restrictions to net assets without donor restrictions through nonoperating activities.

Nonoperating Activities

Items presented in the consolidated statements of activities as "Nonoperating activities - Other," include unrealized gains and losses and interest expense related to interest rate swap agreements, post-retirement plan changes other than net periodic benefit costs, losses from adjustments of pledges receivable with donor restrictions and other gains and losses.

Income Taxes

Carnegie Mellon is a nonprofit organization as described in Section 501(c)(3) of the Internal Revenue Code (the "Code") and is generally exempt from income taxes on related income pursuant to Section 501(a) of the Code.

The university accounts for uncertainties in income taxes in accordance with authoritative guidance, which prescribes a recognition threshold of more-likely-than-not to be sustained upon examination by the appropriate taxing authority. Measurement of the tax uncertainty occurs if the recognition threshold has been met. Management determined there were no tax uncertainties that met the recognition threshold at June 30, 2019 and 2018.

The university's federal Exempt Organization Business Income Tax Returns remain subject to examination by the Internal Revenue Service for the years subsequent to June 30, 2015.

The university's policy is to recognize interest related to unrecognized tax benefits in interest expense and penalties in operating expenses.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported consolidated financial statements and related accompanying footnote disclosures. Actual results could differ from those estimates and these differences could be material.

Adoption of New Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers*. This standard implements a single framework for recognition of all revenue earned from customers. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services by recognizing revenue as performance obligations are satisfied. Qualitative and quantitative disclosures are required to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The university adopted this standard on July 1, 2018. See [Note 4](#) for additional information.

In June 2018, the FASB issued ASU 2018-08, *Not-for-Profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. ASU 2018-08 addresses current guidance about whether a transfer of assets (or the reduction settlement, or cancellation of liabilities) is a contribution or an exchange transaction for purposes of revenue recognition. The new guidance is to be applied on a modified prospective basis to all agreements that are not fully recognized as of the effective date. The university adopted this standard on July 1, 2018, the result of which did not have a material impact on its consolidated financial statements. See [Note 5](#) for additional information.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The main difference between previous GAAP and Topic 842 is the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous GAAP. The guidance aims to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the Consolidated Statement of Financial Position and disclosing key information about leasing arrangements. The standard is effective for fiscal years beginning after December 15, 2018, and should be applied on a modified retrospective basis in the year it is first applied. The university early adopted this standard on July 1, 2018, using the effective method. Upon adoption, the university recorded ROU assets and liabilities related to real estate rentals. No change to beginning net assets was necessary. See [Note 9](#) for additional information.

For the year ended June 30, 2019, the university adopted ASU No. 2016-14 *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements of Not-for-Profit Entities*. This update addresses the complexity and understandability of net asset classification, deficiencies in information about liquidity and availability of resources, and the lack of consistency in the type of information provided about expenses and investment return between not-for-profit entities. The changes required by the update have been applied retrospectively to all periods presented. A key change required by ASU 2016-14 is the net asset classes used in these consolidated financial statements. Amounts totaling \$1.5 billion previously reported as unrestricted net assets are now reported as net assets without donor restrictions and amounts totaling \$1.7 billion previously reported as temporarily restricted net assets (\$0.8 billion) and permanently restricted net assets (\$0.9 billion) are now reported as net assets with donor restrictions.

3. FINANCIAL ASSETS AND LIQUIDITY RESOURCES

The university continuously monitors liquidity needed to meet its operating activities while prudently investing its available capital. Possible sources of liquidity include cash and cash equivalents, short-term investments, marketable debt and equity securities, a \$50.0 million line of credit and a \$70.0 million commercial paper program (see [Note 11](#)). The university also anticipates converting certain receivables to cash within the next 12 months. As of June 30, 2019 and 2018, financial assets available within one year for general expenditure are as follows (*dollars in thousands*):

	2019	2018
Cash and cash equivalents	\$514,765	\$481,288
Accounts receivable	75,133	61,222
Pledge receivables donor restricted for operations	9,894	10,361
Short-term working capital investments	113,416	117,894
Subsequent year's approved endowment distributions	91,367	85,883
Subsequent year's approved long-term working capital distributions	7,896	6,510
Total financial assets available within one year	\$812,471	\$763,158

For purposes of analyzing resources available for general expenditures over a 12-month period, the university considers all expenditures related to its ongoing activities of teaching and research, as well as the conduct of services undertaken to support those activities, to be general expenditures. This includes short-term working capital investments available for construction and plant activity. Long-term working capital investments are included within the university's long-term investments pool. While the university does not intend to spend from these long-term working capital investments other than the amounts appropriated for general expenditure as indicated above, the long-term working capital investments could be made available if necessary. However, the long-term investments pool contains investments with lock-up provisions that reduce the total investments that could be made available (see [Notes 6](#) and [8](#)).

4. REVENUE FROM CONTRACTS WITH CUSTOMERS AND ACCOUNTS RECEIVABLE

Effective July 1, 2018, the university adopted ASC 606. Results for the fiscal year ended June 30, 2019, are presented under ASC 606. The university elected to use the modified retrospective method applied to active contracts as of July 1, 2018. Therefore, the comparative information for the fiscal year ended June 30, 2018, has not been restated and continues to be reported under the accounting standards in effect in that reporting period.

Performance Obligations and Revenue Recognition

Tuition Revenue: The university's performance obligation is to provide educational services in the form of instruction during the academic terms. As these services are provided, deferred revenue is reduced and revenue is recognized. Revenue related to student services crossing fiscal years is recognized on a pro-rata basis based upon the number of instruction days in each period. Tuition, at published prices, from undergraduate students was \$363.5 million and \$351.1 million for the year ended June 30, 2019 and 2018, respectively. Tuition, at published prices, from graduate students was \$327.9 million and \$316.2 million for the year ended June 30, 2019 and 2018, respectively. Other education-related revenue was \$35.6 million and \$32.8 million for the year ended June 30, 2019 and 2018, respectively.

Sponsored Projects Revenue: The university's performance obligation is to complete the research or other sponsored activity over the contract term. The university receives sponsored program funding from various governmental and corporate sources. The funding may represent a reciprocal transaction in exchange for an equivalent benefit in return, or it may be a nonreciprocal transaction in which the resources provided are for the benefit of the university, the funding organization's mission or the public at large.

Revenues from exchange transactions are recognized as performance obligations are satisfied, which in most cases are as related costs are incurred. Revenue from non-exchange transactions (contributions) may be subject to conditions, in the form of both a barrier to entitlement and a refund of amounts paid (or a release from obligation to make future payments). Revenues from conditional non-exchange transactions are recognized when the barrier is satisfied. In addition, the university has elected the simultaneous release option for conditional contributions that are also subject to purpose restrictions. Under this option, net assets without donor restrictions will include the donor-restricted contributions for which the purpose restrictions are met in the same reporting period as the revenue is recognized.

Auxiliary Services Revenue: Carnegie Mellon's auxiliaries exist primarily to furnish goods and services to students, faculty and staff. Managed as essentially self-supporting activities, Carnegie Mellon's auxiliaries consist principally of housing and dining services, telecommunications, parking, printing and publications, retail and other external services. The performance obligation is to provide the service. Revenue is recognized as the services are provided.

Other revenue sources: Other revenue is comprised of funding received for Carnegie Mellon's international locations, royalty income, licensing revenue, affiliate/membership revenue and other miscellaneous revenues. Other revenue is recognized over the period in which the applicable performance obligation is satisfied.

The university has elected the practical expedient in ASC 606-10-50-14 to not disclose the information about remaining performance obligations that have original expected durations of one year or less.

Transaction Price

Revenue, or transaction price, is measured as the amount of consideration expected to be received in exchange for transferring goods or services.

Students may receive discounts or scholarships on tuition which give rise to variable consideration. Therefore, the transaction price for tuition revenue is reduced directly by these discounts or scholarships from the amount of the standard rates charged. These discounts are considered financial aid and were \$165.2 million and \$157.8 million for the year ended June 30, 2019 and 2018, respectively. Upon withdrawal, a student may be eligible to receive a refund, or a partial refund, the amount of which is dependent on the timing of the withdrawal during the academic term. The amount of refunds paid is not a significant portion of the university's tuition revenue.

For sponsored projects revenue, the transaction price is based upon a signed contract for direct costs along with indirect cost recovery. While the scope and price on certain contracts may be modified over their life, the transaction price is based on current rights and obligations under the contract and does not include potential modifications until they are agreed upon with the customer. When applicable, a cumulative adjustment or separate recognition for the additional scope and price may result. Indirect sponsored projects revenue is recorded at rates established in advance by Carnegie Mellon through negotiations with the United States government and other sponsors based upon direct costs incurred. The actual federal indirect cost rate is audited by the Defense Contracts Audit Agency (“DCAA”) and a final fixed-rate agreement is signed by the United States government and Carnegie Mellon. The variance between the negotiated fixed and the final audited indirect cost rate results in a carryforward (over or under recovery) that is included in the calculation of negotiated fixed rates in future years.

The transaction price for auxiliary services revenue is based upon published prices and rates. Other sources revenue has transaction prices based upon contractual terms.

Contract Balances

Students are billed prior to the start of each academic term based upon the agreements they signed and payment is due prior to the start of the term. Student receivables are not collateralized; however, credit risk is minimized as a result of the diverse nature of the university's student base. The university establishes an allowance for doubtful accounts based on historical trends and other information.

Sponsored projects revenue is invoiced per the terms of the contractual agreement. Amounts received from sponsors under agreements that require the exchange of assets, rights or other privileges between Carnegie Mellon and the sponsor are recorded as deferred revenue until the contract terms are fulfilled.

Other sources revenue is invoiced per the terms of contractual agreements.

Accounts receivable at June 30, 2019 and 2018, consist of the following (*dollars in thousands*):

	2019	2018
Sponsored project accounts receivable		
Software Engineering Institute	\$389	\$267
ARM Institute	-	-
Other contracts and conditional grants	53,881	42,708
Total sponsored projects accounts receivable	\$54,270	\$42,975
Student accounts	4,317	4,653
Other	18,333	18,654
Total student accounts and other	\$22,650	\$23,307
Allowance for doubtful accounts	(1,787)	(5,060)
Net accounts receivable	\$75,133	\$61,222

Other accounts receivable relates primarily to Carnegie Mellon's international programs, affiliate and membership agreements, license agreements and other miscellaneous revenue sources.

Deferred revenue at June 30, 2019 and 2018 consists of the following (*dollars in thousands*):

	2019	2018
Sponsored projects deferred revenue		
Software Engineering Institute	\$10,153	\$9,046
ARM Institute	8,222	-
Other contracts and conditional grants	53,611	38,692
Total sponsored projects deferred revenue	\$71,986	\$47,738
Student accounts deferred revenue	18,474	19,154
Other	59,374	37,887
Total deferred revenue	\$149,834	\$104,779

Federal and other sponsored grants and contracts may include fiscal funding clauses or be subject to annual appropriation. These sponsored research agreements typically span less than five years. The university estimates that its conditional awards outstanding as of June 30, 2019 approximate historical annual sponsored program activity.

Student Loans Receivable

Net student loans receivable of approximately \$14.5 million and \$17.5 million, as of June 30, 2019 and 2018, respectively, primarily represent student loans made under the Perkins federal loan program. These loans are reported net of an allowance for doubtful accounts of approximately \$0.5 million as of June 30, 2019 and 2018.

5. CONTRIBUTIONS REVENUE AND PLEDGES RECEIVABLE

Contributions revenue includes gifts, grants and unconditional promises to give and is recorded in the appropriate net asset category based upon donor stipulations.

Conditional promises to give, which depend on the satisfaction of identified barriers such as matching gifts from other donors, are recognized as contributions revenue when the conditions are substantially met. Carnegie Mellon had approximately \$36.3 million and \$25.5 million as of June 30, 2019 and 2018, of conditional contributions outstanding related to capital projects. In addition, the university had approximately \$7.0 million and \$5.0 million, related to conditional contributions as of June 30, 2019 and 2018, respectively, recorded as deferred revenue in the Consolidated Statements of Financial Position. These amounts were not recognized as contributions revenue during the respective fiscal year as the barriers had not been met.

Pledges receivable as of June 30, 2019 and 2018, are due as follows (*dollars in thousands*):

	2019	2018
In one year or less	\$37,461	\$40,470
Between one year and five years	56,385	54,922
More than five years	17,529	25,092
Pledges receivable, gross	\$111,375	\$120,484
Unamortized discount	(12,309)	(11,220)
Allowance for unfulfilled pledges	(13,963)	(4,371)
Pledges receivable, net of discount and allowance	\$85,103	\$104,893

6. INVESTMENTS

Investments by major category at June 30, 2019 and 2018, are as follows (*dollars in thousands*):

	2019	2018
Cash equivalents	\$56,225	\$66,318
Short-term securities with maturities less than one year	17,357	47,516
Fixed income securities	291,375	252,438
Short-term fixed income securities	64,005	39,638
Equity securities	923,592	904,830
Alternative investment partnerships	1,169,290	1,074,666
Total investments	\$2,521,844	\$2,385,406

Investments are held for the following purposes (*dollars in thousands*):

	2019	2018
Endowment	\$1,983,575	\$1,872,191
Reserves for working capital and plant – short-term	113,416	117,894
Reserves for working capital and plant – long-term	362,852	333,286
Other	62,001	62,035
Total investments	\$2,521,844	\$2,385,406

Fixed income securities are United States Treasury and Agency obligations, investment grade corporate debt, short-term commercial paper and asset backed securities. Equity securities at June 30, 2019, included approximately 49.5% domestic equities and 50.5% international and emerging market equities. Equity securities at June 30, 2018, included approximately 51.8% domestic equities and 48.2% international and emerging market equities. Alternative investment partnerships are largely investments in buyout, venture capital, real estate, natural resources and hedge funds.

The allocation to each major category in the previous table represents the actual allocation of the short-term and long-term reserves, and other miscellaneous investments on a combined basis. Actual allocations on a combined basis should not be interpreted as an investment allocation policy for a particular investment pool.

Operating investment income as reported in the consolidated statements of activities includes dividends and interest earned on funds without donor restrictions as well as accumulated gains without donor restrictions utilized for current operations in the amounts of \$34.7 million and \$33.8 million for the years ended June 30, 2019 and 2018, respectively. The accumulated gains are reclassified from net realized gains to investment income.

Certain of Carnegie Mellon's outside investment managers are authorized and do purchase and sell derivative instruments in order to create, increase, decrease or hedge exposures to market position, including to manage risk due to interest rate and foreign currency fluctuations.

Carnegie Mellon's long-term investments comprise U.S. domestic and international portfolios. Carnegie Mellon does not hedge international portfolios with respect to foreign currencies. Investment managers of these international portfolios have the discretion to, and certain do, manage foreign currencies through foreign exchange contracts to protect the portfolios from potential foreign currency losses and to benefit from potential

gains. Carnegie Mellon's investment managers understand that they are assuming active management risks to the extent that they assume foreign currency exposures that differ from the foreign currency exposures in their relevant market benchmarks.

Gains or losses from derivative instruments are reported as realized and unrealized gains or losses in the consolidated statements of activities. The fair value of all derivative instruments is included in the fair value of the investments.

Under the terms of certain limited partnership agreements, Carnegie Mellon is obligated to periodically advance additional funding for venture capital, buyout, real estate and natural resources fund investments. At June 30, 2019 and 2018, Carnegie Mellon had unfunded commitments of approximately \$646.2 million and \$501.8 million, respectively, for which capital calls had not been exercised. Such commitments generally have fixed expiration dates or other termination clauses. Carnegie Mellon maintains sufficient liquidity in its investment portfolio to cover such calls.

Alternative investment partnerships are less liquid than Carnegie Mellon's other investments. The following tables summarize these investments by strategy type at June 30, 2019 and 2018 (*dollars in thousands*):

	Number of Funds	2019 Fair Value	Number of Funds	2018 Fair Value	Unfunded Commitments at June 30, 2019	Redemption Frequency ^a	Redemption Notice Period ^a
Commingled funds	6	\$311,029	7	\$343,424	\$ -	Semi-Monthly	2-30 days
Hedge funds	18	209,358	19	255,139	-	Semi-Annually and Annually	30-90 days
Natural resources	22	131,340	23	135,807	36,168		
Private equity (Buyout) funds	57	156,682	54	146,357	157,510		
Real estate	23	96,424	23	88,133	140,987		
Venture capital	150	548,319	135	424,123	265,020		
Other	15	27,168	14	25,107	46,531		
Total	291	\$1,480,320	275	\$1,418,090	\$646,216		

(a) Commingled funds and hedge fund investments held by the university may be subject to restrictions related to the initial investment that limit the university's ability to redeem capital from such investments during a specified period of time subsequent to the university's investment of capital in such funds, typically known as a lock-up period. Capital available for redemption after the lock-up period has expired may also be subject to limits which restrict the available redemption period to semi-monthly, monthly, quarterly, semi-annually, annually or triennially and require 2 - 120 days prior written notice, potentially limiting the university's ability to respond quickly to changes in market conditions. All commingled funds have passed the lock-up period as of June 30, 2019.

Natural resources, private equity, real estate, venture capital and other alternative investments cannot be redeemed upon request. Instead, the nature of these investments is that distributions are received through the liquidation of the underlying assets of the fund. It is estimated that the underlying assets of these funds would be liquidated over approximately four to eight years.

7. ENDOWMENTS

The following tables outline the endowment net asset composition by type of fund as of June 30, 2019 and 2018 (dollars in thousands):

2019	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds	\$-	\$1,563,803	\$1,563,803
Board-designated funds	438,497	-	438,497
Total funds	\$438,497	\$1,563,803	\$2,002,300

2018	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds	\$-	\$1,447,180	\$1,447,180
Board-designated funds	439,652	-	439,652
Total funds	\$439,652	\$1,447,180	\$1,886,832

The following tables provide a summary of the changes in value of the endowment net assets excluding endowment pledges for the years ended June 30, 2019 and 2018 (dollars in thousands):

2019	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, beginning of year	\$439,652	\$1,447,180	\$1,886,832
Gifts and other additions	112	58,506	58,618
Investment income			
Interest and dividends	9,558	11,084	20,642
Net realized gains on sale of securities	31,558	103,878	135,436
Net unrealized losses	(2,584)	(10,693)	(13,277)
Total investment income	\$38,532	\$104,269	\$142,801
Income distributed			
Cash and accrued interest and dividends	(9,558)	(11,084)	(20,642)
Accumulated realized investment gains	(30,241)	(35,068)	(65,309)
Total income distributed	(39,799)	(46,152)	(85,951)
Endowment net assets, end of year	\$438,497	\$1,563,803	\$2,002,300¹

⁽¹⁾ Includes \$18.7 million of endowment gifts and other transfers pending investment and other accruals.

2018	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, beginning of year	\$427,230	\$1,292,449	\$1,719,679
Gifts and other additions	28	62,301	62,329
Investment income			
Interest and dividends	8,957	10,048	19,005
Net realized gains on sale of securities	18,196	55,046	73,242
Net unrealized gains	23,434	70,180	93,614
Total investment income	\$50,587	\$135,274	\$185,861
Income distributed			
Cash and accrued interest and dividends	(8,957)	(10,048)	(19,005)
Accumulated realized investment gains	(29,236)	(32,796)	(62,032)
Total income distributed	(38,193)	(42,844)	(81,037)
Endowment net assets, end of year	\$439,652	\$1,447,180	\$1,886,832¹

⁽¹⁾Includes \$14.6 million of endowment gifts and other transfers pending investment and other accruals.

Unless the donor specifies that only a certain amount of the endowment may be spent, Pennsylvania Act 141 allows organizations to choose a total return spending policy strategy, whereby the board of trustees may annually elect to spend between 2.0% and 7.0% of the fair market value of the endowment. Carnegie Mellon maintains a total return spending policy. Endowment income distributions can consist of dividend and interest income and a withdrawal of accumulated capital gains, when necessary. The main objective of the total return spending policy is to separate spending policy from investment policy. This approach permits asset allocation decisions to be made independently of the need for current income. Carnegie Mellon targets a diversified asset allocation to achieve its long-term objectives with prudent risk constraints. The endowment spending rate is determined annually pursuant to a smoothing formula whereby an approved spending rate percentage is applied to the trailing 36-month average of endowment market values at December 31. For fiscal years 2019 and 2018, the approved spending rate was set at 5.0%. As a result of the spending rate formula, the effective spending rate (defined as the endowment draw totals for the fiscal years ended 2019 and 2018 divided by the June 30 endowment market values for those fiscal years) was 4.3% for June 30, 2019 and June 30, 2018.

8. FAIR VALUE

ASC Topic 820, *Fair Value Measurement*, establishes a hierarchy to prioritize valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity and unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or liability based on the best information available.

The following is a description of the university's valuation methodologies for assets and liabilities measured at fair value:

Level 1

Based upon quoted prices in active markets that the university has the ability to access for identical assets and liabilities. Market price data is generally obtained from exchange or dealer markets. The university does not adjust the quoted price for such assets and liabilities, which include active listed equities, mutual funds, government supported obligations and cash equivalents.

Level 2

Based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active or assets subject to transfer restrictions. Inputs are obtained from various sources including market participants, dealers and brokers.

Level 3

Based on valuation techniques that use significant inputs that are unobservable as they trade infrequently or not at all.

The following tables present the financial instruments carried at fair value for fiscal years 2019 and 2018 by caption in the Consolidated Statements of Financial Position by the valuation hierarchy defined above (dollars in thousands).

2019	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Assets				
Deferred compensation plan assets	\$12,561	\$5,859	\$2,460	\$20,880
Investments				
Cash equivalents ^a	\$33,543	\$22,682	\$ -	\$56,225
Other short term investments with maturity of less than 1 year ^b	-	17,357	-	17,357
Equity Investments				
U.S. – equity funds and common stocks ^a	375,846	-	6,249	382,095
Mutual funds – international developed	49,650	-	-	49,650
Mutual funds – international emerging	180,817	-	-	180,817
Short-term fixed income	-	64,005	-	64,005
Fixed income funds and securities ^a	291,375	-	-	291,375
	\$931,231	\$104,044	\$6,249	\$1,041,524
Investments measured under the NAV practical expedient ^c				\$1,480,320
Total investments				\$2,521,844
Beneficial interests held by third party	\$ -	\$ -	\$2,265	\$2,265
Perpetual trusts held by third party	-	-	8,437	8,437
Total assets held in trust by others	-	-	10,702	10,702
Interest rate swap receivable	-	1,293	-	1,293
Total assets at fair value	\$943,792	\$111,196	\$19,411	\$2,554,719
Liabilities				
Interest rate swaps payable	-	29,478	-	29,478
Total liabilities at fair value	\$ -	\$29,478	\$ -	\$29,478

There were no significant transfers between Level 1 and Level 2 for the fiscal year ended 2019.

(a) Presentation as a single class is appropriate based on the nature and risks of these investments.

(b) Other short-term investments with maturity of less than 1 year include highly liquid commercial paper. This commercial paper has original maturities between 90 and 270 days when purchased, but maturities as of June 30, 2019, are typically within 90 days and the investments are readily convertible to cash.

(c) In accordance with ASC Subtopic 820-10, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Consolidated Statements of Financial Position. This includes commingled funds of \$311.0 million, and hedge and private equity funds of \$1,169.3 million as of June 30, 2019.

2018

	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Assets				
Deferred compensation plan assets	\$10,851	\$5,364	\$2,370	\$18,585
Investments				
Cash equivalents ^a	\$44,203	\$22,115	\$ -	\$66,318
Other short term investments with maturity of less than 1 year ^b	-	47,516	-	47,516
Equity Investments				
U.S. – equity funds and common stocks ^a	394,081	-	5,878	399,959
Mutual funds – international developed	5,201	-	-	5,201
Mutual funds – international emerging	156,246	-	-	156,246
Short term fixed income	-	39,638	-	39,638
Fixed income funds and securities ^a	252,316	122	-	252,438
	\$852,047	\$109,391	\$5,878	\$967,316
Investments measured under the NAV practical expedient ^c				\$1,418,090
Total investments				\$2,385,406
Beneficial interests held by third party	\$ -	\$ -	\$2,760	\$2,760
Perpetual trusts held by third party	-	-	8,306	8,306
Total assets held in trust by others	-	-	11,066	11,066
Interest rate swap receivable	-	-	-	-
Total assets at fair value	\$862,898	\$114,755	\$19,314	\$2,415,057
Liabilities				
Interest rate swaps payable	-	22,558	-	22,558
Total liabilities at fair value	\$ -	\$22,558	\$ -	\$22,558

There were no significant transfers between Level 1 and Level 2 for the fiscal year ended 2018.

(a) Presentation as a single class is appropriate based on the nature and risks of these investments.

(b) Other short-term investments with maturity of less than 1 year include highly liquid commercial paper. This commercial paper has original maturities between 90 and 270 days when purchased, but maturities as of June 30, 2018, are typically within 90 days and the investments are readily convertible to cash.

(c) In accordance with ASC Subtopic 820-10, certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Consolidated Statements of Financial Position. This includes commingled funds of \$343.4 million, and hedge and private equity funds of \$1,074.7 million as of June 30, 2018.

Deferred compensation plan assets are valued using market quotations or prices obtained from independent pricing services (Level 1), market quotations or prices obtained from independent pricing sources who may employ various pricing methods (Level 2), and at contract value (Level 3).

Beneficial remainder and lead trusts held by third parties are valued at the present value of the future distributions expected to be received upon termination of the trust or over the term of the trust agreement and approximate fair value. Perpetual trusts are valued based upon the university's percentage interest in the fair value of the underlying trust assets.

Interest rate swaps are valued using observable inputs, such as quotations received from the counterparty, dealers or brokers, whenever available and considered reliable. The valuation methods described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values.

The following table includes a roll forward of the Consolidated Statements of Financial Position amounts for financial instruments classified by the university within Level 3 of the fair value hierarchy (*dollars in thousands*):

	Deferred Compensation	Common Stock	Trusts Held by Others	Total
Fair value, July 1, 2017	\$2,124	\$5,290	\$10,710	\$18,124
Unrealized gains	68	588	356	1,012
Purchases	148	-	-	148
Transfers in	30	-	-	30
Transfers out	-	-	-	-
Fair value, June 30, 2018	\$2,370	\$5,878	\$11,066	\$19,314
Unrealized gains	76	121	182	379
Purchases	239	250	-	489
Transfers in	-	-	-	-
Transfers out	(225)	-	(546)	(771)
Fair value, June 30, 2019	\$2,460	\$6,249	\$10,702	\$19,411

9. LEASES

On July 1, 2018, the university adopted Topic 842 by applying the guidance at adoption date. As a result, the comparative information as of June 30, 2018, has not been adjusted. The university elected the package of practical expedients permitted under the transition guidance within Topic 842, which allowed the university to carry forward its identification of contracts that are or contain leases, its historical classification of existing leases and its accounting for initial direct costs for existing leases.

Beginning July 1, 2018, the university has recognized operating ROU assets and lease liabilities for the university's leases on its Consolidated Statements of Financial Position. Upon adoption of Topic 842, the balances at adoption date of prepaid and accrued rent, lease incentives and unamortized assets and liabilities were reclassified and are now presented within operating lease ROU assets on the university's Consolidated Statement of Financial Position.

Lease Arrangements

The university has operating leases primarily for campus facilities, student housing and office space. Variable lease payments based on an index or rate, such as the consumer price index, are initially measured using the index or rate in effect at lease commencement. The university has elected the short-term lease exception under

Topic 842 for all leases and as such, leases with an initial term of 12 months or less are not recorded on the Consolidated Statement of Financial Position. The university recognizes lease expense for short-term leases on a straight-line basis over the lease term.

The components of lease cost for the fiscal year ended June 30, 2019, included operating lease costs of \$20.5 million and short-term lease costs of \$4.9 million.

The following table displays the undiscounted cash flows due related to operating leases as of June 30, 2019, along with a reconciliation to the discounted amount recorded on the June 30, 2019, Consolidated Statement of Financial Position. Undiscounted cash flows due within the fiscal years ended June 30 were as follows (*dollars in thousands*):

2020	\$19,000
2021	10,892
2022	8,757
2023	7,974
2024	7,680
Thereafter	23,470
Total undiscounted cash flows (weighted average term 9.2 years)	\$77,773
Impact of present value discount (weighted average discount rate 1.5%)	(4,599)
Amount reported on statements of financial position	\$73,174

Lease expense primarily related to facilities was \$21.5 million (excluding international donated space of \$10.3 million) for the year ended June 30, 2018. Future minimum operating lease payments at June 30, 2018, are as follows (*dollars in thousands*):

2019	\$19,071
2020	19,290
2021	7,037
2022	3,641
2023	2,747
Thereafter	11,534
Total	\$63,320

10. LAND, BUILDINGS AND EQUIPMENT

Land, buildings and equipment at June 30, 2019 and 2018, consist of the following (*dollars in thousands*):

	Useful Lives	2019	2018
Buildings	35-50 years	\$1,429,412	\$1,357,371
Moveable equipment	5-20 years	256,931	229,458
Utilities and building-related assets	20 years	98,913	87,852
Land improvements	15 years	19,540	13,841
Software costs	2-10 years	53,864	53,673
Leasehold improvements	2-20 years	31,864	19,885
Subtotal		\$1,890,524	\$1,762,080
Accumulated depreciation		(958,233)	(893,776)
Subtotal		\$932,291	\$868,304
Land		54,637	49,691
Construction and equipment in progress		79,713	47,939
Land, buildings and equipment, net		\$1,066,641	\$965,934

Carnegie Mellon acquired \$5.9 million and \$5.5 million in equipment through grants for the years ended June 30, 2019 and 2018, respectively.

11. DEBT OBLIGATIONS

Debt obligations consist of the following as of June 30, 2019 and 2018 (*dollars in thousands*):

	Maturity	Interest %	2019	2018
Allegheny County Higher Education Building Authority Revenue Bonds Fixed Rate				
Series 2012 A, Premium, net of debt issuance costs	03/01/24	2.5-5.0%	\$32,805 2,610	\$32,805 3,169
Series 2013, Premium, net of debt issuance costs	03/01/43	4.0-5.0%	52,250 3,636	52,250 4,291
Series 2017, Premium, net of debt issuance costs	08/01/29	5.0%	62,165 12,590	62,165 13,971
Series 2019 A, Premium, net of debt issuance costs	08/01/27	5.0%	49,600 9,973	- -
Variable Rate				
Series 2008 A, Debt issuance costs	12/01/37	Variable	120,820 (307)	120,820 (324)
Series 2012 B, Debt issuance costs	02/01/33	Variable	50,000 (102)	50,000 (109)
Series 2019 B, Debt issuance costs	02/01/42	Variable	60,140 (138)	- -
Pennsylvania Higher Education Facilities Authority, Fixed University Revenue Bonds, Series 2009 Premium, net of debt issuance costs	02/01/19	3.5-5.0%	- -	120,000 1,407
Collaborative Innovation Center Tax Increment Financing	11/01/22	8.5%	1,380	1,695
Collaborative Innovation Center Mortgage Obligation	03/01/25	6.78%	13,396	14,150
Taxable Senior Notes	02/01/47	3.6%	70,000	70,000
Total debt obligations			\$540,818	\$546,290

The university borrows its tax-exempt debt through public conduit issuers. As of June 30, 2019, all of Carnegie Mellon's tax-exempt debt was issued by the Allegheny County Higher Education Building Authority ("ACHEBA"). The debt is a general unsecured obligation of the university. Although ACHEBA is the issuer, the university is responsible for the debt service of these bonds.

Series 2019 bonds were issued in January 2019 to redeem then outstanding Series 2009 bonds and are comprised of 1) \$49.6 million Series 2019 A bonds, bearing interest at a fixed rate of 5.0% and maturing on August 1, 2027. The 2019 A bonds include an original issue premium of \$10.7 million and; 2) \$60.1 million 2019 B bonds, bearing interest at a variable rate indexed to one-month LIBOR, subject to a mandatory put on February 1, 2024, and maturing on February 1, 2042. The 2019 B bonds may be converted to another mode bearing interest at variable or fixed rates at the direction of the university.

The university maintains a taxable commercial paper program which allows the university to issue in aggregate up to \$70.0 million in commercial paper notes. There were no commercial paper notes outstanding at June 30, 2019 or 2018.

The university has a \$50.0 million unsecured line of credit agreement that expires October 19, 2020. The university did not draw on the line of credit during the years ended June 30, 2019 and 2018. No advances were outstanding at June 30, 2019. Advances accrue at a variable rate based on one-month LIBOR.

Interest Expense

Cash paid for interest on financing obligations for the fiscal years ended June 30, 2019 and 2018, totaled \$20.1 million and \$18.5 million, respectively. The university utilizes interest rate swaps to synthetically adjust its exposure to variable rates. Including the swap expense, cash paid for interest for the fiscal years ended June 30, 2019 and 2018, was \$23.5 million and \$22.8 million, respectively. For the fiscal year ended June 30, 2019, interest expense of \$1.1 million was capitalized related to construction in progress.

Aggregate Maturities

Aggregate maturities of bonds and other debt instruments for each of the next five years ending June 30, excluding commercial paper, are as follows (*dollars in thousands*):

2020	\$1,207
2021	11,303
2022	1,404
2023	1,359
2024	33,954
Thereafter	463,329
Total	\$512,556

Debt obligations are reflected in the table above based on stated final maturity dates. The outstanding Series 2008 A bonds are variable rate demand bonds which are subject to daily optional tender by the bondholders. In the event that a bondholder tenders these variable rate demand bonds, the purchase price will be repaid from the remarketing of the bonds to a new investor. However, in the event that none of the bonds could be remarketed, Carnegie Mellon has entered into a Standby Bond Purchase Agreement ("SBPA") with a financial institution that will purchase the Series 2008 A Bonds at the amount of the bonds outstanding plus related interest. The bonds would then become bank bonds, payable to the liquidity provider per the terms of the agreement. This SBPA was renewed in December 2017 for a three year term ending January 12, 2021.

12. NET ASSETS

Net Assets consists of gifts and other unexpended revenues and gains and are available for the following purposes as of June 30, 2019 (*dollars in thousands*):

2019	Without Donor Restrictions	With Donor Restrictions	Total
Board-designated endowment funds	\$438,497	\$-	\$438,497
Reserves for working capital and plant – long-term	362,826	-	362,826
Donor-restricted endowment funds	-	874,519	874,519
Unexpended endowment gains	-	689,283	689,283
Capital and other designations	760,697	153,722	914,419
Pledges and assets held in trust by others	-	95,805	95,805
Split interest agreements and other donor designations	-	11,469	11,469
Term endowments	-	7,213	7,213
Loan funds	2,470	1,767	4,237
Total Net Assets	\$1,564,490	\$1,833,778	\$3,398,268

Net Assets consists of gifts and other unexpended revenues and gains and are available for the following purposes as of June 30, 2018 (*dollars in thousands*):

2018	Without Donor Restrictions	With Donor Restrictions	Total
Board-designated endowment funds	\$439,652	\$-	\$439,652
Reserves for working capital and plant – long-term	333,276	-	333,276
Donor-restricted endowment funds	-	816,013	816,013
Unexpended endowment gains	-	631,167	631,167
Capital and other designations	689,135	145,570	834,705
Pledges and assets held in trust by others	-	115,959	115,959
Split interest agreements and other donor designations	-	11,115	11,115
Term endowments	-	4,860	4,860
Loan funds	2,470	1,553	4,023
Total Net Assets	\$1,464,533	\$1,726,237	\$3,190,770

13. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Carnegie Mellon has entered into the following interest rate swap agreements to adjust the exposure to variable interest rates on long-term debt (*dollars in thousands*):

Swap Agreement	Effective Date	Notional Amount	Interest Rate Paid	Interest Received	Term (in years)	Termination Date	Counterparty Cancellation Option
Sep 2004	Oct 2004	\$ 50,000	3.0 %	67% of 1M LIBOR	15	Oct 2019	Oct 2014*
Apr 2006	Dec 2006	\$ 100,000	3.4 %	67% of 1M LIBOR	22	Dec 2028	Dec 2016
May 2007	Jun 2007	\$ 5,125	3.8 %	67% of 1M LIBOR	20	Mar 2027	N/A
May 2007	Mar 2012	\$ 40,325	3.8 %	67% of 1M LIBOR	20	Mar 2032	N/A
Feb 2012	Mar 2012	\$ 38,000	SIFMA	1.92%	12	Mar 2024	N/A

* Counterparty cancellation option is monthly after October 1, 2014.

The following fair values of the swap agreements were recorded as accounts payable and other liabilities and other assets in the Consolidated Statements of Financial Position for the years ended June 30, 2019 and 2018 (*dollars in thousands*):

Date of Swap Agreement	Derivatives Reported as Assets/(Liabilities)	
	2019	2018
Sep 2004	\$(186)	\$(831)
Apr 2006	(18,713)	(13,417)
May 2007	(946)	(739)
May 2007	(9,634)	(7,313)
Feb 2012	1,293	(258)
Total	\$(28,186)	\$(22,558)

The fair value of these agreements is estimated to be an amount that Carnegie Mellon would receive (receivable) or pay (liability) to voluntarily terminate the agreement. Based upon the university's credit rating, the university is required to post collateral equal to the amount by which the liability value exceeds \$30.0 million for each of its counterparties. No collateral was required as of June 30, 2019 and June 30, 2018.

The following interest expense and mark to market gains/(losses) were recorded as other sources under nonoperating activities in the consolidated statements of activities for the years ended June 30, 2019 and 2018 (dollars in thousands):

Date of Swap Agreement	Interest (Expense)		Fair Value (Loss) Gain		Total (Loss) Gain	
	2019	2018	2019	2018	2019	2018
Interest rate swaps:						
Sep 2004	\$(715)	\$(998)	\$645	\$1,347	\$(70)	\$349
Apr 2006	(1,833)	(2,397)	(5,296)	5,515	(7,129)	3,118
May 2007	(113)	(141)	(207)	286	(320)	145
May 2007	(885)	(1,110)	(2,321)	2,427	(3,206)	1,317
Feb 2012	138	299	1,551	(988)	1,689	(689)
Total	\$(3,408)	\$(4,347)	\$(5,628)	\$8,587	\$(9,036)	\$4,240

Carnegie Mellon utilizes energy forward contracts, which are physically settled, to hedge against the future changes in the cost of electricity and natural gas. These contracts limit Carnegie Mellon's exposure to higher rates; however, they could also limit the benefit of decreases in rates. These contracts qualify for normal purchases and sales exemptions and are not required to be recognized on the statements of financial position at fair value because Carnegie Mellon takes physical delivery of the electricity and natural gas and the gains and losses are already recognized in the cost.

14. EXPENSES BY FUNCTIONAL CATEGORY

Operating expenses by functional category for the year ended June 30, 2019, are as follows (dollars in thousands):

2019	Instruction & Dept Research	Sponsored Research	Admin & Instl Support	Academic Support	Student Services	Auxiliary	Total
Salaries	\$318,405	\$180,773	\$75,750	\$79,070	\$28,709	\$3,206	\$685,913
Benefits	65,910	27,017	25,576	21,042	7,754	757	148,056
Other Operating Expenses	17,236	149,680	45,540	55,277	20,227	41,045	329,005
Depreciation	26,380	17,718	4,994	8,963	7,663	7,021	72,739
Interest	4,812	3,232	911	1,635	1,398	2,849	14,837
Total	\$432,743	\$378,420	\$152,771	\$165,987	\$65,751	\$54,878	\$1,250,550

Operating expenses by functional category for the year ended June 30, 2018, are as follows (*dollars in thousands*):

2018	Instruction & Dept Research	Sponsored Research	Admin & Instl Support	Academic Support	Student Services	Auxiliary	Total
Salaries	\$306,755	\$167,826	\$71,781	\$76,756	\$26,794	\$3,231	\$653,143
Benefits	64,586	26,646	25,042	20,509	7,346	754	144,883
Other Operating Expenses	11,070	139,803	52,584	49,206	19,480	39,065	311,208
Depreciation	23,950	17,685	4,324	7,787	7,208	6,406	67,360
Interest	4,175	3,083	754	1,357	1,256	2,745	13,370
Total	\$410,536	\$355,043	\$154,485	\$155,615	\$62,084	\$52,201	\$1,189,964

Natural expenses attributable to more than one functional expense category are allocated using a variety of cost allocations such as square footage, time and effort.

Total fundraising expense of \$34.0 million and \$27.8 million (\$31.4 million and \$24.4 million in administration and institutional support) is included above for the years ended June 30, 2019 and 2018, respectively.

15. COMMITMENTS AND CONTINGENCIES

Carnegie Mellon is a defendant in a number of legal actions seeking damages and other relief. While the final outcome of each action cannot be determined at this time, management records a reserve in operating activities for those cases in which the loss is both probable and estimable. For the other legal actions that are not reserved, legal counsel and management are of the opinion that the liability, if any, will not have a material effect on Carnegie Mellon's consolidated financial statements.

Carnegie Mellon receives significant financial assistance from the federal government, including the sponsorship of federal research projects. Research grants and contracts normally provide for the recovery of direct and indirect costs. Entitlement to the recovery of the applicable direct and related indirect costs is generally conditional upon compliance with the terms and conditions of the grant agreements and applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all grants and Carnegie Mellon's indirect cost rate are subject to financial and compliance reviews and audits by the grantors. In management's opinion, the likelihood of an adverse material outcome upon its financial position from those reviews and audits is remote.

At June 30, 2019 and 2018, Carnegie Mellon had contractual obligations of approximately \$39.6 million and \$32.1 million, respectively, in connection with major construction projects.

16. RETIREMENT PLANS AND OTHER POST-EMPLOYMENT BENEFITS

Carnegie Mellon sponsors two defined contribution retirement plans for eligible faculty and staff, healthcare plans for retirees and participates in a multi-employer pension fund for union staff. Retirement plan expense for the years ended June 30, 2019 and 2018, totaled \$40.1 million and \$38.3 million, respectively. Carnegie Mellon contributed \$0.9 million and \$0.8 million to the Central Pension Fund of the International Union of Operating Engineers, a multi-employer plan in fiscal years 2019 and 2018, respectively. See below for a discussion of the assets held in trust to fund post-retirement healthcare and other post-employment benefits.

Carnegie Mellon provides certain healthcare benefits for eligible retired employees. The liability for post-retirement benefit obligations is recorded in the Consolidated Statements of Financial Position in accounts payable and other liabilities. Cumulative amounts recognized within post-retirement benefit obligations and not yet recognized as components of net periodic benefit cost consist of the following at June 30 (*dollars in thousands*):

	2019	2018
Net actuarial gain	\$(14,015)	\$(11,107)
Total	\$(14,015)	\$(11,107)

Net periodic benefit costs recognized in the consolidated statements of activities totaled \$1.6 million and \$2.2 million for the years ended June 30, 2019 and 2018, respectively. Other gains in benefit obligations recognized in non-operating activities totaled \$2.9 million and \$4.8 million for the years ended June 30, 2019 and 2018, respectively.

During fiscal year 2020, amortization of \$0.9 million actuarial gain is expected to be recognized as components of net periodic benefit cost. The discount rate used in determining the net periodic benefit cost was 4.2% and 3.9% for the years ended June 30, 2019 and 2018, respectively.

The reconciliation of the accumulated benefit obligation and funded status at June 30 is as follows (*dollars in thousands*):

	2019	2018
Benefit obligation, beginning of year	\$22,190	\$25,076
Service cost	1,211	1,409
Interest cost	976	1,026
Assumption changes and actuarial loss/(gain)	(3,533)	(5,080)
Benefit payments	(250)	(241)
Benefit obligation, end of year	\$20,594	\$22,190
Fair value of plans' assets	-	-
Funded status	\$20,594	\$22,190

The assumed discount rate used for calculating the benefit obligation for the fiscal years ended June 30, 2019 and 2018, was 3.7% and 4.2%, respectively. An annual rate of increase in the per capita cost of covered healthcare benefits for the fiscal years ended June 30, 2019 and 2018, of 6.8% and 7.0%, respectively, was assumed. For the fiscal years ended June 30, 2019 and 2018, the rate was assumed to decrease gradually to 5.0% by 2026, and remain at 5.0% thereafter.

Expected benefits to be paid in future fiscal years are as follows (*dollars in thousands*):

June 30	Retiree Contributions	Employer Payments	Total Expected Benefit Payments
2020	\$599	\$314	\$913
2021	896	458	1,354
2022	1,204	611	1,815
2023	1,511	750	2,261
2024	1,792	850	2,642
2025–2029	12,677	5,088	17,765

In conjunction with an agreement made with the federal government, Carnegie Mellon has established a separate trust, which is available to general creditors only in the event of insolvency. Assets in the trust to fund post-retirement healthcare and other post-employment benefits are \$22.3 million and \$21.9 million for June 30, 2019 and 2018, respectively. These assets are reflected as investments in the accompanying Consolidated Statements of Financial Position.

17. RELATED PARTY TRANSACTIONS

Sponsored projects revenue for fiscal years 2019 and 2018 includes \$3.4 million and \$3.3 million, respectively, received from MPC, a nonprofit related entity of Carnegie Mellon and the University of Pittsburgh. The revenue primarily represents federal funding from various contracts received by MPC, for which MPC has subcontracted to Carnegie Mellon for support of a supercomputer and related activities.

Carnegie Mellon is an owner as a tenant in common of the Bellefield Boiler Plant (“Bellefield”) for the purpose of sharing of the steam produced by the plant. Bellefield operates such that all of the operating costs of the plant are passed to the owners in the form of steam prices. Carnegie Mellon is obligated for a percent of liabilities based upon use of steam produced by Bellefield. As of June 30, 2019 and 2018, Carnegie Mellon’s percentage obligation was 15.2%. Included in other assets at June 30, 2019 and 2018, are \$0.6 million and \$0.5 million of advances, respectively, resulting primarily from operating surpluses. Included in occupancy and related expenses is \$3.5 million and \$3.6 million for steam costs paid to Bellefield for the years ended June 30, 2019 and 2018, respectively.

Carnegie Mellon is one of 15 designated institutions of higher learning and other charitable organizations named as beneficiaries of The Dietrich Foundation (the “Foundation”) created by William S. Dietrich II pursuant to an Amended and Restated Declaration of Trust dated August 23, 2011. The Foundation came into existence as a Pennsylvania charitable trust on October 6, 2011, and was granted exemption from federal income tax under section 501(c)(3) of the Internal Revenue Code, specifically as a Type I charitable supporting organization under section 509(a)(3). The Foundation’s primary mission is to provide ongoing and increasing financial support to a number of educational institutions, largely in the greater Pittsburgh area, including Carnegie Mellon. The Foundation is governed by a board of nine (9) trustees, of which two (2) are appointed by Carnegie Mellon.

The Foundation is expected to make annual distributions that will be allocated among the pre-specified supported organizations. As of June 30, 2019, Carnegie Mellon’s distribution share remained at 53.5%.

The distributions to Carnegie Mellon have been recorded as contribution revenue with donor restrictions as received and held in endowment net assets with donor restrictions designated as Dietrich Foundation Endowment Funds. The endowed funds will be managed in accordance with Carnegie Mellon’s generally applicable investment

and disbursement policies in effect for its other permanently restricted endowments. Distributions made from the endowed funds will be used for the purposes authorized by the Foundation's trustees. Distributions of \$14.3 million and \$12.8 million were received in fiscal years 2019 and 2018, respectively.

18. GUARANTEES

In the ordinary course of business, Carnegie Mellon engages in transactions with third parties involving the provision of goods and/or services. The contracts for these transactions may require Carnegie Mellon to indemnify the third party or others under certain circumstances. The terms of indemnity vary from contract to contract. The amount of the liability associated with such indemnification obligations, if any, is not expected to be material.

Carnegie Mellon has contractually agreed to indemnify its trustees and officers, and in some cases its employees and agents, against certain liabilities incurred as a result of their service on behalf of or at the request of Carnegie Mellon, and also advances, on behalf of those indemnified, the costs incurred by them in defending certain claims. Carnegie Mellon carries insurance that limits its exposure for this indemnification obligation. The amount of the liability associated with any known pending or threatened claims covered by this indemnification obligation, if any, is not expected to be material.

Carnegie Mellon has contractually agreed to indemnify specified parties in connection with bond offerings in which it has been involved. The indemnification obligation covers losses, claims, damages, liabilities and other expenses incurred by the underwriters as a result of any untrue statements or material omissions made by Carnegie Mellon in connection with the bond offerings. The amount of the liability associated with any known pending or threatened claims covered by this indemnification obligation, if any, is not expected to be material.

19. SUBSEQUENT EVENTS

The university has performed an evaluation of subsequent events through October 25, 2019, the date on which the consolidated financial statements were issued.

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