



UNIVERSITY OF
CALGARY



UNIVERSITY OF CALGARY

Annual Report

for the year ended March 31, 2021

prepared for the Government of Alberta

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1. Accountability Statement

September 17, 2021

The University of Calgary's Annual Report for the year ended March 31, 2021 was prepared under the Board's direction in accordance with the Fiscal Planning and Transparency Act and ministerial guidelines established pursuant to the Post-Secondary Learning Act. All material economic, environmental or fiscal implications of which we are aware have been considered in the preparation of this report.

[Original Signed by Geeta Sankappanavar, Chair, Board of Governors]

2. Management's Responsibility for Reporting

The University of Calgary's management is responsible for the preparation, accuracy, objectivity and integrity of the information contained in the Annual Report including the financial statements, performance results and supporting management information. Systems of internal control are designed and maintained by management to produce reliable information to meet reporting requirements. The system is designed to provide management with reasonable assurance that transactions are properly authorized, are executed in accordance with all relevant legislation, regulations and policies, reliable financial records are maintained and assets are properly accounted for and safeguarded.

The Annual Report has been developed under the oversight of the institution audit committee, as well as approved by the Board of Governors and is prepared in accordance with the Fiscal Planning and Transparency Act and the Post-Secondary Learning Act.

The Auditor General of Alberta, the institution's external auditor appointed under the Post-Secondary Learning Act, performs an annual independent audit of the consolidated financial statements which are prepared in accordance with Canadian public sector accounting standards.

[Original Signed by Ed McCauley, President and Vice-Chancellor]

[Original Signed by Ron Kim, Interim Vice-President (Finance and Services)]

3. Message from the Board Chair

The University of Calgary is on a mission to provide an exceptional student experience and committed support to a world-class faculty. The student experience and research impact have never measured higher. We are working hard to provide a truly exceptional learning environment and grow our intellectual and economic impact in this great city.

After a decade of astonishing growth, we faced new headwinds in 2020-21. Reduced funding, disruption in post-secondary education, and an economic recession were all accelerated by a global health emergency that forced a fundamental reimagining of the university experience. To address these disruptions, we developed a strategy to keep our eyes high and strengthen our community in these uncertain times.

Our new *Framework for Growth* is built around three “big ideas” that will differentiate our university and drive growth – future-focused program delivery, deeper community partnerships, and transdisciplinary scholarship. They will set the University of Calgary on a course to be the entrepreneurial university – one where students, faculty and staff have access to more tools to change the world around them. These ideas will empower world-class faculty members to tackle society’s big problems and enable the leaders that make up our student body write their own future.

What should be clear from this report is that we are creating the most entrepreneurial university in the heart of Canada’s most enterprising city. This is a place where leaders are created. It is a place where hard work is rewarded and where innovation turns into results. Great research universities do not happen by accident. They are the result of talented people working together, sharing a focus on building something more than the sum of its parts.

As we look forward to our next fifty-five years, we are setting our institution on the path for further growth. On behalf of the Board of Governors, I am pleased to present the University of Calgary’s annual report to the Minister of Advanced Education for the year ended March 31, 2021.

[Original Signed by Geeta Sankappanavar, Chair, Board of Governors]

4. Public Interest Disclosure Act

This section reports disclosures made pursuant to the Public Interest Disclosure (Whistleblower Protection) Act (i.e., the Act). The purposes of the Act are to facilitate the disclosure and investigation of significant and serious matters an employee believes may be unlawful, dangerous or injurious to the public interest; protect employees who make disclosures; manage, investigate and make recommendations respecting disclosures or wrongdoings and reprisals; and promote confidence in the administration of public entities.

The University of Calgary (UCalgary) has a duty to ensure that information about the Act is widely communicated and that internal procedures are developed to receive and investigate disclosures of employee wrongdoing. Disclosures of wrongdoing are defined as a contravention of the Act or an act or omission that creates a substantial and specific danger to the life, health or safety of individuals (i.e., other than a danger that is inherent in the performance of the duties and functions of an employee), or a substantial and specific danger to the environment.

Wrongdoings are also defined as gross mismanagement of public funds or a public asset, and/or knowingly directing or counselling an individual to commit wrongdoings. Although many disclosures have merit, in order to be considered for investigation, the disclosure must comply with the definition of wrongdoing.

UCalgary is responsible for the preparation of this report detailing the number of disclosures received and investigated. The report includes the number of disclosures acted on and not acted on, the number of investigations commenced, a description of any wrongdoing found and any recommendations made or corrective measures taken regarding the wrongdoing or the reasons why no corrective measure was taken.

No disclosures that fall within the definition of wrongdoing as defined in the Act were reported during the reporting period (April 1, 2020 to March 31, 2021).

5. Operational Overview

Reported within this section are significant changes to the institutional environment from the projections made for 2020-21. Key drivers include important changes to political, economic, labour, adult learning and research environments. Also presented is a discussion of major changes to enrolment and programming as a result of changes from the assumptions made for 2020-21.

POLITICAL ENVIRONMENT

COVID-19 pandemic

The COVID-19 pandemic and the economic recession it produced upended nearly every aspect of higher education in 2020.¹ These events forced universities to reconsider their financial sustainability, rethink how they market themselves, and reimagine how they recruit, admit, retain, and educate students. They also put pressure on government finances and forced a rapid push into remote program delivery. The major trends facing post-secondary institutions in 2020 were the same ones identified as a concern prior to the pandemic (i.e., government funding, mental health, diversity and inclusion, and affordability).²

Blue Ribbon Panel on Alberta’s Finances

A report prepared by the Blue Ribbon Panel on Alberta’s Finances in 2019 continued to guide government decision-making in 2020. The Panel concluded that Alberta’s fiscal situation did not support current levels of public funding. Alberta’s spending per capita was the highest in Canada. The Panel also determined that Alberta’s annual expenditures would be \$10.4 billion less if its per capita spending matched the average of Canada’s three largest provinces: British Columbia, Ontario and Quebec. The report recommended that a strategy be established for Alberta’s post-secondary system and spending be brought into line with peers.

Post-Secondary System Review

The post-secondary system review envisioned by the Blue Ribbon Panel happened at a time of significant change for post-secondary institutions around the world. New knowledge industries were demanding a lifelong approach to learning. New technologies created digital citizens with very different expectations for platforms and customizability. Players that had not traditionally been in the education space – big technology and large employers – began to offer programs and credentials to meet these needs. Included in the scope of the post-secondary system review was an exploration of system changes up to and including consolidation, alternative governance, and new focus on meeting labour market demands. These trends were evident at UCalgary where the institution faced increasing competition, growing demand for online courses, and mounting pressure to measure outcomes and prove worth.

ECONOMIC ENVIRONMENT

Provincial Budget 2020

Significant spending reductions were announced for the post-secondary sector as part of Budget 2020. UCalgary’s provincial grant was cut by 6.0 percent (i.e., \$26.7 million). The cut resulted in a provincial grant approximately the same size that it was over ten years earlier when UCalgary had 3,000 fewer students

¹ Hanover Research. (2021) [2021 Trends in Higher Education](#). Arlington, Virginia

² Association of Public and Land-grant Universities (APLU) in partnership with Blue Moon Consulting Group and SimpsonScarborough. (2020). [How Covid-19 changed everything and nothing at all](#). Washington, D.C.

and 1,500 fewer faculty and staff. Successive cuts to the provincial grant accelerated plans to modernize operations. Spending was prioritized in areas where it could do the most good. Steps were taken to seek out new revenue streams. Budget 2020 confirmed that domestic tuition revenue could increase by 7.0 percent annually through 2022-23. Following a halt to funding in 2019-20, provincial grants resumed for facility maintenance and renewal. Funds were redirected from the University of Saskatchewan to UCalgary so that 50 additional seats could be added to the doctor of veterinary medicine program. The minister also cancelled a requirement that institutions submit annual plans. Instead, they would sign investment management agreements, which were intended to provide funding predictability over a three-year period.

Performance-Based Funding

The COVID-19 pandemic prompted government to push back the April 1, 2020 start date for a new Performance-Based Funding (PBF) model. The plan was to link 15 percent of provincial grants to institutional performance starting in 2020-21 and then gradually increase this amount to 40 percent by 2022-23. PBF would put approximately \$63 million at risk for UCalgary in 2020-21; \$100 million in 2021-22; and \$150 million in 2022-23. The model was intended to be non-competitive, meaning that institutions would not have to compete with others for funding. They would compete against themselves to improve their performance on a series of targets. Although performance measures were still being discussed at the time, the government indicated that they might include enrolment, graduate satisfaction, employment rates, and sponsored research revenue. More recently, the Government of Alberta has selected “work integrated learning” as the single measure for the PBF model.

LABOUR ENVIRONMENT

Employment

Combined with the collapse in oil prices in March and April 2020, the pandemic severely affected Alberta’s labour market in 2020.³ With employment declining by 6.6 percent, this was the largest annual contraction since 1976 when data started being collected. The unprecedented decline affected all types of workers across the different sectors of the economy. Full-time and part-time jobs were lost. Jobs were lost in the private and public sectors. The number of unemployed Albertans in 2020 rose by about 104,000 or a 61 percent increase relative to the previous year.³ With substantial employment losses brought about by the economic downturn, the unemployment rate surged to 11.4 percent in 2020 – the second highest in Canada. The impact on the labour market was noticeable at UCalgary where provincial budget cuts accelerated plans to reduce expenditures, find efficiencies, and generate new revenue. Despite some success, the cost savings achieved were insufficient to avoid workforce reductions that took the form of retirements, terminations, and the elimination of vacant positions.

Collective Bargaining

Citing economic challenges brought about by the COVID-19 pandemic, the Government of Alberta extended the 2017 public sector wage freeze put in place for non-union public service employees. The province also asked the public service to take a 3.0 percent pay cut. These moves were intended to align public sector compensation levels with those in other provinces. Compensation at Alberta’s Post-Secondary Institutions (PSI) was projected to decrease from \$3,585 million in 2019-20 to \$3,424 million in 2020-21. Staff headcounts at Alberta’s PSIs were also expected to decline by 398 people, from 33,288 to 32,890. Savings were expected to come through staff reductions and by simplifying service delivery methods.

³ Alberta Labour and Immigration, Government of Alberta. (2021). [Alberta’s Labour Market Highlights 2020](#). Edmonton, Alberta.

Working Conditions

A study published in 2021 found that over half of employees were working from home by late 2020.⁴ Safety concerns were cited as the main reason for alternative work arrangements. Employers expected the number of alternative work arrangements to remain high through first quarter of 2021 and then decline gradually over the next three years.⁴ In addition to safety concerns, promoting employee retention, maintaining or increasing employee engagement, and enhancing productivity were other drivers accelerating this trend. At the start of 2020-21, all in-person classes and labs at UCalgary were moved to a remote or online environment. Most events on campus were cancelled. Faculty and staff who could perform their work from home were directed to do so. Special projects were given to employees who were unable perform their duties remotely. In cases where projects could not be identified, temporary layoffs or reductions were implemented. A letter of agreement was signed between the Alberta Union of Provincial Employees (AUPE) and the University of Calgary to address temporary layoffs and reduce hours of work related to the COVID-19 pandemic, while maintaining benefits.

LEARNING ENVIRONMENT

Program and Services

As a result of the COVID-19 pandemic, all vendors on campus ceased operations. Active living and outdoor centre programs were cancelled and all recreation facilities closed. While the business of the university continued, all buildings on campus were secured by the end of March 2020. Students were given the choice to accept their final course grade or opt for a “Completed Requirements (CR) or Fail (F)” designation for each course they completed in the winter 2020 term. The spring convocation ceremony and the Indigenous Graduation Pow-wow were postponed until the fall of 2020. The Taylor Family Digital Library limited their operations. The pandemic also forced student marketing and recruitment events online.¹

Enrolment

The pandemic had a major impact on post-secondary enrolments around the world. Close to half a million fewer students enrolled at schools in the United States than the previous year.⁵ Much of the decrease was the result of international students staying home due to visa difficulties and fear of the virus. International travel restrictions in Canada lasted for most of 2020.⁵ Although these restrictions did affect international enrolments at UCalgary, the number of students increased by 4.1 percent from 2019-20 to 2020-21.

Online Learning

The transition to online learning during the pandemic resulted in exhausted faculty and frustrated students.⁶ Institutions also found themselves having to address more cases of academic misconduct in an online world. In-person exams and monitoring software employed to limit academic misconduct raised concerns about accessibility, equality, racial profiling, and privacy. A range of resources were made available to help students transition at UCalgary. Webinars and tutorials about online learning were provided. Tips for staying motivated, taking notes, participating in online lectures, and completing assignments were also made available to students.

⁴ Willis Towers Watson. (2021). [Flexible Work and Rewards Survey: 2021 Design and Budget Priorities](#), Highlights of key findings, North America. London, United Kingdom. November 19, 2020.

⁵ Christopher Matias, Andrija Popovic and André Lebel, [Projected Financial Impact of the COVID-19 Pandemic on Canadian Universities for the 2020/21 Academic Year](#), Statistics Canada. August 18, 2021

⁶ Academica Group. (2021) [2020 Canadian Higher Education Year in Review](#). London, Ontario. January 3, 2021

Microcredentials

Individuals who lost jobs in the pandemic began looking for shorter-term programs to boost their resumes and get them back to work quickly.¹ They wanted flexible programs that would allow them to learn anywhere and any time. To meet these demands, institutions built their online capabilities while adding new non-degree programs, such as microcredentials or stackable credentials that could build to a bachelor's or master's degree over time. Aligned with Alberta's Recovery Plan, UCalgary launched several stackable graduate certificates, diplomas and professional degrees to help get people back to work as quickly as possible. Launch of the "MyCreds" program by the Association of Registrars of Universities and Colleges of Canada provided a nationally-recognized way for students to collect and share these new credentials. UCalgary implemented the MyCreds digital wallet platform in 2020-21 as an optional service for students to allow them to view and share electronic versions of their official transcripts.

Mental Health

While the last two years saw an increasing focus on campus mental health, 2020-21 brought the wellbeing of faculty, staff, and leadership at postsecondary institutions into the mainstream conversation.¹ As a result of added stress, changing student needs, and new teaching demands, several authors wrote editorials about how to mitigate chronic stress during the pandemic. For its part, UCalgary provided additional supports to help staff and students cope with the emotional distress, depression, and anxiety they felt as a result of being isolated. Supports were also designed to improve connectivity, help students navigate online course delivery, and address challenges related to securing employment. In addition, UCalgary launched a survey to assess pandemic-related changes in the campus work and learning environments.

Anti-Black Racism

Mobilization around anti-Black racism following the deaths of George Floyd in Minneapolis and Regis Korchinski-Paquet in Toronto highlighted the urgency of addressing systemic racism and racial violence. Along with many institutional anti-racism statements and teach-ins by scholars, these incidents revealed the extent to which racism is a "pandemic within the Covid-19 pandemic". The UCalgary campus community took a number of actions to advance race equity during 2020-21. UCalgary publicly denounced anti-Black racism, anti-Indigenous racism, and racism in all forms. The leadership team committed to embark on a journey of listening, learning, and compassion followed by a commitment to change. Following an extensive search, Dr. Malinda Smith was appointed vice-provost (equity, diversity and inclusion)(EDI). Dr. Smith will be responsible for leading on issues of human rights, diversity, inclusion and equity with stakeholders across campus and driving UCalgary's institutional and community EDI goals.

International Students and Immigration

The Government of Alberta launched a new *Blueprint for Jobs* program within the new Alberta Advantage Immigration Strategy in 2020 to fast-track the processing of qualified graduates of top universities. This program would provide a bridge to permanent residency through the Alberta *Immigrant Nominee Program*. Also launched was a *Foreign Graduate Entrepreneur Program* intended to fast-track immigration opportunities for foreign nationals who graduated from Alberta postsecondary institutions. For its part, UCalgary ramped up its effort to support international students with their study and work permits, as well as visa and other immigration questions during the COVID-19 pandemic.

INNOVATION ENVIRONMENT

Resources for Faculty, Postdoctoral Scholars, Students, and Staff Engaged In Research Activities

At the start of the COVID-19 pandemic, UCalgary issued a directive for faculty, staff, postdoctoral scholars, and students to work from home. Accordingly, all research teams and units were directed to do their

utmost to work remotely. Allowances were made for critical research, scholarship and creative activities that had to continue on site. Approval to be on site meant that research teams would have to obtain “critical research designations” and have approved workspace safety plans in place to continue operating. More than 200 teams initially received approval to continue their work because they required access to on-campus infrastructure, access to secure data and confidential information, or their attendance was necessary to deliver services to faculty, students, staff, and the public.

COVID-19 Research

Canada’s higher education sector responded to the call for research and development focused on the pandemic this year.⁶ “Boosted by numerous federal and provincial investments and third-party organizations such as “Fast Grants”, several initiatives were launched quickly after the virus appeared in Canada. Health science researchers across the country made enormous strides in the battle against the virus, often striking partnerships that crossed institutional, provincial, and national boundaries in order to accelerate their work.” UCalgary reopened its Biosafety Level 3 lab to study the virus.⁶ Three (3) research projects also received federal funding through the Canada Foundation for Innovation’s *Exceptional Opportunities Fund* to improve detection, diagnosis and treatment of COVID-19.

Research, Innovation, and Economic Diversification

Budget 2020 included significant cuts to ministries that fund research, innovation, and economic diversification at Alberta’s universities. Economic Development, Trade and Tourism’s budget was cut by \$6.3 million. EDTT’s grant to Alberta Innovates (AI) was cut by \$11.2 million. The AI cut was expected to result in the elimination of 125 full-time positions. Approximately \$540 million was eliminated from Agriculture and Forestry’s budget. Given the size of the cut, Agriculture and Forestry would need to eliminate 277 full-time positions or nearly 17 percent of its workforce to accommodate the reduction. Offsetting these cuts was a planned investment of \$6.0 million to recruit twelve full-time employees within a new Investment Attraction Agency housed in EDTT. Research funding at UCalgary weathered the provincial storm, growing by \$39.8 million from \$457.3 million in 2019-20 to \$497.1 million in 2020-21.

6. Goals and Performance Measures

This section reports progress made toward the achievement of institutional goals. It includes a description of how UCalgary fulfilled its role and mandate as outlined in the *Post-secondary Learning Act*. The report is grouped within the five principle areas of the adult learning system (i.e., accessibility, affordability, quality, accountability, and coordination). Also included is a framework developed to nurture education and learning, growth and innovation, and a sense of community and place over the next decade.

ADULT LEARNING SYSTEM

The University of Calgary is committed to the five principles of the provincial adult learning system (i.e., accessibility, quality, affordability, coordination, and accountability). Working with government, UCalgary has succeeded in delivering current, meaningful, and relevant high-quality programs to both undergraduate and graduate students at tuition levels that are for the most part lower than those at other research-intensive Canadian universities. Substantial resources have been committed to improve outreach to students across the province and to increasing the amount of financial aid available to students in need of assistance. Given these commitments, the University of Calgary has been a strong Campus Alberta partner working with other post-secondary institutions to ensure all Albertans have access to the advanced education they need to succeed in the modern economy and to become engaged citizens. The following is a brief description of UCalgary's commitment to each adult learning system principle.

Accessibility

The University of Calgary is committed to providing exceptional opportunities for qualified learners to achieve a post-secondary education in Alberta. We believe that it is not enough to accept students into our institution; we seek to ensure that the conditions for all students, faculty, and staff are in place that will allow them to flourish and succeed in a challenging academic environment. UCalgary has identified strategic priorities that support the principle of accessibility and complement the numerous programs already offered to students that support accessibility and student success. Examples include priority initiatives to diversify the student body, increase the number of graduate students, ensure supports are in place for all students, and continue to implement the sustainable enrolment growth model.

Quality

The constant growth of scientific and scholarly knowledge and the development of innovative teaching pedagogies have raised the bar for universities around the world. University of Calgary students expect and deserve the highest quality educational experience, one that is grounded in research, enriched by relevant and experiential learning opportunities, and embedded in a collaborative and community-based culture. We are invested in providing transformative educational experiences that are supported by the ongoing development of our passionate educators so that we can better engage and challenge students through effective and innovative teaching. We are also highly committed to engaging students beyond the classroom, focusing on experiential learning initiatives that will ensure that when students graduate they are prepared to become the leaders of today and tomorrow. Examples of our commitment to this principle include priority initiatives to incent opportunities for interdisciplinarity, encourage pedagogical innovation, enable entrepreneurial and critical thinking across all of our endeavours, create academic platforms, and promote leadership and innovation in sustainability.

Affordability

The Government of Alberta and UCalgary are committed to preserving affordability for all students who seek a post-secondary education. Affordability of education is a complex issue and relates to the costs associated with tuition and fees and the financial aid available from a variety of sources. The University of Calgary engages thoughtfully and meaningfully with students around issues of tuition and fees to ensure accountability and transparency. We continue to increase financial support for students through scholarships and awards. In addition to ongoing programs and services available to students, the university has established priorities that align with the adult learning principle of affordability. Priority initiatives to advance affordability include enhancements to scholarships, bursaries, and other financial support for students, development of an awards program for undergraduate research, and enhancements to our doctoral scholarships program.

Coordination

Alberta has created a diverse and differentiated system of post-secondary education that responds to the needs of learners through a six-sector model. The University of Calgary is committed to fulfilling the responsibilities outlined in our provincial mandate. We deliver educational programs of the highest quality through a broad selection of programs of study including baccalaureate, graduate, professional, and research-based master's and doctoral degrees. We are research leaders, helping to find solutions to the most important problems facing society. We are enthusiastic about collaborating with other academic institutions and community organizations to allow the Alberta post-secondary system to serve all adult learners. Examples of priority initiatives to enhance coordination include collaborations with local, regional, national and global communities to support innovation in the Calgary region, development of work-integrated learning opportunities, and enhancements to community-engaged scholarship and learning.

Accountability

The University of Calgary is accountable to its many stakeholders: students, faculty, staff, parents, alumni, government, granting agencies, donors and the community. We engage stakeholders in a number of formal and informal ways, including a public report to the community, regular campus community updates and town halls. Most importantly, we submit documents such as this Annual Report that satisfy legislated requirements outlined within the *Post-Secondary Learning Act* (PSLA) and *Fiscal Planning and Transparency Act*. Other examples of our commitment to accountability include compliance with the PSLA and Labour Code, operating in accordance with Tri-Council mandates related to Open Access, and complying with Bill 19 – *An Act to Improve the Affordability and Accessibility of Post-Secondary Education*.

FRAMEWORK FOR GROWTH

The University of Calgary has enjoyed a decade of explosive growth. Student experience and research impact have never measured higher. But we now face significant headwinds. Provincial operating grants have been reduced 18 percent since 2019 and an additional cut is expected next year. Our community is entering its sixth year of recession. And a global health emergency has disrupted our community and accelerated long-term trends in higher education.

As the province continues to recover from the many challenges caused by the pandemic, the University of Calgary intends to play a pivotal role to support of the Government of Alberta to achieve its adult learning system goals, not only through research, innovation and commercialization of leading edge technology, but also in providing highly-skilled and job-ready graduates for a recovering and dynamic labour market.

Over the past year, we created, discussed, and refined a series of “big ideas” to help secure the long-term future of the University of Calgary in the face of this changing landscape. From this activity, a framework has been distilled that made its way through the governance process during 2020-21. This “framework for growth” is intended to nurture education and learning, growth and innovation, and a sense of community and place. It is meant to deepen our understanding of the world and stimulate the creation of new industries and help existing ones evolve. These outcomes are hallmarks of great research universities. They do not happen by accident. They are the result of talented people working together who share a focus on building something more than the sum of its parts.

Setting the institution on a new path will require us to focus more on students and the student experience through expanded offerings and richer experiences. We will need to strengthen our focus on the community by seeking out deeper and more meaningful partnerships at the individual researcher, faculty and university levels. We will also need to strengthen our focus on collaboration through the creation of spaces and incentives for experts across disciplines to come together to expand understanding, explore phenomena, and tackle the big problems.

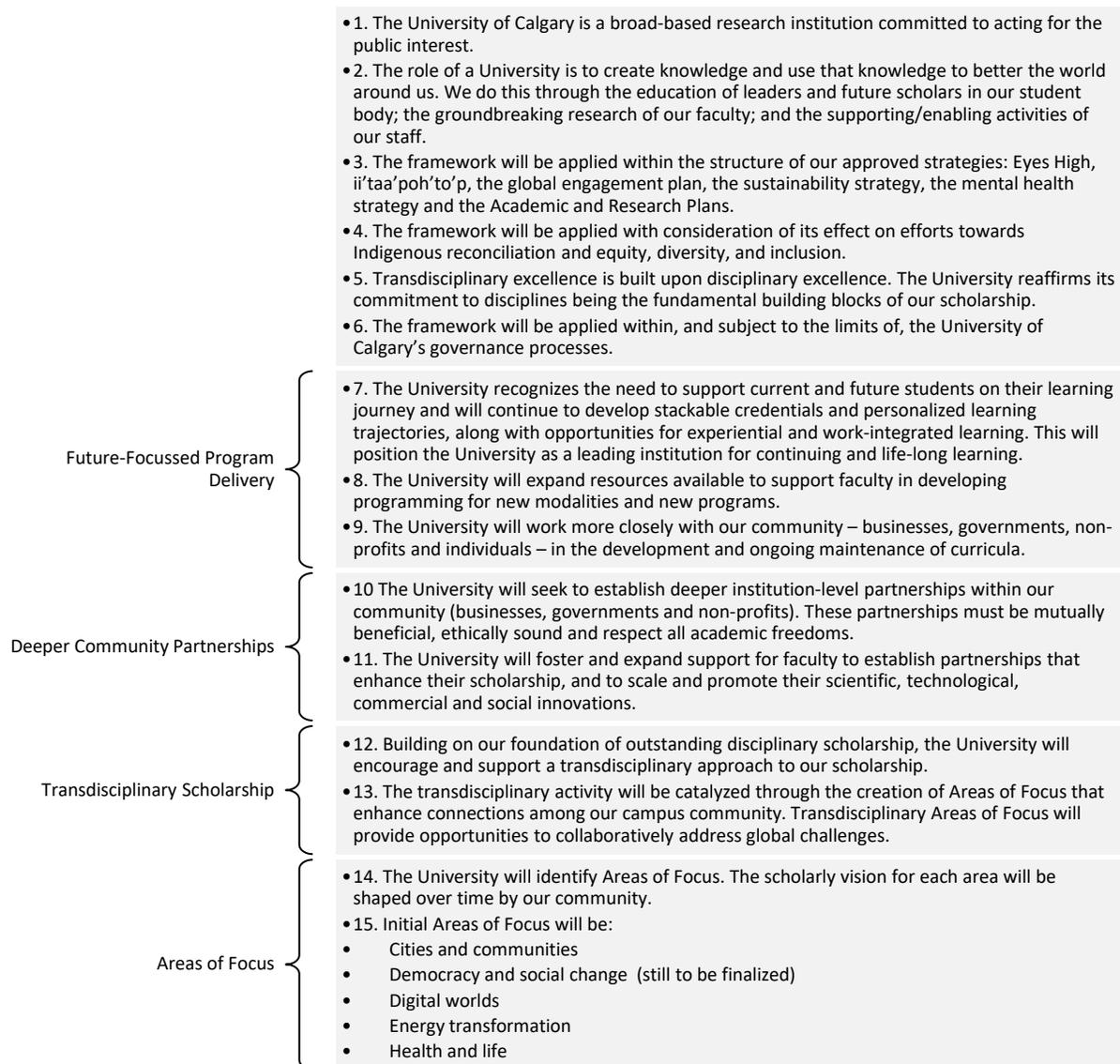
Working together, we intend to build upon and expand the opportunities that already exist at UCalgary – building a great university and contributing to a great city and a great society in the process. As we look forward to the next fifty-five years, we intend to protect what we built while setting the University of Calgary on the path for further growth. That means planning for the long-term – not just for today or next year, but for the decade and century that follow.

In the pages that follow, we describe the principles, goals, and outcomes that will serve as the foundation of our *Framework for Growth*. This framework belongs to every member of our campus community who aspires to make our university truly great. Every step that we take — large or small — takes us further along our path to becoming one of Canada’s top research universities.

PRINCIPLES

Underpinning the *Framework for Growth* are the following principles that describe the University of Calgary’s commitments to research and innovation, the commercialization of leading edge technology, and the provision of highly-skilled and job-ready graduates.

Figure 1 – Framework for growth principles



GOAL 1 – FUTURE-FOCUSED PROGRAM DELIVERY

The first “big idea” within the *Framework for Growth* is a bold approach to education and credentials that will see more modes of delivery being offered (e.g., online, in-person, etc.) and more ability to personalize programming through the expansion of modularization, microcredentials and stackable certificates.

Modularization breaks courses into their components, allowing foundational content to be shared among many classes. The benefits are significant. They allow students to move quickly (or even skip) content covered in another class they have taken and allow faculty to share a common core – letting them focus on their areas of expertise. Microcredentialing and stackable certificates allow students to receive a certification or diploma for an individual course or smaller cluster of courses. These certificates can be acquired on their own or combined into a four-year degree.

Neither modularization nor microcredentialing is new at the University of Calgary. Many faculties have begun to implement these approaches with the support of our Taylor Institute for Teaching and Learning. Our *Framework for Growth* will expand on what these faculties have built and more aggressively roll out these methods across the university’s programs through an expansion of faculty training and resources available. The framework will also enhance existing processes used to identify new programs and transform or close existing ones.

Outcomes

- For our students, future-focused program delivery will provide choice and opportunity. It will allow them to complete their education all at once or over several years. Students can collect a series of certificates or stack them into a degree from a highly regarded research university. They can complete their education in person, online, or through a combination of both. Additionally, students always have the option to come back and build upon what they have learned in their time here as they progress through their careers.
- For our faculty, new program supports will encourage faster and more rigorous development of programming. Modularization means being able to dip into a pool of shared content and being able to focus on the concepts in which they are experts – concepts that truly excite them. Remote learning offerings will bring faculty members to a world audience and allow them the unique and exciting opportunity to mentor a global community of scholars.
- For our broader community, future-focused program delivery means an accelerated path to economic diversification in the industries of the future and the ability to pivot – now and in the face of any future economic challenges.

2020-21 Progress

- ✓ We developed several innovative program proposals that built on the successes of the campus community (e.g., stackable-certificate master of nursing program).
- ✓ We expanded support for the development of online courses and built a common core of basic concepts through our Taylor Institute for Teaching and Learning.
- ✓ We provided learning opportunities tied directly to real-world activities through such things as work-integrated learning to increase the relevance of our teaching and research.
- ✓ We significantly increased the amount of online learning delivered.

GOAL 2 – DEEPER COMMUNITY PARTNERSHIPS

The second “big idea” within the *Framework for Growth* is a bold approach to partnerships and innovation that will see more – and deeper – community and industry partnerships. These partnerships will advance learning objectives, further our research enterprise, improve our business operations and generate revenue – all within a framework that ensures academic integrity and community value.

The University of Calgary has always been deeply integrated with its community. This integration and sharing of expertise has provided significant benefits – everything from guest lecturers to the ability to test academic theory in an industrial setting.

This commitment to integration and results – seen in everything from co-op programs to a water research facility integrated in a city waste treatment centre – is part of what makes the University of Calgary special. These partnerships have often been ad hoc, occurring in spite of systems and processes, not because of them.

Outcomes

- For our students, such partnerships mean more internship and post-graduate employment opportunities, more current and relevant curricula, more exposure to industry or community experts – more out of their time at the university.
- For our faculty, these partnerships mean funding, validation of research, access to the knowledge that rests outside of our walls and the opportunity to bring our innovations to the world.
- For our broader community there is enormous benefit, as we take our academic research and bring it into the world as products, services and improvements to people’s lives.

2020-21 Progress

- ✓ We began to develop a University of Calgary playbook for community partnerships.
- ✓ We identified areas that will be key to deepening our partnerships with businesses, community groups, and civil society (e.g., providing scholars, departments and faculties with the tools and guidance they need to foster cooperation and further integrate with the community in a way that provides value to both sides).
- ✓ We developed an approach to encouraging the growth of institution-wide, integrated partnerships as well as one-off collaborations.

GOAL 3 – TRANSDISCIPLINARY SCHOLARSHIP

The third “big idea” within the *Framework for Growth* is to elevate transdisciplinary scholarship at the University by incentivizing working across faculty lines and reducing the barriers our students, faculty and staff face when the attempt to do so. Transdisciplinary scholarship is built around problems and possibilities, not professions. It involves people from multiple backgrounds working together on challenges.

Transdisciplinary scholarship focuses on building knowledge between, across and beyond traditional disciplines. In a complex time of ever-increasing specialization, transdisciplinary scholarship is a way to tackle the big questions of our day that do not fit into one department or one faculty, but require important contributions from those units. It is a way to create knowledge and come to solutions.

Outcomes

- For our students, a transdisciplinary approach means more exposure to experts from outside of their area of specialization and more opportunities to tackle big problems – truly meaningful work.
- For our faculty, it means more freedom to take on impactful work that they are passionate about and more ability to use their specializations in unconventional ways to provide additional real value to our community.
- For our broader community, transdisciplinary scholarship means concerted effort to deal with our biggest challenges.

2020-21 Progress

- ✓ We drafted a proposal to create the spaces, resources, incentives and processes necessary for faculty with disciplinary excellence to come together, engage our students and with support from our staff solve society’s biggest problems. This proposal reflects the democratic nature of a post-secondary institution and puts the professoriate in the driver’s seat. The result will be a University of Calgary-specific approach to transdisciplinary scholarship.
- ✓ We continued our efforts to curate disciplinary excellence, encourage deep collaboration among scholars across our university, and engage with the community to define problems, contribute resources, and field-test solutions.
- ✓ We strengthened our emphasis on equity, diversity and inclusion to bring in more viewpoints and experiences to enrich the solutions we provide.

PERFORMANCE MEASURES

Achievement of our *Framework for Growth* goals is supported by a commitment to performance measurement. Although we have yet to identify measures specific to these new goals, we anticipate that our performance will continue to be benchmarked against the top five research institutions in Canada (i.e., University of Toronto, University of British Columbia, Université de Montréal, McGill University, and University of Alberta), where possible. This set of metrics best documents the value and impact of the University of Calgary to the Province of Alberta.

Measures under consideration related to future-focused program delivery include the number of students enrolled in modularized programs; students participating in micro-credential offerings; the number of programs that offer stackable certificates; the number of programs available in multiple modalities; and the number of programs offering experiential learning and work-integrated learning opportunities.

Measures under consideration related to deeper community partnerships and transdisciplinary scholarship include the number and quality of partnerships that we establish to advance complex societal issues and innovation, and the number of transdisciplinary activity centres that we create to bring scholars together, marshal resources, and facilitate, and coordinate activity.

In years past, we reported annual progress through a set of performance measures related to specific outcomes (i.e., teaching and learning, research, scholarship, and innovation, and community and environment). These measures — some of which only yield data every few years — assess both quantitative and qualitative dimensions and reflect different facets of our organization. Shown in Table 1 is the year-over-year change in our performance on these measures.

Table 1 – Performance Measures

#	Performance Measure	2019-20	2020-21	% Change
Teaching and Learning				
1	Average Entering Grade from High School	86.7%	86.7%	0.0%
2	Undergraduate retention - 1st to 2nd year	95.0%	95.4%	0.4%
3	Graduate proportion of total enrolment - % Graduate	19.4%	19.0%	(0.4%)
4	Graduation Rate - Undergraduate	86.0%	76.4%	(9.6%)
5	Graduation Rate - Master's Thesis (5 Years)	83.6%	77.3%	(6.3%)
6	Graduation Rate - PhD (9 Year)	74.8%	82.6%	7.8%
7	Time to Completion – Undergraduate (# of Years)	4.2	4.1	(0.1)
8	Time to Completion – Master's Thesis	2.8	2.6	(0.2)
9	Time to Completion – PhD	5.2	5.0	(0.2)
10	Employment Rate*	93.5%	-	-
11	Degrees Awarded – Undergraduate	4,604	5,114	510.0
12	Degrees Awarded – Graduate	1,859	2,091	232.0
13	National Survey of Student Engagement - First year (Entire Ed. Experience)*	78%	-	-
14	National Survey of Student Engagement - Senior year (Entire Ed. Experience)*	74%	-	-
15	Canadian Graduate and Professional Student Survey (CGPSS) - Overall Quality*	-	-	-
Research, Scholarship, and Innovation				
16	Total Tri-Council Funding (\$ million)	93.5	117.8	24.3
17	Total Tri-Council Funding (\$ million) Per Tenure and Tenure-Track Faculty	70.6	80.0	9.4
18	Total Social Science and Humanities Research Council (SSHRC) (\$ million)	12.6	13.4	0.8
19	Total Natural Sciences & Engineering Research Council (NSERC) (\$ million)	30.8	38.5	7.7
20	Total Canadian Institutes of Health Research (CIHR) (\$ million)	50.0	66.0	16.0
21	Total Sponsored Research Funding (\$ million)	457.3	504.5	47.2
22	Total Sponsored Research Funding (\$000) Per Tenure and Tenure-Track	345.4	342.5	(2.9)

#	Performance Measure	2019-20	2020-21	% Change
23	Publications (Total 1-Year)	6,263	6,701	438.0
24	Publications Per Tenure and Tenure-Track Faculty (Total 1-Year)	4.7	4.5	(0.2)
25	Citations (Total 1-Year)	52,353	27,332	(25,021)
26	Citations Per Tenure and Tenure-Track Faculty (Total 1 Year)	39.5	18.6	(20.9)
27	Field-Weighted Citation Impact	1.59	1.41	(0.18)
28	Juried exhibitions and performances	-	-	-
29	Number of Postdoctoral Scholars	556	565	9.0
30	Number of Postdoctoral Scholars Per Tenure and Tenure-Track Faculty	0.37:1	0.39 : 1	0.02:1
31	Start-Ups Created – 3-Year Running Total	52	-	-
32	New Inventions and Innovations – 3-Year Running Total	372	-	-
33	New Licenses – 3-Year Running Total	60	-	-
34	Patents Submitted – 3-Year Running Total	86	-	-
Community and Environment				
35	Alumni engaged (number)	10,976	11,071	95.0
36	Alumni engaged (percent)	7.6%	7.3%	(0.3)
37	Fundraising (annual \$ millions total)	142.0	122.4	(19.6)
38	Sustainability Tracking, Assessment and Rating System (STARS)	80.5%	80.5%	-
39	Likelihood of Canadians to recommend UCalgary – General Public*	-	-	-
40	Likelihood of Canadians to recommend UCalgary – Affiliates*	-	-	-
41	Likelihood of Albertans to recommend UCalgary – General Public*	-	-	-
42	Likelihood of Albertans to recommend UCalgary – Affiliates*	-	-	-

* This measure only yields data every few years.

7. Financial Information

This section uses the budget submitted to Advanced Education at the beginning of the fiscal year to identify key variances between budgeted statement of operations and actual audited results. It also provides a detailed explanation for all material variances so that issues affecting the financial situation are clear. Included is a discussion of the strategies employed to mitigate financial risk, and results achieved during the fiscal year.

This Management Discussion and Analysis (“MD&A”) should be read in conjunction with the University of Calgary’s (“the University”) consolidated financial statements and accompanying notes for the year ended March 31, 2021. The MD&A and consolidated financial statements are reviewed and approved by the University’s Board of Governors on the recommendation of the University’s Audit Committee. The University’s consolidated financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (“PSAS”).

The MD&A is an overview of the University’s financial results for the year ending March 31, 2021 and offers analysis of the University’s:

1. Operating Environment
2. Financial Results
3. Net Assets and Net Financial Assets
4. Capital Expansion and Renewal
5. Areas of Significant Financial Risk

OPERATING ENVIRONMENT

The University is on an ambitious journey to become one of Canada’s top research-intensive universities, making significant contributions to the local and provincial economies. The University’s main campus occupies a beautiful setting with a view of the Rocky Mountains, covering more than 200 hectares – an area larger than Calgary’s entire downtown.

The University is focused on fulfilling the three foundational commitments of our Eyes High 2017-22 strategy: sharpen focus on research and scholarship; enrich the quality and breadth of learning; and integrate the University with the community.

The COVID-19 pandemic has resulted in some unique and challenging times across the world. Over the past year, the University has adapted quickly and efficiently to ensure the safety and health of the University’s students, faculty and staff, and members of the community. The University implemented a number of COVID-19 protocols in response to protecting the University community: reduced in-person instruction by moving to a hybrid delivery model for classes and assessments, reduced capacity at field research stations, restricted international travel, and cancelled or postponed in-person events on campus. The COVID-19 pandemic has had significant impacts on the lives of many individuals across our city, province, and around the globe. As the Government of Alberta lifts restrictions and restarts Alberta’s economy, the University remains a strong partner to help students, community, province, and the country. The University continues being a catalyst of economic growth driven by new knowledge discoveries and creativity.

FINANCIAL RESULTS

For the year ended March 31, 2021, the University's expenses exceeded revenues by \$10.1 million. This annual operating deficit decreased from the \$29.8 million deficit in 2020. The most significant drivers contributing to the \$10.1 million deficit include lower than anticipated revenues from budgeted sales of products and services partially offset by higher than anticipated credit tuition, and lower than budgeted expenditures primarily related to travel, utilities and cost of goods sold. In addition, 2020 included a Voluntary Retirement Incentive Program expense of \$12.8 million, which was not recurring in 2021.

Total net assets have increased by \$220.1 million from March 31, 2020 as the result of \$214.7 million increase in unrealized gains on portfolio investments and \$15.5 million of endowment donations, which are partially offset by the \$10.1 million annual operating deficit.

REVENUE

Total revenues for the year ended March 31, 2021 were \$1,393.2 million, a decrease of \$78.7 million (5.4%) compared to the prior year and \$35.4 million (2.5%) under budget. Revenue from the Government of Alberta represented the University's single largest source of income, at 45.1% of total University revenue, and played a key role in the ability to fund University activities. Major components of revenue are as follows:

Figure 2 – Total revenue by major component

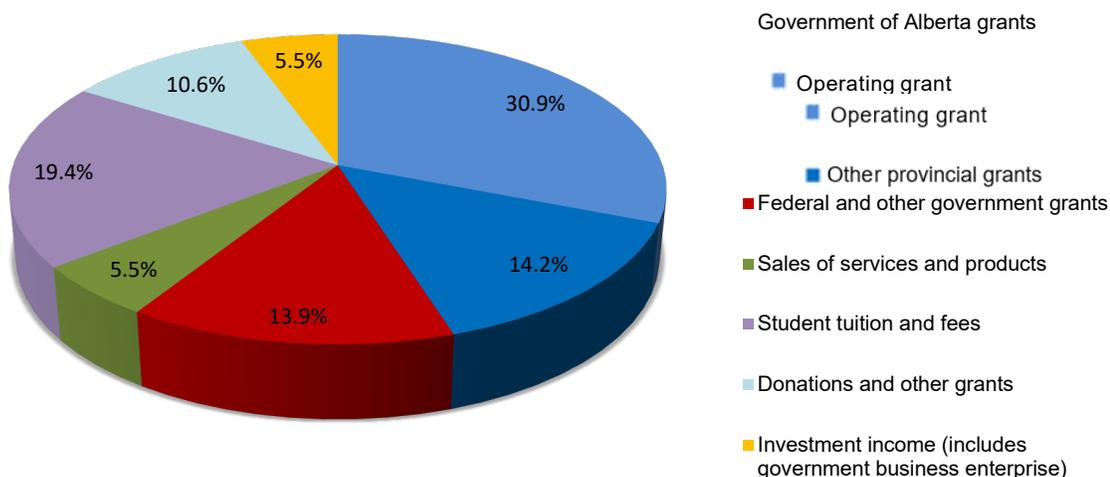
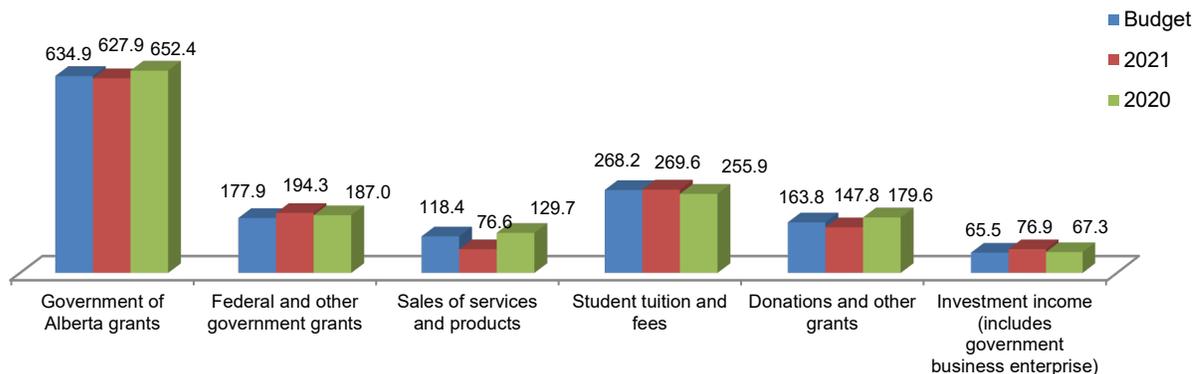


Figure 3 – Revenue (\$ million)



Government of Alberta grants

Government of Alberta grant revenue of \$627.9 million was \$24.5 million lower than prior year and \$7.0 million lower than budget. The decrease over prior year and budget is primarily the result of the Government of Alberta’s 6.0% in year reduction to the Campus Alberta grant.

Federal and other government grants

Grant revenue from federal and other government sources of \$194.3 million was \$7.3 million higher than prior year and \$16.4 million higher than budget. The increase compared to prior year and budget is a result of obtaining funding from a temporary program offered by the Government of Canada as part of the COVID-19 Economic Response Plan and the Canada Research Continuity Emergency Fund (CRCEF). The CRCEF was established to help sustain the research enterprise at Canadian universities and health research institutions. In addition to receiving CRCEF funding, the University was successful in obtaining additional research awards from Canadian Institutes of Health Research (CIHR) and Natural Sciences and Engineering Research Council of Canada (NSERC), and Social Sciences and Humanities Research Council (SSHRC), with an offset by a decrease in funding from the State of Qatar.

Sales of services and products

Sales of services and products revenue of \$76.6 million was \$53.1 million lower than prior year and \$41.8 million lower than budget. The decrease is due to the temporary campus closures and reduction of Ancillary revenue activities on campus because of the COVID-19 pandemic including significantly lower residence occupancy, loss of parking revenues from April to August 2020 and limited parking revenues for the remainder of the fiscal year.

Student tuition and fees

Student tuition and fees of \$269.6 million were \$13.7 million higher than prior year and \$1.4 million higher than budget. The increase is a result of a 5% increase in credit tuition rates and increase in enrolment, partially offset by a decrease in non-credit tuition because of the COVID-19 pandemic.

Donations and other grants

Donations and other grant revenue of \$147.8 million was \$31.8 million lower than prior year and \$16.0 million lower than budget. Donations and other grants were lower than prior year and budget due to receiving multiple one-time funds and grants in 2020 in addition to an \$8.7 million reduction in Institute of Teaching/Learning projects as well as lower than expected donations and other grants related to research clinical trials in the current year.

Investment income – Including investment income in government business enterprise

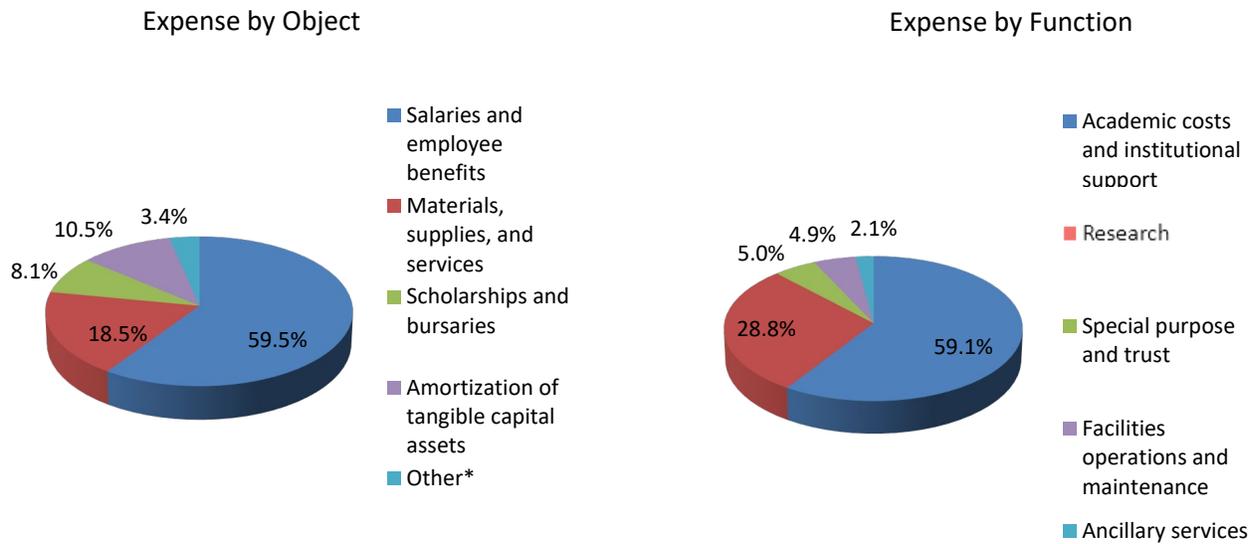
Investment income (including investment income in government business enterprise (“GBE”)) of \$76.9 million was \$9.6 million higher than prior year and \$11.4 million higher than budget. The variance is due to a higher investment income on non-endowment investments and higher realized capital gains on endowment investments offset by lower investment income related to the University’s investment in University District Trust.

EXPENSE

For the year ended March 31, 2021, the University recorded \$1,403.3 million in expenses representing a decrease of \$98.5 million (6.6%) from the prior year and \$25.4 million (1.8%) lower than budget. Salaries and benefits are the largest expenditure component at the University, representing 59.5% of the University’s expenses.

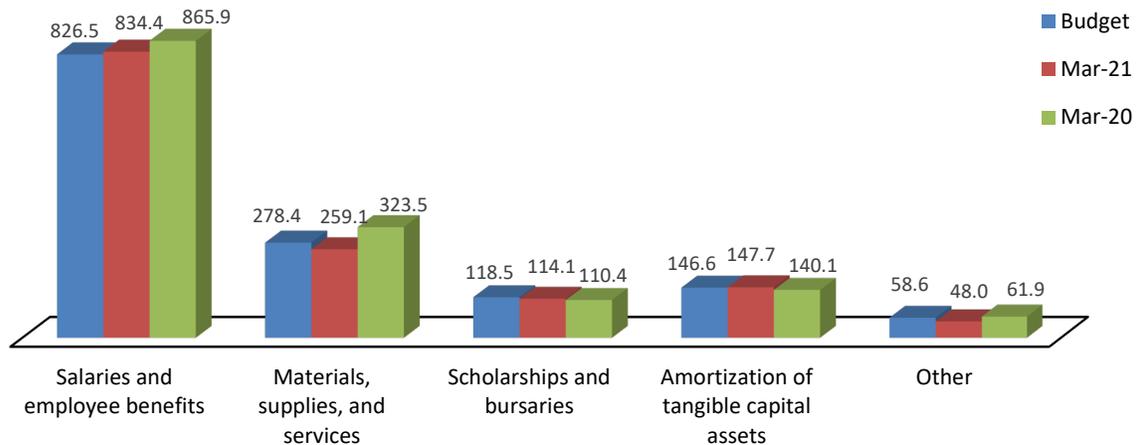
Academic costs and institutional support represent the single largest function at the University, with this function representing 59.1% of the University’s expenses. This includes instruction, non-research academic and administrative support activities, effectively representing the operating activities of the University.

Figure 4 – Expense by object and by function (percentage)



*Other expenses include: Utilities, Maintenance and repairs, and Cost of goods sold.

Figure 5 – Expense by object and by function (\$ million)



Salaries and employee benefits

Salaries and employee benefits of \$834.4 million have decreased by \$31.5 million over the prior year and increased by \$7.9 million from budgeted amounts. The decrease over prior year is mainly due to temporary layoffs and a Voluntary Retirement Incentive Program of \$12.8 million offered in 2020, partially offset by increased Universities Academic Pension Plan (UAPP) pension costs relating to a change in actuarial calculations. The budget variance is a result of \$11.5 million higher than expected UAPP pension costs from changes in actuarial calculations completed for the pension plan and severance payouts in April and May, partially offset by employee departures.

Materials, supplies and services

Materials, supplies and services of \$259.1 million represent the second largest expense component of the University with current year costs \$64.4 million lower than the prior year and \$19.3 million lower than budget. Materials, supplies and services are lower due to the impact of cost cutting measures combined with the impact of COVID-19 in relation to less on-campus activities and less research related travel.

Scholarships and bursaries

Scholarships and bursaries of \$114.1 million were \$3.7 million higher than the prior year and \$4.4 million below budget. These higher expenses are in line with the University’s goals to attract and support students across various faculties. The budget variance is primarily due to a reduction in student research scholarships, grants, and awards as some research labs remain closed due to COVID-19.

Amortization of tangible capital assets

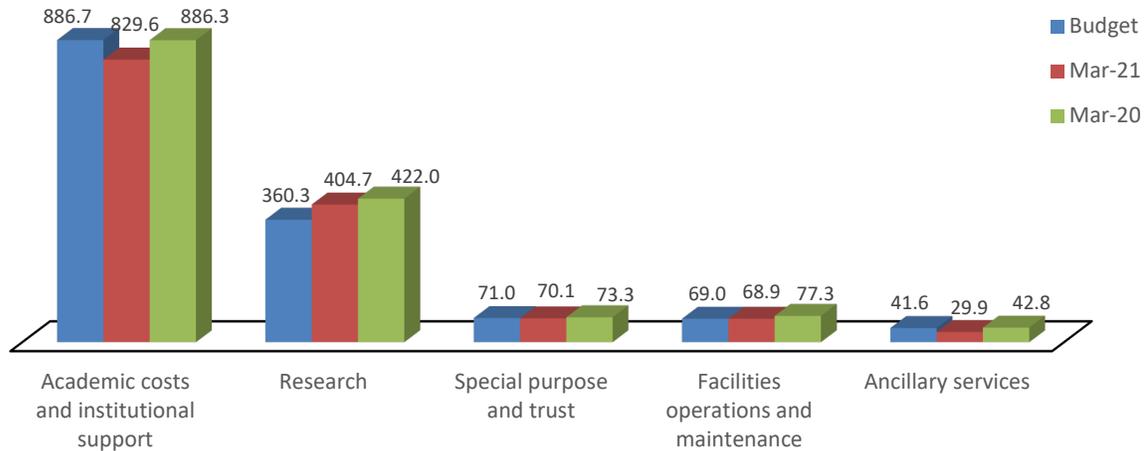
Amortization of tangible capital assets expense of \$147.7 million increased by \$7.6 million from the prior year and increased by \$1.1 million compared to budget. The increase from prior year and budget is a result of new assets transferred into service during the year, primarily related to the completion of MacKimmie Tower in January 2020, Schulich School of Engineering Block E redevelopment, Clinical Skills Building expansion and the implementation of the Utility Reduction Program.

Other

Other expenses totaling \$48.0 million were \$14.0 million lower than prior year and \$10.6 million lower than budgeted amounts. The decrease is primarily the result of the one-time prior year loss on disposal of the

MacKimmie Block in 2020, reduced Ancillary operations, and the temporary closure of campus buildings due to COVID-19.

Figure 6 – Expense by function (\$ million)



Academic costs and institutional support

Academic costs and institutional support expenses of \$829.6 million decreased by \$56.7 million over the prior year and decreased by \$57.1 million compared to budget. The decline is primarily due to a decrease in academic and institutional support salaries, decline of travel related expenditures due to COVID-19 and reduction in materials and supplies due to budget cuts. In 2020, there was a Voluntary Retirement Incentive Program offered and higher severance expenses.

Research and special purpose and trust

Research costs of \$404.7 million were \$17.3 million lower than prior year and \$44.4 million higher than budget. The decrease over prior year mainly results from the \$16.5 million of research related travel due to COVID-19. The budget variance is due to the higher than expected salaries and benefits as well as materials and supplies in research projects. Special purpose and trust costs of \$70.1 million were \$3.2 million lower than prior year and \$0.9 million lower than budgeted amounts primarily due to a \$4 million decrease in research related travel caused by COVID-19, partially offset by an increase in scholarships.

Facilities operations and maintenance

Facilities operations and maintenance costs of \$68.9 million were \$8.4 million lower than prior year and \$0.1 million lower than budget. The decrease from prior year relates to the workforce reduction in addition to reduced maintenance and lower utilities associated with the COVID-19 campus closure and rate fluctuations.

Ancillary services

Ancillary expenditures of \$29.9 million were \$12.9 million lower than prior year and \$11.7 million lower than budget primarily due to lower salaries and benefits from unfilled vacancies and workforce reduction, and lower expenditures for materials and supplies as well as cost of goods sold from campus closure due to COVID-19.

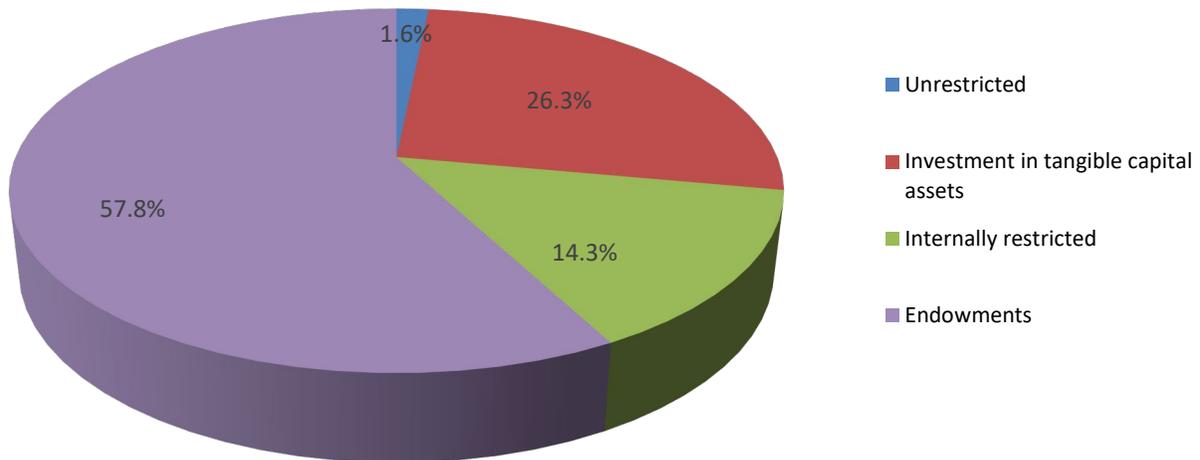
NET ASSETS AND NET FINANCIAL ASSETS

NET ASSETS

The University's net asset balance is an important indicator of financial health for the University. Prudent financial planning and strategic decision-making combined with increased unrealized gains from portfolio investments have contributed to the University's \$1,938.0 million in net assets. Endowments of \$1,120.0 million continue to represent the largest component of Net Assets. Endowments must be maintained in perpetuity. Investment income earned is used to fund specific research, scholarship, and donor supported initiatives.

The remaining \$818.0 million in net assets, includes \$509.8 million of funds previously spent as a net investment in capital assets and \$278.0 million of funds formally restricted by the University's Board of Governors for spending on strategic initiatives in support of student learning, research, capital projects, and community service. During the year, the Board of Governors approved \$76.9 million of transfers into internally restricted net assets for faculty and department strategic initiatives offset by \$57.6 million of non-capital expenditures for a net transfer of \$19.3 million. In addition, the University used unrestricted net assets to fund \$15.0 million of capital construction and capital purchases and \$6.1 million to repay University debt. After amounts spent on capital assets, Board of Governors restrictions, and debt repayment, \$30.2 million remains in unrestricted net assets. Net assets at March 31, 2021 are comprised of the following balances and related summarized transactions:

Figure 7 – Net assets



NET ASSETS (CONTINUED)

Table 2 – Net Assets

As at March 31, 2021 (\$ thousands)	Unrestricted	Investment in Capital Assets	Internally Restricted	Endowment	Total
Balance as at March 31, 2020	\$ 1,755	\$ 487,534	\$ 312,682	\$ 915,957	\$1,717,928
Annual deficit	(10,075)	-	-	-	(10,075)
Transfer to internally restricted net assets net of expenditures	(19,288)	-	19,288	-	-
Endowment					
New contributions	-	-	-	15,431	15,431
Transfer from endowment ⁽¹⁾	1,333	-	-	(1,333)	-
Tangible capital assets					
Acquisition of tangible capital assets	(14,964)	68,917	(53,953)	-	-
Amortization of tangible capital assets	52,691	(52,691)	-	-	-
Debt repayment	(6,082)	6,082	-	-	-
Debt new financing	70	(70)	-	-	-
Change in accumulated remeasurement gains	24,782	-	-	189,943	214,725
Balance as at March 31, 2021	\$ 30,222	\$ 509,772	\$ 278,017	\$ 1,119,998	\$1,938,009

(1) Transfer from endowment has been recorded to cover the endowment spending in excess of the investment income earned on endowments. When endowment investment income is insufficient to cover endowment spending, amounts are transferred from the cumulative capitalized endowment investment income to cover the shortfall.

NET FINANCIAL ASSETS

The University's liquidity needs are met primarily through operating cash flows, working capital balances and capital expansion funding received through grants or long-term debt. The Net Financial Asset indicator is intended to identify the availability of net financial resources of an organization to fund future operations after considering liabilities owed to third parties. The University presents the Net Financial Asset indicator in a manner as directed by the Controller of the Province of Alberta. The presentation includes \$1,120.0 million of investments that are restricted for endowments. Portfolio investments – restricted for endowments must be maintained in perpetuity and are therefore not available to pay for University liabilities, nor can the University use the endowment portfolio investments to pay for future operating or capital purchases. As a result, net financial assets, excluding portfolio investments restricted for endowments, is presented on the Consolidated Statement of Financial Position.

At March 31, 2021, Net Financial Assets excluding portfolio investments restricted for endowments is \$145.3 million, representing a \$0.9 million decrease from the prior year figures. The University continues to have sufficient positive Net Financial Assets, demonstrating financial strength and commitment to managing the University's financial position.

CAPITAL EXPANSION AND RENEWAL

Continuation of capital expansion and renewal projects remains a critical priority for the University, contributing not only to the student learning experience and the quality of research activity, but also positively to the Calgary economy. In 2021, the University expended \$160.5 million (2020 - \$216.4 million) on construction and other capital asset acquisitions. This capital activity represents the continuation of the University's multi-year capital building program through construction of new buildings as well as redevelopment, renovation, and numerous instructional facility upgrade projects.

The following represents progress on the top six major construction projects on campus:

Table 3 – Major capital project costs (\$ thousands)

	2021	Expenditures to Date	Total Budget
MacKimmie Complex and Professional Faculties Building Redevelopment	47,022	220,949	320,000
Interdisciplinary Science and Innovation Centre	4,420	6,429	130,000
Mathison Hall	20,879	26,057	94,000
Utility Reduction, Grant Program	4,494	4,720	18,000
Schulich School of Engineering Block E Renovation Project	1,372	9,227	9,500
Veterinary Medicine Student Space Expansion Project	1,368	7,548	7,642

MacKimmie Complex and Professional Faculties Building Redevelopment

The project will completely renew and repurpose the MacKimmie Complex, including targeted renovations to the Professional Faculties Building (PFB), associated with the relocation of the Faculty of Social Work to the MacKimmie Tower and backfill of the space to accommodate Faculty of Nursing expansion. The project represents an opportunity to address many challenges, as part of one integrated project. Making the best use of two existing buildings will reduce operating costs, co-locate and centralize student and staff services in the heart of our campus, alleviate space pressures within the Social Work and Nursing Faculties and bring the Facility Condition Index (FCI) of the MacKimmie Tower and Block to near zero.

Interdisciplinary Science and Innovation Centre (ISIC)

The project will provide critical new space on main campus that will help maintain and enhance the university's interdisciplinary research strength for life and environmental sciences curriculum in the Faculties of Science, Arts, Kinesiology, Veterinary Medicine and the Cumming School of Medicine. The full ISIC program contemplates the construction of a new building to meet current expectations for technology-rich, specialized research and support spaces. The project will consist of the co-locating of disparate labs across the campus into modern, purpose-built facilities and adjacent spaces that support the institution's academic and research operations.

Mathison Hall

The project primarily consists of the development of a new, innovative, Leed Platinum (net-zero) building on campus with approximately 10,000 m² to meet modern expectations for technology-rich, flexible teaching and research space required for the Haskayne School of Business. The new building will be situated immediately adjacent to Scurfield Hall and will incorporate pedestrian connectivity to Scurfield Hall. The project scope will also include landscaping, IT and furnishings, fixtures, and equipment.

Utility Reduction, Grant Program

The University of Calgary has implemented a multi-year Utility Reduction Program to reduce institutional greenhouse gas emissions and operating costs. The scope of the Utility Reduction Program consists of

several medium-sized retrofit projects with a primary focus on the Foothills campus and smaller investments on main campus. The projects include HVAC and controls upgrades in classrooms and laboratories as well as lighting retrofits, installation of energy recovery systems and energy performance optimization of targeted buildings.

Schulich School of Engineering (SSE) Block E Renovation Project

This project is to renovate the first, second and third floors of Block E. The project consists of the redevelopment of over 6,000m² of space for functional and pedagogical reconfigurations, modernization of the spaces and improved Code compliance requirements while following University Design Guidelines. The project includes classrooms, wet and dry lab spaces, office space for Faculty and post-graduate residents, as well as spaces for students.

Veterinary Medicine Student Space Expansion Project

The project is comprised of a series of enhancements to existing teaching and learning facilities at the Clinical Skills Building located at the Spy Hill Campus. This includes an expanded surgery suite, new teaching areas and modifications to the existing bovine and equine facilities. In addition to the expansion scope, renovations to existing facilities will also be undertaken to provide additional student study space, teaching areas and expand locker/change rooms. These enhanced facilities will also allow the Veterinary Medicine program to accommodate increased student placements beginning in 2020, be used to provide continuing education to Alberta veterinarians and will provide a space for special interest groups from the public to hold conferences.

AREAS OF SIGNIFICANT FINANCIAL RISK

Deferred Maintenance

The University directs significant resources to ensure that University buildings are updated with relevant technology, operated efficiently, meet or exceed university and external regulatory standards. The University has an outstanding deferred maintenance balance of \$529.5 million (2020 - \$555.7 million). The Infrastructure Maintenance Program funding from the province increased to \$22.5 million (2020 – was suspended due to budget constraints) and was used to address deferred maintenance.

Unfunded Pension Liability

The University participates, with other Alberta post-secondary institutions, in the UAPP to provide defined-benefit pensions for participating faculty and staff. The extrapolated actuarial deficiency for the pension plan at March 31, 2021 is \$817.4 million (2020 - \$1,304.2 million). The University's portion of the deficiency is \$103.7 million (2020 - \$187.7 million). This unfunded deficiency in the UAPP is currently being funded by the Government of Alberta, employee and employer contributions. The deficiency is expected to be eliminated by 2043.

Budgetary Pressure

In the 2021 fiscal year, the University received a 6.0 percent cut to its provincial grant. Although the University has produced a balanced budget for 2021, provincial funding is expected to continue to decrease. Cost savings to address these cuts were achieved largely through workforce reductions, reductions in discretionary spending, and the cancellation or deferral of major projects. Impacts of the global COVID-19 pandemic may further affect provincial funding to the University. Plans to mitigate these risks include expenditure reductions in targeted areas, the achievement of greater efficiencies in the University's operations, and the identification of new sources of revenue. Through our prudent fiscal management and a willingness to partner with government, the University will continue to work toward

mitigating risks to ensure we continue to deliver on Eyes High strategy and mandate while ensuring that budgets remain balanced.

8. Capital Report

In this section we report progress on priority capital projects that are essential to support the outcomes identified in the institutional 2021 Capital Plan. Priority capital projects are defined as those projects that must proceed in the next three to five years to address critical infrastructure and capacity needs; and are in excess of \$2.5 million or 50 percent of the institution's Infrastructure Maintenance Grant, whichever is larger.

Within the Capital Maintenance and Renewal (CMR) program, formerly known as the Infrastructure Maintenance Grant Program, the projects below are those that exceed 50 percent of the 2020-21 CMR funding grant. Priority capital projects support the University of Calgary's access, quality, and research goals, critical health and safety issues, and critical information technology infrastructure.

Table 4 – Capital projects by type and funding source

Type	Project Description	Total Project Cost	Funding Sources	Funding Received to Date and Source	Revised Funding Sources
New	Interdisciplinary Science and Innovation Centre (Phase 1)	\$130 million ¹	100% PSI Funds	\$6.4M PSI	
New	Mathison Hall	\$94 million	56% PSI Funds 44% Donation	\$50.0M PSI \$11.5M Donation	
New/Maintenance	MacKimmie Complex and Professional Faculties Building Redevelopment	\$320 million	87% GoA 10% PSI Funds 3% Donation	\$247.2M GoA \$0.6M interest on GoA \$10.0M Donation	
Maintenance	Capital Maintenance and Renewal (CMR) Program	\$31 million	100% GoA	\$0	
Maintenance	Utility Reduction Grant Program	\$18 million	47% GoC 53% PSI Funds	\$0.8M GoC \$8.3M PSI	

1) ISIC Project budget reduced in 2020-21 due to institutional budget constraints.

Table 5 – Capital projects by timeline and status

Project Description	Project Timeline	Expected Project Start	Expected Project Completion	Project Status	Progress Made in Last 12 Months
MacKimmie Complex and Professional Faculties Building Redevelopment	April 2016 – August 2022	April 2016	August 2022	Construction	Tower complete. PFB renovations complete. Abatement and demolition of Block and Link complete construction of Hunter Student Commons underway.
Mathison Hall	December 2018 – August 2022	December 2018	October 2022	Construction	Design complete, construction underway.
Interdisciplinary Science and Innovation Centre (Phase 1)	January 2019 – June 2024	January 2019	June 2024	Design	Principal design consultants and project manager engaged.
Utility Reduction Program, Grant Program	October 2019 – March 2022	October 2019	March 2022	Planning, Design and Construction	Design complete for phases 1 through 3. Phase 1 construction complete, phase 2 & 3 in construction.

9. Research, Applied Research, and Scholarly Activities

This section reports research and innovation accomplishments as they pertain to current provincial outcomes. The presentation of these outcomes is structured to be reflective of government direction as outlined in the current Alberta Research and Innovation Framework (ARIF), although we also note that these achievements will be very well aligned with the government's under development Alberta Technology and Innovation Strategy (ATIS).

The University of Calgary plays an important role within Alberta's research and innovation system. It creates the talent and expertise that helps sustain the competitiveness of businesses, entrepreneurs, government and not for profits. It connects Alberta and its businesses to the global reservoir of leading-edge ideas and approaches in international jurisdictions. The University of Calgary also translates research, discovery and application to incent innovation and support community organizations and commercial opportunities for industry. Partners in Alberta's research and innovation system range from the government and its agencies, through federal and municipal organizations, to the post-secondary sector and industry.

With over 32,000 Full-Load Equivalent (FLE) students, 500 postdoctoral scholars, and 1,800 faculty actively engaged in transdisciplinary discovery, creativity, and innovation supported by 3,200 staff, UCalgary has impact across Alberta as a major driver for both economic prosperity and quality of life for Albertans. As a Comprehensive Academic and Research University (CARU), our responsibility is to produce the next generation of leaders who experience the best possible training in acquiring and creating new knowledge.

While our research has focal areas of priority, we strive for scholarly excellence in all of the disciplines that comprise our 14 Faculties and we create platforms to support our students and faculty to excel in their individual academic endeavours. Through our interlocked Academic and Research Plans, we have broken down several traditional barriers or trade-offs that are frequently viewed as impediments to national and international performance in research and scholarly activity (e.g., pure versus applied research, modes of collaboration, student engagement).

The scholarly environment at UCalgary encourages our students, faculty, and staff to take on the tough challenges facing our society and to draw expertise from across all of our domains to provide evidence-based solutions that will enhance Alberta's reputation on national and global stages. Going forward, UCalgary has identified and initiated a critical emphasis on the development of a sharp focus on innovation and application of discovery research, with the objective to impact positively the future of Alberta through expanded economy diversification, in alignment with the Government of Alberta's priorities, including the current draft of the Alberta Technology and Innovation Strategy (ATIS).

Outcomes that empower government ministries and innovation system stakeholders to continue to work together to deliver results and benefits for Albertans include:

- economic diversification and job creation;
- environmental stewardship and climate leadership;
- effective resource management; and
- engaged individuals and communities for a healthy Alberta.

New knowledge created by our students and faculty through their research and supported by our systems for knowledge translation and innovation is a major driver to achieve these provincial outcomes. We highlight below how the research capacity in innovation strategies at UCalgary contributes to these desired outcomes, how we foster excellence in research and scholarly activity, and how we contribute strategically to the research and innovation system in Alberta via collaborations with other institutions.

Economic Diversification and Job Creation

Economies grow when new ideas, new talent, and new capital come together to both create new opportunities as well as providing services valued by our societies. UCalgary impacts our province through its significant contributions in all of these components. Recent data shows that we rank among the top five institutions in Canada in graduation rates, time to completion, and employment rate for our undergraduate students. We are producing the next generation of leaders who are equipped to prosper in innovation-based economies.

UCalgary has attracted some of the world's best faculty, postdoctoral scholars, and graduate students, driving us towards our goal of becoming a top five research university in Canada. These recruitments and the excellence of our existing scholars have resulted in significant external research revenue growth. This funding contributes significantly to creating jobs in the province for research assistants and technicians and training opportunities for undergraduate and graduate students.

The University of Calgary is highly competitive in national grant competitions such as the programs offered by the Natural Sciences and Engineering Research Council of Canada (NSERC), the Canadian Institutes for Health Research (CIHR), the Social Science and Humanities Research Council (SSHRC) and the Canada Foundation for Innovation (CFI). For example, in major competitions offered by the CIHR since our last Annual Report, we ranked between 4 and 6 in total funds received by institution, nationally. We also tied for fifth place for number of CFI Innovation Fund grants received in the most recent completion. Over the past decade, we have moved from ninth to sixth place in Canada, as ranked by ReSearch Infosource Inc., which ranks external research revenue generation. Leveraging funding from federal, industry, and philanthropic sources is important for Alberta to achieve both its provincial outcomes and innovation targets. In 2020-21, the University of Calgary brought in **\$504.5 million** in research revenue (please see full chart on page 20 for more details).

Based on the combined efforts of Innovate Calgary and our Research Services Office, UCalgary excels nationally in three key metrics in commercialization and knowledge translation: disclosures, agreements and start-up companies. These are leading-edge metrics for inputs to economic growth. We are also starting to develop social innovation programming and supports to encourage social enterprise across our Faculties, resulting in early successes like MoveImprove (Werklund School of Education and Innovate Calgary) and CareFind (Haskayne School of Business).

UCalgary is actively engaged in initiatives to advance the innovation and entrepreneurial ecosystem at the municipal, provincial, and national levels that help to promote a strong economy in Alberta. We are assisting in the industry-led proposals for innovation in clean tech, agriculture, and health that are priority areas supported by the Province of Alberta. With three of our entrepreneurially-focused entities (i.e., Innovate Calgary, Hunter Hub for Entrepreneurial Thinking, and Creative Destruction Lab – Rockies), we continue to drive the growth of an innovation ecosystem in southern Alberta, thus contributing to the diversification of Alberta's economy.

Looking forward, we are excited to undertake leadership or active engagement on a number of provincial and federal opportunities in Quantum Science and Technologies, a key component of our *Human Dynamics* theme. These opportunities include continuing to play a leadership role in the developing *Quantum Alberta* pan-provincial organization, leading Alberta's Major Innovation Fund investment in *Quantum Technologies*

to the benefit of all Alberta researchers in the field, and positioning Alberta within the rapidly developing Quantum Canada landscape. The tripartite Quantum City initiative, involving the province, UCalgary, and Mphasis will move the province further to the national and international forefront in the QTech sector, and the university is already working with Calgary Economic Development to build on this momentum to grow this sector further for the province. UCalgary is also contributing expertise to the Creative Destruction Lab Quantum stream, engaging with entrepreneurs, investors, and industry partners to build ventures in this emerging domain.

In 2021-21, UCalgary students, graduate students and postdoctoral scholars were awarded Mitacs Accelerate internships valued at over \$4 million to the university. Accelerate interns gain valuable research and career experience in organizations who need their expertise. UCalgary postdoctoral scholars also secured \$500k in Mitacs Elevate training funds, that they will use as they lead research projects with industry and not-for profit partners.

Further, our graduate students have access to a wide range of entrepreneurship training and professional skills development offerings, equipping them to translate their research into a variety of practical applications. The rapid and effective development of the innovation ecosystem will ensure that the knowledge being generated by our students and faculty will be translated to the benefit of our society.

Environmental Stewardship and Climate Leadership

Besides the tremendous advances we are making through our energy research initiatives to reduce the environmental footprint associated with energy extraction, we are also championing new approaches and technologies to monitor environmental impacts and to create the data inventories needed to assess Alberta's contribution to curtailing greenhouse gas emissions and reducing water usage. The *Global Research Initiative in Sustainable Low Carbon Unconventional Resources (GRI)* is a major vehicle to translate lab-based technology innovations into field-deployable solutions. *One Health*, an institutional priority area, uses a transdisciplinary approach to address problems at the intersection of people, animals, and their environment.

Our New Earth-Space Technologies research theme brings together geographers, scientists, and engineers to create new data gathering technologies across all spatial scales for Alberta. Whether it is cutting edge technologies for detecting methane emissions or deploying satellite technologies to assess environmental changes over time and space scales, our students and faculty are providing expertise that enables the province to show environmental leadership on the national and international stage.

Advancing Canadian Wastewater Assets (ACWA) is energizing its project work and broadening its outreach, building on previous investments from the Provincial and Federal governments, along with ongoing investments from UCalgary and The City of Calgary. ACWA supports research and development, knowledge transfer, de-risking and piloting of leading-edge wastewater treatment technologies. ACWA offers service for technology developers and end users in the municipal, industrial and commercial sectors and provides facility access to wastewater researchers. Interdisciplinary teams of researchers and technology developers confidently push the boundaries of science and technology in this world-class facility.

The provincial government is creating new research collaborations to focus on Environmental Monitoring. We are actively engaged with the Chief Scientist of Alberta charged with overseeing the province's Environmental Monitoring and Reporting Systems to co-locate one of these major research collaborations at UCalgary.

Effective Resource Management

Our province has major opportunities to unlock its vast renewable and non-renewable energy resources while simultaneously demonstrating the best environmental stewardship as we move to a low carbon

future. Our research strategy *Energy Innovations for Today and Tomorrow* directly addresses the goals of Effective Resource Management and Environmental Stewardship to reduce costs of resource development while simultaneously decreasing the environmental impacts. Our research creates new economic benefits, jobs, and opportunities to export value-added products and processes to the international market, and produces approaches that lead the world in stewardship of natural resources.

The Canada First Research Excellence Fund (CFREF) award for \$75 million funds the Global Research Initiative in Sustainable Low Carbon Unconventional Resources (referred to as the GRI). From these federal funds, we hired six new faculty members (two in chemistry and four in chemical and petroleum engineering), and we support over 80 graduate students, over 40 postdoctoral scholars, and more than 50 individual projects. The GRI program has a foundational partnership with the Southern Alberta Institute of Technology (SAIT) for prototyping and assisting in the commercialization of energy technologies that significantly reduce environmental impact and includes \$6.5 million to promote and expand research collaborations with the University of Alberta. Four years into this initiative, the GRI has yielded 60 research projects, 175 inventions, 16 start-up companies, 82 new jobs created, nearly 300 publications, and 135 awards received by GRI members.

Our strategic research theme *Energy Innovations for Today and Tomorrow* also integrates research across our campus on transitioning to a *Low Carbon Future* that dovetails with the provincial goal of enhancing Clean Energy. Our students and faculty are advancing new technologies on energy conversion using biological and chemical systems that will reduce greenhouse gas emissions, while creating new sources of energy and new energy storage systems. Our significant research capacity in Clean Energy will help the province achieve its carbon targets identified in the Climate Leadership Plan. Our Energy in Society Research Group entered into a research partnership with Germany's Max Planck Society (Institute for the History of Science), to facilitate joint work based in the humanities and social sciences, focused on the transition to a low-carbon economy.

Energy Innovations for Today and Tomorrow is currently being updated to match UCalgary capacity with current societal need and the changing Canadian and global energy landscape. This update integrates a significant focus on enhancing the transdisciplinary research elements of the research theme, which will allow experts from across disciplines to tackle major energy-related societal challenges.

Engaged Individuals and Communities for a Healthy Alberta

Health research conducted at our University encompasses important contributions from all relevant disciplines spanning virtually all of our 14 Faculties. We pride ourselves on having excellent disciplinary strength in areas typically associated with health such as medicine, nursing, and social work. Research advances by faculty, postdoctoral scholars, and students in these areas are extremely important, and the future bodes well based on the results of stiff competition for federal research funding.

However, it is well-recognized that solutions for major health problems, issues, and implementation require inputs and knowledge translation from many disciplines beyond the typical disciplines, and UCalgary is championing the exciting integration of this evidence-based work across all of our campuses. The following are three (3) simple examples that highlight the breadth of health research.

First, the Integrated Concussion Research Program (ICRP) is a university-wide initiative to address the growing concerns about concussions in order to better the lives of those who have experienced these injuries and prevent concussion. The ICRP brings together faculty and trainees from the faculties of Arts and Kinesiology and the Cumming School of Medicine, along with the Schulich School of Engineering and faculties of Nursing and Science.

Second, Veterinary Medicine is leading the institutional *One Health* strategy, where research advances in areas such as anti-microbial resistance, zoonosis, and nutrition require extensive collaborative research with colleagues in Science, Engineering, Kinesiology, Arts, and Medicine.

Third, leveraging investments in the Centre for Health Informatics (CHI) will unlock the power of Alberta's internationally recognized data. In 2020-21, the CHI played a crucial role in synthesizing COVID-19 data for the City of Calgary and the province, producing a widely-used data tracker, which is updated with live data daily. The tracker, located at covid-tracker.chi-csm.ca, includes data on case counts, testing, transmission, wastewater monitoring, and vaccine outcomes.

The knowledge translation resulting from these collaborations affects human health, agricultural production, environmental sustainability, as well as quality of life for urban and rural communities. In short, we have managed to combine our emphasis on excellence in individual scholarship with the ability to bring together students and faculty from many disciplines to create a powerful research enterprise that is solving important problems.

Our research is yielding progressive and novel facets for urban design that will help to build healthy communities across Alberta and beyond. Newly-funded SSHRC research projects lead by our scholars will address pressing social problems, including access to municipal services for individuals with disabilities, and the impact of open data in smart (wired, digital) cities.

To help keep communities healthy, UCalgary researchers responded rapidly to COVID-19, pivoting their research programs to address the unprecedented challenges of the pandemic. Across our institution, over 100 COVID-19-related projects have been funded by external funders, to a total of over \$16M. We are well-positioned to help mitigate the spread of SARS-CoV-2, while learning how we can effectively prepare for and respond to future outbreaks.

In 2020, Advancing Canadian Wastewater Assets (ACWA)'s physical infrastructure and intellectual capital were put to use to help Alberta Health Services and the City of Calgary establish mechanisms to identify COVID-19 infections in the population through detection of the virus in wastewater samples. The initiative received CIHR funding and as of fall 2021, geographically-targeted wastewater monitoring has been adopted in both Calgary and Edmonton to support Alberta Health's efforts to mitigate the spread of COVID-19.

We undertook recommissioning of our Biosafety Level 3 Lab during 2020, with final federal certification for operation being received in January 2021. This allowed us to research deadly pathogens and infectious diseases, including SARS-CoV-2. Our health researchers are drawn from almost every Faculty to tackle global challenges, develop new technologies that open up potential markets, and translate knowledge that creates new health policies and procedures. Exciting collaborations relating to health research are emerging from the implementation of the Indigenous Strategy for UCalgary. Our research improves the health of all Albertans, reduces the cost-of-service delivery, and helps to create a resilient society that respects cultural diversity.

Our Clinical, Health Services and Population Health platform strategy supports research to improve the health of Albertans via clinical research, research on health services and systems, and research on social, cultural, and environmental factors that affect the health of populations. This platform supports the knowledge translation of advances in health research from scholars across all Faculties. For example, the Participate in Research at UCalgary initiative enhances access to opportunities for Albertans to participate in clinical trials, health services research, and epidemiological studies, while increasing community awareness regarding the value of local research. Further, in partnership with UAlberta, the 2021 launch of REB Exchange, a province-wide tool to better coordinate ethics approvals for multi-site clinical research, is

already improving the administrative efficiency of undertaking vital clinical research in Alberta, providing ongoing health benefits for all Albertans.

This platform strategy also enables collaboration on clinical research initiatives with Alberta Health Services. For example, the Non-invasive Neurostimulation Network is informing provincial implementation of Transcranial Magnetic Stimulation therapy for treatment-resistant depression in adults, and several Brain and Mental Health researchers lead AHS Strategic Clinical Networks to ensure clinical care of Albertans is informed by the latest research. Key initiatives also include enhanced services to UCalgary investigators through the Clinical Research Unit, Clinical Research Fund funding support for UCalgary-led clinical trials, renovations to the Heritage Medical Research Clinic, and a refreshed certification and quality assurance program serving clinical trials from across campus.

The platform strategy supports and is supported by the complementary Integrated Management Plan to Accelerate Clinical Trials (IMPACT) initiative. IMPACT is a full-service program which gives inventors and biomedical scientists access to the expertise, advice, infrastructure and opportunities needed to translate their inventions into commercial products – including the design and execution of early phase clinical trials to demonstrate efficacy and safety. In its first 2 years of operation, IMPACT has engaged with nearly 100 companies, supported 7 full clinical trials, executed service agreements valued at over \$400k, and surpassed their income projections.

INNOVATION@UCALGARY: CULTURE CHANGE TO DRIVE IMPACT

Canadian universities play an instrumental role in developing innovation and research systems to support Canada's social, economic and cultural development. UCalgary is implementing a renewed innovation strategy, *Innovation@UCalgary* that links discovery, creativity, invention and entrepreneurship to solve local, national and global economic and social challenges. We are working with communities, government, industry and other post-secondary institutions to accelerate how we bridge the gap between discovery and innovation at our university and in our communities. The direct impacts associated with university innovation, knowledge engagement, translation and commercialization through various partnerships include job creation, venture creation, and research opportunities for faculty and technicians. Research activity also creates indirect economic impact through social and technical innovations that lead to new technologies, policy and industry sectors, and healthier societies. This recharges resources for future research and discovery. *Innovation@UCalgary* is positioning UCalgary as a leader in innovation and entrepreneurship. Research and innovation are part of the same organism, leading research universities lead the way in innovation and *Innovation@UCalgary* aims to place UCalgary in this select group of global institutions.

The Alberta economy is changing and diversifying. Calgary is on its way to becoming a truly entrepreneurial city. Peter Cohan, the author of *Startup Cities*, indicates there are six factors that are needed to support innovative and start-up communities: pillar companies, universities, human capital, investment capital, mentor networks and values. We possess all of these traits, and we now need to continuously advocate for an innovative culture and create strategic collaborative efforts throughout and beyond the university.

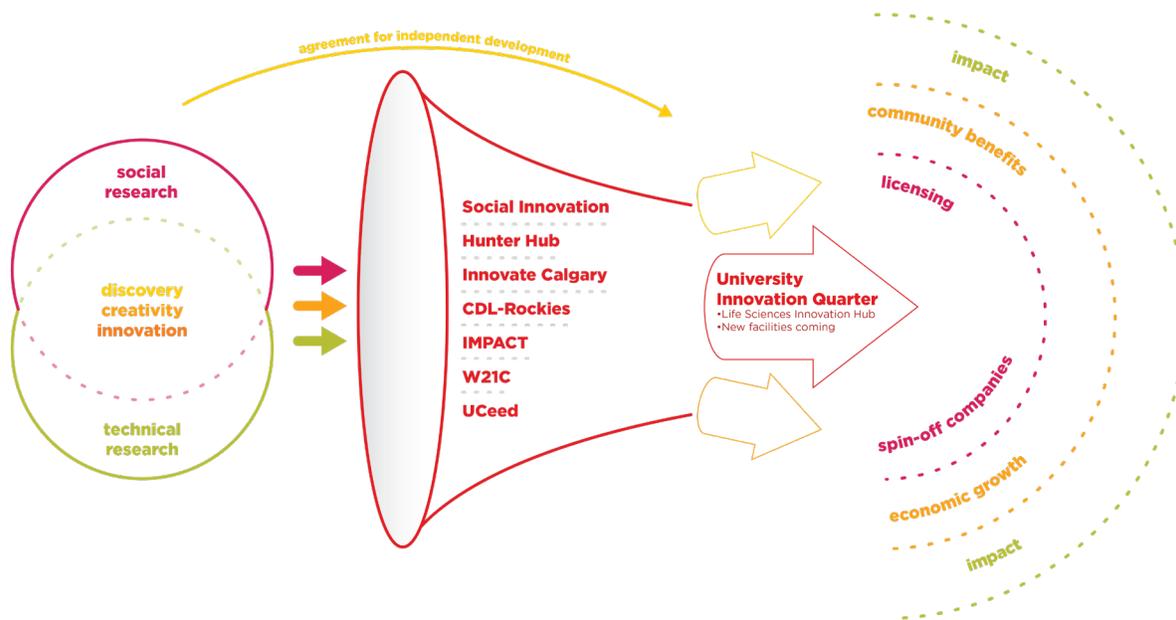
CULTURAL CHANGE

UCalgary has supported innovation for several decades, but in the last half-dozen years – and especially in the last three years – we have prioritized innovation and impact. We have dramatically improved links to the local innovation community and focused on resourcing via major philanthropic donations. Most Faculties now have active innovation programs, and the university has deployed several programs to increase innovation and entrepreneurial activity more broadly and in step with development of its research

base. The structure is in place, but to make significant increases, our university must make a cultural shift, which will be enabled through our expanding innovation infrastructure (e.g., Life Science Innovation Hub, Ward of the 21st Century) and encouraged through new programs and innovation units (e.g., Hunter Hub, CDL-Rockies).

We are setting goals to transform our innovation levels by 2030. To achieve this, we are building on the developments of the last decade as well as deploying a multi-path innovation model supported by the University Innovation Quarter and a wide variety of targeted support nodes and activities.

Innovation does not map well on to traditional structures such as faculties, but three broad domains of activity (Life, Biological, and Health Science; Science and Engineering; Arts, Social Science and Humanities) can be defined, with most innovation happening at the intersections, including cross-cutting activities covering aspects of Business, Law, and Policy. Our experience is that technical and social innovations can happen from any of the domains – data science innovation, for example, happening in the Arts faculty, and social innovations coming from science, medicine and engineering innovators.



The key components of our Innovation@UCalgary ecosystem are illustrated above and described in detail below, working from left to right in the figure:

Disciplinary domains: Discovery, creativity, and innovation are derived from intersections of individual, research group and Faculty interests. Faculty members lead **technical or social research** and educational programs and host the inventive and enterprising students and staff who drive our innovation enterprise. When a great idea emerges, the student or staff can pursue the path that makes the most sense to develop their idea beyond traditional structures, which leads into the innovation funnel at the core of the figure:

The Hunter Hub for Entrepreneurial Thinking (HH): HH is an interdisciplinary nucleus for activities that support student, postdoc and faculty innovation experiences, and expands a growing community of

entrepreneurs and innovators. It is a fundamental link for our campuses that enriches the student experience and empowers innovation and entrepreneurial thinking across our institution. The Hunter Hub is the front end of the innovation funnel that will ultimately attract, support and educate thousands of future innovators and entrepreneurs. The Hunter Hub generates hundreds of venture projects and teams that move naturally into the development environment of Innovate Calgary.

Entrepreneurship is about actions and intentions, while entrepreneurial thinking is about attitude and beliefs to navigate personal and professional endeavours. Entrepreneurial thinking is not a skill that people inherently possess, but a mindset that requires consistent practice to build a system of thinking that will help individuals navigate our increasingly complex world. We assist in developing that mindset through programming on campus that encourages our community to think experientially and interact with researchers, like-minded innovators and entrepreneurial thinkers.

Disruptive technologies such as AI and blockchain are entering society resulting in occupations and industries needing to adapt and evolve alongside a constantly shifting technological and social fabric disruption process. As a result, it is imperative to prepare students with relevant training to successfully adapt to a somewhat unpredictable global socio-economic and technological reality and provide us with the inventive steps and innovative solutions for what will be a very different world.

Innovate Calgary (IC) has operated as UCalgary's knowledge transfer and business incubation centre for 32 years, but has been re-invigorated in the last five years to become a transfer office fit for the 21st century, as reflected by the 110 percent increase in the average number of UCalgary-created start-ups over the last four years. It has new leadership, increased staff, and new approaches to flexible engagement and support of faculty and student technology assessment and commercialization. Since its inception, over 2,200 disclosures have been submitted resulting in 901 patents secured, 549 revenue-bearing agreements, and 158 UCalgary-based start-up companies created. Examples of companies created based on UCalgary research include: LivingWorks, Circle Cardiovascular, Carbon Engineering, Carbonova, EnviCore, Trusted Positioning, Parvus Therapeutics, Epimeron (now Willow Biosciences), Fluid Biotech, and Neuraura. Innovate Calgary currently works with 362 researchers and targets an annual growth of 20 percent. In addition to traditional industry liaison and technology transfer functions, two (2) key program areas have been put in place:

1. Talent development: By the end of 2021, thirty-six former UCalgary postdocs and graduate students will have been involved in fellowship programs. Each fellow has graduated from UCalgary and has formed their own company, based on a discovery from their research lab. Being an entrepreneur is now a career path for some of our brightest young people. Some of these companies have gone on to become a part of the broader Creative Destruction Lab (CDL) e.g. Carbonova and EnviCore and have raised significant venture capital funding.
2. Acceleration and incubation: Place and space are important. In November 2018, the province announced it was transferring the Research Park land, north of 32nd Avenue, to the University. Innovate Calgary is helping UCalgary develop and manage the innovation program in the University Research Park (URP). Starting with the Life Sciences Innovation Hub (LSI Hub), we are building places where young and growing companies can benefit from a sense of community.

To accomplish key programming, IC has the support of over 40 full-time professionals and over 50 expert advisors from around the world. Companies can access our expert advisors through membership (resident and non-resident) and are matched based on the company's need and level of expert experience they require. If extra support or guidance is needed, our list of preferred suppliers can support through partner rates. Our current members include companies like Ammolite BioModels, Fluid Biotech and Exergy Solutions.

In 2020, we launched **UCeed**, a pre-seed and seed funding program with over \$12M under management by Innovate Calgary. UCeed helps commercialize new technologies and innovations, and accelerates UCalgary and community start-up companies through early-stage investments. UCeed currently funds ventures in the fields of child and general health, with support from the Alberta Children's Hospital Foundation and the River Fund at Calgary Foundation; social impact, with support from the United Way of Calgary and Area; and student managed investments, with support from TD Canada Trust. UCeed is the largest philanthropic venture capital fund affiliated with a Canadian university.

Innovate Calgary has also established an Industry Liaison Office to help enable and facilitate research and innovation partnerships with industry, government, and non-governmental organizations.

CDL-Rockies: Since 2017, facilitated by Haskayne Business School, the University of Calgary hosts a franchise of the successful Creative Destruction Lab (CDL). In its first two years of operation, over 300 predominantly university grown tech ventures were assessed and 50 of them put to the CDL program for development. CDL-Rockies is a pillar in the commercialization of technology developed within universities. There are only seven CDL locations – five in Canada, one in New York, and one at Oxford, with Calgary acting as the sole host of the CDL Energy stream. UCalgary is proud to boast this innovative program made possible due to the enterprising community of supporters and mentors in Calgary. It taps into the experience of entrepreneurs who have founded, scaled and executed high-growth ventures by creating mentorship partnerships with select start-ups. In 2017, CDL-Rockies raised approximately \$14 million for the ventures in the program and 13 of the 26 companies graduated. Even greater levels of investment are expected in the current cohort. Students and faculty, seeing opportunities to be mentored by leading technology developers and investors, increased their innovation activities at the University of Calgary.

IMPACT and W21C (Ward of the 21st Century): Innovation in health research requires deep connection with the health care system and ventures outside of the university. IMPACT and W21C are but two examples of this type of activity. IMPACT (Integrated Management Platform to Accelerate Clinical Trials) is a unique approach to facilitate the planning, conduct and dissemination of clinical trials, helping external ventures to navigate the clinical trial and regulatory process, and minimizing common hurdles and barriers to success. IMPACT leverages the relationship between CDL and UCalgary, and draws upon existing infrastructure and units, such as W21C. W21C is a research and innovation initiative co-hosted by UCalgary and Alberta Health Services. With a mission to innovate, create, educate, and evolve to build new paradigms of health care delivery, W21C plays a major role in our innovation efforts in the health care sector. Projects and companies emerging from the central part of the Innovation@UCalgary funnel can flow into the broader Calgary corporate environment, or move to one of the accelerator spaces in our University Innovation Quarter (UIQ).

University Innovation Quarter (UIQ): In partnership with the Province of Alberta, we announced that the University Innovation Quarter (UIQ) would be developed north of the main campus. The revitalization of UIQ (formerly University Research Park) supports creation of a new innovation and research cluster at the University of Calgary to help drive innovation in the Calgary region. UIQ will provide the necessary resources to incubate innovations, cultivate talent, and apply academic learnings to create beneficial solutions for our community. The University's Life Sciences Innovation Hub (LSIH) was launched on the UIQ site in 2019, supported by investments at the municipal level from the Opportunity Calgary Investment Fund and from the federal level through Western Economic Development. In short, we are helping to create productive economic growth by attracting and producing new talent, by leveraging provincial funding with external funding sources (e.g., industry, municipal, federal, and international) to create new ideas, and working with our partners to create an environment where great ideas can attract the capital investments needed for them to grow and prosper.

UIQ will be a catalyst to grow employment opportunities. Over a 20-year period, it will support the creation of 6,300 direct new jobs, including 4,500 private sector jobs with the remaining comprised of technical staff for sponsored UCalgary research. Indirect employment impacts will generate an additional 5,700 jobs for a total of 12,000 jobs in Calgary by 2038. This space for companies and start-ups to interact and work alongside UCalgary students and researchers will cultivate high-quality talent, bring innovation to the forefront, and result in lasting impacts for our communities. In addition to the existing Life Sciences Innovation Hub (LSIH), hubs for science/engineering/energy and social innovation are in the design phase.

Social innovation: UCalgary is committed to driving innovation that has social impact and value. In 2019, we established the Knowledge Engagement (KE) Team, who build and maintain meaningful partnerships for research between UCalgary and community organizations. Their goal is to support these collaborative efforts to create knowledge with impact for the benefit of the community at large. Since 2019, the group has supported 30+ grant applications, arranged over 30 “matches” between researchers and community, and consulted with 80+ groups in need of support or advice on how to engage in KE activities.

In 2018, UCalgary became a founding member of the first Canadian Cohort of the Carnegie Classification on Community Engagement. The Carnegie Foundation Carnegie defines Community Engagement as the collaboration between institutions of higher education and their larger communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. To this end, we will be engaged over the next two years in a process of highlighting, supporting, and evaluating the many partnerships that are essential to our social innovation and impact.

Outputs: UCalgary contributes to our country’s global competitive advantage, driving socio-economic change and making the world a better place. Great ideas enter the Innovation@UCalgary ecosystem, and outputs emerge in the form of knowledge transfer, newly created ventures, technology licensing, direct community benefits, job creation, and economic growth.

VIRTUOUS CYCLE

The virtuous cycle of innovation is the chain of events that reinforce themselves through a feedback loop, which we support through the Innovation@UCalgary ecosystem. It has 5 key components:

1) Research excellence is important beyond the university – excellence attracts top faculty and students, which in turn creates impactful programs and companies, which contribute to the economic development of our city.

2) Innovation is part of the broad, inclusive spectrum of research at UCalgary that links discovery, invention, applied research and impactful creation and delivery of a solution or application to society. Solutions encompass a wide variety of forms, including but not limited to commercial applications. Entrepreneurship is crucial. Technology transfer bridges the difficult transition from discovery through to deployed solutions in society. In recent years, we have dedicated much effort to stimulate the virtuous cycle.

3) Research-intensive entrepreneurship programs are an important new component to this system. Programs supported by the Hunter Hub for Entrepreneurial Thinking give researchers the opportunity to develop their technology or social innovation, and potentially to build a new, sustainable company.



Today the world of business is a world of ideas and innovation – and our universities are places full of ideas and innovation. Fifty years ago, 80 percent of the value of the S&P500 was accounted for by tangible assets while today only 20 percent of the value is accounted for by tangible assets. Alphabet, Apple, and Amazon

are household names, but high-growth companies are starting every day – and many of these have their beginnings in a university. Calgary and UCalgary need to be leaders in this new world of business, creating **new funding models (4)** and paradigms through which we can share knowledge with our communities.

5) Company acceleration is the final piece in the cycle – UCalgary has built and continues to build the infrastructure and supports to enable new ventures to scale up and succeed.

Innovation@UCalgary will provide the framework for UCalgary to grow into a globally leading research and innovation university. We are enabling the components necessary to guide and support students, faculty, postdocs, staff and alumni through discovery, invention and venture development. To achieve this, we are:

- developing and promoting an innovation culture together with our community;
- transforming cultural models for research and teaching to enable innovation;
- developing an ethos of assessment, ambition and continuous development;
- actively developing innovative programs for women and minorities;
- embedding innovation support functions within research teams and across the campuses;
- building on-campus innovation spaces for students, postdocs and staff;
- organizing, resourcing and promoting major campus-wide innovation events;
- creating and supporting student innovation groups and student/postdoc pitch competitions;
- developing a cohort of entrepreneurial role models;
- integrating UCalgary innovation ecosystem into the Alberta Rainforest;
- delivering actual solutions and jobs through leadership and cultural change;
- leveraging Government support and creating UCalgary Innovation support fellowships and programs for faculty, postdocs, and graduate students; and
- not being afraid to change our culture and processes to succeed.

IDENTIFYING AND IMPLEMENTING PRIORITIES:

In the 2012-2017 Strategy Research Plan, the University of Calgary identified and implemented six strategic research themes in which we had significant capacity for transdisciplinary research and scholarship that would solve some of society's most demanding challenges. In our 2018-23 Research Plan, we introduced two additional themes to reflect how our expertise would best serve to solve challenges for our communities. Each of these eight themes received significant investment (~\$1 million for each theme) to mobilize, build new collaborations, and advance transformative research initiatives. These priority areas have increased research capacity, established new partnerships, and produced valuable outcomes.

In 2020, a new strategic vision, Growth through Focus, was introduced to meet the changing environment within which post-secondary institutions must thrive. Growth through Focus identifies three Big Ideas: Transdisciplinary Scholarship, Deeper Community Integration, and Future-focused Program Delivery. As the Growth through Focus plan is finalized and we move toward implementation, we expect exciting new initiatives, partnerships, opportunities, and outcomes will become possible.

Our 2012 Strategic Research Plan utilized national and international rankings of scholarship, faculty, students and staff to identify six strategic research themes where we have significant capacity across our 14 Faculties and where we have the ability to solve some of society's most demanding challenges.

Each theme identified grand challenges that our scholars wanted to solve through active collaborations. Solving these challenges typically involves contributions from highly diverse disciplines. Once the strategies were produced and presented to our General Faculties Council and Board of Governors, we invested \$1 million for each of the groups to build new collaborations, and to investigate opportunities with partners from other institutions and organizations in Alberta and abroad. Each area has established a confederation

of scholars to mobilize and integrate our research capacity, share facilities and equipment, and identify new scholars (students, trainees, and faculty) needed to build capacity. Five of the six themes each involve over 200 faculty members from multiple Faculties. The sixth theme (New Earth-Space Technologies) is slightly more focused, but it still engages more than 100 faculty from five Faculties.

Our 2018 Research Plan retained these six strategic priority themes and early in 2019 added two new emerging Research Themes: Child Health and Wellness and One Health. With approval and investment from the University and collaboration across multiple Faculties, these crosscutting emerging themes have been launched as exploratory initiatives, and we are already seeing growth in their levels of success and benefits to Alberta, e.g. as exemplified by our growing partnerships with the Alberta Children's Hospital Foundation in research and in innovation.

Finally, in 2021 we are launching Growth through Focus, with its pillar of Transdisciplinary Scholarship. Within this pillar, five areas of focus (Cities and communities; Democracy and Social Change; Digital Worlds, Energy Transformation; and Health and Life) will be created as Transdisciplinary Hubs to enable the university to tackle the most important of challenges, regardless of scale. Our existing eight themes will each integrate into these areas of focus, creating multiple nodes of academic and knowledge translation excellence.

SYSTEM LINKAGES:

We have also increased our research capacity through partnerships with local institutions, provincial and national programs, and international entities. There are too many of these partnerships to list here, so we provide a few examples that highlight our collaborations, leveraging, and anticipated impact.

In 2019, we were heavily engaged with researchers at our partner Alberta universities in strategic research areas made possible by the Provincial Major Innovation Fund initiative. This includes leading both the further development of Quantum Alberta through the *Quantum Technologies* grant and the *Antimicrobial Resistance – One Health Consortium* launch. UCalgary researchers will also participate in the *Centre for autonomous systems in strengthening future communities* initiative, lead out of our partner institution, the University of Alberta.

The LSIH, located in our UIQ, will form a cornerstone of our Innovation ecosystem. Launched in 2019, and enabled by funds from both Western Economic Development (\$3.125M) and the Opportunity Calgary Investment Fund (\$8.5M), the LSIH will provide programs to facilitate the flow from discovery to the marketplace in the Life Sciences sector.

UCalgary researchers are national leaders in understanding the avoidance, detection, and effects of youth concussion. Funded through a \$9,438,473 (USD) grant from the National Football League, UCalgary will lead a nationwide study entitled "Surveillance in High Schools to Reduce Concussions in Youth". This consortium brings together hospital and university expertise in the pursuit of making sports safer for our youth.

More than 10 years ago, we collaborated with The City of Calgary to create the Urban Alliance, a strategic relationship which matches research needs identified by the City with our scholars (faculty and students) to engage in collaborative projects, for the benefit of all Calgarians. There are many research projects currently underway that span the full range of questions faced by a major, rapidly growing urban centre. For example, we are working with the City to advance cutting-edge wastewater treatment technology to protect human and environmental health, to develop innovative ways to use City fibre infrastructure to detect real-time traffic movement, and to design new partnerships to address the need for affordable housing. We have major initiatives underway to tackle the diverse challenges and opportunities of Calgary as a smart city, and more broadly drive forward the Digital Innovations landscape in Alberta.

UCalgary is collaborating with the Government of Alberta, Alberta Health Services, Alberta Innovates UAlberta and ULeithbridge on the Alberta Precision Health Strategy. The strategy will position Alberta as a leader in precision health, including better prediction and early diagnosis of disease, advanced diagnostic testing and discovery of new treatments for disease that enable individualized therapy.

UCalgary is leading several pan-provincial initiatives to enable collaboration across Alberta institutions, such as Clinical Trials Alberta, the Clinical Trials Management System, and the REB Exchange – collaborative initiatives between the Government of Alberta, the University of Calgary, and the University of Alberta, designed to better enable and attract high-quality health research, positioning Alberta as a premier destination for clinical trials and health studies.

UCalgary, the University of Alberta, and Alberta Health Services-CancerControl are collaborating on a major initiative to jointly select and implement a clinical trial management system (CTMS). The CTMS platform will significantly enhance the clinical trial infrastructure in Alberta, allowing for the optimized management of the 1,800 clinical trials that are being conducted in the province. The CTMS will reduce the administrative burden for researchers, improve budgeting and financial management, and enable central reporting of clinical trial activity. Ensuring that the CTMS is integrated with the future provincial electronic medical record system (ConnectCare) will provide greater patient safety and improve subject recruitment.

At the national level, we have helped to transition Carbon Management Canada from a Network Centre of Excellence (NCE) to Carbon Management Research Institutes – a small number of national research institutes focused on reducing greenhouse gas emissions and building a low carbon economy. UCalgary hosts the first of these institutes, the Containment and Monitoring Institute (CaMI). CaMI is located in southeastern Alberta, near Brooks, and is led by UCalgary researchers, but draws together academic and industrial researchers and entrepreneurs from across Canada and internationally. It is a major field site where new technologies can be explored for carbon sequestration and the efficient monitoring and auditing of injected CO₂, as well as fugitive methane emissions and control. It will help the Province of Alberta deliver on its goal of being a leader in environmental stewardship for the natural resource sector. CaMI is funded by generous grants from the Government of Canada and industry, with new research funds coming from Norway, the United Kingdom, and the United States.

10. Regional Stewardship, Foundational Learning, Underrepresented Learners

Highlighted within this section are activities supporting foundational learners, Indigenous learners, learners with disabilities, rural learners, and learners from low-income backgrounds. Progress is also being reported towards specific initiatives that supported the creation of strong networks with community partners to enhance access and pathways for learning.

REACHING OUT TO UNDERREPRESENTED LEARNERS

UNDERREPRESENTED LEARNER RECRUITMENT

The University of Calgary is committed to ensuring that qualified students from all groups in our diverse community find an intellectual home on campus. We have turned this commitment into action, focusing our efforts related to accessibility on attracting, preparing and retaining students from underrepresented populations throughout Alberta. We recognize the need to monitor the composition of the student body to ensure diversity, but also to put in place the appropriate support services to allow the students who come to our campus to succeed. The university is investing significant resources in turning these commitments into reality. The following sections highlight key programs in place to serve underrepresented learners across Alberta.

Enhanced Student Recruitment

As we have expanded our recruitment efforts, we have paid special attention to groups and communities that, in the past, have been less likely to attend university. These include students living outside major metropolitan areas, Indigenous students, mature students, and students from families with lower incomes or who attend high schools with lower rates of participation in post-secondary education. We added a community liaison advisor position to connect directly with local community associations, cultural organizations and social support service agencies to assist newcomers and students from lower socio-economic backgrounds who want to attend UCalgary. This position assists students from pre-application through to the first day of classes.

Increased Focus on Indigenous Recruitment

We launched our Indigenous Strategy, *ii'taa'poh'to'p*, in November 2017. This strategy commits to “establishing a welcoming, inclusive, and culturally competent campus community that respects, includes, and promotes Indigenous ways of knowing, teaching, learning, and research. In fulfilling this commitment, the university is looking at ways to improve our outreach to Indigenous learners.” We built a dedicated outreach program to attract more Indigenous students to campus. This includes a dedicated Indigenous recruitment officer whose focus is to build relationships and support students in the Treaty 7 region and across the province, and establish more personal connections with Indigenous students and their communities. A key recruitment event is Indigenous U where the University of Calgary hosts local, Indigenous students on-campus to learn about the advantages of studying at the University of Calgary, and learn about the specific supports and services available for Indigenous students.

In addition, the Cumming School of Medicine offers the Aboriginal Health Program (AHP) to encourage, advocate and enhance Indigenous programming, specifically recruitment, retention, community involvement as well as curricular activities. Faculties at the University of Calgary are in the process of developing their own Indigenous strategies and there are many faculty-level initiatives aimed at recruiting

and supporting Indigenous learners. Funding from the Province of Alberta has also assisted Indigenous students in reducing financial barriers to pursuing undergraduate or graduate education.

At the graduate level, SAGE UCalgary (Supporting Aboriginal Graduate Enhancement) strives to support and nurture the recruitment, retention and completion of Indigenous graduate students. This program aims to ensure graduates students have safe spaces to share their experiences with their peers, mentors, and campus community and to develop their professional, academic, and personal skills. The group organizes events such as the Indigenous Students Writing Café designed to support Indigenous students' success with grants and awards.

Underrepresented Learner Recruitment

The University of Calgary has expanded its recruitment initiatives to attract students from a variety of backgrounds into programs where they have been under-represented. This includes first generation students, newcomers to Canada, refugees and rural and remote students. Our recruitment initiatives include events to connect to groups that may have less knowledge of the opportunities for study at the University of Calgary through school and community organizations. To support these groups, our Continuing Education division offers ESL training and programming directed towards newcomers and successful transition to life in Canada.

In an effort to increase access to underrepresented learners, UCalgary has developed pathways programs for students with non-traditional backgrounds. The Cumming School of Medicine launched a *Pathways to Medicine* program to support and mentor students from low-income families, rural areas, non-traditional backgrounds and Indigenous communities to consider a career in medicine. In the Werklund School of Education, the Bridge to Teaching program provides students from rural and remote communities as well as Indigenous learners with a pathway to enter the bachelor of education degree. In the Schulich School of Engineering, the Biology pathway to Engineering is designed to increase access for women and other underrepresented learners who are more likely to have taken Biology 30 in high school rather than the standard Physics 30 requirement. Across the University of Calgary, there is an awareness of the importance of extensive outreach campaigns with the goal of diversifying our student population.

The University of Calgary strives to create a pathway to higher education for all students, including students with disabilities. Student Accessibility Services works collaboratively and innovatively with the campus community to create an accessible, equitable and supportive learning and living environment that enhances each student's academic and personal development.

Expanded Pathways for Students

The University of Calgary is a partner in Alberta Education's dual-credit program, which provides an additional learner pathway to post-secondary studies for high school students, allowing them to earn high school and university credits simultaneously. The dual-credit program serves both high achieving high school students, but also under represented learners who may otherwise be unlikely to apply to the University of Calgary. Dual credit courses provide a supportive environment for students to take a university-level course alongside their peers and explore a learning pathway prior to graduation.

Continuing Education Focus on Underrepresented Learners

To address research needs within the healthcare sector, Continuing Education's collaboration with the *Patient and Community Engagement Research (PaCER)* program, within the O'Brien Institute for Public Health, explores innovative ways to engage patients and communities in healthcare, planning and research. In this program, participatory-grounded theory research methods are taught to patients and community members in remote communities, which enable them to conduct peer research with groups of patients

under the guidance of a PaCER mentor. The audiences served by this program include non-traditional, Indigenous and marginalized learners.

Given the low representation of Indigenous peoples in STEM faculties and professions, Continuing Education is delivering a *“Power to Choose”* program. By collaborating with University of Calgary faculties up to 60 Indigenous children and youth participate in a week-long camp (youth stay overnight on campus) exploring Science, Technology, Engineering and Math (STEM) disciplines that are often not available in their home communities. The mission of the *“Power to Choose”* summer camp program is to empower Indigenous youth with the power of choice in their jobs and life by engaging Indigenous children and youth in STEM disciplines from a young age.

STUDENT SUPPORT FOR UNDERREPRESENTED LEARNERS

Student Success Centre

As important as attracting students from all backgrounds to our campus are, our efforts to ensure their success is our utmost priority. Through the Student Success Centre, learning support is provided in a variety of areas, including writing, mathematics, exam preparation, and study skills to help students achieve their academic goals. The Student Success Centre fosters a culture of success that enables students to realize their full potential. While the university has many supports that are offered to students who reach out for help, we also take a pro-active approach to identifying and supporting students who are academically at risk through our Thrive Priority Support Network. The Thrive program aims to connect undergraduate students in need of support to the right campus resources at the earliest possible moment.

The Academic Turnaround Program (ATP) is a program of dedicated support that allows students who have been required to withdraw for failure to progress academically to remain in the university under special academic probation. Each year 450-500 students participate in the program, which represents approximately 51 percent (average over the last three years) of students required to withdraw. Of those participating in the program, the average success rates are around 63 percent after one year, and of those 84 percent will typically go on to graduate. The program is an important retention strategy and provides additional supports to those who struggle in their first year of university.

Student Supports and Inclusive Post-secondary Education

Student Accessibility Services facilitates an accessible learning environment for students with disabilities including temporary impairments and permanent disabilities. Students are supported in order to identify reasonable academic accommodations for their academic pursuits. Supports include access to an accommodated Exam Centre (one of the largest exam centres for students with disabilities in Canada), a dedicated access advisor and learning strategist. In addition, the Nat Christie Adaptive Technology Centre is available where students can be trained on, and make use of, a range of assistive and adaptive hardware and software options – and a quiet study area.

The Inclusive Post-Secondary Education (IPSE) program at the University of Calgary supports individuals who have developmental disabilities access an authentic university experience. Students are included in both the academic and social life at the University of Calgary and St Mary’s University in Calgary. During the spring and summer months, IPSE supports students in building their resumes through meaningful volunteer work, competitive paid employment opportunities and personal development activities. The program is funded, in part, by the Government of Alberta.

The University of Calgary strives to be a welcoming community where all people live, learn, work, and thrive, including inclusivity for neuro-diverse people. The University is working on initiatives including

becoming a neurodiverse, supportive post-secondary education campus; building employment capacity on and off-campus; and nurturing independent living and quality of life.

Indigenous Student Access Program

Each year, around 30 Indigenous students participate in this cohort-based, transition-year access program that provides an opportunity for Indigenous students who are not yet fully admissible to faculties to take university-level credit courses designed to improve academic success and gain access to faculty-based programs. The program consists of first-year university classes, as well as supports such as advising, cultural support, peer support, and tutorials.

Indigenous Careers Advisor

The University of Calgary recruited a dedicated career advisor for Indigenous students. The advisor assists students with their successful transition into the workplace and provides advice to employers on hiring and supporting Indigenous students in employment.

Native Ambassador Post-Secondary Initiative

The Native Ambassador Post-Secondary Initiative (NAPI) Program is designed for Indigenous youth, ages 13-24. It consists of two main streams: Educational Outreach and Youth Leadership Training. Both avenues provide educational information, motivation and inspiration that will encourage youth to make informed decisions, develop a vision for their future, and contribute positively to their community. The goal is to develop leadership skills, build self-awareness, offer knowledge, and encourage Indigenous youth to pursue post-secondary education.

Writing Symbols Lodge

The University of Calgary's Writing Symbols Lodge welcomes, respects, and supports the rich diversity of Indigenous learners, their communities, cultural traditions, and aspirations in post-secondary education. It provides a culturally appropriate environment that encourages and supports the success of Indigenous students in their studies through academic, personal and cultural support services and programs. The Writing Symbols Lodge assists Indigenous students with program advising, registration, post-secondary sponsorship information, volunteerism, employment, and personalized support and referrals. It also offers community-based programs and cultural events that engage the campus and the greater Indigenous community.

Q Centre

The Students' Union's Centre for Sexual & Gender Diversity (Q Centre) is a safe, comfortable and inviting space for the LGBTQA+ community at the University of Calgary. Featuring a library and peer support services, the program coordinators and volunteers plan events and direct clients to relevant resources. The Q Centre's Queer Mentoring initiative strives to provide sexual and gender minority undergraduate students with opportunities to empower themselves by pairing them with established, queer-identified role models.

Faith and Spirituality

The University of Calgary embraces the growing diversity in its faculty, students and staff and is committed to creating a safe, inclusive, healthy and respectful campus culture — one that values diversity and the dignity of every person and is grounded in equity and inclusivity. The Faith & Spirituality Centre seeks to cultivate a pluralistic community by encouraging cultural and religious literacy, community building, and social change as an integral part of the student experience. It continues to expand faith-based supports with chaplains representing Muslim (Shi'a, Sunni, Ahmadiyya), Buddhist (Pureland) Christian (Anglican,

Baptist, Catholic, Christian Reformed, Lutheran, Orthodox, Pentecostal, United/Presbyterian), Hindu, Jewish (Chabad), Sikh and Baha'i faiths.

The Vitruvian Space provides dedicated space to our community for religious observance and spiritual well-being. Ablution stations are integrated in the space as well as specialized venting mechanisms to allow for sacred practices such as smudging. The Kaleidoscope Project, a week-long immersive program, promotes spiritual and religious growth and learning among students through exploring religious and cultural diversity in Calgary. A related continuing education course entitled "Building Religious & Cultural Inclusion in the Workplace" was developed and has begun to attract a diverse group of campus professionals and members of the Calgary community. A new program for students, Intersections in Diversity, focuses on intersectionality and anti-oppression by immersion in the history and experiences of marginalized groups in Canada through meaningful dialogue and collaboration.

COMMUNITY INITIATIVES AND REGIONAL STEWARDSHIP

ACADEMIC PROGRAMS IN THE COMMUNITY AND REGION

The University of Calgary has always been a strong Campus Alberta partner and we pride ourselves on strong relationships with our post-secondary colleagues across the province. We provide some illustrative examples of various types of partnerships below.

UCalgary's Faculty of Social Work has served students across the province for many years. From campuses in Calgary, Edmonton and Lethbridge, the Faculty has been a leader through delivery of its innovative Learning Circles program on-site in rural and remote Alberta communities. Increasingly, through its online Virtual Learning Circles program, learners remain in their home communities to complete their degree. In partnership with the University of Alberta, the University of Calgary has a reciprocal space exchange on each campus. The Faculty of Social Work offers its program in Edmonton on the University of Alberta campus, while our Downtown Campus in Calgary hosts the University of Alberta's programs in Rehabilitation Medicine. This allows students in the two cities access to specialized programs in their home communities and eliminates potential duplication while also reducing costs to both institutions.

UCalgary's Energy Engineering program is designed as a pathway for graduates of approved energy technology diploma programs such as the program offered at SAIT. It provides a seamless transition to a University of Calgary engineering degree that can be completed with an additional two years of study. Graduates hold both an engineering technology diploma and an engineering degree. The Energy Engineering pathway addresses the energy industry's need for engineering graduates who bring a unique mix of technology and engineering science skills and knowledge to the workplace.

In fall 2015, the Werklund School of Education, with support from the Ministry of Advanced Education, introduced a new Bachelor of Education stream designed for Albertans in rural and remote areas. This innovative program allows students to remain in their communities for the majority of the program while taking advantage of strong transfer agreements that the University of Calgary has with its Campus Alberta partners. The program not only allows students outside major urban centers to obtain an education degree but also greatly increases the odds that these students will become the teachers of tomorrow in rural and remote communities across Alberta. A newly approved bridging program to this community-based four-year Bachelor of Education program will provide students who do not meet the subject requirement for English 30-1 or do not have a competitive average for admission the opportunity to upgrade. This new initiative was designed to assist Indigenous learners whose rural high schools do not offer English 30-1.

The University of Calgary has strong partnerships with both Red Deer University and Medicine Hat College ensuring that learners across Alberta have access to one or more University of Calgary degree programs in

their home communities. The Red Deer University partnership allows students to transfer up to two years of college credit. It also allows them to obtain either a Bachelor of Arts degree in Psychology and Sociology or a Bachelor of Science degree in Psychology by completing the required University of Calgary courses offered entirely on site at Red Deer University, keeping students and graduates in their home communities. Courses are taught by faculty from both institutions.

The Bachelor of Nursing program at Medicine Hat College is a four-year partnership program offered entirely on site at Medicine Hat College, allowing students in Medicine Hat and surrounding areas access to a baccalaureate nursing program without having to relocate. By opening the doors to degree programs across Alberta, the University of Calgary is serving labour market needs across the province by increasing the likelihood of learners remaining in their home communities following graduation.

The University of Calgary is a champion of co-curricular service learning involving mutually beneficial collaborations between students and community organizations to meet real, defined community needs. Our *ucalgarycares* program consists of a series of co-curricular service-learning programs for University of Calgary students who seek to get involved with communities at the local, national or international levels. One of the aims is to enhance civic consciousness and provide help to community organizations that need support, such as the Calgary Food Bank, Alpha House, and The Mustard Seed. The *ucalgarycares* Indigenous Leadership and Engagement program is a collaborative service-learning program that takes place at the Kluane First Nations community in southern Yukon. The program engages both Indigenous and non-Indigenous students in learning that focuses on social justice, reciprocity, Indigenous ways of knowing, and cross-cultural awareness. Volunteer activities in the community include building sustainable greenhouses, a local fishing derby, working at a build site for a local housing complex, and assisting researchers at the Arctic Institute of North America.

CONTINUING EDUCATION AND COMMUNITY NEEDS

University of Calgary Continuing Education is actively engaged in serving and collaborating with local communities to address mutually identified learning needs to address the upskilling and reskilling needs of Calgarians. University of Calgary Continuing Education and Calgary-based RoboGarden Inc. have partnered to address identified skills shortages both locally and beyond by developing short-cycle, technical skills development programming for adult learners through a unique cloud-hosted, gamified, Artificial Intelligence e-Learning platform.

University of Calgary Continuing Education collaborated with Calgary Economic Development, SAIT, Bow Valley College, ICTC Canada, and Riipen to create the EDGE UP (Energy to Digital Growth Education and Upskilling Project). Funded by Future Skills Centre, EDGE UP is a short-term skills development program for mid-career Oil and Gas professionals who have been displaced from the Oil and Gas sector in Calgary. The project aims to help former employees of the Oil and Gas sector gain employment in Calgary's high-demand, high-growth digital technology opportunities across all industries.

For the past two years, Continuing Education and University of Calgary Career Services are collaborating to deliver a federally funded program called Digital Skills for Youth (DS4Y) in Calgary and across the Prairie Provinces. Recent graduates who are unemployed or underemployed are eligible to enrol in fully funded Continuing Education courses, choosing from nine different pathways to fulfil any gaps in their digital skillset, thus putting them on the road to a robust career. Employers post a job through Career Services, in a field that requires digital skills and provide a six-month internship to the employee. This initiative is part of the Government of Canada's Youth Employment Strategy.

Continuing Education houses a well developed Corporate Training team. Corporate Training partners with businesses, not-for-profit organizations, and municipal, provincial and federal government agencies to

identify organizational learning needs, design learning plans and deliver training – tailored for their unique organizational requirements.

Continuing Education offers members of the public the opportunity to connect and engage with University of Calgary researchers through OneDay@UCalgary. In these unique and affordable one-day classes, University of Calgary academics bring compelling and timely topics to life. Sample topics include The Great Melt: Geopolitics and the Changing Arctic, Everything you need to know about Canadian Politics, Philosophy of Money, and the Art of the Northern Renaissance and the Dutch Golden Age. In 2019-20, individual course enrolments in our continuing education programs totaled 22,101.

KNOWLEDGE ENGAGEMENT

The University of Calgary emphasizes community connection and enhanced learner outcomes through our research activities. As a research-intensive university, the University of Calgary is committed to knowledge engagement, a term used to encompass knowledge translation, knowledge mobilization and community-engaged scholarship. Knowledge engagement is a process that brings together diverse groups—post-secondary institutions, corporations, community organizations, health and social service providers, academics, policy and decision makers, government and the public—to address mutually identified problems. It is a dynamic and reciprocal process that creates, synthesizes and applies knowledge and evidence to benefit our communities. Our extensive research community collaborates with local, provincial, national, and global stakeholders, enabling knowledge exchange and the co-creation of new knowledge. Some university-community knowledge engagement projects are designed to enable students to contribute to developing solutions to identified problems in the community and thus enhance their experience as students and future leaders in our communities.

For example, the Urban Alliance is a community-based research platform and research partnership between the City of Calgary and the University of Calgary. This partnership has led to the establishment of research chairs, attracted significant new research funding, and facilitated more than 120 research projects involving over 100 researchers, students and practitioners.

A long-standing research partnership is ACWA (Advancing Canadian Wastewater Assets) that involves scientists and students working side-by-side with municipal wastewater operators to solve environmental water problems within a full-scale municipal wastewater treatment plant. With 3.8 kilometers of naturalized streams, scientific experts in ecology, biology, toxicology, microbiology, process engineering, medicine and public health – along with municipalities and industrial partners – are working to ensure clean and affordable drinking water for the planet.

makeCalgary is a community-based research platform led by the School of Architecture, Planning and Landscape. Each academic year, makeCalgary identifies a research challenge for collaborative exploration to design elements of a resilient, healthy, vibrant, and equitable city. This initiative provides our students with practical, hands-on experience dealing with real community issues and provides valuable resources and support to the community.

The University's Knowledge Engagement Implementation Committee (KEIC) has put forward a set of concrete recommendations that will support current knowledge engagement initiatives, inspire future initiatives and provide the University of Calgary with strategies for coordinating knowledge engagement work across campus and in our communities. More specifically, the recommended actions aim to increase opportunities for networking and collaboration among researchers, students and members of the community and provide supports for identifying problems, prioritizing them, assessing solutions, articulating the results in ways that ensure that they can affect change in the communities we serve. KEIC recommendations also support priority aims of developing ways to measure the impact of knowledge

engagement and enhancing recognition of knowledge engagement work. KEIC sees value in communicating to the University and the broader community how knowledge engagement work enhances the academic enterprise. Ultimately, knowledge engagement is aimed at creating impact – one of the central value propositions that guide our current academic and research plans.

COMMUNITY PARTNERSHIPS

Universities help build and support the environment that leads to socio-economic and cultural development. Our community engagement plan includes five key objectives: position the University of Calgary as a city builder through strategic partnerships with other community anchor institutions; position the university as a thought leader in the community by sharing and translating knowledge while enabling public discourse; amplify University of Calgary community engagement activities and celebrate their impact; lead and support service activities across the campus; and develop the University of Calgary as a center of excellence for community engagement.

The university actively engages with community anchor organizations, including cultural and civic partners like Calgary Economic Development (CED), Calgary Stampede, Calgary Pride and Calgary Public Library (CPL). We also actively engage with our neighbours through the South Shaganappi Area Strategic Planning Group (SSASPG), a committee of communities surrounding both the university's Main Campus and Foothills Medical Campus. Our faculties and other units also lead a tremendous amount of community engagement activity with key partners.

The University of Calgary collaborates with partners on key community events and initiatives. For example, our relationship with the Calgary Stampede has matured into a mutually beneficial partnership in recent years. In addition to hosting Stampede events on campus and participating in Stampede events in the community, our animal science specialists at the Faculty of Veterinary Medicine provide critical advice and innovative research to support advanced animal care practices at the Stampede. Our historians and experts in the Faculty of Arts have literally written a book on the Calgary Stampede. They offer an interdisciplinary course on the culture of the Calgary Stampede. Together with the Calgary Stampede, the university hosts the award-winning Campfire Chats on National Indigenous Peoples Day, featuring, dancing, drumming and storytelling from community leaders and Traditional Knowledge Keepers from the Treaty 7 region of southern Alberta.

Libraries and Cultural Resources (LCR) has a longstanding tradition of making our library and archival collections open to the community for research and study as well as collaborating with community organizations to share archival collections. Recently, the University and the Glenbow Museum announced the creation of the *Glenbow Western Research Centre* (GWRC) and the move of the Glenbow library and archives collections to LCR. This initiative not only aligns Glenbow's collections with teaching, learning and research at the university but it means that the Glenbow collections will continue to flourish and grow over time and that students, researchers, and the entire community will have improved access to these important collections.

In addition, LCR collaborates with The Military Museums (TMM), by providing library and archive services as well as rotating art exhibits in the *Founders Gallery* to complement the archives, galleries and activities at the TMM. The University of Calgary Press engages the Calgary community when it publishes scholarly monographs and edited collections, as well as works of original poetry and fiction. Because the Press is a leading Open Access publisher, it has more than 100 titles available for free download by the community.

We are a Connector level partner of CED's Team Calgary, a corporate partnership program that engages Calgary's visionary thought leaders to help the city build on its energy and shape tomorrow's Calgary. In addition to senior leadership engagement with CED, the university was actively engaged in the

development of CED's strategy titled *Calgary in the New Economy*. CED has also invested in the relationship with the university and is a key player on community-wide initiatives. Their growing support facilitates the university's strategic engagement with Calgary's business and civic leaders.

Community partnerships are a key element embedded into many of academic programs. The programs and opportunities within faculties are numerous, for example, in our Haskayne School of Business, students enrolled in MGST 715 – Strategic Business Analysis undertake projects for small and large businesses, start-ups, not-for-profit, government and other organizations as part of a field experience. In the Faculty of Law, students are given the opportunity to practice their legal skills for the benefit of the community. Through a partnership with Innovate Calgary, free legal services are provided to entrepreneurs. The Faculty also has a public interest law clinic, a Student Legal Assistance clinic, a Taxpayer Assistance Program and an environmental law clinical program where experiential learning opportunities supplement what is happening in the classroom.

Our students are also actively involved in service projects in the community, some of which involve both research and help for those in need. The Scholars Academy has a very active Cohort Service Project that gives each member the chance to be part of a community-based project. Recent collaborations include work with the Kids Cancer Care Foundation, Calgary Reads, and the Office of Sustainability. The Graduate College, with its 60 Graduate Scholars, has engaged in outreach activities with a number of community organizations, working with youth in the Syrian refugee community to give them a connection to the University, and engaging with Beakerhead, a community organization that promotes creativity and science. They also reached out to the community to host conversations about a range of issues, including the merits of an Olympic bid, the impact of screens on children's development, and low carbon futures. These conversations included almost 2,000 community members.

The University of Calgary supports community agencies like the United Way of Calgary and Area – raising \$780,511 for the 2020 United Way campaign, a new record for the university. Since 2011, the university community has raised \$6.0 million for the United Way. The benefit of this investment is that every dollar stays in the local area, providing funds for programs that have profound impact on people's lives.

University of Calgary Senators are connectors between the university and our community in part through initiatives such as Lecture of a Lifetime and Chancellor's Club that highlight our faculty, researchers and students to the community. We also have an active connection to our community through our network of over 180,000 alumni. One of our unique advantages is that approximately two-thirds of our alumni live and work in the Calgary area. Lifelong learners, seekers of new knowledge and innovation, and thought leaders in their respective disciplines, they have become meaningful contributors and active citizens, locally and globally. We continue to strengthen our connection to this important part of our community to achieve our vision and create mutual benefit. We are growing and maintaining an active alumni network, and establishing a stronger and more recognizable alumni profile in order to build our community together.

The University of Calgary has been building its presence in the community over the past years, making it easier for members of the public and interest groups to connect, to experience and learn about the broad spectrum of initiatives and events that the University of Calgary has to offer.

The downtown campus offers meeting and conference space and attracts corporate and business leaders as well as providing governmental and post-secondary venues. The School of Public Policy is located in the downtown campus, as is the Haskayne School of Business executive MBA program, and our alumni engagement team.

The University of Calgary's newly established City Building Design Lab (CB Design Lab) is located in the former downtown Central Library Building. CB Design Lab is a first-of-its-kind-in-Canada research initiative that employs entrepreneurial and design thinking to help redefine the future of city building. CB Design Lab

brings together major players within the construction industry (consultants, contractors, owners, developers, municipal and provincial government, and civil society) to work with academic researchers and students to develop practical innovations in planning, design, construction, and operational management that will make cities more resilient, equitable, vibrant, prosperous, and healthy.

In 2017, the University of Calgary's Haskayne School of Business became a new site for the Creative Destruction Lab (CDL), called the CDL-Rockies. The CDL is a unique milestone-based mentoring and financing program for science-based companies that helps commercialize early stage technology ventures. In 2018, a new CDL-Rockies cohort was launched focusing on start-ups in areas such as energy, infrastructure, digital oil and gas, power generation, bioenergy and energy efficiency. By 2019, 16 graduates in the Prime and Energy streams raised \$23 million for their companies. Additionally, new corporate partners such as Canadian Natural Resources Limited and Suncor came on board in November 2019 as the next cohort of ventures began their journey through the program.

Over the next years, we will become increasingly connected to industry and non-profit partners with our focus on work-integrated learning. Work-integrated learning is the process through which students come to learn from experiences in educational and practice settings. It includes the kinds of curriculum and pedagogical practices that can assist, provide, and effectively integrate learning experiences in both settings. Our goal is that by 2024-25, 100 percent of University of Calgary students will graduate with two experiential experiences. This goal will require increased connectivity with our community partners.

MEASURING IMPACT

The University of Calgary is committed to maximizing, evaluating and measuring its community impact. Since 2014, Community Engagement has used an evaluation matrix based on the REAP (Reciprocity, Externalities, Access and Partnership) self-assessment model founded at University of Bradford in England. The model was extensively studied and it is based on four key principles of community engagement activity:

- Principle of reciprocity: There is a two-way flow of knowledge, information and benefits between the university and its partners in community engagement activities;
- Principle of externalities: There are benefits created by community engagement activities that extend beyond benefits created specifically for the partners. These contribute to building social trust and networks that both contribute to building a learning and knowledge-based society and create social and cultural value for broader society;
- Principle of access: Community partners have a right to use university facilities and resources, as opposed to receiving a one-off provision of goods or services; and
- Principle of partnership: Partnerships deepen and develop through the extended reciprocity and improved access. They are an output and outcome of CE activities, which should eventually also become key inputs to improving and enhancing those activities.

These principles provided a foundation for a decision and evaluation matrix that reflects the University of Calgary's strategic focus on community engagement. The matrix incorporates a series of qualitative metrics in order to assess community engagement activities against our plans and strategic priorities. Each qualitative impact indicator is assessed on a scale of one to five, where one represents low impact, three is moderate impact, and five is high impact. A weighted average formula calculates a total score that indicates measurable impact for each community engagement activity. This measure is complemented with quantitative metrics such as attendance and social media impact to derive a broad assessment of the impact of our community engagement activities. The matrix serves as both a decision making and evaluation tool to identify and measure community engagement activities.

NATIONAL AND INTERNATIONAL NETWORKS

The University of Calgary is a founding member of Community First: Impacts of Community Engagement (CFICE) and Community-Campus Engage Canada (CCEC), emerging national networks and communities of practice focused on strengthening Canadian communities by increasing the capacity, infrastructure and impact of equitable community-campus partnerships of all types, including student experiential learning, community-engaged research, and social innovation.

UCalgary is also a founding member of the Carnegie Community Engagement Classification Canadian Pilot Cohort. The Carnegie Foundation's Classification for Community Engagement is an elective classification and has been the leading framework for institutional assessment and recognition of community engagement in US higher education for the past 13 years. Carnegie defines Community Engagement as the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity. The goals of community engagement are built on this definition; they include strong partnerships between post-secondary institutions and the public and private sectors to enrich scholarship, research, and creative activity; enhance curriculum, teaching, and learning; prepare educated, engaged citizens; strengthen democratic values and civic responsibility; address critical societal issues; and contribute to the public good.

The elective classification involves data collection and documentation of important aspects of institutional mission, identity and commitments in the areas of community engaged scholarship and learning and requires substantial effort invested by participating institutions. A Canadian Pilot Cohort has been convened to explore the Classification and consider how it might support community engagement in the Canadian context. Like other founding members of this cohort, the University of Calgary is committed to co-creating and sustaining our campus as a hub for our communities—contributing to educational achievement, community engagement, and economic activity. Our institution sees value in strengthening inter-organizational relationships and participating in a learning community of like-minded institutions to share successful practices and approaches to civic and community engagement and in implementing institution-wide measurements and evaluation methods of community engagement.

11. Transnational Education

This section reports programs delivered by the University of Calgary in off-shore locations. The requirement to prepare this report is outlined in the Government of Alberta’s [Transnational Education Guidelines](#). Described within these guidelines is the requirement that UCalgary identify ministry-approved programs delivered in countries other than Canada. To be included, these programs must require students to be involved the delivery of credit courses leading to an Alberta credential or to joint/dual credentials with international partners. Relevant data for this report was obtained from the provincial Learner and Enrolment Reporting System (LERS).

At the University of Calgary, we offer credit programs in off-shore locations as part of our international strategy. This activity promotes capacity building, fosters mobility and the international experience of students and staff, generates revenue, extends educational access, and extends our research collaborations. Our off-shore program activity is also aligned with the key priority areas of [Alberta’s International Education Strategy](#), which are global talent attraction, smart and sustainable growth, and international skills needed to succeed. Off-shore activity also encourages collaborations as a means of promoting Alberta economic and social development and international co-operation. Shown in the following table is a summary of our transnational education activity in 2020-21 followed by a brief description of these programs.

Table 6 – 2020-21 transnational education

Name of Program	Type of Credential	Program Mode of Delivery	Name of Partner Institution	Country	Students Participants (2020-21)	Number of Graduates / Completers
International Energy Lawyer’s Program	JD	In person; International Campus	University of Houston	United States	1	-
Qatar Nursing Program	Bachelor and Master of Nursing	In person; International Campus	State of Qatar	Qatar	527	83
Public Health	PhD	In person; International Campus	Catholic University of Health and Allied Sciences	Tanzania	14 PhD	-
Global Research Initiative in Energy	Various	In person; International Campus	Various (see narrative)	China Mexico Middle East	Various	-

International Energy Lawyer’s Program (IELP) partnership

Established in 2012, the IELP is a joint Juris Doctor (JD) program with the University of Houston that allows students to earn both Canadian and American law degrees in four years. Upon program completion, students may apply for admission to the bar in both Canada and the US, and, with skills and knowledge in energy law, are highly employable across North America. In addition to the regular degree studies, the IELP is structured to facilitate internships in the energy industry.

Qatar Nursing program

In 2007, the University of Calgary entered into an agreement with the State of Qatar to establish a nursing school in Qatar (UCQ). In January 2018, the university and the State renewed the agreement for five more years. UCQ offers both Bachelor of Nursing and Master of Nursing degrees with students coming

predominantly from the Gulf Region. The agreement also allows students from the Calgary campus to undertake a practicum in Doha. This agreement is completely funded by the State of Qatar. Over the next four years, given the impact of the global oil and gas crisis and the COVID-19 pandemic, we anticipate that the enrolment in our Qatar programs will remain between 450-550 students.

Public Health – Mwanza, Tanzania

The Cumming School of Medicine has collaborated with the Catholic University of Health and Allied Sciences (CUHAS) to create and deliver a Master of Public Health degree in Mwanza, Tanzania. This work is one component of a multifaceted partnership that includes research activities, medical electives and research field training for University of Calgary students. An innovative PhD training program will provide an opportunity for graduates to enroll at the University of Calgary with research focused on issues of importance in Tanzania. To date, the University of Calgary has had seven PhD students from CUHAS pursue studies at our institution. The goal is to build joint University of Calgary and Tanzanian research teams and to strengthen the global health research capacity in both institutions.

Global Research Initiative in Energy

The University of Calgary is leading a Global Research Initiative (GRI) for unconventional oil and gas as part of our Energy Research Strategy. The GRI initiative aimed to establish three world-leading research and education sites in China, Mexico, and the Middle East in partnership with governments, industry and educational institutions. The first GRI Site was established in Beijing, China in October 2014 through a partnership with a major Chinese oil and gas company – the Kerui Group. Working with the training arm of Kerui – the Victor Institute of Petroleum Training – the University of Calgary is offering training programs related to energy and the environment. In collaboration with several Mexican universities and research institutes, the University of Calgary is working on 21 projects that will aid energy reforms in Mexico. The University of Calgary has also secured a partnership with Technion – the Israel Institute for Technology – to leverage the University of Calgary’s world-class capacity in chemistry and chemical engineering. Supported in part by the Canada First Research Excellence Fund, the University of Calgary and Technion facilitated technical workshops and interactions among researchers, created opportunities for co-supervision of graduate students and postdoctoral fellows, and established a visiting program for scholars to work together on joint projects.

12. Appendices

AUDITED FINANCIAL STATEMENTS



UNIVERSITY OF CALGARY

Consolidated Financial Statements

For the Year Ended
March 31, 2021

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STATEMENT OF MANAGEMENT RESPONSIBILITY



The consolidated financial statements of the University of Calgary ("the University") have been prepared by management in accordance with Canadian public sector accounting standards as described in note 2 to the consolidated financial statements. The consolidated financial statements present fairly the financial position of the University as at March 31, 2021 and the results of its operations, remeasurement gains and losses, changes in net financial assets and cash flows for the year then ended.

In fulfilling its responsibilities and recognizing the limits inherent in all systems, management has developed and maintains a system of internal control designed to provide reasonable assurance that University's assets are safeguarded from loss and that the accounting records are a reliable basis for the preparation of the consolidated financial statements.

The Board of Governors is responsible for reviewing and approving the consolidated financial statements, and overseeing management's performance of its financial reporting responsibilities.

The Board of Governors carries out its responsibility for review of the consolidated financial statements principally through its Audit Committee. With the exception of the President, all members of the Audit Committee are not employees of the University. The Audit Committee meets with management and the external auditors and internal auditors to discuss the results of audit examinations and financial reporting matters. The external and internal auditors have full access to the Audit Committee, with and without the presence of management.

These consolidated financial statements have been reported on by the Auditor General of Alberta, the auditor appointed under the *Post-secondary Learning Act*. The Independent Auditor's Report outlines the scope of the audit and provides the audit opinion on the fairness of presentation of the information in the consolidated financial statements.

[Originally signed by Ed McCauley]
President & Vice-Chancellor

[Originally signed by Linda Dalgetty]
Vice-President, Finance and Services

Independent Auditor's Report

To the Board of Governors of the University of Calgary

Report on the Consolidated Financial Statements

Opinion

I have audited the consolidated financial statements of the University of Calgary (the Group), which comprise the consolidated statement of financial position as at March 31, 2021, and the consolidated statements of operations, change in net financial assets, remeasurement gains and losses, and cash flow for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In my opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2021, and the results of its operations, its remeasurement gains and losses, its changes in net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for opinion

I conducted my audit in accordance with Canadian generally accepted auditing standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of my report. I am independent of the Group in accordance with the ethical requirements that are relevant to my audit of the consolidated financial statements in Canada, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Other information

Management is responsible for the other information. The other information comprises the information included in the *Annual Report*, but does not include the consolidated financial statements and my auditor's report thereon. The *Annual Report* is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated financial statements does not cover the other information and I do not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated financial statements, my responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work I will perform on this other information, I conclude that there is a material misstatement of this other information, I am required to communicate the matter to those charged with governance.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless an intention exists to liquidate or to cease operations, or there is no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

My objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

[Original signed by W. Doug Wylie FCPA, FCMA, ICD.D]
Auditor General

May 28, 2021
Edmonton, Alberta

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT MARCH 31, 2021
(in thousands)



	2021	2020
Financial assets excluding portfolio investments restricted for endowments		
Cash	\$ 252,955	\$ 128,199
Portfolio investments - non-endowment (Note 3)	927,068	930,274
Accounts receivable	104,627	103,506
Inventories held for sale	6,359	6,587
Investment in government business enterprise (Note 5)	(4,688)	(172)
	\$ 1,286,321	\$ 1,168,394
Liabilities		
Accounts payable and accrued liabilities	\$ 202,471	\$ 198,145
Employee future benefit liabilities (Note 7)	108,941	100,401
Debt (Note 8)	148,026	154,038
Deferred revenue (Note 9)	681,591	569,659
	\$ 1,141,029	\$ 1,022,243
Net financial assets excluding portfolio investments restricted for endowments	\$ 145,292	\$ 146,151
Portfolio investments - restricted for endowments (Note 3)	\$ 1,119,998	\$ 915,957
Net financial assets	\$ 1,265,290	\$ 1,062,108
Non-financial assets		
Prepaid expenses	\$ 14,921	\$ 14,248
Tangible capital assets (Note 6)	2,104,718	2,092,010
	\$ 2,119,639	\$ 2,106,258
Net assets before spent deferred capital contributions	\$ 3,384,929	\$ 3,168,366
Spent deferred capital contributions (Note 10)	\$ 1,446,920	\$ 1,450,438
Net assets (Note 11)	\$ 1,938,009	\$ 1,717,928
Net assets is comprised of:		
Accumulated surplus	\$ 1,701,513	\$ 1,696,157
Accumulated remeasurement gains	236,496	21,771
	\$ 1,938,009	\$ 1,717,928

Contingent assets and contractual rights (Note 12 and 14)

Contingent liabilities and contractual obligations (Note 13 and 15)

Approved by the Board of Governors:

[Originally signed by Geeta Sankappanaver]
Chair, Board of Governors

[Originally signed by Elaine Wong]
Chair, Audit Committee

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

CONSOLIDATED STATEMENT OF OPERATIONS
YEAR ENDED MARCH 31, 2021
(in thousands)



	2021 Budget (Note 16)	2021	2020
Revenue			
Government of Alberta grants (Note 21)	\$ 634,916	\$ 627,917	\$ 652,363
Federal and other government grants (Note 21)	177,916	194,316	186,965
Sales of services and products	118,359	76,636	129,712
Student tuition and fees	268,155	269,638	255,876
Donations and other grants	163,831	147,778	179,642
Investment income (Note 17)	60,258	81,424	63,750
Investment income (loss) from government business enterprise (Note 5)	5,203	(4,516)	3,599
	\$ 1,428,638	\$ 1,393,193	\$ 1,471,907
Expense			
Academic costs and institutional support	\$ 886,697	\$ 829,563	\$ 886,290
Research	360,310	404,738	422,007
Special purpose and trust	71,019	70,109	73,333
Facilities operations and maintenance	68,985	68,932	77,320
Ancillary services	41,627	29,926	42,798
	\$ 1,428,638	\$ 1,403,268	\$ 1,501,748
Annual operating deficit	\$ -	\$ (10,075)	\$ (29,841)
Endowment contributions		15,431	14,257
Endowment capitalized investment income (Note 17)		-	-
Endowment contributions and capitalized investment income		\$ 15,431	\$ 14,257
Annual surplus (deficit)		\$ 5,356	\$ (15,584)
Accumulated surplus, beginning of year		1,696,157	1,711,741
Accumulated surplus, end of year (Note 11)		\$ 1,701,513	\$ 1,696,157

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

CONSOLIDATED STATEMENT OF CHANGE IN NET FINANCIAL ASSETS
YEAR ENDED MARCH 31, 2021
(in thousands)



	2021 Budget (Note 16)	2021	2020
Annual surplus (deficit)	\$ -	\$ 5,356	\$ (15,584)
Acquisition of tangible capital assets	(192,124)	(160,451)	(216,415)
Proceeds from sale of tangible capital assets	-	90	240
Amortization of tangible capital assets	146,598	147,727	140,053
(Gain) loss on disposal of tangible capital assets	-	(74)	4,298
Change in prepaid expenses		(673)	(6,328)
Change in spent deferred capital contributions		(3,518)	46,701
Change in accumulated remeasurement gains		214,725	(93,191)
Increase (decrease) in net financial assets	\$	203,182	\$ (140,226)
Net financial assets, beginning of year		\$ 1,062,108	\$ 1,202,334
Net financial assets, end of year		\$ 1,265,290	\$ 1,062,108

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

CONSOLIDATED STATEMENT OF REMEASUREMENT GAINS AND LOSSES
YEAR ENDED MARCH 31, 2021
(in thousands)



	2021	2020
Accumulated remeasurement gains, beginning of year	\$ 21,771	\$ 114,962
Unrealized gains (losses) attributable to:		
Foreign exchange	(397)	(302)
Quoted in active market financial instruments		
Portfolio investments - non-endowments	-	-
Portfolio investments - restricted for endowments	1,265	(486)
Designated fair value financial instruments		
Portfolio investments - non-endowments	31,584	(5,017)
Portfolio investments - restricted for endowments	206,684	(81,120)
Utility price hedges	1,353	-
Amounts reclassified to consolidated statement of operations:		
Foreign exchange	302	264
Quoted in active market financial instruments		
Portfolio investments - non-endowments	-	-
Portfolio investments - restricted for endowments	(47)	10
Designated fair value financial instruments		
Portfolio investments - non-endowments	(8,060)	(3,756)
Portfolio investments - restricted for endowments	(17,959)	(2,784)
Utility price hedges	-	-
Change in accumulated remeasurement gains	\$ 214,725	\$ (93,191)
Accumulated remeasurement gains, end of year (Note 11)	\$ 236,496	\$ 21,771
Accumulated remeasurement gains (losses) is comprised of:		
Foreign exchange	\$ (397)	\$ (302)
Portfolio investments - non-endowments	20,394	(3,130)
Portfolio investments - restricted for endowments	215,146	25,203
Utility price hedges	1,353	-
	\$ 236,496	\$ 21,771

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

**CONSOLIDATED STATEMENT OF CASH FLOW
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



	2021	2020
Operating transactions		
Annual surplus (deficit)	\$ 5,356	\$ (15,584)
Add (deduct) non-cash items:		
Amortization of tangible capital assets	147,727	140,053
Gain on sale of portfolio investments	(17,960)	(6,530)
(Gain) loss on sale of tangible capital assets	(74)	4,298
Capital gifts in kind received	(20)	(840)
Expended capital contributions recognized as revenue	(95,052)	(94,126)
Change in investment in government business enterprises	4,516	(3,599)
Increase in employee future benefit liabilities	8,540	2,675
Change in non-cash items	\$ 47,677	\$ 41,931
Decrease (Increase) in accounts receivable, less change in utility price hedges	232	(2,200)
Increase in prepaid expenses	(673)	(6,328)
Decrease (increase) in inventories held for sale	228	(550)
Increase in accounts payable and accrued liabilities	4,326	15,736
Increase in deferred revenue	111,932	28,836
Cash provided by operating transactions	\$ 169,078	\$ 61,841
Capital transactions		
Acquisition of tangible capital assets less gift in kind	\$ (158,194)	\$ (211,842)
Proceeds on sale of tangible capital assets	90	240
Cash applied to capital transactions	\$ (158,104)	\$ (211,602)
Investing transactions		
Purchases of portfolio investments	\$ (128,638)	\$ (23,961)
Proceeds on sale of portfolio investments	159,135	23,710
Cash provided by (applied to) investing transactions	\$ 30,497	\$ (251)
Financing transactions		
Debt - repayment	\$ (6,082)	\$ (5,854)
Debt - new financing	70	1,214
Increase in spent deferred capital, less expended capital recognized as revenue, less in-kind donations	89,297	137,094
Cash provided by financing transactions	\$ 83,285	\$ 132,454
Increase (decrease) in cash	\$ 124,756	\$ (17,558)
Cash, beginning of year	\$ 128,199	\$ 145,757
Cash, end of year	\$ 252,955	\$ 128,199

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

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



1. Authority and purpose

The Governors of the University of Calgary is a corporation that manages and operates the University of Calgary (“the University”) under the *Post-secondary Learning Act* (Alberta). All members of the Board of Governors are appointed by either the Lieutenant Governor in Council or the Minister of Advanced Education, with the exception of the Chancellor and President, who are *ex officio* members. Under the *Post-secondary Learning Act*, the University is a comprehensive academic and research university offering undergraduate and graduate degree programs as well as a full range of continuing education programs and activities. The University is a registered charity, and under section 149 of the *Income Tax Act* (Canada), is exempt from the payment of income tax. This tax exemption does not extend to its wholly-owned subsidiaries, University Technologies Group, University of Calgary Properties Group Ltd. (previously named West Campus Development Corporation), University District Trust (previously named West Campus Development Trust), and University Innovation Quarter Trust.

2. Summary of significant accounting policies and reporting practices

(a) General – Canadian Public Sector Accounting Standards and use of estimates

These consolidated financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards (“PSAS”).

The measurement of certain assets and liabilities, revenues and expenses are contingent upon future events; therefore, the preparation of these consolidated financial statements requires the use of estimates, which may vary from actual results. Management uses judgment to determine such estimates. Amortization of tangible capital assets, recognition of deferred revenue related to restricted grants and donations, determining the fair value of in-kind donations, and employee future benefit liabilities are the most significant items based on estimates. In management’s opinion, the resulting estimates are within reasonable limits of materiality and are in accordance with the significant accounting policies summarized below. These significant accounting policies are presented to assist the reader in evaluating these consolidated financial statements and, together with the following notes, should be considered an integral part of the consolidated financial statements.

(b) Valuation of financial assets and liabilities

The University’s financial assets and liabilities are measured as follows:

Financial statement component	Measurement
Cash	Cost
Portfolio investments	Fair value
Inventories held for sale	Lower of cost or net realizable value
Accounts receivable	Lower of cost or net recoverable value
Utility price hedge	Fair value
Accounts payable and accrued liabilities	Cost
Debt	Amortized cost

Unrealized gains and losses from changes in the fair value of financial assets and liabilities are recognized in the consolidated statement of remeasurement gains and losses. When the restricted nature of a financial instrument and any related changes in fair value create a liability, unrealized gains and losses are recognized as deferred revenue.

All financial assets are tested annually for impairment. When financial assets are impaired, impairment losses are recorded in the consolidated statement of operations. A write-down of a portfolio investment to reflect a loss in value that is other than temporary is not reversed for a subsequent increase in value.

For financial assets and liabilities measured using amortized cost, the effective interest rate method is used to determine interest revenue or expense. Transaction costs are a component of cost for financial instruments measured using cost or amortized cost. Transaction costs are expensed for financial instruments measured at fair value. Investment management fees are expensed as incurred. The purchase and sale of portfolio investments are accounted for using trade-date accounting.

2. Summary of significant accounting policies and reporting practices (Continued)

(b) Valuation of financial assets and liabilities (Continued)

The University does not use foreign currency contracts or any other type of derivative financial instruments for trading or speculative purposes. The University uses utility price hedges to reduce exposure to fluctuations in utility prices. Utility price hedges are initially recognized at fair value on inception and are subsequently measured at fair value. Fair value is calculated comparing the contracted hedge prices to the wholesale forward market for comparative time periods.

Management evaluates contractual obligations for the existence of embedded derivatives and elects to either designate the entire contract for fair value measurement or separately measure the value of the derivative component when characteristics of the derivative are not closely related to the economic characteristics and risks of the contract itself. Contracts to buy or sell non-financial items for the University's normal purchase, sale or usage requirements are not recognized as financial assets or liabilities. The University does not have any embedded derivatives.

(c) Revenue recognition

All revenue is reported on the accrual basis of accounting. Cash received for which goods or services have not been provided is recognized as deferred revenue.

Government grants, non-government grants and donations

Government transfers are referred to as government grants.

Restricted grants and donations are recognized as deferred revenue if the terms for use, or the terms along with the University's actions and communications as to the use, create a liability. These grants and donations are recognized as revenue as the terms are met. If the grants and donations are used to acquire or construct tangible capital assets, revenue will be recognized over the useful life of the tangible capital asset.

Government grants without terms for the use of the grant are recognized as revenue when the University is eligible to receive the funds. Unrestricted non-government grants and donations are recognized as revenue in the year received or in the year the funds are committed to the University if the amount can be reasonably estimated and collection is reasonably assured.

In-kind donations of services, materials, and tangible capital assets are recognized at fair value when such value can reasonably be determined. Transfers of tangible capital assets from related parties are recorded at the carrying value.

Grants and donations related to land

Grants and donations for the purchase of land are recognized as deferred revenue when received and recognized as revenue when the land is purchased. An in-kind grant or donation of land is recognized as revenue at the fair value of the land when a fair value can be reasonably determined. When the fair value cannot reasonably be determined, the in-kind grant or donation is recorded at nominal value.

Investment income

Investment income includes dividends, interest income, and realized gains or losses on the sale of portfolio investments. Unrealized gains and losses on investments from unrestricted grants, unrestricted donations, and endowments are recognized in the accumulated remeasurement gains and losses until settlement. Once realized, these gains and losses are recognized as revenue or expense in the consolidated statement of operations. Investment income from restricted grants and donations is recognized as deferred revenue when the terms for use create a liability, and is recognized as revenue in the consolidated statement of operations when the terms of the grants or donations are met.

Realized investment income allocated to endowment balances for the preservation of endowment capital purchasing power is recognized in the statement of operations as a component of endowment contributions and capitalized investment income.

2. Summary of significant accounting policies and reporting practices (Continued)

(c) Revenue recognition (Continued)

Endowment contributions

Endowment contributions consist of externally restricted donations received by the University and internal allocations by the University's Board of Governors, the principal of which is required to be maintained intact in perpetuity.

Investment income earned on endowments must be used in accordance with the various purposes established by the donors or the Board of Governors. Benefactors as well as University's policy stipulate that the economic value of the endowments must be protected by limiting the amount of income that may be expended and reinvesting unexpended income.

Under the *Post-secondary Learning Act*, the University has the authority to alter the terms and conditions of endowments to enable:

- income earned by the endowment to be withheld from distribution to avoid fluctuations in the amounts distributed and generally to regulate the distribution of income earned by the endowment.
- encroachment on the capital of the endowment to avoid fluctuations in the amounts distributed and generally to regulate the distribution of income earned by the endowment if, in the opinion of the Board of Governors, the encroachment benefits the University and does not impair the long-term value of the fund.

In any year, if the investment income earned on endowments is insufficient to fund the spending allocation, the spending allocation is funded from the cumulative capitalized investment income. However, for individual endowment funds without sufficient cumulative capitalized income, endowment principal is used in that year. This amount is expected to be recovered by future investment income.

Endowment contributions and associated investment income allocated for the preservation of endowment capital purchasing power are recognized in the Consolidated Statement of Operations in the period in which they are received.

(d) Inventories held for sale

Inventories held for sale is valued at the lower of cost and expected net realizable value and is determined using the weighted average method.

(e) Tangible capital assets

Tangible capital assets are recorded at cost, which include amounts that are directly related to the acquisition, design, construction, development, improvement or betterment of the asset, and costs associated with asset retirement obligations. Cost includes overhead directly attributable to construction and development, as well as interest costs that are directly attributable to the acquisition or construction of the asset. Work-in-progress, which includes facilities and improvement projects and development of information systems, is not amortized until after the project is complete and the asset is in service. Assets or disposal groups that are classified as held-for-sale are measured at the lower of carrying amount and fair value less costs to sell.

Leases of tangible capital assets which transfer substantially all the benefits and risks of ownership are accounted for as leased tangible capital assets. Capital lease liabilities are recognized at the present value of the future minimum lease payments at the inception of the lease, excluding executor costs. The discount rate used to determine the present value of the lease payments is the lower of the University's rate for incremental borrowing or the interest rate implicit in the lease.

The cost, less residual value, of the tangible capital assets, excluding land, is amortized on a straight line basis over their estimated useful lives as follows:

Buildings	20-40 years
Furnishings, equipment and systems	3-10 years
Learning resources	10 years

2. Summary of significant accounting policies and reporting practices (Continued)

(e) Tangible capital assets (Continued)

Tangible capital asset write-downs are recorded when conditions indicate they no longer contribute to the University's ability to provide services, or when the value of future economic benefits associated with the capital assets are less than their net book value. The net write-downs are recognized as expense in the consolidated statement of operations. Intangible assets, works of art, historical treasures and collections are expensed when acquired and not recognized as tangible capital assets because a reasonable estimate of the future benefits associated with such property cannot be made.

(f) Foreign currency translation

Transaction amounts denominated in foreign currencies are translated into their Canadian dollar equivalents at exchange rates prevailing at the transaction dates. Carrying values of monetary assets and liabilities and non-monetary items included in the fair value category reflect the exchange rates at the consolidated statement of financial position date. Unrealized foreign exchange gains and losses are recognized in the consolidated statement of remeasurement gains and losses.

In the period of settlement, foreign exchange gains and losses are reclassified to the consolidated statement of operations, and the cumulative amount of remeasurement gains and losses is reversed in the consolidated statement of remeasurement gains and losses.

(g) Employee future benefits

Pension

The University participates with other employers in the Universities Academic Pension Plan (UAPP) and the Public Service Pension Plan (PSPP). These pension plans are multi-employer defined benefit pension plans that provide pensions for the University's participating employees based on years of service and earnings.

Pension expense for the UAPP is actuarially determined using the projected benefit method prorated on service and is allocated to each participant based on their respective percentage of pensionable earnings. Actuarial gains or losses on the accrued benefit obligation are amortized over the expected average remaining service life.

The University does not have sufficient plan information on the PSPP to follow the standards for defined benefit accounting, and therefore follows the standards for defined contribution accounting. Accordingly, pension expense recorded for the PSPP is comprised of employer contributions to the plan that are required for its employees during the year, which are calculated based on actuarially predetermined amounts that are expected to provide the plan's future benefits.

Long term disability (LTD)

The cost of providing non-vesting and non-accumulating employee future benefits for compensated absences under the University's long-term disability plans is charged to expense in full when the event occurs which obligates the University to provide the benefits. The cost of these benefits is actuarially determined using the accumulated benefit method, a market interest rate and administration's best estimate of the retirement ages of employees, expected health care costs and the period of employee disability. Actuarial gains or losses on the accrued benefit obligation are amortized over the average expected period the benefits will be paid.

Supplementary retirement plan (SRP)

The expense for the defined benefit SRP is actuarially determined using the projected benefit method prorated on service. Actuarial gains or losses on the accrued benefit obligation are amortized over the expected service lifetime for each plan participant.

2. Summary of significant accounting policies and reporting practices (Continued)

(h) Investment in government nonprofit organization, other government organization, and partnerships

The consolidated financial statements reflect the assets, liabilities, revenues, and expenses of organizations which are controlled by the University. The following organizations are consolidated in these financial statements. Inter-organizational transactions, balances and activities have been eliminated upon consolidation.

- Arctic Institute of North America, a nonprofit organization controlled by the University, operates under the authority of the Act of the Federal Parliament (910 George VI, Chapter 45) to initiate, encourage and support northern research and to advance the study of arctic conditions.
- University Technologies Group, a group of entities operating to facilitate the transfer of intellectual property from the University to private business, thereby commercializing the scientific innovations of University researchers.
- University of Calgary Properties Group Ltd. ("UCPG"), is the sole trustee of University District Trust and University Innovation Quarter Trust.
- University Innovation Quarter Trust ("UIQT"), a trust created to operate, manage, and develop University Innovation Quarter lands (previously named University Research Park) to support an innovation ecosystem on behalf of the University.

Proportionate consolidation is used to record the University's share of the following partnerships:

- Tri-University Meson Facility (7.14% interest) - a joint venture with thirteen other universities to operate a subatomic physics research facility.
- Western Canadian Universities Marine Sciences Society (20% interest) - a partnership with five other universities to provide research infrastructure in the marine sciences for its member universities and the worldwide scientific community.

All partnership inter-entity accounts and transactions between these organizations are eliminated upon consolidation. These partnerships are not material to the University's consolidated financial statements; therefore, separate condensed financial information is not presented.

(i) Investment in government business enterprise

Government business enterprises (GBE), owned or controlled by the University but not dependent on the University for their continuing operations, are included in the consolidated financial statements using the modified equity method. Under the modified equity method, the accounting policies of the GBE are not adjusted to conform to those of the University. Thus, the University's investment in the entity is recorded at acquisition cost and is increased for the proportionate share of post acquisition earnings and decreased by post acquisition losses and distributions received. The University's wholly-owned entity accounted for by the modified equity basis is University District Trust (previously named West Campus Development Trust).

(j) Funds and reserves

Certain amounts, as approved by the Board of Governors, are set aside in accumulated surplus for future operating and capital purposes. Transfers to / from funds and reserves are an adjustment to the respective fund when approved.

(k) Liability for Contaminated Sites

Contaminated sites are a result of contamination of a chemical, organic or radioactive material or live organism that exceeds an environmental standard, being introduced into soil, water or sediment. Contaminated sites occur when an environmental standard exists and contamination exceeds the environmental standard.

Contaminated sites in productive use

A liability for remediation of contaminated sites from an operation(s) that is in productive use is recognized net of any expected recoveries when all of the following criteria are met:

- University has a duty or responsibility to others, leaving little or no discretion to avoid the obligation;

2. **Summary of significant accounting policies and reporting practices (Continued)**

(k) Liability for Contaminated Sites (Continued)

- the duty or responsibility to others entails settlement by future transfer or use of assets, or a provision of services at a specified or determinable date, or on demand; and
- the transaction or events obligating the University have already occurred.

Contaminated sites no longer in productive use

A liability for remediation of contaminated sites from an operation(s) no longer in productive use, and/or an unexpected event occurs resulting in contamination, is recognized net of any expected recoveries when all of the following criteria are met:

- University is directly responsible or accepts responsibility;
- it is expected that future economic benefits will be given up; and
- a reasonable estimate of the amount can be made.

(l) Expense by Function

The University uses the following function categories on its consolidated statement of operations:

Academic costs and institutional support

Academic costs and institutional support includes expenses relating to activities directly and indirectly supporting innovative learning, programming, and teaching as well as administration and governance functions of the University.

Research

Research expenses relate primarily to activity funded by externally sponsored research funds intended for specific research purposes as well as internal funds designated for research related spending.

Special purpose and trust

Special purpose and trust is comprised of expenses relating to externally restricted funding for non-research related activities including scholarships and community service.

Facilities operations and maintenance

Facilities operations and maintenance function includes centralized management and maintenance of grounds and facilities, and buildings. Examples include utilities, facilities administration, building maintenance, custodial services, landscaping and grounds keeping, and major repairs and renovations.

Ancillary services

Ancillary expenses relate to secondary services available to students, faculty, and staff. Services include on campus residence, food services, university bookstores, Hotel Alma, parking, and conference services.

(m) Future accounting changes

In August 2018, the Public Sector Accounting Board (PSAB) issued PS 3280 Asset retirement obligations. This accounting standard has been deferred by PSAB, and is effective for fiscal years starting on or after April 1, 2022. Asset retirement obligations provides guidance on how to account for and report a liability for retirement of a tangible capital asset. In November 2018, the PSAB approved PS 3400 Revenue. This accounting standard has been deferred by PSAB, and is effective for fiscal years starting on or after April 1, 2023. Revenue provides guidance on how to account for and report on revenue, specifically addressing revenue arising from exchange transactions and unilateral transactions.

In November 2020, PSAB issued PSG-8 Purchased intangibles. This accounting guideline is effective for fiscal years starting on or after April 1, 2023. Purchased intangibles provides guidance on how to account for intangibles.

Management has not yet adopted these standards, and is currently assessing the impact of these new standards on the consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



3. Portfolio investments

	2021	2020
Portfolio investments - non-endowment	\$ 927,068	\$ 930,274
Portfolio investments - restricted for endowments	1,119,998	915,957
	\$ 2,047,066	\$ 1,846,231

The composition of portfolio investments measured at fair value is as follows:

	2021			
	Level 1	Level 2	Level 3	Total
Portfolio investments at fair value:				
Bonds				
Canadian government and corporate	\$ -	\$ 545,367	\$ -	\$ 545,367
Foreign government and corporate	-	17,421	-	17,421
Pooled investments funds	-	99,284	-	99,284
Equities				
Canadian equities	2,988	-	-	2,988
Foreign equities	2,635	-	-	2,635
Pooled investments funds	-	937,751	-	937,751
Other				
Cash and money market funds	39,598	-	-	39,598
Guaranteed investment certificate (GICs)	-	3,096	-	3,096
Pooled canadian mortgages	-	306,493	-	306,493
Pooled hedge funds	-	70,353	-	70,353
Private equity	-	-	10,020	10,020
Infrastructure	-	-	12,060	12,060
	\$ 45,221	\$ 1,979,765	\$ 22,080	\$ 2,047,066

	2020			
	Level 1	Level 2	Level 3	Total
Portfolio investments at fair value:				
Bonds				
Canadian government and corporate	\$ -	\$ 570,115	\$ -	\$ 570,115
Foreign government and corporate	-	34,725	-	34,725
Pooled investments funds	-	97,717	-	97,717
Equities				
Canadian equities	2,303	-	-	2,303
Foreign equities	1,510	-	-	1,510
Pooled investments funds	-	724,388	-	724,388
Other				
Cash and money market funds	22,366	-	-	22,366
Guaranteed investment certificate (GICs)	-	2,565	-	2,565
Pooled canadian mortgages	-	288,182	-	288,182
Pooled hedge funds	-	99,058	-	99,058
Private equity	-	-	3,302	3,302
	\$ 26,179	\$ 1,816,750	\$ 3,302	\$ 1,846,231

The above tables provide an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into levels 1 to 3 based on the degree to which the fair value is observable:

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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3. Portfolio investments (Continued)

Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets.

Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the assets, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3 fair value measurements are those derived from valuation techniques that include inputs for the assets that are not based on observable market data (unobservable inputs).

The following table provides reconciliation of the changes in fair value of Level 3 investments:

	2021	2020
Balance, beginning of year	\$ 3,302	\$ -
Unrealized gains	2,536	599
Purchases	16,242	2,703
Balance, end of year	\$ 22,080	\$ 3,302

4. Financial risk management

Market price risk

The University is exposed to market price risk, the risk that the value of a financial instrument will fluctuate as a result of changes in market prices, whether those changes are caused by factors specific to the individual security, its issuer or general market factors affecting all securities. To manage this risk, the University has established an investment policy with a target asset mix that is diversified by asset class with individual issuer limits and is designed to achieve a long-term rate of return that in real terms equals or exceeds total endowment expenditures with an acceptable level of risk.

The following details the University's portfolio sensitivity to a 10.5% increase or decrease in the market prices. The sensitivity rate is determined using the historical annualized standard deviation for the portfolio investments over a four year period. At March 31, 2021, if market prices had a 10.5% (2020 - 9.5%) increase or decrease with all other variables held constant, the increase or decrease in accumulated remeasurement gains and losses, unrestricted net assets, and endowment net assets for the year would have totalled \$211,267 (2020 - \$173,388).

The University's management of market price risk has not changed from the prior year.

Foreign currency risk

Foreign currency risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchanges rates. The University is exposed to foreign currency risk on investments that are denominated in foreign currencies.

The impact of a change in value of foreign currency portfolio investments is as follows:

	Fair Value	2.5% decrease	1.0% decrease	1.0% increase	2.5% increase
U.S. and International	\$ 723,606	\$ 705,516	\$ 716,370	\$ 730,842	\$ 741,696

The University has a contract with the Qatari government to operate a campus in Qatar. Expenses incurred are recovered from the government of Qatar and claims are adjusted to reflect currency fluctuations, thus reducing exchange risk exposure to the University.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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4. Financial risk management (Continued)

Credit risk

The University is exposed to credit risk on investments arising from the potential failure of a counterparty, debtor or issuer to honour its contractual obligations. To manage this risk, the University only invests in investment grade issuers as guided by the University's Investment policy. The credit risk from accounts receivable is relatively low as the majority of balances are due from government agencies and corporate sponsors. Credit risk from tuition is managed through restricted enrolment activities for students with delinquent balances and maintaining standard collection procedures. Given the nature of the University's accounts receivable balances, current economic outlook, and the current impact of COVID-19, management has assessed the impact to credit risk as low.

The credit rating for Canadian government and corporate bonds held is as follows:

Credit Rating	2021	2020
AAA	32.71 %	40.23 %
AA	28.73 %	23.60 %
A	24.10 %	21.45 %
BBB	14.46 %	14.72 %
	100.00 %	100.00 %

Liquidity risk

Liquidity risk is the risk that the University will encounter difficulty in meeting obligations associated with its financial liabilities. The University maintains a line of credit designed to ensure availability of funds to meet current and forecasted financial requirements as cost effectively as possible. The University believes, based on its assessment of future cash flows that incorporate the effects of COVID-19, it will have access to sufficient capital through internally generated cash flows, external sources and the undrawn short-term line of credit to meet current spending forecasts. At March 31, 2021, the University has committed borrowing facilities of \$18,750 (2020 - \$18,750) none of which has been drawn.

Interest rate risk

Interest rate risk is the risk that future cash flows or fair values will fluctuate due to the volatility of market interest rates. The University is exposed to this risk on its interest bearing assets and bonds. Bonds are affected indirectly as they are subject to fluctuations in market values. Bonds are currently invested at the shorter end of the yield curve to reduce market value volatility. Interest risk on the University's debt is managed through fixed-rate agreements with the Department of Treasury Board and Finance as described in Note 8. If interest rates increased by 1% and all other variables are held constant, the potential loss in fair value on bonds and mortgage funds to the University would be \$30,778 (2020 - \$32,671).

The terms to maturity of interest-bearing securities held by the University are as follows:

Asset class	< 1 year	1 - 5 years	> 5 years	Average effective market yield
Money market funds and GICs	100.00 %	-	-	0.92 %
Government and corporate bonds	11.37 %	69.32 %	19.31 %	0.97 %
Canadian mortgage fund	18.79 %	55.81 %	25.40 %	2.87 %

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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5. Investment in government business enterprise

The University District Trust ("UDT") subleases land to developers for the commercialization of residential and commercial development. The University is the beneficiary of UDT and will receive distributions from the trust once leases are in place with developers and net proceeds are available.

The following table provides condensed supplementary financial information for the Investment in government business enterprise owned by the University.

Statement of Financial Position:

	December 31, 2020	December 31, 2019
Assets		
Cash	\$ 1,062	\$ 435
Accounts receivable	817	1,064
Deposit	228	3,275
Prepaid expenses	243	102
Investments	82,308	-
Capital assets	2,006	10,187
Development costs	42,986	38,779
	\$ 129,650	\$ 53,842
Liabilities		
Accounts payable and accrued liabilities	\$ 10,235	\$ 4,973
Land lease payable	13,039	12,603
Deferred revenue	2,534	3,092
Promissory note	3,750	3,750
Long term debt	96,603	18,808
Cost to complete	8,177	10,788
	\$ 134,338	\$ 54,014
Equity		
Deficit	\$ (4,688)	\$ (172)
	\$ 129,650	\$ 53,842

Statement of Operations:

	December 31, 2020	December 31, 2019
Rental revenue	\$ 883	\$ -
Rental operating expenses	266	-
	\$ 617	\$ -
Land lease revenue	\$ 587	\$ 28,791
Cost of land lease	-	16,727
	\$ 587	\$ 12,064
Expenses	\$ 5,720	\$ 4,715
Net (loss) income	\$ (4,516)	\$ 7,349
Trust distribution	-	3,750
	\$ (4,516)	\$ 3,599

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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6. Tangible capital assets

	2021					2020
	Buildings	Furnishings, equipment and systems	Learning resources	Land	Total	Total
Cost						
Beginning of year	\$ 2,961,663	\$ 566,082	\$ 248,881	\$ 46,892	\$ 3,823,518	\$3,628,022
Acquisitions	110,594	38,537	10,299	1,021	160,451	216,415
Disposals	(13,198)	(3,656)	-	-	(16,854)	(20,919)
	\$ 3,059,059	\$ 600,963	\$ 259,180	\$ 47,913	\$ 3,967,115	\$3,823,518
Accumulated amortization						
Beginning of year	\$ 1,123,874	\$ 399,286	\$ 208,348	\$ -	\$ 1,731,508	\$1,607,836
Amortization expense	90,889	48,593	8,245	-	147,727	140,053
Disposals	(13,198)	(3,640)	-	-	(16,838)	(16,381)
	\$ 1,201,565	\$ 444,239	\$ 216,593	\$ -	\$ 1,862,397	\$1,731,508
Net book value at March 31, 2021	\$ 1,857,494	\$ 156,724	\$ 42,587	\$ 47,913	\$ 2,104,718	\$2,092,010
Net book value as at March 31, 2020	\$ 1,837,789	\$ 166,796	\$ 40,533	\$ 46,892	\$ 2,092,010	

Tangible capital assets include work-in-progress at March 31, 2021 totaling \$133,958 (2020 - \$131,439) comprised of buildings \$107,539 (2020 - \$104,422) and furnishings, equipment and systems \$26,419 (2020 - \$27,017). Work-in-progress is not amortized as the assets are not available for use.

Acquisitions during the year included in-kind contributions (such as learning resources, equipment and software) in the amount of \$2,257 (2020 - \$4,573).

7. Employee future benefit liabilities

Employee future benefit liabilities are comprised of the following:

	2021	2020
Universities Academic Pension Plan	\$ 91,402	\$ 83,316
Long-term Disability	4,294	4,502
Administrative Leave (Note 22)	226	379
Supplementary Retirement Plan	13,019	12,204
	\$ 108,941	\$ 100,401

(a) Defined benefit plans accounted for on a defined benefit basis

UAPP

The UAPP is a multi-employer contributory joint defined benefit pension plan for academic and professional staff members. An actuarial valuation of the UAPP was carried out as at December 31, 2018 and was then extrapolated to March 31, 2021, resulting in a UAPP deficiency of \$817,447 (2020 - \$1,304,243) consisting of a pre-1992 deficiency of \$832,342 (2020 - \$885,533) and a post-1991 surplus of \$14,895 (2020 - deficiency of \$418,710). The University's portion of the UAPP pre-1992 deficiency and post-1991 surplus has been allocated based on its percentage of the plan's total employer contributions for the year.

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7. Employee future benefit liabilities (Continued)

The unfunded deficiency for service prior to January 1, 1992 is financed by additional contributions of 1.25% (2020 - 1.25%) of salaries by the Government of Alberta. Employees and employers equally share the balance of the contributions of 2.90% (2020 - 2.90%) of salaries until June 30, 2020 and 3.04% (2020 - 3.04%) of salaries thereafter until December 31, 2043 to eliminate the unfunded deficiency. The Government of Alberta's obligation for the future additional contributions was \$249,339 (2020 - \$267,201) at March 31, 2021. The unfunded deficiency for service after December 31, 1991 is financed by special payments shared equally between employees and employers of:

- 3.38% of pensionable earnings until June 30, 2020, then reducing to 3.24% of pensionable earnings until December 31, 2021 (2020 - 3.38% of pensionable earnings until June 30, 2020, then reducing to 3.24% of pensionable earnings until December 31, 2021)
- 1.71% of pensionable earnings for 2022 and 2023 (2020 - 1.71% of pensionable earnings for 2022 and 2023)
- 0.70% of pensionable earnings for 2024 and 2025 (2020 - 0.70% of pensionable earnings for 2024 and 2025)
- 0.25% of pensionable earnings for 2026 and 2027 (2020 - 0.25% of pensionable earnings for 2026 and 2027).

SRP

The University provides non-contributory defined benefit supplementary retirement benefits to executives. An actuarial valuation of these benefits was carried out as at March 31, 2021.

The expenses and financial position of these defined benefit plans are as follows:

	March 31, 2021			March 31, 2020		
	UAPP	Long term disability ⁽¹⁾	SRP ⁽¹⁾	UAPP	Long term disability ⁽¹⁾	SRP ⁽¹⁾
Expenses						
Current service cost	\$ 35,556	\$ 814	\$ 495	\$ 36,020	\$ 926	\$ 520
Interest cost	11,144	102	320	8,154	58	373
Amortization of net actuarial loss (gain)	9,846	(713)	460	4,805	1,574	(23)
Total expenses	\$ 56,546	\$ 203	\$ 1,275	\$ 48,979	\$ 2,558	\$ 870
Financial Position						
Accrued benefit obligation:						
Balance, beginning of year	\$ 1,024,944	\$ 4,502	\$ 13,667	\$ 986,061	\$ 2,181	\$ 11,742
Current service cost	35,556	814	495	36,020	926	520
Interest cost	58,041	102	320	56,015	58	373
Benefits paid	(48,096)	(411)	(460)	(43,638)	(237)	(412)
Actuarial loss (gain)	68,481	(713)	(465)	(9,514)	1,574	1,444
Balance, end of year	\$ 1,138,926	\$ 4,294	\$ 13,557	\$ 1,024,944	\$ 4,502	\$ 13,667
Plan assets	1,035,239	-	-	837,258	-	-
Plan deficit	\$ (103,687)	\$ (4,294)	\$ (13,557)	\$ (187,686)	\$ (4,502)	\$ (13,667)
Unamortized net actuarial loss	\$ 12,285	\$ -	\$ 538	\$ 104,370	\$ -	\$ 1,463
Accrued benefit liability	\$ (91,402)	\$ (4,294)	\$ (13,019)	\$ (83,316)	\$ (4,502)	\$ (12,204)

⁽¹⁾ The University plans to use its working capital to finance these future obligations.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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7. Employee future benefit liabilities (Continued)

The significant actuarial assumptions used to measure the accrued benefit obligation are as follows:

	March 31, 2021			March 31, 2020		
	UAPP	Long term disability	SRP	UAPP	Long term disability	SRP
Accrued benefit obligation:						
Discount rate	5.20 %	1.90 %	2.50 %	5.60 %	2.00 %	2.30 %
Long term average compensation increase	3.00 %	n/a	2.00 %	3.00 %	n/a	2.00 %
Benefit cost:						
Discount rate	5.60 %	1.90 %	2.30 %	5.60 %	2.00 %	3.10 %
Long term average compensation increase	3.00 %	n/a	2.00 %	3.00 %	n/a	2.00 %
Alberta inflation (long term)	2.00 %	n/a	1.50 %	2.00 %	n/a	1.50 %
Estimated average remaining service life	10.6 yrs	6.47 yrs	3 yrs	10.6 yrs	6.70 yrs	3 yrs

(b) Defined benefit plans accounted for on a defined contribution basis

PSPP

PSPP is a multi-employer contributory joint defined benefit pension plan for support staff members. As the University does not have sufficient information to follow the accounting standards for defined benefit plans, PSPP is accounted for on a defined contribution basis. The pension expense recorded in these consolidated financial statements is \$22,258 (2020 - \$23,778).

An actuarial valuation of the PSPP was carried out as at December 31, 2019, then extrapolated to December 31, 2020. At December 31, 2020, the PSPP reported an actuarial surplus of \$2,223,582 (December 31, 2019 - \$2,759,320). For the year ended December 31, 2020 PSPP reported employer contributions of \$323,497 (2019 - \$321,306). For the 2020 calendar year, the University's employer contributions were \$22,776 (2019 - \$23,686).

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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8. Debt

Debt is measured at amortized cost and is comprised of the following:

	Collateral	Maturity date	Interest rate %	2021	2020
Debtures payable to the Department of Treasury Board and Finance:					
Debture for Cascade Hall	(1)	May 2025	6.25%	\$ 5,529	\$ 6,448
Debture for Residences	(1)	December 2038	3.90%	70,789	73,461
Debture for International Residence House	(1)	June 2039	5.10%	23,033	23,768
Debture for Phase VI Residence	(1)	March 2040	4.73%	47,588	49,106
Bank loans payable:					
Demand loan for Western Canadian Universities Marine Sciences Society	(2)	April 2021	2.45%	191	196
Demand loan for Western Canadian Universities Marine Sciences Society	(2)	June 2021	2.45%	69	-
				\$ 147,199	\$ 152,979
Obligations under capital leases				\$ 827	\$ 1,059
				\$ 148,026	\$ 154,038

(1) General security agreement;

(2) None

Interest expense on debt recorded in these consolidated statements is \$6,790 (2020 - \$7,009) of which \$ nil (2020 - \$ nil) was capitalized. Principal and interest repayments are as follows:

	Principal	Interest	Total
2022	\$ 6,616	\$ 6,504	\$ 13,120
2023	6,649	6,208	12,857
2024	6,937	5,900	12,837
2025	7,071	5,577	12,648
2026	7,403	5,245	12,648
Thereafter	113,350	37,974	151,324
		\$ 148,026	\$ 67,408
			\$ 215,434

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



9. Deferred revenue

	2021		
	Unspent externally restricted grants and donations	Tuition and other fees	Total
Balance, beginning of year	\$ 544,965	\$ 24,694	\$ 569,659
Grants, tuition and donations received	584,619	235,935	820,554
Investment income	44,078	-	44,078
Transfer to spent deferred capital contributions	(91,534)	-	(91,534)
Recognized as revenue	(421,705)	(239,461)	(661,166)
	\$ 660,423	\$ 21,168	\$ 681,591

	2020		
	Unspent externally restricted grants and donations	Tuition and other fees	Total
Balance, beginning of year	\$ 512,726	\$ 28,097	\$ 540,823
Grants, tuition and donations received	562,190	233,061	795,251
Investment income	34,811	-	34,811
Transfer to spent deferred capital contributions	(140,827)	-	(140,827)
Recognized as revenue	(423,935)	(236,464)	(660,399)
	\$ 544,965	\$ 24,694	\$ 569,659

10. Spent deferred capital contributions

Spent deferred capital contributions are comprised of externally restricted grants and donations spent on tangible capital acquisitions (not yet recognized as revenue).

	2021	2020
Balance, beginning of year	\$ 1,450,438	\$ 1,403,737
Transfer from unspent externally restricted grants and donations	91,534	140,827
Recognized as revenue	(95,052)	(94,126)
	\$ 1,446,920	\$ 1,450,438

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)



11. Net Assets

	2021				Total	2020
	Unrestricted	Investment in tangible capital assets	Internally restricted	Endowments		Total
Net Assets, beginning of year	\$ 1,755	\$ 487,534	\$ 312,682	\$ 915,957	\$ 1,717,928	\$ 1,826,703
Annual operating deficit	(10,075)	-	-	-	(10,075)	(29,841)
Transfer to internally restricted net of expenditures	(19,288)	-	19,288	-	-	-
Endowment						
New contributions	-	-	-	15,431	15,431	14,257
Capitalized investment income	-	-	-	-	-	-
Transfer from endowments ⁽¹⁾	1,333	-	-	(1,333)	-	-
Tangible capital assets						
Acquisition of capital assets	(14,964)	68,917	(53,953)	-	-	-
Amortization of capital assets	52,691	(52,691)	-	-	-	-
Debt repayment	(6,082)	6,082	-	-	-	-
Debt - new financing	70	(70)	-	-	-	-
Change in accumulated remeasurement gains	24,782	-	-	189,943	214,725	(93,191)
Net assets at March 31, 2021	\$ 30,222	\$ 509,772	\$ 278,017	\$ 1,119,998	\$ 1,938,009	\$ 1,717,928
Net assets is comprised of:						
Accumulated surplus	\$ 8,872	\$ 509,772	\$ 278,017	\$ 904,852	\$ 1,701,513	\$ 1,696,157
Accumulated remeasurement gains	21,350	-	-	215,146	236,496	21,771
Net assets at March 31, 2021	\$ 30,222	\$ 509,772	\$ 278,017	\$ 1,119,998	\$ 1,938,009	\$ 1,717,928

⁽¹⁾ Transfer from endowment has been recorded to cover the endowment spending in excess of the investment income earned on endowments. When endowment investment income is insufficient to cover endowment spending, amounts are transferred from the cumulative capitalized endowment investment income to cover the shortfall.

Internally restricted net assets

Internally restricted net assets represent amounts set aside by the University's Board of Governors for strategic initiatives in support of student learning, research, capital projects and community service. Those amounts are not available for other purposes without the approval of the Board and do not have interest allocated to them. Internally restricted net assets are summarized as follows:

	2021	2020
Capital projects	\$ 55,235	\$ 84,844
Academic and institutional initiatives	98,223	106,772
Research activities	124,559	121,066
	\$ 278,017	\$ 312,682

12. Contingent assets

The University is a defendant in a number of legal proceedings arising in the normal course of business and has insurance to recover any possible legal settlement. The future receipt of these assets is dependent on the outcome of the contingent liability occurring. Contingent assets are not recorded in the consolidated financial statements.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



13. Contingent liabilities

The University is a defendant in a number of legal proceedings arising in the normal course of business. While the ultimate outcome and liability of these proceedings cannot be reasonably estimated at this time, the University believes that any settlement will not have a material adverse effect on the financial position or the results of operations of the University. Management has concluded that none of the claims meet the criteria for recording a liability.

The University has identified potential asset retirement obligations related to the existence of asbestos in a number of its facilities. Although not a current health hazard, upon renovation or demolition of these facilities, the University may be required to take appropriate remediation procedures to remove the asbestos. As the University has no legal obligation to remove the asbestos in these facilities as long as the asbestos is contained and does not pose a public health risk, the fair value of the obligation cannot be reasonably estimated due to the indeterminate timing and scope of the removal. The asset retirement obligations for these assets will be recorded in the period in which there is certainty that the remediation project will proceed and there is sufficient information to estimate fair value of the obligation.

At March 31, 2021 the University had entered into agreements that provide guarantees on employee housing loans in the amount of \$500 (2020 - \$500). These amounts are not recorded in the consolidated financial statements.

14. Contractual rights

Contractual rights are rights of the University to economic resources arising from contracts or agreements that will result in both assets and revenues in the future when the terms of those contracts or agreements are met.

Estimated amounts that will be received or receivable for each of the next five years and thereafter are as follows:

	Operating leases	Other contracts	Total
2022	\$ 6,355	\$ 3,717	\$ 10,072
2023	4,680	2,225	6,905
2024	3,269	850	4,119
2025	2,218	598	2,816
2026	982	482	1,464
Thereafter	23,153	991	24,144
March 31, 2021	\$ 40,657	\$ 8,863	\$ 49,520
March 30, 2020	\$ 12,441	\$ 17,074	\$ 29,515

15. Contractual obligations

The University has contractual obligations which are commitments that will become liabilities in the future when the terms of the contracts or agreements are met.

The estimated aggregate amount payable for the unexpired terms of these contractual obligations are as follows:

	Service contracts	Other contracts	Capital projects	Long term leases	Total
2022	\$ 14,478	\$ 57,139	\$ 81,087	\$ 7,472	\$ 160,176
2023	96	-	24,127	5,583	29,806
2024	96	-	1,536	5,388	7,020
2025	96	-	1,536	5,247	6,879
2026	87	-	-	5,249	5,336
Thereafter	75	-	-	23,314	23,389
March 31, 2021	\$ 14,928	\$ 57,139	\$ 108,286	\$ 52,253	\$ 232,606
March 30, 2020	\$ 41,963	\$ 25,472	\$ 75,968	\$ 68,288	\$ 211,691

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



15. Contractual obligations (Continued)

The University is one of 64 members of CURIE, the Canadian Universities Reciprocal Insurance Exchange, a self-insurance reciprocal established to share the insurable property, liability, and errors and omissions risks of member universities. The projected cost of claims against the exchange is based on actuarial projections and is funded through members' premiums. As at December 31, 2020 CURIE had an annual surplus of \$11,400 (2019 - annual surplus of \$6,258). The University participates in seven of the underwriting periods, which have an accumulated surplus of \$99,449 (2019 - \$90,185) of which the University's pro rata share is approximately 5.98% (2019 - 6.01%). This surplus is not recorded in the consolidated financial statements.

16. Budget comparison

Budgeted figures have been provided for comparison purposes and have been derived from the University's budget as approved by the Board of Governors.

17. Investment income

	2021	2020
Portfolio investments - restricted for endowments	\$ 42,991	\$ 27,976
Portfolio investments - non-endowment	38,433	35,774
	\$ 81,424	\$ 63,750
Income capitalized to endowments	-	-
	\$ 81,424	\$ 63,750

18. Expense by object

	2021 Budget (Note 16)	2021	2020
Salaries	\$ 684,923	\$ 690,350	\$ 723,243
Employee benefits	141,630	144,080	142,658
Materials, supplies and services	278,387	259,092	323,501
Utilities	25,764	22,168	25,578
Maintenance and repairs	17,935	18,002	20,418
Scholarships and bursaries	118,470	114,053	110,371
Cost of goods sold	14,931	7,796	15,926
Amortization of tangible capital assets	146,598	147,727	140,053
	\$ 1,428,638	\$ 1,403,268	\$ 1,501,748

19. Funds held on behalf of others

The University holds the following funds on behalf of others over which the University's Board of Governors has no power of appropriation. Accordingly, these funds are not included in the University's consolidated financial statements.

	2021	2020
University of Calgary Medical Group	\$ 12,875	\$ 10,385
Alberta Gambling Research Institute	963	802
State of Qatar	281	163
Others	111	344
University Child Care Centre Society	-	1,374
	\$ 14,230	\$ 13,068

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



20. Related parties

The University is a related party to organizations within the Government of Alberta reporting entity. Key management personnel and Board of Governors and close family members are also considered related parties. The institution may enter into transactions with these entities and individuals in the normal course of operations and on normal terms.

The University has debt with the Department of Treasury Board and Finance as described in Note 8.

During the year, the University provided and received the following at nominal or reduced amounts:

- The University operates its Spy Hill Campus on land leased from the Alberta Ministry of Infrastructure under a 42 year lease agreement. The University of Calgary has occupied the 131 acre Spy Hill Campus since 1972 and is charged a nominal annual amount.
- The University's Biogeoscience Institute is a leading field research station that operates in the Kananaskis Provincial Park in Alberta. By maintaining the site and being responsible for all costs, the University occupies the research station at nominal charge from the Alberta Ministry of Environment and Parks.
- The University has integrated programs and research activities with Alberta Health Services ("AHS"). As part of the collaborative environment with AHS and the close proximity of the University to Foothills Hospital and the Alberta Children's Hospital, the University leases 72,200 square feet of space to AHS at amounts covering operating costs.
- The University received ownership of University Research Park ("URP") from the Ministry of Infrastructure recorded at the carrying value. URP comprises of roughly 30 hectares of land including improvements and buildings with leases.

21. Government transfers

The University operates under the authority and statutes of the Province of Alberta. Transactions and balances between the University and the Government of Alberta ("GOA") are measured at the exchange amount and summarized below.

	2021	2020
Grants from GOA		
Advanced Education:		
Operating	\$ 430,473	\$ 450,390
Capital	82,454	94,611
Research	9,066	10,546
Other	6,789	14,475
Total Advanced Education	\$ 528,782	\$ 570,022
Other post secondary institutions	\$ 2,966	\$ 3,775
Other GOA departments and agencies:		
Alberta Health	\$ 84,261	\$ 77,528
Ministry of Infrastructure - URP land and buildings	3,474	-
Other	46,718	39,814
Total other GOA departments and agencies	\$ 134,453	\$ 117,342
Total contributions received	\$ 666,201	\$ 691,139
Restricted expended capital recognized as revenue	68,986	68,590
Less: deferred revenues	(107,270)	(107,366)
Government of Alberta grants	\$ 627,917	\$ 652,363
Federal and other government grants		
Contributions received	\$ 249,995	\$ 200,649
Restricted expended capital recognized as revenue	13,027	12,876
Less: deferred revenue	(68,706)	(26,560)
Federal and other government grants	\$ 194,316	\$ 186,965

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED MARCH 31, 2021
(in thousands)**



22. Salary and Employee Benefits

	2021			Total
	Base salary ⁽¹⁾	Other cash benefits ⁽²⁾	Other non-cash benefits ^{(3) (4)}	
Governance ⁽⁵⁾				
Chair of the Board of Governors	\$ -	\$ -	\$ -	\$ -
Members of the Board of Governors	-	-	-	-
Chancellor honorarium	-	-	-	-
Executive				
President ⁽⁶⁾⁽⁷⁾	447	6	243	696
Vice-Presidents:				
Provost and Vice President Academic	429	12	144	585
Vice President Advancement				
Past Incumbent ⁽⁸⁾	371	25	118	514
Interim Incumbent - Communications ⁽⁸⁾	13	-	1	14
Interim Incumbent - Development ⁽⁸⁾	13	-	1	14
Vice President Facilities				
Past Incumbent ⁽⁹⁾	159	479	99	737
Vice President Finance and Services	320	12	129	461
Vice President Research	235	50	58	343

	2020			Total
	Base salary ⁽¹⁾	Other cash benefits ⁽²⁾	Other non-cash benefits ^{(3) (4)}	
Governance ⁽⁵⁾				
Chair of the Board of Governors	\$ -	\$ -	\$ -	\$ -
Members of the Board of Governors	-	-	-	-
Chancellor honorarium	-	-	-	-
Executive				
President ⁽⁶⁾⁽⁷⁾	447	6	195	648
Vice-Presidents:				
Provost and Vice President Academic	429	12	113	554
Vice President Advancement	351	36	80	467
Vice President Facilities	315	12	91	418
Vice President Finance and Services	320	12	102	434
Vice President Research				
Incumbent ⁽¹⁰⁾	20	-	10	30
Acting	261	-	33	294
Vice President University Relations				
Past Incumbent ⁽¹¹⁾	24	439	46	509

1. Base salary includes pensionable base pay.

2. Other cash benefits include administrative honorariums, stipends, bonuses, relocation benefits, executive allowances, lump sum payments and severance.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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(in thousands)**



22. Salary and Employee Benefits (Continued)

3. Other non-cash benefits include the University's share of all employee benefits and contributions or payments made on behalf of employees including pension, group life insurance, employee family assistance program, critical illness, supplementary health care, short and long-term disability plans, dental plan, professional memberships, supplemental retirement plan (per footnote (4)), accidental disability and dismemberment.
4. Under the terms of the SRP, the executive may receive supplemental retirement payments. Retirement arrangement costs as detailed are not cash payments in the period but are period expenses for rights to future compensation. Costs shown reflect the total estimated cost to provide annual pension income over an actuarially determined post-employment period. The SRP provides future pension benefits to participants based on years of service and earnings. The cost of these benefits is actuarially determined using the projected benefit method prorated on services, a market interest rate, and management's best estimate of other assumptions. Net actuarial gains and losses of the benefit obligations are amortized over the expected remaining service life of each plan participant. Current service cost is the actuarial present value of the benefits earned in the current year. The components of the cost of the SRP include current service cost, amortization of actuarial gains and losses, past service costs on plan initiation, and interest accruing on the actuarial liability.
5. The Chair and Members of the Board of Governors receive no remuneration for participation on the Board.
6. The individual in this role received a vehicle allowance included in other cash benefits.
7. The individual in this role earned future administrative leave benefits during the year that have been included in other non-cash benefits.
8. During the fiscal year, the Vice President Advancement Past Incumbent position was occupied until March 15, 2021. Both Vice President Advancement interim incumbent positions were occupied on March 16, 2021.
9. During the fiscal year, the Vice President Facilities Past Incumbent position was occupied until October 1, 2020. The Vice President Facilities Past Incumbent position received severance of \$473 which is included in other cash benefits. The position remained vacant as of March 31, 2021.
10. During the prior fiscal year, the Vice President Research Incumbent position was occupied for one month and the Vice President Research Acting position was held for 11 months.
11. During the prior fiscal year, the Vice President University Relations Past Incumbent position was occupied for one month. The Vice President University Relations Past Incumbent position received severance of \$432 which is included in prior year other cash benefits.

The current service cost and accrued obligation for each executive under the SRP is outlined in the following table:

	Accrued benefit obligation March 31, 2020	Service costs	Interest costs	Actuarial loss (gain)	Benefits paid	Accrued benefit obligation March 31, 2021
President	\$ 810	\$ 92	\$ 21	\$ (38)	\$ -	\$ 885
Vice-Presidents:						
Provost and Vice President Academic	894	103	23	(38)	-	982
Vice President Advancement						
Past Incumbent	360	62	10	(31)	-	401
Vice President Facilities						
Past Incumbent	431	71	12	(17)	-	497
Vice President Finance and Services	433	75	12	(42)	-	478
Vice President Research	2	20	1	(4)	-	19

The significant actuarial assumptions used to measure the accrued benefit obligation are disclosed in Note 7.

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
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(in thousands)**



22. Salary and Employee Benefits (Continued)

The current service cost and accrued obligation for the President's Administrative Leave is outlined in the following table:

	Accrued benefit obligation March 31, 2020	Service costs	Interest costs	Actuarial loss (gain)	Benefits paid	Accrued benefit obligation March 31, 2021
Administrative Leave-Incumbent	\$ 122	\$ 98	\$ 4	\$ 2	\$ -	\$ 226
Administrative Leave-Past Incumbent	257	-	1	-	(258)	-
	\$ 379	\$ 98	\$ 5	\$ 2	\$ (258)	\$ 226

The significant actuarial assumptions used to measure the accrued benefit obligation for the Administrative Leave are based on a discount rate of 1.9% (2020 – 2.0%) and a yearly salary increase rate of 0% (2019 - 0%). An administrative leave benefit loading rate of 20% is applied to the President.

23. Comparative figures

Certain comparative figures have been reclassified to conform with current year presentation.



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