

**Colorado School of Mines
Financial Statements and Independent Auditor's Reports**

**Financial Audit
Years Ended June 30, 2019 and 2018**

**Compliance Audit
Year Ended June 30, 2019**

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Colorado School of Mines

Report Summary

Year Ended June 30, 2019

Purpose and Scope

The Office of the State Auditor of the State of Colorado engaged CliftonLarsonAllen, LLP to conduct a financial and compliance audit of the Colorado School of Mines (the University) for the year ended June 30, 2019. CliftonLarsonAllen performed this audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. We conducted the related fieldwork from May 2019 to November 2019.

The purpose and scope of our audit were to:

- Express opinions on the financial statements of the University as of and for the years ended June 30, 2019 and 2018. This includes a report on internal control over financial reporting and compliance and other matters based on the audit of the financial statements performed in accordance with *Government Auditing Standards*.
- Evaluate compliance with laws, regulations, contracts, and grants governing the expenditure of federal and state funds.
- Evaluate progress in implementing prior audit findings and recommendations.

The University's schedule of expenditures of federal awards and applicable opinions thereon, issued by the Office of the State Auditor, State of Colorado, are included in the June 30, 2019 Statewide Single Audit Report issued under separate cover.

Audit Opinions and Reports

We expressed unmodified opinions on the University's financial statements as of and for the years ended June 30, 2019 and 2018.

No audit adjustments were proposed and made to the financial statements of the University.

We issued a report on the University's compliance and internal control over financial reporting based on an audit of the basic financial statements performed in accordance with *Government Auditing Standards*. A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency or a combination of deficiencies in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

We noted no matters involving the internal control over financial reporting and its operation that we consider to be material weaknesses.

Colorado School of Mines

Report Summary

Year Ended June 30, 2019

Audit Opinions and Reports (Continued)

In addition to issuing a report on the University's compliance with internal control over financial reporting, we also performed procedures in accordance with the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) over a major federal program as determined by the Office of the State Auditor. The purpose of our procedures was not to issue an opinion over the University's compliance with the federal program tested, but rather to report any noncompliance and internal control deficiencies noted during our testing to the Office of the State Auditor for inclusion in the Statewide Single Audit report. We noted no instances of noncompliance or internal control deficiencies during these procedures.

Summary of Progress in Implementing Prior Year Audit Recommendations

There were no findings or recommendations to be reported under *Governmental Auditing Standards* for the fiscal year ended June 30, 2018.

Colorado School of Mines
Financial and Compliance Audit
Description of the Colorado School of Mines (Unaudited)
Year Ended June 30, 2019

The Colorado School of Mines (the University) was founded on February 9, 1874. The University came under State control with statehood in 1876. The first diploma was granted in 1882. The authority under which the University operates is Article 41 of Title 23, C.R.S.

The Board of Trustees is the governing body of the University and is composed of seven members appointed by the Governor, with consent of the Senate, for four-year terms and two non-voting members, representing the faculty and students of the University, voted in by the respective constituents.

Financial support comes from student tuition and fees and from the State through a fee-for-service contract and student stipends. Funds are augmented by government and privately sponsored research, private support from alumni and support from industry and friends through the Colorado School of Mines Foundation, Incorporated (the Foundation).

The primary emphasis of the Colorado School of Mines is engineering and science education and research. The full-time equivalent (FTE) for student enrollment of the University for the past three fiscal years has been as follows:

Fiscal Year	<u>Resident</u>	<u>Nonresident</u>	<u>Total</u>
2019	3,333	2,538	5,871
2018	3,475	2,537	6,012
2017	3,399	2,423	5,822

Full-time equivalent employees, funded by the State of Colorado, reported by the University for the last three fiscal years are as follows:

Fiscal Year	<u>Faculty</u>	<u>Staff</u>	<u>Total</u>
2019	536	640	1,176
2018	500	625	1,125
2017	464	592	1,056



Independent Auditors' Report

Members of the Legislative Audit Committee and Board of Trustees:

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the discretely presented component unit of Colorado School of Mines (the University), an institution of higher education of the State of Colorado, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits and the reports of other auditors. We did not audit the financial statements of the Colorado School of Mines Foundation, Inc. (the Foundation), a discretely presented component unit, discussed in Note 1 to the financial statements, for the years ended June 30, 2019 and 2018. Those financial statements were audited by another auditor, whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for the Foundation, is based solely on the report of another auditor. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. The financial statements of the Foundation were not audited in accordance with *Government Auditing Standards*.

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

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

Opinions

In our opinion, based on our audits and the report of the other auditor, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the discretely presented component unit of Colorado School of Mines as of June 30, 2019 and 2018, and the respective changes in financial position, and where applicable, cash flows thereof for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Colorado School of Mines – a portion of the business-type activities of the State of Colorado

As discussed in Note 1, the financial statements of the University, an institution of higher education of the State of Colorado, are intended to present the financial position, the changes in financial position, and cash flows of only that portion of the business-type activities of the State of Colorado that is attributable to the transactions of the University. They do not purport to, and do not, present fairly the financial position of the State of Colorado as of June 30, 2019 and 2018, the changes in its financial position, or, where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the defined benefit pension plan schedules and other post-employment benefit schedules as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

The description of the Colorado School of Mines as listed in the table of contents has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 13, 2019 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Denver, Colorado
December 13, 2019

Colorado School of Mines

Management's Discussion and Analysis

(unaudited)

Management is pleased to present this financial discussion and analysis of the Colorado School of Mines (University). It is intended to make the University's financial statements easier to understand and communicate the University's financial situation in an open and accountable manner. It provides an objective analysis of the University's financial position (Statements of Net Position) and results of operations (Statements of Revenues, Expenses, and Changes in Net Position) as of and for the years ended June 30, 2019 and 2018 (Fiscal Years 2019 and 2018, respectively) with comparative information for Fiscal Year 2017. University management is responsible for the completeness and fairness of this discussion and analysis and the financial statements, as well as the underlying system of internal controls.

Understanding the Financial Statements

Financial highlights are presented in this discussion and analysis to help your assessment of the University's financial activities. Since the presentation includes highly summarized data, it should be read in conjunction with the financial statements, which have the following six parts:

- **Independent Auditors' Report** presents unmodified opinions prepared by our auditors, an independent certified public accounting firm, on the fairness, in all material respects, of our financial statements.
- **Statements of Net Position** present the assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position of the University at a point in time. Their purpose is to present a financial snapshot of the University. They aid readers in determining the assets available to continue the University's operations; how much the University owes to employees, vendors and creditors; and a picture of net positions and their availability for expenditure by the University.
- **Statements of Revenues, Expenses and Changes in Net Position** present the total revenues earned and expenses incurred by the University for operating, nonoperating, and other related activities during a period of time. Their purpose is to assess the University's operating and nonoperating activities.
- **Statements of Cash Flows** present the cash receipts and disbursements of the University during a period of time. Their purpose is to assess the University's ability to generate net cash flows to meet its obligations as they come due.
- **Notes to the Financial Statements** present additional information to support the financial statements and are commonly referred to as "Notes". Their purpose is to clarify and expand on the information in the financial statements. Notes are referenced in this discussion and analysis to indicate where details of the financial highlights may be found.
- **Required Supplementary Information (RSI)** presents additional information that differs from the basic financial statements. In this report, the RSI includes schedules on the University's proportionate share of the Public Employees Retirement Association (PERA) pension and other post-employment benefit (OPEB) liabilities and related information.

We recommend that you combine this financial discussion and analysis with relevant nonfinancial indicators to assess the overall health of the University. Examples of nonfinancial indicators include trend and quality of student applicants, incoming class size and quality, student retention, building condition, and campus safety. Information about nonfinancial indicators is not included in this discussion and analysis but may be obtained from the University's Communications and Marketing Office. It should be noted that the University's financial statements include the presentation of a discretely presented component unit, the Colorado School of Mines Foundation, Incorporated (the Foundation), which is a required presentation by accounting standards. The Foundation is not included in this financial discussion and analysis.

Colorado School of Mines
Management's Discussion and Analysis
(unaudited)

Financial Highlights

Selected financial highlights for Fiscal Year 2019 include:

- Total University assets increased by 3.3 percent, total University liabilities decreased by 27.0 percent and total net position increased by 49.5 percent. The decrease in liabilities and the increase in net position is the result of decreases in the University's proportionate share of the net pension and Other Post Employment Benefits (OPEB) liabilities. Increase in net position is also due to donated capital assets.
- Operating revenues increased by 8.2 percent while operating expenses decreased by 36.9 percent. The increase in operating revenue is attributed to increases in tuition revenue and sponsored research activity. Operating expenses decreased due to a reduction in the University's proportionate share of pension and OPEB expense. The decrease was offset with increases in salary and benefits and expenses related to sponsored research.
- The University is engaged in several major construction projects including the Charles and Ida Green Center Roof replacement, restorations and a new chiller, campus generators, an operations building, a residence hall, a parking garage with classroom wrap, and an extension of the campus utility infrastructure. The University has also engaged with a private developer to build and finance a residence hall on University land pursuant to a ground lease, which the University will operate and maintain.

The following sections provide further explanations of the University's financial health.

Statements of Net Position

Table 1 - Condensed Statements of Net Position presents a financial snapshot of the University and serves, over time, as a useful indicator of the strength of the University's financial position. It presents the fiscal resources (assets), claims against those resources (liabilities), and residual net position available for future operations (net position). Analysis of the University's deferred outflows and inflows of resources, capital assets, and related debt is included in the section titled Capital Assets and Debt Management, while this section provides analysis of the University's noncapital assets and liabilities.

Table 1 - Condensed Statements of Net Position as of June 30, 2019, 2018, and 2017 (in thousands)

	2019	2018	2017	2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Assets							
Cash and Restricted Cash	\$ 204,462	229,370	131,050	(24,908)	(10.9%)	98,320	75.0%
Other Noncapital Assets	64,588	60,336	62,631	4,252	7.0%	(2,295)	(3.7%)
Net Capital Assets	444,237	401,112	385,650	43,125	10.8%	15,462	4.0%
Total Assets	\$ 713,287	690,818	579,331	22,469	3.3%	111,487	19.2%
Deferred Outflows of Resources	\$ 61,041	125,350	188,537	(64,309)	(51.3%)	(63,187)	(33.5%)
Liabilities							
Non-debt Liabilities	\$ 369,758	607,485	582,356	(237,727)	(39.1%)	25,129	4.3%
Debt Liabilities	301,732	311,949	212,313	(10,217)	(3.3%)	99,636	46.9%
Total Liabilities	\$ 671,490	919,434	794,669	(247,944)	(27.0%)	124,765	15.7%
Deferred Inflows of Resources	\$ 173,907	37,438	1,638	136,469	364.5%	35,800	2185.3%
Net Position							
Net Investment in Capital Assets	\$ 236,820	214,037	199,521	22,783	10.6%	14,516	7.3%
Restricted:							
Nonexpendable Purposes	6,384	6,412	6,329	(28)	(0.4%)	83	1.3%
Expendable Purposes	17,212	16,642	19,573	570	3.4%	(2,931)	(15.0%)
Unrestricted	(331,485)	(377,795)	(253,862)	46,310	(12.3%)	(123,933)	48.8%
Total Net Position	\$ (71,069)	(140,704)	(28,439)	69,635	(49.5%)	(112,265)	394.8%

Colorado School of Mines
Management's Discussion and Analysis

(unaudited)

Assets

Cash and restricted cash comprises approximately 76.0 percent and 79.2 percent of the University's total noncapital assets as of June 30, 2019 and 2018, respectively. Restricted cash of \$102,876,000 and \$129,901,000, as of June 30, 2019 and 2018, respectively, primarily consists of unspent revenue bond proceeds that will be used for capital related activity as well as unspent gifts, grants, and contract revenues. Total cash and restricted cash decreased during Fiscal Year 2019 due to spending bond proceeds from debt issued in prior years for various capital projects including a parking garage, new residence hall, operations building, and campus improvements and infrastructure projects. These capital activities resulted in an increase in net capital assets. The Statements of Cash Flows provide additional information on where cash is received from and how it is used by the University.

Non-Debt Liabilities

The University's non-debt related liabilities totaling \$369,758,000 and \$607,485,000 as of June 30, 2019 and 2018, respectively, comprise 55.1 percent and 66.1 percent, respectively, of the total liabilities. The net pension liability comprises 79.3 percent and 89.2 percent, respectively, of total non-debt related liabilities. Each year, the University records its share of the statewide net pension liability. The University's net pension liability decreased 45.9 percent from Fiscal Year 2018 to 2019 and increased 1.8 percent from Fiscal Year 2017 to 2018. The decrease in Fiscal Year 2019 is primarily attributed to the changes in assumptions resulting from SB18-200 that requires the State of Colorado to make general fund contributions to PERA. In Fiscal Year 2019 the State's contribution was \$225,000,000. The University is required to record this liability, and is under no obligation to fund the liability, nor does the University have any ability to affect funding, benefit, or annual required contribution decisions of the plan. The Public Employees Retirement Association of Colorado (PERA) and the State's General Assembly control those decisions. See Note 12 of the accompanying financial statements for more information related to the net pension liability.

Colorado School of Mines

Management's Discussion and Analysis

(unaudited)

As a result of implementing Governmental Accounting Standards Board Statement No. 83, *Certain Asset Retirement Obligations (ARO)*, in Fiscal Year 2019, the University recorded a liability and a deferred outflow, net of amortization expense, for the future costs associated with the disposal of assets requiring remediation. The University recorded a liability of \$189,000 of which \$153,300 remains a deferred outflow. See Note 11 for additional information related to the asset retirement obligation.

In Fiscal Year 2018, as a result of implementing Governmental Accounting Standards Board Statement No. 75, *Reporting for Other Post-Employment Benefits Other Than Pensions (OPEB)*, the University recorded as a liability, its proportionate share of the PERA retiree healthcare costs. PERA subsidizes a portion of a PERA retiree's healthcare costs and it is this subsidy that is categorized as an OPEB liability. Colorado PERA's unfunded liability for OPEB as of December 31, 2019 and 2018 was \$1.4 billion and \$1.3 billion respectively and the University's share of that liability is \$12.2 million and \$12.4 million respectively. See Note 13 of the accompanying financial statements for more information related to the OPEB liability.

Unearned tuition and fees represent cash collected for the summer term that extends beyond the end of the fiscal year. Unearned sponsored project revenue represents amounts paid by grantors and contractors for which the University has not yet met all of the requirements for revenue recognition. These amounts will be recognized as revenue in future periods after all requirements have been satisfied. Unearned revenue as of June 30, 2019 and 2018 of \$18,007,000 and \$15,758,000, respectively, increased due to sponsored research activities where not all requirements have been met. See Note 8 for additional information on the University's unearned revenues.

The non-debt related liabilities decreased from Fiscal Year 2018 to 2019 due mainly to the decrease in net pension liability of \$248,723,000 and conversely, increased from 2017 to 2018 due to the increase in net pension liability of \$9,628,000.

Net Position

A portion of the University's net position has restrictions imposed by external parties, such as donors, or is invested in capital assets (property, plant, and equipment) and is therefore not immediately available to spend. To help understand these restrictions, the University's net position is shown in four categories.

- Net investment in capital assets is the largest category of net position. This consists of the University's capital assets less accumulated depreciation and related debt issued to fund the purchase or construction of those assets. This amount represents the University's investments in campus facilities and equipment that is necessary to carry out the teaching, research, and student centered mission of the University. The increases in each of the past three years reflect the University's commitment to improving the students' on campus experience through new and renovated student and academic facilities along with various infrastructure improvements. Additional discussion on the University's capital activity is included in the Capital Assets and Debt Management section of this discussion and analysis.
- Net position restricted for nonexpendable purposes represents gift funds received by the University from donors whereby the donor has specified the original principal be set aside for perpetual investment (endowment) with a set amount of spendable distribution based on University policy. The majority of these endowment assets are managed by the Foundation, which is a discretely presented component unit. See Note 1.
- Net position restricted for expendable purposes represents funds received for specific purposes, but for which the University is allowed to fully expend those funds in accordance with the purposes identified by the individual or entity providing the funds. This includes spendable distributions and accumulated undistributed earnings from the University's endowments and sponsored research.

Colorado School of Mines
Management's Discussion and Analysis
(unaudited)

- Unrestricted net position represents the amount available for spending for any appropriate and necessary purpose and are at the full discretion of management. In some instances, management or the Board has placed internal designations on the use of these funds. As discussed above, the negative unrestricted net position reflects the recording of the University's proportionate share of the statewide net pension and OPEB liabilities and the associated pension expenses beyond the University's annual required contributions. Table 2 – Unrestricted Net Position reflects the impact on the University's unrestricted net position of recording the net pension and OPEB liabilities and associated deferred outflows and inflows of resources.

Table 2 – Unrestricted Net Position (in thousands)

	6/30/19	6/30/18	6/30/17
Unrestricted Net Position with Pension Impact	\$ (331,485)	(377,795)	(253,862)
Cumulative effect on Unrestricted Net Position associated with the net pension liability and OPEB	432,368	478,705	360,662
Unrestricted Net Position without Pension & OPEB	\$ 100,883	100,910	106,800

Because the University is not required, and has no plans to fund the net pension or OPEB liabilities, the unrestricted net position without the pension and OPEB impact is used for budgetary and operational purposes.

Statements of Revenues, Expenses and Changes in Net Position

Table 3 - Condensed Statements of Revenues, Expenses and Changes in Net Position presents the financial activity of the University during the fiscal year. A key component of these statements is the differentiation between operating and nonoperating activities. Operating revenues, such as tuition and auxiliary operations, are earned primarily by providing services to the students and various constituencies of the University. Operating expenses are incurred to provide services, primarily instruction and research, or acquire goods necessary to carry out the mission of the University for which the University earns operating revenues. Nonoperating revenues are received when goods or services are not directly provided and include contributions, investment income, federal interest subsidies, and Pell grant revenue. Nonoperating expenses include interest on long-term debt, bond issuance costs, and gains/losses on disposals of assets.

Table 3 - Condensed Statements of Revenues, Expenses and Changes in Net Position for Years Ended June 30, 2019, 2018, and 2017 (in thousands)

	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Operating Revenues	\$ 253,643	234,373	222,108	19,270	8.2%	12,265	5.5%
Operating Expenses	228,511	362,208	338,784	(133,697)	(36.9%)	23,424	6.9%
Operating Income (Loss)	25,132	(127,835)	(116,676)	152,967	119.7%	(11,159)	9.6%
Net Nonoperating Revenues	27,822	22,238	24,692	5,584	25.1%	(2,454)	(9.9%)
Income (Loss) Before Other Revenues	52,954	(105,597)	(91,984)	158,551	150.1%	(13,613)	14.8%
Other Revenues	16,681	6,465	15,177	10,215	158.0%	(8,711)	(57.4%)
Increase (decrease) in Net Position	69,635	(99,132)	(76,807)	168,766	170.2%	(22,324)	29.1%
Net Position, Beginning of Year	(140,704)	(28,439)	48,368	(112,265)	(394.8%)	(76,807)	(158.8%)
Adjustment for change in accounting principle	-	(13,134)	-	13,134	(100.0%)	(13,134)	100.0%
Net Position, End of Year	\$ (71,069)	(140,705)	(28,439)	69,635	49.5%	(112,265)	(394.8%)

Table 4 - Operating and Nonoperating Revenues for the Years Ended June 30, 2019, 2018, and 2017 provides gross operating and nonoperating (noncapital) revenues by major sources. The University's total operating revenues increased 8.2 percent and 5.5 percent for Fiscal Years 2019 and 2018, respectively, and nonoperating revenues increased 16.4 percent over last fiscal year and decreased 3.2 percent from Fiscal Years 2017 to 2018.

Colorado School of Mines
Management's Discussion and Analysis
(unaudited)

Table 4 - Operating and Nonoperating Revenues for Years Ended June 30, 2019, 2018, and 2017 (in thousands)

	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Operating Revenues							
Student Tuition and Fees, net	\$ 135,714	129,963	123,886	5,751	4.4%	6,077	4.9%
Grants and Contracts	67,788	58,652	56,262	9,136	15.6%	2,390	4.2%
Fee for Service	15,731	15,043	14,706	688	4.6%	337	2.3%
Auxiliary Enterprises, net	27,453	24,397	23,655	3,056	12.5%	742	3.1%
Other Operating	6,957	6,318	3,599	639	10.1%	2,719	75.6%
Total Operating Revenues	\$ 253,643	234,373	222,108	19,270	8.2%	12,265	5.5%
Nonoperating Revenues							
State Appropriations	\$ 3,099	3,659	3,351	(560)	(15.3%)	308	9.2%
State Support for Pensions	2,022	-	-	2,022	100.0%	-	-
Gifts	20,949	19,254	20,346	1,695	8.8%	(1,092)	(5.4%)
Investment Income, net	7,299	4,132	5,551	3,167	76.6%	(1,419)	(25.6%)
Federal Nonoperating	4,625	4,673	4,058	(48)	(1.0%)	615	15.2%
Other Nonoperating, net	183	1,089	594	(906)	(83.2%)	495	83.3%
Total Nonoperating Revenues	\$ 38,177	32,807	33,900	5,370	16.4%	(1,093)	(3.2%)
Total Revenues (noncapital)	\$ 291,820	267,180	256,008	24,640	9.2%	11,172	4.4%

The University has experienced increases in all sources of operating revenues over the past years. The largest revenue source, Student Tuition and Fees (net) increased 4.4 percent from Fiscal Year 2018 and 4.9 percent from 2017. The increase in Student Tuition and Fees reflects a combination of increases in tuition rates and enrollment (see Tables 13 and 14).

Grants and Contracts revenue for Fiscal Year 2019 increased 15.6 percent over Fiscal Year 2018 and 4.2 percent from 2017. The University remains committed to increasing its focus and national role as a research institution. In Fiscal Year 2019, the University secured research awards of \$84,456,000 compared to \$65,955,000 in Fiscal Year 2018 and \$57,291,000 in Fiscal Year 2017. The most significant increase in awards come from Universidad Nacional de San Agustin de Arequipa "UNISA Collaboration" \$6.02 million and the Department of Energy "High Efficiency, Low Cost & Robust Hybris SOFC/IC Engine Power Generator \$3.08 million. The University continues to focus on securing funding from both federal and private industry sources as additional resources are focused towards research. Revenue from the Federal Government represents approximately 73.9 percent and 69.3 percent of total grants and contracts revenue for Fiscal Years 2019 and 2018, respectively. Grants and contracts generally allow for reimbursement of a portion of any related administrative and facility overhead costs. In Fiscal Years 2019 and 2018, the University received reimbursements of approximately \$13,910,000 and \$12,019,000, respectively.

The University receives funding from the State of Colorado in two ways; (1) fee-for-service contracts with the Department of Higher Education and (2) stipends to qualified undergraduate students used to pay a portion of tuition. Funding in Fiscal Years 2019 and 2018 related to fee-for-service contracts increased by \$688,000 and \$337,000, respectively. The level of funding received from the State is dependent on the State's budgetary process and decisions.

The anticipated funding related to student stipends is incorporated into the University's student tuition rates. Table 5 – College Opportunity Fund (COF) – Undergraduate Student Stipends reflects the amount of COF stipends applied toward student accounts, the per credit hour stipend allotted per student approved by the State Legislature, and the total number of stipend eligible hours that students applied for during the past three years.

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Table 5 – College Opportunity Fund –Undergraduate Student Stipends

		2019	2018	2017
Student stipends	\$	7,143,000	6,443,000	5,933,000
Stipend allotment	\$	85/hour	77/hour	75/hour
Stipend eligible hours		84,185	83,720	79,108

Nonoperating revenues fluctuate from year to year due to the types of revenues being recognized.

Over the past three fiscal years, gift revenues received primarily from the Foundation, has remained relatively flat. The University has experienced fluctuations in investment income over the last three fiscal years due to continued volatility in the financial markets that impact the fair market value of the University's investments held by the Foundation and amounts held by the State Treasurer. The University experienced unrealized gains in Fiscal Years 2019, 2018, and 2017 of \$2,187,000, \$898,000, and \$4,235,000, respectively. The realized investment income was \$5,577,000, \$3,699,000, and \$1,792,000, respectively, for the same periods. Federal nonoperating revenues consist of interest subsidies received for taxable Build America Bonds (BAB) issued by the University and financial aid received under the Pell program. The University received \$1,136,000, \$1,143,000, and \$1,150,000 in federal interest subsidies in Fiscal Years 2019, 2018, and 2017, respectively. The amount of federal subsidies is tied to the interest payments being made on the bonds. The decrease in revenue experienced during the past three years reflects the decrease in interest payments being made on the bonds. Revenues from the Pell program for Fiscal Years 2019, 2018, and 2017 were \$3,489,000, \$3,530,000, and \$2,908,000, respectively. Revenues fluctuate based on student activity in the Pell program each year.

The functional and natural classification uses of University resources are displayed in Table 6 – Operating Expenses by Function and Natural Classifications.

Table 6 - Operating Expenses by Function and Natural Classifications for Years Ended June 30, 2019, 2018, and 2017 (in thousands)

By Functional Expense	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Education and General							
Instruction	\$ 64,038	125,439	119,702	(61,401)	(48.9%)	5,737	4.8%
Research	49,369	61,679	61,034	(12,310)	(20.0%)	645	1.1%
Public Service	925	2,105	1,215	(1,180)	(56.1%)	890	73.3%
Academic Support	17,387	29,537	28,209	(12,150)	(41.1%)	1,328	4.7%
Student Services	7,557	11,996	10,941	(4,439)	(37.0%)	1,055	9.6%
Institutional Support	18,988	38,037	34,867	(19,049)	(50.1%)	3,170	9.1%
Operation and Maintenance of Plant	22,078	35,258	27,419	(13,180)	(37.4%)	7,839	28.6%
Scholarships and Fellowships	889	1,042	1,381	(153)	(14.7%)	(339)	(24.5%)
Total Education and General	181,231	305,093	284,768	(123,862)	(40.6%)	20,325	7.1%
Auxiliary Enterprises	26,570	37,368	35,434	(10,798)	(28.9%)	1,934	5.5%
Depreciation and amortization	20,710	19,747	18,582	963	4.9%	1,165	6.3%
Total Operating Expenses	\$ 228,511	362,208	338,784	(133,697)	(36.9%)	23,424	6.9%
By Natural Classification							
Salaries and Benefits	\$ 132,657	269,892	254,386	(137,235)	(50.8%)	15,506	6.1%
Operating Expenses	75,144	72,569	65,816	2,575	3.5%	6,753	10.3%
Depreciation	20,710	19,747	18,582	963	4.9%	1,165	6.3%
Total Operating Expenses	\$ 228,511	362,208	338,784	(133,697)	(36.9%)	23,424	6.9%

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Total operating expenses decreased 36.9 percent from Fiscal Year 2018 to 2019 and increased 6.9 percent from Fiscal Year 2017 to 2018. The decrease is primarily due to the reduction in related expenses impacted by the change in amount of the unfunded pension liability. The University reported pension expenses of (\$29,212,000) for Fiscal Year 2019 compared to \$119,752,000 for Fiscal Year 2018. These pension related expenses impact most of the functional expense categories.

Excluding the impact of recording pension and OPEB expenses related to the net pension and OPEB liabilities described above, total operating expenses increased by 6.0 percent from Fiscal Year 2018 to Fiscal Year 2019 and 9.4 percent from Fiscal Year 2017 to Fiscal Year 2018.

Increases in salaries in support of the teaching and research missions and the administration of the University of \$10,330,000 results from a combination of merit increases and hiring new faculty and staff to address strategic and operational demands.

Depreciation expense increased by \$963,000 as the University continues its investment in new buildings and improved infrastructure.

The amounts reported for scholarships and fellowships expenses do not reflect the actual resources dedicated to student aid. The majority of the University's financial aid resources are applied to the students' accounts, which do not result in a disbursement to the student. Financial aid applied to student accounts are netted against tuition and fee revenue as scholarship allowance. The University's total financial aid resources benefiting students were \$39,832,000, \$35,823,000, and \$31,412,000, in Fiscal Years 2019, 2018, and 2017, respectively. Comparatively, gross tuition increased \$7,228,000, in 2019 from 2018 and \$8,887,000 in 2018 from 2017.

Capital Assets and Debt Management

As indicated in Table 7 - Capital Asset Categories, the University's capital assets consist of land, works of art, construction in progress, land improvements, buildings and improvements, software, equipment, library materials, and intangible assets with a gross book value of \$703,091,000, \$642,790,000, and \$610,596,000 at June 30, 2019, 2018 and 2017, respectively. Accumulated depreciation on depreciable assets totaled \$258,853,000, \$241,678,000, and \$224,946,000, respectively. The University continues to invest in academic, auxiliary and research facilities to enhance the educational and campus experience for students. During the construction of a project, costs are accumulated in construction in progress. Upon completion of the project, the costs are moved out of construction in progress into the appropriate asset classification.

Table 7 - Capital Asset Categories (before depreciation) as of June 30, 2019, 2018, and 2017 (in thousands)

	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Land	\$ 12,366	8,935	8,811	3,431	38.4%	124	1.4%
Works of Art	202	202	202	-	0.0%	-	0.0%
Construction in Progress	63,511	32,209	64,671	31,302	97.2%	(32,462)	(50.2%)
Land Improvements	26,002	22,670	22,118	3,332	14.7%	552	2.5%
Buildings & Improvements	503,653	485,863	424,470	17,790	3.7%	61,393	14.5%
Software	2,374	2,338	2,370	36	1.5%	(32)	(1.4%)
Equipment	81,465	77,348	74,944	4,117	5.3%	2,404	3.2%
Library materials	12,918	12,625	12,410	293	2.3%	215	1.7%
Intangible	600	600	600	-	0.0%	-	0.0%
Total Capital Assets	\$ 703,091	642,790	610,596	60,301	9.4%	32,194	5.3%

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During the past three years, the University has completed or began construction on the following capital projects:

Active Projects

- Charles and Ida Green Center (Green Center) Roof Replacement and Renovations. This \$17,000,000 project is a complete removal and replacement of the approximately 44,000 square foot roof on the Green Center, including asbestos abatement, along with replacement of the major mechanical equipment in the building. The project also includes renovations to better accommodate academic and student services. The University received a capital appropriation from the State of Colorado for 50% of the project costs. The anticipated completion date is February 2020.
- Green Center Chiller. This \$8,900,000 project is to replace failing chillers and provide added capacity to the campus-chilled water system. The project was completed October 2019.
- Operations Building. The \$8,800,000 project allows the consolidation of the Operations unit into one building to provide a centralized and efficient center. By consolidating Operations into a single building, core campus space will be made available for additional academic use. The anticipated estimated completion date is November 2019.
- Residence Hall. This \$43,155,000 project allows for the construction of a residence hall of approximately 400 beds that is anticipated to open in the fall of 2020. The Residence hall will support the requirement for all freshman living on campus. It will provide single occupancy (20%) and double occupancy (80%) for freshman students. The anticipated completion date is June 2020.
- Parking Garage. This \$18,819,000 project allows for the construction of a parking garage with a capacity of approximately 650 parking spaces. As the University continues to add new buildings, surface level parking around campus has decreased. In addition, changes in parking restrictions around the campus have further reduced available parking for the campus community. The anticipated completion date is June 2020.
- Parking Garage Classroom Building—Innovative Learning Space. This \$10,586,000 project allows for the construction of a 20,000 gross square feet (GSF) office and classroom building surrounding the parking garage. The estimated completion date is June 2020.
- Campus Utility Infrastructure. This \$6,000,000 project allows for the University to upgrade its steam and chilled water distribution to service growing needs. Upgrading the campus utility infrastructure will provide additional capacity for campus growth. The anticipated completion date is October 2020.

A list of the larger on-going or planned capital projects is detailed in Table 8 – Current Capital Construction Projects. Further detail regarding capital asset activity can be found in Note 4.

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Table 8 – Current Capital Construction Projects *(in thousands)*

Project Description	Financing Sources	Budget
Charles and Ida Green Center Roof Replacement	State appropriation, University resources	\$ 17,000
Charles and Ida Green Center Chiller	Debt financing	8,900
Operations Building	Debt financing	8,800
Residence Hall	Debt financing	43,155
Parking Garage	University resources, Debt financing	18,819
Parking Garage Classroom Building	University resources, Debt financing	10,586
Campus Utility Infrastructure	Debt financing	6,000

In addition to operating and nonoperating revenues, the University received capital revenues in the amount shown in Table 9 – Capital Revenues. The changes in capital appropriations and contributions from the State over the three years is related to the construction of the Green Center Roof replacement (\$8,500,000), the CoorsTek Center for Applied Science and Engineering (\$5,031,000), the Heating Plant Renovation (\$4,400,000), and the Subsurface Frontiers Building (\$1,857,000). The University received the last of the funding for the CoorsTek Center for Applied Science and Engineering and the Heating Plant Renovation in Fiscal Year 2017, and the last of the funding for the Green Center Roof replacement in Fiscal Year 2019. In Fiscal Year 2019, the University received capital grants and gifts provided by donations to fund the CoorsTek Center for Applied Science and Engineering building and the debt service on the 2016 bonds used for initial funding on that project. The University also received a donation of the land and building at 21554 Mountsfield Dr. Golden, CO.

Table 9 – Capital Revenues for the Years Ended June 30, 2019, 2018, and 2017 *(in thousands)*

Revenue Classification	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Capital appropriations and contributions from the State	\$ 7,260	1,870	9,441	5,390	288.2%	(7,571)	(80.2%)
Capital grants and gifts	9,418	4,562	4,880	4,856	106.4%	(318)	(6.5%)
Total Capital Revenues	\$16,678	6,432	14,321	10,246	159.3%	(7,889)	(55.1%)

Table 10 – Deferred Outflows/Inflows of Resources details the types and amounts of such activity. In accordance with accounting standards, the University is required to separately disclose the change in the fair market value of the interest rate swap. As of June 30, 2019, 2018, and 2017, the outstanding swap had a fair market value of (\$9,164,000), (\$6,837,000), and (\$9,251,000), respectively.

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Table 10 – Deferred Outflows/Inflows of Resources at June 30, 2019, 2018, and 2017 (in thousands)

Type	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Loss on bond refunding	\$ 11,314	12,519	12,975	(1,205)	(9.6%)	(456)	(3.5)
Components of pension liability	46,222	112,356	173,191	(66,134)	(58.9%)	(60,835)	(35.1%)
Components of OPEB	636	475	-	161	33.9%	-	0.0%
SWAP valuation	2,716	-	2,371	2,716	0.0%	(2,371)	(100%)
Components of ARO	153	-	-	153	0.0%	-	0.0%
Total Deferred Outflows of Resources	61,041	125,350	188,537	(64,309)	(51.3%)	(63,187)	(33.5%)
Components of pension liability	172,468	36,102	1,638	136,366	377.7%	34,464	2104%
Components of OPEB	1,439	1,223	-	216	17.7%	1,223	0.0%
SWAP valuation	-	113	-	(113)	(100.0%)	113	0.0%
Total Deferred Inflows or Resources	\$173,907	37,438	1,638	136,469	364.5%	35,800	2185.6%

Certain amounts associated with recording the University's proportionate share of the net pension and OPEB liability are required to be reported as either a deferred outflow or deferred inflow of University resources. These deferred outflows or inflows of resources are amortized to expense over a period of years depending on the specific type. See Note 12, Note 13 and the Required Supplementary Information for additional information.

The University's long-term obligations, both current and noncurrent portions, as shown in Table 11 – Long-Term Debt Categories, are comprised principally of various revenue bonds issued to finance construction of the capital assets discussed above. As of June 30, 2019, 2018, and 2017, bonds and capital leases payable of \$301,732,000, \$311,949,000, and \$203,062,000, respectively, were outstanding.

Table 11 – Long-Term Debt Categories at June 30, 2019, 2018, and 2017 (in thousands)

Debt Type	2019	2018	2017	Increase (Decrease)			
				2019 vs 2018		2018 vs 2017	
				Amount	Percent	Amount	Percent
Revenue bonds	\$ 301,732	311,941	203,008	(10,209)	(3.3%)	108,933	53.7%
Capital leases	-	8	54	(8)	(100.0%)	(46)	(85.2%)
Total Long-Term Debt	\$ 301,732	311,949	203,062	(10,217)	(3.3%)	108,887	53.6%

Two of the University's outstanding bond issues qualify as Build America Bonds (BAB) and one qualifies as a Qualified Energy Conservation Bond (QECCB). As such, the University expects to receive a cash subsidy payment from the United States Treasury, referred to as Federal Direct Payments, equal to a percentage of the interest payable on the bonds on or around each interest payment date.

Factors Impacting Future Periods

The University's ability to maintain and improve the quality of academic programs, undertake new strategic initiatives, and meet its core mission and ongoing operational needs is impacted by many factors, principally by: student enrollment and the resulting tuition and fees revenue, research volume, the level of state support, and the University's largest expense, compensation costs.

Revenue increases in Fiscal Year 2020 are anticipated to continue to be moderate. The University is budgeted to see an increase in financial support from the State in Fiscal Year 2019 with slight increases in its primary revenue sources due to moderate tuition rate increase along with enrollment growth. For the 2019 fall semester, the University accepted more freshmen students and is beginning to see growth in graduate enrollment. The University is also experiencing moderate increases in donations compared to the prior year decrease.

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State funding in the form of a fee-for-service contract and student stipends is budgeted to increase 13.3 percent in Fiscal Year 2020. This compares to a 4.2 percent increase in Fiscal Year 2019 and a 4.1 percent increase in Fiscal Year 2018 as reflected in Table 12 - State Operating Support.

Table 12 – State Operating Support (in thousands)

Fiscal Year	State Support *	Total Operating Revenues	% of Total State Operating Support to Total Operating Revenues
2020**	\$ 25,371	283,004	9.0%
2019	22,874	253,643	9.0%
2018	21,485	234,373	9.2%
2017	20,639	222,108	9.3%

*State support includes student stipends and a fee-for-service contract funded from the College Opportunity Fund.

**Fiscal Year 2020 Amount of State Support is based on amounts included in the State's Long Appropriation Act (Long Bill). Total Operating Revenues is based on the University's Fiscal Year 2019 projected revenues.

With the increase in State funding of 13.3 percent, the University was able to hold resident undergraduate tuition rates flat and only increase non-resident undergraduate tuition rates for Fiscal Year 2020 by 3.0 percent. This compares to increases for Fiscal Years 2019 and 2018 of 3.0 percent and 3.1 percent, respectively. Table 13 - Full Time Tuition and Room and Board Charges per Year, provides a trend of tuition and room and board charges for the academic years 2017 to 2020.

Table 13 - Full Time Tuition and Room and Board Charges per Year

Academic Year	Annual Full-time Undergraduate Tuition Rates		Annual Room and Board (avg.)		
	Residents*	Non-residents	Double	Single	Meal Plan
2020	16,650	37,350	8,462	10,500	5,960
2019	16,650	36,270	7,694	9,546	5,678
2018	16,170	35,220	6,632	8,230	5,460
2017	15,690	34,020	6,316	7,546	5,332

* Reported net of student stipends

Table 14 – Fall Enrollment Trends presents undergraduate, graduate and combined enrollments for each of the last three academic years.

Table 14 - Fall Enrollment Trends

Academic Year	Undergraduate Students			Graduate Students			Total		
	Residents	Non-residents	Total	Residents	Non-residents	Total	Residents	Non-residents	Total
2019	2,824	2,331	5,155	774	678	1,452	3,598	3,009	6,607
2018	2,737	2,217	4,954	640	674	1,314	3,377	2,891	6,268
2017	2,747	2,047	4,794	609	714	1,323	3,356	2,761	6,117

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Table 15 – Fall Semester Undergraduate Admissions Trends highlights the University’s ability to attract freshmen students and transfer students. As demonstrated by Tables 14 and 15, the University continues to be very successful in attracting new students.

Table 15 - Fall Semester Undergraduate Admissions Trends

Fall of Year	Number of Applicants	Number Accepted	Percent Accepted	Number Committed	Percent Committed
2019	12,333	6,592	53.5%	1,469	22.3%
2018	13,282	6,517	49.1%	1,358	20.8%
2017	11,171	6,242	55.9%	1,325	21.2%

Financial Sustainability

In addition to steps taken to address revenues, the University continues to look at ways to control increases in operating costs. In Fiscal Year 2018, the University evaluated administrative processes and developed many recommendations for streamlining services and providing efficiencies and value added services. As a result, the University implemented an administrative shared services model in Fiscal Year 2019. Shared services consolidates Procurement, Travel, Accounts Payable and Payroll services, mitigating the need for duplicative processes across the organization.

In January 2017, the University began offering an alternative retirement plan for newly hired academic and administrative faculty. As of July 1, 2019, the employer contribution to the Mines Defined Contribution Plan (MDCP) is 12 percent compared to the combined 20.40 percent required retirement contribution to PERA; the PERA rate will increase to 20.90 percent on July 1, 2020. All academic and administrative faculty hired starting January 1, 2017 that do not have at least one year of prior PERA service credit are enrolled in the MDCP. All academic and administrative faculty hired starting January 1, 2017 that have at least one year of prior PERA service credit have a one-time irrevocable option to either stay in PERA or enroll in the MDCP. The financial savings to the University have exceeded \$1,000,000 since inception and are expected to increase significantly in future years as the workforce turns over and a larger percentage of academic and administrative faculty are part of the MDCP.

As the University looks forward, it must ensure that the human capital, physical infrastructure, and financial aid resources accommodate student academic and social needs and expectations, optimizes the professional opportunities for its faculty, fosters growth in research, and enhances business processes, all with a single focus of being a world-class institution. The University’s Fiscal Year 2020 budget was developed to devote resources to all of these strategic areas.

Future Capital Projects

In a continued effort to improve the University’s infrastructure and enhance the student experience in alignment with our Strategic Plan, Mines@150, the University has engaged in various capital projects that will result in additional financing.

Residence Hall with a Private Developer. In July 2018, the University entered into an agreement with a private developer in Golden, Colorado for a residence hall that is in alignment with the University’s strategic vision to grow housing options for students. The University owns the land and the developer will design, build and finance the building with the University operating and maintaining it. The lease will begin when the building is completed in May 2020.

Collaboration with the United States Geological Survey. The University and the United States Geological Survey (USGS) signed an agreement in October 2018 that sets forth the respective organization’s collaboration

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on science matters related to the mineral resources and the earth's subsurface. This collaboration will incorporate co-location of some functions of the USGS on the University's campus. The shared facility will be a 180,000 gross square foot building that is occupied both by the University and the USGS at an estimated cost of \$140,000,000. The University anticipates financing the building within the first six months of calendar year 2020, followed by the start of construction. Various financing options will be used including philanthropic opportunities, University resources, and University issued debt.

Parking Garage II with attached Business Incubator Space. The University is planning its second Parking Garage which will include an attached Business Incubator. Design is underway with anticipated financing and construction within the first six months of calendar year 2020. The Parking Garage II will meet the growing need for parking and is projected to add 750+ spaces. The Business Incubator with 20,000+ GSF, will provide services and space for faculty, students, alumni and the broader community for entrepreneurial endeavors. Financing will include University issued debt and philanthropic support with an estimated total cost of \$33,000,000.

Innovation Hub. The University is planning to construct a 30,000 GSF Innovation Hub. The Hub will provide a place for students to learn via hands on techniques and courses. The Hub will be financed through philanthropic and student support. Construction is projected to begin in Fiscal Year 2020.

Economic Outlook

Given all of the economic conditions of the past few years, the University's financial health is well positioned. The University has made efforts to ensure that operating expense increases do not outpace operating revenue increases. This was achieved this year by managing expenses. We continue to see strong enrollment, especially for undergraduate students and have been deliberately moderating our tuition increases. We are experiencing growth in sponsored research from federal and industry sponsors. Philanthropic support is on the rise as we are experiencing an uptick from prior years.

Requests for Information

This financial report is designed to provide a general overview of the University's finances for all those with an interest in the University's finances. Questions concerning any other information provided in this report or requests for additional financial information should be addressed to the Department of Finance and Administration, 1500 Illinois Street, Golden, Colorado 80401-1887.

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Statements of Net Position June 30, 2019 and 2018 (in thousands)

	2019		2018	
	University	Component Unit	University	Component Unit
Assets				
Current Assets				
Cash and cash equivalents	\$ 101,586	5,805	\$ 99,469	9,502
Short term investments	-	170	-	163
Accounts and loans receivable, net	26,127	4,727	19,258	646
Other assets	999	-	1,734	-
Total Current Assets	\$ 128,712	10,702	\$ 120,461	10,311
Noncurrent Assets				
Restricted cash and cash equivalents	\$ 102,876	30	\$ 129,901	30
Investments	33,227	332,615	34,656	338,200
Accounts and loans receivable	4,235	17,069	4,688	18,716
Other assets	-	277	-	1,218
Capital assets, net	444,237	50	401,112	-
Total Noncurrent Assets	\$ 584,575	350,041	\$ 570,357	358,164
Total Assets	\$ 713,287	360,743	\$ 690,818	368,475
Deferred Outflows of Resources				
Loss on bond refundings	\$ 11,314	-	\$ 12,519	-
SWAP Valuation	2,716	-	-	-
Pension related	46,222	-	112,356	-
OPEB related	636	-	475	-
Asset retirement obligation	153	-	-	-
Total Deferred Outflows of Resources	\$ 61,041	-	\$ 125,350	-
Liabilities				
Current Liabilities				
Accounts payable and accrued liabilities	\$ 23,102	5,467	\$ 16,877	1,933
Accrued compensated absences	712	-	596	-
Unearned revenue	18,007	-	15,758	-
Bonds and leases payable	8,730	-	8,643	-
Other liabilities	1,856	-	1,768	-
Total Current Liabilities	\$ 52,407	5,467	\$ 43,642	1,933
Noncurrent Liabilities				
Accrued compensated absences	\$ 7,023	-	\$ 7,160	-
Bonds and leases payable	293,002	-	303,306	-
Interest rate swap agreement	9,164	-	6,837	-
Net pension liability	293,120	-	541,843	-
Net OPEB liability	12,199	-	12,368	-
Other liabilities	4,575	41,726	4,278	43,983
Total Noncurrent Liabilities	\$ 619,083	41,726	\$ 875,792	43,983
Total Liabilities	\$ 671,490	47,193	\$ 919,434	45,916
Deferred Inflows of Resources				
SWAP Valuation	\$ -	-	\$ 113	-
Pension related	172,468	-	36,102	-
OPEB related	1,439	-	1,223	-
Total Deferred Inflows of Resources	\$ 173,907	-	\$ 37,438	-
Net Position				
Net investment in capital assets	\$ 236,820	-	\$ 214,037	-
Restricted for nonexpendable purposes				
Instruction	\$ 3,360	-	\$ 3,360	-
Scholarships and fellowships	2,051	94,760	2,051	91,571
Other	973	89,109	1,001	91,067
Total restricted for nonexpendable purposes	\$ 6,384	183,869	\$ 6,412	182,638
Restricted for expendable purposes				
Scholarships and fellowships	\$ 5,290	43,630	\$ 4,590	48,537
Loans	1,513	1,798	1,405	1,691
Research	5,459	1,678	5,447	1,723
Capital projects	1,488	1,067	1,441	8,342
Other	3,462	52,410	3,759	48,398
Total restricted for expendable purposes	\$ 17,212	100,583	\$ 16,642	108,691
Unrestricted	\$ (331,485)	29,098	\$ (377,795)	31,230
Total Net Position	\$ (71,069)	313,550	\$ (140,704)	322,559

Colorado School of Mines
Statements of Revenues, Expense, and Changes in Net Position
Years Ended June 30, 2019 and 2018 *(in thousands)*

	2019		2018	
	University	Component Unit	University	Component Unit
Operating Revenues				
Tuition and fees, (net of scholarship allowance of \$38,870 in 2019 and \$35,159 in 2018)	\$ 135,714	-	\$ 129,963	-
Fee-for-service	15,731	-	15,043	-
Federal grants and contracts	50,114	-	40,627	-
State grants and contracts	4,965	-	4,729	-
Nongovernmental grants and contracts	12,709	-	13,296	-
Auxiliary enterprises, (net of scholarship allowance of \$962 in 2019 and \$664 in 2018)	27,453	-	24,397	-
Contributions	-	21,509	-	13,355
Other operating revenues	6,957	2,033	6,316	3,326
Total Operating Revenues	\$ 253,643	23,542	\$ 234,373	16,681
Operating Expenses				
Education and General				
Instruction	\$ 64,038	-	\$ 125,439	-
Research	49,369	-	61,679	-
Public service	925	-	2,105	-
Academic support	17,387	-	29,537	-
Student services	7,557	-	11,996	-
Institutional support	18,988	35,034	38,037	29,644
Operation and maintenance of plant	22,078	-	35,258	-
Scholarships and fellowships	889	-	1,042	-
Total Education and General	181,231	35,034	305,093	29,644
Auxiliary enterprises	26,570	-	37,368	-
Depreciation and amortization	20,710	-	19,747	-
Total Operating Expenses	\$ 228,511	35,034	\$ 362,208	29,644
Operating Revenue (Loss)	\$ 25,132	(11,492)	\$ (127,835)	(12,963)
Nonoperating Revenues (Expenses)				
State appropriations, non-capital	3,099	-	3,659	-
State support for pensions	2,022	-	-	-
Contributions from the Foundation	19,672	-	18,781	-
Contributions	1,277	-	473	-
Investment income, net	7,299	2,483	4,132	22,709
Interest on debt	(9,950)	-	(9,230)	-
Federal nonoperating revenue	4,625	-	4,673	-
Other nonoperating expenses	(405)	-	(1,339)	-
Other nonoperating revenue	183	-	1,089	-
Net Nonoperating Revenues	\$ 27,822	2,483	\$ 22,238	22,709
Income (Loss) Before Other Revenues	\$ 52,954	(9,009)	\$ (105,597)	9,746
Capital appropriations and contributions from State	7,260	-	1,870	-
Capital grants and gifts	9,419	-	4,562	-
Additions to permanent endowments	2	-	33	-
Total Other Revenues	\$ 16,681	-	\$ 6,465	-
Increase (Decrease) in Net Position	69,635	(9,009)	(99,132)	9,746
Net Position, Beginning of Year	(140,704)	322,559	(28,439)	312,813
Adjustment for change in accounting principle	-	-	(13,133)	-
Net Position, Beginning of Year Restated	(140,704)	322,559	(41,572)	312,813
Net Position, End of Year	\$ (71,069)	313,550	\$ (140,704)	322,559

Colorado School of Mines

Statement of Cash Flows

Years Ended June 30, 2019 and 2018 *(in thousands)*

	2019	2018
Cash Flows from Operating Activities:		
Tuition and fees, net	\$ 132,345	\$ 126,627
Grants and contracts	82,716	76,541
Sales of services from auxiliary enterprises	27,172	24,516
Collection of loans to students	1,398	1,345
Rental income	1,644	1,631
Receipts from the Foundation	988	1,122
Other operating receipts	5,400	8,761
Payments to employees	(119,990)	(115,267)
Payments for employee benefits	(56,226)	(55,315)
Payments to suppliers	(70,249)	(72,217)
Developmental services fees	(1,900)	(1,900)
Scholarships disbursed	(489)	(712)
Loans issued to students	(422)	(877)
Net cash provided by (used for) operating activities	\$ 2,387	\$ (5,745)
Cash Flows from Noncapital Financing Activities:		
Receipts from the Foundation	\$ 18,260	\$ 18,383
State appropriations, non-capital	3,099	3,600
Gifts and grants for other than capital purposes	2,369	2,754
Additions to permanent endowments	2	33
Principal payments on noncapital debt	(330)	(320)
Interest payments on noncapital debt	(44)	(60)
Funds invested with the Foundation	(22)	(33)
Federal nonoperating revenue	3,489	3,530
Direct lending receipts	31,173	30,769
Direct lending disbursements	(31,173)	(30,769)
Agency inflows	11,703	10,327
Agency outflows	(11,641)	(10,324)
Net cash provided by noncapital financing activities	\$ 26,885	\$ 27,890
Cash Flows from Capital and Related Financing Activities:		
State appropriations, capital	\$ 7,260	\$ 1,870
Capital gifts	4,118	3,680
Academic facility fees	3,625	3,463
Bond proceeds	-	117,976
Bond issuance and other loan costs	(53)	(809)
Acquisition and construction of capital assets	(56,372)	(33,223)
Principal payments on capital debt	(8,313)	(8,171)
Interest payments on capital debt	(13,273)	(11,425)
Federal nonoperating revenue	1,136	1,143
Net cash provided by (used for) capital and related financing activities	\$ (61,872)	\$ 74,504
Cash Flows from Investing activities:		
Interest and dividends on investments	7,692	1,671
Net cash provided by investing activities	\$ 7,692	\$ 1,671
Net Increase (Decrease) in cash and cash equivalents	(24,908)	98,320
Cash and cash equivalents, Beginning of Year	229,370	131,050
Cash and cash equivalents, End of Year	\$ 204,462	\$ 229,370

Colorado School of Mines

Statements of Cash Flows

Years Ended June 30, 2019 and 2018 *(in thousands)*

	2019	2018
Reconciliation of Operating Gain (Loss) to Net Cash Provided by Operating Activities:		
Operating Gain (loss)	\$ 25,132	\$ (127,835)
Adjustments to reconcile operating loss to net cash provided by operating activities:		
Depreciation and amortization expense	20,710	19,747
Noncash operating expenses	(44,257)	105,073
Receipts of items classified as non-operating revenues	3,603	2,434
Academic construction fee split out of tuition to capital financing	(3,625)	(3,462)
Changes in assets and liabilities:		
Accounts and loans receivable	(3,293)	2,103
Other assets	735	(721)
Loans to students	455	155
Accounts payable and accrued liabilities	2,870	(7,746)
Unearned revenue	2,249	(68)
Accrued compensated absences	(21)	1,317
Other liabilities	(204,726)	(92,788)
Changes in deferred outflows and inflows:		
Deferred outflows	65,972	60,360
Deferred inflows	136,583	35,686
Net cash provided by (used for) operating activities	\$ 2,387	\$ (5,745)

Noncash Investing, Capital and Financing Activities:

Capital assets acquired by donations, state funded, and payable increases	11,202	6,763
Fair value change in interest rate swap	2,327	(2,414)
Realized/unrealized gains on investments	107	2,743
Administrative fees on investments	465	466
Accretion of interest on deep discount debt	492	530
Amortization of premiums/discounts	(2,069)	(1,620)
Amortization of deferred losses and swap termination	704	730
Bond underwriter costs	-	489
Loss on disposal of assets	(420)	(51)
Construction In Progress adjustments and deductions	(19)	(106)
State Support for Pensions	2,022	-

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Note 1: Basis of Presentation and Summary of Significant Accounting Policies

Governance

Colorado School of Mines (the University) is a public institution of higher education with a primary emphasis in engineering, science education, and research. A nine member Board of Trustees governs the University. The Governor of the State of Colorado, with the consent of the Colorado Senate, appoints seven voting members and two non-voting members that represent the faculty and students of the University.

Financial Reporting Entity and Basis of Presentation

The University's financial reporting entity includes the operations of the University and all related entities for which the University is financially accountable or that provide services to the University, referred to as blended component units. The University appoints a majority of the governing board of the related organization, and has the ability to impose its will on the related organization, the ability to access assets, and responsibility for debts of the related organization. The University includes the following blended component units:

- Colorado School of Mines Building Corporation: established in June 1976 as a separate 501(c)(3) corporation under the laws of the State of Colorado. The purpose of the corporation was to build a facility that would house the United States Geological Survey (USGS). The Corporation collects annual rent payments from the General Service Administration for the USGS. Upon dissolution, subject to certain provisions, any assets remaining shall be transferred to the University. Separate financial statements are not prepared.
- Mines Applied Technology Transfer Inc. (MATTI): established in 2002 as a separate corporation under the laws of the State of Colorado with a December 31 year-end. The purpose of MATTI, a not-for-profit 501(c)(3), is to further the education, research, development and public services objectives of the University and to further the transfer of newly created technologies from the University to the private sector. The corporation is operated exclusively for the benefit of the University. Upon dissolution, subject to certain provisions, any assets remaining shall be transferred to the University. Separate financial statements are not prepared.

Discretely Presented Component Unit

The University's financial statements include one supporting organization as a discretely presented component unit (DPCU) of the University.

Colorado School of Mines Foundation, Incorporated (the Foundation) is a legally separate entity incorporated under Article 40, Title 7 of the Colorado Revised Statutes of 1973. The Foundation was established in 1928 for the benefit of the University to promote the welfare, development and growth of the University. The Foundation has a determination letter from the Internal Revenue Service stating it qualifies under Section 501(c)(3) of the Internal Revenue Code as a public charity. Although the University does not control the timing of receipts received by the Foundation, the majority of resources or income thereon the Foundation holds and invests are restricted by the donors for the benefit of the University. Because these restricted resources held by the Foundation can only be used by, or for the benefit of, the University, the Foundation is considered a component unit of the University and is discretely presented in the University's financial statements. Separately issued financial statements are available by contacting the Foundation at PO Box 4005, Golden, Colorado, 80401-0005.

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Related Organizations

The Table Mountain Research Center (TMRC), formerly the Colorado School of Mines Research Institute (CSMRI), a not-for-profit corporation, was established in 1949 as a separate corporation under the laws of the State of Colorado. The purpose of TMRC is to promote, encourage and aid scientific and technological investigation and research. TMRC ceased active operations during 1987 and sold most of its real estate in 1988. The activity of TMRC is not included in the financial statements.

Relationship to State of Colorado

Article VIII, Section 5 of the Colorado Constitution declares the University to be a state institution. Thus, for financial reporting purposes, the University is included as part of the State's primary government.

Basis of Accounting and Presentation

For financial reporting purposes, the University is considered a special-purpose government entity engaged only in business-type activities. Accordingly, the University's financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned, and expenses are recorded when an obligation is incurred.

The University applies all applicable Governmental Accounting Standards Board (GASB) pronouncements.

The Foundation reports under Financial Accounting Standards Board (FASB) standards. As such, certain revenue recognition criteria and presentation features are different from GASB revenue recognition criteria and presentation features. Modifications have been made to the Foundation's financial information in the University's financial reporting entity for these differences.

Significant Accounting Policies

Cash and Cash Equivalents

The University considers all highly liquid investments with original maturities of three months or less to be cash equivalents. Cash equivalents consist primarily of funds invested through the State Treasurer's Cash Management Program and money market funds with brokers.

Restricted Cash and Cash Equivalents

Restricted cash and cash equivalents include amounts whose use is constrained through either external party restrictions or imposition by law. Restricted purposes include gifts, endowments, debt funded project construction and debt service proceeds.

Investments and Investment Income

Investments in equity and debt securities are carried at fair value. Fair value is determined using quoted market prices. Investments include, but are not limited to, funds managed by the Foundation on behalf of the University.

Investment income consists of interest and dividend income and the net change for the year in the fair value of investments carried at fair value.

Accounts and Loans Receivable

Accounts and loans receivable consist of tuition and fee charges to students, charges for auxiliary enterprise services provided to students, advances to faculty, staff, and students, activity related to research contracts and grants, and short and long-term loans issued to students under various federal and other loan programs to cover tuition and fee charges. Receivables are recorded net of estimated uncollectible amounts. The University also

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

administers student loans on behalf of the discretely presented component unit. The student loans administered by the University are recorded as a receivable from the student, included with loans to students in the Statement of Net Position, and a liability to the component unit.

Inventories

Inventories are stated at the lower of cost, determined using the FIFO (first-in, first-out) method, or market.

Bond Issuance Costs

Bond issuance costs incurred on revenue bond issues are expensed in the year the bond issue occurs. Bond issue costs include costs incurred to issue bonds; legal fees, financial management fees, and underwriter's fees.

Capital Assets

Capital assets are recorded at cost at the date of acquisition, or acquisition value at the date of donation, if acquired by gift. Depreciation is computed using the straight-line method over the estimated useful life of each asset. The University is using the following estimated useful lives:

Land improvements	20	years
Buildings and improvements	20-40	years
Equipment	3-10	years
Library materials	10	years

For equipment, the capitalization policy includes all items with a value of \$5,000 or more, and an estimated useful life of greater than one year.

Renovations to buildings and other improvements that significantly increase the value or extend the useful life of the structure are capitalized. For renovations and improvements, the capitalization policy includes items with a value of \$50,000 or more. Routine repairs and maintenance are charged to operating expense. Major outlays for capital assets and improvements are capitalized as construction in progress throughout the building project. Interest incurred during the construction phase is included as part of the value of the construction in progress.

Assets recorded under capital lease agreements are recorded at the present value of future minimum lease payments and are amortized over either the term of the lease or the estimated useful life of the asset, whichever period is shorter. Such amortization is included as depreciation expense in the accompanying financial statements.

Intangible assets are carried at cost and are comprised of an indefeasible right to use certain fiber optic cables. Intangible assets are amortized over 20 years.

Compensated Absences

University policies permit most employees to accumulate vacation and sick leave benefits that may be realized as paid time-off or, in limited circumstances, as a cash payment. Expenses and the related liabilities that are recognized as vacation benefits are earned whether the employee is expected to realize the benefit as time-off or in cash. Expense and the related liability for sick leave benefits are recognized when earned to the extent the employee is expected to realize the benefit in cash determined using the termination payment method. Sick leave benefits expected to be realized as paid time-off are recognized as expense when the time-off occurs and no liability is accrued for such benefits employees have earned but not yet realized. Compensated absence liabilities are computed using the regular pay and termination pay rates in effect as of July 1 plus an additional amount for compensation-related payments such as Social Security and Medicare taxes computed using rates in effect at that date.

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Unearned Revenue – Tuition, Fees and Grants

Unearned revenue represents student tuition and fees, for which the University has not provided the associated services, and advances on grants and contract awards for which the University has not provided services or has not met all of the applicable eligibility requirements.

Bonds

Bonds represent debt by borrowing or financing the acquisition of land, buildings, equipment, or capital construction. The University has an International Swaps and Derivatives Association (ISDA) Master Swap Agreement in order to convert certain variable rate debt to a synthetic fixed rate, thereby economically hedging against changes in the cash flow requirements of the University's variable interest rate debt obligations (Note 9).

Deferred Outflows/Inflows of Resources

Deferred outflows of resources represent losses on various bond refunding, the market-to-market valuation of the University's SWAP agreement, and net pension liability related items. For current refunding and advance refunding resulting in defeasance of debt, the difference between the reacquisition price and the net carrying amount of the old debt is reported as a deferred outflow of resources on the Statement of Net Position and amortized as a component of interest expense over the remaining life of the old debt or the life of the new debt, whichever is shorter. The University recognized a deferred outflow in fiscal year 2019 and deferred inflow in fiscal year 2018 for the mark to market valuation of the SWAP agreement.

For the net pension liability related items, the difference between expected and actual experiences, the difference between projected and actual earnings on pension plan investments, the impact on the net pension liability resulting from changes in plan related assumptions, the changes in the University's proportionate share of the net pension liability, and contributions paid to PERA subsequent to the plan's measurement date are all reported as either a deferred outflow or a deferred inflow of resources on the Statement of Net Position and are amortized as a component of pension expense over varying amounts of time.

Classification of Revenues

The University has classified its revenues as either operating or nonoperating revenues according to the following criteria:

Operating revenues – Operating revenues include activities that have the characteristics of exchange or exchange like transactions, program-specific, or government-mandated non-exchange transactions, such as (1) student tuition and fees, (2) sales and services of auxiliary enterprises, (3) contracts and grants for research activities and (4) interest on student loans.

Nonoperating revenues – Nonoperating revenues include activities that have the characteristics of non-exchange transactions, such as gifts and contributions and other revenue sources that are not deemed operating revenues including Federal Pell revenue and interest subsidy payments associated with Build America Bonds.

Scholarship Discounts and Allowances

Student tuition and fee revenues and certain other revenues from students are reported net of scholarship allowances in the Statements of Revenues, Expenses and Changes in Net Position. Scholarship allowances are the difference between the stated charge for goods and services provided by the University and the amount that is paid by students and/or third parties making payments on the students' behalf. Certain governmental grants, such as Pell grants and other Federal, State or nongovernmental programs are recorded as either operating or nonoperating revenues in the University's financial statements. To the extent that revenues from

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

such programs are used to satisfy tuition, fees, and other student charges, the University has recorded a scholarship allowance.

Donor Restricted Endowments

Disbursements of the net appreciation (realized and unrealized) of investments of endowment gifts are permitted by state law, except where a donor has specified otherwise. The amount of earnings and net appreciation available for spending by the University and the Foundation is based on a spending rate set by the Foundation board on an annual basis. For the years ended June 30, 2019 and 2018, the authorized spending rate was equal to the 4.25 percent of the rolling 36-month average market value of the endowment investments. Earnings in excess of the amount authorized for spending are available in future years and are included in the value of the related investment.

Application of Restricted and Unrestricted Resources

The University first applies restricted resources when an expense or outlay is incurred for purposes for which both restricted and unrestricted resources are available.

Income Taxes

As a state institution of higher education, the income of the University is generally exempt from federal and state income taxes under Section 115(a) of the Internal Revenue Code and a similar provision of state law. However, the University is subject to federal and state income tax on any unrelated business taxable income. The University paid an estimated tax liability of \$35,476 for fiscal year 2019 and a tax liability of \$57,424 for fiscal year 2018 from income generated from activities unrelated to the University's exempt status.

Use of Estimates

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

Reclassifications

Certain prior year amounts have been reclassified to conform with the 2019 presentation.

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Note 2: Cash and Cash Equivalents and Investments

The University's and DPCU cash and cash equivalents as of June 30 are detailed in Table 2.1, Cash and Cash Equivalents.

Table 2.1 Cash and Cash Equivalents *(in thousands)*

Type	2019	2018
University		
Cash on hand	\$ 17	\$ 18
Cash with U.S. financial institutions	10,404	9,720
Cash with Guaranteed Investment Contract	64,231	81,184
Cash with State Treasurer	129,810	138,448
Total Cash and Cash Equivalents - University	\$ 204,462	\$ 229,370
Discretely Presented Component Unit		
Cash with U.S. financial institutions	5,835	9,532
Total Cash and Cash Equivalents - DPCU	\$ 5,835	\$ 9,532

Deposits

The University deposits the majority of its cash with the Colorado State Treasurer (Treasury) pursuant to Colorado Revised Statutes (C.R.S). The State Treasurer pools these deposits and invests them in securities authorized by Section 24-75-601.1, C.R.S. The State Treasurer acts as a bank for all state agencies and many state supported institutions of higher education. Monies deposited in the Treasury are invested until the cash is needed. As of June 30, 2019, the University had cash on deposit with the Treasury of \$129.8 million which represented approximately 1.4 percent of the total \$9,096.5 million fair value of investments in the State Treasury Pool (Pool). As of June 30, 2018, the University had cash on deposit with the Treasury of \$138.4 million, which represented approximately 1.8 percent of the total \$7,635.8 million fair value of deposits in the Pool. As of June 30, 2019, the Pool's resources included \$73.7 million of cash on hand and \$9,022.8 million of investments.

On the basis of the University's participation in the Pool, the University reports as an increase or decrease in cash for its share of the Treasurer's unrealized gains and losses on the Pool's underlying investments. The State Treasurer does not invest any of the Pool's resources in any external investment pool, and there is no assignment of income related to participation in the Pool. The unrealized gains/losses included in income reflect only the change in fair value for the fiscal year.

Additional information on investments of the State Treasurer's Pool may be obtained in the State's Comprehensive Annual Financial Report for the year ended June 30, 2019.

Deposits not with the State Treasury are exposed to custodial credit risk (the risk that, in the event of the failure of a depository financial institution, the government would not be able to recover deposits or would not be able to recover collateral securities that are in the possession of an outside party), if they are not covered by depository insurance (FDIC) and the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, except for deposits collateralized by certain types of collateral pools including a single financial institution collateral pool where the fair value of the pool is equal to or exceeds all uninsured public deposits held by the financial institution (the Public Deposit Protection Act) or collateralized with securities held by the pledging financial institution's trust department or agent but not in the depositor – government's name. Accordingly, none of the University's deposits as of June 30, 2019 and 2018 are deemed to be exposed to custodial credit risk. As of June 30, 2019 and 2018, the DPCU maintained balances in various

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

operating accounts in excess of federally insured limits totaling approximately \$5,600,000, and \$9,300,000, respectively.

Investments

The University has authority to invest institutional funds in any investment deemed advisable by the governing board per C.R.S. section 15-1-1106. The University may legally invest in direct obligations of, and other obligations guaranteed as to principal by, the U.S. Treasury and U.S. agencies and instrumentalities and in bank repurchase agreements. It may also invest, to a limited extent, in equity securities.

Credit Quality Risk-Credit quality risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. Credit risk only applies to debt investments. This is measured by the assignment of a rating by a nationally recognized statistical rating organization (NRSRO). The University's investment policy does not further limit its investment choices beyond those allowed by State statute. The corporate bond funds shown in table 2.2 are mutual funds and therefore are not rated.

Interest Rate Risk- Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Interest rate risk only applies to debt investments. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in the market interest rates. Interest rate risk inherent in the University's investments is measured by monitoring the modified duration of the overall investments portfolio. Modified duration estimates the sensitivity of the University's investments to changes in the interest rates. The University's investment policy does not limit investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.

Concentration of Credit Risk - Concentration of credit risk is the risk of loss attributed to the magnitude of an entity's investment in a single issuer. At June 30, 2019 and 2018, no single investment of the University has exceeded 5 percent of the total investments.

Most of the University's investments are managed by the Foundation, on behalf of the University and are reflected in the Foundation's Long-term Investment Pool (LTIP). The University's investments represent a proportionate share of the Foundation's LTIP and therefore, the University does not own any specific investments. As such, the fair value measurement for the University's investments are reported as a Level 3 as described below. The University investments are under the Foundation's LTIP policy. This policy requires funds to be managed in a diversified manner to reduce risks with the goal of providing a steady stream of funding for the University. The LTIP must be over a broad investment spectrum in order to create a mix of potential returns that, in the aggregate, would achieve the overall portfolio objectives. This diversification is to ensure that adverse or unexpected developments arising in one security or asset class will not have a significant detrimental impact on the entire portfolio. This policy minimizes concentration credit risk.

The Foundation categorizes fair value measurements of investments within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets at the measurement date; Level 2 inputs are significant other than quoted prices that are observable for the investment either directly or indirectly; Level 3 are significant unobservable inputs where little or no market data is available, which requires the entity to develop its own assumptions. The fair value measurement of investments as of June 30, 2019 and 2018 are show in Table 2.2 Fair Value Measurements.

Guaranteed Investment Contract

The University entered into a Guaranteed Investment Contract (GIC) with Toronto-Dominion Bank in April 2018. The cash provided for the GIC was equal to the 2017B Bond Proceeds. The University intends to leverage the investment to maximize the projects funded by the 2017B issue.

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Table 2.2 Fair Value Measurements *(in thousands)*

2019				
Investment Type	Level 1	Level 2	Level 3	Total
University				
Corporate equity securities	\$ 314	-	-	314
Investments with Foundation	-	-	32,913	32,913
Total Investments - University	\$ 314	-	32,913	33,227
Liabilities				
Interest Rate Swap Agreement	-	9,164	-	9,164
Total Liabilities - University	-	9,164	-	9,164
Discretely Presented Component Unit				
Cash equivalents	\$ -	13,139	-	13,139
Corporate equity securities	66,019	82,792	-	148,811
Hedge funds	-	55,654	-	55,654
Private equity	-	-	63,234	63,234
Corporate bond funds	22,956	-	-	22,956
Split-interest agreements	13,974	-	300	14,274
Gift annuity agreements	3,119	82	-	3,201
Beneficial interest investments	-	-	11,346	11,346
Total Investments-DPCU	\$ 106,068	151,667	74,880	332,615
2018				
Investment Type	Level 1	Level 2	Level 3	Total
University				
Corporate equity securities	\$ 344	-	-	344
Investments with Foundation	-	-	34,312	34,312
Total Investments - University	\$ 344	-	34,312	34,656
Liabilities				
Interest Rate Swap Agreement	-	6,837	-	6,837
Total Liabilities - University	-	6,837	-	6,837
Discretely Presented Component Unit				
Cash equivalents	\$ -	4,066	-	4,066
Corporate equity securities	89,541	78,578	-	168,119
Hedge funds	-	51,242	13	51,255
Private equity	-	-	58,232	58,232
Corporate bond funds	28,062	-	-	28,062
Split-interest agreements	13,956	-	75	14,031
Gift annuity agreements	3,268	201	-	3,469
Beneficial interest investments	10,451	501	14	10,966
Total Investments-DPCU	\$ 145,278	134,588	58,334	338,200

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Note 3: Accounts, Contributions and Loans Receivable

Table 3.1, Accounts Receivable, segregates receivables as of June 30, 2019 and 2018, by type.

Table 3.1 Accounts Receivable (in thousands)

2019				
Type of Receivable	Gross Receivable	Allowance	Net Receivable	Net Current Portion
University				
Student accounts	\$ 3,772	872	2,900	2,900
Student loans	4,903	119	4,784	549
Federal Government	12,653	-	12,653	12,653
Private sponsors	3,265	935	2,330	2,330
DPCU	5,324	-	5,324	5,324
Other	2,373	2	2,371	2,371
Total Receivable - University	\$ 32,290	1,928	30,362	26,127
Discretely Presented Component Unit				
Contributions*	\$ 21,266	1,268	19,998	4,727
Due from University	1,798	-	1,798	-
Total Receivable - DPCU	\$ 23,064	1,268	21,796	4,727
2018				
Type of Receivable	Gross Receivable	Allowance	Net Receivable	Net Current Portion
University				
Student accounts	\$ 4,103	956	3,147	3,147
Student loans	5,368	129	5,239	551
Federal Government	9,803	-	9,803	9,803
Private sponsors	3,366	938	2,428	2,428
DPCU	1,616	-	1,616	1,616
Other	1,713	-	1,713	1,713
Total Receivable - University	\$ 25,969	2,023	23,946	19,258
Discretely Presented Component Unit				
Contributions*	\$ 19,212	1,541	17,671	646
Due from University	1,691	-	1,691	-
Total Receivable - DPCU	\$ 20,903	1,541	19,362	646

*The allowance on the contributions receivable is comprised of uncollectible and unamortized discounts of \$615 and \$653, respectively, for June 30, 2019, and \$745 and \$796 respectively, as of June 30, 2018.

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

Note 4: Capital Assets

Table 4.1, Capital Assets, presents the changes in capital assets and accumulated depreciation by major asset category for the years ended June 30, 2019 and 2018.

Table 4.1 Capital Assets *(in thousands)*

Category	Balance 2018	Additions	Deletions	Transfers	Balance 2019
Nondepreciable capital assets					
Land	\$ 8,935	3,431	-	-	12,366
Works of art	202	-	-	-	202
Construction in progress	32,209	52,686	19	(21,366)	63,510
Total nondepreciable assets	\$ 41,346	56,117	19	(21,366)	76,078
Depreciable capital assets					
Land improvements	\$ 22,670	-	-	3,332	26,002
Buildings and improvements	485,863	1,221	518	17,087	503,653
Software	2,338	48	12	-	2,374
Equipment	77,348	6,602	3,432	947	81,465
Library materials	12,625	296	3	-	12,918
Intangible assets	600	-	-	-	600
Total depreciable capital assets	\$ 601,444	8,167	3,965	21,366	627,012
Less accumulated depreciation					
Land improvements	\$ 12,417	944	-	-	13,361
Buildings	164,667	13,572	205	-	178,034
Software	2,077	187	12	-	2,252
Equipment	50,339	5,910	3,316	-	52,933
Library materials	11,878	64	2	-	11,940
Intangible assets	300	33	-	-	333
Total accumulated depreciation	\$ 241,678	20,710	3,535	-	258,853
Net depreciable assets	\$ 359,766	(12,543)	430	21,366	368,159
Total Net Capital Assets	\$ 401,112	43,574	449	-	444,237

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Notes to Financial Statements

June 30, 2019 and 2018

Table 4.1 Capital Assets, continued *(in thousands)*

Category	Balance 2017	Additions	Deletions	Transfers	Balance 2018
Nondepreciable capital assets					
Land	\$ 8,811	124	-	-	8,935
Works of art	202	-	-	-	202
Construction in progress	64,671	29,670	105	(62,027)	32,209
Total nondepreciable assets	\$ 73,684	29,794	105	(62,027)	41,346
Depreciable capital assets					
Land improvements	\$ 22,118	-	-	552	22,670
Buildings and improvements	424,470	693	39	60,739	485,863
Software	2,370	37	69	-	2,338
Equipment	74,944	4,738	3,070	736	77,348
Library materials	12,410	215	-	-	12,625
Intangible assets	600	-	-	-	600
Total depreciable capital assets	\$ 536,912	5,683	3,178	62,027	601,444
Less accumulated depreciation					
Land improvements	\$ 11,546	871	-	-	12,417
Buildings	152,351	12,355	39	-	164,667
Software	1,906	235	64	-	2,077
Equipment	47,245	6,006	2,912	-	50,339
Library materials	11,631	247	-	-	11,878
Intangible assets	267	33	-	-	300
Total accumulated depreciation	\$ 224,946	19,747	3,015	-	241,678
Net depreciable assets	\$ 311,966	(14,064)	163	62,027	359,766
Total Net Capital Assets	\$ 385,650	15,730	268	-	401,112

The total interest costs related to capital asset debt incurred by the University during the years ended June 30, 2019 and 2018, was \$10,875,000 and \$11,073,000, respectively. The University capitalizes interest costs as a component of construction in progress during the period of construction, based on interest costs of borrowing specifically for the project, net of interest earned on investments acquired with the proceeds of the tax-exempt debt. The total amount of interest costs capitalized as part of construction in progress during the years ended June 30, 2019 and 2018 was \$2,421,000 and \$2,034,000, respectively.

Note 5: Deferred Outflows and Inflows of Resources

Table 5.1, Deferred Outflows and Inflows of Resources details the types and amounts of deferred outflows and inflows of resources as of June 30, 2019 and 2018.

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Notes to Financial Statements

June 30, 2019 and 2018

Table 5.1 Deferred Outflows of Resources *(in thousands)*

Deferred Outflows	2019	2018
Loss on bond refundings	\$ 11,314	12,519
PERA Related	46,858	112,831
SWAP valuation	2,716	-
Asset Retirement Obligation	153	-
Total Deferred Outflows of Resources	\$ 61,041	125,350

Deferred Inflows	2019	2018
PERA Related	\$ 173,907	37,325
SWAP valuation	-	113
Total Deferred Inflows of Resources	\$ 173,907	37,438

Note 6: Accounts Payable and Accrued Liabilities

Table 6.1, Accounts Payable and Accrued Liabilities, details the accounts payable and accrued expenses as of June 30, 2019 and 2018.

Table 6.1 Accounts Payable and Accrued Liabilities *(in thousands)*

Type	2019	2018
Accounts payable - vendors	\$ 14,966	9,443
Accrued salaries and benefits	6,602	5,824
Accrued interest payable	1,534	1,610
Total Accounts Payable and Accrued Liabilities	\$ 23,102	16,877

The University leases various buildings and equipment under operating lease rental agreements. Operating leases do not give rise to property rights or meet other capital lease criteria, and therefore, the related assets and liabilities are not recorded in the accompanying financial statements. For Fiscal Years 2019 and 2018, total rent expense under these agreements was \$191,000 and \$190,000, respectively. Table 6.2, Future Minimum Operating Lease Payments, details the future minimum operating lease payments.

Table 6.2 Future Minimum Operating Lease Payments *(in thousands)*

Years Ending June 30	Minimum Lease Payment
2020	\$ 139
2021	85
2022	87
2023	44
Total Operating Lease Payments	\$ 355

The University leases office space to several tenants in two buildings. The lease terms for the tenants vary and extend through Fiscal Year 2021. The annual rent payments from these two buildings for Fiscal Year 2019

Colorado School of Mines

Notes to Financial Statements

June 30, 2019 and 2018

and 2018 was \$1,644,000 and \$1,631,000, respectively. Table 6.3, Future Tenant Rent Payments, presents the anticipated annual rent payments from tenants.

Table 6.3 Future Tenant Rent Payments *(in thousands)*

Years Ending June 30	Minimum Lease Payment	
2020	\$	161
2021		144
Total Tenant Rent Payments	\$	305

Note 7: Compensated Absences

Table 7.1, Compensated Absences, presents the changes in compensated absences for the years ended June 30, 2019 and 2018.

Table 7.1 Compensated Absences *(in thousands)*

	2019	2018
Beginning of the year	\$ 7,756	6,439
Adjustments/reductions	(21)	1,317
End of the year	\$ 7,735	7,756
Current Portion	\$ 712	596

Note 8: Unearned Revenue

Table 8.1, Unearned Revenue, details the types and amounts of unearned revenue as of June 30, 2019 and 2018.

Table 8.1 Unearned Revenue *(in thousands)*

Type	2019	2018
Tuition and fees	\$ 5,633	5,574
Grants and contracts	11,495	9,255
Miscellaneous	879	929
Total Unearned Revenue	\$ 18,007	15,758

Note 9: Bonds and Leases

As of June 30, 2019 and 2018, the categories of long-term obligations are detailed in Table 9.2, Bonds and Leases Payable. Table 9.3, Changes in Bonds and Leases Payable, presents the changes in bonds and capital leases payable for the years ended June 30, 2019 and 2018.

Revenue Bonds

A general description of each revenue bond issue, original issuance amount, and the amount outstanding as of June 30, 2019 and 2018 is detailed in Table 9.4, Revenue Bond Detail.

The University's fixed rate revenue bonds are payable semi-annually, have serial maturities containing sinking fund requirements and contain optional redemption provisions. The University's variable rate demand bonds are payable annually, contain sinking fund requirements and contain optional redemption provisions. The

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optional redemption provisions allow the University to redeem, at various dates, portions of the outstanding revenue bonds at varying prices. All University revenue bonds are special limited obligations of the University. The revenue bonds are secured only by certain pledged revenues and are not pledged by any encumbrance, mortgage, or other pledge of property, and the revenue bonds do not constitute general obligations of the University.

The revenue bonds are secured by a pledge of all net revenues as defined by the bond documents. As of June 30, 2019 and 2018, net auxiliary pledged revenues, total net pledged revenues, and the associated debt service coverage are shown in Table 9.1, Net Pledged Revenues. The University's net pledged revenues will continue to be pledged for the life of the associated revenue bonds as detailed in Table 9.2, Bonds, and Leases Payable. The outstanding principal and interest of the related pledged debt is detailed in Table 9.5, Revenue Bonds Future Minimum Payments. The University believes it complies with all existing pledged revenue requirements of its outstanding bonds.

Table 9.1 Net Pledged Revenues *(in thousands)*

Source of Net Pledged Revenue	2019	2018
Auxiliary Revenue Bonds		
Net auxiliary facilities	\$ 16,467	15,159
Renewal and replacement fund	687	692
Net auxiliary pledged revenues	17,154	15,851
Prior obligation auxiliary debt service	1,385	910
Prior obligation auxiliary debt service coverage	12.38	17.42
Parity Bond Obligations		
Institutional Enterprise Revenue Bonds		
Student tuition (10 percent)	\$ 17,417	16,203
Student facility fees	3,625	3,462
Federal indirect cost recovery	13,909	12,019
Federal interest subsidy	1,136	1,143
Net Institutional Enterprise Pledged Revenues	36,087	32,827
Net Pledged Revenues for Parity Debt	51,857	47,768
Total Parity Debt Service	18,842	17,465
Total Parity Debt Service Coverage	2.75	2.74
Subordinate Bond Obligations		
Net Pledged Revenues for Subordinate Debt	\$ 33,015	30,303
Subordinate Debt Service	1,175	1,203
Subordinate Debt Service Coverage	28.10	25.19
Percent of Pledged Revenue to Total Revenue	80%	79%
Total Debt Service Coverage	2.49	2.49

The Auxiliary Facility Enterprise Revenue bonds specify debt service coverage requirements for the auxiliary facilities. The debt service coverage provisions require net pledged revenues to be equal to 110 percent of the combined principal and interest payments, excluding any reserves, on the Auxiliary Bonds and any additional bonds due during any subsequent fiscal year. The Auxiliary Facility Enterprise Revenue bonds are payable from net pledged revenues on parity with the other bonds and the note payable.

A master resolution adopted by the Board includes a covenant by the Board which provides, in summary, that, while the Bonds are outstanding, and subject to applicable law, the Board will continue to impose such fees

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and charges as are included within the gross revenues and will continue the present operation and use of the institutional enterprise and the facilities. The Board will continue to maintain such reasonable fees, rental rates and other charges for the use of all facilities and for services rendered by the Institutional Enterprise and will return annually gross revenue sufficient to pay the prior bond obligations, to pay operation and maintenance expenses, to pay the annual debt service requirements of the bonds and any parity obligations payable from the net revenues. In addition, the Board will make any deposits required to the reserve fund. The debt covenant includes provisions relating to other matters such as maintenance of insurance coverage for the facilities. The Master Resolution prohibits the Board from selling, destroying, abandoning, otherwise disposing of or altering at any time the property comprising a part of the facilities until all bonds payable out of net revenues have been paid or provision has been made to pay all such bonds. The University believes it complies with these covenants.

The Series 2009B and 2010B bonds qualify as Build America Bonds and the Series 2011 bonds qualify as Qualified Energy Conservation Bonds for purposes of the American Recovery and Reinvestment Act of 2009 (ARRA) signed into law on February 17, 2009. Pursuant to ARRA, for the Series 2009B and 2010B bonds, the University expects to receive a cash subsidy payment from the United States Treasury, referred to as Federal Direct Payments, equal to 35 percent of the interest payable on the bonds on or around each interest payment date. For the Series 2011 bonds, the University expects to receive Federal Direct Payments equal to 70 percent of the interest payable on the bonds on or around each interest payment date. Due to federal budget cuts beginning in Fiscal Year 2013, the University received approximately 6.2 and 6.6 percent less in payments under this program for Fiscal Years 2019 and 2018, respectively. Pursuant to the Colorado Recovery Act, the Board may pledge any Federal Direct Payments received to the payments of the bonds. The Board has pledged such payments to the payment of all bonds. In Fiscal Years 2019 and 2018, the University received \$1,136,000 and \$1,143,000, respectively, in Federal Direct Payments.

The Series 2009B, 2009C, 2012B, 2016A, 2016B, 2017C and 2018A revenue bonds qualify for the State Intercept Program established pursuant to Section 23-5-139 CRS. The State Intercept Program provides for the institutions of higher education to utilize the State of Colorado's credit rating. The State Treasurer is obligated to make principal and interest payments when due with respect to the revenue bonds issued by state supported institutions of higher education if such institution will not make the payment by the due date.

The following table provides a summary of the University's long-term debt obligations as of June 30, 2019 and 2018 (in thousands):

Table 9.2 Bonds and Leases Payable (in thousands)

Type	Interest Rates	Final Maturity	Balance 2019	Balance 2018
Auxiliary Facilities Enterprise Revenue Bonds	2.5% - 5.4%	2028	\$ 9,126	10,012
Institutional Enterprise Revenue Bonds				
Variable Rate Demand Bonds	1.600%*	2038	37,335	37,885
Fixed Rate Bonds	3% - 6.29%	2043	247,186	254,689
Fixed Rate Bonds (Direct Placement)	4.90%	2021	725	1,055
Subordinate Institutional Enterprise Revenue Bonds	3.00%	2027	7,360	8,300
Total Bonds Payable			\$ 301,732	311,941
Capital Leases Payable	7.80%	2019	-	8
Total Bonds and Leases Payable			\$ 301,732	311,949

*Variable rate demand bonds are set at an adjustable rate as discussed below. The rates reflected in the table are as of June 30, 2019.

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In May 2018, the University refunded the 2010A variable rate demand bonds with the issuance of the 2018A variable rate institutional enterprise revenue bonds. In addition, the University negotiated a new support fee of 0.50 percent which is added to the interest rate. The interest rate on the Series 2018A variable rate demand bonds is calculated based on 67 percent of the one-month London interbank offered rate (LIBOR) plus 50 basis points. The interest rate on the Series 2018A as of June 30, 2019 and 2018 (including basis points), was 2.100 percent and 1.907 percent, respectively.

Table 9.3, Changes in Bonds and Leases Payable presents the changes in bonds, and leases for the years ended June 30, 2019 and 2018.

Table 9.3 Changes in Bonds and Leases Payable *(in thousands)*

Type	Balance 2018	Additions	Deductions	Balance 2019	Current Portion
Revenue bonds payable	\$ 286,162	495	8,635	278,022	8,730
Plus unamortized premiums	25,794	-	2,073	23,721	-
Less unamortized discounts	15	-	4	11	-
Total Bonds Payable	\$ 311,941	495	10,704	301,732	8,730
Capital Leases	8	-	8	-	-
Total Bonds and Leases Payable	\$ 311,949	495	10,712	301,732	8,730

Type	Balance 2017	Additions	Deductions	Balance 2018	Current Portion
Revenue bonds payable	\$ 193,489	173,003	80,330	286,162	8,635
Plus unamortized premiums	9,538	22,086	5,830	25,794	-
Less unamortized discounts	19	-	4	15	-
Total Bonds Payable	\$ 203,008	195,089	86,156	311,941	8,635
Capital Leases	54	-	46	8	8
Total Bonds and Leases Payable	\$ 203,062	195,089	86,202	311,949	8,643

Table 9.4, Revenue Bond Detail presents a summary description of the University's outstanding revenue bonds for the years ended June 30, 2019 and 2018.

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Table 9.4 Revenue Bond Detail (in thousands)

Issuance Description	Original Issuance Amount	Outstanding Balance 2019	Outstanding Balance 2018
Auxiliary Facilities Enterprise Revenue Bonds:			
Capital Appreciation, Series 1999 - Used to fund capital improvements for residence halls, residential housing, student center and fraternity housing facilities	\$ 7,794	9,137	10,027
Total Auxiliary Facilities Enterprise Revenue Bonds	\$ 7,794	9,137	10,027
Institutional Enterprise Revenue Bonds:			
<u>Refunding and Improvement Series 2009A</u>			
Used to refund the Colorado School of Mines Development Corporation Refunding Variable Rate Demand Bonds, Series 2005, refund a portion of the Variable Rate Demand Improvement Series 2008B, make a payment in connection with modifying a portion of an existing swap agreement for the Series 2008B Bonds, and acquire certain real properties.	28,720	-	1,130
<u>Series 2009B</u>			
Used to fund construction or renovation of certain campus capital projects including a new residence hall, Weaver Towers, wellness center and other capital improvements. Repayment begins in 2024.	42,860	42,860	42,860
<u>Refunding Series 2009C</u>			
Used to refund a portion of the Series 2008B and terminate an existing swap agreement for the Series 2008B bonds	16,745	640	1,260
<u>Series 2010B</u>			
Taxable Direct Payment Build America Bonds. Used to construct, improve, renovate and equip new academic Marquez Hall Wing and provide additional facilities. Repayment begins in 2034.	11,195	11,195	11,195
<u>Series 2012B</u>			
Used to fund construction of a new residence hall and dining facility, renovate the Student Center, provide bridge funding for construction for a new welcome center, and refund all of the Series 2002 and a portion of the Series 2004	47,345	6,635	7,790
<u>Series 2016A and B</u>			
Used to fund construction, improvements, and equipping of CoorsTek Center; advance refunding portion of the Series 2009A bonds and Series 2009C bonds	34,690	27,550	30,075

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Series 2017A

Used to fund construction and improvements to campus-wide generators, a chiller plant, the Green Center roof and a new operations building. Repayment begins in 2023.	27,675	27,675	27,675
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Series 2017B

Used to fund construction of a new residence hall, parking garage, Innovative learning space and improvements to campus utilities. Repayment begins in 2021.	71,880	71,880	71,880
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Series 2017C

Used to advanced refund all of the Institutional Enterprise Revenue Bonds, Series 2012B. Repayment begins in 2022.	35,030	35,030	35,030
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Series 2018A

Used to refund all of the variable rate demand Institutional Enterprise Revenue Bonds, Series 2010A. Repayment begins in 2020.	37,885	37,335	37,885
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Total Institutional Enterprise Revenue Bonds	\$ 354,025	260,800	266,780
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Direct Placement Institutional Enterprise Revenue Bonds:

Series 2011 - Taxable Qualified Energy Conservation Bonds. Used to finance qualified conservation improvement projects	\$ 2,800	725	1,055
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Total Direct Placement Institutional Enterprise Revenue Bonds	\$ 2,800	725	1,055
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Subordinate Institutional Enterprise Revenue Bonds, Direct Placement:

Series 2012A –

Used to fund construction of new athletic facilities	\$ 13,000	7,360	8,300
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Total Direct Placement Subordinate Institutional Enterprise Revenue Bonds	\$ 13,000	7,360	8,300
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Total Revenue Bonds	\$ 377,619	278,022	286,162
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Plus Premiums	-	23,721	25,794
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Less Discounts	-	11	15
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Total Revenue Bonds	301,732	311,941	
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Revenue and Refunding Bond Activity

In August 2017, the University issued Institutional Enterprise Revenue Bonds of \$27,675,000 to construct a new operations building, a chiller plant, campus generators, and the re-roof of a building. In November and December 2017, the University issued a total of \$106,910,000 in Institutional Enterprise Revenue and Refunding Bonds consisting of \$71,880,000 in Series 2017B and \$35,030,000 in Series 2017C. The Series 2017B bonds will be used to finance the construction of a new residence hall, parking garage and learning

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June 30, 2019 and 2018

space as well as upgrades to campus utilities infrastructure. The 2017C bonds were issued to advance refund a portion of the Series 2012B institutional revenue bonds. In May 2018, the University issued \$37,885,000 in variable rate Institutional Enterprise Revenue and Refunding Bonds, Series 2018A. The Series 2018A was used to refund the balance on Series 2010A variable rate demand Institutional Enterprise Revenue Bonds.

The University completed the Series 2017C and Series 2018A refunding to reduce its total debt service payments over the next 25 years by \$3.4 million and obtain an economic benefit (difference between the present value of the debt service payments on the old debt and new debt) of \$2.4 million. The refunding resulted in a difference between the reacquisition price and net carrying amount of the old debt of \$1.0 million. The difference is reported in the accompanying financial statements as a deferred outflow and is being amortized through fiscal year 2043.

Debt Service Requirements on Revenue Bonds

The future minimum revenue bonds debt service requirements as of June 30, 2019, are shown in Table 9.5, Revenue Bonds Future Minimum Payments.

Table 9.5 Revenue Bonds Future Minimum Payments (in thousands)

Years Ending June 30	Non-Direct Borrowings			Direct Borrowings		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 7,435	12,671	20,106	1,295	234	1,529
2021	7,735	12,377	20,112	1,310	188	1,498
2022	6,435	12,155	18,590	940	150	1,090
2023	7,455	11,967	19,422	940	122	1,062
2024	7,710	11,718	19,428	940	94	1,034
2025 – 2029	43,530	53,471	97,001	2,660	115	2,775
2030 – 2034	52,690	42,335	95,025	-	-	-
2035 – 2039	70,910	27,321	98,231	-	-	-
2040 – 2044	44,835	10,094	54,929	-	-	-
2045 – 2048	23,245	2,396	25,641	-	-	-
Subtotal	\$ 271,980	196,505	468,485	8,085	903	8,988
Unaccreted interest - 1999 Bonds	(2,043)					
Total Debt Service	\$ 269,937					

Interest Rate SWAP Agreements

In Fiscal Year 2008, the University entered into a floating to fixed interest rate swap agreement (Swap Agreement) in connection with the 2008A issuance. The Swap Agreement was entered into with the objective of protecting against the potential of rising interest rates. The 2008A issuance was refunded with the Series 2010A issuance. The Series 2010A was refunded with the issuance of the Series 2018A Refunding Bonds. The Swap Agreement was not terminated and was associated with the Series 2018A issuance. The Swap Agreement has a notional amount of \$37,335,000 and \$37,885,000 and a fair value of (\$9,163,846) and (\$6,837,113) at June 30, 2019 and 2018, respectively. The Swap Agreement provides for certain payments to or from Morgan Stanley equal to the difference between the fixed rate of 3.59 percent payable by the University and 67 percent of one month USD-LIBOR-BBA, 1.601 percent and 1.229 percent at June 30, 2019 and 2018, respectively, payable by Morgan Stanley. The fair value of the swap is classified as a noncurrent liability and the change in fair value of the swap is classified as a deferred outflow at June 30, 2019 and 2018. On the date of the refunding

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of the Series 2010A Bonds, the fair market value of the swap was (\$6,998,662) and was included in the calculation of deferred loss on refunding and is being amortized over the life of the Series 2018A Refunding Bonds. Accumulated amortization of the deferred loss as of June 30, 2019 and 2018 was \$1,852,772 and \$1,350,621, respectively. Morgan Stanley, counterparty to the Swap Agreement, determined the fair value as of June 30, 2019 and 2018, using a discounted forecasted cash flows; however, the actual method and significant assumptions used are proprietary. The Swap Agreement has an effective date of March 5, 2008 and a termination date of December 1, 2038.

There can be risks inherent to interest rate swaps that the University addresses and monitors pursuant to entering into interest rate swap agreements:

Termination Risk – The need to terminate the transaction in a market that dictates a termination payment by the University. It is possible that a termination payment is required in the event of termination of a swap agreement due to a counterparty default or following a decrease in credit rating. In general, exercising the right to optionally terminate an agreement should produce a benefit to the University, either through receipt of a payment from a termination, or if a termination, payment is made by the University, a conversion to a more beneficial debt instrument or credit relationship.

Credit Risk – The risk that the counterparty will not fulfill its obligations. The University considers the Swap Agreement counterparty's (Morgan Stanley) credit quality rating and whether the counterparty can withstand continuing credit market turmoil. As of June 30, 2019, Morgan Stanley's credit rating is A3 by Moody's, BBB+ by Standards & Poor's.

For the outstanding Swap Agreement the University has a maximum possible loss equivalent to the swaps' fair value at June 30, 2019 and 2018 related to the credit risk. However, the University was not exposed to this loss because of the negative fair value of the swaps as of June 30, 2019 and 2018. In addition, these agreements required no collateral and no initial net cash receipt or payment by the University.

Basis Index Risk – Basis risk arises as a result of movement in the underlying variable rate indices that may not be in tandem, creating a cost differential that could result in a net cash outflow from the University. Basis risk can also result from the use of floating, but different, indices. To mitigate basis risk, it is the University's policy that any index used as part of an interest rate swap agreement shall be a recognized market index, including, but not limited to, the Securities Industry and Financial Markets Association (SIFMA) or the London Interbank Offered Rate (LIBOR).

As of June 30, 2019, the aggregate debt service payments and net swap cash payments, assuming current interest rates remain the same, for their term are reflected in Table 9.6, Future Revenue Bonds and Net Swap Minimum Payments.

Table 9.6 Future Revenue Bonds and Net Swap Minimum Payments *(in thousands)*

Years Ending June 30	Principal	Bond Interest	SWAP Interest (net)	Total Debt Service	Support Fee
2020	\$ 575	777	736	2,088	185
2021	575	765	725	2,065	182
2022	850	750	710	2,310	178
2023	925	730	693	2,348	174
2024	975	710	674	2,359	169
2025-2029	8,150	3,164	3,000	14,314	754
2030-2034	13,600	1,938	1,836	17,374	461
2035-2038	11,685	475	450	12,610	113
Total Debt Service	\$ 37,335	9,309	8,824	55,468	2,216

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Extinguishment of Debt

Previous revenue bond issues considered to be extinguished through in-substance defeasance under generally accepted accounting principles are not included in the accompanying financial statements. The amount of debt in this category, covered by assets placed in trust to be used solely for future payments, amounted to \$45,260,000 and \$65,160,000 as of June 30, 2019 and 2018, respectively.

Capital Leases

As of June 30, 2018, the University had an outstanding liability for capital leases approximating \$8,000, with underlying gross capitalized asset cost approximating \$131,000. The lease was fully liquidated in Fiscal Year 2019 and has no further payments due.

State of Colorado Certificates of Participation

In Fiscal Year 2008, State of Colorado Senate Bill 08-218 made Federal Mineral Leasing (FML) monies available for capital construction at institutions of higher education. FML money is derived from ongoing leasing and production activities on federal lands within Colorado and approximately half of these payments go to the State of Colorado. The State used part of this money on November 6, 2008 and issued Certificates of Participation (COP) to support some higher education construction and maintenance projects. The University received \$6,748,000 for a portion of the support in the construction of an addition to the Brown Hall building. The State of Colorado is responsible for making the principal and interest payments on the COP.

On September 26, 2018, the State issued State of Colorado Rural Colorado Certificates of Participation, Series 2018A, with a par value of \$500,000,000, a premium of \$47,368,567 and a discount of \$526,047. The certificates have interest rates ranging from 1.840 percent to 5.000 percent and mature in December 2037. Of the proceeds, \$1,200,000 was designated for controlled maintenance projects identified in Senate Bill 17-267. The University received \$627,912 for the later phases of projects to repair the campus steam branch and to replace hazardous fume hoods. The State of Colorado is responsible for making the principal and interest payments on the COP.

Note 10: Other Liabilities

Table 10.1, Other Liabilities, details other liabilities as of June 30, 2019 and 2018.

Type	2019		2018	
	Total	Current Portion	Total	Current Portion
University				
Amounts due to the Foundation	\$ 2,048	250	1,841	75
Funds held for others	397	202	278	139
Polution remediation	190	-	-	-
Student deposits	702	353	614	307
Miscellaneous	3,094	1,051	3,313	1,247
Total Other Liabilities - University	\$ 6,431	1,856	6,046	1,768
Discretely Presented Component Unit				
Colorado School of Mines	\$ 32,911	-	34,307	-
Other trust funds	1,263	-	1,226	-
Obligations under split-interest agreements	3,686	-	4,321	-
Obligations under gift annuity agreements	3,472	-	3,702	-
Refunded advances	30	-	30	-
Other liabilities	364	-	397	-
Total Other Liabilities - DPCU	\$ 41,726	-	43,983	-

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Direct Lending

The University began participation in the Direct Student Loan program operated by the Federal Government in the spring of Fiscal Year 2010. This program enables eligible students or parents to obtain a loan to pay for the student's cost of attendance directly through the University rather than through a private lender. The University is responsible for handling the complete loan process, including funds management, as well as promissory note functions. The University is not responsible for collection of these loans or for defaults by borrowers, and therefore these loans are not recognized as receivables in the accompanying financial statements. Lending activity during the years ended June 30, 2019 and 2018 under these programs were \$31,173,000 and \$30,769,000, respectively

Note 11: Changes in Accounting Principles

Effective July 1, 2018, the University adopted Governmental Accounting Standards Board (GASB) Statement No. 83 Certain Asset Retirement Obligations (Statement No. 83), which addresses accounting and financial reporting for certain asset retirement obligations (AROs). The University now carries a liability related to obligations that will be incurred at the retirement of assets with complex environmental impacts. The University has three types of obligations which include radiation detection, radiation sources and laboratory equipment utilized with radiation. The State of Colorado Department of Public Health and Environment, as well as the Federal Nuclear Regulatory Commission that covers all radioactive materials regulate these items. Colorado School of Mines complies with State regulations and has estimated future decommissioning cost. The methods and assumptions for estimating the liability are based on calculations for closing laboratories, decontaminating related spaces, and decommissioning equipment. All assets related to the liability are depreciated under the University's standard depreciation method. Of the 25 assets with future retirement obligations, ten assets have remaining useful lives of up to 8 years and three assets have indefinite useful lives. The ten assets with measurable useful life remaining are recorded as deferred outflows of resources totaling \$153,000 on the Statements of Net Position. As June 30, 2019, the University's liability was \$190,000.

Effective July 1, 2018, the University adopted GASB Statement No. 88 Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements (Statement No. 88), which revises and establishes new accounting and financial reporting requirements related to reporting information about resources to liquidated debt and the risks associates with changes in terms associated with debt. The University's bond issuance Series 2011 and Series 2012A were issued directly to investors without a public offering statement and now are required to be specifically identified. These have been included in disclosures since issuance without distinction.

Effective July 1, 2017, the University adopted GASB Statement No. 75 Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (Statement No. 75), which revises and establishes new accounting and financial reporting requirements for most governments that provide their employees with post-employment benefits other than pension benefits (OPEB). The University provides its employees with OPEB through the State's multiple employer cost-sharing Defined Benefit Other Postemployment Benefit Plan (Health Care Trust Fund or HCTF) administered by the Colorado Public Employees' Retirement Association (PERA). Information regarding PERA's current funding status can be found in their Comprehensive Annual Financial Report.

Statement No. 75 requires cost-sharing employers participating in the PERA program to record their proportionate share, as defined in Statement No. 75, of PERA's unfunded OPEB liability. The University has no legal obligation to fund this shortfall nor does it have any ability to affect funding, benefit, or annual required contribution decisions made by PERA and the State Legislature. The requirement of Statement No. 75 to record the University's proportionate share of the HCTF's net OPEB liability will negatively influence the School's future unrestricted net position.

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To the extent practical, changes made to comply with Statement No. 75 should be presented as a restatement of the Fiscal Year 2017 financial statements. However, PERA did not provide the information required to restate the University's Fiscal Year 2017 financial statements; therefore, the impact of adoption of Statement No. 75 was shown as an adjustment beginning Net Position in Fiscal Year 2018. The impact of the adoption of Statement No. 75 is detailed in Table 11.1 Changes in Beginning Net Position.

Table 11.1 Change in Beginning Net Position (in thousands)

	<u>6/30/2018</u>
Net Position, beginning of year	\$ (28,439)
Cumulative effect of change in accounting principle	(13,133)
Unrestricted Net Position, beginning of year as restated	\$ (41,572)

The University's proportionate share of OPEB liability directly reduces the University's unrestricted net position. The effect on unrestricted net position as restated in fiscal year 2018 is shown in Table 11.2 Impact on Unrestricted Net Position.

Table 11.2 Impact on Unrestricted Net Position (in thousands)

	<u>6/30/2018</u>
Unrestricted Net Position, beginning of year	(253,862)
Cumulative effect of change in accounting principle	(13,133)
Unrestricted Net Position, beginning of year as restated	(266,995)

Note 12: Retirement Plans

Pensions. Colorado School of Mines participates in the State Division Trust Fund (SDTF), a cost-sharing multiple-employer defined benefit pension plan administered by the Public Employees' Retirement Association of Colorado ("PERA"). The net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, information about the fiduciary net position and additions to/deductions from the fiduciary net position of the SDTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. The University has included limited PERA information for Denver Public Schools (DPS) as it is possible the University employs DPS retirees.

The Colorado General Assembly passed significant pension reform through Senate Bill (SB) 18-200: *Concerning Modifications To the Public Employees' Retirement Association Hybrid Defined Benefit Plan Necessary to Eliminate with a High Probability the Unfunded Liability of the Plan Within the Next Thirty Years*. Governor Hickenlooper signed the bill into law on June 4, 2018. A brief description of some of the major changes to plan provisions required by SB 18-200 for the SDTF are listed below. A full copy of the bill can be found online at www.leg.colorado.gov.

- Increases employer contribution rates for the SDTF by 0.25 percent on July 1, 2019.
- Increases employee contribution rates for the SDTF by a total of 2.0 percent (to be phased in over a period of 3 years starting on July 1, 2019).
- As specified in C.R.S. § 24-51-413, the State is required to contribute \$225 million each year to PERA starting on July 1, 2018. A portion of the direct distribution payment is allocated to the SDTF based on the proportionate amount of annual payroll of the SDTF to the total annual payroll of the SDTF, School Division Trust Fund, Judicial Division Trust Fund, and Denver Public Schools Division Trust

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Fund. A portion of the direct distribution allocated to the SDTF is considered a nonemployer contribution for financial reporting purposes.

- Modifies the retirement benefits, including temporarily suspending and reducing the annual increase for all current and future retirees, increases the highest average salary for employees with less than five years of service credit on December 31, 2019 and raises the retirement age for new employees.
- Member contributions, employer contributions, the direct distribution from the State, and the annual increases will be adjusted based on certain statutory parameters beginning July 1, 2020, and then each year thereafter, to help keep PERA on path to full funding in 30 years.
- Expands eligibility to participate in the PERA DC Plan to certain new members of the State Division hired on or after January 1, 2019, who are classified State College and University employees. Beginning January 1, 2021, and every year thereafter, employer contribution rates for the SDTF will be adjusted to include a defined contribution supplement based on the employer contribution amount paid to defined contribution plan participant accounts that would have otherwise gone to the defined benefit trusts to pay down the unfunded liability plus any defined benefit investment earnings thereon.

General Information about the Pension Plan

Plan description. Eligible employees of the Colorado School of Mines are provided with pensions through the State Division Trust Fund (SDTF)—a cost-sharing multiple-employer defined benefit pension plan administered by PERA. Plan benefits are specified in Title 24, Article 51 of the Colorado Revised Statutes (C.R.S.), administrative rules set forth at 8 C.C.R. 1502-1, and applicable provisions of the federal Internal Revenue Code. The Colorado General Assembly may amend Colorado State law provisions from time to time. PERA issues a publicly available comprehensive annual financial report (CAFR) that can be obtained at www.copera.org/investments/pera-financial-reports.

Benefits provided as of December 31, 2018. PERA provides retirement, disability, and survivor benefits. Retirement benefits are determined by the amount of service credit earned and/or purchased, highest average salary, the benefit structure(s) under which the member retires, the benefit option selected at retirement, and age at retirement. Retirement eligibility is specified in tables set forth at C.R.S. § 24-51-602, 604, 1713, and 1714.

The lifetime retirement benefit for all eligible retiring employees under the PERA benefit structure is the greater of the:

- Highest average salary multiplied by 2.5 percent and then multiplied by years of service credit
- The value of the retiring employee's member contribution account plus a 100 percent match on eligible amounts as of the retirement date. This amount is then annuitized into a monthly benefit based on life expectancy and other actuarial factors.

The lifetime retirement benefit for all eligible retiring employees under the Denver Public Schools (DPS) benefit structure is the greater of the:

- Highest average salary multiplied by 2.5 percent and then multiplied by years of service credit
- \$15 times the first 10 years of service credit plus \$20 times service credit over 10 years plus a monthly amount equal to the annuitized member contribution account balance based on life expectancy and other actuarial factors.

In all cases, the service retirement benefit is limited to 100 percent of highest average salary and cannot exceed the maximum benefit allowed by federal Internal Revenue Code.

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Members may elect to withdraw their member contribution accounts upon termination of employment with all PERA employers; waiving rights to any lifetime retirement benefits earned. If eligible, the member may receive a match of either 50 percent or 100 percent on eligible amounts depending on when contributions were remitted to PERA, the date employment was terminated, whether 5 years of service credit has been obtained and the benefit structure under which contributions were made.

As of December 31, 2018, benefit recipients who elect to receive a lifetime retirement benefit are generally eligible to receive post-retirement cost-of-living adjustments in certain years, referred to as annual increases in the C.R.S. Pursuant to Senate Bill (SB) 18-200, there are no annual increases (AI) for 2018 and 2019 for all benefit recipients. Thereafter, benefit recipients under the PERA benefit structure who began eligible employment before January 1, 2007 and all benefit recipients of the DPS benefit structure will receive an annual increase, unless PERA has a negative investment year, in which case the annual increase for the next three years is the lesser of 1.5 percent or the average of the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the prior calendar year. Benefit recipients under the PERA benefit structure who began eligible employment after January 1, 2007 will receive the lesser of an annual increase of 1.5 percent or the average CPI-W for the prior calendar year, not to exceed 10 percent of PERA's Annual Increase Reserve (AIR) for the SDTF. The automatic adjustment provision may raise or lower the aforementioned AI for a given year by up to one-quarter of 1 percent based on the parameters specified C.R.S. § 24-51-413. Disability benefits are available for eligible employees once they reach five years of earned service credit and are determined to meet the definition of disability.

Survivor benefits are determined by several factors, which include the amount of earned service credit, highest average salary of the deceased, the benefit structure(s) under which service credit was obtained, and the qualified survivor(s) who will receive the benefits.

Contributions provisions as of the Colorado School of Mines: Eligible employees, Colorado School of Mines and the State are required to contribute to the SDTF at a rate set by Colorado statute. The contribution requirements for the SDTF are established under C.R.S. § 24-51-401, *et seq.* and § 24-51-413.

Required contribution rates for the period of 01/01/2018 through 06/30/2020 are summarized in Table 12.1:

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Table 12.1 Contribution Rate Requirements

	January 1, 2018 Through December 31, 2018	January 1, 2019 Through June 30, 2019
Employee contribution (all employees except State Troopers)	8.00%	8.00%
State Troopers Only	10.00%	10.00%

Contribution rates for the SDTF are expressed as a percentage of salary as defined in C.R.S. § 24-51-101(42).

The employer contribution requirements for all employees except State Troopers are summarized in the table below:

	January 1, 2018 Through December 31, 2018	January 1, 2019 Through June 30, 2019
Employer contribution rate	10.15%	10.15%
Amount of employer contribution apportioned to the Health Care Trust Fund as specified in C.R.S. § 24-51-208(1)(f)	(1.02%)	(1.02%)
Amount apportioned to the SDTF	9.13%	9.13%
Amortization Equalization Disbursement (AED) as specified in C.R.S. § 24-51-411	5.00%	5.00%
Supplemental Amortization Equalization Disbursement (SAED) as specified in C.R.S. § 24-51-411	5.00%	5.00%
Total employer contribution rate to the SDTF	19.13%	19.13%

Contribution rates for the SDTF are expressed as a percentage of salary as defined in C.R.S. § 24-51-101(42).

As specified in C.R.S. § 24-51-413, the State is required to contribute \$225,000,000 each year to PERA starting on July 1, 2018. A portion of the direct distribution payment is allocated to the SDTF based on the proportionate amount of annual payroll of the SDTF to the total annual payroll of the SDTF, School Division Trust Fund, Judicial Division Trust Fund, and Denver Public Schools Division Trust Fund. The University recognized its proportionate share \$2,022,000 of the State's \$225,000,000 payment.

Employer contributions are recognized by the SDTF in the period in which the compensation becomes payable to the member and the Colorado School of Mines is statutorily committed to pay the contributions to the SDTF. Employer contributions recognized by the SDTF from Colorado School of Mines were \$14,990,000 and \$14,827,000 for the years ended June 30, 2019 and 2018, respectively.

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Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability for the SDTF was measured as of December 31, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2017. Standard update procedures were used to roll-forward the total pension liability to December 31, 2018. The Colorado School of Mines proportion of the net pension liability was based on the Colorado School of Mines contributions to the SDTF for the calendar year 2018 relative to the total contributions of participating employers and the State as a nonemployer contributing entity for participating employers of the SDTF that are outside of the State's financial reporting entity.

At June 30, 2019 and 2018, the Colorado School of Mines reported a liability of \$293,120,000 and \$541,843,000, respectively, for its proportionate share of the net pension liability that reflected a reduction for support from the State as a nonemployer contributing entity. The amount recognized by the Colorado School of Mines as its proportionate share of the net pension liability, the related support from the State as a nonemployer contributing entity, and the total portion of the net pension liability that was associated with Colorado School of Mines were as follows:

At December 31, 2018, and 2017, Colorado School of Mines proportion was 2.57605127580 percent, which was a decrease of .13073006530 percent from its proportion measured as of December 31, 2017 of 2.7067813411 percent.

For the year ended June 30, 2019 and 2018, the Colorado School of Mines recognized pension expense of (\$29,212,000) and \$119,752,000 and revenue of \$2,022,000, and \$0, respectively, for support from the State as a nonemployer contributing entity. At June 30, 2019, the Colorado School of Mines deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Table 12.3 Deferred Outflows and Inflows *(in thousands)*

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2019	2018	2019	2018
Difference between expected and actual experience	\$ 8,382	8,449	-	-
Changes of assumptions or other inputs	15,434	94,085	151,363	-
Net difference between projected and actual earnings on pension plan investments	14,806	-	-	20,409
Changes in proportion and differences between contributions recognized and proportionate share of contributions	-	2,271	21,105	15,693
Contributions subsequent to the measurement date	7,600	7,551	-	-
Total	\$ 46,222	112,356	172,468	36,102

The University reported \$7,600,000 as deferred outflows of resources related to pensions, resulting from contributions subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

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Table 12.4 Amortization of Deferred Outflows and Inflows *(in thousands)*

Year ended June 30:	Amount
2020	\$ (67,601)
2021	(75,082)
2022	728
2023	8,109
2024	-
Thereafter	-
Total	\$ (133,846)

Actuarial assumptions. The total pension liability in the December 31, 2017 actuarial valuation was determined using the following actuarial cost method, actuarial assumptions and other inputs:

<i>Actuarial cost method</i>	<i>Entry age</i>
Price inflation	2.40 percent
Real wage growth	1.10 percent
Wage inflation	3.50 percent
Salary increases, including wage inflation	3.50 – 9.17 percent
Long-term investment rate of return, net of pension plan investment expenses, including price inflation	7.25 percent
Discount rate	4.72 percent
<i>Post-retirement benefit increases:</i>	
PERA benefit structure hired prior to 1/1/07; and DPS benefit structure (automatic)	2.00 percent compounded annually
PERA benefit structure hired after 12/31/06 (ad hoc, substantively automatic)	Financed by the Annual Increase Reserve

The revised assumptions shown below were reflected in the roll-forward calculation of the total pension liability from December 31, 2017 to December 31, 2018:

Discount rate	7.25 percent
<i>Post-retirement benefit increases:</i>	
PERA benefit structure hired prior to 1/1/07; and DPS benefit structure (automatic)	0% through 2019 and 1.5% compounded annually, thereafter
PERA benefit structure hired after 12/31/06 (ad hoc, substantively automatic)	Financed by the Annual Increase Reserve

Healthy mortality assumptions for active members reflect the RP-2014 White Collar Employee Mortality Table, a table specifically developed for actively working people. To allow for an appropriate margin of improved mortality prospectively, the mortality rates incorporate a 70 percent factor applied to male rates and a 55 percent factor applied to female rates.

Healthy, post-retirement mortality assumptions reflect the RP-2014 Healthy Annuitant Mortality Table, adjusted as follows:

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- **Males:** Mortality improvement projected to 2018 using the MP-2015 projection scale, a 73 percent factor applied to rates for ages less than 80, a 108 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.
- **Females:** Mortality improvement projected to 2020 using the MP-2015 projection scale, a 78 percent factor applied to rates for ages less than 80, a 109 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.

For disabled retirees, the mortality assumption was based on 90 percent of the RP-2014 Disabled Retiree Mortality Table.

The actuarial assumptions used in the December 31, 2016, valuations were based on the results of the 2016 experience analysis for the periods January 1, 2012, through December 31, 2015, as well as, the October 28, 2016, actuarial assumptions workshop and were adopted by the PERA Board during the November 18, 2016, Board meeting.

The long-term expected return on plan assets is reviewed as part of regular experience studies prepared every four or five years for PERA. Recently, this assumption has been reviewed more frequently. The most recent analyses were outlined in presentations to PERA's Board on October 28, 2016.

Several factors were considered in evaluating the long-term rate of return assumption for the SDTF, including long-term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation.

As of the most recent adoption of the long-term expected rate of return by the PERA Board, the target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Table 12.5 Long Term Expected Rate of Return

Asset Class	Target Allocation	30 Year Expected Geometric Real Rate of Return
U.S. Equity – Large Cap	21.20%	4.30%
U.S. Equity – Small Cap	7.42%	4.80%
Non U.S. Equity – Developed	18.55%	5.20%
Non U.S. Equity – Emerging	5.83%	5.40%
Core Fixed Income	19.32%	1.20%
High Yield	1.38%	4.30%
Non U.S. Fixed Income – Developed	1.84%	0.60%
Emerging Market Debt	0.46%	3.90%
Core Real Estate	8.50%	4.90%
Opportunity Fund	6.00%	3.80%
Private Equity	8.50%	6.60%
Cash	1.00%	0.20%
Total	100.00%	

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In setting the long-term expected rate of return, projections employed to model future returns provide a range of expected long-term returns that, including expected inflation, ultimately support a long-term expected rate of return assumption of 7.25 percent.

Discount rate. The discount rate used to measure the total pension liability was 7.25 percent. The projection of cash flows used to determine the discount rate applied the actuarial cost method and assumptions shown above. In addition, the following methods and assumptions were used in the projection of cash flows:

- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.50 percent.
- Employee contributions were assumed to be made at the member contribution rates in effect for each year, including scheduled increases in SB 18-200. Employee contributions for future plan members were used to reduce the estimated amount of total service costs for future plan members.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law for each year, including the scheduled increase in SB 18-200. Employer contributions also include current and estimated future AED and SAED, until the actuarial value funding ratio reaches 103 percent, at which point, the AED and SAED will each drop 0.50 percent every year until they are zero. Additionally, estimated employer contributions included reductions for the funding of the Annual Increase Reserve (AIR) and retiree health care benefits. For future plan members, employer contributions were further reduced by the estimated amount of total service costs for future plan members not financed by their member contributions.
- As specified in law, the State will provide an annual direct distribution of \$225,000,000 commencing July 1, 2018, that is proportioned between the State, School, Judicial, and DPS Division Trust Funds based upon the covered payroll of each Division. The annual direct distribution ceases when all Division Trust Funds are fully funded.
- Employer contributions and the amount of total service costs for future plan members were based upon a process to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.
- The AIR balance was excluded from the initial fiduciary net position, as, per statute, AIR amounts cannot be used to pay benefits until transferred to either the retirement benefits reserve or the survivor benefits reserve, as appropriate. AIR transfers to the fiduciary net position and the subsequent AIR benefit payments were estimated and included in the projections.
- Benefit payments and contributions were assumed to be made at the middle of the year.

Based on the above assumptions and methods, the projection test indicates the SDTF's fiduciary net position was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return of 7.25 percent on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount determination does not use the municipal bond index rate, and therefore, the discount rate is 7.25 percent.

As of the prior measurement date, the long-term expected rate of return on plan investments of 7.25 percent and the municipal bond index rate of 3.43 percent were used in the discount rate determination resulting in a discount rate of 4.72 percent, 2.53 percent lower compared to the current measurement date.

Sensitivity of the Colorado School of Mines proportionate share of the net pension liability to changes in the discount rate. The following presents the proportionate share of the net pension liability calculated using the

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discount rate of 7.25 percent, as well as what the proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.25 percent) or 1 percentage point higher (8.25 percent) than the current rate:

Table 12.6 Discount Rate Sensitivity (in thousands)

		1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
2019				
Proportionate share of the net pension liability	\$	364,399	293,120	232,812
		1% Decrease (3.72%)	Current Discount Rate (4.72%)	1% Increase (5.72%)
2018				
Proportionate share of the net pension liability	\$	674,092	541,843	433,275

Pension plan fiduciary net position. Detailed information about the SDTF's fiduciary net position is available in PERA's CAFR which can be obtained at www.copera.org/investments/pera-financial-reports.

Mines Defined Contribution Plan

The Colorado School of Mines Board of Trustees approved the establishment of the Mines Defined Contribution Plan (MDCP) for all newly hired administrative and academic faculty hired on or after January 1, 2017. In addition, all current administrative and academic faculty hired prior to January 1, 2017 with at least one year of PERA service credit were given the opportunity to participate in the MDCP with a one-time irrevocable election period between January 1, 2017 and March 1, 2017. The contribution requirements of the plan members and the University are established and may be amended by the Board. The vesting period for the MDCP is three years.

For the year ended June 30, 2019, the University's contribution to the MDCP was equal to 12 percent of pre-tax covered payroll and the employee contribution was equal to 8 percent of pre-tax covered payroll. The University's contribution under the MDCP approximated \$2,599,000 and \$1,729,000 for Fiscal Years 2019 and 2018, respectively.

Participants in the MDCP choose to invest all contributions with the designated vendor.

CSM Foundation Retirement Plan

The Foundation participates in a defined contribution pension plan covering substantially all of its employees. Contributions and costs are based on the number of years of service and a percentage of regular salary. Pension expense was \$237,000 and \$216,000 for Fiscal Years 2019 and 2018, respectively.

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Note 13: Defined Benefit Other Post Employment Benefit (OPEB) Plan

Summary of Significant Accounting Policies

OPEB. Colorado School of Mines participates in the Health Care Trust Fund (HCTF), a cost-sharing multiple-employer defined benefit OPEB fund administered by the Public Employees' Retirement Association of Colorado ("PERA"). The net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, OPEB expense, information about the fiduciary net position and additions to/deductions from the fiduciary net position of the HCTF have been determined using the economic resources measurement focus and the accrual basis of accounting. For this purpose, benefits paid on behalf of health care participants are recognized when due and/or payable in accordance with the benefit terms. Investments are reported at fair value.

General Information about the OPEB Plan

Plan description. Eligible employees of the Colorado School of Mines are provided with OPEB through the HCTF—a cost-sharing multiple-employer defined benefit OPEB plan administered by PERA. The HCTF is established under Title 24, Article 51, Part 12 of the Colorado Revised Statutes (C.R.S.), as amended. The Colorado General Assembly may amend Colorado State law provisions from time to time. Title 24, Article 51, Part 12 of the C.R.S., as amended, sets forth a framework that grants authority to the PERA Board to contract, self-insure, and authorize disbursements necessary in order to carry out the purposes of the PERACare program, including the administration of the premium subsidies. The Colorado General Assembly may amend Colorado State law provisions from time to time. PERA issues a publicly available comprehensive annual financial report (CAFR) that can be obtained at www.copera.org/investments/pera-financial-reports.

Benefits provided. The HCTF provides a health care premium subsidy to eligible participating PERA benefit recipients and retirees who choose to enroll in one of the PERA health care plans, however, the subsidy is not available if only enrolled in the dental and/or vision plan(s). The health care premium subsidy is based upon the benefit structure under which the member retires and the member's years of service credit. For members who retire having service credit with employers in the Denver Public Schools (DPS) Division and one or more of the other four Divisions (State, School, Local Government and Judicial), the premium subsidy is allocated between the HCTF and the Denver Public Schools Health Care Trust Fund (DPS HCTF). The basis for the amount of the premium subsidy funded by each trust fund is the percentage of the member contribution account balance from each division as it relates to the total member contribution account balance from which the retirement benefit is paid.

C.R.S. § 24-51-1202 et seq. specifies the eligibility for enrollment in the health care plans offered by PERA and the amount of the premium subsidy. The law governing a benefit recipient's eligibility for the subsidy and the amount of the subsidy differs slightly depending under which benefit structure the benefits are calculated. All benefit recipients under the PERA benefit structure and all retirees under the DPS benefit structure are eligible for a premium subsidy, if enrolled in a health care plan under PERACare. Upon the death of a DPS benefit structure retiree, no further subsidy is paid.

Enrollment in the PERACare is voluntary and is available to benefit recipients and their eligible dependents, certain surviving spouses, and divorced spouses and guardians, among others. Eligible benefit recipients may enroll into the program upon retirement, upon the occurrence of certain life events, or on an annual basis during an open enrollment period. The University has included PERA information for Denver Public Schools (DPS) as it is possible the University employs DPS retirees.

PERA Benefit Structure

The maximum service-based premium subsidy is \$230 per month for benefit recipients who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 per month for benefit

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recipients who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum service-based subsidy, in each case, is for benefit recipients with retirement benefits based on 20 or more years of service credit. There is a 5 percent reduction in the subsidy for each year less than 20. The benefit recipient pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

For benefit recipients who have not participated in Social Security and who are not otherwise eligible for premium-free Medicare Part A for hospital-related services, C.R.S. § 24-51-1206(4) provides an additional subsidy. According to the statute, PERA cannot charge premiums to benefit recipients without Medicare Part A that are greater than premiums charged to benefit recipients with Part A for the same plan option, coverage level, and service credit. Currently, for each individual PERACare enrollee, the total premium for Medicare coverage is determined assuming plan participants have both Medicare Part A and Part B and the difference in premium cost is paid by the HCTF or the DPS HCTF on behalf of benefit recipients not covered by Medicare Part A.

DPS Benefit Structure

The maximum service-based premium subsidy is \$230 per month for retirees who are under 65 years of age and who are not entitled to Medicare; the maximum service-based subsidy is \$115 per month for retirees who are 65 years of age or older or who are under 65 years of age and entitled to Medicare. The basis for the maximum subsidy, in each case, is for retirees with retirement benefits based on 20 or more years of service credit. There is a 5 percent reduction in the subsidy for each year less than 20. The retiree pays the remaining portion of the premium to the extent the subsidy does not cover the entire amount.

For retirees who have not participated in Social Security and who are not otherwise eligible for premium-free Medicare Part A for hospital-related services, the HCTF or the DPS HCTF pays an alternate service-based premium subsidy. Each individual retiree meeting these conditions receives the maximum \$230 per month subsidy reduced appropriately for service less than 20 years, as described above. Retirees who do not have Medicare Part A pay the difference between the total premium and the monthly subsidy.

Contributions. Pursuant to Title 24, Article 51, Section 208(1) (f) of the C.R.S., as amended, certain contributions are apportioned to the HCTF. PERA-affiliated employers of the State, School, Local Government, and Judicial Divisions are required to contribute at a rate of 1.02 percent of PERA-includable salary into the HCTF.

Employer contributions are recognized by the HCTF in the period in which the compensation becomes payable to the member and the Colorado School of Mines is statutorily committed to pay the contributions. Employer contributions recognized by the HCTF from Colorado School of Mines were \$799,000 and \$790,000 for the years ended June 30, 2019 and 2018, respectively.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At June 30, 2019 and 2018, respectively, the Colorado School of Mines reported a liability of \$12,199,000 and \$12,368,000 for its proportionate share of the net OPEB liability. The net OPEB liability for the HCTF was measured as of December 31, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2017. Standard update procedures were used to roll-forward the total OPEB liability to December 31, 2018. The Colorado School of Mines proportion of the net OPEB liability was based on the University's contributions to the HCTF for the calendar year 2018 relative to the total contributions of participating employers to the HCTF.

At December 31, 2018, the Colorado School of Mines proportion was .89663216210 percent, which was a decrease of .05 percent from its proportion measured as of December 31, 2017.

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For the year ended June 30, 2019 and 2018, the Colorado School of Mines recognized OPEB expense of \$113,000 and \$22,000, respectively. At June 30, 2019, the University reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

Table 13.1 Deferred Outflows and Inflows (in thousands)

	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2019	2018	2019	2018
Difference between expected and actual experience	\$ 44	58	19	207
Changes of assumptions or other inputs	87	-	-	-
Net difference between projected and actual earnings on OPEB plan investments	70	-	-	-
Changes in proportion and differences between contributions recognized and proportionate share of contributions	30	14	1,420	1,016
Contributions subsequent to the measurement date	405	403	-	-
Total	\$ 636	475	1,439	1,223

The University reported \$405,000 and \$403,000 as deferred outflows of resources related to OPEB, resulting from contributions subsequent to the measurement date for the fiscal year ending June 30, 2019 and 2018, respectively. This amount will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Table 13.2 Amortization of Deferred Outflows and Inflows (in thousands)

Year ended June 30:	Amount:
2020	\$ (283)
2021	\$ (283)
2022	\$ (283)
2023	(235)
2024	(120)
Thereafter	(4)
Total	\$ (1,208)

Actuarial assumptions. The total OPEB liability in the December 31, 2017 actuarial valuation was determined using the following actuarial cost method, actuarial assumptions and other inputs:

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<i>Actuarial cost method</i>	<i>Entry age</i>
Price inflation	2.40 percent
Real wage growth	1.10 percent
Wage inflation	3.50 percent
Salary increases, including wage inflation	3.50 percent in aggregate
Long-term investment rate of return, net of OPEB plan investment expenses, including price inflation	7.25 percent
Discount rate	7.25 percent
<i>Health care cost trend rates PERA benefit structure:</i>	
Service-based premium subsidy	0.00 percent
PERACare Medicare plans	5.00 percent
Medicare Part A premiums	3.25 percent for 2018, gradually rising to 5.00 percent in 2025
<i>DPS benefit structure:</i>	
Service-based premium subsidy	0.00 percent
PERACare Medicare plans	N/A
Medicare Part A premiums	N/A

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each actuarial valuation and on the pattern of sharing of costs between employers of each fund to that point.

The actuarial assumptions used in the December 31, 2017, valuations were based on the results of the 2016 experience analysis for the periods January 1, 2012, through December 31, 2015, as well as, the October 28, 2016, actuarial assumptions workshop and were adopted by the PERA Board during the November 18, 2016, Board meeting. In addition, certain actuarial assumptions pertaining to per capita health care costs and their related trends are analyzed and reviewed by PERA's actuary, as discussed below.

In determining the additional liability for PERACare enrollees who are age sixty-five or older and who are not eligible for premium-free Medicare Part A, the following monthly costs/premiums are assumed for 2018 for the PERA Benefit Structure:

Table 13.3 Medicare Plan Premiums (*in thousands*)

Medicare Plan	Cost for Members Without Medicare Part A	Premiums for Members Without Medicare Part A
Self-Funded Medicare Supplement Plans	\$ 736	367
Kaiser Permanente Medicare Advantage HMO	602	236
Rocky Mountain Health Plans Medicare HMO	611	251
UnitedHealthcare Medicare HMO	686	213

The 2018 Medicare Part A premium is \$422 per month.

In determining the additional liability for PERACare enrollees in the PERA Benefit Structure who are age sixty-five or older and who are not eligible for premium-free Medicare Part A, the following chart details the

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initial expected value of Medicare Part A benefits, age adjusted to age 65 for the year following the valuation date:

Medicare Plan	Cost for Members Without Medicare Part A
Self-Funded Medicare Supplement Plans	\$ 289
Kaiser Permanente Medicare Advantage HMO	300
Rocky Mountain Health Plans Medicare HMO	270
UnitedHealthcare Medicare HMO	400

All costs are subject to the health care cost trend rates, as discussed below.

Health care cost trend rates reflect the change in per capita health costs over time due to factors such as medical inflation, utilization, plan design, and technology improvements. For the PERA benefit structure, health care cost trend rates are needed to project the future costs associated with providing benefits to those PERACare enrollees not eligible for premium-free Medicare Part A.

Health care cost trend rates for the PERA benefit structure are based on published annual health care inflation surveys in conjunction with actual plan experience (if credible), building block models and heuristics developed by health plan actuaries and administrators, and projected trends for the Federal Hospital Insurance Trust Fund (Medicare Part A premiums) provided by the Centers for Medicare & Medicaid Services. Effective December 31, 2017, the health care cost trend rates for Medicare Part A premiums were revised to reflect the current expectation of future increases in rates of inflation applicable to Medicare Part A premiums.

The PERA benefit structure health care cost trend rates that were used to measure the total OPEB liability are summarized in the table below.

Year	PERACare Medicare Plans	Medicare Part A Premiums
2018	5.00%	3.25%
2019	5.00%	3.50%
2020	5.00%	3.75%
2021	5.00%	4.00%
2022	5.00%	4.25%
2023	5.00%	4.50%
2024	5.00%	4.75%
2025+	5.00%	5.00%

Mortality assumptions for the determination of the total pension liability for each of the Division Trust Funds as shown below are applied, as applicable, in the determination of the total OPEB liability for the HCTF. Affiliated employers of the State, School, Local Government, and Judicial Divisions participate in the HCTF.

Healthy mortality assumptions for active members were based on the RP-2014 White Collar Employee Mortality Table, a table specifically developed for actively working people. To allow for an appropriate margin

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of improved mortality prospectively, the mortality rates incorporate a 70 percent factor applied to male rates and a 55 percent factor applied to female rates.

Healthy, post-retirement mortality assumptions for the State and Local Government Divisions were based on the RP-2014 Healthy Annuitant Mortality Table, adjusted as follows:

- **Males:** Mortality improvement projected to 2018 using the MP-2015 projection scale, a 73 percent factor applied to rates for ages less than 80, a 108 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.
- **Females:** Mortality improvement projected to 2020 using the MP-2015 projection scale, a 78 percent factor applied to rates for ages less than 80, a 109 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.

Healthy, post-retirement mortality assumptions for the School and Judicial Divisions were based on the RP-2014 White Collar Healthy Annuitant Mortality Table, adjusted as follows:

- Males: Mortality improvement projected to 2018 using the MP-2015 projection scale, a 93 percent factor applied to rates for ages less than 80, a 113 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.
- Females: Mortality improvement projected to 2020 using the MP-2015 projection scale, a 68 percent factor applied to rates for ages less than 80, a 106 percent factor applied to rates for ages 80 and above, and further adjustments for credibility.
- For disabled retirees, the mortality assumption was based on 90 percent of the RP-2014 Disabled Retiree Mortality Table.

The following health care costs assumptions were updated and used in the measurement of the obligations for the HCTF:

- Initial per capita health care costs for those PERACare enrollees under the PERA benefit structure who are expected to attain age 65 and older ages and are not eligible for premium-free Medicare Part A benefits were updated to reflect the change in costs for the 2018 plan year.
- The health care cost trend rates for Medicare Part A premiums were revised to reflect the then current expectation of future increases in rates of inflation applicable to Medicare Part A premiums.

The long-term expected return on plan assets is reviewed as part of regular experience studies prepared every four or five years for PERA. Recently, this assumption has been reviewed more frequently. The most recent analyses were outlined in presentations to PERA's Board on October 28, 2016.

Several factors were considered in evaluating the long-term rate of return assumption for the HCTF, including long-term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense and inflation) were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation.

As of the most recent adoption of the long-term expected rate of return by the PERA Board, the target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

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Asset Class	Target Allocation	30 Year Expected Geometric Real Rate of Return
U.S. Equity – Large Cap	21.20%	4.30%
U.S. Equity – Small Cap	7.42%	4.80%
Non U.S. Equity – Developed	18.55%	5.20%
Non U.S. Equity – Emerging	5.83%	5.40%
Core Fixed Income	19.32%	1.20%
High Yield	1.38%	4.30%
Non U.S. Fixed Income – Developed	1.84%	0.60%
Emerging Market Debt	0.46%	3.90%
Core Real Estate	8.50%	4.90%
Opportunity Fund	6.00%	3.80%
Private Equity	8.50%	6.60%
Cash	1.00%	0.20%
Total	100.00%	

In setting the long-term expected rate of return, projections employed to model future returns provide a range of expected long-term returns that, including expected inflation, ultimately support a long-term expected rate of return assumption of 7.25 percent.

Sensitivity of the Colorado School of Mines proportionate share of the net OPEB liability to changes in the Health Care Cost Trend Rates. The following presents the net OPEB liability using the current health care cost trend rates applicable to the PERA benefit structure, as well as if it were calculated using health care cost trend rates that are 1.0 percentage point lower or 1.0 percentage point higher than the current rates:

June 30, 2019	1% Decrease in Trend Rates	Current Trend Rates	1% Increase in Trend Rates
PERACare Medicare trend rate	4.00%	5.00%	6.00%
Initial Medicare Part A trend rate	2.00%	3.00%	4.00%
Ultimate Medicare Part A trend rate	3.25%	4.25%	5.25%
Net OPEB Liability	\$ 11,862	12,199	12,587

June 30, 2018	1% Decrease in Trend Rates	Current Trend Rates	1% Increase in Trend Rates
PERACare Medicare trend rate	4.00%	5.00%	6.00%
Initial Medicare Part A trend rate	2.00%	3.00%	4.00%
Ultimate Medicare Part A trend rate	3.25%	4.25%	5.25%
Net OPEB Liability	\$ 12,028	12,368	12,778

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Discount rate. The discount rate used to measure the total OPEB liability was 7.25 percent. The projection of cash flows used to determine the discount rate applied the actuarial cost method and assumptions shown above. In addition, the following methods and assumptions were used in the projection of cash flows:

- Updated health care cost trend rates for Medicare Part A premiums as of the December 31, 2018, measurement date.
- Total covered payroll for the initial projection year consists of the covered payroll of the active membership present on the valuation date and the covered payroll of future plan members assumed to be hired during the year. In subsequent projection years, total covered payroll was assumed to increase annually at a rate of 3.50 percent.
- Employer contributions were assumed to be made at rates equal to the fixed statutory rates specified in law and effective as of the measurement date.
- Employer contributions and the amount of total service costs for future plan members were based upon a process to estimate future actuarially determined contributions assuming an analogous future plan member growth rate.
- Transfers of a portion of purchase service agreements intended to cover the costs associated with OPEB benefits were estimated and included in the projections.
- Benefit payments and contributions were assumed to be made at the middle of the year.

Based on the above assumptions and methods, the projection test indicates the HCTF's fiduciary net position was projected to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return of 7.25 percent on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. The discount rate determination does not use the municipal bond index rate, and therefore, the discount rate is 7.25 percent.

Sensitivity of the Colorado School of Mines proportionate share of the net OPEB liability to changes in the discount rate. The following presents the proportionate share of the net OPEB liability calculated using the discount rate of 7.25 percent, as well as what the proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is 1.0 percentage point lower (6.25 percent) or 1.0 percentage point higher (8.25 percent) than the current rate:

Table 13.4 Discount Rate Sensitivity (*in thousands*)

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
2019			
Proportionate share of the net OPEB liability	\$ 13,650	12,199	10,959
	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
2018			
Proportionate share of the net OPEB liability	\$ 13,906	12,368	11,056

OPEB plan fiduciary net position. Detailed information about the HCTF's fiduciary net position is available in PERA's CAFR, which can be obtained at www.copera.org/investments/pera-financial-reports.

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Note 14: Discretely Presented Component Unit

Colorado School of Mines Foundation

Distributions made by the Foundation to the University during the years ended June 30, 2019 and 2018 were approximately \$27,202,000 and \$22,460,000, respectively. These amounts have been recorded as contributions from the Foundation and as capital grants and gifts in the accompanying financial statements. As of June 30, 2019 and 2018, the University has recorded an accounts receivable from the Foundation of \$5,324,000 and \$1,616,000, respectively. As of June 30, 2019 and 2018, the University has recorded a liability to the Foundation of \$2,047,000 and \$1,766,000, respectively.

The University is the ultimate beneficiary of substantially all restricted and trust funds held by the Foundation and is the income beneficiary of the majority of endowment funds held by the Foundation. The Foundation also manages a portion of the University's endowments. The University has endowments and other assets held by the Foundation approximating \$32,913,000 and \$34,312,000 as of June 30, 2019 and 2018, respectively.

Note 15: Commitments and Contingencies

Commitments

Contracts have been entered into for the purpose of planning, acquiring, constructing and equipping certain building additions and other projects, with outstanding amounts totaling approximately \$66,969,000 as of June 30, 2019. These commitments will be funded or financed by donor contributions, state appropriations, existing revenue bonds, and other campus resources.

In the normal course of its operations, the University is involved in various litigation matters. The University is presently a defendant in two litigation matters including an employment-based claim brought by a former Mines exempt employee and a discrimination claim by a former Mines graduate student. Management believes that any future liability that it may incur as a result of these matter will not have a material effect on the University's financial statements.

Government Grants

The University is currently participating in numerous grants from various departments and agencies of the Federal and State Governments. The expenditures of grant proceeds must be for allowable and eligible purposes. Single audits and audits by the granting department or agency may result in requests for reimbursement of unused grant proceeds or disallowed expenditures. Upon notification of final approval by the granting department or agency, the grants are considered closed. Management believes that any future liability that it may incur as a result of audits by the granting department or agency will not have a material effect on the University's financial statements.

Note 16: Risk Management

The University is subject to risks of loss from liability for accident, property damage and personal injury. To mitigate these risks the University has purchased the following insurance:

- General liability covered by Philadelphia Insurance Company for:
2,000,000/\$2,000,000/\$1,000,000/\$1,000,000/\$300,000/\$15,000 with \$0 deductible
- Educators legal liability covered by Philadelphia Insurance Company for:
\$4,000,000/\$4,000,000 with a \$10,000 deductible
- Automobile liability covered by Philadelphia Insurance Company for:

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\$1,000,000/1,000,000/\$5,000 with \$1,000/\$1,000 deductible

- Fiduciary covered by Hanover Insurance Company for:
\$1,000,000/\$250,000/\$100,000/\$100,000 with a \$0 deductible
- Employment practices liability covered by Philadelphia Insurance Company for:
\$4,000,000/\$4,000,000 with a \$25,000 deductible
- Workers compensation covered by Pinnacol Assurance for:
\$500,000/\$500,000/\$500,000 with a \$0 deductible
- Umbrella liability covered by Philadelphia Insurance Company for:
\$3,000,000/\$3,000,000/\$3,000,000 with a self-insured retention of \$10,000
- Crime (employee dishonesty) covered by Hanover Insurance Company for:
\$1,000,000/\$1,000,000/\$1,000,000/\$1,000,000/\$1,000,000/\$1,000,000/\$1,000,000/\$1,000,000/\$100,000/
\$50,000 with a \$10,000/\$5,000 deductible
- Property covered by the Midwest Higher Education Compact (MHEC) for:
\$665,465,739/\$87,190,074/\$120,270,897/\$72,193,928/\$2,440,571/\$100,000,000/\$100,000,000/
\$100,000,000/\$25,000,000/\$1,000,000 with a \$50,000 deductible and 2% of values/\$100,000 deductible
- Inland Marine covered by the Philadelphia Insurance Company for Equipment value:
\$964,321/\$3,173,860/\$1,000,000/\$50,000/\$100,000 with a \$5,000/5% sign deductible
- Aviation covered by the Westchester Fire Insurance Company for:
\$1,000,000 with a \$0 deductible

The University became fully insured through several insurance companies in 2017 and is covered by insurance for everything above its reserve and deductible. The coverage in fiscal year 2019 is similar to the coverage from 2018.

Note 17: Legislative Appropriations

The Colorado State Legislature establishes spending authority to the University in its annual Long Appropriations Bill.

For the years ended June 30, 2019 and 2018, appropriated expenses were within the authorized spending authority. For the years ended June 30, 2019 and 2018, the University had a total appropriation of \$25,531,000 and \$24,003,000, respectively. For years ended June 30, 2019 and 2018, the University's appropriated funds consisted of \$7,143,000 and \$6,443,000, respectively, received on behalf of students that qualified for stipends from the College Opportunity Fund, \$15,731,000 and \$15,042,000, respectively, fee-for-service contract revenue, and \$2,657,000 and \$2,518,000 respectively, for the operations of the Colorado Geological Survey. All other revenues and expenses reported by the University represent non-appropriated funds. Non-appropriated funds include tuition and fees, grants and contracts, gifts, indirect cost recoveries, auxiliary revenues and other revenue sources.

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Note 18: Subsequent Event

The University has evaluated subsequent events through December 13, 2019, the date the financial statements were available to be issued.

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Plan Fiduciary

Schedule of Proportional Share of Net Pension Liability (\$ in thousands)

Calendar Year	Proportionate (percentage) of the Collective NPL	Proportionate Share of the Collective Pension Liability	Covered Payroll	Proportionate Share of the NPL as a Percentage of Covered Payroll	Net Pension as a Percentage of the Total Pension Liability
2018	2.57605127600%	\$ 293,120	78,099	375.32%	55.11%
2017	2.70681341100%	541,843	79,151	684.57%	43.20%
2016	2.89749307450%	532,215	82,557	644.66%	42.60%
2015	2.89133496393%	296,275	78,055	379.57%	56.11%
2017	2.74781597720%	258,747	74,014	349.59%	59.84%

Schedule of Contributions and Related Ratios (\$ in thousands)

Fiscal Year	Statutorily Required Contributions	Contributions Related to the Statutorily Required Contribution	Contribution deficiency (excess) State Contribution	Covered Payroll	Contribution as a Percentage of Covered Payroll
2019	\$ 14,990	14,990	-	78,356	19.13%
2018	14,827	14,827	-	77,503	19.13%
2017	15,370	15,370	-	82,283	18.68%
2016	14,254	14,254	-	80,103	17.80%
2015	12,885	12,885	-	76,271	16.89%
2014	10,463	10,463	-	65,576	15.96%
2013	10,055	10,055	-	66,255	15.18%
2012	7,107	7,107	-	61,185	11.62%
2011	6,515	6,515	-	60,837	10.71%
2010	7,266	7,266	-	61,351	11.84%
2009	6,640	6,640	-	62,027	10.71%
2008	5,562	5,562	-	53,953	10.31%

Notes to Required Supplementary Information

Changes in assumptions or other inputs effective for the December 31, 2018 measurement period are as follows:

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- The assumed investment rate of return of 7.25% was used as the discount rate, rather than using the blended rate of 4.72%

Changes in assumptions or other inputs effective for the December 31, 2017 measurement period are as follows:

- The discount rate was lowered from 5.26% to 4.72%

Changes in assumptions or other inputs effective for the December 31, 2016 measurement period are as follows:

- The investment return assumption was lowered from 7.50% to 7.25%
- The price inflation assumption was lowered from 2.80% to 2.40%
- The real rate of investment return assumption increased from 4.70% per year, net of investment expenses, to 4.85% per year, net of investment expenses
- The wage inflation assumption was lowered from 3.90% to 3.50%
- The mortality tables were changed from RP-2000 Combined Mortality Table for Males and Females, as appropriate, with adjustments for mortality improvements based on a projection scales of Scale AA to 2020 to RP-2014 White Collar Employee Mortality for active employees, RP2014 Healthy Annuitant Mortality tables projected to 2020 using the MP-2015 projection scale for retirees, or RP-2014 Disabled Retiree Mortality Table for disabled retirees
- The discount rate was lowered from 7.50% to 5.26%

There were no changes in terms or assumptions for the December 31, 2015 measurement period for pension compared to the prior year.

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Plan Fiduciary

Schedule of Proportional Share of OPEB Liability (\$ in thousands)

Calendar Year	Proportionate (percentage) of the Collective OPEB Liability	Proportionate Share of the Collective OPEB Liability	Covered Payroll	Proportionate Share of the NOPEBL as a Percentage of Covered Payroll	Net Pension as a Percentage of the Total OPEB Liability
2018	0.8966321621%	\$ 12,199	78,099	15.62%	17.03%
2017	0.9516781400%	12,368	79,151	15.63%	17.53%
2016	1.0454597700%	13,555	82,557	16.42%	16.16%

Schedule of Contributions and Related Ratios (\$ in thousands)

Fiscal Year	Statutorily Required Contributions	Contributions Related to the Statutorily Required Contribution	Contribution deficiency (excess)	Covered Payroll	Contribution as a Percentage of Covered Payroll
2019	\$ 796	796	-	78,356	1.02%
2018	790	790	-	77,503	1.02%
2017	839	839	-	82,283	1.02%
2016	817	817	-	80,103	1.02%
2015	778	778	-	76,271	1.02%
2014	669	669	-	65,576	1.02%
2013	676	676	-	66,255	1.02%
2012	624	624	-	61,185	1.02%
2011	621	621	-	60,837	1.02%
2010	626	626	-	61,351	1.02%
2009	633	633	-	62,027	1.02%
2008	550	550	-	53,953	1.02%

Notes to Required Supplementary Information (Other Post-Employment Benefits) – Fiscal Year 2019 Changes in benefit terms and actuarial assumptions

There were no changes in assumptions or other inputs effective for the December 31, 2018 measurement period for OPEB compared to the prior year.

There were no changes in assumptions or other inputs effective for the December 31, 2017 measurement period for OPEB.



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

Members of the Legislative Audit Committee:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and the discretely presented component unit of Colorado School of Mines (the University), an institution of higher education of the State of Colorado, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated December 13, 2019. Our report includes a reference to other auditors who audited the financial statements of the Colorado School of Mines Foundation, Inc., as described in our report on the University's financial statements. The financial statements of the Colorado School of Mines Foundation, Inc. were not audited in accordance with *Government Auditing Standards*. This report does not include the results of the other auditors' testing of internal control over financial reporting or compliance and other matters that are reported on separately by those auditors.

Internal Control over Financial Reporting

In planning and performing our audits of the financial statements, we considered the University's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in cursive script that reads "CliftonLarsonAllen LLP".

CliftonLarsonAllen LLP

Denver, Colorado
December 13, 2019



December 13, 2019

Members of the Legislative Audit Committee
Colorado School of Mines
Denver, Colorado

Ladies and Gentlemen:

We have audited the financial statements of the business-type activities and the discretely presented component unit of the Colorado School of Mines (the University), an institution of higher education of the State of Colorado, as of and for the year ended June 30, 2019, and have issued our report thereon dated December 13, 2019. Our report includes a reference to other auditors. Other auditors audited the financial statements of the Colorado School of Mines Foundation, Inc. (the Foundation) a discretely presented component unit, the Foundation's financial statements were not audited in accordance with *Government Auditing Standards*. We have previously communicated to you information about our responsibilities under auditing standards generally accepted in the United States of America, *Government Auditing Standards* as well as certain information related to the planned scope and timing of our audit. Professional standards also require that we communicate to you the following information related to our audit.

Significant audit findings

Qualitative aspects of accounting practices

Accounting policies

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the University are described in Note 1 to the financial statements.

As described in Note 11, Colorado School of Mines implemented GASB Statement No. 83, *Certain Asset Retirement Obligations (AROs)*, by recognizing its ARO liability related to obligations that will be incurred at the retirement of assets with complex environmental impacts. Accordingly, the effect of the accounting change is recorded in the 2019 financial statements.

We noted no transactions entered into by the entity during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the financial statements were:

- Accounts and loans receivable are recorded net of estimated uncollectible amounts, approximating anticipated losses. Individual accounts are written off against the allowance when collection of the account appears doubtful. We evaluated the key factors and assumptions used to develop the accounts and loans receivable allowances in determining that they are reasonable in relation to the financial statements taken as a whole.
- Capital assets are depreciated using the straight-line method and monthly convention over the estimated useful lives of the assets. Estimated useful lives range from 3 to 40 years. We evaluated the key factors and assumptions used to develop the useful lives estimates in determining that they are reasonable in relation to the financial statements taken as a whole.
- Fair value of short and long-term investments – Fair value of U.S. government securities, mutual funds, stocks, and bonds is the market value based on quoted market prices. For alternative investments, which include hedge funds and private equity investments, fair values are based on the net asset value reported by each fund because it serves as a practical expedient to estimate the fair value of the University's interest. We evaluated the key factors and assumptions used to develop the fair value of short and long-term investments in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the interest rate swap liability is based on a third party model that uses a discounted forecasted cash flows method. We evaluated the key factors and assumptions used to develop the interest rate swap liability in determining that it is reasonable in relation to the financial statements taken as a whole.
- Compensated absences and related personnel expenses are recognized based on estimated balances due to employees upon termination or retirement. The limitations on such payments are defined by the rules associated with the personnel systems at the University. Employees accrue and vest in vacation and sick leave earnings based on their hire date and length of service. We evaluated the key factors and assumptions used to develop the compensated absences and related personnel expenses liability in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the net pension liability related to its pension plan is based on actuarial assumptions and other inputs as described in Note 12 to the financial statements. We evaluated the key factors and assumptions used to develop the net pension liability in determining that it is reasonable in relation to the financial statements taken as a whole.
- Management's estimate of the OPEB liability is based on actuarial assumptions and other inputs as described in Note 13 to the financial statements. We evaluated the key factors and assumptions used to develop the OPEB liability in determining that it is reasonable in relation to the financial statements taken as a whole.

Financial statement disclosures

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. There were no particularly sensitive financial statement disclosures.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties encountered in performing the audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Uncorrected misstatements

Professional standards require us to accumulate all misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management did not identify and we did not notify them of any uncorrected financial statement misstatements.

Corrected misstatements

Management did not identify and we did not notify them of any financial statement misstatements detected as a result of audit procedures.

Disagreements with management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. No such disagreements arose during our audit.

Management representations

We have requested certain representations from management that are included in the management representation letter dated December 13, 2019.

Management consultations with other independent accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the entity's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Significant issues discussed with management prior to engagement

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to engagement as the entity's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our engagement.

Audits of group financial statements

We noted no matters related to the group audit that we consider to be significant to the responsibilities of those charged with governance of the group.

Quality of component auditor's work

There were no instances in which our evaluation of the work of a component auditor gave rise to a concern about the quality of that auditors' work.

Limitations on the group audit

There were no restrictions on our access to information of components or other limitations on the group audit.

Other information in documents containing audited financial statements

With respect to the required supplementary information (RSI) accompanying the financial statements, we made certain inquiries of management about the methods of preparing the RSI, including whether the RSI has been measured and presented in accordance with prescribed guidelines, whether the methods of measurement and preparation have been changed from the prior period and the reasons for any such changes, and whether there were any significant assumptions or interpretations underlying the measurement or presentation of the RSI. We compared the RSI for consistency with management's responses to the foregoing inquiries, the basic financial statements, and other knowledge obtained during the audit of the basic financial statements. Because these limited procedures do not provide sufficient evidence, we did not express an opinion or provide any assurance on the RSI.

Our auditors' opinion, the audited financial statements, and the notes to financial statements should only be used in their entirety. Inclusion of the audited financial statements in a document you prepare, such as an annual report, should be done only with our prior approval and review of the document.

* * *

This communication is intended solely for the information and use of the State of Colorado Legislative Audit Committee, the Office of the State Auditor, the Board of Regents, management of the University, and others within the University, and is not intended to be, and should not be, used by anyone other than these specified parties. However, upon release by the Legislative Audit Committee this report is a public document.



CliftonLarsonAllen LLP

Denver, Colorado
December 13, 2019