Northwestern

2018 FINANCIAL REPORT

Report of the Senior Vice President for Business and Finance

To the Board of Trustees of Northwestern University:

Fiscal year 2018 proved to be a pivotal year for Northwestern in terms of our continued rise as one of the world's premier research institutions. The **We Will** campaign passed its $3.75 billion fundraising goal nearly two years ahead of schedule. The campaign, with strong investment performance, contributed to a more than $1 billion increase in assets, bringing total assets to $15.5 billion. Net assets grew by over $500 million for a second consecutive year, bringing the total to $12.2 billion, up from $11.7 billion. The consolidated statements of financial position show results consistent with the University's AAA credit rating, attesting to our capacity to deliver on our strategic priorities.

Northwestern completed a major phase of campus transformation with the opening of the Ryan Fieldhouse and Walter Athletics Center and renovations to student residential facilities at Willard Hall and the research laboratories at Mudd Hall. Looking ahead, fiscal year 2019 will see completion of the newly renovated Welsh-Ryan Arena in Evanston and the opening of the Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center, a cutting-edge facility that will dramatically enhance research on our Chicago campus. These projects serve as capstones to a period of significant investment financed in part by the October 2017 issuance of $500 million of taxable debt. Capital spending will return to more traditional levels as we focus on smaller, targeted opportunities of investment to maintain and grow the physical infrastructure that supports our missions.

This phase of capital asset investment and accompanying investment in faculty and students required deploying unrestricted reserves to absorb the operating impact of our strategic plan. We are undertaking several initiatives to ensure that we remain faithful to our long-standing commitment to positive operating performance. As the spirit and abilities of our faculty and students drive Northwestern forward as a world-renowned institution, we will continue to balance strategic objectives with financial capacity.

We are grateful for the commitment of Northwestern's faculty, staff, students, alumni, trustees, and friends, all of whom made 2018's successes possible.

Craig Johnson
Senior Vice President for Business and Finance

Investment Report

The University's endowment continued to ascend to new heights in fiscal year 2018, having rebounded last year as the United States buoyed worldwide equity markets. US large-capitalization equities moved significantly higher, with the S&P 500 posting a 20 percent gain. Relative to US strength, international equities struggled during the fiscal year: Developed economy markets increased only 4 percent, while emerging markets declined by 1 percent due in part to the appreciated US dollar.

The University's diversified portfolio recorded a 10.3 percent gain for the fiscal year ended August 31, 2018. The Long-Term Balanced Pool increased in total value by $558 million to $11 billion, as investment gains ($1.3 billion) were more than double the amount of spending ($541 million). This marked the second consecutive fiscal year of investment gains exceeding $1 billion. On August 31, 2018, the University's investment assets, including cash and separately invested University holdings, totaled $11.4 billion.

The University's Total Investment Pools

The University maintains three primary investment pools: the Long-Term Balanced Pool, Treasury funds, and separately invested assets. Each investment category has a specific set of objectives.

The Long-Term Balanced Pool, used for endowed and quasi-endowed purposes, is managed with the objective of long-term total return. It is a "unitized fund" using mutual fund accounting principles. Because of its size and long-term orientation, performance data and investment strategy information in the discussion that follows relate to the Long-Term Balanced Pool.

Treasury funds are money market funds used for cash reserves and to preserve principal and maintain liquidity; intermediate-term bond and bond-like investments with a one- to two-year horizon, for funding planned capital expenditures; and working capital funds held by the University, which are generated through the temporary differences between operating receipts and disbursements. These funds are not unitized. The income from investing them is used for general operating purposes. Working capital investments are held in a variety of money market instruments or, if not needed within 90 days, are invested in the Long-Term Balanced Pool.

Separately invested funds are donated funds, including restricted investments and some life-income plans. These assets may not be merged with other assets for consolidated management.

The table below illustrates the net asset values and unitized information for the University's investment pools for the past five years.

History of the Merged Pools as of August 31, 2018					
	2014	*2015*	*2016*	*2017*	*2018*
Long-Term Balanced Pool					
Net asset value *(in thousands of dollars)*	$9,704,003	$9,867,262	$9,803,725	$10,456,022	$11,014,417
Number of units *(in thousands)*	40,169	41,601	42,577	43,212	43,702
Net asset value per unit	$241.58	$237.19	$230.26	$241.97	$252.03
Payout amount per unit					
Current earned income	($0.08)	($1.21)	($1.13)	($1.07)	($1.30)
Previously reinvested realized gains withdrawn	$9.01	$10.44	$10.84	$11.08	$11.45
Total payout per unit	$8.93	$9.23	$9.71	$10.01	$10.15
Summary of net asset value *(in thousands of dollars)*					
Treasury pool funds	$169,951	$609,600	$452,866	$174,503	$192,449
Separately invested funds	158,383	150,851	138,118	155,403	146,043
Total net asset value *(in thousands of dollars)*	**$10,032,337**	**$10,627,713**	**$10,394,709**	**$10,785,928**	**$11,352,909**

Asset Allocation for the Long-Term Balanced Pool

The Investments Committee of the University annually reviews asset allocation policy for the Long-Term Balanced Pool. At the beginning of fiscal year 2018, the committee ratified the Investment Office's recommendation to reaffirm existing targets and ranges. Subjective considerations such as liquidity and inflation/deflation protection were also part of the analysis.

The next table displays the current asset allocation policy for the University. Reflecting the Investment Office's bias against market timing or tactical asset allocation as a primary driver of value added, actual allocations varied from targeted levels by modest amounts. The Investment Office recently reviewed the asset allocation mix for fiscal year 2019 with the Investment Committee and reaffirmed existing targets and ranges.

Policy Portfolio Targets and Ranges

	Range	*Target*	*August 31, 2018*	*Difference*
US equity	10–16%	13%	14.5%	1.5%
International equity	14–20%	17%	17.2%	0.2%
Fixed income	5–11%	8%	7.9%	-0.1%
High-yield credit	0–10%	5%	2.7%	-2.3%
Absolute return	15–23%	19%	19.3%	0.3%
Private investments	18–26%	22%	21.8%	-0.2%
Real assets	12–20%	16%	16%	0%
Cash		0%	0.6%	0.6%

Primary Investment Performance Objective: Preserving Purchasing Power and Growing Income

The principal objective for Northwestern's Long-Term Balanced Pool is to preserve purchasing power and to provide a growing stream of income to fund University programs. The pool seeks to achieve an annual total rate of return (i.e., actual income plus appreciation) equal to inflation plus actual spending. This objective of preserving purchasing power emphasizes the need for a long-term perspective in formulating both spending and investment policies. A more detailed look at the University's spending guideline is on page 8 of this report.

The University's investments historically have grown at a rate exceeding the objective. For the 12 months ended August 31, 2018, the portfolio increased 10.3 percent, outperforming the objective by 2 percent. Over longer time horizons, the portfolio outperformed the objective by 0.7 percent, 2 percent, 0.2 percent, and 2.4 percent for the 3-, 5-, 10-, and 15-year periods, respectively, as shown in the table below.

Annualized Returns: Exceeding the Objective

	1-year	**3-year**	**5-year**	**10-year**	**15-year**
*Annual total return**	10.3%	7.9%	8.5%	6.6%	9.2%
– Spending	4.9%	4.6%	4.3%	4.3%	4.1%
– University management fee and support	0.7%	0.7%	0.7%	0.7%	0.6%
– Inflation	2.7%	1.9%	1.5%	1.4%	2.1%
= Above or below objective	2.0%	0.7%	2.0%	0.2%	2.4%

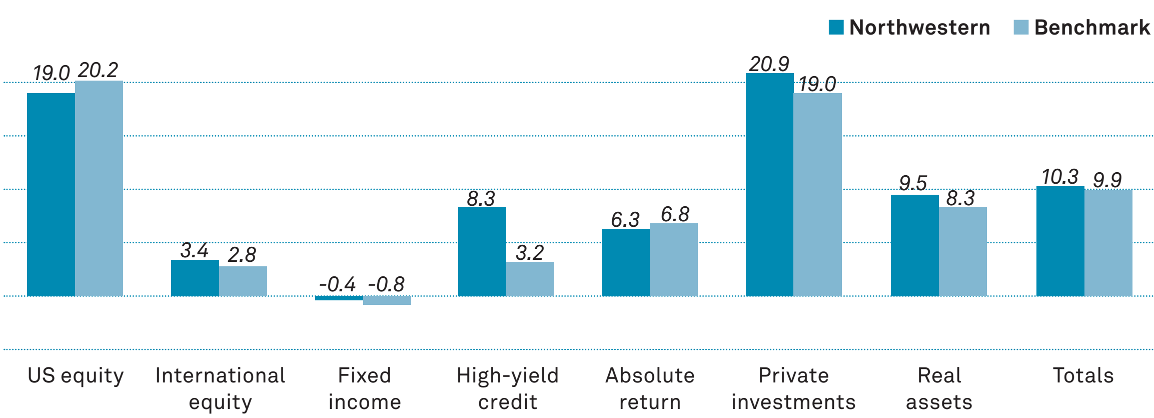
** Total returns are net of fees and are calculated on annual changes in net asset value. They may differ from payout distributions.*

Secondary Investment Performance Objective: Benchmark Comparisons

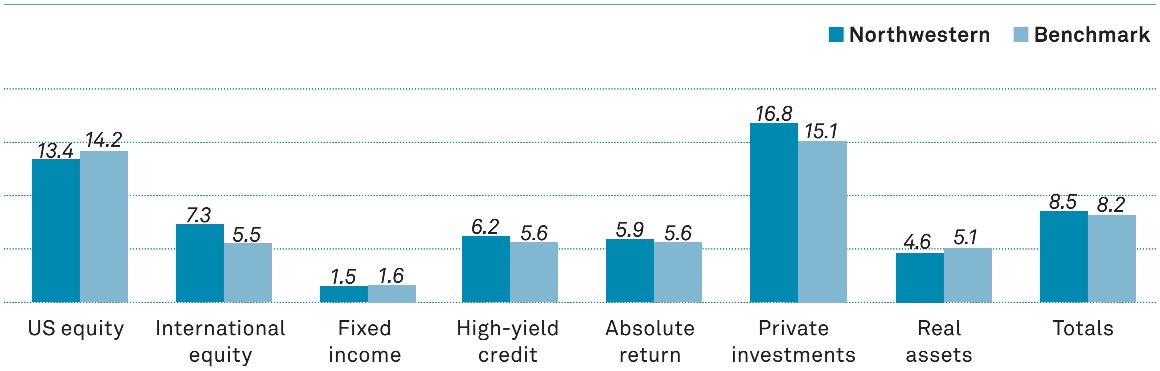
The pool's 10.3 percent return for the 12-month period outperformed the 9.9 percent return of the composite benchmark, a blend of the benchmark returns for each asset class weighted by the policy allocation targets. Outperformance was primarily due to effective manager selection, particularly in private investments and real assets. During this strong-performing fiscal year, five of the seven portfolios outpaced their benchmarks, and except for fixed income, all asset classes posted positive returns on an absolute basis. In particular, both the private investments and real assets portfolios substantially outperformed their benchmarks on a relative basis, by 1.9 and 1.2 percent, respectively, and private investments was the top performer on an absolute basis, up 20.9 percent. US equity was the second-best performer on an absolute basis, up 19.0 percent, though the asset class trailed its benchmark by 1.2 percent. High-yield credit was the top performer on a relative basis, 8.3 percent versus 3.2 percent, while absolute return underperformed its benchmark by 0.5 percent. The first chart below shows returns and benchmarks for all asset classes for the fiscal year.

For the five-year period ended August 31, 2018, the Long-Term Balanced Pool outperformed the composite benchmark (8.5 percent versus 8.2 percent), as shown in the second chart below. Four of the seven portfolios exceeded their benchmarks over five years, while only fixed income and real assets were underperformers in both absolute and relative terms. Two of the asset classes were double-digit performers, reflecting the strength in the US equity market. A more detailed explanation of activity and performance follows the five-year performance chart.

Long-Term Balanced Pool: Fiscal 2018 Net Performance Relative to Benchmarks *(in percentages)*



Long-Term Balanced Pool: Five-Year Net Performance Relative to Benchmarks *(in percentages)*



Marketable Securities Categories

US equity was the second-best-performing asset class in absolute terms for the fiscal year, with a 19 percent gain versus the 20.2 percent gain of its Russell 3000 benchmark. Over five years, the portfolio has underperformed its benchmark by 0.8 percent. On a longer-term basis, the portfolio has outperformed in 11 of the last 17 fiscal years. In addition, on an absolute basis, US equity was the second-best-performing asset class over the five-year period.

The international equity portfolio gained 3.4 percent for the fiscal year, outpacing in relative terms the 2.8 percent return of the benchmark (67 percent MSCI EAFE Index, 33 percent MSCI EM Index). Over five years, this portfolio was the best-performing asset class on a relative basis, returning 7.3 percent versus the benchmark return of 5.5 percent. A heavier weight to smaller capitalization foreign stocks, as well as outstanding manager selection, has helped this portfolio over the five-year period. It has outperformed in 14 of the last 17 fiscal years.

The fixed income portfolio posted the worst return of all asset classes during the fiscal year. Even so, the portfolio outperformed its benchmark on a relative basis, returning -0.4 percent versus -0.8 percent. For the last five years, fixed income slightly trailed its benchmark on a relative basis (1.5 percent versus 1.6 percent). It has outperformed in 10 of the last 17 fiscal years due to superior active management and exposure to global and inflation-protected bonds.

High-Yield Credit Category

The high-yield credit portfolio includes tactical investments in distressed debt and other credit instruments with fixed income characteristics but more specific risk tied to the securities and their underlying cash flows. The portfolio was the top performer on a relative basis during the fiscal year, as it increased 8.3 percent, ahead of the 3.2 percent gain posted by the benchmark Merrill Lynch High-Yield Master II Index. For the five-year period, the high-yield credit portfolio returned 6.2 percent versus 5.6 percent for the benchmark and was the third-best performer on a relative basis. The portfolio was cash flow positive (total distributions less new investments or capital calls) as distributions were $67.1 million and capital calls $35.3 million, for a net cash flow of $31.8 million.

Absolute Return Category

Comprising a diversified portfolio of hedge fund strategies, this portfolio aims to provide equity-like returns with low correlation to the equity markets. For the fiscal year, it gained 6.3 percent, below the 6.8 percent return of its benchmark (80 percent Treasury bills plus 400 basis points; 20 percent MSCI All-Country World Index). The portfolio's return of 5.9 percent for the five-year period was positive on an absolute basis and exceeded its benchmark, which was up 5.6 percent. Northwestern's absolute return portfolio is diversified among long-short equity managers (25 percent) and uncorrelated, event-driven, and other hedge fund strategies. These remaining hedge funds (75 percent) tend to be less sensitive to movements in the equity markets and represent diversifying strategies.

Private Investments Category

The private investments portfolio includes investments in global buyout, growth equity, and venture capital funds. This portfolio posted an absolute return of 20.9 percent for the fiscal year and was the best performer on an absolute and relative basis as the Burgiss Private Investments benchmark gained 19 percent. In addition, this portfolio was the best absolute performer for the five-year period, gaining 16.8 percent annualized. On a relative basis, this outperformed the Burgiss Private Investments benchmark return of 15.1 percent for the five-year period. Increased profitability at underlying portfolio companies and merger and acquisition activity significantly bolstered returns in both the fiscal year and the five-year period.

Portfolio cash flows for the current fiscal year were positive for the seventh consecutive year since the global financial crisis. The portfolio experienced an increase in capital calls for investments in underlying companies and a slight decrease in trade sales, recapitalizations, and public offerings, resulting in significantly more distributions from the portfolio companies than the prior fiscal year. For fiscal year 2018, private investment distributions were $566.1 million and capital calls $342.1 million, for a net cash flow of $224 million.

Real Assets Category

The real assets portfolio includes the University's investments in energy, timber, real estate, and publicly traded investments in commodity and energy equity funds. This portfolio outperformed its benchmark return (a mix of energy, real estate, and commodities) on a relative basis in fiscal year 2018, gaining 9.5 percent versus an 8.3 percent gain for the real assets benchmark. This portfolio gained 4.6 percent for the five-year period, as returns were impacted by a retreat in global commodity prices. Distribution activity decreased from the prior fiscal year, as there were lower realizations in private partnership real estate and energy investments. With distributions of $288.2 million and capital calls of $314.6 million, the net cash flow was -$26.4 million for fiscal year 2018.

Long-Term Balanced Pool Spending Guideline

To sustain the Long-Term Balanced Pool's long-term earnings ability and provide adequate resources to the University, the Board of Trustees in fiscal year 2006 ratified a revised spending guideline that blends two elements:

- **Market element** adjusts annual endowment spending to the long-term sustainable target spending of 4.35 percent of the average actual market value of the endowment for the 12 months ended October 31 of the prior fiscal year. This component of the spending rate receives a 30 percent weighting in the spending rate calculation.
- **Spending element** increases the previous year's spending rate by actual inflation plus budget growth (1.5 percent). This element of the spending rate receives a weight of 70 percent.

The spending rate for fiscal year 2018 was 4.9 percent, which includes a $100 million special payout in addition to regular spending. The amount per unit for fiscal year 2019, calculated using the guideline above, is $10.44.

Payout Determined by Spending Guideline

	2014	*2015*	*2016*	*2017*	*2018*
Spending per unit	$8.93	$9.23	$9.71	$10.01	$10.15
Net asset value per unit	$241.58	$237.19	$230.26	$241.97	$252.03
Annual spending rate*	3.83%	3.78%	4.07%	4.85%	4.92%
Total *(in millions)*	$350.02	$378.74	$409.44	$505.52	$541.38
Growth in total spending	11.77%	8.21%	8.11%	23.47%	7.9%

** Annual spending rate is calculated as spending per unit divided by the two-year average net asset value per unit after distribution of the annual contribution to the budget. Special payouts for fiscal years 2018 and 2017 are included.*

The Long-Term Balanced Pool: In Conclusion

Northwestern's portfolio recorded a double-digit return for the second consecutive fiscal year, as the combination of a soaring US stock market and historically low volatility led to continued outsized gains. Similar to the prior fiscal year, strong relative performance among our active managers also buoyed the portfolio overall. We continue to believe the Long-Term Balanced Pool is poised to grow and support the University's needs. Its success is based on the diversification and the skill of outstanding money managers worldwide in meeting investment objectives over long time horizons. Despite continued concerns that returns will be lower over the next decade than in the last 10 years, Northwestern leadership retains its long-term investment focus and is confident in the portfolio's future outlook.

William H. McLean

William H. McLean
Vice President and Chief Investment Officer

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Independent Auditors' Report

The Board of Trustees
Northwestern University:

We have audited the accompanying consolidated financial statements of Northwestern University (the University), which comprise the consolidated statement of financial position as of August 31, 2018, 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 opinion.

Opinion

In our opinion, the 2018 consolidated financial statements referred to above present fairly, in all material respects, the financial position of Northwestern University as of August 31, 2018, and the changes in its net assets and its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Other Matter

The accompanying consolidated financial statements of the University as of August 31, 2017 and for the year then ended were audited by other auditors whose report thereon dated January 10, 2018, expressed an unmodified opinion on those consolidated financial statements.

KPMG LLP

Chicago, Illinois
December 19, 2018

Consolidated Statements of Financial Position

As of August 31, 2018 and 2017

(in thousands of dollars)	*2018*	*2017*
Assets		
Cash and cash equivalents	$185,535	$92,623
Accounts receivable, *net*	273,954	263,424
Contributions receivable, *net*	311,458	318,780
Notes receivable, *net*	151,666	151,679
Investments	11,287,087	10,717,787
Land, buildings, and equipment, *net*	3,258,035	2,933,679
Other assets	12,051	9,495
Total assets	**$15,479,786**	**$14,487,467**

Liabilities		
Accounts payable and accrued liabilities	$204,237	$298,891
Deferred revenue	302,709	277,853
Deposits payable and actuarial liability of annuities payable	154,743	156,179
Government advances for student loans	19,077	30,559
Bonds, notes, and other debt payable, *net*	2,555,136	2,040,602
Total liabilities	**$3,235,902**	**$2,804,084**

Net assets		
Unrestricted	$7,654,713	$7,338,857
Temporarily restricted	2,887,890	2,720,408
Permanently restricted	1,701,281	1,624,118
Total net assets	**$12,243,884**	**$11,683,383**
Total liabilities and net assets	**$15,479,786**	**$14,487,467**

See Notes to the Consolidated Financial Statements, beginning on page 14.

Consolidated Statement of Activities

For the fiscal year ended August 31, 2018, and summarized financial information for the fiscal year ended August 31, 2017

(in thousands of dollars)	2018				2017
Operating revenues	**Unrestricted**	**Temporarily restricted**	**Permanently restricted**	**Total**	**Total**
Tuition and fees	$1,071,402			$1,071,402	$1,008,586
(less scholarships and fellowships)	(451,121)			(451,121)	(419,944)
Net tuition and fees	620,281			620,281	588,642
Auxiliary services	83,907			83,907	80,812
Grants and contracts	648,008			648,008	617,448
Private gifts	216,935			216,935	199,630
Investment return designated for operations	482,747	$164,454		647,201	604,534
Sales and services	209,690			209,690	183,999
Professional fees	38,448			38,448	34,929
Total operating revenues	**2,300,016**	**164,454**	**—**	**2,464,470**	**2,309,994**
Net assets released from restrictions	**207,762**	**(207,762)**	**—**	**—**	**—**
Total operating revenues and other additions (reductions)	**2,507,778**	**(43,308)**	**—**	**2,464,470**	**2,309,994**
Operating expenses					
Salaries, wages, and benefits	1,420,531			1,420,531	1,343,723
Services, supplies, travel, and other	614,019			614,019	587,686
Depreciation and asset retirement obligation accretion	150,732			150,732	143,471
Maintenance and utilities	205,253			205,253	178,038
Interest on indebtedness	68,648			68,648	44,378
Total operating expenses	**2,459,183**	**—**	**—**	**2,459,183**	**2,297,296**
Excess (deficit) of operating revenues over expenses	**48,595**	**(43,308)**	**—**	**5,287**	**12,698**
Nonoperating revenues and expenses					
Private gifts and grants for buildings and equipment	2,853	40		2,893	512
Restricted private gifts		41,994	78,289	120,283	169,641
Net gain (loss) on annuity obligations		574	(1,126)	(552)	(3,808)
Investment return, reduced by operating distribution	258,375	168,182		426,557	482,832
Change in value of derivative instruments	7,419			7,419	7,732
Other expenses, *net*	(1,386)			(1,386)	(633)
Excess of nonoperating revenues over expenses	**267,261**	**210,790**	**77,163**	**555,214**	**656,276**
Change in net assets	**315,856**	**167,482**	**77,163**	**560,501**	**668,974**
Beginning net assets	**7,338,857**	**2,720,408**	**1,624,118**	**11,683,383**	**11,014,409**
Ending net assets	**$7,654,713**	**$2,887,890**	**$1,701,281**	**$12,243,884**	**$11,683,383**

See Notes to the Consolidated Financial Statements, beginning on page 14.

Consolidated Statements of Cash Flows

For the fiscal years ended August 31, 2018 and 2017

(in thousands of dollars)	*2018*	*2017*
Cash flows from operating activities		
Change in net assets	$560,501	$668,974
Adjustments to reconcile change in net assets to net cash used in operating activities		
Depreciation and asset retirement obligation accretion	150,732	143,471
Losses (gains) on disposals, retirements, and sales of buildings and equipment, *net*	41,907	(362)
Amortization (accretion) of issuance costs, premiums, and discounts, *net*	(174)	(2,369)
Allowance for student loans receivable	467	317
Realized and unrealized gains on investments, *net*	(1,036,599)	(1,040,580)
Gifts of contributed securities	(35,376)	(51,886)
Proceeds from sale of unrestricted contributed securities	19,053	46,886
Change in value of derivative instruments	(7,419)	(7,732)
Restricted contributions received for long-term investment and capital projects	(61,873)	—
Private gifts and grants for buildings and equipment	—	(512)
Changes in assets and liabilities		
Accounts receivable	(10,347)	63,022
Contributions receivable	1,282	(55,357)
Other assets	(2,719)	(789)
Accounts payable and accrued liabilities	(47,424)	(3,439)
Deposits and annuities payable	(1,436)	15,343
Deferred revenue	24,856	(11,230)
Government advances for student loans	(11,482)	(7,207)
Net cash used in operating activities	**(416,051)**	**(243,450)**

Cash flows from investing activities		
Purchases of investments	(1,647,796)	(1,786,688)
Proceeds from sales of investments	2,127,728	2,439,081
Acquisitions of land, buildings, and equipment	(556,940)	(667,350)
Proceeds from sale of buildings or equipment	297	244
Student loans disbursed	(23,157)	(21,345)
Principal collected on student loans	23,317	28,113
Other	(13,430)	(14,154)
Net cash used in investing activities	**(89,981)**	**(22,099)**

Cash flows from financing activities		
Proceeds from issuance of notes, bonds, and other debt payable	615,000	232,000
Payments for debt issuance costs	(2,522)	—
Principal payments on notes, bonds, and other debt payable	(97,770)	(89,715)
Proceeds from sale of restricted contributed securities	16,323	—
Proceeds from private gifts and grants for buildings and equipment	—	512
Restricted contributions received for long-term investment and capital projects	67,913	—
Net cash provided by financing activities	**598,944**	**142,797**

Increase (decrease) in cash and cash equivalents	**92,912**	**(122,752)**
Cash and cash equivalents at beginning of year	**92,623**	**215,375**
Cash and cash equivalents at end of year	**$185,535**	**$92,623**

Supplemental disclosure of cash flow information		
Change in accrued liabilities for construction in progress	($39,648)	$40,952
Capitalized interest	20,889	23,243
Cash paid for interest	85,382	67,663

See Notes to the Consolidated Financial Statements, beginning on page 14.

Notes to the Consolidated Financial Statements

For the fiscal years ended August 31, 2018 and 2017

1. Summary of Significant Accounting Policies

University Activities

Northwestern University (Northwestern or the University) is a major private research university with more than 21,000 students enrolled in 12 academic divisions on two lakefront campuses in Evanston and Chicago and an international campus in Doha, Qatar.

Northwestern's mission is to provide the highest-quality education for its students, to develop innovative programs in research, and to sustain an academic community that embraces these enterprises. Activities supporting its mission may be classified as either operating or nonoperating. Operating revenues include student tuition, research funding, investment return designated for operations, educational sales and services, private gifts, professional fees, unrestricted private gifts, and auxiliary services. Operating expenses reflect support for all functions of the University. Nonoperating activities include unrealized gains and losses on investments, annuity obligations, and derivative instruments; gifts for building; all permanently restricted endowment gifts; and other.

Basis of Accounting

General

The University maintains its accounts and prepares its consolidated financial statements on the accrual basis of accounting in conformity with US generally accepted accounting principles (GAAP). The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) is the source of authoritative GAAP. The University prepares its consolidated financial statements in accordance with the Not-for-Profit Entities Topic of the FASB ASC. These statements include all wholly owned subsidiaries. All significant interentity transactions and accounts have been eliminated in consolidation.

Net Asset Classifications

Net assets and related changes therein are classified in three categories based on the existence or absence of donor-imposed restrictions. For further discussion of the classification of donor-restricted endowment funds and disclosures about both donor-restricted and board-designated endowment funds, see note 8.

The category *Permanently Restricted Net Assets* applies to gifts, trusts, and pledges whose donor-imposed stipulations neither expire with the passage of time nor can be fulfilled or otherwise removed by the actions of the University, and primarily consist of the historic dollar value of contributions to establish or add to donor-restricted endowment funds.

The category *Temporarily Restricted Net Assets* includes gifts for which donor-imposed restrictions have not been met (these may include future capital projects), as well as trust activity and pledges receivable whose ultimate use is not permanently restricted. In addition, the excess of the fair value over the historical cost of permanently restricted endowments is classified as temporarily restricted net assets until appropriated for expenditure.

The category *Unrestricted Net Assets* describes funds that have no donor-imposed restrictions. All revenues, expenses, gains, and losses are classified as unrestricted net assets unless they are changes in temporarily or permanently restricted net assets. Net unrealized losses on permanently restricted endowment funds for which the historical cost exceeds fair value are recorded as a reduction to unrestricted net assets.

Revenue from temporarily restricted sources is reclassified as unrestricted revenue when the circumstances of the restriction have been fulfilled. Donor-restricted revenues whose restrictions are met within the same fiscal year are reported as unrestricted revenue. The expiration of a donor-imposed restriction on a contribution is recognized in the period in which the restriction expires. All expenditures are reported in the unrestricted class of net assets, since the use of restricted contributions in accordance with the donor's stipulations causes the release of the restriction. Donor-restricted purposes primarily include instruction, research, library collections, scholarship and awards, and building construction.

Fair Value Measurements

The University makes fair value measurements and disclosures about fair value measurements as required by the Fair Value Measurements and Disclosures Topic of the FASB ASC. For further discussion, see notes 4 and 7.

Cash and Cash Equivalents

Cash reflects currency and deposits or other accounts with financial institutions that may be deposited or withdrawn without restriction or penalty. *Cash equivalents* represent short-term and highly liquid investments that convert readily to cash and carry little risk of change in value at maturity due to interest-rate changes; original maturities of the investments are three months or less.

Contributions

Contributions received, including unconditional promises to give (pledges), are recognized by the University as revenues at their fair values at the date of gift. Private gifts, including unconditional promises to give, are recognized as revenues in the period received. Conditional promises to give are not included in revenue until the conditions are substantially met.

Investments

Investments in securities and financial instruments are recorded at fair value. The University values its investments using a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity; unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or a liability based on the best information available. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value. The following describes this hierarchy and the primary valuation methodologies used by the University for financial instruments measured at fair value on a recurring basis:

Level 1: Quoted prices in active markets for identical assets or liabilities. Market-price data are generally obtained from relevant exchanges or dealer markets.

Level 2: Inputs other than Level 1 that are observable either directly or indirectly, such as quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially all of the same terms of the assets or liabilities. Inputs are obtained from various sources, including market participants, dealers, and brokers.

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

A financial instrument's categorization within the valuation hierarchy is based on the lowest level of input significant to the fair value measurement. In the event that changes in the inputs used in the fair value measurement of an asset or liability result in a transfer of the fair value measurement to a different categorization, such transfers between fair value categories are determined and recognized at the end of the reporting period. The categorization of an investment is based upon its pricing transparency and liquidity and does not necessarily correspond to the University's perceived risk of that investment. As a practical expedient as permitted under GAAP, the reported net asset value (NAV) of investments with external managers is used to estimate their fair value. Such investments that use NAV as a practical expedient for valuation purposes are shown separately from the valuation hierarchy. For further discussion, see note 4.

Equity securities with readily determinable fair values and debt securities are valued at the last sale price (if quotations are readily available) or at the closing bid price in the principal market in which such securities are normally traded (if no sale price is available). The fair values for these securities are classified as Level 1 because the securities have observable market inputs. Certain fixed income securities are valued based on dealer-supplied valuations; since these securities have significant other observable inputs, they are classified as Level 2.

The estimated fair values of equity securities that do not have readily determined fair values, and of other investments that are generally less liquid, are based on valuation information received on the relevant entity and may include last sale information or independent appraisals of value. In addition, standard valuation techniques, including discounted cash flow models or valuation multiples based on comparable investments, may be used. The fair values for these securities are classified as Level 3, reflecting significant unobservable inputs that are supported by little or no market inputs.

Investments in certain real assets and other investments are recorded at acquisition or construction cost, or at fair value as of donation date if received as a contribution. The University performs a periodic assessment of these assets for impairment by comparing the future cash flows expected from the asset to the carrying value of the asset. An impairment loss is recognized for the difference between estimated fair value and carrying value. In management's opinion, no impairment of investments held at cost existed as of August 31, 2018 and 2017. For further discussion of such investments, see note 4.

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

Investment income is recorded on the accrual basis, and purchases and sales of investment securities are reflected on a trade-date basis.

Derivative Financial Instruments

The University uses various financial instruments to obtain equity market exposure (e.g., equity price risk) of an underlying investment strategy; if applicable, these have a reference index (e.g., S&P 500) that is the same as, or highly correlated with, the reference index of the investment strategy. Such instruments are not designated as hedges for accounting purposes and are recorded at fair value.

The University enters into swap agreements to hedge future interest-rate movements. It may also add various interest-rate options to hedge the overall portfolio and use an interest-rate swap agreement to hedge variable interest-rate exposure. Interest-rate swaps are valued using observable inputs, such as quotations received from the counterparty, dealers, or brokers, whenever they are available and considered reliable. If and when models are used, the value of the interest-rate swap depends on the contractual terms of and specific risks inherent in the instrument, as well as the availability and reliability of observable inputs. Such inputs include market prices for reference securities, yield curves, credit curves, measures of volatility, and prepayment rates as well as correlations of such inputs. Due to significant other observable inputs, the interest-rate swaps are classified as Level 2. For further discussion, see notes 4 and 7.

Accounts and Notes Receivable

Accounts receivable are recorded at net realizable value. Those generally expected to be collected within one year are carried without an allowance. Accounts receivable deemed to be uncollectible are written off at that time.

Notes receivable are recorded at net realizable value and are predominantly student loans with varying maturities. Notes receivable deemed to be uncollectible are written off.

Contributions Receivable

Contributions receivable that represent unconditional promises to give are recognized at fair value as contributions—either temporarily restricted or permanently restricted—in the period such promises are made by donors. Contributions are discounted at a risk-adjusted rate commensurate with the duration of the donor's payment plan. Amortization of the discounts is recorded as additional contribution revenue. Allowance is made for uncollectible contributions based on management's expectations regarding collection of outstanding promises to give and past collection experience. There were no significant conditional promises to give as of August 31, 2018 and 2017.

Land, Buildings, and Equipment

Land, buildings, and equipment are recorded at cost or, if received as gifts, at fair value at the date of gift. Significant renewals and replacements are capitalized. The cost of repairs and maintenance is expensed as incurred. Purchases of library books and works of art are also expensed.

Depreciation is calculated using the straight-line method over the useful lives of the equipment, which are estimated to be 3 to 20 years; of the buildings and land improvements, which are estimated to be up to 40 years; and of the leasehold improvements, which are estimated to be the shorter of the useful life or the lease term.

The University reviews long-lived assets for impairment by comparing the future cash flows expected from the asset to the carrying value of the asset. If the carrying value of an asset exceeds the sum of estimated undiscounted future cash flows, an impairment loss is recognized for the difference between estimated fair value and carrying value.

Charitable Remainder Trusts

Charitable remainder trusts are classified as permanently restricted net assets if, upon termination of the trust, the donor permanently restricts the remaining trust assets. If the remainder is not permanently restricted by the donor, the charitable remainder trust assets are recorded as temporarily restricted net assets.

Annuities Payable

Annuities payable consist of annuity payments currently due and the actuarial amount of annuities payable. The actuarial amount of annuities payable is the present value of the aggregate liability for annuity payments over the expected lives of the beneficiaries.

Self-Insurance Reserves

The University maintains a self-insurance program for general liability, professional liability, and certain employee and student insurance coverages. This program is supplemented with commercial excess insurance above the University's self-insurance retention. The reserves for self-insurance, postemployment benefits, and postretirement medical and life insurance benefits are based on actuarial studies and management estimates. See notes 9 and 11 for additional discussion.

Revenue Recognition

Revenues from tuition and fees are reported in the fiscal year in which they are earned, including pro-rata adjustments for educational programs crossing over fiscal years. Fiscal year 2019 fall-quarter tuition and fees, billed but not earned in fiscal year 2018, are reported as deferred revenue in fiscal year 2018. Similarly, fiscal year 2018 fall-quarter tuition and fees, billed but not earned in fiscal year 2017, are reported as deferred revenue in fiscal year 2017.

Revenues from auxiliary services, such as residence and food services, represent fees for goods and services furnished to University students, faculty, and staff; these revenues are recognized in the fiscal year in which the goods and services are provided. Grants and contracts revenue is recognized as expenses are incurred. Professional fees arise from faculty and department services provided to external institutions such as hospitals. Sales and services revenues represent fees for services and goods provided to external parties in the course of educational activities. It also includes revenues from the provision of physical plant services and goods to external institutions contiguous to the University campuses; trademark and royalty revenues arising from licensing of innovative technologies, copyrights, and other intellectual property (these revenues are recognized in the fiscal year in which they are earned); and other income including revenues not otherwise categorized that are also recognized in the fiscal year in which they are earned.

Federal Grants and Contracts Revenue

The University receives funding or reimbursement from federal agencies. In addition, indirect cost recovery on federal grants and contracts is based on an institutional rate negotiated with its cognizant federal agency, the United States Department of Health and Human Services.

Income Taxes

The Internal Revenue Service has determined that the University is exempt from income taxes under Section 501(c)(3) of the US Internal Revenue Code, except with regard to unrelated business income, which is taxed at corporate income tax rates. The University files federal and various state and local tax returns. The statute of limitations on the University's federal tax returns remains open for fiscal years 2015 through 2018.

The University makes an assessment of individual tax positions and follows a process for recognition and measurement of uncertain tax positions. Tax positions are evaluated on whether they meet the "more likely than not" standard for sustainability on examination by tax authorities.

In December 2017, the US president signed into law H.R. 1, formerly known as the Tax Cuts and Jobs Act (TCJA). The University continues to evaluate the impact H.R. 1 will have on its operations pending the release of further guidance.

Uses of Estimates in the Preparation of the Consolidated Financial Statements

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities; the disclosure of contingent assets and liabilities at the date of the consolidated financial statements; and the reported amounts of revenues and expenses during the relevant period. Actual results could differ from those estimates.

Newly Adopted Accounting Pronouncements

In April 2015, the FASB issued Accounting Standards Update (ASU) 2015-03, "Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." This ASU requires debt issuance costs related to a recognized debt liability to be presented in the statement of financial position as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The University adopted the provisions of ASU 2015-03, which require retrospective application, in the accompanying consolidated financial statements. Accordingly, the August 31, 2017, consolidated statement of financial position reclassified $8,478 of net deferred financing costs, previously reported as other assets, as a reduction of bonds, notes, and other debt payable.

Recent Accounting Pronouncements

In June 2018, the FASB issued ASU 2018-08, "Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made," which includes guidance to assist entities in evaluating whether a transfer of assets should be accounted for as a contribution (nonreciprocal transaction) within the scope of Topic 958, Not-for-Profit Entities, or as an exchange (reciprocal) transaction subject to other guidance. The guidance also clarified that a contribution is conditional if the agreement includes both a barrier (as defined) and a right of return or release. The standard is effective in fiscal year 2019 for the University.

In August 2016, the FASB issued ASU 2016-14, "Not-for-Profit Entities: Presentation of Financial Statements of Not-for-Profit Entities." The guidance addresses net asset classifications, and reporting and disclosures about liquidity, financial performance, expenses, and cash flows. The standard is effective in fiscal year 2019 for the University.

In February 2016, the FASB issued ASU 2016-02, "Leases," new guidance to increase the transparency and comparability of lease reporting by recognizing lease assets and liabilities on the balance sheet and disclosing key information about leasing activities. The standard is effective in fiscal year 2020 for the University.

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities," affecting accounting for equity investments and financial liabilities under the fair value option and certain presentation and disclosure requirements for financial instruments. The standard is effective in fiscal year 2019 for the University.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers," a new revenue recognition topic in the codification that provides a principle-based framework to replace earlier industry-specific and rule-based revenue recognition standards. Under the new ASU, revenue is recognized for the transfer of promised goods or services to customers in an amount that reflects the consideration that the entity expects to be entitled to in exchange for those goods or services. Additional disclosure is required to enable users of the financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The standard is effective in fiscal year 2019 for the University.

The University is currently evaluating the impact of the aforementioned standards.

Summarized Comparative Information

The consolidated financial statements include certain prior-year summarized comparative information in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with the University's consolidated financial statements for the year ended August 31, 2017, from which the summarized information was derived.

Reclassifications

Certain prior-year amounts have been reclassified to conform to the current-year presentation, with no effect on excess (deficit) of operating revenues over expenses, excess of nonoperating revenues over expenses, or net assets.

2. Accounts Receivable and Notes Receivable

Accounts receivable as of August 31 are summarized on the consolidated statements of financial position as follows:

(in thousands of dollars)	*2018*	*2017*
Research and other sponsored programs support	$84,711	$85,760
Student receivables	120,393	117,739
Other receivables	69,510	60,566
Accounts receivable subtotal	**274,614**	**264,065**
Less allowances for student uncollectible amounts	(660)	(641)
Total accounts receivable, *net*	**$273,954**	**$263,424**

Notes receivable as of August 31 are summarized on the consolidated statements of financial position as follows:

(in thousands of dollars)	*2018*	*2017*
Notes receivable	$155,939	$155,485
Less allowances for student uncollectible amounts	(4,273)	(3,806)
Total notes receivable, *net*	**$151,666**	**$151,679**

3. Contributions Receivable

Contributions receivable as of August 31 consisted of the following:

(in thousands of dollars)	*2018*	*2017*
Unconditional promises expected to be collected in		
Less than one year	$53,615	$57,821
One to five years	185,228	181,136
More than five years	114,416	130,727
Contributions receivable subtotal	**353,259**	**369,684**
Less unamortized discounts	(41,345)	(48,976)
Less allowances for uncollectible amounts	(456)	(1,928)
Total contributions receivable, *net*	**$311,458**	**$318,780**

Contributions receivable are discounted at rates ranging from 1.7 to 6.5 percent.

4. Investments

The University's investments are overseen by the Investments Committee of the Board of Trustees. Guided by the policies established by the Investments Committee, the University's Investment Office or external equity investment managers, external and internal fixed income and cash managers, and various limited partnership managers direct the investment of endowment and trust assets, certain working capital, temporarily invested expendable funds, and commercial real estate.

Substantially all of these assets are merged into internally managed investment pools on a market value basis. Each holder of units in the investment pools subscribes to or disposes of units on the basis of the market value per unit at the beginning of each month.

Fair Value Disclosures

The following tables show the estimated fair value of investments and derivatives, grouped by the valuation hierarchy as defined in note 1, as of August 31, 2018 and 2017:

(in thousands of dollars) *2018*

	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	NAV as Practical Expedient (NAV)	Total fair value
Cash and cash equivalents	$83,132	—	—	—	$83,132
US equity	561,412	$68,609	—	$1,026,835	1,656,856
International equity	261,213	14,382	$66	1,635,779	1,911,440
Fixed income	56,736	580,417	—	266,423	903,576
High-yield credit	—	—	—	301,826	301,826
Absolute return	—	—	—	2,123,246	2,123,246
Private investments	24,086	321	17,633	2,409,604	2,451,644
Real assets	244,976	17,687	91,052	1,429,307	1,783,022
Other investments	—	30,879	25,799	—	56,678
Interest-rate derivatives	2,500	(1,742)	—	—	758
Subtotal investment assets at fair value	**1,234,055**	**710,553**	**134,550**	**9,193,020**	**11,272,178**[a]
Interest-rate swaps	—	(13,410)	—	—	(13,410)
Total	**$1,234,055**	**$697,143**	**$134,550**	**$9,193,020**	**$11,258,768**

[a] *Investments held at cost totaling $27,657 thousands should be added to the subtotal investment assets at fair value, and beneficial interest in charitable remainder trusts totaling $12,748 thousands should be subtracted from the subtotal investment assets at fair value to reflect total investment assets as of August 31, 2018.*

(in thousands of dollars) *2017*

	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	NAV as Practical Expedient (NAV)	Total fair value
Cash and cash equivalents	$214,864	—	—	—	$214,864
US equity	594,477	$53,365	—	$757,237	1,405,079
International equity	282,996	19,638	$19	1,598,400	1,901,053
Fixed income	57,968	655,750	—	219,584	933,302
High-yield credit	—	—	—	334,441	334,441
Absolute return	49,951	50,806	—	1,888,951	1,989,708
Private investments	20,014	358	17,310	2,210,735	2,248,417
Real assets	253,072	16,612	112,719	1,217,986	1,600,389
Other investments	—	34,091	24,966	—	59,057
Interest-rate derivatives	4,000	(3,058)	—	—	942
Subtotal investment assets at fair value	**1,477,342**	**827,562**	**155,014**	**8,227,334**	**10,687,252**[a]
Interest-rate swaps	—	(20,830)	—	—	(20,830)
Total	**$1,477,342**	**$806,732**	**$155,014**	**$8,227,334**	**$10,666,422**

[a] *Investments held at cost totaling $30,535 thousands should be added to the subtotal investment assets at fair value to reflect total investment assets as of August 31, 2017.*

Investments included as NAV as Practical Expedient consist primarily of the University's ownership in investments (principally limited partnership interests in long-only equity and credit, hedge, private equity, real estate, and other similar funds). As a practical expedient, when quoted market prices are not available, the estimated fair values of these investments are generally based on reported partners' capital or NAV provided by the associated external investment managers. In cases where the practical expedient threshold is not met, such as an investment not being in compliance with GAAP, or where a statement of partners' capital is not provided, the investment is reported as Level 3. Since a range of possible values exists for these partnership investments, the estimated values may be materially different from the values that would have been used had a ready market for these partnerships existed. The University exercises diligence in assessing the policies, procedures, and controls of external investment managers; management's assessment includes a valuation review process of the most recent available audited and unaudited financial statements and discussions with the majority of external investment managers about the aggregate carrying value of the respective investments at August 31, 2018. The assessment may result in adjustment to the external managers' valuations of the securities' fair value if those valuations are not in accordance with GAAP. Management reviewed the valuation policies for all partnerships in which the University is invested and deemed that its policies are appropriate and that the carrying amount of these assets represents a reasonable estimate of fair value. A small number of investments within certain partnerships may have holdings at a carrying value of cost. In the absence of another basis, management has determined this method to be appropriate for these specific investments and representative of an approximation of the fair value.

The following tables summarize changes in the investments and derivatives classified by the University in Level 3 of the fair value hierarchy for the fiscal years ended August 31, 2018 and 2017:

(in thousands of dollars)	*2017*					*2018*
	Fair value	**Purchases**	**Sales and settlements**	**Realized and unrealized gains (losses)**	**Transfers into and out of Level 3**	**Fair value**
International equity	$19	$55	—	($8)	—	$66
Private investments	17,310	5,271	($7)	(4,941)	—	17,633
Real assets	112,719	—	(8,367)	5,199	($18,499)	91,052
Other investments	24,966	—	—	833	—	25,799
Total investments	**$155,014**	**$5,326**	**($8,374)**	**$1,083**	**($18,499)**	**$134,550**

(in thousands of dollars)	*2016*					*2017*
	Fair value	**Purchases**	**Sales and settlements**	**Realized and unrealized gains (losses)**	**Transfers into and out of Level 3**	**Fair value**
US equity securities	$59	—	($54)	($5)	—	—
International equity	1,329	$198	(1,304)	(204)	—	$19
Private investments	14,752	6,726	(575)	(3,593)	—	17,310
Real assets	98,589	12,714	(9,197)	10,613	—	112,719
Other investments	23,488	—	—	1,478	—	24,966
Total investments	**$138,217**	**$19,638**	**($11,130)**	**$8,289**	**—**	**$155,014**

There were no significant transfers or reclassifications between Levels 1 and 2 during fiscal years 2018 and 2017. In fiscal year 2018, there was one transfer out of Level 3, since this underlying fund investment now adheres to US GAAP and uses NAV as a practical expedient. There were no transfers into or out of Level 3 in fiscal year 2017.

As of August 31, 2018 and 2017, investments held at cost included real estate totaling $19.4 million. Investments held at cost also included property co-ownerships, mortgages, and other investments totaling $8.3 million and $11.1 million as of August 31, 2018 and 2017, respectively.

The table below presents funding obligations and redemption terms of investments by asset class. The University is required under certain partnership agreements to advance additional funding up to specified levels over a period of several years. These uncalled commitments have fixed expiration dates and other termination clauses. At August 31, 2018, the University was committed to making future capital contributions in the amount of $2.3 billion, primarily in the next five years, as detailed in the table. Certain agreements also contain notice periods, lock-ups, and gates that limit the University's ability to initiate redemptions.

(in thousands of dollars)

	Fair value	Remaining life	Uncalled commitments	Redemption terms	Redemption restrictions
US equity	$1,656,856	No limit	—	Daily to annually, with 1- to 90-day notice periods	Lock-up provisions ranging from none to 3 years
International equity	1,911,440	No limit	$26,443	Daily to annually, with 1- to 180-day notice periods	Lock-up provisions ranging from none to 3 years
Fixed income	903,576	No limit	—	Daily to quarterly, with 1- to 90-day notice periods	No lock-up provisions
High-yield credit	301,826	No limit to 12 years	152,522	Certain partnerships ineligible for redemption; other funds semiannually to annually, with 90-day notice periods	Certain partnerships not redeemable; other partnerships include side pockets subject to general partner discretion
Absolute return	2,123,246	No limit	13,206	Daily to greater than annually, with 1- to 120-day notice periods; private partnership ineligible for redemption	Lock-up provisions ranging from none to 5 years; side pockets on many funds; one partnership not redeemable
Private investments	2,451,664	No limit to 12 years	1,059,468	Partnerships ineligible for redemption; equity securities daily, with 1-day notice period	Private partnerships not redeemable; no lock-up provisions on equity securities
Real assets	1,783,022	No limit to 14 years	1,013,545	Partnerships ineligible for redemption; commodity and equity funds weekly to quarterly, with 1- to 3-day notice periods	Drawdown partnerships not redeemable; no restriction on commodity and equity funds

Cash and cash equivalents for investment purposes include bank accounts holding cash and money market funds consisting of short-term US Treasury securities. Cash and cash equivalents are highly liquid and are carried at amortized cost, which approximates fair value.

The University's marketable securities categories include investments in US equities, international equity, and fixed income strategies via separately managed accounts, partnerships, and commingled funds. US equity strategies include large-, mid-, and small-cap public equities. Two investments in this category currently may not be redeemed over the next year.

International equities include developed market (ex–US public equities) and emerging market strategies. Three investments in this category currently may not be redeemed over the next year, while one other may only be partially redeemed over the next year.

Fixed income strategies include US government securities, agency securities, inflation-linked bonds (TIPS), corporate bonds, global bonds, and short-term cash investments.

The high-yield credit portfolio includes investments in distressed debt and other credit instruments with fixed income characteristics but more specific risk tied to the securities and their underlying cash flows.

The absolute return portfolio is weighted toward long-short equity managers, uncorrelated strategies, and diversifying event-driven or hedged tactical credit strategies. Four investments in this portfolio currently may not be redeemed over the next year due to lock-up provisions. As of August 31, 2018, the remaining investments have either full or partial liquidity over the next year, with the exception of those having side pockets.

The private investments portfolio includes investments in global buyout and venture capital funds. The real assets portfolio includes the University's investments in energy, timber, real estate, and public investments in some commodity and equity funds.

Management's estimate of the lives of the funds could vary significantly depending on the investment decisions of the external fund managers, changes in the University's portfolio, and other circumstances. Furthermore, the University's obligation to fund these commitments may be waived by the fund managers for a variety of reasons, including the market environment and/or changes in investment strategy.

Investment Return

The components of total investment return for the fiscal years ended August 31 were as follows:

(in thousands of dollars)	*2018*	*2017*
Investment income	$37,159	$45,855
Net realized gains	675,390	576,519
Net change in fair values, unrealized	361,209	464,992
Total investment return	**$1,073,758**	**$1,087,366**

Investment return designated for operations is defined as the investment payout, according to the spending guideline for the Long-Term Balanced Pool and the actual investment income for all other investments. In 2018, a $100 million adjustment to payout in excess of the spending rule was authorized to support strategic investment and is included in the investment return designated for operations line of the consolidated statement of activities. Gross investment income from specific investments held at cost totaled $15.9 million and $15.5 million for the fiscal years ended August 31, 2018 and 2017, respectively. Investment expenses related to specific investments held at cost totaled $6 million and $3 million for the fiscal years ended August 31, 2018 and 2017, respectively. All other investment returns are categorized as nonoperating. As reflected in the consolidated statement of activities, investment return for the fiscal years ended August 31 was as follows:

(in thousands of dollars)	*2018*	*2017*
Changes in unrestricted net assets		
Operating: investment return	$382,747	$370,137
Operating: investment return to support strategic investment	100,000	75,000
Nonoperating: investment return, reduced by operating distribution	258,375	293,052
Changes in temporarily restricted net assets		
Operating: investment return	164,454	159,397
Nonoperating: investment return, reduced by operating distribution	168,182	189,780
Total investment return	**$1,073,758**	**$1,087,366**

Certain expenses paid directly by the University for investment management and custody services totaled $75 million and $65.4 million for the fiscal years ended August 31, 2018 and 2017, respectively, and have been netted against investment earnings.

Derivative Financial Instruments

The University has entered into hedging transactions via various interest-rate swaps and swaptions and has maintained those positions since fiscal year 2010. These instruments are held in the fixed income asset class of investments within Level 2.

Credit exposure represents the University's potential loss if all the counterparties fail to perform under the terms of the contracts, and if all collateral, if any, becomes worthless. This exposure is measured by the fair value of the cash collateral held at the counterparties at the reporting date. The University manages its exposure to credit risk by using highly rated counterparties, establishing risk-control limits, and obtaining collateral where appropriate. As a result, the University has limited credit risk. The University has entered into margin collateral agreements with major investment banks that impose a $1 million threshold on both parties. As of August 31, 2018 and 2017, the University posted collateral of $2.5 million and $4 million, respectively, to one counterparty. To date, the University has not incurred any losses on derivative financial instruments due to counterparty nonperformance.

The University has hired an external manager to use derivative financial instruments to obtain market exposure in equity and fixed income indices on excess cash balances. The University regularly reviews the use of derivative financial instruments by each of the managers of alternative investment funds in which it participates. While these outside managers generally use such instruments for hedging purposes, derivative financial instruments are employed for trading purposes by numerous independent asset managers of the University.

For further discussion of credit-related derivatives, see note 7.

The following tables summarize the derivative financial instruments held by the University as of August 31, 2018 and 2017:

(in thousands of dollars)				*2018*
	Notional amount	**Assets**	**Liabilities**	**Fiscal year net gain (loss)**
Investment-related derivatives				
Interest-rate swaptions	$200,000	$2,500	($1,742)	—
Total investment-related	**200,000**	**2,500**	**(1,742)**	**—**
Credit-related derivatives				
Interest-rate swaps	125,002	—	(13,410)	$7,419
Total credit-related	**125,002**	—	**(13,410)**	**7,419**
Total derivative financial instruments	**$325,002**	**$2,500**	**($15,152)**	**$7,419**

(in thousands of dollars)				*2017*
	Notional amount	**Assets**	**Liabilities**	**Fiscal year net gain (loss)**
Investment-related derivatives				
Interest-rate swaptions	$200,000	$4,000	($3,058)	($145)
Equity futures	60,252	4,443	—	8,179
Total investment-related	**260,252**	**8,443**	**(3,058)**	**8,034**
Credit-related derivatives				
Interest-rate swaps	125,000	—	(20,830)	7,732
Total credit-related	**125,000**	—	**(20,830)**	**7,732**
Total derivative financial instruments	**$385,252**	**$8,443**	**($23,888)**	**$15,766**

5. Land, Buildings, and Equipment

Land, buildings, and equipment for the fiscal years ended August 31 consisted of the following:

(in thousands of dollars)	*2018*	*2017*
Land	$31,036	$31,036
Construction-in-progress	563,507	688,360
Buildings and leasehold improvements	3,828,036	3,278,609
Equipment	651,033	607,409
Accumulated depreciation	(1,815,577)	(1,671,735)
Total land, buildings, and equipment, *net*	**$3,258,035**	**$2,933,679**

Included in construction-in-progress costs are building and leasehold improvement capitalizations. Building costs are funded by bonds, gifts (received or pledged), grants, and unrestricted funds.

Under the University's interest capitalization policy, actual interest expense incurred during the period of construction of an asset for University use is capitalized until that asset is substantially completed and ready for use. The capitalized cost is reflected in the asset's total cost and depreciated over the asset's useful life. Assets may include buildings and major equipment.

Lease Obligations

The University is obligated under numerous operating leases to pay base rent through the lease expiration dates. Operating leases consist primarily of leases for the use of real property and have terms expiring in various years through fiscal year 2031. Real estate lease expenses totaled $14.1 million and $13.4 million for the fiscal years ended August 31, 2018 and 2017, respectively. Sublease rental income totaled $2.9 million for the fiscal years ended August 31, 2018 and 2017. At August 31, 2018, there were no subleases that are noncancelable for one year or more. The future minimum lease payments under noncancelable operating leases through August 31 of each period are shown at right.

(in thousands of dollars)	
2019	$15,833
2020	15,611
2021	14,122
2022	12,748
2023	10,885
2024 and thereafter	58,025
Total	**$127,224**

Rentals under Leases

The University is entitled under numerous operating leases to receive rental payments. Operating leases consist primarily of leases for the use of real property and have terms expiring in various years through fiscal year 2041. The future minimum rental payments under noncancelable operating leases through August 31 of each period are shown at right.

(in thousands of dollars)	
2019	$1,210
2020	491
2021	472
2022	448
2023	460
2024 and thereafter	4,781
Total	**$7,862**

6. Deposits Payable and Actuarial Liability of Annuities Payable

Deposits payable and actuarial liability of annuities payable for the fiscal years ended August 31 are summarized on the consolidated statements of financial position as follows:

(in thousands of dollars)	*2018*	*2017*
Agency deposits payable	$123,468	$119,777
Actuarial liability of annuities payable	19,939	20,239
Student loan deposits payable	5,537	7,981
Other deposits payable	5,799	8,182
Total deposits payable and actuarial liability of annuities payable	**$154,743**	**$156,179**

7. Bonds, Notes, and Other Debt Payable

Bonds, notes, and other debt payable for the fiscal years ended August 31 are as follows:

(in thousands of dollars)	Interest-rate mode	Fiscal year maturity	Interest rate	*2018*	*2017*
Illinois Finance Authority (IFA)–Series 2004	Variable	2034	1.52% [a]	$135,800	$135,800
IFA–Series 2008	Variable	2046	1.49% [a]	125,000	125,000
Taxable–Series 2012	Fixed	2039–2047	4.20%	200,000	200,000
Taxable–Series 2013	Fixed	2015–2044	4.56% [b]	568,175	572,945
Taxable–Series 2015	Fixed	2038–2048	3.78% [b]	500,000	500,000
IFA–Series 2015	Fixed	2022–2028	4.24% [b]	128,545	128,545
Taxable–Series 2017	Fixed	2047–2057	3.74% [a]	500,000	—
Commercial paper ($300,000 available)	Variable	2019	2.19% [b]	260,000	145,000
Promissory note	Fixed	2021	1.72% [c]	24,000	32,000
Lines of credit ($750,000 available)	Variable	2019	2.66% [b]	115,000	200,000
Bonds, notes, and other debt payable subtotal				**2,556,520**	**2,039,290**
Unamortized issuance costs, premiums, and discounts, *net*				(1,384)	1,312
Total bonds, notes, and other debt payable, *net*				**$2,555,136**	**$2,040,602**

[a] *Interest rate reset weekly*
[b] *Weighted average interest rate at August 31, 2018*
[c] *Imputed rate on non-interest-bearing note*

Total obligations including bonds, notes, and other debt payable at August 31, 2018, are scheduled to mature through August 31 of each period as noted at right. The schedule has been prepared based on the contractual maturities of the debt outstanding at August 31, 2018. Accordingly, if remarketing of bonds fails in future periods, debt repayments may become more accelerated than presented here. The potential failed remarketings coincide with the interest rate reset dates and amounts noted above.

(in thousands of dollars)	
2019	$387,935
2020	13,085
2021	13,450
2022	4,790
2023	6,660
2024 and thereafter	2,130,600
Total	**$2,556,520**

Bonds Payable

During the year ended August 31, 2018, the Taxable–Series 2017 Fixed Rate Bonds were issued to acquire, construct, and equip certain educational facilities of the University and to pay certain costs relating to the issuance of the bonds, subject to conditions set forth in a trust indenture between the University and Wells Fargo Bank, NA.

Derivative Financial Instruments

The University has entered into interest-rate swap agreements to hedge variable interest-rate exposure related to certain variable rate debt. The agreements effectively fix the interest rate from 4.12 percent to 4.38 percent. The notional value is $125 million through expiration on August 31, 2023.

The University recognized a net unrealized gain on the swap investment totaling $7.4 million and $7.7 million, respectively, for the fiscal years ended August 31, 2018 and 2017. The fair values of the swap position were in a liability position of $13.4 million and $20.8 million as of August 31, 2018 and 2017, respectively, and are included in accounts payable and accrued liabilities on the consolidated statements of financial position. Also see note 4.

8. Endowments

The FASB ASC Not-for-Profit Entities Presentation of Financial Statements Subtopic provides guidance on the net asset classification of donor-restricted endowment funds for not-for-profit organizations subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act (UPMIFA) and improves disclosure about an organization's endowment funds, both donor-restricted and board-designated, regardless of whether the organization is subject to UPMIFA.

The University interprets UPMIFA as requiring that the fair value of the original donor-restricted endowment gift be preserved as of the gift date unless there are explicit donor stipulations to the contrary. Therefore, the University classifies as permanently restricted net assets the original value of gifts donated to the permanent endowment, the original value of subsequent gifts, and accumulations to the permanent endowment made in accordance with the applicable donor gift instrument at the time the accumulation was added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until it is appropriated for University expenditure in a manner consistent with UPMIFA's standard of prudence. In accordance with UPMIFA, the University considers the following factors in determining to appropriate or accumulate donor-restricted endowment funds:

- The duration and preservation of the endowment fund
- The purposes of the institution and of the endowment fund
- General economic conditions
- Possible effects of inflation or deflation
- Expected total return from income and appreciation of investments
- Other resources of the institution
- The institutional investment policy

The University's endowment consists of about 2,700 individual donor-restricted endowment funds and about 1,000 funds it designates to function as endowments. The net assets associated with endowment funds, including funds designated by the University to function as endowments, are classified and reported based on whether there are donor-imposed restrictions. Institution-designated endowment funds include quasi-endowments established by specific Board of Trustees approval as well as endowments created by management under general guidelines and policies approved by the Board of Trustees.

The following tables present the endowment net asset composition by type of fund at fair value as of August 31, 2018 and 2017:

(in thousands of dollars) *2018*

Endowment net asset composition by type of fund	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	($45)	$2,584,982	$1,572,271	$4,157,208
Institution-designated endowment funds	4,229,710			4,229,710
Total endowment funds	**$4,229,665**	**$2,584,982**	**$1,572,271**	**$8,386,918**

(in thousands of dollars) *2017*

Endowment net asset composition by type of fund	Unrestricted	Temporarily restricted	Permanently restricted	Total
Donor-restricted endowment funds	($57)	$2,422,041	$1,483,792	$3,905,776
Institution-designated endowment funds	4,041,798			4,041,798
Total endowment funds	**$4,041,741**	**$2,422,041**	**$1,483,792**	**$7,947,574**

Investment and Spending Policies

The University's endowment is primarily invested in the Long-Term Balanced Pool. The Investments Committee of the Board of Trustees annually reviews asset allocation policy for the pool.

The principal objective for the Long-Term Balanced Pool is to preserve purchasing power and to provide a growing stream of income to fund University programs. On average, the pool seeks to achieve an annual total rate of return (i.e., actual income plus appreciation) equal to inflation plus actual spending. This objective of preserving purchasing power emphasizes the need for a long-term perspective in formulating both spending and investment policies.

The Board of Trustees has adopted a guideline for the annual spending rate from the University's Long-Term Balanced Pool. The calculation blends market and spending elements for the total annual spending rate.

The market element is an amount equal to 4.35 percent of the market value of a unit in the pool, averaged for the 12 months ended October 31 of the prior fiscal year. It is weighted at 30 percent in determining the total. The spending element is an amount equal to the current fiscal year's spending amount increased by 1.5 percent plus the actual rate of inflation. It is weighted at 70 percent in determining the total.

If investment income received is not sufficient to support the total-return objective, the balance is provided from realized and unrealized gains. If the income received is in excess of the objective, the balance is reinvested in the Long-Term Balanced Pool on behalf of the unit holders.

The University's policy is to reinvest the current income of all other investment pools.

Changes in Endowment Net Assets

The following tables represent changes in endowment net assets for the fiscal years ended August 31:

(in thousands of dollars)				*2018*
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**
Endowment net assets, beginning of year	$4,041,741	$2,422,041	$1,483,792	$7,947,574
Net investment loss	(3,143)	(3,119)	—	(6,262)
Net appreciation, realized and unrealized	337,549	334,864	—	672,413
Total investment return	**334,406**	**331,745**	**—**	**666,151**
Contributions	—	3,380	79,265	82,645
Appropriation of endowment assets for expenditure	(167,459)	(165,526)	—	(332,985)
Other changes				
Transfers to create institutional funds	49,811	—	—	49,811
Transfers of institutional funds per donor requirement	—	535	9,339	9,874
Spending of institution-designated endowment fund	(36,152)	—	—	(36,152)
Other reclassifications	7,318	(7,193)	(125)	—
Endowment net assets, end of year	**$4,229,665**	**$2,584,982**	**$1,572,271**	**$8,386,918**

(in thousands of dollars)				*2017*
	Unrestricted	**Temporarily restricted**	**Permanently restricted**	**Total**
Endowment net assets, beginning of year	$3,831,631	$2,235,406	$1,411,130	$7,478,167
Net investment loss	(6,188)	(6,247)	—	(12,435)
Net appreciation, realized and unrealized	357,024	354,471	—	711,495
Total investment return	**350,836**	**348,224**	**—**	**699,060**
Contributions	—	1,400	56,575	57,975
Appropriation of endowment assets for expenditure	(164,091)	(159,515)	—	(323,606)
Other changes				
Transfers to create institutional funds	66,740	—	—	66,740
Transfers of institutional funds per donor requirement	—	368	12,305	12,673
Spending of institution-designated endowment fund	(43,435)	—	—	(43,435)
Other reclassifications	60	(3,842)	3,782	—
Endowment net assets, end of year	**$4,041,741**	**$2,422,041**	**$1,483,792**	**$7,947,574**

Underwater Endowment Funds

The University monitors endowment funds to identify those for which historical cost was more than fair value. As of August 31, 2018 and 2017, the historical cost of such accounts was approximately $4.7 million and $1.9 million, and the market value totaled $4.7 million and $1.8 million, respectively. Associated unrealized losses are recorded in the unrestricted net assets classification; subsequent gains increase unrestricted net assets.

9. Retirement Plans

The University maintains two contributory retirement plans for its eligible faculty and staff. The plans offer employees two investment company options, Teachers Insurance and Annuity Association (TIAA) and College Retirement Equities Fund (CREF), and the mutual funds offered by Fidelity Investments. Participating employee and University contributions are immediately vested. The University contributed $81.5 million and $77 million to the two plans in 2018 and 2017, respectively. It expects to contribute $86.5 million to the two plans in 2019.

The University currently sponsors a healthcare plan permitting retirees to continue participation on a "pay-all" basis; it has no liability for participants past age 65. The retiree contribution is based on the average per-capita cost of coverage for the plan's entire group of active employees and retirees rather than the per-capita cost for retirees only. Retirees are also eligible to participate in certain tuition reimbursement plans and may receive a payment for sick days accumulated at retirement. Certain postemployment benefit plans are also sponsored.

The University recognizes an asset or a liability in the consolidated statements of financial position for the plans' overfunded or underfunded status. The asset or liability is the difference between the fair value of plan assets and the related benefit obligation, defined as the projected benefit obligation for post-employment benefit programs and the accumulated postretirement benefit obligation (APBO) for post-retirement benefit programs, such as a retiree health-care plan. In the consolidated statement of activities, the University recognizes actuarial gains or losses and prior service costs or credits that arise during the period but are not components of net periodic benefit cost. The University measures plan assets and obligations as of the date of its fiscal year-end and makes specified disclosures for the upcoming fiscal year.

The accrued cost for postemployment benefits was $9.8 million and $10.1 million at August 31, 2018 and 2017, respectively, and is included in accounts payable and accrued liabilities on the consolidated statements of financial position.

The University funds the benefit costs as they are incurred. The following table sets forth the postretirement plan's obligations, benefits paid, contributions, net periodic postretirement benefit cost, and assets for the fiscal years ended August 31:

(in thousands of dollars)	*2018*	*2017*
Benefit obligations	$15,924	$15,691
Benefits paid	1,473	1,003
Employer contributions	816	387
Contributions from participants	656	617
Net periodic postretirement benefit cost	1,299	985
Fair value of plan assets	—	—

The changes in other than periodic benefit cost included in unrestricted net assets on the consolidated statements of financial position totaled net gains of $1.2 million and $0.8 million as of August 31, 2018 and 2017, respectively; an increase of $0.4 million due to net gains during the fiscal year.

The APBO was $15.9 million and $15.7 million at August 31, 2018 and 2017, respectively, and is included in accounts payable and accrued liabilities on the consolidated statements of financial position.

The following tables present key actuarial assumptions used in determining APBO as of August 31, 2018 and 2017. For both fiscal years 2018 and 2017, the ultimate healthcare cost trend rate was 5 percent, and the year when the trend rate will reach the ultimate trend rate was 2025.

Additional assumptions used to determine benefit obligations for the fiscal years ended August 31 were as follows:

	2018	*2017*
Settlement (discount) rate	3.8%	3.3%
Weighted average rate of increase in future compensation levels	2.5%	3%
Healthcare cost trend rate	6.75%	7%

Next, the assumptions used to determine net periodic benefit cost for the fiscal years ended August 31:

	2018	*2017*
Discount rate	3.3%	3%
Weighted average rate of increase in future compensation levels	3%	3%
Healthcare cost trend rate	7%	6.75%

A one-percentage-point change in assumed healthcare cost trend rates would have had these effects in fiscal year 2018:

(in thousands of dollars)	*1% point decrease*	*1% point increase*
(Decrease) increase in total of service and interest cost	($73)	$84
(Decrease) increase in postretirement benefit obligation	(697)	783

Estimated future benefit payments reflecting anticipated service, as appropriate, are expected to be paid as shown below:

(in thousands of dollars)	
2019	$894
2020	801
2021	885
2022	991
2023	1,043
2024–2028	5,847
Total	**$10,461**

The University offers a deferred compensation plan under Internal Revenue Code 457(b) to a select group of management and highly compensated employees. There is no University contribution related to this deferred compensation plan. The University has recorded both an asset and a liability related to the deferred compensation plan that totaled $89.3 million and $76.5 million as of August 31, 2018 and 2017, respectively; these are included in investments and deposits payable and actuarial liability of annuities payable on the consolidated statements of financial position.

10. Related Parties

Members of the University's Board of Trustees, senior management, and faculty may on occasion be associated either directly or indirectly with entities doing business with the University. The University bylaws and conflict of interest policies establish guidelines for disclosure and regulation of such activities as circumstances warrant. When such associations exist, measures are taken, in the best interests of the University, to mitigate any actual or perceived conflict. Transactions with related parties may include investment management, common membership in investment partnerships or other investment vehicles, and the purchase of goods or services.

Northwestern Medical Group (NMG) is a not-for-profit, multispecialty physician organization committed to providing clinical care to patients and to supporting the research and academic endeavors of Northwestern's Feinberg School of Medicine (Feinberg). NMG is governed by a board of directors, and its physicians are full-time faculty members or researchers at Feinberg. It is a wholly owned subsidiary of Northwestern Memorial Healthcare Corporation (NMHC), the not-for-profit parent corporation of Northwestern Memorial Hospital (NMH), which is the primary teaching hospital of Feinberg. As such, NMHC and NMG are related parties of the University. Under terms of agreements effective in fiscal year 2014 between the University, NMG, and NMHC, the University receives recurring contributions from NMHC to support the Feinberg research and education programs, basic and applied biomedical research facilities and programs, and research and educational support services.

As of August 31, 2018 and 2017, accounts receivable arising from support and operational activities with NMHC totaled $19.3 million and $17 million, respectively, and are included in accounts receivable on the consolidated statements of financial position. For the fiscal years ended August 31, 2018 and 2017, contributions totaling $109.3 million and $114.4 million, respectively, have been made from NMHC to the University and are included in private gifts on the consolidated statement of activities. For the fiscal years ended August 31, 2018 and 2017, revenues arising from operational activities with NMHC totaled $24.4 million and $23.4 million, respectively, and are included in professional fees on the consolidated statement of activities.

11. Self-Insurance Reserves and Other Contingencies

Reserves for losses under the University's self-insurance program, aggregating $8.3 million and $8 million at August 31, 2018 and 2017, respectively, include reserves for probable known losses and for losses incurred but not yet reported. The reserves are presented on a discounted basis. The discount rate was 7.5 percent in fiscal years 2018 and 2017. Self-insurance reserves are based on estimates of historical loss experience, and while management believes that the reserves are adequate, the ultimate liabilities may be more or less than the amounts provided. These reserves are included in accounts payable and accrued liabilities on the consolidated statements of financial position.

Under an agreement in effect through fiscal year 2013 between the University and NMG, a proportionate share of primary medical professional liability costs that arise out of events prior to November 1, 2004, was borne by NMG. As a part of the clinical integration agreement between NMG, NMHC, and the University, signed September 1, 2013, any remaining liabilities related to the period prior to November 1, 2004, are the obligations of the University and included in the reserves, beginning in fiscal year 2014, for losses noted above.

In August 2009, the University, as originating lender, began participation in a student loan securitization program. It sold student loans to a school trust totaling $65 million in 2009, $19.8 million in 2010, and $22.5 million in 2012; the University issued University-guaranteed notes, which were purchased by a funding trust that procures financing to support the lending program. The programs are managed to break even and generate no servicing assets or liabilities. Guaranteed notes under these programs totaled $13.2 million and $20.6 million as of August 31, 2018 and 2017, respectively. These loans are included in notes receivable and deposits payable on the consolidated statements of financial position. Reserves in anticipation of securitized student loan future defaults totaled $47,000 and $74,000 at August 31, 2018 and 2017, respectively. Notes receivable on the consolidated statements of financial position are shown net of these reserves as of August 31, 2018 and 2017.

In October 2013, the University purchased a $61 million portfolio of private education loans from a lending agency; these loans were purchased by the lending agency from the University prior to 2009 and were serviced by the University. As of August 31, 2018 and 2017, respectively, these loans totaled $18.9 million and $23.1 million, and are included in notes receivable on the consolidated statements of financial position. The University continues to service the repurchased loans. At August 31, 2018 and 2017, $68,000 and $83,000, respectively, were reserved in anticipation of future defaults. Notes receivable on the consolidated statements of financial position are shown net of these reserves as of August 31, 2018 and 2017.

From time to time, various claims and suits generally incidental to the conduct of normal business are pending or may arise against the University. It is the opinion of management of the University, after taking into account insurance coverage, that any losses from the resolution of pending litigation should not have a material effect on the University's financial position or results of operations.

All funds expended in connection with government grants and contracts are subject to audit by government agencies. While any ultimate liability from audits of government grants and contracts by government agencies cannot be determined at present, management believes that it should not have a material effect on the University's consolidated financial position or results of operations.

12. Grants and Contracts

Grants and contracts for the fiscal years ended August 31 are summarized on the consolidated statement of activities as follows:

(in thousands of dollars)	*2018*	*2017*
Federal grants	$484,398	$461,741
Private grants and contracts	159,565	151,041
State grants	4,045	4,666
Total grants and contracts	**$648,008**	**$617,448**

13. Functional Classification of Expenses

Expenses by functional categories reflect salaries, wages, benefits, goods, and services used for those specific purposes. The University has allocated functional expenses for maintenance of facilities, as well as for depreciation, accretion for asset retirement obligations, and interest on indebtedness, to other functional categories based on the functional use of space on the University's campuses.

Operating expenses incurred in the fiscal years ended August 31 were as follows:

(in thousands of dollars) *2018*

	Maintenance of facilities	Depreciation and accretion	Interest on indebtedness	All other operating expenses	Total
Instruction	$29,824	$22,417	$10,209	$742,345	$804,795
Research	52,358	39,356	17,923	395,198	504,835
Academic support	38,864	29,212	13,305	302,308	383,689
Student services	25,153	18,907	8,611	198,438	251,109
Institutional support	13,217	9,934	4,524	336,091	363,766
Auxiliary services	41,117	30,906	14,076	64,890	150,989
Total	**$200,533**	**$150,732**	**$68,648**	**$2,039,270**	**$2,459,183**

(in thousands of dollars) *2017*

	Maintenance of facilities	Depreciation and accretion	Interest on indebtedness	All other operating expenses	Total
Instruction	$26,488	$20,705	$6,404	$832,301	$885,898
Research	47,272	36,952	11,430	398,801	494,455
Academic support	36,419	28,469	8,806	205,578	279,272
Student services	23,262	18,184	5,625	181,574	228,645
Institutional support	10,804	8,445	2,612	276,348	298,209
Auxiliary services	39,295	30,716	9,501	31,305	110,817
Total	**$183,540**	**$143,471**	**$44,378**	**$1,925,907**	**$2,297,296**

14. Subsequent Events

The University has evaluated subsequent events in accordance with the FASB ASC Subsequent Event Topic through December 19, 2018, the date when the consolidated financial statements were issued. The University did not identify any events to be disclosed.

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