





Carnegie Mellon University

20

FINANCIAL REPORT

Carnegie Mellon is a place where the best minds collaborate across boundaries, borders and disciplines to solve the world's most pressing and perplexing problems. That passion and curiosity have never been more important than they are today as we navigate the everevolving landscape that comes with a world health crisis, a defining cultural movement and widespread economic decline. Fortunately, challenges have never deterred us. They only serve to embolden us, to incite new ideas and to take the unconventional risks that yield innovative results, setting what we once thought unobtainable squarely within our reach.

CONTENTS

- 4 Facts and Figures
- 5 Independent Auditors' Report and **Consolidated Financial Statements**
- 6 Independent Auditors' Report
- 7 Consolidated Statements of Financial Position
- 8 Consolidated Statements of Activities
- Consolidated Statements of Cash Flows 10
- Notes to Consolidated Financial Statements 11
- 38 2019-2020 Board of Trustees





Team name is "The Tartans"; NCAA Division III classification; founding member of the University Athletic Association; 19 varsity sports teams; 46 clubs and intramural sports.

FACTS AND

FIGURES

INNOVATION

CMU is a global leader bringing groundbreaking ideas to market and creating successful startup businesses. Our award-winning faculty are renowned for working closely with students to solve major scientific, technological and societal challenges. We put a strong emphasis on creating things from art to robots. We have become a model for economic development in forming partnerships with companies such as Uber, Google and Disney. Our students are recruited by some of the world's most innovative companies.

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 SIZE

154.7-acre Pittsburgh campus; 124 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.

GLOBAL PRESENCE

Carnegie Mellon is a global university. Our students, alumni and faculty hail from almost every country. With more than a dozen degree-granting locations, and more than 20 research partnerships, Carnegie Mellon has an international identity, including campuses in Doha, Qatar and Silicon Valley, California.

For more information about Carnegie Mellon, please contact:

Office of Media Relations Carnegie Mellon University 5000 Forbes Avenue Pittsburgh, PA 15213-3890 Phone: 412-268-2900 cmu.edu cmu.edu/news

TYPE OF UNIVERSITY

A private, global research university granting about 5,030 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 STUDENTS

6,929 undergraduates, 5,648 master's and 2,063 doctoral students and 159 non-degree or certificate-only students

NUMBER OF EMPLOYEES

6,304 total employees; 747 tenure-stream faculty; 736 non-tenure-stream faculty; 4,821 staff

NUMBER OF ACTIVE ALUMNI

109,945+ alumni

CARNEGIE MELLON FACULTY AND ALUMNI AWARD HIGHLIGHTS

- 20 Nobel Prize Laureates
- · 60 Members, National Academy of Engineering
- 20 Members, National Academy of Sciences
- 6 Members, National Academy of Medicine
- 131 Emmy Award Winners
- 50 Tony Award Winners
- 10 Academy Award Winners
- · 13 Turing Awards

AUDITORS'
REPORT &
CONSOLIDATED
FINANCIAL
STATEMENTS





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 (the University), which comprise the consolidated statements of financial position as of June 30, 2020 and 2019, the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of 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 audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 as of June 30, 2020 and 2019, and the changes in its net assets and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in note 1 to the consolidated financial statements, in 2020, the University adopted Accounting Standards Update No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash.* Our opinion is not modified with respect to this matter.



Pittsburgh, Pennsylvania October 13, 2020

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

June 30, 2020 and 2019 (dollars in thousands)

	2020	2019
Assets	2020	2019
Cash and cash equivalents (Note 2)	\$622,309	\$514,765
Accrued interest and dividends	464	1,822
Accounts receivable, net (<u>Note 4</u>)	70,856	75,133
Pledges receivable, net (Note 5)	131,291	85,103
Student loans receivable, net (<u>Note 4</u>)	10,530	14,531
Investments (<u>Note 6</u> and <u>Note 8</u>)	2,585,809	2,521,844
Assets held in trust by others (Note 8)	10,605	10,702
Unexpended bond proceeds (Note 11)	53,142	-
Prepaid expenses and other assets (Note 2)	50,443	47,717
Right-of-use assets (Note 9)	78,937	74,860
Land, buildings and equipment, net (Note 10)	1,123,333	1,066,641
Total assets	\$4,737,719	\$4,413,118
Liabilities		
Accounts payable and other liabilities (Note 2)	\$221,429	\$220,926
Deferred revenue (Note 4)	153,015	149,834
Federal student loan funds (<u>Note 2</u>)	11,021	15,115
Present value of split interest agreement obligations (Note 2)	15,870	14,983
Lease obligations (<u>Note 9</u>)	77,885	73,174
Debt obligations (Note 11)	665,735	540,818
Total liabilities	\$1,144,955	\$1,014,850
Net assets		
Without donor restrictions (Note 12)	\$1,624,117	\$1,564,490
With donor restrictions (Note 12)	1,968,647	1,833,778
Total net assets	\$3,592,764	\$3,398,268
Total liabilities and net assets	\$4,737,719	\$4,413,118

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

CONSOLIDATED STATEMENT OF ACTIVITIES

Year ended June 30, 2020 (dollars in thousands)

	Without Donor Restrictions	With Donor Restrictions	Total
Revenue and other support			
Tuition and other educational fees revenue, net of financial aid	\$591,078	\$ -	\$591,078
Sponsored projects revenue (Note 4)			
Software Engineering Institute	141,683	-	141,683
Advanced Robotics for Manufacturing Institute	16,836	-	16,836
Other grants and contracts	287,461	-	287,461
Investment income	61,165	10,456	71,621
Contributions revenue (<u>Note 5</u>)	24,334	169,902	194,236
Auxiliary services revenue	54,082	-	54,082
Other revenue sources (<u>Note 2</u>)	84,997	410	85,407
Net assets released from donor restrictions	79,623	(79,623)	-
Total revenue and other support	\$1,341,259	\$101,145	\$1,442,404
Expenses			
Salaries	\$722,345	\$ -	\$722,345
Benefits	154,292	-	154,292
Other operating expenses	327,692	-	327,692
Depreciation and amortization	76,778	-	76,778
Interest expense	12,467	-	12,467
Total expenses	\$1,293,574	\$ -	\$1,293,574
Increase in net assets before nonoperating activities	\$47,685	\$101,145	\$148,830
Nonoperating activities			
Net realized/unrealized gains on investments (<u>Note 6</u>)	\$3,388	\$65,366	\$68,754
Other (Note 2)	(14,338)	(5,358)	(19,696)
Post-retirement plan changes other than net periodic benefit costs (<i>Note 16</i>)	(3,392)	-	(3,392)
Net assets released from restrictions for capital	26,284	(26,284)	-
Total nonoperating activities	\$11,942	\$33,724	\$45,666
Increase in net assets	\$59,627	\$134,869	\$194,496
Net assets			
Beginning of year	\$1,564,490	\$1,833,778	\$3,398,268
End of year	\$1,624,117	\$1,968,647	\$3,592,764

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	Tota
Revenue and other support			
Tuition and other educational fees revenue, net of financial aid	\$561,835	\$ -	\$561,835
Sponsored projects revenue (<u>Note 4</u>)			
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 (<u>Note 5</u>)	26,283	116,522	142,805
Auxiliary services revenue	68,205	-	68,205
Other revenue sources (<u>Note 2</u>)	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 (<u>Note 6</u>)	\$19,171	\$93,532	\$112,703
Other (Note 2)	(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 STATEMENTS OF CASH FLOWS

Year ended June 30, 2020 and 2019 (dollars in thousands)

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

Cash flows from operating activities	2020	2019
Increase in net assets	\$194,496	\$207,498
Adjustments to reconcile change in net assets to net cash provided by operating activities:	4 . 3 ., . 3 0	4207,130
Realized and unrealized (gains) on investments, net	(108,977)	(147,426)
Depreciation and amortization	76,778	72,739
Amortization of right-of-use assets	22,745	20,268
Amortization of bond premium and bond issuance	,	,
costs, net	(4,394)	(4,411)
Gifts in kind	(1,296)	(530)
Loss on asset dispositions	294	78
Contributions for land, building, and equipment and endowment	(77,809)	(75,626)
Provision for bad debt and other allowances	3,657	14,131
Assets held in trust by others	(149)	(57)
(Increase)/Decrease in assets:		
Accrued interest and dividends	1,358	(301)
Accounts receivable, net	3,789	(12,230)
Pledges receivable, net	(49,357)	3,978
Prepaid expenses and other assets	(4,385)	(3,661)
Increase/(Decrease) in liabilities:		
Accounts payable and other liabilities	19,465	13,906
Operating lease obligations	(20,681)	(20,240)
Deferred revenue	3,181	45,055
Present value of split interest agreements payable	887	(2,045)
Net cash provided by operating activities	\$59,602	\$111,126
Cash flows from investing activities		
Proceeds from sale and maturity of investments	\$2,273,851	\$1,362,454
Purchases of investments	(2,228,593)	(1,351,466)
Purchases of land, buildings and equipment	(151,201)	(166,843)
Federal loan programs	(4,094)	287
Disbursements of loans to students	(166)	(656)
Repayments of loans from students	4,167	3,589
Net cash used for investing activities	\$(106,036)	\$(152,635)
Cook flows from financing activities		
Cash flows from financing activities Proceeds from issuance of indebtedness	¢120 906	\$120,000
Repayments of debt obligations	\$130,806 (1,207)	\$120,000 (120,633)
Payment of debt issuance costs	(288)	(428)
	(200)	(420)
Contributions for land, building, and equipment and endowment	77,809	76,047
Net cash provided by financing activities	\$207,120	\$74,986
Net increase in cash and cash equivalents	\$160,686	\$33,477
Cash and cash equivalents at beginning of year	514,765	481,288
Cash and cash equivalents at end of year	\$675,451	\$514,765
Cash and cash equivalents	\$622,309	\$514,765
Unexpended bond proceeds	53,142	=
Total cash, cash equivalents, and unexpended bond proceeds	\$675,451	\$514,765
	•	
Non-cash transactions:	1 200	F20
Non-cash gift in kind	1,296	530
Decrease/ADCrease in accounts bayable and accrued	(18,781)	5,813
liabilities for land, building and equipment	(10,701)	
(Decrease)/Increase in accounts payable and accrued liabilities for land, building and equipment Non-cash stock contributions	1,027	77
		77

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 14,800 students and granted approximately 5,030 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, 66% of master's and 56% 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 ("SEI"), 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*).

The SEI is a federally funded research and development center (FFRDC) sponsored by the U.S. Department of Defense ("DoD") and operated by the university. The most recent contract provided a five-year initial term ending in June 2020 plus a five-year renewal option, which was exercised in July 2020.

In January 2017, the DoD 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 revenues, 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.

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. Cash equivalents held within investments are held for long-term purposes and not considered cash equivalents for purposes of the statements of cash flow.

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 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 <u>Note 7</u>). 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.

Unexpended Bond Proceeds

Unexpended bond proceeds in the amount of \$53.1 million as of June 30, 2020, represent cash proceeds from the issuance of Series 2020 A bonds in February 2020 that are held by a trustee under the bond indenture for capital expenditures. See *Note 11* for more information.

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 Lease Obligations

Operating lease right-of-use ("ROU") assets and operating lease obligations 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 obligations 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. During the year ended June 30, 2020, \$3.9 million was repaid to the federal government. The amounts due from the students are reported in the Consolidated Statements of Financial Position as a component of student loans receivable, net.

Present Value of Split Interest Agreements Obligations

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 1.0% 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, contributions for programs, revenues from auxiliary services and other sources, and net assets released from donor restrictions. Operating expenses are reported by natural classification.

Revenue Recognition from Contracts with Customers

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. \$26.3 million and \$26.0 million of capital contributions were released from donor restrictions during fiscal years 2020 and 2019, 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, 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, 2020 and 2019.

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, 2016.

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 November 2016 the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash.* ASU 2016-18 addresses current guidance on the presentation of restricted cash within the Consolidated Statements of Cash Flows. The standard is effective for fiscal years beginning after December 15, 2018, and should be applied on a retrospective basis to each period presented. The university adopted this standard on July 1, 2019. The university did not have any restricted cash for the year ended June 30, 2019. Restricted cash is included within unexpended bond proceeds on the 2020 Consolidated Statements of Financial Position.

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, 2020 and 2019, financial assets available within one year for general expenditure are as follows (dollars in thousands):

	2020	2019
Cash and cash equivalents	\$622,309	\$514,765
Accounts receivable, net	70,856	75,133
Pledge receivables donor restricted for operations	9,107	9,894
Short-term working capital investments	57,418	113,416
Subsequent year's approved endowment distributions	98,485	91,367
Subsequent year's approved long-term working capital distributions	9,857	7,896
Total financial assets available within one year	\$868,032	\$812,471

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

Tuition Revenue: Tuition revenue is recognized within the fiscal year in which educational services are provided. 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 \$383.5 million and \$363.5 million for the years ended June 30, 2020 and 2019, respectively. Tuition, at published prices, from graduate students was \$339.1 million and \$327.9 million for the years ended June 30, 2020 and 2019, respectively. Other education related revenue was \$39.2 million and \$35.6 million for the years ended June 30, 2020 and 2019, respectively. The transaction price for tuition revenue may be reduced directly by discounts or scholarships from the amount of the standard rates charged. These discounts are considered financial aid and were \$170.7 million and \$165.2 million for the years ended June 30, 2020 and 2019, 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.

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: 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.

Amounts recognized as sponsored projects revenue are based upon a signed contract for direct costs along with indirect cost recovery. 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.

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.

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, parking, retail and other external services. Revenue is recognized as the services are provided based upon published prices and rates.

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 as services are rendered or over the term of the contract and invoiced based on contractual terms.

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. 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, 2020 approximate historical annual sponsored program activity.

Accounts receivable at June 30, 2020 and 2019, consist of the following (dollars in thousands):

	2020	2019
Sponsored project accounts receivable		
Software Engineering Institute	\$282	\$389
Other grants and contracts	52,188	53,881
Total sponsored projects accounts receivable	\$52,470	\$54,270
Student accounts	5,546	4,317
Other	14,631	18,333
Total student accounts and other	\$20,177	\$22,650
Allowance for doubtful accounts	(1,791)	(1,787)
Net accounts receivable	\$70,856	\$75,133

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, 2020 and 2019 consists of the following (dollars in thousands):

	2020	2019
Sponsored projects deferred revenue		
Software Engineering Institute	\$7,730	\$10,153
ARM Institute	6,319	8,222
Other contracts and conditional grants	54,712	53,611
Total sponsored projects deferred revenue	\$68,761	\$71,986
Student accounts	15,399	18,474
Other	68,855	59,374
Total deferred revenue	\$153,015	\$149,834

Student Loans Receivable

Net student loans receivable of approximately \$10.5 million and \$14.5 million, as of June 30, 2020 and 2019, 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, 2020 and 2019.

5. CONTRIBUTIONS REVENUE AND PLEDGES RECEIVABLE

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 \$40.1 million and \$36.3 million as of June 30, 2020 and 2019 of conditional contributions outstanding related to capital projects. In addition, the university had approximately \$12.0 million and \$7.0 million, related to conditional contributions as of June 30, 2020 and 2019, 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, 2020 and 2019 are due as follows (dollars in thousands):

	2020	2019
In one year or less	\$24,715	\$37,461
Between one year and five years	60,469	56,385
More than five years	74,004	17,529
Pledges receivable, gross	\$159,188	\$111,375
Unamortized discount	(11,489)	(12,309)
Allowance for unfulfilled pledges	(16,408)	(13,963)
Pledges receivable, net of discount and allowance	\$131,291	\$85,103

6. INVESTMENTS

Investments by major category at June 30, 2020 and 2019, are as follows (dollars in thousands):

	2020	2019
Cash equivalents	\$75,682	\$56,225
Short-term fixed income securities	24,356	81,362
Fixed income securities	300,214	291,375
Equity securities	897,244	923,592
Alternative investment partnerships	1,288,313	1,169,290

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

	2020	2019
Endowment	\$2,065,293	\$1,983,575
Reserves for working capital and plant – short-term	57,418	113,416
Reserves for working capital and plant – long-term	393,394	362,852
Other	69,704	62,001

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, 2020 included approximately 52.3% domestic equities and 47.7% international and emerging market equities. Equity securities at June 30, 2019 included approximately 49.5% domestic equities and 50.5% 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 \$40.2 million and \$34.7 million for the years ended June 30, 2020 and 2019, respectively. The accumulated gains are reclassified from net realized gains to investment income.

Certain of Carnegie Mellon's outside investment managers are authorized to 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, 2020 and 2019, Carnegie Mellon had unfunded commitments of approximately \$677.5 million and \$646.2 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 investments measured at NAV are less liquid than Carnegie Mellon's other investments. The following tables summarize these investments by strategy type at June 30, 2020 and 2019 (dollars in thousands):

	Number	2020 Fair	Number	2019 Fair
	of Funds	Value	of Funds	Value
Commingled funds	6	\$246,017	6	\$311,029
Hedge funds	15	159,230	18	209,358
Natural resources	21	119,227	22	131,340
Private equity (buyout) funds	60	180,573	57	156,682
Real estate	21	110,998	23	96,424
Venture capital	167	690,531	150	548,319
Other	15	27,754	15	27,168
Total	305	\$1,534,330	291	\$1,480,320

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 2–180 days prior written notice, potentially limiting the university's ability to respond quickly to changes in market conditions. All commingled funds have passed the initial lock-up period as of June 30, 2020.

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, 2020 and 2019 (dollars in thousands):

2020	Without Donor Restrictions	With Donor Restrictions	Total
Donor-restricted endowment funds	\$ -	\$1,644,699	\$1,644,699
Board-designated funds	424,161	-	424,161
Total funds	\$424,161	\$1,644,699	\$2,068,860
2019	Without Donor Restrictions	With Donor Restrictions	Total
2019 Donor-restricted endowment funds			Total \$1,563,803
	Restrictions	Restrictions	

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, 2020 and 2019 (dollars in thousands):

2020	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, beginning of year	\$438,497	\$1,563,803	\$2,002,300
Gifts and other additions	21	55,945	55,966
Investment income			
Interest and dividends	7,491	9,098	16,589
Net realized gains on sale of securities	57,191	203,958	261,149
Net unrealized losses	(37,511)	(138,017)	(175,528)
Total investment income	\$27,171	\$75,039	\$102,210
Income distributed			
Cash and accrued interest and dividends	(7,491)	(9,098)	(16,589)
Accumulated realized investment gains	(34,037)	(40,990)	(75,027)
Total income distributed	(41,528)	(50,088)	(91,616)
Endowment net assets, end of year	\$424,161	\$1,644,699	\$2,068,860 ¹

⁽¹⁾ Includes \$3.6 million of endowment gifts and other transfers pending investment and other accruals.

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	\$2,002,300 ¹	

⁽¹⁾ Includes \$18.7 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 ("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. On July 23, 2020, Pennsylvania 2020 Act 71 ("Act 71") was signed into law. Act 71 modifies Act 141 in that it permits the university's Board of Trustees to spend up to 10% during calendar years 2020, 2021 and 2022, or for the corporation's fiscal years that end during those calendar years. 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 2020 and 2019, 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 2020 and 2019 divided by the June 30 endowment market values for the those fiscal years) was 4.4% for June 30, 2020 and 4.3% for June 30, 2019.

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 as of June 30, 2020 and 2019 by caption in the Consolidated Statements of Financial Position by the valuation hierarchy defined above (dollars in thousands).

2020	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Investments				
Cash equivalents ^a	\$28,626	\$47,056	\$ -	\$75,682
Equity Investments				
U.S. – equity funds and common stocks ^a	464,294	-	6,932	471,226
Mutual funds – international developed	55,903	-	-	55,903
Mutual funds – international emerging	124,098	-	-	124,098
Short-term fixed income	-	24,356	-	24,356
Fixed income funds and securities ^a	300,214	-	-	300,214
	\$973,135	\$71,412	\$6,932	\$1,051,479
Investments measured under the NAV practical expedient ^b				\$1,534,330
Total investments				\$2,585,809
Assets held in trust by others				
Beneficial interests held by third party	\$ -	\$ -	\$2,413	\$2,413
Perpetual trusts held by third party	-	-	8,192	8,192
Total assets held in trust by others	-	-	10,605	10,605
Unexpended bond proceeds	\$53,142	\$ -	\$ -	\$53,142
Prepaid expenses and other assets				
Deferred compenstaion plan assets	\$13,943	\$6,159	\$3,074	\$23,176
Interest rate swap receivable	-	2,382	-	2,382
Total prepaid expenses and other assets	\$13,943	\$8,541	\$3,074	\$25,558
Total assets at fair value	\$1,040,220	\$79,953	\$20,611	\$2,675,114
Liabilities				
Interest rate swaps payable	-	39,085	-	39,085
Total liabilities at fair value	\$ -	\$39,085	\$ -	\$39,085

There were no significant transfers between Level 1 and Level 2 for the fiscal year ended 2020.

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

⁽b) 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 \$246.0 million, and hedge and private equity funds of \$1,288.3 million as of June 30, 2020.

2019	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
 Investments				
Cash equivalents ^a	\$33,543	\$22,682	\$ -	\$56,225
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	-	81,362	-	81,362
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 ^b				\$1,480,320
Total investments				\$2,521,844
Assets held in trust by others				
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
Unexpended bond proceeds	\$ -	\$ -	\$ -	\$ -
Prepaid expenses and other assets				
Deferred compenstaion plan assets	\$12,561	\$5,859	\$2,460	\$20,880
Interest rate swap receivable	-	1,293	-	1,293
Total prepaid expenses and other assets	\$12,561	\$7,152	\$2,460	\$22,173
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.

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), which approximates fair value.

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

⁽b) 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.

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	Common	Trusts Held	
	Compensation	Stock	by Others	Total
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
Unrealized gains	81	683	(97)	667
Purchases	229	-	-	229
Transfers in	304	-	-	304
Transfers out	-	-	-	-
Fair value, June 30, 2020	\$3,074	\$6,932	\$10,605	\$20,611

9. 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 Statements 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 years ended June 30, 2020 and 2019, respectively, included operating lease costs of \$23.4 million and \$20.5 million and short-term lease costs of \$4.4 million and \$4.9 million. Cash payments for leases were \$22.8 million and \$20.6 million for the year ended June 30, 2020 and 2019, respectively.

The following table displays the undiscounted cash flows due related to operating leases as of June 30, 2020 along with a reconciliation to the discounted amount recorded on the June 30, 2020 Consolidated Statements of Financial Position (dollars in thousands):

As of June 30, 2020	
2021	\$17,471
2022	13,563
2023	12,279
2024	9,071
2025	7,548
Thereafter	22,937
Total undiscounted cash flows (weighted average term 8.7 years)	\$82,869
Impact of present value discount (weighted average discount rate 1.6%)	(4,984)
Amount reported on Consolidated Statements of Financial Position	\$77,885

10. LAND, BUILDINGS AND EQUIPMENT

Land, buildings and equipment at June 30, 2020 and 2019, consist of the following (dollars in thousands):

	Useful Lives	2020	2019
Buildings	35-50 years	\$1,514,198	\$1,429,412
Moveable equipment	5-20 years	266,735	256,931
Utilities and building-related assets	20 years	115,844	98,913
Land improvements	15 years	19,841	19,540
Software costs	2-10 years	54,277	53,864
Leasehold improvements	2-20 years	35,395	31,864
Subtotal		\$2,006,290	\$1,890,524
Accumulated depreciation		(1,021,101)	(958,233)
Subtotal		\$985,189	\$932,291
Land		55,456	54,637
Construction and equipment in progre	ess	82,688	79,713
Land, buildings and equipment, net		\$1,123,333	\$1,066,641

Carnegie Mellon acquired \$7.1 million and \$5.9 million in equipment through grants for the years ended June 30, 2020 and 2019, respectively.

11. DEBT OBLIGATIONS

Debt obligations consist of the following as of June 30, 2020 and 2019 (dollars in thousands):

	Maturity	Interest %	2020	2019
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 2,050	\$32,805 2,610
Series 2013, Premium, net of debt issuance costs	03/01/43	4.0-5.0%	52,250 2,980	52,250 3,636
Series 2017, Premium, net of debt issuance costs	08/01/29	5.0%	62,165 11,209	62,165 12,590
Series 2019 A, Premium, net of debt issuance costs	08/01/27	5.0%	49,600 8,752	49,600 9,973
Series 2020 A, Premium, net of debt issuance costs	02/01/30	5.0%	45,565 14,346	-
Variable Rate				
Series 2008 A, Debt issuance costs	12/01/37	0.09%	120,820 (290)	120,820 (307)
Series 2012 B, Debt issuance costs	02/01/33	0.66%	50,000 (94)	50,000 (102)
Series 2019 B, Debt issuance costs	02/01/42	0.5%	60,140 (132)	60,140 (138)
Collaborative Innovation Center Tax Increment Financing	11/01/22	8.5%	1,050	1,380
Collaborative Innovation Center Mortgage Obligation	03/01/25	6.78%	12,519	13,396
Taxable Senior Notes	02/01/47	3.6%	70,000	70,000
Taxable Senior Notes	02/01/50	3.2%	70,000	-
Total debt obligations			\$665,735	\$540,818

The university borrows its tax-exempt debt through public conduit issuers. As of June 30, 2020, 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.

On September 30, 2014, Carnegie Mellon acquired the Collaborative Innovation Center (CIC) from the Regional Industrial Asset District (RIDC) when Carnegie Mellon and RIDC agreed to terminate the long-term ground lease for the land on which the CIC building was built. The CIC building was originally built and owned by the Regional Industrial Development Corporation (RIDC) on land owned and leased by Carnegie Mellon to RIDC pursuant to a long-term ground lease. Prior to the termination of the ground lease, the CIC was recorded as a capital lease by Carnegie Mellon.

As part of the agreement to terminate the ground lease, Carnegie Mellon assumed a \$16.8 million mortgage note. The mortgage note requires monthly principal and interest payments, bears interest at a fixed rate of 6.78% and matures on March 1, 2025. The mortgage note is secured by the CIC building (carrying value of \$22.7 million), the land where CIC is located and rents derived from the operation of CIC.

Carnegie Mellon also assumed the sole responsibility to make semi-annual payments of any shortfall between the amount of real estate and parking taxes collected and pledged under a Tax Increment Financing (TIF) agreement, and the debt service and annual cost of the TIF. Carnegie Mellon is obligated to timely fund that shortfall until the TIF is satisfied in full on October 5, 2022. The balance of the outstanding TIF note was \$1.1 million and \$1.4 million at June 30, 2020 and 2019, respectively. The TIF note bears interest at a rate of 7.5% through April 30, 2016 and 8.5% from May 1, 2016 through maturity.

Series 2019 bonds were issued in January 2019 to redeem then outstanding Series 2009 bonds and are comprised of 1) \$49.6 million Series 2019A 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. Series 2020 A bonds were issued in February 2020 in the amount of \$45.6 million bearing interest at a fixed rate of 5.0% and maturing on February 1, 2030. The bonds include an original issue premium of \$15.2 million. Proceeds from the issuance of these notes are restricted to capital projects involving two residence halls on the Pittsburgh campus.

In February 2020, Carnegie Mellon issued three senior notes in the aggregate amount of \$70.0 million to a life insurance company. These notes bear interest at 3.2% with principal due on February 1, 2050. Proceeds from the issuance of these notes may be used to finance capital projects.

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, 2020 or 2019.

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, 2020 and 2019. No advances were outstanding at June 30, 2020. Advances accrue at a variable rate based on one-month LIBOR.

Interest Expense

Cash paid for interest on debt obligations for the fiscal years ended June 30, 2020 and 2019 totaled \$16.5 million and \$20.1 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, 2020 and 2019 was \$20.0 million and \$23.5 million, respectively. For the fiscal years ended June 30, 2020 and 2019, interest expense of \$0.9 million and \$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, are as follows (dollars in thousands):

Total	\$626,914
Thereafter	570,541
2025	8,353
2024	33,954
2023	1,359
2022	1,404
2021	\$11,303

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 supporting the university's educational and research mission as of June 30, 2020 (dollars in thousands):

2020 V	Vithout Donor Restrictions	With Donor Restrictions	Total
Board-designated endowment funds	\$424,161	\$ -	\$424,161
Reserves for working capital and plant – long-te	rm 393,394	-	393,394
Donor-restricted endowment funds	-	930,458	930,458
Unexpended endowment gains	-	714,241	714,241
Capital and other designations	803,790	164,377	968,167
Pledges and assets held in trust by others	301	141,595	141,896
Split interest agreements and other donor designations	-	8,822	8,822
Term endowments	-	7,174	7,174
Loan funds	2,471	1,980	4,451
Total Net Assets	\$1,624,117	\$1,968,647	\$3,592,764

Net Assets consist of gifts and other unexpended revenues and gains and are available for the following purposes supporting the university's educational and research mission as of June 30, 2019 (dollars in thousands):

2019	Vithout Donor Restrictions	With Donor Restrictions	Total
Board-designated endowment funds	\$438,497	\$ -	\$438,497
Reserves for working capital and plant – long-te	rm 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

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 was monthly after October 1, 2014. The interest rate swap agreement matured and was not renewed.

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 as of June 30, 2020 and 2019 (dollars in thousands):

	Derivatives Reported as Assets/(Liabilities)		
Date of Swap Agreement	2020	2019	
Sep 2004	\$ -	\$(186)	
Apr 2006	(25,260)	(18,713)	
May 2007	(1,178)	(946)	
May 2007	(12,647)	(9,634)	
Feb 2012	2,382	1,293	
Total	\$(36,703)	\$(28,186)	

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, 2020 and June 30, 2019.

The following interest expense and fair value gains/(losses) were recorded as other sources under nonoperating activities in the Consolidated Statements of Activities for the years ended June 30, 2020 and 2019 (dollars in thousands):

Date of Swap Interest Agreement (Expense)		Fair Value (Loss) Gain		Total (Loss) Gain		
Interest rate swaps:	2020	2019	2020	2019	2020	2019
Sep 2004	\$(186)	\$(715)	\$186	\$645	\$ -	\$(70)
Apr 2006	(2,360)	(1,833)	(6,547)	(5,296)	(8,907)	(7,129)
May 2007	(139)	(113)	(232)	(207)	(371)	(320)
May 2007	(1,096)	(885)	(3,013)	(2,321)	(4,109)	(3,206)
Feb 2012	286	138	1,089	1,551	1,375	1,689
Total	\$(3,495)	\$(3,408)	\$(8,517)	\$(5,628)	\$(12,012)	\$(9,036)

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, 2020 are as follows (dollars in thousands):

	Instruction & Dpt Research	Sponsored Research	Admin & Instl Support	Academic Support	Student Services	Auxiliary	Total
Salaries	\$333,879	\$189,873	\$83,303	\$82,173	\$29,977	\$3,140	\$722,345
Benefits	72,816	30,090	18,676	23,344	8,551	815	154,292
Other Oper Expenses	_	162,600	41,451	65,045	17,015	36,182	327,692
Depreciation Amorizati		18,881	5,101	9,668	7,669	7,554	76,778
Interest	3,720	2,517	680	1,288	1,022	3,240	12,467
Total	\$443,719	\$403,961	\$149,211	\$181,518	\$64,234	\$50,931	\$1,293,574

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

	Instruction & Dpt 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 Oper Expenses	0	149,680	45,540	55,277	20,227	41,045	329,005
Depreciation Amorizati		17.718	4,994	8,963	7,663	7.021	72.739
AIIIUIIZati	20,360	, -	4,994	0,903	,	, -	,
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

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 \$33.4 million and \$34.0 million (\$30.6 million and \$31.4 million in administration and institutional support) is included above for the years ended June 30, 2020 and 2019, 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.

Alternative investment partnership commitments totaled \$677.5 million at June 30, 2020. These funds may be drawn down at the request of the general partners over the course of the next several years. Carnegie Mellon expects to finance these commitments through available cash and expected proceeds from the sales of securities.

At June 30, 2020 and 2019 Carnegie Mellon had contractual obligations of approximately \$29.5 million and \$39.6 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, health care plans for retirees, and participates in a multi-employer pension fund for union staff. Retirement plan expense for the years ended June 30, 2020 and 2019 totaled \$37.7 million and \$40.1 million, respectively. Carnegie Mellon contributed \$0.9 million to the Central Pension Fund of the International Union of Operating Engineers, a multi-employer plan in fiscal years 2020 and 2019, respectively. See below for a discussion of the assets held in trust to fund post-retirement health care and other post-employment benefits.

Carnegie Mellon provides certain health care 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.

Net periodic benefit costs recognized in the Consolidated Statements of Activities totaled \$1.1 million and \$1.6 million for the years ended June 30, 2020 and 2019, respectively. Other (losses)/gains in benefit obligations recognized in non-operating activities totaled \$(3.4 million) and \$2.9 million for the years ended June 30, 2020 and 2019, respectively. Cumulative net actuarial gains of \$10.6 million and \$14.0 million have been recognized as of June 30, 2020 and 2019, respectively.

During fiscal year 2021, 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 3.7% and 4.2% for the years ended June 30, 2020 and 2019, respectively.

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

	2020	2019
Benefit obligation, beginning of year	\$20,594	\$22,190
Service cost	1,159	1,211
Interest cost	799	976
Assumption changes and actuarial loss/(gain)	2,530	(3,533)
Benefit payments	(348)	(250)
Benefit obligation, end of year	\$24,734	\$20,594
Fair value of plans' assets	-	-
Funded status	\$24,734	\$20,594

The assumed discount rate used for calculating the benefit obligation for the fiscal years ended June 30, 2020 and 2019 was 3.1% and 3.7%, respectively. An annual rate of increase in the per capita cost of covered health care benefits for the fiscal years ended June 30, 2020 and 2019 of 6.5% and 6.8%, respectively, was assumed. For the fiscal years ended June 30, 2020 and 2019, 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
2021	\$646	\$386	\$1,032
2022	979	573	1,552
2023	1,302	739	2,041
2024	1,600	881	2,481
2025	1,857	993	2,850
2026-2030	12,484	5,841	18,325

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 health care and other post-employment benefits are \$22.7 million and \$22.3 million as of June 30, 2020 and 2019, 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 2020 and 2019 includes \$3.4 million 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, 2020 and 2019, Carnegie Mellon's percentage obligation was 15.2%. Included in other assets at June 30, 2020 and 2019 are \$0.6 million of advances resulting primarily from operating surpluses. Included in occupancy and related expenses is \$3.7 million and \$3.5 million for steam costs paid to Bellefield for the years ended June 30, 2020 and 2019, 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, 2020, 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 \$15.2 million and \$14.3 million were received in fiscal years 2020 and 2019, 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. COVID-19 PANDEMIC

In March 2020, the World Health Organization declared the novel coronavirus (COVID-19) a pandemic. As a result of the pandemic, beginning in March 2020, the university suspended in-person education and other campus-based activities and provided a combination of credits and refunds of residence and dining revenues to students aggregating \$8.4 million. The university provided emergency financial aid to students under the Coronavirus Aid, Relief and Economic Security Act (CARES Act) totaling \$1.1 million during the year ended June 30, 2020. The full extent of the impact of COVID-19 on the university's finances is uncertain and will depend on the duration and depth of the pandemic.

20. SUBSEQUENT EVENTS

The university has performed an evaluation of subsequent events through October 13, 2020, the date on which the consolidated financial statements were issued.



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