

Section 11

*Academic and Student Affairs
Committee*



Academic and Student Affairs Committee

Board of Governors Regular Meeting – June, 2023

Roze Hentschell, Interim Chief Academic Officer



Contents

- Academic Program Discontinuances (CSU Pueblo and Global)
- Faculty Activity Reports (all campuses)
 - Tenure and Promotion, Annual Review, Sabbaticals, Emeritus
- Curricular Program Reports (all campuses)
 - Current programs, Enrollment by program, Degrees awarded
- Faculty Manual Changes (CSU)
- Contractual Agreement with Distance Providers (CSU Pueblo)
- Additional Locations for program delivery (CSU Pueblo)
- Program Review Calendar (CSU Pueblo)
- Program Accreditation (CSU Pueblo)

CSU Pueblo Program Discontinuances (page 295)

Voting items on consent agenda



- **Construction Manager Certificate (Undergraduate) and**
- **Advanced Construction Manager Certificate (Undergraduate)**
 - College of Science, Technology, Engineering and Mathematics; School of Engineering
 - Programs replaced with new certificate structure, beginning in fall 2023 that are better aligned with industry needs and employment opportunities
 - Current students may complete programs; courses are part of the Department curriculum; students advised to consider new certificates
- **Bachelors in Automotive Industry Management (Undergraduate)**
 - Hasan School of Business
 - Concerns with enrollment decline, curriculum, external review findings
 - Current students may complete program by end of the spring 2027 semester

CSU Global Program Discontinuances (page 298)

Voting items on consent agenda



- **Masters of Criminal Justice**

- Launched in 2012
- Designated as Low Enrolled Program under the Low Enrollment Policy* (FY22 = 106 students)
- Fall D 2023: last term students may be admitted; Spring 2027: last term to complete the degree

- **Masters of Military and Emergency Responder Psychology**

- Launched in Fall 2019
- Designated as Low Enrolled Program under the Low Enrollment Policy (FY22 = 113 students since inception)
- High withdrawal rate in F2021 and F2022 cohorts
- Spring D 2023: last term students may be admitted; Spring 2027: last term to complete the degree

**Low Enrollment policy: Bachelor's: fewer than 250 students after 18 months following the launch date or for 12 consecutive months any time during the degree program; Master's: fewer than 150 students after 12 months following the launch date or for 12 consecutive months during any time during degree program; Short programs: fewer than 100 credits earned by students after 18 months following initial launch date for short programs*



CSU Global Program Discontinuances

- **Masters of Marketing**

- Introduced in Fall 2022
- Designated as Low Enrolled Program under the Low Enrollment Policy (16 current students)
- Spring D 2023: last term students may be admitted; spring 2025: last term to complete the degree

- **Undergraduate Certificate/Specialization in Fundraising**

- Introduced in Spring 2019
- Designated as Low Enrolled Program under the Low Enrollment Policy (FY22 = 5 students since inception)
- Spring D 2023: last term students may be admitted; spring 2025: last term to complete the degree

- **Undergraduate Certificate in Networking**

- Introduced in Fall 2017
- Designated as Low Enrolled Program under the Low Enrollment Policy (FY22 = 11 total students since inception)
- Fall D 2023: last term students may be admitted; Spring 2025: last term to complete the degree

Faculty Activity Reports (all campuses)



CSU: page 319; CSU-Pueblo: page 438; CSU-Global: page 458

- Comprehensive report covering all aspects of faculty life cycle
- Hiring processes
- Annual reviews; reappointments
- Tenure and Promotion (for both tenure-track and contract/continuing faculty)
- Post-tenure reviews
- Workload analyses (relative to peers)
- Demographics
- Compensation statistics (relative to peers)

Appendices to Faculty Report:

- Promotion and Tenure Report, CSU (page 329)
- Emeritus Designation, CSU (page 338)
- Emeritus Designation, CSU Pueblo (page 447)
- Sabbatical Report, CSU (page 336 and 368)
- Sabbatical Revision, CSU (page 424)
- Sabbatical Report, CSU Pueblo (page 448)
- Sabbatical Approvals, CSU Pueblo (page 451)
- Sabbatical Return Waiver Request, CSU Pueblo (page 311) *Action item, consent agenda*



Items of Note from Faculty Report--CSU

Promotions: 43 faculty applied for and were granted tenure; 26 faculty applied for promotion to full professor; 4 were denied; 41 NTT faculty applied for and were granted promotion

Annual Reviews: 79% of TT faculty received annual reviews of exceeds or better; 1% require follow-up; 77% of NTT faculty received annual reviews of exceeds or better; <1% require follow-up

Faculty Demographics:

10-year comparison		2014	2023
% Female	Pre-tenure	47%	51%
	Tenured	33%	37%
	Non-tenure track	60%	58%
% Minority	Pre-tenure	19%	20%
	Tenured	12%	17%
	Non-tenure track	9%	11%



Items of Note from Faculty Report--CSU Pueblo

- A majority of faculty at CSU Pueblo were evaluated as performing at “Exceeding Expectations” or above, which reflects the good work that faculty are doing as Teacher-Scholars.
- The percentage of faculty self-identifying as being from a minority group has reached a 10-year high at 26.4%, with most of the growth among unranked/non-tenure-track faculty.

Items of Note from Faculty Report--CSU Global



- CSU Global faculty and part-time faculty have significant longevity at the institution.
 - Currently, faculty have been at the university for 2-4 years (22%), 5-6 years (21%), 6-10 years (33%), and 11+ years (24%).
- CSU Global's level of engagement and compensation for its part-time faculty instructors is competitive.
 - Signified by the number of applications for open part-time faculty instructor positions at over 1,865 applicants in just FY23
- For student engagement, Global strives to have student, faculty instructors, and staff demographics align.

Curriculum Reports

CSU: page 426; CSU-Pueblo: page 452; CSU-Global: page 462

- All degree programs for each university
- Enrollment statistics and graduation statistics for each degree
- Comprehensive reviews occur during Program Review

Items of Note from Curriculum Report--CSU



Top 4 Majors with highest percentage **GAIN** Fall 2017 to Fall 2022:

- Zoology: 76% increase (466 to 822)
- Horticulture: 74% (181 to 315)
- Computer Science: 59% increase (675 to 1071)
- Data Science (new in F18): 472% (18 to 103)

Top 4 Majors with highest percentage **LOSS** Fall 2017 – Fall 2022

- Fermentation Science and Technology: 59% (150 to 62)
- Soil & Crop Sciences: 45% decrease (96 to 53)
- Statistics: 45% (89 to 55)
- Economics: 34% (451 to 298)

Largest increases in degrees awarded 2017-2022 :

BA/BS

Civil Engineering; Political Science; Biological Science;
Computer Science

Masters

Natural Resource Stewardship; Natural Sciences
Computer Science; Fish, Wildlife & Conservation Biology

PhD

Systems Engineering; Chemistry;
Civil Engineering; Biomedical Sciences

Items of Note from Curriculum Report--CSU Pueblo



- A comparison of the most recent three-year rolling average of the number of majors indicates growth in the number of majors (+4.5%) compared to the most recent three-year average reported last year.
- The number of majors registered for the next academic year (AY23) is more than 19% greater than this time last year for AY22.
- Key areas of academic program strength and growth include:
 - o The BS in Health Science
 - o The BA/BS in Criminology
 - o MS in Education
 - o Nursing - undergraduate and graduate

Items of Note from Curriculum Report--CSU Global



- Monthly 8-week Term Starts and 3 Trimesters; the number of students reflected in the report is the unique student headcount for the Fall trimester
- 33 degree programs: 18 at the bachelor level and 15 at the Master's level, of which 30 are open for new student enrollment (3 on teach-out status)
- Given its mission to educate learners for their professional success in alignment with industry demand and its role in the CSU System, the university regularly evaluates its programs for market demand to eliminate programs that its data indicates no longer meet those needs.

CSU Faculty and Administration Professional Manual Changes

Action item, consent agenda



Sections C.2.1.2, C.2.7, and C.2.6.2 (page 303)

- Adds language to make explicit that the principles of shared governance are essential to the responsibilities and powers of Faculty Council, Deans, Department Heads/Chairs, AND the evaluation of the performance of CSU administrative positions, such as department head, dean, vice presidents, and president.
- Formalizes current practice

College Code: Section C.2.4.1.1 and C.2.4.2.1 (page 308)

- Adds language to make explicit that the principles of shared governance should be recognized in all college and department codes.
- Formalizes current practice

Contractual Agreement with Distance Providers--CSU Pueblo

(page 314)



Action item, consent agenda

- Motion for the Board to approve the contractual agreements with the CSU Pueblo Teacher Education Program Distance Providers for the Masters of Education degree.
- The Higher Learning Commission (HLC) accreditation criteria require the governing body of an institution to approve contractual agreements for outsourcing portions of academic programs with Distance Providers.
- CSU Pueblo Teacher Education Program has ongoing Memoranda of Understanding (MOU) with Distance Providers for graduate-level education courses.
- Each provider hires and oversees instructors for the delivery of courses. CSU Pueblo approves instructor credentials and course syllabi and transcripts the coursework upon completion.
- Up to 18 credits of such coursework may be applied to our Master of Education (M.Ed.) program. Each Distance Provider enters into a separate agreement with CSU Pueblo.
- CSU Pueblo seeks the Board's approval for the 35 provider agreements in place and for the ability to enter into similar agreements with future distance providers.

Additional Location for Program Delivery--CSU Pueblo (page 312)

Action item, consent agenda



- Motion for the Board to approve the additional location for the CSU Pueblo program through the Colorado Department of Corrections at the Youth Offender System site in Pueblo, Colorado
- The Higher Learning Commission requires the Board of Governors to approve a new location for offering 50% or more of university programs.
- CSU Pueblo provides courses for the Colorado Department of Corrections inmates housed at the Youth Offender System site in Pueblo, Colorado. These inmates are persons who, as juveniles, committed crimes and were charged as adults.
- CSU Pueblo offers these courses through the Extended Studies department to facilitate the reintegration into society for these juvenile offenders.

Additional Location for program delivery--CSU Pueblo (page 313)

Action item, consent agenda



- Motion for Board to approve the additional location for CSU Pueblo programs from the School of Nursing and Hasan School of Business in Walsenburg, Colorado, at the Huerfano School District building
- CSU Pueblo is working to provide programming in the Walsenburg area under a rural initiative for nursing and also to provide a certificate in Foundations of Business.
- The Huerfano County school district has offered to provide space within the Washington Street School in Walsenburg for CSU Pueblo to offer courses and to locate an office. There is currently no expense to CSU Pueblo for the use of the building.
- The intent is to start programming in the Spring 2024 semester and begin working to set up the space during the summer of 2023.

Program Review Calendar for CSU-Pueblo (page 316)

Action item, consent agenda



- Motion for Board to approve and forward to the Colorado Commission on Higher Education the information that Colorado State University Pueblo will review academic programs in the academic year 2023-2024 in accordance with the Program Review Plan for the CSU System.
- This is in accordance with the established review schedule for 2023-2024 through 2029-2030 and approved by the CSU Pueblo Curriculum and Academic Programs Board (CAP Board).
- Each program is reviewed by the University once every five to seven years. As appropriate, the internal review is scheduled to correspond with their disciplinary accreditation review.

Accreditation Schedule Report CSU-Pueblo (page 318)



The following colleges with program-level accreditations will undergo site visits during the upcoming 2023-2024 academic year:

College of Science, Technology, Engineering and Mathematics

- The School of Engineering will have an accreditation reauthorization visit from the Accreditation Board for Engineering and Technology (ABET) in 2023-24.

College of Health, Education, and Nursing

- The School of Nursing will have an accreditation reauthorization visit from the Accreditation Commission for Education in Nursing (ACEN) in 2023-24.

Hasan School of Business

- The Hasan School of Business will have an accreditation reauthorization visit from the Association to Advance Collegiate Schools of Business (AACSB) in 2023-24.



QUESTIONS?



CSU SYSTEM
COLORADO STATE UNIVERSITY



BOARD OF GOVERNORS OF THE
COLORADO STATE UNIVERSITY SYSTEM
ACADEMIC AND STUDENT AFFAIRS COMMITTEE MEETING AGENDA
June 9, 2023

Committee Chair: Dr. Nate Easley (Chair), Polly Baca (Vice Chair)

Assigned Staff: Dr. Roze Hentschell, Interim Chief Academic Officer

I. New Degree Programs

- None

Discontinuing Programs

- CSU Pueblo – Advanced Construction Manager
- CSU Pueblo – Construction Manager Certificate
- CSU Pueblo – Teach out: Automotive Industry Management
- CSU Global Campus – Teach out: Criminal Justice
- CSU Global Campus – Teach out: Fundraising
- CSU Global Campus – Teach out: Military Emergency Responder Psychology
- CSU Global Campus – Teach out: Marketing
- CSU Global Campus – Teach out: Networking

II. Faculty Manual Changes

- Section C.2.1.2, C.2.6, C.2.7 integrating “Shared Governance” into code
- Section C.2.4.1.1, C.2.4.2.1 integrating “Shared Governance” into code

III. Miscellaneous

- CSU Pueblo Waiver Request, Faculty Repay Salary
- CSU Pueblo Additional Location – Youth Offender System site in Pueblo
- CSU Pueblo Additional Location - Walsenburg
- CSU Pueblo contractual agreements with Distance Providers for CSU Pueblo Teacher Ed Program
- CSU Pueblo Program Review Calendar
- CSU Pueblo Program Accreditation

IV. Faculty Activity and Curricular Reports

- Colorado State University
 - Faculty Activity
 - Promotion and Tenure
 - Emeritus
 - Sabbatical
 - Curricular Report
- Colorado State University Pueblo
 - Faculty Activity
 - Promotion and Tenure
 - Emeritus
 - Sabbatical
 - Curricular Report
- Colorado State University Global Campus
 - Faculty Activity

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Advanced Construction Manager Certificate
 - b. Program Type: Undergraduate Certificate level 01-less than one year
 - c. CIP Code: 52.2001
 - d. College, School, Dept. (all that apply): College of Science, Technology, Engineering and Mathematics; School of Engineering

2. Brief History of Program:

The Advanced Construction Manager certificate was created in 2019 for students with a working knowledge of the construction industry to enhance their knowledge of construction management techniques and planning aspects of construction.

The Construction Management faculty have restructured the certificates within the program starting in fall 2023 to clearly identify program outcomes which align with industry needs and employment options. The new certificate structure replaces this certificate to better serve students.

3. Provisions for Accommodating Currently Enrolled Students:

Spring 2023 is the last term students may declare the program. Courses in this program will all continue to be taught as they are part of the Construction Management bachelor's degree curriculum. Therefore, currently enrolled students would be able to complete the certificate. Additionally, interested students are being advised to consider the new certificates in the fall 2023 catalog to better position themselves for employment.

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Construction Manager Certificate
 - b. Program Type: Undergraduate Certificate level 01-less than one year
 - c. CIP Code: 52.2001
 - d. College, School, Dept. (all that apply): College of Science, Technology, Engineering and Mathematics; School of Engineering

2. Brief History of Program:

The Construction Manager certificate was created in 2019 to introduce the non-construction management student to the construction industry and the skills required to hold entry-level position within it. It included courses that were part of the Bachelor of Science degree in Construction Management.

The Construction management faculty have restructured the certificates in the program starting in fall 2023 to clearly identify program outcomes which align with industry needs and employment options. The new certificate structure replaces this old certificate to better serve students.

3. Provisions for Accommodating Currently Enrolled Students:

Spring 2023 is the last term students may declare the program. Courses in this program will all continue to be taught as they are part of the Construction Management bachelor's degree curriculum. Therefore, currently enrolled students would be able to complete the certificate. Additionally, interested students are being advised to consider the new certificates in the fall 2023 catalog to better position themselves for employment.

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Automotive Industry Management (AIM)
 - b. Program Type: Undergraduate Program (BS and BAS)
 - c. CIP Code: 15.0803
 - d. College, School, Dept. (all that apply): Hasan School of Business

2. Brief History of Program:

The Automotive Industry Management (AIM) Program was designed to combine a range of management, business, and technical skills that are applicable to the automotive parts and service industries. The program prepares students for a broad range of career opportunities in supervisory business management and advanced technical skills in the automotive industry.

The number of majors has decreased by more than 50% since 2018 and now stands at less than 30. This has resulted in numerous offerings of low enrollment courses. The program generates low FTE, especially given that the program does not provide service courses for other programs. These concerns coupled with concerns of an outdated curriculum, lack of faculty leadership and collegiality in the program, and the stewardship of investing in renovation of space for a struggling program as part of the larger renovation of the Technology Building prompted a Program Review one year ahead of the normal cycle. The external experts as part of their findings, the home School of the program through its seminar panel, and the faculty led Curriculum and Academic Programs Board (CAPB) recommended discontinuation of the program as part of the program review process. The CSU Pueblo Faculty Senate did not agree with the recommendation of the CAPB. After careful consideration the Offices of the Provost and President concur with the external reviewers, School of Business, and the CAPB in recommending discontinuation of the AIM Program.

3. Provisions for Accommodating Currently Enrolled Students:

Summer 2023 is the last term students will be accepted into the program. All active students admitted in the program on or before the summer 2023 term will be taught out on or before the completion of the spring 2027 semester.

Consent Item

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Criminal Justice
 - b. Degree Type: Masters Degree
2. Brief History of Program: The Masters of Criminal Justice Program was introduced in 2012 and for FY22 there were 106 students in the program, with 174 total students served since inception. Under CSU Global's Low Enrollment Policy, as approved by its faculty-majority Curriculum Committee and its Governance Council, the program, meets the outlined criteria to cease new/transfer enrollment into the program as all existing students are continued to be served through completion and/or the last term for the program identified below.
3. Provisions for Accommodating Currently Enrolled Students:

Fall D/October 9, 2023 is the last term students may be admitted to the program.

Spring 2027 is the last term students can complete the program.

Consent Item

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Fundraising
 - b. Degree Type: Undergraduate Certificate and Specialization
2. Brief History of Program: Undergraduate Certificate / Specialization Programs in Fundraising was introduced in Spring 2019 and for FY22 there have been 5 students total served from inception. Under CSU Global's Low Enrollment Policy, as approved by its faculty-majority Curriculum Committee and its Governance Council, the program, meets the outlined criteria to cease new/transfer enrollment into the program as all existing students are continued to be served through completion and/or the last term for the program identified below.
3. Provisions for Accommodating Currently Enrolled Students:
Spring D/June 12, 2023 is the last term students may be admitted to the program.
Spring 2025 is the last term students can complete the program.

Consent Item

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Military & Emergency Responder Psychology (MERP)
 - b. Degree Type: Masters Degree
2. Brief History of Program: The MERP Program was introduced in Fall 2019, and for FY22 there were 113 students total served since inception. Data analyses of the program also reveal that while the original cohort retention in Fall 2020 was at 85%, subsequent cohorts have experienced a withdrawal rate of 24-26%. Under CSU Global's Low Enrollment Policy, as approved by its faculty-majority Curriculum Committee and its Governance Council, the program, meets the outlined criteria to cease new/transfer enrollment into the program as all existing students are continued to be served through completion and/or the last term for the program identified below.
3. Provisions for Accommodating Currently Enrolled Students:
Spring D/June 12, 2023 is the last term students may be admitted to the program.
Spring 2027 is the last term students can complete the program.

Consent Item

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Marketing
 - b. Degree Type: Masters Degree
2. Brief History of Program: The Masters of Marketing Program was introduced in 2022, and for FY22 there have been 37 students total served from inception with 16 currently in the program. Under CSU Global's Low Enrollment Policy, as approved by its faculty-majority Curriculum Committee and its Governance Council, the program, meets the outlined criteria to cease new/transfer enrollment into the program as all existing students are continued to be served through completion and/or the last term for the program identified below.
3. Provisions for Accommodating Currently Enrolled Students:

Spring D/June 12, 2023 is the last term students may be admitted to the program.

Spring 2025 is the last term students can complete the program.

Consent Item

Discontinued Academic Program Details

1. Specific Identifiers
 - a. Name of Program: Networking
 - b. Degree Type: Undergraduate Certificate
2. Brief History of Program: Undergraduate Certificate Program in Networking was introduced in Fall 2017-2018, and for FY22 there have been 11 students total served from inception. Under CSU Global's Low Enrollment Policy, as approved by its faculty-majority Curriculum Committee and its Governance Council, the program, meets the outlined criteria to cease new/transfer enrollment into the program as all existing students are continued to be served through completion and/or the last term for the program identified below.
3. Provisions for Accommodating Currently Enrolled Students:

Spring D/June 12, 2023 is the last term students may be admitted to the program.

Spring 2025 is the last term students can complete the program.

Board of Governors of the Colorado State University System
Meeting Date: June 7-9, 2023
Consent Item

MATTERS FOR ACTION:

CSU-Fort Collins – 2022-2023 Academic Faculty and Administrative Professional Manual Revisions: Sections C.2.1.2, C.2.6 and C.2.7

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve the proposed revisions to the Colorado State University Academic Faculty and Administrative Professional Manual, Sections C.2.1.2, C.2.7 and C.2.6

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

The proposed changes integrate “Shared Governance” into code, which formalizes our current practices.

NOTE: Revisions are noted in the following manner:
Additions - underlined Deletions - ~~overseored~~

ACADEMIC FACULTY AND ADMINISTRATIVE PROFESSIONAL MANUAL
REVISIONS AND ADDITIONS – 2022-2023

C.2.1.2 Powers and Responsibilities (*last revised June 23, 2010 xxx*)

Subject to the statutes of the State and regulations and policies of the Board, and consistent with the principles of shared governance, the Faculty Council shall have jurisdiction over the general educational policy of the University, shall pass all rules and regulations necessary to University government and discipline, and shall have statutory charge of the laboratories and libraries.

Consistent with powers delegated to it by the faculty and the Board, the Faculty Council shall make recommendations to promote the educational interests of the University as a whole with respect to:

- a. Minimum standards for admission to the undergraduate colleges and the Graduate School. (Standards for admission and graduation for a particular college, school or division may not be lower or less specific than those adopted by the Faculty Council.)
- b. General policies concerning academic curricula, college and departmental organization, extension, and research activities, including long-range planning and resource allocation.
- c. The academic calendar, the *Colorado State University General Catalog*, and the *Graduate and Professional Bulletin*.
- d. Student attendance, counseling, scholastic standards, honors, requirements for degrees and other academic programs, student activities, and general student conduct.
- e. The libraries, museums, assemblies and convocations, and other matters that will increase the professional and cultural standing of the University.
- f. The granting of degrees.
- g. Other matters referred to it by the Board, the President, the faculty of a college, the several committees of the Faculty Council, and the faculty or a member thereof.

C.2.6 Duties of Officers (*last revised xxx*)

C.2.6.1 Deans of the Colleges (*last revised xxx*)

The dean of a college is the principal administrative and academic officer of that college. Department heads with their staffs are responsible to the dean. The dean serves as chairperson of meetings of the department heads and/or faculty members of the college.

The dean of a college has the following principal and specific responsibilities:

- a. Review and approval of budgets for all departments of the college.
- b. General, but not detailed, supervision of and maintenance of adherence to determined departmental budgets and coordination and attention to equity in salaries and other fiscal matters within the framework of academic instruction in the college.
- c. Development and strengthening of the faculty members, facilities, undergraduate and graduate teaching, research and extension programs, and prestige of the college in the interest of the entire University.
- d. Consideration and approval of recommendations for appointments, advancement, and tenure of college staff members.
- e. Development and coordination of curricula to meet changing educational and vocational needs of students together with maintenance of acceptable standards for admission and retention of students majoring in the college.
- f. Analysis of teaching loads and related staff responsibilities to promote the best interests of students and maximum effectiveness of the faculty member as well as their individual professional development and accomplishment.
- g. Coordination of all academic and instructional matters within the college and with other colleges and departments.
- h. Counseling of both faculty members and students in need of direction or advice.
- i. Objective evaluation of programs within the dean's college.
- j. Work toward achieving the University's diversity, equity and inclusion goals.
- k. Adhere to principles of shared governance in the implementation of the above responsibilities.

Recommendations for appointment of department heads are the responsibility of the dean. The dean shall provide for appointment of a departmental committee to advise the dean and shall make available to members of the committee written instructions concerning procedures to be followed, minimum qualifications acceptable for the position, and specific responsibility of an advisory committee.

The deans shall receive and analyze annual and semiannual departmental reports in their respective colleges and shall transmit these, together with their college reports, through the Provost to the President for transmittal to the Board;

C.2.6.2 Department Heads (*last revised May 6, 2021 xxx*)

The department head is the administrative and academic officer in the department and is the initial person in the administrative chain to the President. Members of the department staff are responsible to the department head. The department head has the general responsibility for any staff activities which may affect the professional status of the department or the best interests of the University.

Specific responsibilities of the department head are:

- a. Preparation of the departmental budget.
- b. Administration of and adherence to the departmental budget.
- c. Evaluation of each departmental faculty member in accordance with the University Code.
- d. Initiation of recommendations for appointments, advancement, tenure, and dismissal of staff members, including incorporation of input from students and faculty members' relating to the teaching and advising effectiveness of faculty members being recommended for reappointment, promotion, tenure, dismissal, and salary increase.
- e. Management of academic and financial matters within the department to promote student achievement, equity in travel and professional opportunities for staff members, and adjustment of faculty members' loads and salaries consistent with experience, competence, capacity, productivity, and aptitude of individual staff members.
- f. Preparation of reports called for by higher authorities or by agencies of the institution charged with coordinating the general program of the University.
- g. Adhere to principles of shared governance in the implementation of the above responsibilities.

Additional responsibilities of the department head, together with the departmental staff, are: development and strengthening of undergraduate and graduate teaching, research, extension programs, and faculty members' service and competence within the department; construction of sound curricula to meet educational needs of students; cooperation with and assistance to other departments in matters affecting the University in its undergraduate and graduate teaching, research, and extension programs; effective staff recruitment; development and maintenance of departmental morale; contributions to shared governance; and work toward achieving the University's diversity, equity and inclusion goals.

C.2.7 Evaluation of Performance of Officers

- a. The performance of each department head shall be evaluated annually by the dean of the appropriate college. In making the evaluation, the dean shall solicit and utilize information obtained from all faculty members in the respective department.

b. The performance of each dean shall be evaluated annually by the Provost. When evaluating a college dean, the Provost shall solicit and utilize information from the faculty members of the dean's college obtained in accordance with that college's procedures.

c. The performance of each vice president shall be evaluated annually by the President. In making the evaluation, the President shall solicit and utilize information obtained from all deans and directors reporting to the respective vice president.

d. The performance of the President is evaluated by the Board. In its evaluation, the Board solicits opinions from faculty members which are provided by the Faculty Council and its Executive Committee through the Faculty Council Representative to the Board.

e. Effectiveness of substantial, demonstrable leadership in meeting diversity, equity and inclusion goals, and facilitating shared governance shall be included in evaluations of all administrative officers.

Board of Governors of the Colorado State University System
Meeting Date: June 7-9, 2023
Consent Item

MATTERS FOR ACTION:

CSU-Fort Collins – 2022-2023 Academic Faculty and Administrative Professional Manual Revisions: Sections C.2.4.1.1 and C.2.4.2.1

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve the proposed revisions to the Colorado State University Academic Faculty and Administrative Professional Manual, Sections C.2.4.1.1 and C.2.4.2.1

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

The proposed changes integrate “Shared Governance” into code, which formalizes our current practices.

NOTE: Revisions are noted in the following manner:
Additions - underlined Deletions - ~~overseored~~

ACADEMIC FACULTY AND ADMINISTRATIVE PROFESSIONAL MANUAL
REVISIONS AND ADDITIONS – 2022-2023

C.2.4.1.1 College Code *(last revised ~~August 12, 2009~~ xxx)*

The college code shall provide for the following:

- a. Designation of the title(s) of its administrative officer(s).
- b. Recognition of shared governance and ~~A~~any administrative organization within the college, including all college-wide standing committees and their duties.
- c. Statement of college objectives.
- d. Procedures relating to self-evaluation of college operations.
- e. Procedures for reviewing candidates for new or vacated administrative positions.
- f. Procedures for evaluating and reviewing administrative officers.
- g. Procedures for electing or appointing faculty members to college wide committees.
- h. Procedures for addressing college wide academic matters.
- i. Procedures for calling and convening college faculty meetings.
- j. Procedures for amending the code.
- k. Procedures for reviewing the code at least once every five (5) years and submitting it to the Provost for review, whether or not any change are made.

C.2.4.2.1 Departmental Codes *(last revised ~~February 5, 2016~~ xxx)*

The departmental code shall provide for the following:

- a. Designation of the title of its administrative officer.
- b. Recognition of shared governance and ~~A~~any administrative organization within the department ~~if desired.~~³
- c. Statement of the departmental mission.

- d. Procedures relating to the review of candidates for new or vacated faculty member positions.
- e. Procedures relating to the review of recommendations for faculty members for acquiring tenure, for promotion in rank, and for reappointment.
- f. Procedures for appointing faculty members to graduate student advisory committees.
- g. Procedures for conducting annual and periodic comprehensive reviews of the performance of departmental faculty members as prescribed in Section E.14.
- h. Procedures relating to self-evaluation of departmental operations.
- i. Procedures by which students may appeal academic decisions of their instructors. These procedures shall comply with the guidelines approved by the Faculty Council (see Section I.7).
- j. A minimum of one (1) departmental faculty meeting each semester of the academic year, with written notice given in advance by the department head.
- k. A periodic review of the departmental code as specified in Section C.2.4.2.2.e.
- l. Procedures for amending the code. These procedures shall require approval of a two-thirds (2/3) majority of the eligible faculty members of the department (as defined in Section C.2.4.2) to amend the department code.
- m. A clear specification of the voting rights of all members of the department who are not faculty members with tenured, tenure-track, or transitional appointments not otherwise specified in the Manual.

~~³ Throughout the University Code the term department head is used and is meant to include department chairs and/or heads of academic departments and the directors of schools.~~

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Consent Item

MATTERS FOR ACTION:

Sabbatical return policy waiver request

EXPLANATION:

Presented by Chad Kinney, interim Provost and Executive Vice President for Academic Affairs, CSU Pueblo.

INTRODUCTION: Dr. Colleen Hackett was on sabbatical during the fall 2022 semester. Dr. Hackett has accepted a faculty position at another institution beginning fall 2023. As part of the CSU Pueblo Faculty Handbook the following policy related to sabbaticals the following policy appears in section 2.11.2.2.h. “Sabbatical leaves are granted on the condition that the recipient sign an agreement to return to the University for a full academic year immediately following the conclusion of the leave. If the recipient fails to return, the salary paid by the University during the period of leave must be reimbursed over a period of time not to exceed two (2) calendar years from the beginning of the semester the recipient is scheduled to return. **Upon recommendation of the Provost, the Board of Governors may waive the reimbursement requirement or extend the period for reimbursement.** If, for any reason, the University does not offer an appointment for the year following the sabbatical leave, the faculty member is not obligated to reimburse the University.”

Factors contributing to this request include:

- Although she was on sabbatical in fall of 2022 and conducting research for the CDHE, she still taught one class for the department.
- Dr. Hackett has continued in good standing at CSU Pueblo including engaging students in mentored scholarly activity throughout the academic year.
- Dr. Hackett secured a grant from the Colorado Department of Health and Environment (CDHE) in the fall of 2022, which brought CSU Pueblo revenue and would have paid for the courses she did not teach.
- Dr. Hackett will be teaching and performing departmental and university duties through August of 2023, including teaching two summer classes and continuing to teach through Extended Studies.
- Dr. Hackett has maintained a consistent record of active participation and service to her department, CHASS, and CSU Pueblo before, during and after her sabbatical.

Board of Governors of the Colorado State University System
Meeting Date: June 7-9, 2023
Consent Item

MATTERS FOR CONSENT:

Approval of additional location for CSU Pueblo program through the Colorado Department of Corrections at the Youth Offender System site in Pueblo, Colorado.

RECOMMENDED ACTION:

MOVED, that the Board of Governors of the Colorado State University System hereby approve the additional location for certificate program offering at the Colorado Department of corrections at the Youth Offender System site in Pueblo, Colorado.

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President of Academic Affairs, CSU Pueblo.

The Higher Learning Commission requires the Board of Governors approve a new location for offering 50% or more of university programs. CSU Pueblo provides courses for inmates of the Colorado Department of Corrections that are housed at the Youth Offender System site located in Pueblo, Colorado. These inmates are persons who as juveniles committed crimes and were charged as adults. CSU Pueblo offers these courses through the Extended Studies department in an effort to facilitate the reintegration into society for these juvenile offenders.

Board of Governors of the Colorado State University System
Meeting Date: June 7-9, 2023
Consent Item

MATTERS FOR CONSENT:

Approval of additional location for CSU Pueblo programs from the School of Nursing and Hasan School of Business in Walsenburg, Colorado at the Huerfano School District building

RECOMMENDED ACTION:

MOVED, that the Board of Governors of the Colorado State University System hereby approve the additional location at the Huerfano School District building, named the Washington Street School located in Walsenburg Colorado for academic program offerings of the School of Nursing and a certificate in Foundations of Business.

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President of Academic Affairs, CSU Pueblo.

The Higher Learning Commission requires the Board of Governors approve a new location for offering 50% or more of university academic programs. CSU Pueblo is working to provide programming in the Walsenburg area under a rural initiative for nursing, and also to provide a certificate in Foundations of Business.

The Huerfano County school district has offered to provide space within the Washington Street School in Walsenburg for CSU Pueblo to offer courses and to locate an office. The intent is to start programming in the Spring 2024 semester and begin working to set up the space during the summer of 2023. There is currently no expense to CSU Pueblo for the use of the building.

Approved

Denied

Board Secretary

Date

MATTERS FOR ACTION:

Approval of contractual agreements with Distance Providers for the CSU Pueblo Teacher Education Program

RECOMMENDED ACTION:

MOVED, that the CSU Board of Governors approve the contractual agreements with the CSU Pueblo Teacher Education Program Distance Providers for the Master of Education degree.

EXPLANATION:

Presented by Dr. Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs.

The Higher Learning Commission (HLC) accreditation criteria requires the governing body of an institution of higher education to approve contractual agreements for outsourcing portions of academic programs with Distance Providers. CSU Pueblo Teacher Education Program has ongoing Memoranda of Understanding (MOU) with Distance Providers for graduate level education courses. Each provider hires and oversees instructors for delivery of courses. Instructor credentials and course syllabi are approved by CSU Pueblo and the coursework is transcribed by CSU Pueblo upon completion. Up to 18 credits of such coursework may be applied to our Master of Education (M.Ed.) program. Each Distance Provider enters into a separate agreement with CSU Pueblo.

Approval is sought for the agreements in place with the following 35 providers and also approval to allow CSU Pueblo to enter into similar agreements with other distance providers they may contract with in the future:

TEP Provider
A+ Advancement for Educators
Affordable Credits for Teachers
CPD Classes
Credits for Teachers
Ed Technology Specialists
EduCalc Learning
Educators Academy
I FireUp
Idioma
Innovations for Ed
Instructional Concepts

Jim Place Services
Landmark School Outreach Program
Lifetime Learning: Continuing Education for Teachers
Literacy Bin
Midwest Teachers Inst.
Music ConstrucED
NorthStar
One Step Ahead
Orton-Gillingham Nation
Schoolhouse Consultants
Siedow Teacher Ed
Simply Me
Student Services Academy
Teacher's Learn and Earn
Teacher's Learning Center
Teacher's Professional Adv. Institute
The Connected Classroom
The Educator's Place
The Institute for Real World Teaching and Learning
The Learning Tree
The Modern Classroom Projects
TheraCourse
Therapy Advance
World Language PD

Approved

Denied

Board Secretary

Date

Board of Governors of the
Colorado State University System
Meeting Date: June 7-9, 2023
Consent Item

MATTERS FOR ACTION:

Program Review Schedule

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve and forward to the Colorado Commission on Higher Education the information that Colorado State University Pueblo will review academic programs in academic year 2023-2024 in accordance with the Program Review Plan for the CSU System. The CSU Pueblo program review calendar appears on the next page.

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs, CSU Pueblo.

This is in accordance with the established review schedule for 2023-2024 through 2029-2030 on the next page and approved by the CSU Pueblo Curriculum and Academic Programs Board (CAP Board). Each program is reviewed by the University once every five to seven years. As appropriate, the internal review is scheduled to correspond with their disciplinary accreditation review.

**CSU Pueblo
Program Review Calendar**

2023-2024	CHASS: CHEN: STEM:	Criminology (BA/BS), Sociology (BA/BS), Political Science (BA/BS) Early Childhood Education (BS), Education (MEd), Liberal Studies (BS), Middle School Math Ed (BS), Exercise Science, Physical Education & Recreation (BS) Chemistry (MS), Biochemistry (MS), Mathematics (BA/BS), Wildlife and Natural Resources (BS)
2024-2025	CHASS: CHEN: EXST: HSB: STEM:	English (BA), History (BA/BS), Music (BA), Psychology (BA/BS) Nursing (BSN) Interdisciplinary Studies (BA/BS) Accounting (BSBA), Business Management (BSBA), Economics (BSBA), Marketing (BSBA), Business Administration (MBA: Including Joint BSBA/MBA), Computer Information Systems (BS: Including Joint BS-CIS/MBA), Civil Engineering Technology (BSCET), Construction Management (BS) Biology (BS), Biology (MS), Engineering (BSE), Industrial Engineering (BSIE), Industrial & Systems Engineering (MS), Mechatronics Engineering (MS)
2025-2026	CHASS: CHEN: STEM:	Art, Art & Creative Media (BA/BFA), Humanities & Social Sciences (BA) Media & Entertainment (BA/BS), Gaming & Immersive Media (BS), World Languages (Spanish BA) Athletic Training (MS), Health Science (BS), Health Science & Administration (BAS) Cannabis Biology & Chemistry (BS), Physics (BS)
2026-2027	EXST:	Organizational Leadership (BAS)
2027-2028	CHASS: CHEN:	Social Work (BSW), Social Work (MSW), Nursing (DNP)
2028-2029	CHEN: HSB: STEM:	Nursing (MS) Automotive Industry Management (BS & BAS) Chemistry (BS), Chemistry (MS), Biochemistry (MS) Wildlife and Natural Resources (BS)
2029-2030	CHASS: STEM:	Criminology (BA/BS), Sociology (BA/BS), Political Science (BA/BS) Chemistry (BS), Civil Engineering (BS)

Abbreviations:

CHASS:	College of Humanities and Social Sciences
CHEN:	College of Health, Education, and Nursing
EXST:	Extended Studies
HSB:	Hasan School of Business
STEM:	College of Science, Technology, Engineering, and Mathematics

Board of Governors of the Colorado State University System
Meeting Date: June 7-9, 2023
Report Item

MATTERS FOR ACTION:

Report of Colorado State University Pueblo Accreditation Schedule for AY 2023-2024. Report Item. No action necessary.

EXPLANATION:

Presented by Dr. Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs.

REPORT ON ACCREDITATION SCHEDULE FOR AY 2023-2024

The following colleges with program-level accreditations will undergo site visits during the upcoming 2023-2024 academic year:

College of Science, Technology, Engineering and Mathematics

- The School of Engineering will have an accreditation reauthorization visit from the Accreditation Board for Engineering and Technology (ABET) in 2023-24.

College of Health, Education, and Nursing

- The School of Nursing will have an accreditation reauthorization visit from the Accreditation Commission for Education in Nursing (ACEN) in 2023-24.

Hasan School of Business

- The Hasan School of Business will have an accreditation reauthorization visit from the Association to Advance Collegiate Schools of Business (AACSB) in 2023-24.

Board of Governors of the Colorado State University System

Meeting Date: June 7-9, 2023

Report Item

REPORT ITEM:

CSU-Fort Collins – Faculty Activity Report

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

Colorado State University employs a comprehensive system for hiring faculty and evaluating faculty performance. The following report describes the hiring process, results of annual performance reviews, promotion and tenure, and periodic comprehensive reviews (post-tenure reviews). This report also summarizes faculty demographic and salary information.

Colorado State University-Fort Collins Report on Faculty Activity – Academic Year 2022-2023

Colorado State University seeks to ensure that every faculty member meets or exceeds the expectations for their appointment. This report summarizes the procedures the University uses to ensure faculty meet the University's performance standards and provides a brief analysis of the outcomes of the various types of review. The process begins with the hiring of new faculty (Section I below) and continues with annual performance reviews (Section II). Untenured faculty members undergo an annual review of progress toward tenure and are reappointed only if satisfactory performance is documented (Section III). At the midpoint of the probationary period, ordinarily during the third year of appointment, such untenured faculty members undergo a more comprehensive review. The critical decision concerning tenure and promotion normally occurs in the sixth year (Section IV). Contract, continuing, and adjunct faculty (i.e., faculty off the tenure-track) follow an analogous annual and promotion review process, with the exception that there is no formal probationary period or tenure-clock. Tenured faculty members also undergo a periodic comprehensive review (Section V). The outcomes of these reviews for 2022-2023 indicate that the vast majority of Colorado State University faculty members are performing at or above the expectations for their assignments.

A new type of faculty appointment was added in May 2022 creating Extension Faculty Appointments (see section E.2.2.1 in the *Academic Faculty & Administrative Professional Manual*). These appointments can have the ranks of instructor, senior instructor, master instructor, assistant professor, associate professor and professor, and promotions follow the procedures in section E.13 of the *Manual*. These appointments are not eligible for tenure and use titles modified to reflect their specialized appointment (e.g., Extension Instructor) based on criteria established in the CSU Extension code. These faculty do not report up through the Provost's Office and thus are not included in this report.

I. PROCESS FOR FACULTY HIRES

Hiring new faculty members is among the most important responsibilities of department faculty and college administrators. The processes used in soliciting applications and interviewing candidates vary across the University, but universally, the search processes are characterized by thoroughness and intensity. Searches generally share the following characteristics:

1. Positions are advertised in printed and electronic form in locations appropriate for the discipline involved. Advertising must appear in locations ordinarily accessed by potential faculty members who would enhance the diversity of the unit. Members of search committees are expected to be proactive in solicitation of nominations and applications. Advertising typically specifies the expectations of the successful applicant in terms of teaching, advising, research, service, outreach, clinics, extension and engagement.
2. Applicants provide a letter of interest, a curriculum vita, and typically three letters of recommendation. Application materials often include statements of teaching philosophy,

a list of courses the applicant is qualified to teach, summaries of student evaluations, and a research statement.

3. Semifinalists are selected after a careful screening by a departmental committee and in strict adherence with clearly defined equal opportunity guidelines. Often, additional information is solicited from other experts in the field.
4. Finalists are selected after another careful screening. Interviews usually include meetings with those who are likely to have important roles in the professional life of the successful applicant. This certainly includes members of the faculty of the department conducting the search, but often also includes faculty members from other departments where interactions and collaborations might occur. Students are often included in the interview process. The interview almost always includes one or more presentations by the applicant and a meeting with the Dean.

II. ANNUAL PERFORMANCE REVIEWS

Performance reviews are conducted for all Colorado State University faculty members on an annual, calendar-year basis. Each faculty member prepares an annual activities report which details their activities in teaching, research and creative activity, and service/outreach. The department head/chair assesses the activities of the faculty member and assigns a performance rating for each of the three categories and an “overall” rating. The faculty member and the head/chair meet to discuss the evaluation which is then forwarded to the college dean’s office for review. The summary report of the evaluation is forwarded to the Provost’s Office for further review and reporting.

From annual activities reports for calendar year 2022, tenure-track and tenured faculty expended an average percentage of their effort as follows: 39% in teaching, 41% in research and creative activity, and 19% percent in service/outreach; contract, continuing and adjunct faculty expended an average percentage of their effort as follows: 78% in teaching, 5% in research and creative activity, and 15% percent in service/outreach. During this review cycle, 992 tenured and tenure-track faculty (TTF) and 611 contract, continuing, and adjunct faculty (CCAF) were assigned “overall” ratings. The outcomes were:

Annual Performance Review Summary

Overall Rating	TTF	CCAF
Superior Performance	265	150
Exceeded Performance Expectations	515	321
Met Performance Expectations	201	138
Below Performance Expectations	11	2
Unsatisfactory Performance	0	0
Total	992	611

The overwhelming majority of the reviews were positive, indicating that the faculty are meeting or exceeding the University’s performance expectations. Those who receive “below expectations” may be given suggestions for improvement in one or more of the three categories that are evaluated, and if this rating persists across two consecutive years, a formal comprehensive review is initiated.

III. REAPPOINTMENT

Academic faculty on tenure-track appointments who have not acquired tenure are appointed on a contractual basis not exceeding one year. Such faculty members undergo an annual review of progress toward tenure by the department Promotion and Tenure Committee as well as the Department Chair or Head. At the midpoint of the probationary period, ordinarily near the end of the third year of appointment, such faculty members undergo a more comprehensive review. Tenure-track faculty members making satisfactory progress are reappointed.

IV. TENURE AND PROMOTION

The following table summarizes Colorado State University’s promotion and tenure activity for tenure-track/tenured faculty evaluated during the 2022-2023 academic year.

TTF Promotion and Tenure Summary

College	Tenure	Tenure & Promotion to Associate	Promotion to Full	Denied	Total
College of Agricultural Sciences		2	6		8
College of Business		2	1	2	5
College of Health and Human Sciences		6	2	1	9
College of Liberal Arts	1	13	2		16
College of Natural Sciences		4	3		7
College of Veterinary Medicine and Biomedical Sciences	1	5	5		11
Walter Scott, Jr. College of Engineering		5	5	1	11
Warner College of Natural Resources		3	2		5
University Libraries		1			1
TOTAL	2	41	26	4	73

The following table summarizes Colorado State University’s promotion activity for contract, continuing, and adjunct faculty evaluated during the 2022-2023 academic year.

CCAF Promotion Summary

College	Instructor to Senior Instructor	Senior to Master Instructor	Assistant to Associate Professor	Associate Professor to Professor	Total
College of Agricultural Sciences	1		1		2
College of Business	1				1
College of Health and Human Sciences		2	3	2	7
College of Liberal Arts	6	3	2		11
College of Natural Sciences		1	2	1	4
College of Veterinary Medicine and Biomedical Sciences			8		8
Walter Scott, Jr. College of Engineering			5	1	6
Warner College of Natural Resources					0
University Libraries			2		2
TOTAL	8	6	23	4	41

V. COMPREHENSIVE REVIEW OF TENURED FACULTY

All tenured faculty at Colorado State University are subject to periodic comprehensive reviews of their performance. Phase I Comprehensive Performance Reviews of faculty are conducted by the department head/chair at intervals of five years following the acquisition of tenure, or if there are two unsatisfactory annual reviews within a five-year period. The department head’s review identifies strengths and any deficiencies in the faculty member’s performance. Department heads who believe that a faculty member’s deficiencies can be corrected without implementing a Phase II Comprehensive Performance Review prepare, in consultation with the faculty member, a specific professional development plan to assist the faculty member in meeting the department’s performance expectations. The review may also result in changes in the distribution of the faculty member’s effort across teaching, research, outreach, and service.

If a faculty member’s deficiencies are deemed to be more significant, a Phase II Comprehensive Performance Review is initiated. This review is conducted, according to procedures specified in the *Academic Faculty & Administrative Professional Manual*, by three of the faculty member’s tenured peers at the same or higher rank. The department head is not a committee member. A majority of the committee must decide if: a. The faculty member has met the reasonable expectations for faculty performance, as identified by their academic unit; b. There are deficiencies, but they are not judged to be substantial and chronic or recurrent; c. There are deficiencies that are substantial and chronic or recurrent.

For either of the first two (2) outcomes, no further action is necessary. For the third outcome, taking into account the faculty member’s actions, prior actions and history, and whether a pattern exists, the committee’s written report shall recommend whether or not disciplinary action should be pursued as described in Section E.15 of the *Academic Faculty & Administrative Professional Manual*. Section E.14 of the manual describes these processes in more detail, including the faculty members rights to respond to these evaluations.

The following table summarizes the results of the reviews by College and outcome.

2022-2023 Comprehensive Review Summary

College	Total	Satisfactory	Professional Development Plans	Phase II	Not Completed
College of Agricultural Sciences	6	6			
College of Business	12	12			
College of Health and Human Sciences	12	12			
College of Liberal Arts	23	23			
College of Natural Sciences	26	26			
College of Veterinary Medicine and Biomedical Sciences	10	10			
Walter Scott, Jr. College of Engineering	28	26	1		1
Warner College of Natural Resources					
University Libraries	0	0			
Total	117	115	1		1

Results from the last six years of Comprehensive Reviews are recorded in the table below.

Five Year Comprehensive Review Summary

Year	Number	Satisfactory	Professional Development Plans	Phase II	Not Completed
2017-2018	143	143	2	0	
2018-2019	124	123	3	1	
2019-2020	83	82	1	0	
2020-2021	116	106	3	2	5
2021-2022	90	90	0	0	19
2022-2023	117	115	1		1

VI. Faculty Workload Analysis

As part of a review of faculty workload reports in FY13, the Academic and Student Affairs Committee agreed on a set of six metrics to use to measure faculty workload; these are:

- The UG Student/Faculty Ratio as computed for the IPEDS data set
- The UG FTE/AAUP Instructional Faculty ratio
- The UG Degrees/AAUP Instructional Faculty ratio
- The Graduate FTE/AAUP Instructional Faculty ratio
- The Graduate Degrees/AAUP Instructional Faculty ratio
- NSF Research Expenditures/AAUP Instructional Faculty

Institutional Research, Planning and Effectiveness has been tracking these metrics for some time; we present below the past five years of data.

Metrics	2018		2019		2020		2021		2022	
	CSU	Peers	CSU	Peers	CSU	Peers	CSU	Peers	CSU	Peers
NSF Federal Research Exp/AAUP Faculty	\$316	\$317	\$322	\$323	\$334	\$332	\$372	\$320	\$382	
Graduate Degrees/AAUP Faculty	1.77	1.58	1.70	1.57	1.78	1.78	1.60	1.70	1.83	
Graduate FTE/AAUP Faculty	3.84	4.15	3.72	4.04	3.69	4.19	3.75	4.28	3.85	
UG Degrees/AAUP Faculty	4.51	5.00	4.44	4.78	4.58	4.87	4.60	4.40	4.50	
UG FTE/AAUP Faculty	19.98	19.61	18.91	17.68	17.69	18.41	18.04	17.75	19.60	

*Student FTEs calculated as full-time headcount + 1/3rd part-time headcount

VII. Faculty Demographics

Below is basic faculty demographic data by appointment type for the past ten years; these statistics and many others can be found in the CSU Fact Book. Across all ranks and appointment types, the proportion of racially minoritized faculty has increased to 15% of the total (up from 14%); the proportion of female faculty increased to 48% of the total (up from 47%).

Tenured Faculty

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Assistant Professor	2	3	1	1	0	0	0	2	1	0
Associate Professor	364	372	362	349	339	304	309	323	342	340
Professor	427	446	453	458	445	472	485	504	480	483
Asian	55	62	64	65	65	64	66	64	66	71
Black	7	9	8	7	9	7	6	7	7	8
Hispanic/Lantino	30	39	40	41	42	45	42	46	50	46
International	5	6	8	7	9	10	13	17	24	25
Multi-Racial	5	5	6	6	6	6	11	11	10	12
Native American	2	2	2	1	1	1	2	2	3	3
No Response	0	1	0	0	2	0	0	1	0	3
White	689	697	688	681	650	643	654	681	663	655
Minority	99	117	120	120	123	123	127	130	136	140
Non-Minority	694	704	696	688	661	653	667	699	687	683
Female	262	270	275	282	280	281	288	314	316	308
Male	531	551	541	526	504	495	506	515	507	515
Total	793	821	816	808	784	776	794	829	823	823

Tenure-Track Faculty

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Assistant Professor	232	224	227	252	260	277	288	268	231	224
Associate Professor	14	16	12	14	18	24	21	14	13	15
Professor	6	2	6	7	5	8	8	6	6	8
Asian	22	23	21	23	26	39	27	27	21	28
Black	4	5	3	3	3	4	8	6	4	4
Hispanic/Lantino	21	11	13	11	9	10	14	15	9	10
International	20	17	14	18	19	22	39	31	23	25
Multi-Racial	2	5	8	7	10	13	9	9	9	6
Native American	0	2	2	2	1	3	2	1	1	1
No Response	30	3	0	24	21	3	18	6	9	21
White	153	176	184	185	194	215	200	193	174	152
Minority	49	46	47	46	49	69	60	58	44	49
Non-Minority	203	196	198	227	234	240	257	230	206	198
Female	119	119	120	121	129	138	152	137	123	127
Male	133	123	125	152	154	171	165	151	127	120
Total	252	242	245	273	283	309	317	288	250	247

Continuing/Contract/Adjunct Faculty

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Assistant Professor	113	115	130	134	145	145	148	140	144	147
Associate Professor	21	25	22	26	29	24	39	57	65	80
Instructor	510	550	549	581	590	576	455	412	399	392
Master Instructor							13	9	25	39
Professor	21	27	27	24	26	27	30	36	37	36
Senior Instructor						1	82	99	108	110
Visiting Asst Professor						1	2	1	1	
Visiting Professor					1	1	1			
Asian	24	22	23	19	18	18	15	18	17	28
Black	4	4	3	4	7	6	4	4	5	4
Hawaiian/Pac. Islander			1	1						
Hispanic/Latino	26	27	30	34	41	46	41	44	46	47
International	11	12	18	16	19	19	22	18	22	23
Multi-Racial	3	6	8	7	5	5	9	11	7	9
Native American	1		1	2	3	3	3	2	3	3
No Response	92	83	6	46	55	33	47	36	31	44
White	504	563	638	636	643	645	629	621	648	646
Minority	58	59	66	67	74	78	72	79	78	91
Non-Minority	607	658	662	698	717	697	698	675	701	713
Female	402	429	427	447	453	449	454	438	449	469
Male	263	288	301	318	338	326	316	316	330	335
Total	665	717	728	765	791	775	770	754	779	804

VIII. Faculty Compensation Comparisons

Using American Association of University Professors (AAUP) data, CSU faculty salaries and total compensation continue to lag behind our BOG peer averages. Across all ranks, the average CSU salary is 91.2% of the peer average and compensation is 92.3% of the peer average. However, AAUP is no longer collecting the total fringe benefits, only the percentage of retirement and medical to salary.

FY23 Average Faculty Salaries and Compensation (Medical and Retirement) - BOG Peer Group*

Institution	Full Professor			Associate Professor			Assistant Professor			All Ranks Combined		
	Headcount	Salary	Compensation	Headcount	Salary	Compensation	Headcount	Salary	Compensation	Headcount	Salary	Compensation
Iowa State	538	\$138,700	\$166,856	511	\$101,700	\$122,345	337	\$92,100	\$110,796	1,386	\$113,728	\$136,815
Kansas State	282	\$120,300	\$141,713	242	\$96,700	\$113,913	167	\$81,700	\$96,243	691	\$102,706	\$120,988
Michigan State	765	\$171,500	\$204,771	624	\$114,200	\$136,355	714	\$90,700	\$108,296	2,103	\$127,065	\$151,716
North Carolina State	706	\$142,200	\$174,622	427	\$103,600	\$127,221	398	\$87,200	\$107,082	1,531	\$117,137	\$143,844
Oklahoma State	303	\$120,900	\$150,883	280	\$92,700	\$115,690	358	\$83,100	\$103,709	941	\$98,128	\$122,464
Oregon State	321	\$140,400	\$194,314	323	\$110,600	\$153,070	154	\$97,900	\$135,494	798	\$120,136	\$166,269
Purdue University	930	\$160,300	\$194,284	601	\$114,400	\$138,653	713	\$100,500	\$121,806	2,244	\$129,006	\$156,356
Texas A & M	972	\$161,500	\$196,869	472	\$111,000	\$135,309	382	\$104,100	\$126,898	1,826	\$136,438	\$166,318
Univ of California, Davis	822	\$200,800	\$263,650	317	\$137,000	\$179,881	259	\$119,200	\$156,510	1,398	\$171,216	\$224,806
Univ of Illinois, Urbana	826	\$170,600	\$212,056	528	\$116,800	\$145,182	534	\$107,100	\$133,125	1,888	\$137,594	\$171,029
Univ of Tennessee	529	\$159,700	\$195,473	392	\$110,500	\$135,252	385	\$93,300	\$114,199	1,306	\$125,358	\$153,438
Virginia Tech	603	\$164,600	\$204,762	544	\$116,800	\$145,299	597	\$100,900	\$125,520	1,744	\$127,884	\$159,088
Washington State	390	\$131,300	\$159,661	463	\$94,700	\$115,155	438	\$81,100	\$98,618	1,291	\$101,142	\$122,989
COLORADO STATE	470	\$144,100	\$180,125	388	\$104,600	\$130,750	337	\$87,300	\$109,125	1,195	\$115,257	\$144,071
Peer Avg (Excluding CSU)	7,987	\$158,859	\$196,672	5,724	\$109,975	\$135,846	5,436	\$95,684	\$117,805	19,147	\$126,309	\$156,097
CSU as % of peers FY 23		90.7%	91.6%		95.1%	96.2%		91.2%	92.6%		91.2%	92.3%
CSU as % of peers FY 22		89.6%	90.1%		95.6%	96.5%		90.3%	91.5%		90.1%	90.9%
CSU as % of peers FY 21		90.7%	90.9%		96.2%	96.7%		92.0%	92.5%		91.2%	91.5%

When using CUPA data to compare our tenure-track/tenured faculty (TTF) salaries to other R1 public institutions, the results are similar to the AAUP comparison. CSU TTF salaries are 93% of the median across ranks as shown in the table below. The assistant professor salary is 89%; the associates are 94%; full professors are 92%. We do recognize that at the individual faculty level, we have some faculty currently below 80% of their peer median (by rank and discipline). Those salaries will be increased in FY24 to meet the 80% threshold. A multi-year approach is being implemented to continue to identify faculty whose salary is the furthest from R1 public peers and make market adjustments as the budget allows.

Report Parameters

Focus Institution	Colorado State University
Comparison Group	R1 Public
Group Size	94 Institutions
Year	2022-23
Compare By	Institutional Average Salaries
Effective Date of Data	November 1, 2022
Data Aging	Not Selected
Filter Outliers	Off
Tenure	Tenured/Tenure Track (2 digit)
Rank	All

All faculty salaries are standardized to 9-10 month contracts.

Key

- NP - Number of persons (incumbents)
- NI - Number of institutions
- - More than 150% of the group average
- - Less than 75% of the group average

Policies

Per Department of Justice Safe Harbor Guidelines, statistics will not display when the number of institutions contributing data is less than 5 (too few data). Statistics will also not display when one institution's data comprise more than 25% of the total (unbalanced data; only applicable if incumbent—rather than institutional average—salaries are selected). If fewer than 10 institutions have provided data for a position, any percentiles provided are poor estimates at best, and extreme caution should be taken in their interpretation and use.

Data Use Agreement

<https://www.cupahr.org/surveys/data-use-agreement/>

Code/Title	A. Focus Salary			B. Comparison Group Statistics							Focus Median Salary as Percent of CG Median Salary	Additional Percentiles		
	NP	Median	Average	Median	Average	Std. Dev.	Salary Factor	Median NP	NP	NI		25	75	
Across All Disciplines Selected														
Professor	467	139,386	145,885	151,388	151,871	28,909	1.00	337	19,578	50	92	137,730	163,125	
Associate Professor	326	181,288	188,899	187,627	189,518	14,051	1.00	316	15,677	50	94	182,124	115,837	
Assistant Professor (excl New)	188	86,437	93,673	96,736	99,100	11,584	1.00	188	10,075	49	89	91,977	107,795	
Assistant Professor (incl New)	226	86,253	93,198	96,509	98,600	11,459	1.00	224	11,386	49	89	91,941	107,795	
New Assistant Professor	46	85,000	91,340	94,136	97,397	17,203	1.00	33	1,311	36	90	88,300	103,574	
Instructor				87,892	127,356	73,005	1.00	3	14	6		80,575	149,475	
Across All Ranks	1,019	112,073	122,001	120,955	124,219	18,085	1.00	881	46,647	50	93	112,904	133,495	

REPORT ITEM:

CSU-Fort Collins – Promotion and Tenure Report

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

In May 1995, the State Board of Agriculture delegated authority and responsibility for tenure and promotion decisions to the President of Colorado State University.

Promotion and tenure (P&T) decisions are among the most important a University makes. For tenure-track faculty, typically, a new assistant professor is hired on a tenure-track appointment following an extremely rigorous international search. Over the span of the next six years, the candidate will turn in annual self-evaluations and receive an annual evaluation from their department chair and from the department's promotion and tenure committee. After three years, a comprehensive mid-point review overseen by their department's promotion and tenure committee is conducted. If the candidate is not meeting university, college, and departmental standards along this six-year path and does not make appropriate progress, they are unlikely to achieve promotion and tenure. When a candidate applies for promotion and tenure, they submit a detailed self-evaluation of their scholarship, teaching, advising, engagement activities, and summary of service to the department, college, university, professional discipline, and our society. Evaluations are solicited from at least five qualified, neutral, external reviewers at comparable or aspirational universities. These external evaluations combined with the self-evaluation and the five-year body of work form the basis of the documentation for review. The review occurs at five levels: the departmental P&T committee, the department chair, the dean, the provost, and the president. Significant negative external letters, split votes, divergence of opinion between previous reviewers, or otherwise borderline cases, are brought to a subset of the provost's executive leadership team to help inform the provost's recommendation. Such cases are individually reviewed with the President.

Decisions for promoting associate professors to the rank of professor, hires with tenure, and promoting contract, continuing, and adjunct faculty members follow a similarly rigorous process. All departments and colleges have written expectations in their codes for the various ranks available to contract, continuing, and adjunct faculty. We are working with faculty and administration of the departments and colleges to assure appropriate promotion pathways and expectations for contract, continuing, and adjunct faculty are explicitly stated in their codes.

Colorado State University-Fort Collins
Advancement in Rank and Tenure – Effective July 1, 2023

Tenured Faculty Promotion from Associate Professor to Full Professor

College of Agricultural Sciences

Joshua Berning, Ph.D. – Department of Agricultural & Resource Economics
Alessandro Bonanno, Ph.D. – Department of Agricultural & Resource Economics
Tanja Hess, Ph.D. – Department of Animal Sciences
Richard Esten Mason, Ph.D. – Department of Soil and Crop Sciences
Pablo Pinedo, Ph.D. – Department of Animal Sciences
Kelly Wrighton, Ph.D. – Department of Soil and Crop Sciences

College of Business

Tianyang Wang, Ph.D. – Department of Finance and Real Estate

College of Health and Human Sciences

Michelle Foster, Ph.D. – Department of Food Science & Human Nutrition
Tiffany Weir, Ph.D. – Department of Food Science & Human Nutrition

College of Liberal Arts

Wesley Ferreira, D.M.A. – School of Music, Theatre, & Dance
Zachary Hutchins, Ph.D. – Department of English

College of Natural Sciences

Gwenith Fisher, Ph.D. – Department of Psychology
Graham Peers, Ph.D. – Department of Biology
James Wilson, Ph.D. – Department of Mathematics

College of Veterinary Medicine and Biomedical Sciences

William Brazile, Ph.D. – Department of Environmental & Radiological Health Sciences
Felix Duerr, D.V.M. – Department of Clinical Sciences
Colleen Duncan, V.M.D, Ph.D. – Department of Microbiology, Immunology, & Pathology
Matthew Johnston, V.M.D. – Department of Clinical Sciences
Candace Mathiason, Ph.D. – Department of Microbiology, Immunology, & Pathology

Walter Scott, Jr. College of Engineering

Rebecca Atadero, Ph.D. – Department of Civil & Environmental Engineering
Emily Fischer, Ph.D. – Department of Atmospheric Science
Xinfeng Gao, Ph.D. – Department of Mechanical Engineering
Jason Quinn, Ph.D. – Department of Mechanical Engineering
Christopher Snow, Ph.D. – Department of Chemical & Biological Engineering

Warner College of Natural Resources

Chad Hoffman, Ph.D. – Department of Forest and Rangeland Stewardship
Courtney Schultz, Ph.D. – Department of Forest and Rangeland Stewardship

Tenure-Track Faculty Receiving Tenure

College of Liberal Arts

Andrea Duffy, Ph.D. – Department of History

College of Veterinary Medicine and Biomedical Sciences

Kelly Hall Wilke, D.V.M. – Department of Clinical Sciences

Tenure-Track Faculty Receiving Tenure and Promotion from Assistant Professor to Associate Professor

College of Agricultural Sciences

Eduardo Gutierrez-Rodriguez, Ph.D. – Department of Horticulture & Landscape Architecture

Davina Rhodes, Ph.D. – Department of Horticulture & Landscape Architecture

College of Business

Christopher Berry, Ph.D. – Department of Marketing

Zachary Rogers, Ph.D. – Department of Management

College of Health and Human Sciences

Josiane Broussard, Ph.D. – Department of Health & Exercise Science

Agnieszka Burzynska, Ph.D. – Department of Human Development & Family Studies

Laura Cole, Ph.D. – Department of Design & Merchandising

Neha Lodha, Ph.D. – Department of Health & Exercise Science

Jaclyn Stephens, Ph.D. – Department of Occupational Therapy

College of Liberal Arts

Tori Arthur, Ph.D. – Department of Journalism & Media Communication

Nicole Asel, D.M.A. – School of Music, Theatre, & Dance

Lynn Badia, Ph.D. – Department of English

Eirik Harris, Ph.D. – Department of Philosophy

Orestes Hastings, Ph.D. – Department of Sociology

Jessica Jackson, Ph.D. – Department of History

Anthony Roberts, Ph.D. – Department of Sociology

Ryan Scott, Ph.D. – Department of Political Science

Abigail Shupe, Ph.D. – School of Music, Theatre, & Dance

Erika Szymanski, Ph.D. – Department of English

Philip Tai-Hang Tsang, Ph.D. – Department of English

Lindsey Wilhelm, Ph.D. – School of Music, Theatre, & Dance

Jun Xu, Ph.D. – Department of Languages, Literatures, & Cultures

College of Natural Sciences

Hua Chen, Ph.D. – Department of Physics

Michael Mooney, Ph.D. – Department of Physics

Marc Nishimura, Ph.D. – Department of Biology

Cory Williams, Ph.D. – Department of Biology

College of Veterinary Medicine and Biomedical Sciences

Michala de Linde Henriksen, D.V.M., Ph.D. – Department of Clinical Sciences

Fred Hoerndli, Ph.D. – Department of Biomedical Sciences

Seonil Kim, Ph.D. – Department of Biomedical Sciences

Tara Nordgren, Ph.D. – Department of Environmental & Radiological Health Sciences

Miranda Sadar, D.V.M – Department of Clinical Sciences

Walter Scott, Jr. College of Engineering

Ellison Carter, Ph.D. – Department of Civil & Environmental Engineering

Gaofeng Jia, Ph.D. – Department of Civil & Environmental Engineering

Kaka Ma, Ph.D. – Department of Mechanical Engineering

Mahdi Nikdast, Ph.D. – Department of Electrical & Computer Engineering

Tiezheng Tong, Ph.D. – Department of Civil & Environmental Engineering

Warner College of Natural Resources

Nathaniel Mueller, Ph.D. – Department of Ecosystem Science and Sustainability

Camille Stevens-Rumann, Ph.D. – Department of Forest and Rangeland Stewardship

Lina Xiong, Ph.D. – Department of Human Dimensions of Natural Resources

University Libraries

Renae Watson, M.S.Ed, M.S.L.S., M.A.

Promotion & Tenure Statistics for Tenure-Track Faculty

73 Total Candidates

- 41 Promotion to Associate Professor with Tenure
- 26 Promotion to Full Professor
- 2 Tenure only
- 4 Denials

2022: 81 total candidates

2021: 80 total candidates

2020: 80 total candidates

2019: 83 total candidates

2018: 82 total candidates

2017: 85 total candidates

2016: 75 total candidates

2015: 57 total candidates

2014: 51 total candidates

2013: 89 total candidates

Hires with Tenure

Shawn Bingham, Ph.D., Director of the University Honors Program

Associate Professor with Tenure, Department of Sociology

Sushmita Chatterjee, Ph.D., Department Chair, Director of Women and Gender Studies
Professor with Tenure, Department of Ethnic Studies

Timothy Komarek, Ph.D., Research Associate, Regional Economic Development Institute
Associate Professor with Tenure, Department of Economics

J. Chris Pires, Ph.D., Department Head
Professor with Tenure, Department of Soil and Crop Sciences

Caridad Souza, Ph.D.
Associate Professor with Tenure, Department of Ethnic Studies

Wenrui Zhang, Ph.D.
Associate Professor with Tenure, Department of Finance and Real Estate

Colorado State University-Fort Collins

Contract, Continuing, and Adjunct Faculty Advancement in Rank – Effective July 1, 2023

The following contract, continuing, and adjunct faculty have been promoted to the indicated rank.

College of Agricultural Sciences

Adriane Elliott, Senior Instructor – Department of Soil and Crop Sciences

Susan Melzer, Associate Professor – Department of Soil and Crop Sciences

College of Business

Diane Miller, Senior Instructor – Department of Computer Information Systems

College of Health and Human Sciences

Kara Coffino, Associate Professor – School of Education

Margaret Gutilla, Associate Professor – Department of Health and Exercise Science

Ashley Harvey, Professor – Department of Human Development and Family Studies

Jennifer Krafchick, Professor – Department of Human Development and Family Studies

Tobin Lopes, Associate Professor – School of Education

Julie Taylor-Massey, Master Instructor – Department of Human Development & Family Studies

Jeffrey Wilkes, Master Instructor – Department of Construction Management

College of Liberal Arts

Shawn Brady, Master Instructor – Department of Philosophy

Lindsay Brookshier, Senior Instructor – Department of English

Genesea Carter, Associate Professor – Department of English

Ashley Davies, Master Instructor – Department of English

Annie Krieg, Senior Instructor – Department of Art and Art History

Megan Lanz, Senior Instructor – School of Music, Theatre, and Dance

Jeff LaQuatra, Senior Instructor – School of Music, Theatre, and Dance

Benjamin O'Connor, Senior Instructor – Department of Journalism and Media Communication

Karyl Sabbath, Master Instructor – Department of Communication Studies

Jill Stilwell, Senior Instructor – Arts Management

Elena Windsong, Associate Professor – Department of Sociology

College of Natural Sciences

Anna Allen, Associate Professor – Department of Chemistry

Hilary Freeman, Master Instructor – Department of Mathematics

Emily Hardegree-Ullman, Associate Professor – Department of Physics

Ann Hess, Professor – Department of Statistics

College of Veterinary Medicine and Biomedical Sciences

Lisa Bartner, Associate Professor – Department of Clinical Sciences

Luke Bass, Associate Professor – Department of Clinical Sciences

Anna Fails, Associate Professor – Department of Biomedical Sciences

Jennifer Hatzel, Associate Professor – Department of Clinical Sciences

Alison Meindl, Associate Professor – Department of Clinical Sciences
Rachel Oman, Associate Professor – Department of Clinical Sciences
Katharine Simpson, Associate Professor – Department of Clinical Sciences
Kathryn Vickery, Associate Professor – Department of Clinical Sciences

Walter Scott, Jr. College of Engineering

James Adams, Associate Professor – Department of Systems Engineering
Melissa Burt, Associate Professor – Department of Atmospheric Science
Christian L'Orange, Associate Professor – Department of Mechanical Engineering
Gregory (Bo) Marzolf, Associate Professor – Department of Systems Engineering
Bonnie Roberts, Associate Professor – Department of Mechanical Engineering
Karen Thorsett-Hill, Professor – Department of Mechanical Engineering

University Libraries

William Dickerson, Associate Professor
Christine Pawliuk, Associate Professor

Promotion Statistics for Contract, Continuing, and Adjunct Faculty

41 total candidates

- 8 Senior Instructor
- 6 Master Instructor
- 23 Associate Professor
- 4 Professor

2022: 54 total candidates

2021: 70 total candidates

2020: 70 total candidates

2019: 48 total candidates

REPORT ITEM:

CSU-Fort Collins – Sabbatical Leave Summaries

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

The sabbatical leave policy for Colorado State University faculty is addressed in Section F.3.4 in the Academic Faculty and Administrative Professional Manual. CSU offers tenured faculty members the possibility of sabbatical leaves. According to state statute, a faculty member may not take sabbatical leave more often than once every seven years. According to University policy, a faculty member does not become eligible for sabbatical leave until the accumulation of six years of service as a tenured or tenure-track faculty member at Colorado State University since the faculty member's initial appointment or most recent sabbatical leave.

The faculty member seeking sabbatical leave follows procedures established by their academic unit. Deans forward the names of faculty members recommended for sabbatical leave along with a detailed sabbatical plan to the Provost. The detailed plan specifies how the sabbatical will contribute to the faculty member's professional growth, enhance the institution's reputation and the students' educational experience at the institution, and increase the overall level of knowledge in the faculty member's area of expertise. Following the completion of a sabbatical leave, the faculty member submits a details report and a summary of their sabbatical activities and accomplishments. The following are the summaries submitted by individuals who recently completed a sabbatical leave.

Board of Governors of the Colorado State University System

Meeting Date: June 7-9, 2023

Report Item

REPORT ITEM:

CSU-Fort Collins – Emeritus/Emerita Rank Designations

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

Forty-eight faculty members and administrative professionals met the qualifications and were approved for emeritus/emera status as set forth in the CSU Academic Faculty and Administrative Professional Manual. The nominations were reviewed at the Department, College, and University levels and have received unanimous approval.

Colorado State University-Fort Collins
Emeritus/Emerita Rank Designations Approved in Academic Year 2022-2023

College of Agricultural Sciences

Joe E. Brummer, Associate Professor – Soil and Crop Sciences
Norman L. Dalsted, Professor – Agricultural and Resource Economics
Jim Ippolito, Professor – Soil and Crop Sciences
James Klett, Professor – Horticulture and Landscape Architecture
Scott Nissen, Professor – Agricultural Biology
John J. Wagner, Professor – Animal Sciences

College of Business

Dawn R. DeTienne, Professor – Management
Daniel Ganster, Professor and Department Chair – Management
Ralph V. Switzer, Jr., Professor – Finance and Real Estate

College of Health and Human Sciences

Karen E. Adler, Associate Professor – Occupational Therapy
Zeynep Biringen, Professor – Human Development and Family Studies
Leslie Cunningham-Sabo, Professor – Food Science and Human Nutrition
Dale Devoe, Professor – Health and Exercise Science
David Greene, Associate Professor – Occupational Therapy
Nancy Miller, Professor – Design and Merchandising

College of Liberal Arts

Harvey Cutler, Professor – Economics
Gary Huibregtse, Professor – Art and Art History
Harry Wesley Kenney, Professor and Director of Orchestras – Music, Theatre, and Dance
Robert Kling, Associate Professor and Department Chair – Economics
Ellen Levy, Associate Professor – English
Thaddeus Sunseri, Professor – History
Jamie Switzer, Associate Professor – Journalism and Media Communication
Prabha Unnithan, Professor – Sociology

College of Natural Sciences

Jack Applin, Senior Instructor – Computer Science
Ross Beveridge, Professor – Computer Science
Zinta Byrne, Professor – Psychology
Jeanne Duflot, Professor – Mathematics
Karla Gingerich, Associate Professor – Psychology
Ross McConnell, Associate Professor – Computer Science
Laurie Minamide, Senior Research Associate – Biochemistry and Molecular Biology
David Steingraeber, Associate Professor – Biology

College of Veterinary Medicine and Biomedical Sciences

Mark Frasier, Associate Professor – Biomedical Sciences

Kenneth Olson, Professor – Microbiology, Immunology & Pathology
Rodney Page, Professor and Director of the Flint Animal Cancer Center – Clinical Sciences
Joel Rovnak, Associate Professor – Microbiology, Immunology and Pathology

Walter Scott, Jr. College of Engineering

Patrick Burns, CSU System Chief Information Officer and Professor – Mechanical Engineering
Pierre Julien, Professor – Civil and Environmental Engineering
Tom Sale, Professor – Civil and Environmental Engineering

Warner College of Natural Resources

William H. Clements, Professor – Fish, Wildlife and Conservation Biology
Judith Hannah, Professor – Geosciences
Brett M. Johnson, Professor – Fish, Wildlife and Conservation Biology
Robin Reid, Professor – Ecosystem Science and Sustainability

University Libraries

Nancy Chaffin Hunter, Associate Professor and Acquisitions and Cataloging Librarian
Beth Oehlerts, Associate Professor
Dawn Paschal, Associate Professor and Senior Associate Dean for Collections and Discovery

Office of the Provost

Kelly Long, Vice Provost for Undergraduate Affairs and Associate Professor – History

Office of the Vice President for Research

Alan Rudolph, Vice President for Research and Professor – Biomedical Sciences

Office of University Advancement

Simone Clasen, Associate Vice President

Business and Financial Services

Linda Meserve, Procurement Director/Chief Procurement Officer

Colorado State University-Fort Collins
Emeritus/Emerita Rank Designations Approved in Academic Year 2022-2023
Summaries of Accomplishments

College of Agricultural Sciences

Joe E. Brummer, Associate Professor – Soil and Crop Sciences

Dr. Joe E. Brummer's career at CSU followed a different path compared to most since he started at one of the outstate research centers in 1994 and moved to campus in 2006. He developed an applied research and Extension program while at the Mountain Meadow Research Center (MMRC) – Gunnison which directly benefited ranchers throughout the western half of the state. After moving to campus, he took on the responsibilities of teaching. Whether on or off campus, his main contributions have always been centered around forage production and management.

Since moving to campus, Dr. Brummer has been involved in projects as PI or Co-PI receiving over 7 million dollars (\$7,382,071) in grant funding. He authored or co-authored 40 Refereed Journal Articles, 33 Non-refereed Chapters/Proceedings Papers, 2 Manuals, 125 Technical/Progress Reports, 70 Abstracts, and 50 Extension Publications/Videos/Popular Articles. He presented talks/posters at almost 300 professional meetings, advisory committee meetings, tours/field days, and extension meetings.

Dr. Brummer advised, co-advised, or served on the committees of over 30 graduate students. He was heavily involved in the Western Center for Integrated Resource Management Program; he advised MAGR students and served on 97 committees. Since moving to campus in 2006, Dr. Brummer taught undergraduate and graduate courses with a total enrollment of 1525 students. He was one of the Best Teacher nominees in the College of Agricultural Sciences in 2022. He may continue teaching online in this program into retirement.

Dr. Brummer served on numerous departmental and college committees over the years and was actively involved in several western regional research and Extension coordinating committees. He was actively involved in the Society for Range Management and served on the Board of Directors for the Colorado Section and currently serves as Investment Chair for the Section. He was Associate Editor for Forage and Grazinglands. He regularly reviewed manuscripts, book chapters, technical reports, and reviewed packets for various organizations. Finally, he organized professional meetings, workshops, advisory committee meetings, and field days/tours.

Norman L. Dalsted, Professor – Agricultural and Resource Economics

Dr. Norman Dalsted has been the embodiment of the land grant mission with numerous positive impacts during his career. Extension has always been a large part of Dr. Dalsted's appointment. This work has focused largely on three areas which include helping agricultural producers make optimal economic decisions within their operations, helping producers as they consider the future of their operations as they work through succession planning or bankruptcy concerns, and providing support to agricultural producers to allow them to stay in production when faced with physical limitations. Countless Colorado agricultural producers have benefited from this

Extension education and the personal interactions as he spent time around many kitchen tables helping folks make some very difficult decisions.

Dr. Dalsted's classroom teaching has been extremely impactful. Former students from across the country stay in touch with him and are happy to discuss how he inspired them as a student. His research addressed real-world problems he could make use of within his stakeholder engagement efforts. His work focused on farm and ranch management, agricultural finance and production, and regional economics. His list of awards includes several Extension team awards, outstanding Extension Career Awards, and teaching and student advising awards. Perhaps the award that captures the extensive impact of Dr. Dalsted's work across the land grant mission is his induction into the Colorado Agricultural Hall of Fame in 2014.

Jim Ippolito, Professor – Soil and Crop Sciences

Dr. James A. Ippolito's applied soil research program has significantly advanced our current understanding of N, P, K, C, micronutrient, and trace/heavy metal (e.g., Pb, Cd, Cu, Zn) availability, mobility, and cycling in a variety of (agro)ecosystems. Dr. Ippolito's 36-year career has focused on managing ecosystems for improved soil physical, chemical, and biological properties, now entitled Soil Health. He has soil health projects in overgrazed rangelands, management-intensive grazing systems, manure applications for degraded agroecosystems, furrow-irrigated conventional or no-till systems, and in abandoned mine land settings.

Over the past five years, Dr. Ippolito and his team have secured over \$34M in funding for soil health-water quality/quantity research in CO and the western US. He leads a western USDA Hatch group focused on soil health across land grant institutions west of the Mississippi. He is co-director of Spur's IN-RICHES center (**IN**tegrated **R**ocky Mountain-Region **I**nnovation **C**enter for **HE**althy Soils). Dr. Ippolito's scholarship has been shared in 165 peer-reviewed publications, 107 other publications, and 344 presentations. His team has won several prestigious awards, including three US EPA Clean Water Act Awards, the JEQ Outstanding Associate Editor Award (2013, 2016), and the ESRI Special Achievement in GIS Award for the Partnerships for Data Innovations (2020, 2021). He is a Fellow in two professional societies: the Soil Science Society of American and in the American Society of Agronomy. His work has made an impact on a global scale, with findings being used by others throughout the world.

Dr. Ippolito's teaching evaluations clearly illustrate that he is an excellent teacher. In the mid-2000s, he and his colleagues obtained NSF funding to create six on-line soil principles and three application lessons, targeting an improved understanding of basic soil science and soil chemistry. These online lessons have been viewed well over a million times. Dr. Ippolito is currently pursuing funding to build newer on-line lessons through the CAS directed up-scaling academy with a strong focus on quantifying soil health across global ecosystems. Dr. Ippolito has mentored over 60 students over his career, with many pursuing advanced degrees in agriculture and several employed in the private and public agricultural sectors. He also mentored high school students, some of which are pursuing (advanced) degrees in the environmental sciences field. Aiding the next generation of scientists in their pursuit of excellence is the capstone of Dr. Ippolito's career.

James Klett, Professor – Horticulture and Landscape Architecture

Dr. James Klett taught numerous courses each year including Landscape Plants, Herbaceous Plants, Nursery Production and Management, Arboriculture and Urban Plant Management, and Urban/Community Forestry. He was mentoring 15-20 undergraduates at the time of his retirement and typically advised three graduate students per year. He received the Best Teacher Award in 2019 from the CSU Alumni Association.

Dr. Klett's research involves selection, introduction, and evaluation of herbaceous annuals and perennials and woody plants in the Rocky Mountain and High Plains Region including Plant Select® and native plant material; about 1,200 different annual varieties are grown and evaluated yearly and "Best of" winners determined and reported to Green Industry. Around 100 new taxa of herbaceous perennials are evaluated from different world-wide companies. He also continues to evaluate woody plants at CSU Heritage and Spring Creek Arboreta.

Over his career at CSU, Dr. Klett authored or coauthored over 55 refereed publications and 95 abstracts of scientific papers at national meetings and presented over 375 papers at state, national, and international meetings. He established the nationally recognized CSU Annual and Perennial Trial Gardens, helped initiate and establish Plant Select® which introduces more adaptable plants to consumers and green industry in the Rocky Mountain Region and beyond and PlantTalk Colorado™, a web-based garden information system from experts with over 600 plus topics, 300 in Spanish, and over 150 YouTube videos. He coordinated the Horticultural Educational Garden at Garden and Home Show in Denver, organized Twilight Garden Series with Gardens at Spring Creek, and coordinated yearly Educational and Extension displays at ProGreen. He served on numerous Boards of Directors such as Colorado Nursery and Greenhouse Association, Plant Select®, Garden Centers of Colorado, and International Society of Arboriculture. He received numerous awards from the Department, College and University including the FA Anderson Distinguished Service Award from Extension, the Lee Sommers Outstanding Achievement Award from College and has been granted Honorary Life Membership in numerous State Trade Associations and National Honorary Societies.

Scott Nissen, Professor – Agricultural Biology

Dr. Scott Nissen's career at CSU is an example of a high impact melding of engagement, discovery, and learning. Specializing in weed science, Dr. Nissen's accomplishments have influenced a generation of students, public land managers and private landowners. He is a recognized expert when addressing invasive weed problems and the challenges of managing weeds in aquatic systems. Dr. Nissen's expertise and affable team approach means that he is well regarded by his colleagues, stakeholders, and CSU leaders.

Dr. Nissen joined Colorado State University in 1995. He describes his career arc in two parts: an initial focus on farm cropping systems, and then as faculty changed and stakeholder needs evolved, a focus on non-cropping systems. He is excellent at both. This nimbleness and career flexibility means that Nissen is an excellent teacher, and this has been manifested in traditional classroom teaching, as part of a virtual curriculum and with field experiences.

The two-part career also means that Nissen is a knowledgeable contributor to interdisciplinary teams, a key attribute for a land grant university and its agricultural sciences focus area. He has a strong reputation among stakeholder groups and scientists alike. His aquatic weeds program is one of only four in the US, and his work in downy brome management is highly regarded. He has also been a key contributor to our knowledge of rangeland restoration. The work he has completed in the last ten years with the herbicide indaziflam was in partnership with research scientists and Bayer. His recommendations are now at the cusp of being adopted for grazing land management by the Bureau of Land Management. Nissen easily threads his work together in the classroom, practical field applications, and scientific journals. Notable too is his continued productivity – Dr. Nissen has generated more than 3500 citations to his work in the last five years and has an h-index of more than 30 in the same span.

John J. Wagner, Professor – Animal Sciences

Dr. John Wagner's service to CSU began in June of 2005 when Five Rivers Cattle Feeding gifted a feedlot research center located in Lamar, Colorado to the university. At that time, Dr. Wagner became a Professor in the Department of Animal Sciences, remained stationed in Lamar, and continued as the General Manager of the Southeast Colorado Research Center. His initial appointment at CSU was largely research and service. In 2012, the Department of Animal Sciences decided to close the facility and he was transferred to campus with 45% Research, 45% Teaching, and 10% Service.

Since 2005, Dr. Wagner published 51 manuscripts in refereed journals and 2 book chapters covering a wide variety of feedlot nutrition and management topics. In addition, graduate students that he directed or served on their committees have published and presented 80 abstracts at scientific meetings. He served as advisor or co-advisor to 19 graduate students and served as a committee member for 16 additional graduate students.

During his tenure at CSU, he taught undergraduate and graduate courses in animal nutrition and feedlot systems. He was responsible for Principles of Animal Nutrition lectures and lab sections for 11 semesters with a total enrollment of 484 students. He developed the Applied Animal Nutrition course in 2017 as a class focusing on computer diet formulation to teach students applied ration balancing using a commercial software package.

In 2020, he was presented with the North American College and Teachers of Agriculture (NACTA)/Charles N. Shepardson Meritorious Teaching Award in the College of Agricultural Sciences.

College of Business

Dawn R. DeTienne, Professor – Management

Dr. Dawn DeTienne joined Colorado State in 2006 as an Assistant Professor and became a Full Professor of Entrepreneurship in 2016. Her work was in entrepreneurship with research focuses on opportunity identification, entrepreneurial exit, family business, and gender. Her research

appeared in 27 journal articles, 23 book chapters and referred proceedings, and has been cited over 9300 times. Dr. DeTienne is a 12-year Dean's Scholar in the College of Business. She completed a J. William Fulbright Scholarship in Dublin, Ireland, and serves as an Affiliate Member of the DCU National Centre for Family Business in Dublin. During her academic career, she served as a Visiting Professor at Haydn Greene Institute at the University of Nottingham (England) and as a Toft Visiting Professor at Jonkoping Business School (Sweden). Dr. DeTienne won numerous awards during her tenure at CSU including the Accenture Outstanding Achievement in Teaching (2008), College of Business Researcher of the Year (2009), Most Influential Faculty Member, Ram Scholar-Athlete Brunch (2010), College of Business Excellence in Teaching Award (2011), Department of Management Reputation Award (2017), and Outstanding Faculty Service Award (2020).

However, her greatest passion has been teaching entrepreneurship to undergraduate students and working with them on their ventures. With a strong desire to involve students across the CSU campus in entrepreneurship education, Dr. DeTienne and colleagues worked for years to make the Certificate in Entrepreneurship available to all students and developed the Entrepreneurship and Innovation Minor. She served as the Faculty Director of the Institute for many years.

During her tenure at CSU, Dr. DeTienne served on (among others) search committees, the Standing Committee on the Status of Women Faculty, Faculty Council, Faculty Council Executive Committee, and the Sesquicentennial Advisory Committee. In 2016, Dr. DeTienne was elected to the 5-year Executive Leadership team of the Entrepreneurship Division of the Academy of Management. She has been involved with Defy Colorado since 2019 and believes in building entrepreneurial skills and mindset within the incarcerated population.

Daniel Ganster, Professor and Department Chair – Management

Dr. Daniel Ganster has given over thirteen years of service to Colorado State University, including various roles within the College of Business and the University. Highlights of his extensive service to the University include serving as chair of the Department of Management and as Senior Associate Dean for Research and Administration.

Dr. Ganster's research centers on the impact of work life experiences on the mental and physical well-being of organizational members. Among other areas, he is an expert on work stress and employee health. To support his research program, Dr. Ganster has generated over \$1.5 million in external grants and contracts from the National Institute of Mental Health, the National Institute for Occupational Safety and Health, and Dillard's, Inc. He has published 65 articles, and his research has been cited over 18,000 times. He has held multiple named professorships and fellowships, including an endowed chair at the University of Arkansas. He received the College's Pinnacle Award for overall scholarly excellence in 2018, and among numerous disciplinary honors, he was elected to the Society for Organizational Behavior in 2006.

Dr. Ganster has mentored over 15 Ph.D. students and taught courses in research methods, managing human capital, organizational behavior, and team management. He has served the College in many ways including as Chair of the Department of Management for four years,

Senior Associate Dean for Research and Administration for four years, and via numerous committee assignments.

Ralph V. Switzer, Jr., Professor – Finance and Real Estate

Dr. Ralph V. Switzer, Jr., J.D., CPA, served CSU for 50 years and is retiring as a Professor of Finance in the College of Business. He has also been an Affiliate Professor in the College of Veterinary Medicine and Biomedical Sciences. He is a licensed member of the Colorado Bar Association and a member of the Federal Bar, Financial Management Association, and the American Academy of Attorney – Certified Public Accountants. He is a past president of the Colorado Chapter of the American Academy of Attorney-Certified Public Accountants and a past president of The Rocky Mountain Business Law Association. He was the University Mediation Officer for five years and served as counsel to the US Department of Justice.

Dr. Switzer published several books, book chapters, and articles in more than 35 different journals. He is proud to use his research to enrich his teaching, and he mentored and co-authored course-related publications with approximately 20 of his students. His research is well aligned with the College's sustainability and global emphasis and the University's interdisciplinary superclusters of food, nutrition, health, and well-being, as well as information science and technology.

Dr. Switzer co-founded Optibrand Ltd., LLC, a retinal software technology development company that has introduced products for identification of individuals by utilizing the retina as a biomarker and other products for diagnosis of retinal disease in patients. The technology development has focused on the ability of its software to automatically capture the best quality retinal images detected from a video stream of the individual's retina. The technology was patented with CSURF, and he has served as CEO and CFO and raised \$12,000,000 in equity capital. Patents have been issued in 36 countries to date, and CSURF has been given an equity position in Optibrand. The company recently signed a global license agreement with a major ophthalmic company that will utilize its software in conjunction with an iPhone to create a low cost, portable ophthalmic camera that has the potential to deliver eye care to billions of people in the world who currently do not have access to eye care. He was named a noted faculty researcher by CSURF, the highest honor CSURF bestows upon professors.

College of Health and Human Sciences

Karen E. Adler, Associate Professor – Occupational Therapy

During her 23 years in the CSU-OT department, Dr. Karen Adler advanced the excellence of CSU-OT graduate programs through her commitment to the development and delivery of learner and subject-centered integrated occupational therapy curricula. She taught and developed courses including basic foundational, intervention and evidence-based courses. Her contributions to excellence in education and service expanded to serving on the department curriculum committee during much of her tenure, during which time she was instrumental in designing and implementing an integrated master's curricula that dove-tailed with the development of a new

doctoral program and the entry-level professional doctorate (OTD) curricula. Throughout her time, Dr. Atler actively supported the development of teaching skills for new faculty.

Dr. Atler's commitment to excellence in education is also evident in her research interests. She developed, validated, and enhanced the Occupational Experience Profile (OEP), a time-use diary that highlights personal experiences related to everyday activities that is used by occupational therapists and occupational science educators, both nationally and internationally, to support occupation-centered education and training. In practice, clients use the OEP to learn about the role of meaningful activities in their daily lives to promote well-being. Her research and publications support the validity and utility of the assessment with a variety of populations (i.e., eating disorders, chronic mental health, caregivers, diabetes), and advanced the understanding of the role of university students' subjective experiences of everyday life and its relationship to well-being during normal times as well as during the COVID Pandemic.

Dr. Alter's accomplishments and contributions have been recognized locally, nationally, and internationally. She received the CHHS Tenure-Track Faculty Teaching Excellence Award in 2014. In 2014, she received the highest honor given by the Occupational Therapy Association of Colorado, the Marjorie Ball Award of Merit, for her dedication to the integration of practice, education, service, and research. Dr. Atler received her Fellow of the American Occupational Therapy Association in 2020 for her contributions to advancing the assessment and use of occupational experience in occupational therapy and was invited to give the Keynote Lecture at the 24th Japanese Occupational Science Seminar in 2021.

Zeynep Biringen, Professor – Human Development and Family Studies

Dr. Zeynep Biringen has been a productive faculty member in the department of Human Development and Family Studies for 25 years. She taught upper level undergraduate and graduate courses and supervised a number of undergraduate theses, master's theses, and dissertations. She is the author of nearly 100 peer reviewed publications and has given over 125 presentations as an invited speaker at national and international conferences. Dr. Biringen has received several internal grants and external grants to support her work. She has also received several awards for mentoring and for a co-authored book.

Dr. Biringen has also been active in service at multiple levels. In the profession, she has helped organize conferences and served in various capacities for journals. In the department, Dr. Biringen served as the Program Director for a master's programs for 9 years, served as interim department head for one year, and served as the co-chair for the newly formed Diversity, Equity, and Inclusion Action Team, to name a few.

After retirement, Dr. Biringen plans to continue writing manuscripts, applying for grants, and advising several graduate students who are scheduled to defend their master's theses or dissertations. She has contributed much to our teaching mission, is recognized internationally and nationally for her scholarly work, and has helped shape our department with her experience and service contributions.

Leslie Cunningham-Sabo, Professor – Food Science and Human Nutrition

Dr. Leslie Cunningham-Sabo has been a faculty member at CSU since 2007 and a full professor in the Department of FSHN since 2019. She is an outstanding scientist and educator, and she will be sorely missed by her colleagues and students. Dr. Cunningham-Sabo's scholarly work is in the broad arena of public health nutrition and nutrition education. She has focused on development of nutritional intervention models to beneficially impact nutritional status and lower risk for nutrition-related diseases in various populations including children, parents, and Indigenous Americans. She will retire with 60+ publications, several book chapters, more than 70 refereed proceedings/abstracts, and a consistent record of external funding, including large multi-year grants from the U.S. Department of Agriculture. Her work has had a substantial impact on the field as evidenced by her receipt of the Gold Author Award from the *Journal of Nutrition Education and Behavior* for recognition of years of exceptional publications and high frequency of highly cited published papers in the journal. Her many invited presentations have taken her to other U.S. universities, governmental organizations in Washington, D.C., and symposia in England, Spain, and Portugal. She served as a grant reviewer for NIH, USDA, and the Indian Health Service.

Dr. Cunningham-Sabo has also been an outstanding educator, contributing significantly to the training of both graduate and undergraduate students. She was advisor/co-advisor to 48 graduate students in FSHN, 7 MPH students, and mentored 9 Maternal and Child Health Nutrition Leadership Trainees. She taught graduate courses focused on theoretical and experimental models of human behavior change to favorable impact individual and community nutrition and health status. She also was a major contributor to our undergraduate dietetics program, teaching classes in community nutrition and nutrition assessment. For more than a decade, she taught our Senior Capstone Seminar, and developed a poster presentation model for this course that became a highlight of our undergraduates' experience in the department. Dr. Cunningham-Sabo also served as the Director of the Coordinated Master's Program in Dietetics, overseeing the required dietetics internship for graduate students seeking to become registered dietitians. As such, she was a leader in the Academy of Nutrition and Dietetics, the national accrediting organization for this program.

Dale Devoe, Professor – Health and Exercise Science

Dr. Dale Devoe was a faculty member in the Department of Health and Exercise Science from 1990-2006, teaching courses at the undergraduate and graduate levels with yearly student enrollments totaling ~1,200 students. He directed student thesis projects as Chair (30) and Committee Member (79). In 1993, he was elected Assistant Department Head of Health and Exercise Science and was re-elected by the department faculty for subsequent terms in 1996, 1999, and 2003. After returning to his faculty position in January 2018, he taught three sections of HES 145 Health & Wellness to over 300 students each semester. In order to realign with the changing needs of the department, he altered his research interest of pedagogical study in 1995 to the area of applied exercise physiology, specifically, physiologic interactions of environments on human performance and health. While pursuing this line of research, Dr. Devoe produced 45 refereed journal articles, 79 Abstracts/Proceedings and 87 Research Presentations, and was awarded external funding of approximately \$300,000.

As Associate Dean in the College of Health and Human Sciences for twelve years (2006–2018), Dr. Devoe provided leadership and administrative oversight of undergraduate programs in addition to his major responsibilities. He took on the responsibilities of graduate programs during six of those years, research for a period of time, and served as Interim Director of the School of Education for much of an academic year. He worked with three deans and five associate deans during his tenure in the college administrative office. Throughout his service at Colorado State University, he has been active in providing support to the department, college, and university.

David Greene, Associate Professor – Occupational Therapy

Dr. David Greene entered a tenure-track position in 1989 and immediately began developing a more coherent research program, supervising graduate students as major advisor and undergraduate student advisees, and began serving on committees on top of a heavy teaching load. Teaching and research/publication were early priorities, and he published many journal articles with graduate students. He combined interests in teaching with research by teaching research methods courses and leading research projects, as well as teaching clinical courses in biomechanics and reviewing and teaching students to understand related research of clinical relevance. He also combined research, teaching, and community service through development of several service-learning courses measuring the benefits of projects providing nursing home companionship and targeting fall-prevention to sustain aging in place.

He welcomed committee work including Faculty Council, as Departmental Representative and on Executive Committee, Committee on Responsibilities and Standing of Academic Faculty (six years as Chair), Committee on Non-Tenure-Track Faculty, and the University Disciplinary Panel. He enjoyed learning about aspects of the University far beyond his home department, participating with faculty from all colleges, and working with University administration in the development of fair and just University policies for students and faculty. In the College of Health and Human Sciences he chaired the Interdisciplinary Program in Gerontology. At the department level, he chaired admissions over a timespan of some 15 years.

Though his CV lists numerous publications, grants, presentations, and professional service, most important to Dr. Greene was classroom teaching, preparing students to become skilled and research-wise practitioners. He helped develop and teach three different curricula in the CSU Occupational Therapy Department as the requirements for practice in the field advanced from bachelor's to master's-level coursework, and he increased summer offerings and developed online credit course offerings. Dr. Greene has enjoyed the important work of educating future occupational therapy practitioners, and he looks forward to continuing his relationship with the University and the Department as an emeritus faculty member.

Nancy Miller, Professor – Design and Merchandising

Dr. Nancy Miller has been a faculty member in Design and Merchandising for 11 years, with seven years as Department Head. During her tenure at CSU, Dr. Miller has contributed to the advancement of the department and the Apparel and Merchandising (AM) program in many ways. Most notably, she provided leadership for the implementation of the AM-Product Development concentration and for the successful, 'first in the nation,' accreditation of the AM program with the Textile and Apparel Programs Accreditation Commission (TAPAC).

In addition, as department head, Dr. Miller played a valuable role in supporting curriculum development across the department, including new courses in support of the Product Development concentration, the revision of the Interior Architecture and Design program, and the development of new courses focused on entrepreneurship, one of which is also designated as an elective for the Entrepreneurship Minor in the College of Business.

Dr. Miller's dedication to scholarship is evidenced by her impressive record of peer-reviewed publications and presentations, her success in procuring external funding in support of her research, and the recognition that she received for her commitment to the profession. Dr. Miller's research has largely focused on examining factors that affect the rural community marketplace with emphasis on small and entrepreneurial businesses, family-owned businesses, and formal networks that build collaboration among independent business owners including retailers and apparel manufacturers. Over her career, Dr. Miller received funding in the amount of \$2.5 million in support of her research, including funding from the USDA and the NSF. Dr. Miller's contribution to the profession was duly recognized in 2014, when she was named an ITAA Fellow by the International Textiles and Apparel Association, which represents the most distinguished award given by this professional organization.

College of Liberal Arts

Harvey Cutler, Professor – Economics

Dr. Harvey Cutler's research agenda over his career has played an important role in his contribution to graduate and undergraduate education at CSU. From 1985—1997, Dr. Cutler focused on time series econometric techniques with a focus on macroeconomics and forecasting. From 1997 to the present, Dr. Cutler started constructing computable general equilibrium (CGE) models that have been used to estimate the economic impacts of tourism, changes in sales tax rates, expansion of airports in Colorado, transition to renewable energy, the economic benefits of improved weather forecasts, and the impact of natural disasters. These research areas have led to a considerable amount of outreach to local Colorado communities (Fort Collins, Loveland, and Durango) and to the state of Colorado.

Dr. Cutler has been the lead economist in two multidisciplinary \$20 million grants from the National Institute of Standards and Technology (NIST) to study the impact of natural disasters (hurricanes, earthquakes, flooding, tornados, and fire) on U.S. communities. Dr. Cutler has also had several smaller grants working with the National Oceanographic and Atmospheric Administration (NOAA) to estimate the economic benefits due to improved weather forecasts (precipitation, temperature, wind, and solar).

In terms of graduate education, Dr. Cutler has directed 24 dissertations to completion, with half of the students from outside of the US (Saudi Arabia, Benin, Tanzania, South Africa, Vietnam, China, South Korea, and Indonesia). For undergraduate education, he taught a forecasting class using the forecasting techniques obtained as a time series econometrician. Over the years, his students have made economic forecasts to policy makers at the state and local levels in Colorado.

The last presentation from his students was on April 21, 2023. Dr. Cutler was the recipient of the Stern Award for the College of Liberal Arts in 2008. He was also the Chair of Faculty Council for Athletics, was a member of the Research Integrity and Compliance Review Office (RICRO) committee, and the Chair of the Student Grievance Committee.

Gary Huibregtse, Professor – Art and Art History

Professor Huibregtse served the Department of Art and Art History as coordinator of the Photo Image Making studio area for his entire educational career at Colorado State University. This position required practical, day-to-day commitments of time and attention in maintaining facilities utilized to support students completing their program of study and contemplation of curricular needs and pedagogical philosophy in an era where the nature of the photographic medium underwent tectonic change.

A primary task throughout Professor Huibregtse's teaching career has been to direct students toward expressive photographic means best suited to the individual artist, encouraging employment of processes essential to the realization personal creative vision. Such personal research has expanded to include electronic, traditional, and hybrid strategies that have required extensive reformulation of studio-based instruction. His teaching strategy evolved to reflect the monumental changes and evolutionary events of our time.

Professor Huibregtse's creative practice has followed the paths of historical documentary-tradition artist photographers and contemporary image makers. He employs large format camera systems in the creation of images that address issues of the built landscape in the western United States, as well as aspects of contemporary automobile culture through the creation of large-scale color prints that liberally employ digital and traditional technologies. He formed an association with Robischon Gallery, a contemporary fine art exhibition space in Denver, which led to numerous sales over the past fifteen years and the acquisition of a large-scale piece by the Denver Art Museum, fulfilling a professional career goal of placing one of his works into this institution's permanent collection.

In retirement, Professor Huibregtse intends to continue his career as an image maker and passionate student of the medium, pursuing creative research in the field while seeking continued interactions with the photographic community he has cherished as an educator, and looks forward to doing so as Professor Emeritus.

Harry Wesley Kenney, Professor and Director of Orchestras – Music, Theatre, and Dance

Professor Wesley Kenney was awarded the title of University Distinguished Professor in April 2022. This award was based on the accomplishments of the CSU Orchestra Programs and creative activities off campus. He has been guest conductor for multiple national and international professional orchestras and several All-State Orchestras. Since 2003, Professor Kenney has been the Music Director of the Fort Collins Symphony and has won two American Prizes: Top Prize in the Professional Orchestra Category for Performance and 2nd Prize for programming. Since 2013, Professor Kenney has also been Music Director of the Denver Young Artist Orchestra, the premiere youth orchestra in the state of Colorado. Professor Kenney has

won multiple prizes for performance and programming, including the American Prize Honorary Artist Title, Music Educator of the year from the Colorado Chapter of the American String Teachers Association, the 1st place in the Varna International Conducting Competition, and the Carmen Dragon Conducting Award.

The CSU Orchestras have grown tremendously over the past 20 years and have presented multiple works for the first time on campus. Professor Kenney has long prioritized works by women composers such as Jennifer Higdon, Libby Larsen, Joan Tower, Florence Price, Hillary Tann, Chen Yi, and Gabriella Lena Frank; and composers of color such as Silvestre Revuletas, Michael Abels, Samuel Coleridge Taylor, Coleridge Taylor Perkinson, William Grant Still, Adolphus Hailstork, Ulysses Kay, Fela Sowande, and Tan Dun. Opera found its "voice" with Professor Kenney's arrival at CSU and in Fort Collins; since 2004 he has conducted multiple productions in addition to conducting many dance works including over two hundred performances of *The Nutcracker*, *Swan Lake*, and *The Firebird*, among others.

Professor Kenney is one of the founders of the CSU Summer Master's Degree in Music Education with an emphasis in conducting. This program has awarded nearly 100 MM degrees to music educators since its inception in 2007 and hosts an average of three cohorts of 10 music educators each summer; other coursework is online which allows students to keep their teaching position while pursuing their degree. It is unique in that every educator is required to conduct choral, band, and orchestra literature as part of the curriculum.

Robert Kling, Associate Professor and Department Chair – Economics

Dr. Robert Kling joined Colorado State University in 1984 as an Assistant Professor of Economics. He was promoted to Associate Professor in 1990 and served as Chair of the Department from 1996–2001. His accomplishments were most recently recognized by his being awarded the College of Liberal Arts Outstanding Service Award in 2020.

To highlight some of his contributions, Dr. Kling served as founding director of the CSU-FTU Vietnam Economics Curriculum Program, department chair, graduate studies coordinator, and undergraduate studies coordinator. From 2017—2022, he was the Senior Academic Officer for Semester at Sea. He has been an essential component of the graduate program, directing 19 PhDs, numerous MAs, and teaching in the micro core since 1985. He oversees a number of significant grants and contracts in research. He has published 13 refereed journal articles and chapters in books as well as nine other publications (reviews, reports, and non-refereed professional articles). He has 30 conference papers and colloquium presentations to his credit.

Ellen Levy, Associate Professor – English

Professor Ellen Levy has taught creative writing at CSU since 2012 when she joined the English Department. She specializes in prose, publishing in both fiction and nonfiction. She is a dynamic professor who coaches and inspires students to write and publish and consistently helps students to reach personal and professional goals. Several students won major national awards under her leadership.

Over her career, Professor Levy published four books; two came out the year she was hired, and her first novel was published in 2021. Foreign editions of *The Cape Doctor* are forthcoming in French, Italian, and Spanish from major European presses. She published dozens of shorter pieces such as essays, book reviews, and short fiction over the course of her career. Many of those have been published since 2012 in a variety of prestigious venues. Numerous awards and honors attest to the quality of her work.

Professor Levy advised MFA students and supervised their theses. She contributed to the department by directing the Creative Writing Reading Series and serving on a variety of committees in the program and department. She was also active in her profession.

Thaddeus Sunseri, Professor – History

Dr. Thaddeus Sunseri introduced the African history curriculum at Colorado State University beginning in 1997. The accomplishments most important to Dr. Sunseri all relate to teaching and student learning. During his tenure at CSU, he taught around ten different African history classes before settling on a regular rotation of six classes. Many of his courses were thematically oriented, such as the Atlantic slave trade, gender in African history, environmental history, and modern political history. His focus was always on supporting student learning with the most current information, and he tirelessly updated his classes to account for changing scholarship and student interests. He taught some half a dozen thematically unique senior capstone seminars and regularly taught history courses that were part of the university core curriculum. His graduate courses, including Historical Methods and African Historiography, attracted students from departments outside of his own, especially International Studies and Political Science, but occasionally from the sciences. Dr. Sunseri was known to any student across campus interested in research in Africa.

Since being hired at CSU, Dr. Sunseri published two monographs in African history and around twenty-five refereed scholarly articles, most in top journals in African history.

Jamie Switzer, Associate Professor – Journalism and Media Communication

Dr. Jamie Switzer earned the title of Associate Professor in 2008, though has served the university in various capacities since 1989. Dr. Switzer arrived at CSU as the Director of Distance Education and Media, then served as Director of Educational Technology and Director of the Center for Innovation in Learning Technologies, all in the College of Business. During some of this time, Dr. Switzer taught adjunct courses in the Department of Journalism and Technical Communication and ultimately began in a full instructor position after earning a doctorate in educational technology. Dr. Switzer was promoted to Assistant Professor in 2002 then to Associate Professor in 2008.

Dr. Switzer was an active in multiple professional associations and reviewed proposals and papers for the International Communication Association, the Broadcast Education Association, the Journal of Mass Communication and Education, and the Society for Technical Communication, among others. In addition, Dr. Switzer has been committed to committee

service at CSU and is known as a devoted professor to both undergraduate and graduate students. Dr. Switzer is proud to watch five former students on CBS4 reporting important news of the day.

Prabha Unnithan, Professor – Sociology

Dr. Prabha Unnithan initiated CSU Sociology's Criminology & Criminal Justice (CCJ) Concentration which now enrolls 75% of the Department's undergraduate majors and has taught most of the original courses in that curriculum. He was instrumental in founding the Department's flourishing Internship Program. He led four CCJ summer study abroad groups to Prague (2010, 2013, 2017, 2023) for six weeks each. At the graduate level, he directed 18 theses and four PhD dissertations (one MA and two PhDs are ongoing) and served as a member on many other such committees inside and outside the Department.

Dr. Unnithan's research contributions have ranged over many topics related to crime and justice. He authored, co-authored, or edited five books (including an award winner), 81 research articles, 16 other articles, 8 encyclopedia articles, 15 book reviews, and 15 commentaries along with numerous technical reports for U.S. and international criminal justice agencies. He was involved in generating individual and joint grants and contracts (external and internal) worth more than \$600,000. Many of these funds were awarded during his time as the Director of the Center for the Study of Crime and Justice (2008-2015). He received the John N. Stern Distinguished Professor Award from the College of Liberal Arts in 2019 and the G.O.W. Mueller Award for contributions to international/comparative criminal justice from the Academy of Criminal Justice Sciences in 2021. In 2017, he received a Global Initiative for Academic Networks Award from the Government of India to present an invited lecture series (later televised) on recent developments in Criminology and has been invited several times to deliver plenary and keynote addresses at international conferences in India, Malaysia, and the United Kingdom.

Dr. Unnithan served as President of the Academy of Criminal Justice Sciences (2019—2020) and President of the Western Social Science Association (2014—2015). He was Co-Editor of *The Sociological Quarterly* (2017—2021); Editor of *The Social Science Journal* (2006—2011); and Editor of the *Journal of Criminal Justice Education* (2000—2002). He is currently Editor of the *Justice Evaluation Journal*. In 2006, he received the CLA's Distinction in Advancement Award for raising funds and instituting the Ronny Turner Scholarship in Sociology and the received the Professional Document Solutions Award for Excellence in Education from CSU's Department of Athletics. He served in several administrative roles on campus: Sociology's Director of Graduate Studies (2000—2002) and Interim Chair (2005-2006) and CLA Interim Associate Dean (1998—1999).

College of Natural Sciences

Jack Applin, Senior Instructor – Computer Science

Professor Jack Applin taught 51 sections of eight different Computer Science classes. Though he did not have any research duties, he developed dynamic web-based code compilation, for the wiki containing his lecture slides, and devised a steganographic system of embedding invisible or

inconspicuous markings into assignments to aid in detecting unauthorized use of pay-for-homework websites. He developed a useful framework to aid in the repetitive task of grading student programs. It handles the tedious and error-prone details of keeping track of the scores of individual tests, stripping whitespace, expanding tabs, comparing desired output to actual output, showing the differences, limiting runaway programs, detecting use of forbidden language features, creating a summary of tests passed/failed, etc. Professor Applin presented regularly to the ACM Club and HashDump student organizations and was the faculty sponsor for MSTies Anonymous of Northern Colorado, a registered student organization.

Ross Beveridge, Professor – Computer Science

Professor Ross Beveridge has held positions at CSU since 1992 when he was hired as a Research Assistant Professor in Computer Science. During the next 30 years, he contributed to his department in numerous ways. Professor Beveridge has been heavily involved in teaching, including new course development. One of his most recent courses centers around machine learning, giving undergraduates the fundamentals of this highly relevant field of study. He also worked collaboratively to create CSU's artificial intelligence program, which is one of the top research programs in the country.

Professor Beveridge has engaged in significant, collaborate research with partners such as Brandeis University and the University of Florida, and the NSF National AI Institute for Student-AI Teaming. His numerous publications have been heavily cited. Dr. Beveridge was also active in service, chairing or serving on many department committees and leading international conferences.

Zinta Byrne, Professor – Psychology

Dr. Zinita Byrne has been employed in the Department of Psychology since 2002. Her area of specialization in psychology is Organizational/Industrial Psychology. Her major and long-lasting contribution to the research literature has been to the field of organizational justice. Over her career, she published almost 50 peer reviewed journal articles, 16 book chapters, and was co-author of 2 influential books. Her H-Index is currently 41, with over 9000 citations (Google Scholar). She obtained significant National Science Foundation funding during her time at CSU.

In addition to her research, Dr. Byrne contributed to the teaching mission of the department at both the undergraduate and graduate levels. Courses taught included Introductory Psychology as well as several other core undergraduate major courses. On the graduate level, she primarily taught Advanced I/O Psychology.

Dr. Byrne held many service roles in her time at CSU. In the Department of Psychology, she was the I/O Psychology graduate program coordinator. She also chaired the Department's Executive Committee. At the University level, she chaired both the President's Commission on Women and Gender Equity and the University Course Survey Redesign Project.

Jeanne Duflot, Professor – Mathematics

Dr. Jeanne Dufлот began her career at Colorado State University in August of 1982, and received tenure and promotion to Associate Professor in 1988 followed by Full Professor in 1999. During her career in mathematics, she was an excellent researcher, teacher, and department citizen.

Dr. Dufлот taught an impressive number of undergraduate courses ranging from calculus to senior level abstract algebra, along with a complete range of graduate courses. She coordinated MATH 261 for a number of years which included duties of supervising GTAs and preparing course syllabus and exams. Many of her undergraduate offerings included independent study students and honors theses. In addition, she served as graduate director for four consecutive years, implementing a fundamental change in our QE system for PhD students. She received the Department Graduate Teaching Award twice during her career.

As an active researcher, she authored publications in many top journals, presented her work in seminars and conferences, and attracted graduate students who became collaborators under her supervision. Her research areas spanned three different areas: 1) depth and equivariant cohomology; 2) algebraic geometry; and 3) algebraic k-theory. She was also an advisor and mentor to seven Ph.D. students and nine M.S. students.

Dr. Dufлот also had a very active service record. She served on the Department Executive Committee multiple times, on a Code Review Committee, and as chair and member on numerous search committees. She served 10-years as a long-standing member of the CNS Curriculum Committee which included being committee chair for a number of years.

Karla Gingerich, Associate Professor – Psychology

Dr. Karla Gingerich's taught many different undergraduate and graduate courses, delivered to thousands of students over the years, at times reaching the highest number of credit hours taught of any faculty member in Psychology. Teaching Awards have included the CSU Alumni Association's Best Teacher award (and eight subsequent nominations), the CNS Teaching Innovation Award, the SOAR Outstanding Advisor Award, the Distinguished Teacher Award for the Psi Chi Honor Society, the Greek Community Outstanding Faculty Award, and three nominations for the Honors Professor Award.

Since 2005, Dr. Gingerich has provided faculty supervision and coordination of Psychology's Teaching Fellowship. In that capacity she has chosen, supervised, and mentored over 50 doctoral student teachers of Introductory Psychology; she integrated writing into the curriculum as it became a gtPathways course and trained and supervised Teaching Fellows and over 100 GTAs to integrate writing and respond to student writing with developmental feedback. She was a research collaborator on several related publications and gave numerous professional talks and workshops on integrating writing in college courses.

Dr. Gingerich also mentored 11 graduate students teaching other courses, served as Honors Thesis Advisor for 17 Honors theses, served as a member of 40 Honors thesis committees, and trained, supervised, and mentored over 300 undergraduate teachers and teaching assistants, including in an Honors-Psychology Supervised College Teaching course. She served on 27 research committees (masters, Plan B, dissertation, and senior theses).

Service has included numerous committees for the university (such as the Student Success Initiative-2 Task Force and the Provost's Task Force on Special and Temporary Faculty), for the college (CNS Awards Committee, CNS Scholarship Committee) and for the department (Undergraduate Curriculum Committee, Psychology Scholarship Committee). She served as Faculty Advisor for Psi Chi, Psychology's International Honor Society, for many years. She provided clinical supervision of graduate student trainees at the Psychological Services Center, Front Range Community College, and the Salud Family Center. She was a Global Teaching Scholar for CSU's maiden voyage on Semester at Sea in 2016.

Ross McConnell, Associate Professor – Computer Science

Dr. Ross McConnell began his career at CSU in 2002 when he was hired as an Assistant Professor. In the ensuing years, he taught a variety of courses at both the undergraduate and graduate levels, mentored undergraduates in research projects, and guided 16 MS and PhD students to degree completion. He has been a prolific researcher, developing algorithms to solve problems and advocating for certification of algorithms. His research has produced numerous refereed journals and conference papers. Dr. McConnell has also been invited to speak at workshops, labs, and universities in the United States and internationally.

Dr. McConnell has an impressive record of service, serving on department committees and Faculty Council, and has been involved in conference organization and journal and conference paper refereeing. His contributions to his field have been impactful at CSU and beyond.

Laurie Minamide, Senior Research Associate – Biochemistry and Molecular Biology

Ms. Laurie S. Minamide has served the Department of Biochemistry and Molecular Biology for 38 years as general lab manager, lab supervisor and mentor to many undergraduate students, and training supervisor for many MS and PhD students while pursuing her own independent research projects. She was first author or co-first author on 9 publications and a co-author on another 27. She delineated the sequence of a 50 kb gene, which was one of the largest genes to be sequenced by a CSU scientist at that time. Her citation H-index of 26 would rank among the top quartile of assistant and associate professors. Of her publications, 11 have had more than 100 citations and 4 have over 200. Many of her papers have had a major impact on current neuroscience research. One of her first papers in 2000 describes the discovery of a new pathology in Alzheimers that has since been shown to occur in many different forms of dementia. She has developed tools for studying this pathology in cultured brain slices and neurons, work that has helped advance our understanding of the mechanism of the formation of the pathology and which may be a target for therapy to prevent the loss of synapses.

Ms. Minamide has also had a major impact on the training and success of more than 30 graduate (M.S. and Ph.D.) students and another 30 undergraduates. She has shown them the passion for research that is necessary for success, taught them both mundane and advanced techniques, and made fruitful suggestions that ultimately led to the success of the students' research. She has also served as the lab "mom," listening to personal issues, and providing support without inserting herself into solving problems.

She has also provided tremendous service to the department and processed improvements for the university. During radioisotope work in the 1990s, she helped revise the forms and kept a notebook held in high esteem by the radiation safety office. She has provided critical feedback to Lab Animal Resources about protocols and procedures and has been held as a model for lab management by Environmental Health Services. As an example of the esteem in which she is held, Ms. Minamide was the first recipient of the Departmental Award for Outstanding Performance by a Research Associate by acclamation of the awards committee.

David Steingraeber, Associate Professor – Biology

Dr. David Steingraeber has been a faculty member at CSU for 41 years. He has taught extensively within the Biology Department and impacted literally thousands of undergraduate students, many of them first-year students. In addition, he mentored eight MS students and five PhD students. His research is focused on ecological plant morphology, montane wetlands, and conservation biology of rare plants.

Dr. Steingraeber has been a leader on campus and has generously contributed service to the department, college, university, and to the profession. Most notably, he was the founding and Interim Director of the enormously successful Graduate Degree Program in Ecology, and he was the Director of the Life Sciences Core Curriculum for seven years. He served as the Biology or CNS representative to Faculty Council for 14 years and served on the CNS Curriculum Committee for 17 years.

College of Veterinary Medicine and Biomedical Sciences

Mark Frasier, Associate Professor – Biomedical Sciences

Professor Mark Frasier joined the former Department of Anatomy and Neurobiology at Colorado State University in 1974 as an instructor and was promoted and appointed to Assistant Professor in 1990 and then Associate Professor in 2000. He has had a long and distinguished career as an educator at Colorado State University. His most substantial contributions for the past two decades have been in education innovation, including oversight of the design, development, implementation, and evaluation of interactive multimedia educational software, including the introduction of virtual reality to veterinary students. He also published a textbook and many articles in pedagogical journals.

Professor Frasier has been an outstanding educator, advisor, and mentor. He has contributed significantly to teaching in the Biomedical Sciences curricula from undergraduate to graduate and professional students. His devotion and dedication to teaching and to his students is inspirational. For these reasons he was recognized with multiple awards from the College and from national organizations as an outstanding teacher and advisor. Professor Frasier also regularly contributed to service throughout the university; he is always one of the first to volunteer no matter what the need or the task.

Kenneth Olson, Professor – Microbiology, Immunology & Pathology

Dr. Kenneth Olson is an internationally recognized leader in mosquito transgenics and is one of only three research groups worldwide that has genetically manipulated mosquitoes by inserting viral resistance genes into the vector genome. As a member of the Center for Vector-Borne Infectious Diseases (CVID), the major research goals of his laboratory include identifying molecular strategies for interfering with the replication of human pathogens in mosquitoes. His record of research is prolific, as shown by his external funding from NIH, the B&M Gates Foundation/NIH Foundation, DARPA, and the private sector, plus 19 papers and book chapters in the last five years, 129 peer-reviewed publications, 18 book chapters, and an h-index of 46. He has presented his research at over 80 meetings locally, nationally, and internationally.

Dr. Olson co-developed graduate courses, mentored 13 students who attained PhDs, and served on another 20 PhD committees. He mentored and supported 6 Postdocs, 3 Research Scientists, and 7 Research Associates over the years. His service on campus and to his profession is also notable, having served on over 30 committees at all levels of the university and 7 research committees outside of CSU. He has peer-reviewed papers for more than 40 different journals and was associate-editor for PLoS-NTD for 10 years. He also served on 24 NIH grant review panels and 8 other granting organizations.

Rodney Page, Professor and Director of the Flint Animal Cancer Center – Clinical Sciences

Dr. Rodney Page has been professor and director of the Flint Animal Cancer Center for the last 13 years. During this time, the Flint Animal Cancer Center (FACC) has doubled its number of clinicians and its operational budget. Significantly, comparative oncology at the FACC has been elevated to national leadership. Two workshops at the National Academy of Medicine Annual Meetings were organized by the FACC. "The Role of Clinical Studies for Pets with Naturally Occurring Tumors in Translation Cancer Research" workshop was held in 2015, and the second workshop, "Companion Animals as Sentinels for Predicting Environmental Exposure Effects on Aging and Cancer Susceptibility in Humans," took place in 2021 and was attended by more than 2,000 researchers, doctors, and veterinarians to learn more about the role animals can play as bellwethers for human health.

The US Senate Agriculture Appropriations Committee confirmed the value of comparative oncology in their 2016 report based on the FACC push for an appreciation of comparative oncology. The Senate noted that animals can provide answers to important questions about cancer and asked the FDA to address the use of companion animals in cancer research. Another hallmark has been facilitating our collaboration with leading cancer researchers around the world, especially the University of Colorado Cancer Center. We believe CSU and CU have a joint mandate as Colorado's Cancer Center - for all members of the family.

Dr. Page was the principal investigator of the Golden Retriever Lifetime Study funded by the Morris Animal Foundation from 2012 - 2022. This study is one of the largest canine studies in the US with more than 3,000 participants followed throughout life. With the help of the pets' owners and their vets, the study collects data about health, environmental factors, and disease progression to determine risk factors for this cancer-prone breed.

Joel Rovnak, Associate Professor – Microbiology, Immunology and Pathology

A review of Dr. Rovnak's publications illustrates his main career goal of advancing scientific investigations. To that end, he collaborated with over 130 different people to advance research; he worked to promote collaborative processes between large numbers of investigators. In 2009, he was asked to take charge of finances for the annual Rocky Mountain Virology meeting at the Mountain Campus. He established the Rocky Mountain Virology Association, Inc. as an educational charity (501(c)3) that sponsors the annual meeting for virology and prion biology. Through this entity, he obtained funding from the National Institutes of Health to support the meeting every year since 2010. Extramural funding allowed the expansion of the meeting to a maximum occupancy of ~125 attendees, inclusion of national and international invited speakers, and full support for under-represented minority attendees. Funding also made on-site child care possible every year since 2010. The meeting has since served as a model for child care at national meetings.

While the meeting largely serves regional institutions, CSU, UC Anschutz, CU Boulder and the University of Wyoming, there are also regular attendees from all the western states and guest speakers from around the country. They track productive collaborations established and maintained at the meeting, which are many, and Dr. Rovnak personally established collaborations with several investigators in the Neurology Department at Anschutz. In transition to retirement, Dr. Rovnak passed responsibility as principal investigator to his colleague and collaborator, Rushika Perera, for submission of grant applications with a continued successful track record. He will continue as secretary/treasurer for the foreseeable future.

Dr. Rovnak made a number of scientific advances that he looks back on with pride. Though they may seem less significant with time, they contributed to many scientific advancements. More importantly, they reflect his training of five graduate students and many undergraduates, who have gone on to make their own significant contributions. Dr. Rovnak is finishing his career working with one former graduate student, Claire Birkenheuer, class of 2015, to understand host and virus transcription control by dengue virus, and, as is the case with every project he has ever undertaken, it is the most exciting of them all.

Walter Scott, Jr. College of Engineering

Patrick Burns, CSU System Chief Information Officer and Professor – Mechanical Engineering

Dr. Patrick J. Burns has honorably served Colorado State University over the past 45 years. He came to the institution as an Assistant Professor in the Department of Mechanical Engineering in 1978. Dr. Burns was subsequently promoted to Associate Professor and granted tenure in 1984 and promoted to full Professor in 1990. After one of his own professors made a huge impression upon him, he wanted to teach and hoped to have the same impact on his own students. As part of his faculty role and in addition to his success in the classroom, he helped to secure over \$15 million in grants while dutifully serving his department, college, institution, and profession

through his service; notably, he chaired the engineering science program and served as Associate Editor of Computing Systems in Engineering.

In addition to his faculty role, Dr. Burns became the director of Academic Computing and Networking Systems in 1998 and was eventually promoted to vice president for Information Technology. Following his work on a task force in 2006 to envision Morgan Library in the year 2020 that included a strong shift toward digitization, Dr. Burns added Dean of the Libraries to his title. He held the VP and Dean titles until 2019 when he announced his retirement. Soon after, he agreed to continue serving CSU in the system office as Chief Information Officer in a half-time capacity.

Dr. Burns has had a profound impact on CSU's division of information technology and the library during his tenure. He has incorporated additional technology into the library and created a multiplicity of avenues for students, faculty, and staff to pursue research and access to resources that can keep pace with future change. Dr. Burns's dedication to CSU and his legacy will continue far beyond his well-deserved retirement.

Pierre Julien, Professor – Civil and Environmental Engineering

Dr. Pierre Julien's accomplishments as a faculty member are extensive. He came to CSU as a NATO post-doctoral fellow for two years before beginning in a tenure-track position and ultimately earning the title of full professor in 1995. Dr. Julien has gained immense national and international recognition and esteem for his lifelong contributions in hydraulic engineering, specifically river mechanics, erosion, and sedimentation, as evidenced by his numerous awards and recognitions, including three highly prestigious awards from the American Society of Civil Engineers (ASCE): the Hans Albert Einstein Award in 2004; the Hunter Rouse Hydraulic Engineering Lecture in 2015; and most recently in 2022 being selected as an ASCE Distinguished Member. He has received multiple awards from his department and college in recognition of his dedicated work in teaching, research, and service.

Dr. Julien served as the Editor-in-Chief for the premier journal in his field, i.e., the ASCE Journal of Hydraulic Engineering from 2002—2005. He received critical acclaim for his many published works, including 250 conference papers, 200 refereed journal articles, 35 book chapters and manuals, and 3 published textbooks. He also delivered 25 keynote presentations, taught 20 professional short courses, and served as the major advisor for 44 PhD students and 100+ masters students at CSU. Dr. Julien also has been involved in significant Department, College, and University service, including serving as the program coordinator in the Hydraulics Program for four years and Associate Dean for International Research and Development at CSU during 2006—2007.

Tom Sale, Professor – Civil and Environmental Engineering

Dr. Tom Sale is retiring from CSU after 23 years of employment and service. His accomplishments as a faculty member are extensive and include publishing 58 refereed journal papers, 10 patents, and 5 published books and book chapters. He has procured more than \$20M in research funding from industry, federal agencies, municipalities, consulting companies, and

other sources. In 2011, he received the George T. Abell Award for Outstanding Contributions to Economic Development from the Walter Scott, Jr. College of Engineering.

Dr. Sale is a recognized national and local leader in the remediation of contaminated groundwater. In 2003, he served as a member of the National Resource Council Committee on Contaminants in the Subsurface-Source Zone Assessment and Remediation and as a member of the U.S. Environmental Protection Agency's advisory panel on Addressing the DNAPL Remediation Challenge: Is there a Case for Source Zone Depletion? He also served as the Director of the Center for Contaminant Hydrology at CSU and as Associate Director of the University Consortium for Field Focused Groundwater Contaminate Research, an informal association of university professors and industrial sponsors in the U.S. and Canada that has been focused on applied groundwater research for more than 30 years. He also has been involved in significant Department, College, and University service including serving as an organizer for the CSU Subsurface Water Shortage Symposium in 2016 and 2018.

Warner College of Natural Resources

William H. Clements, Professor – Fish, Wildlife and Conservation Biology

Dr. William H. Clements research focused primarily on understanding how aquatic ecosystems respond to contaminants, particularly heavy metals from abandoned mines. He published two textbooks (*Community Ecotoxicology* and *Ecotoxicology: a Comprehensive Treatment*), 112 peer-reviewed publications and 18 book chapters in the scientific literature. Most of these papers were co-authored with his graduate students, undergraduates, or postdoctoral fellows. These papers have been cited over 8800 times, resulting in an h-index of 56. Total funding in his lab since 1989 has exceeded \$10 million (\$6.4 million as PI), and most of these funds were obtained from highly competitive federal sources (e.g., National Institute of Health; U.S. EPA STAR Program). Since 1989, he has given 81 invited lectures, plenaries and keynote addresses at universities, federal agencies, and professional meetings throughout the world.

Dr. Clements's primary teaching responsibilities at CSU included undergraduate courses in research design and ecology and a graduate-level course in ecotoxicology that he developed. He co-taught in an intensive set of classroom and field courses that he helped develop at the CSU Center in Todos Santos, Mexico. Student evaluations in all courses throughout his career, including undergraduate service and graduate-level courses, have been overwhelmingly positive.

Since 1990, Dr. Clements mentored 34 graduate students and postdoctoral fellows, all of whom are currently employed in academia, federal or state agencies, or the private sector. Twenty-seven undergraduate research scholars, supported through the NSF Research Experience for Undergraduates, Hughes Undergraduate Research Program, McNairs Scholars Program, and the CSU Honors Program, have conducted independent research in his laboratory. Finally, he trained over 100 CSU undergraduate work-study students in a variety of topics related to stream ecology and water quality. His effectiveness as a mentor was recognized at the College and University levels; he received the College of Natural Resources Harry E. Troxell Distinguished Service-to-Students Award and the CSU Jack E. Cermak Advising Award in 1993 and 1996, respectively.

In 2022, Dr. Clements was selected as the Resident Distinguished Ecologist by the CSU Graduate Degree Program in Ecology. His broader contributions to the field of aquatic ecology were recognized in 2023 when he was elected as a Fellow to the Society of Freshwater Science.

In addition to chairing numerous search committees and serving on the departmental tenure and promotion committee, since 2007, Dr. Clements has served as Chair of the Undergraduate Major in Fish, Wildlife and Conservation Biology. Outside of the University, his most significant professional service contribution was to serve as Associate Editor of the Journal of Freshwater Science for the past 26 years.

Judith Hannah, Professor – Geosciences

Dr. Judith Hannah's success in the classroom was due to her close attention to evolution of pedagogy, presentation, and feedback mechanisms, and supporting software over the last two decades for both lectures and labs to take advantage of new tools and research-based teaching approaches, and to meet student expectations. She supervised 15 graduate students, 11 undergraduate research projects, and 2 NSF-funded Research Experiences for Undergraduates programs.

Dr. Hannah's research closely aligned with the Applied Isotope Research for Industry and Environment (AIRIE) program, focusing on the development of analytical methods for isotopic systems and its applications within Earth Sciences. Her major impact was opening methods and application for organic matter, allowing direct dating of black shales, one of few methods for determining the age of sedimentary units, especially those associated with mass extinctions in the geologic past. Results led to multiple applications for the petroleum industry. Among her list of publications are 61 peer-reviewed journal articles, one edited volume, and two field guides. She also was awarded millions of external research dollars, including from NSF, to support her work.

At CSU, Dr. Hannah served as the Department Head for Geosciences for ten years. She has also served the AIRIE Program since 1996, has been involved in multiple professional societies, and regularly serves her profession by reviewing proposals, manuscripts, and nominations.

Brett M. Johnson, Professor – Fish, Wildlife and Conservation Biology

For over 30 years, Dr. Brett Johnson was dedicated to being a well-rounded faculty member, always doing his best in teaching, service, and research. He developed and taught highly regarded core FWCB courses including the capstone course for Fisheries and Aquatic Sciences and Conservation Biology concentrations, and very popular fish biology courses that attracted well over 200 students per year from majors inside and outside the Warner College of Natural Resources.

Dr. Johnson served his Department and the University in many capacities. He developed policies and procedures for a work experience internship that is a highlight of the department's undergraduate program. He served on the Department's Mentoring and Reappointment Committee (MRC) for over 15 years, often as chair, and formed and chaired the Department's new MRC for Continuing, Contract and Adjunct faculty. He was also a long-term member of the

Department's Scholarship Committee, the Curriculum Committee, and many other Department, College, and University committees.

In the spirit of CSU's Land Grant Mission, Dr. Johnson developed strong research collaborations with Colorado Parks and Wildlife and other agencies and trained numerous graduate students and postdocs with their sponsorship. He mentored well over 100 undergraduates in research. He also maintained an active research program and has a strong publication record in applied fisheries ecology that reflects well on the Department and CSU. His contributions were recently recognized with the Award of Excellence from the Colorado-Wyoming chapter of the American Fisheries Society.

Robin Reid, Professor – Ecosystem Science and Sustainability

Dr. Robin Reid has been a faculty member in CSU's Department of Ecosystem Science and Sustainability for 10 years, previously serving as the Founding Director of the CSU Center for Collaborative Conservation from 2008—2019. Dr. Reid co-designed and taught CSU's first capstone course in Collaborative Conservation as well as in Practicing Sustainability. Her research focuses on global social-ecological systems, especially concerning pastoralists and rangelands, and the theory and practice of transdisciplinary science and knowledge co-production with Indigenous Peoples. She has published 6 peer-reviewed books, 26 book chapters and 82 peer-reviewed articles in top international journals including in the *Proceedings of the US National Academy of Science*. She published an award-winning book, *Savannas of Our Birth*.

Dr. Reid holds a lifetime membership in the US National Academy of Sciences. Her teams won three national awards including the Ecological Society of America's Sustainability Science Award, the C. Peter Magrath and WK Kellogg Foundation Community Engagement Award and the Michael Malone Award for International Leadership. She also received CSU's Distinguished Service Award, for efforts to internationalize CSU through work in Africa, and she received WCNR's Teamsmanship Award. Along with other faculty in the Conservation Leadership Through Learning Program, she received the Western Association of Graduate School's Award for Excellence and Innovation in Graduate Education.

Her service includes co-founding CSU's Conservation Leadership Through Learning Program. She co-founded the High Park Fire Coalition (now the Coalition for the Poudre River Watershed). She also co-designed and co-founded the Peaks to People Water Fund, Colorado's first watershed investment fund. In Kenya, she and her team founded the non-profits, Reto-o-Reto and the One Mara Research Hub, two boundary spanning organizations that aim to bring the best of science to national and international policymakers. She currently serves as the Vice President of the International Rangelands Congress.

University Libraries

Nancy Chaffin Hunter, Associate Professor and Acquisitions and Cataloging Librarian

Professor Nancy Joanne Chaffin Hunter lead the development of metadata standards to be used for items in the Institutional Repository in the University Libraries. She collaborated as part of the team incorporating CSU Pueblo into the CSU Fort Collins existing ILS, specializing in bibliographic record control and authority records. From December 2012 to July 2022, she served as the Coordinator of Acquisitions and Metadata Services leading the unit responsible for purchasing, licensing, and managing print and electronic resources for the Libraries. She collaborated as part of the team migrating to a new ILS, specializing in bibliographic record, vendor record, and order record migration.

Professor Hunter's research and scholarly activity as a Metadata Librarian focused on metadata best practices for institutional repositories. She also researched pricing of library materials, best practices in acquisitions and serials management, and management of subscriptions through a subscription agent. She authored and co-authored many peer-reviewed publications, and presentations.

Professor Hunter's service has included serving on National, University, and Libraries committees in both membership and leadership roles. In 2011, she was chosen for the Colorado State University Libraries Faculty Award for Excellence.

Beth Oehlerts, Associate Professor

During her years at the Colorado State University Libraries, Professor Beth Oehlerts was a highly regarded professional in the field of librarianship. She was a key leader and collaborator in the Libraries' strategic transition from print-based services to those delivered in digital formats. Under her excellent leadership and management, the Libraries gradually grew the size and sophistication of its local digitization program, including implementation and development of CSU's digital institutional repository, Mountain Scholar, and a pilot electronic submission program for CSU's theses and dissertations. Throughout her tenure, Beth served as one of the Libraries' cataloging and metadata experts, ensuring enhanced collections discovery and access for our faculty, students, and researchers.

Professor Oehlerts published regularly in professional literature, focusing on research topics important to colleagues also working in her specialty of librarianship. She was actively engaged in several grant projects to develop digital collections important to our agriculture and water researchers, funded by the Institute of Museum and Library Services, the National Endowment for the Humanities, Project Ceres, and the Colorado Water Conservation Board.

In addition to her librarianship and research contributions, she has a robust, consistent, and impactful record of service at the local, regional, and state levels. She contributed extensively to the Libraries and University via her participation on several faculty committees, including the Strategic and Financial Planning Committee and the University Curriculum Committee. She was active in various Colorado professional library organizations and shared her knowledge and expertise with colleagues as a presenter at many conferences.

Dawn Paschal, Associate Professor and Senior Associate Dean for Collections and Discovery

Associate Dean Dawn Paschal led the effort to develop an open access digital institutional repository to showcase, preserve, and increase access to research, scholarship, and creative works of CSU faculty, students, and academic staff. She partnered with the Graduate School to develop, implement, and refine CSU's electronic thesis and dissertation (ETD) submission program and collaborated with various colleagues in the Libraries and other campus departments to elevate digital collection development, research data management, and geospatial services.

As part of her research and scholarly activity, Associate Dean Paschal published three monographs (all reference works), six journal articles (three peer-reviewed), two refereed book chapters, two newsletter articles, metadata standards for digital collections. She served as PI or co-PI for grants awarded to develop the Western Waters Digital Library and the *Colorado Encyclopedia* (National Endowment for the Humanities, Institute of Museum and Library Services, History Colorado State Historical Fund). She also contributed to National Science Foundation grant submissions to enhance CSU's network capabilities, elevate research data management support, and develop cyberinfrastructure services to researchers at institutions in the Intermountain West. She also presented at many national, regional, and state conferences on cataloging and metadata, digital libraries and collections, and research data management. Associate Dean Paschal served on national, University, and Libraries committees in both leadership and membership roles.

Office of the Provost

Kelly Long, Vice Provost for Undergraduate Affairs and Associate Professor – History

Dr. Kelly Long has honorably and consistently demonstrated extraordinary and meritorious contributions to the fulfillment of the mission and programs of the University in her role as associate professor, associate dean in the college of liberal arts, and as associate provost.

Dr. Long demonstrated excellence in teaching, service, and scholarship. She established herself as an innovative and well-respected scholar through notable publications, national and international presentations, and significant external grants related to her interests in China and Bhutan as well as her expertise in teacher preparation. She co-authored a book titled, "Teaching for Historical Literacy: Building Knowledge in the History Classroom," to provide resources for teachers who aspire to teach their students historical skills and historical thinking.

In addition to these contributions as a faculty member, Dr. Long has indisputably shaped the institution through her outstanding work as an administrator. Dr. Long has played a leading role in shaping undergraduate education and student success, first as Associate Dean in the College of Liberal Arts and, most recently, as Vice Provost for Undergraduate Affairs. Through her leadership of the Teaching Continuity and Recovery Task Force during the COVID-19 pandemic, she provided extraordinary service, dedicated leadership, and tireless efforts at a critical time in the University's history.

Office of the Vice President for Research

Alan Rudolph, Vice President for Research and Professor – Biomedical Sciences

Dr. Alan Rudolph served as Vice President for Research at Colorado State University for 10 years with a Faculty appointment as Professor of Biomedical Sciences during his tenure at CSU. Prior to joining CSU, he served as Chief of Biological Sciences and Technology, Program Manager Defense Sciences office, DARPA and as Senior Executive Service, Director of Joint Science and Technology Office for Chemical and Biological Defense, Department of Defense, in addition to being Chief Executive Officer at two biotechnology companies he founded to market novel diagnostics for cognitive degradation and therapeutics for bleeding cessation. He has been inspired by broad training in interdisciplinary life sciences and organismal systems with interest and focus on translation into new technology and engineering opportunities. He published over 100 peer-reviewed technical papers across varied disciplines in biophysics, cell biology, robotics, tissue engineering, physiology, hematology, and immunology. Over his career, he was also awarded 15 patents and edited three books on New Therapeutic Strategies for Blood Substitutes, Neurotechnology for Robotics, and Targets for New Clinical Diagnostics and Therapeutics for Alzheimer's Disease. Among many successful outreach efforts, he also founded two non-profit foundations on neurotechnology, using science as an agent for social transformation in underserved populations in the US and Brazil.

As CSU Vice President for Research, Dr. Rudolph led our premier, \$445M research land grant university as Chief Science and Technology Officer. This effort included serving as Institutional Officer for all animal and human use, representing the University at local, state, and federal levels to promote strategic research priorities, and providing a steady hand to help forge and fortify new science and research efforts at the University. He also led technology transfer and partnering to corporate strategic partners and in start-up venture creation in collaboration with the CSU Research Foundation (now STRATA). He encouraged interdisciplinary team programs to foster new thinking and practices to serve the land grant mission and complex global challenges of research initiatives at CSU.

Office of University Advancement

Simone Clasen, Associate Vice President

Simone Clasen began her career with the College of Natural Sciences in 2001 as the first ever Assistant Director of Development for the University. Since then, she has successfully served as the Director of Development and the Executive Director of Development for the College of Natural Sciences before moving into her role of Associate Vice President of Philanthropic Operations in the Office of University Advancement. At the time of her retirement, UA compiled statistics related to Ms. Clasen's 21-year tenure. These statistics include 20,000+ reports pulled, 1100+ proposals submitted, and \$70 million raised. Even more impressive is her stature atop the record books for contact reports logged, at nearly 18,000 and counting. That is 5,000 more than her nearest all-time college and nearly 10,000 more than the closest active user. To say she was an active Advance user, is an understatement. Even with all of these incredibly impressive

numbers, what's most impressive is her dedication to our donors, UA and CSU. She has played a significant role in growing the Division into the successful machine that it is today.

Business and Financial Services

Linda Meserve, Procurement Director/Chief Procurement Officer

Joining a very male dominated office in 1998, Linda was one of two female professionals in the office. She celebrated many firsts in the Procurement Office: first female team lead, first female Supervising Purchasing Agent/Associate Director, first female director, and first female Chief Procurement Officer. Linda started out procuring computers and software for the University since a lot of replacements were needed due to the large water event (The Flood) that occurred the summer prior to her joining CSU. She quickly became an expert in Requests for Proposal and has handled many high profile, challenging solicitations for the University. As her experience and roles in the office have changed, she has been able to create innovations for procurement including rating RFP's visually by proportion and color instead of numbers and by making several changes to the Procurement Rules.

Colorado State University-Fort Collins
Sabbatical Leave Summaries

College of Agricultural Sciences

Marco Costanigro – Agricultural and Resource Economics (Fall 2021)

Originally planned as a full-year sabbatical in Zaragoza, Spain, the leave was amended to one semester, as his application for Fulbright funding was not successful. The surge of the omicron variant in Europe also created problems with establishing connections and collaborations. As a result, Dr. Costanigro had to reassess his original objective of writing a monography on the economics of the alcohol sector. Despite the change in plans, the sabbatical was quite productive. Dr. Costanigro updated his research skills as an econometrician and delved into recent advances in causal inference literature. Causal inference methods are becoming an essential toolkit for researchers interested in policy evaluation. This involved an in-depth study of a recent monograph, numerous research articles, and the associated statistical modeling techniques. This retooling will benefit Dr. Costanigro and CSU in the years to come, increasing his ability to write cogent proposals and publish in high-level journals.

The sabbatical created numerous networking opportunities, new collaborations, and novel research avenues, which will bear fruit in years to come. He established ties with two institutions in Zaragoza: The Department of Economics Analysis at UniZar, and the Agrifood Research and Technology Centre of Aragon (CITA). During his stay, he collaborated with Azucena Gracia (CITA) to design and implement economic experiments studying the role of designation of origin information in driving consumer wine purchasing behavior. A total of 12 experimental sessions were conducted in Zaragoza, and CITA provided funding for the experiments. Results from this project have been selected for presentation at the European Association of Wine Economics annual conference, which will be held in May 2022 in Vila Real, Portugal.

Dr. Costanigro also established a collaboration with Jean-Marie Cardebat at the University of Bordeaux. The University of Bordeaux is replicating with French consumers the experiments conducted in Spain, and he is in discussion with researchers at the University of Bologna to expand the work to include Italian consumers. Dr. Costanigro hopes to supervise the publication of a research article co-authored by researchers at CSU, CITA, the University of Bordeaux, and the University of Bologna.

During his stay in Zaragoza, he gave one seminar for the UniZar graduate students on the role of experimental methods in Economics, and one joint seminar UniZar-CITA presenting research on the economics of craft brewing. He has also continued supervising as a main advisor the work of two graduate students at CSU, one of whom defended his final dissertation in December 2021.

Stephan Kroll – Agricultural and Resource Economics (Spring 2022)

Stephan Kroll spent his sabbatical from February until August 2022 in Munich, Germany. The ifo Institute for Economic Research and Ludwig-Maximilian Universität (LMU) invited him to

work at their respective locations and provided him with office space. Ifo is according to a major German newspaper Germany's most influential economics think tank; Dr. Kroll was a guest of the "Environment, Climate, Resources" research unit and interacted there primarily with other environmental and resource economists. LMU is one of the highest ranked universities in Germany; Dr. Kroll was invited by the "Behavioral and Experimental Economics" unit in the Department of Economics and interacted there with experimental economists. In both units, Dr. Kroll presented his research several times and attended many seminars by various in-house and outside speakers. At the end of his stay, Ifo made him a CESifo Research Network Fellow.

While on sabbatical, Dr. Kroll worked primarily on his research on the role of solar geoengineering (SGE) among policies to tackle climate change. Does SGE, a very imperfect substitute to climate change mitigation, give decision-makers a false sense of security and disincentivize the necessary mitigation steps necessary (something economists class "moral hazard")? Or does the prospect of this scary tool, with all its potential and unknown side-effects, might serve as clarion call for more radical and faster mitigation measures instead of leading to complacency about mitigation? This is an open behavioral question, on which Dr. Kroll (and his collaborators, including other experimental economists as well engineers at Duke University) worked during his sabbatical. He wrote, edited, and submitted several manuscripts and presented the results at numerous occasions during the six months in Germany. He and his co-authors published one paper (in the journal *Climatic Change*), submitted two other papers (to the *Journal of Economic Behavior and Organization* and the *Journal of Environmental Economics and Management*) and are about to submit an additional paper (to the *Journal of Public Economics*). He also participated in two workshops in the US—one virtual workshop at *Resources for the Future* and one in-person workshop at Duke University. In addition, he and his collaborators prepared additional lab experiments to be conducted in the academic year 2022-23. In summary, Dr. Kroll is satisfied with meeting his goals for the sabbatical, and he is very grateful to CSU and his department for this opportunity.

Dale Manning – Agricultural and Resource Economics (Fall 2022)

Dr. Manning focused on two scholarly objectives while on sabbatical in Cordoba, Argentina.

First, he connected with Argentine environmental and natural resource economists, as well as other researchers working on environmental topics in coordination with environmental economists at the Universidad Nacional de Cordoba (Ines del Valle) and at the Universidad Nacional de La Plata (Martin Cicowiez). Dr. Manning presented at an environmental economics conference hosted by the Universidad Torcuato Di Tella and La Universidad Catolica Argentina (UCA) in Buenos Aires. Dr. Manning met with economists at the Instituto Nacional de Tecnología Agropecuaria to brainstorm evaluating the impact of local prohibitions of agrochemical inputs in urban areas. Dr. Manning presented his research program at CEPROCOR, an institution that hosted his stay in Argentina, regarding work valuing bats in agriculture. Dr. Manning met with individuals at the Bolsa de Cereales de Cordoba to discuss work related to carbon offsets in Argentina with an invitation to serve on an external board of advisers. Dr. Manning presented a lecture on Environmental and Natural Resource Economics to Engineering students at a University in Rio Gallegos.

Dr. Manning focused his second scholarly activity on advancing existing research, especially research with current and former students. This included several publications and submissions: Publication in *Water Resources and Economics* (with Salvador Lurbe); Publication in an NBER book on water and climate change (with Joey Blumberg); Resubmitted paper to the *Journal of Development Studies* (after failed submissions to *AJAE* and *World Development*) (with Kelvin Mulungu); Resubmission to *Science of the Total Environment* (with Ahmed Garib); Resubmission to *Ecological Economics* (with William Chomphosy); Published papers in *Review of Environmental Economics and Policy*, *Agricultural Water Management*, and the *Journal of the Association of Environmental and Resource Economists*; Wrote two new manuscripts based on ongoing work; Finalized three reports for the World Bank focused on the economy-wide implications of fisheries management in Sri Lanka; and submitted new AFRI grant, which was funded, with Amanda Countryman and Diane Charlton. He also worked with two students to finalize dissertations and recruiting a current student to help with upcoming grant work. He continued managed existing grants, including a new grant (from EDF) and finalized a contract for survey work that will take place in Summer/Fall 2023.

Dr. Manning expanded his network of colleagues working in Argentina and began to examine questions at the interface of economic development and the environment. This represented a return to the type of research question that originally drew him to economics. Dr. Manning hopes his interactions in Argentina enhance the reputation of CSU and facilitates future research collaborations both for him and for others working at CSU. Through Dr. Manning's discussions with researchers from outside economics, he demonstrated the strength that CSU has in facilitating interdisciplinary work. At all presentations, Dr. Manning included contact information for DARE and CSU, with the goal of recruiting high-quality future students, both for DARE and for other CSU departments.

John K. McKay – Agricultural Biology (Fall 2022)

Dr. John McKay's research fits in to the conceptual framework of the genetics of complex traits. The specific research systems are crop roots and drought adaptation. Dr. McKay's expertise is in experimental design and analysis of complex genetics. Mechanistic understanding of the genotype to phenotype relationship in crops can benefit from studies at the levels of cell and molecular biology. To obtain this training, Dr. McKay spent his sabbatical visiting the labs of experts in these respective areas at Salk Institute for Biological Sciences. The research projects that he launched during his visit to the Salk Institute of Biological Sciences will lead to detailed understanding of the genetics and molecular biology of roots. The questions, hypotheses and experiments developed in that collaboration were designed to connect to and advance the conceptual framework of Dr. McKay's research program on complex traits and genotype by environment interactions.

In addition, Dr. McKay designed and organized his BSURE undergraduate research mentoring program. The BSURE mentoring program is an eight-week summer program that provides undergraduate researchers information and perspectives on paths to a research career in Biology, with the support of peers and formal mentoring. This program increases students' understanding

of biology, provides valuable hands-on research experience, and facilitates communication among undergraduate students, graduate students and faculty about research and future career paths in science. This will be relaunched in Summer 2023 and expanded to include interns at the University of Tennessee Health Science Center, as well as undergraduates involved in Biology Research at CSU.

Dr. McKay expanded his collaborations and training opportunities that will advance his planned labs and ongoing research. Furthermore, Dr. McKay made connections with globally recognized Biology labs at the Salk Institute, which should strengthen CSU's research standing as well as help his lab and others develop successful grant proposals and collaborations. In addition, Dr. McKay anticipates that broadening his research expertise will have a positive effect on his teaching and mentoring.

Meagan Schipanski – Soil and Crop Sciences (Academic Year 2021-2022)

During Dr. Schipanski's sabbatical, she developed new scholarly collaborations and networks and saw existing projects through to completion. She was a visiting faculty member in the Group of Agronomy and Environment in Mediterranean Agricultural Systems at the University of Lleida (UdL) in Lleida, Spain, and also collaborated with colleagues at the National Spanish Research Council (CSIC) Group of Soil Physics and Global Change of Soil and Water. Dr. Schipanski presented invited research seminars to CSIC and the AgroTecnio Center at UdL and participated in the 19th international meeting of the Iberian-American National Institutes of Agriculture focused on soil carbon. She toured on-farm research sites across the region, provided mentoring to UdL graduate students, and learned about the challenges facing producers and innovative management strategies in another water-limited region of the world. The outcome of these new collaborations and perspectives is a review paper entitled *Soil carbon implications of irrigation expansion and contraction across semiarid agricultural landscapes* that has been drafted and will be submitted by Spring 2023.

Dr. Schipanski took advantage of the increased intellectual time during sabbatical to bring existing projects to completion. The sabbatical year was one of the most productive years of her career, resulting in 17 peer-reviewed publications in 2022. I was able to provide more timely and thoughtful feedback to her graduate student advisees, who led 5 of these publications. Importantly, she was finally able to submit a synthesis perspective article that is currently in the final stages of review with *Nature Water* as one of the final outcomes from the multi-state Ogallala Water Coordinated Agricultural Project. Dr. Schipanski returned to CSU refreshed and rejuvenated, and with an improved level of conversational Spanish. This enhanced time for reflection and reading contributed to ideas for new research and the submission of two large grant proposals to USDA and DOE in fall of 2022. She has incorporated concepts and examples from the sabbatical into her introductory crop science course.

Mark Uchanski – Horticulture and Landscape Architecture (Spring 2022)

The overall purpose of this six-month sabbatical leave was to develop a deeper context and understanding of the free trade-enabled fresh produce (specifically fresh vegetables) supply

chains that extend from western Mexico, to the southwestern United States, and to southern Canada. The sabbatical activities included hosting a joint meeting of the W-3008 onion multistate working group meeting, National Allium Research Conference (NARC), and Stop the Rot grant project annual meeting with approximately 50 attendees from industry and academia. Dr. Uchanski visited and photo-documented numerous vegetable growing and processing operations ranging from open field, to semi-protected, to traditional greenhouses, and to fully enclosed leafy greens “warehouse” farms; he also conducted an appraisal of numerous certified organic and conventional vegetable production systems across three countries. Dr. Uchanski published a book length manuscript entitled “Adapting to the Land: A History of Agriculture in Colorado” (University Press of Colorado; pp. 276) and completed and published two research manuscripts in peer-reviewed journals in his field. Lastly, he fostered and strengthened professional relationships with key contacts in the vegetable and specialty crop industries.

The personal benefits derived from the sabbatical included time to promote his newly released book, time to work on publishing two other research reports, and the opportunity to gain experiences that will inform new research initiatives and collaborations. Dr. Uchanski submitted no fewer than five grant proposals, totaling over \$2,000,000 in requests, which has resulted in two that were funded, two that are still under review, and one that was not funded. He grew professionally by expanding industry connections as well as reinforcing existing collaborations with academic colleagues. Institutional benefits include increased visibility for CSU scholarship in the form of funded projects and published works. The onion meetings were attended by scholars and industry representatives from across the United States and world (e.g. the US, Canada, and South Africa), thus increasing visibility for CSU and the state of Colorado. Dr. Uchanski grew his photographic and video portfolio for teaching and co-teaching his four CSU courses, and students will benefit from the wider international perspectives and slide deck updates. Releasing a book length manuscript enhances CSU’s reputation as a leader in agricultural production, and sustainable and organic food systems.

College of Business

Lumina S. Albert – Management (Fall 2022)

Dr. Lumina Albert worked on collaborative projects focused on innovative research in the fields of global business ethics and human rights issues in India, courtesy of a Fulbright Teaching and Research Senior Fellowship that helped her engage in these highly impactful research projects. Dr. Albert researched and taught at three educational institutions and universities in India, i.e., Anna University, Indian Institute of Technology (IIT) and the University of Madras. She also spent considerable time developing collaborations with faculty at the Indian Institute of Management in Kozhikode, Kerala, South India. Teaching and research activities were focused on the ethics and human rights impact of business institutions on people and communities.

Specifically, Dr. Albert was able to contribute significantly to strengthening the business ethics research program in the Department of Management Studies at Anna University, begin discussions around a strong faculty exchange program between Anna University and Colorado

State University, advance research on the global impact of corporate and business organizations on the world's communities, design a research project that collected data on human rights of employees and workers, collect data on consumer ethics and human rights in the marketplace, research business ethics principles and decision making, interact and work with survivors of human trafficking, and conduct research on cross-cultural challenges and issues.

Dr. Albert developed a strong global alliance across international borders that will help end modern slavery and human trafficking, through rigorous, innovative interdisciplinary and collaborative research, and through the creation of large-scale educational and professional training resources related to modern slavery and human trafficking. Her research activities focused on collecting data and researching the numbers and nature of exploitative situations in India. Dr. Albert spent time living with survivors of human trafficking, studying the cultural factors and individual psychological dynamics that influenced and shaped their responses to these experiences. She also examined the cultural factors and individual psychological dynamics that influence the decision to engage in the deplorable activities of exploitation and trafficking.

In terms of personal and professional growth, Dr. Albert's sabbatical leave provided immense growth and education. Dr. Albert developed cross-cultural experience and professional capabilities. Dr. Albert was engaged in intellectual discussions, seminars and research colloquia focused on business ethics and human rights. She also learned about contemporary global issues in business ethics and human rights as she interacted with business students and doctoral candidates in India. Dr. Albert made significant strides in ethics and human rights research. All these interactions and experiences improved Dr. Albert's contributions to business ethics and human rights research and education. Overall, it was a great honor for Dr. Albert to serve as a Fulbright Teaching and Research Scholar in India.

John Elder – Finance and Real Estate (Fall 2022)

Dr. John Elder revised a paper, which required differential analysis of new data and the adaptation of sophisticated empirical methodologies. This paper, published (2023) in a high-profile field journal, provides insight into the effects of exogenous shocks to uncertainty (e.g., the covid episode) on disparities in employment. In addition, Dr. Elder revised and updated other research projects with new empirical data and new methodologies, such as integrating relatively new and sophisticated empirical methodologies related to Bayesian econometrics, such as Markov switching processes applied to models of conditional heteroskedasticity, which are used to model the return volatility of financial and commodity assets, and, in some cases, to characterize the level of uncertainty. Dr. Elder also participated in three international conferences, including a conference in which he organized an academic session and coordinated several authors from other universities. Lastly, Dr. Elder engaged a new opportunity to serve as sole Editor-in-Chief of the *Journal of Economics and Finance*, an international journal with a significant reputation which is published by Spring-Nature.

Dr. Elder's research benefits students by yielding empirical analysis and skills that, for example, help explain how energy prices affect social welfare, corporate governance affects financial markets, and how the implementation of monetary policy affects both financial markets and

social welfare. The knowledge and skills gained in these activities are continuously incorporated into Dr. Elder's teaching at the undergraduate and graduate levels, permitting him to teach at least eight different graduate courses at CSU, as well as numerous undergraduate courses.

Harry Turtle – Finance and Real Estate (Academic Year 2021-2022)

Dr. Turtle dedicated his efforts during the sabbatical to ongoing research streams, teaching development, and continued academic service. He developed and advanced multiple research projects and is optimistic that the research pipeline will result in good publication success in the coming years. In addition to research, he taught a graduate module in investments at Imperial College Business School in London during the Fall 2021 term. This was a great opportunity to participate in a highly successful program alongside excellent finance scholars. (Imperial is ranked 3rd in Europe and 7th in the world according to the QS World University Rankings 2022.) He continued to develop course ESG Investments materials through a Tinberg Teaching Innovation Grant, developed a new ESG Investments course for the Graduate Certificate in Sustainable Business, attended the GreenFin 2022 practitioner conference in New York, and attended the Cornell University Environmental, Social, and Governance (ESG) Investing Research Conference.

Dr. Turtle's current advanced stage projects examine the following topics: i) How genetic and psychological predispositions negatively impact financial decisions relative to our best financial economic advice, and models; ii) How life purpose, health, and longevity relate with one another, with new research to examine how life purpose and health impact financial decision variables such as risk aversion, return beliefs, and stock market participation; iii) How restrictions on labor mobility (through the inevitable disclosure doctrine, IDD) impact firm choice about the capital-labor ratio, with findings suggesting that the IDD incentivizes a shift toward capital and away from more costly skilled labor; and iv) How financial constraint risks impact financial distress and corporate decisions, with examination of the ability of the Federal Reserve's Senior Loan Officer Opinion Survey (SLOOS) to capture financial constraints and effectively predict future aggregate defaults and charge-offs for commercial and industrial loans with large predictive lead times.

College of Health and Human Sciences

Alison Bielak – Food Science and Human Nutrition (Fall 2021)

Dr. Bielak's research focuses on the influence of activity engagement on cognitive ability in older adulthood. During her year-long sabbatical, she was able to learn new statistical methods, strategically increase her competitiveness for federal grants, and grow her expertise and reputation in this field. The time she was given to focus on these goals now puts her in an excellent position to grow her career. She was able to fulfill her sabbatical goals despite disruptions to travel and work plans by COVID-19, including consequently having two small children at home. First, Dr. Bielak received statistical training in analyzing data that uses ecological momentary assessment (EMA) where participants are tested repeatedly throughout

the day for multiple weeks. She completed a week-long workshop organized by the American Psychological Association entitled *Advanced Training Institute: Analysis of Intensive Longitudinal Data*. She spent a week visiting Pennsylvania State University, working with collaborators in the Department of Human Development and Family Studies and the Center for Healthy Aging. Her collaborators were familiar with analyzing EMA data, and the ability to learn directly from them and collaborate in person was invaluable to moving their research analyses forward.

Dr. Bielak received the grant *Pilot Funding for Innovative Research in Aging* funded by the Columbine Health Systems Center for Healthy Aging and the Vice President for Research's Office. A significant portion of her sabbatical was spent organizing and running a pilot study. She was able to purchase a wearable electroencephalography (EEG) device that records brain waves while the participant moves around completing different everyday activities. She gained experience using EEG and is currently learning how to analyze the data. This pilot grant formed the basis for her NIH DP1 grant application entitled *Identifying Objective Measures to Assess Cognitive Stimulation from Everyday Lifestyle Activity*, which proposed to identify which of three methodologies best differentiates the amount of cognitive stimulation involved in completing everyday activities (e.g., reading, socializing). Dr. Bielak submitted a related NIH R01 application that will move her research in this new direction and spent time during her leave from service to resubmit this grant application.

Finally, Dr. Bielak wrote a critical review of the work completed on activity and cognition in older adulthood in the past decade, providing an update to a well-cited review she wrote in 2010. She worked on the revised manuscript, and it was resubmitted. Dr. Bielak completed additional activities such as presenting at the Gerontological Society of America's Annual Scientific Meeting, where she also received the Margret M. and Paul B. Baltes Foundation Award in Behavioral and Social Gerontology. She also worked extensively on two journal manuscripts that have now been published that were funded by her NIH R03 and administrative supplement grants.

Sonali Diddi – Design and Merchandising (Spring 2022)

Dr. Sonali Diddi's sabbatical leave allowed time to reflect and expand scholarship related to sustainability in the global textile and apparel supply chains. The sabbatical time immensely helped Dr. Diddi connect with colleagues from different disciplines, institutions and industry strengthening interdisciplinary scholarship agendas. During the sabbatical, Dr. Diddi was also able to engage with different campus resources and completed professional development programs related to Leadership and Diversity, Equity, Inclusion and Justice (DEIJ). These trainings have helped me continuously reflect and use DEIJ lens in teaching, research, and service responsibilities. Further, time during sabbatical leave allowed focus on development of a multi-institution transdisciplinary USDA grant as a principal investigator and completion of activities related to an existing USDA funded grant. The sabbatical time also allowed completion of data analyses of complex internally funded project by coordinating with campus and industry partners resulting in development of a 40-page report that will enable at least two scholarly publications and one industry/practitioner report. Scholarly outputs during the sabbatical leave

include revisions of three manuscripts that were subsequently published in high impact peer reviewed journals, and submission of five abstracts to international conferences that were accepted.

Different activities undertaken during the sabbatical leave advanced CSU's land-grant mission to serve broader local, national, and international communities. Specifically, the new research stream emerging from the sabbatical - Sustainable Colorado Outdoor Recreation Economy (SCORE) is industry-informed and based on CSU Extension's Colorado Community Needs Assessment (CNA). SCORE represents a transdisciplinary approach to understanding the effects of climate change on Colorado's outdoor recreation economy that, in turn, will support the development of adaptation and/or mitigation strategies and policies to ensure Colorado's future competitiveness in this area. Other CSU Agricultural Experiment Station grant submitted during the sabbatical, which was subsequently funded, directly aligns with CSU's mission by serving Colorado fiber producers and farmers via policy recommendations and economic development initiatives related to the local fiber industry. During the sabbatical, Dr. Diddi developed and executed a call for an international symposium focused on Circular Economy. This symposium elevates CSU position in the research, teaching and engagement related to fiber, textiles and clothing industry innovations related to circular economy.

Aaron Eakman – Occupational Therapy (Fall 2021)

The primary goal of Dr. Eakman's sabbatical was to implement the Sleep Health through University Student Habits (SHUSH) project. This was in fulfillment of a recently funded Fulbright research grant he was awarded, and this project was to be completed September through December 2021 in Japan. SHUSH was a three-month pilot initiative conducted with Co-Investigator Dr. Toshiaki, Occupational Therapy Department Head at Yamagata Prefectural University of Health Sciences (YPUHS) in Yamagata Japan. The goal of SHUSH was to develop and test a culturally sensitive sleep improvement program, thereby promoting the sleep health of YPUHS students. The first objective was to determine the prevalence and nature of sleep disturbances in YPUHS students. Dr. Eakman and his YPUHS collaborators are presently developing manuscripts investigating the nature and prevalence of sleep disturbances in YPUHS students using the broader set of data.

The second objective was to create materials and methods for a brief sleep improvement intervention based upon a cultural adaptation of an intervention he developed for US military Veterans. The sleep education intervention, which is the third objective, was delivered for 15 YPUHS students (2 students who met inclusion criteria declined participation). Planning is presently underway to collect 3-month follow-up data from these participants.

The sabbatical included opportunities to exchange ideas through presentation and to explore the Yamagata (Tohoku) region of Japan. Presentations to occupational therapy students at YPUHS addressed sleep health education and strategies helpful in improving sleep quality as well as reviewing a related line of research in meaningful activity and relationships with wellbeing. Benefits for CSU included deepening an ongoing relationship between Yamagata Prefectural University of Health Sciences and CSU's Occupational Therapy department and receiving the

honor of being invited by the YPUHS President, Meada-sensei to deliver two talks, “Disparities in Health in the United States of America” that outlined structural inequalities and their likely contributions to wealth and health disparities for African Americans in the US, then “Sleep Health in Japan – A Yamagata Perspective” which reviewed preliminary findings from the Fulbright funded survey research study conducted at YPUHS in October, with an emphasis on describing the sleep health of YPUHS students. Additionally, Dr. Eakman continued with manuscript preparation and revision with colleagues from Iran, Japan, Spain, and in the United States shepherding six manuscripts to or through the publication process.

Donna Cooner Gines – School of Education (Fall 2021)

Dr. Gines’ sabbatical leave provided opportunities for her to stay current in the educational leadership discipline and to continue creating children’s literature relevant to today’s schools. This sabbatical experience also provided opportunities to obtain preliminary data to support grant applications and future research projects within her primary research area of principal preparation. This data includes themes from two years of analyzed focus groups from new educational leaders that indicate possible supports for new school leaders. She also committed to continue to work with current PhD advisees while on sabbatical. Two advisees graduated during this sabbatical and one more graduated Spring, 2022. Three advisees are currently at the preliminary exam stage of their program.

Yan Vivian Li – Design and Merchandising (Academic Year 2021-2022)

During the sabbatical leave during the Fall 2021 and Spring 2022 semesters, Dr. Li participated in diverse scholarly activities, which included (a) executing and operating funded projects, (b) developing new grant proposals, (c) publishing peer-reviewed journal articles, (d) continuously fulfilling academic advising duties, and (e) maintaining existing research collaboration as well as expanding new collaboration nationally and internationally. To summarize outcomes of the activities, Dr. Li was actively engaged in 4 funded research projects and submitted 4 new grant proposal as a PI/co-PI; published 7 peer-reviewed journal articles; secured 3 granted patents and 3 pending patent applications; served on 10 graduate students’ thesis committees including 3 as committee chair; and established and strengthened research collaboration with international and national research partners (Washington State University, Cornell University, Donghua University, Shanghai Ocean University, Beijing University of Chemical Technology). The research projects and collaborations developed during the sabbatical are highly anticipated to enhance opportunities for future funding and expand research networks. In summary, Dr. Li had a very productive leave and is grateful for having this opportunity and will use this experience to benefit to both CSU students and professional growth.

College of Liberal Arts

Katherine Abrams – Journalism and Media Communication (Fall 2021)

Dr. Abrams developed, evaluated, and refined three unique social marketing approaches to mitigate harmful human-wildlife interactions in three distinct locations in Hawaii and in four national parks spanning four regions of the U.S. The work was funded by three cooperative agreements from the National Park Service and the National Oceanic and Atmospheric Administration. Field research occurred over two-week periods throughout the summer and for 1.5 months in Hawaii in November through December. She presented at two conferences and delivered an invited talk on the work. She also attended CSU Drone Flight School and earned her FAA Part 107 license to operate a drone for research. Finally, she trained and mentored students on various elements of the project.

The initial work has been presented at conferences, won one award, and has led to invited talks at nationally recognized social marketing training for conservation professionals. It afforded Dr. Abrams the opportunity to form interdisciplinary collaborations with marine scientists. Additionally, she was able to learn about and deploy cutting edge social science methods using drones to observe human interactions with Hawaiian Spinner Dolphins. The project directly enhanced the educational experiences for 11 CSU Journalism and Media Communication students as employees and 11 University of Hawaii-Hilo students in marine and conservation sciences (2 as employees, nine as volunteers). This work will continue to impact students through graduate and undergraduate courses Dr. Abrams teaches with the case study-based lesson plans she's developed based on lessons learned from the project.

Timothy Amidon – English (Academic Year 2021-2022)

The scholarly activities accomplished during the sabbatical year furthered expertise, skills, and knowledge as a researcher, educator, administrator, and community engaged scholar at Colorado State University. The sabbatical research related to the nexus of risk, rhetoric, and technology with a particular emphasis in the fire service industry. During the year, Dr. Amidon completed laboratory, bench, and heuristic usability testing for a National Science Foundation funded project to develop a commercially viable physiological monitoring technology for use in the fire service. Dr. Amidon collaboratively authored a proposal for a monograph for historiography of risk in the field of technical and professional communication and co-authored one chapter based on a case study of the Colorado River Basin, currently under review *Technical Communication Quarterly*. He developed a research protocol and started work toward a second monograph, an ethnographic study of workplace literacies and technology in the fire service. He co-authored a successful proposal to guest edit two special issues of *Communication Design Quarterly* on community-engaged research in the field of technical and professional communication, which will appear in Spring 2023 and Fall 2023. He presented on these projects at three national conferences and facilitated two workshops at national conferences, one of which is a one-day seminar designed to supporting graduate students in the field of digital rhetoric. Finally, he published one essay and recorded an audio chapter published in an open-access edited collection.

Most beneficial was the opportunity to place a sustained focus on advancing research in the area of risk, rhetoric, and technology. Dr. Amidon spent extensive time researching and tracing the history of risk as a concept within the fields of writing, rhetoric, and technical communication, conducting database and archival research of case studies of risk, as well as on scholarship that

examines how emerging technologies such as wearables, artificial intelligence, and machine learning are influencing the way humans pursue and engage in health and medical care. These activities deepened his understanding of how innovative technology may be leveraged to solve grand challenges in society. There are four interrelated ways that Colorado State University will benefit. First, Dr. Amidon developed an interdisciplinary graduate course on “Risk in Rhetorics of Health and Medicine.” Second, the university derives stature and recognition from his leadership in the fields of digital rhetoric, technical and professional communication (TPC), and writing studies; he was invited to lead a workshop at the Association of Teachers of Technical Writing, the premiere conference in TPC and assume co-leadership for the Graduate Research Network at the Computers and Writing Conference, the premiere conference in digital Rhetoric, review four article manuscripts, one book manuscript, and was solicited by editors of two book series in TPC to submit monographs. Third, it rejuvenated his excitement for the possibilities of transformative change associated with literate practice. He was also selected to serve as a President’s Leadership Fellows for the Vice President of Research for 2022-2023, which will help prepare him for future leadership positions in the department, college, and university.

Nicole Archambeau – History (Academic Year 2021-2022)

During the sabbatical year, Dr. Archambeau broke ground on a new research project, exploring the production and use of bee products for health care in the Premodern West. This project continues her work in later medieval health and healing in Mediterranean Europe, but also expands into new fields of inquiry, including environmental history and material culture studies. She collected and translated examples of wax use in diverse medieval sources. In particular, she translated (from Latin to English) the beekeeping chapters from Piero de’ Crescenzi’s *Liber ruralium commodorum*, a late medieval agricultural manual produced in Bologna between 1304 and 1309. These chapters, which will form a cornerstone of the new book project, describe the processes of acquiring bees, building healthy habitats for them, caring for them throughout the year, and collecting the materials they produce. Crescenzi’s *Liber* shaped agricultural practice throughout Europe and was copied for centuries. To understand how people used this book, Dr. Archambeau looked at marginal notation, chapter reproduction, and other evidence of use in copies at the Huntington Library in Southern California, the British and Wellcome Libraries in London, and the All Souls College Library in Oxford.

The sabbatical allowed participation in international projects, building robust courses, and engagement in public outreach. Dr. Archambeau wrote a chapter titled, “Epidemic Illness in the Last Book of Giovanni Villani’s New Chronicle, 1345-1348: Warfare, Sin, and the Heavens” for the international collaborative essay collection, *Death and Disease in the Medieval and Early Modern World*. Her book *Souls under Siege: Stories of War, Plague, and Confession in 14th-Century Provence*, which came out in 2021 with Cornell University Press, was chosen as the subject of the *H-France Forum* in Volume 17, Issue 1. She attended the International Medieval Congress in Leeds, England, as part of a three-day series of sessions on the history of Provence organized by Daniel L. Smail at Harvard and John Arnold at Cambridge. Using material collected in libraries in the U.S. and the U.K., she revised her course, “Plants and Animals in the Premodern West” and designed a course titled “Medicine and Public Health in the Premodern West.” She was invited to give a guest lecture (via Zoom) in a 350-person lecture course at the

University of California, Santa Barbara and gave an invited lecture (via Zoom) at Loyola University Chicago titled, “Healing Sickness in the Warrior Soul: Violence, Shame, and Fear in the 14th-Century and Today.” She also wrote an essay for *The Conversation*, sharing her research on how epidemic illness can change religious practice.

Anthony Becker – English (Fall 2022)

Dr. Anthony Becker completed a series of online workshops and self-study modules on using R, a programming language for research, which were offered remotely through the CSU library and Coursera. He also revised my research procedures to complete data collection and write up one research study for publication. Furthermore, he worked with a colleague to complete another research study which was also submitted for publication. In addition, Dr. Becker co-developed an application for the CLA Ann Gill Faculty Development Award for Collaborative Projects (which was not funded) and submitted a paper to be included in the 2023 TESOL International Convention and English Language Expo.

Engaging in the activities described above not only increased Dr. Becker’s expertise in the field of second language studies, but also allowed him to incorporate those topics in the courses he currently teaches to graduate students in the TEFL/TESL program, such as *E638 – Assessment of English Language Learners* and *E601 – Research Methods in TESOL*. Furthermore, each year Dr. Becker advises a number of students interested in conducting several types of linguistic analyses. Dr. Becker can better serve these students by sharing his knowledge of the new tools and free research packages with them.

Alexandra Bernasek – Economics (Academic Year 2021-2022)

During the sabbatical, Dr. Bernasek worked on three research projects. The first was a study of the relationship between Water and Sanitation Hygiene conditions and measures of women’s empowerment in Haiti. The resulting paper “WASH and Women’s Empowerment in Haiti” Alexandra Bernasek, Brendan Brundage, Wisnu Sediati Nughuro and Arisa Thonghgam (2022) is currently under review at a top economic development journal, *World Development*. The second was work based on the dissertation research of one of her doctoral students, re-examining the effects of the Income Maintenance Experiments in the 1970s on participants labor market outcomes; their wage rate, total wages and hours worked. The resulting paper “When the Experiment Ends: Reassessing the Seattle-Denver Income Maintenance Experiments (1970-76)” Edward Teather-Posadas, Alexandra Bernasek, Anders Fremstad and Steven Ziliak (2022) is being prepared for submission to a top heterodox economics journal, *The Cambridge Journal of Economics*. The third project looks at the history of the relationship between capitalism and health outcomes and focuses on the negative effects of financialization and monopoly capitalism in the late 20th century on health outcomes in the US and their disproportionate effect on people in the bottom 50% of the income distribution during the pandemic. The resulting paper “Capitalism and the Erosion of Human Health: What the Pandemic Laid Bare” Alexandra Bernasek and Teresa Perry (2022) will be presented at the ASSA Meetings in New Orleans in January 2023. Dr. Bernasek also developed a new undergraduate class and engaged in various professional service activities.

This work directly benefits CSU (a) in contributing to the research profile of CSU as an RI university, (b) in the mentorship of graduate students and an undergraduate student in the economics department in the research process, (c) in enhancing the learning of future undergraduate students in economics through the creation of a new course in Behavioral Economics, and (d) in enhancing the reputation of CSU in the economics profession through contributions as a Board Member of the Association for Evolutionary Economics (AFEE). After spending three years in the CLA Dean's office and transitioning back to the economics department during the pandemic, the sabbatical allowed her time to reconnect and more fully engage in her work as a professor.

Joe Champ – Journalism and Media Communication (Fall 2022)

Dr. Joe Champ engaged in the following activities throughout his sabbatical: completed written summary of research approach; completed explication of Posthumanism, which morphed into focus on actor-network theory; completed 8.5 of 12 chapters for publisher-reviewer ready book manuscript; outlined next publications; worked towards enhancing student experience through student review of manuscript; worked towards enhancing university reputations through identifying respected publishers.

Harvey Cutler – Economics (Fall 2021)

Dr. Cutler's sabbatical was divided into two components. First, he continued the management of grants from the National Institute of Standards and Technology (NIST), the National Oceanographic and Atmospheric Administration (NOAA), and the Cooperative Institute for Research in the Atmosphere (CIRA). He published four papers during the sabbatical period. He put together a team of civil engineers, economists, and atmospheric scientists to apply for a \$1 million grant from NOAA-OAR-WPO- 2022-2006969 – Climate Testbed to study the inland impacts of hurricanes. They were unsuccessful in securing this grant. Dr. Cutler also put together a team of people from six departments across the CSU campus and applied for a \$200,000 grant from the Vice President for Research's office to study the far-ranging impacts of COVID-19 but were unsuccessful here as well. Regardless, they continue to look for other funding possibilities in both research areas.

Dr. Cutler's other area of emphasis was to reintroduce his senior level forecasting class to complete a quantitative tract in the undergraduate program. He prepared the class during his sabbatical and began teaching it Spring 2022. He is also talking to colleagues about offering *sequence teaching* in the Department of Economics. Several years ago, Dr. Cutler would teach classes that were related over consecutive semesters. He is rewriting the EC204 textbook that he created fifteen years ago to be more current.

Most of Dr. Cutler's research has had a significant multidisciplinary component which reflects two aspects of our academy. First, the problems faced by the U.S. and world like climate change, natural disasters (hurricanes, tornadoes, and wildfires) and COVID-19 must be studied from a

multidisciplinary perspective since no one discipline has the breadth to do a comprehensive job. He has benefited both intellectually and in his publishing by interacting with academicians from many disciplines. CSU has benefited from the significant amount of resources flowing into the university from these multidisciplinary efforts (approximately \$1.5 million annually). This funding has employed graduate students over the last year which has freed up resources for the Department of Economics to hire additional graduate students to be graduate teaching instructors.

Greg Dickinson – Communication Studies (Fall 2021)

Few museums more carefully and fully engage audiences on what it means to be Western than do the museums of the Buffalo Bill Center of the West in Cody, Wyoming. For the last twenty years, Dr. Dickinson and his coauthors have explored the communicative and rhetorical messages the Center offers its visitors. Over the last months Dr. Dickinson has completed a full book manuscript on the Center. He and his co-authors take the Center's guiding slogan—The Spirit of the American West—seriously. The Center, they suggest, is enmeshed in the spirit of the West, urging its audiences to accept specific understandings of democracy and of America. Their book not only explores the values offered by the Center, but deeply engages the specific ways the exhibits, the material items that populate those exhibits, and the center's location at the east gate of Yellowstone make these communicative claims compelling.

Of course, publishing the book with a university press will build the scholarly reputation of the department, college, and university. Because the book addresses issues of citizenship, democracy, and diversity in the West, the research directly addresses the university's, college's, and his stated goals of critical engagement with these issues. During the sabbatical Dr. Dickinson grew as a writer and scholar, and he is sharing that growth with his students and his mentees.

Mark Dineen – Art and Art History (Fall 2022)

Professor Dineen was forced to shelve both planned projects due to extenuating circumstances and pursue other venues of research. Professor Dineen shifted away from bronze and towards expanded polystyrene packaging. He continued developing research in this area with techniques and compositions not previously explored. This change of plans afforded the opportunity to delve into unexpected ideas which brought a more sophisticated and nuanced approach to materials he has been using for a long time. While unexpected, the work is of high quality and will help Professor Dineen further develop his reputation as an artist who is concerned with contemporary issues surrounding materials, process, global logistics, anthropology, and environmentalism.

In addition, Professor Dineen integrated some more experimental materials and compositions, with varying degrees of success. In total, he completed nine new works that are fit for exhibition alongside dozens of auxiliary explorations into materials and process, some of which will undoubtedly impact my practice in the future.

While Professor Dineen's output during sabbatical is of high quality and has already been included in proposals for future exhibitions, he realizes it will not have the impact on his practice that his originally scheduled research may have had. Regardless of ambitions about his practice, the work that was completed and that which is postponed will undoubtedly continue to play a role in promoting Colorado State University's commitment to hybridity across art, design, commerce, technology, social practice, and engaged scholarship through exhibitions and press coverage on a national and international scale. As always, our students will benefit from Professor Dineen's ongoing commitment to practice by way of his further development of expertise with materials and his contributions to critical discourse in the field.

Evan Elkins – Communication Studies (Fall 2022)

The primary activities of Dr. Evan Elkins involved research and writing toward his next book project, provisionally entitled *Main Stream: How Digital Entertainment Companies Vie for the Cultural and Political Center*. As planned, this book will show how major streaming entertainment services (e.g., Netflix, Spotify, Amazon Video) leverage taste and industry power together to assert their place at the center of contemporary culture and politics. It will examine the consequences for public culture by showing how contemporary entertainment platforms delimit artistic possibilities, shape political discourse, and export a vision of Westernized mainstream culture and politics to the rest of the world.

Specifically, Dr. Elkins compiled primary research about streaming platforms' business practices, political activities, programming decisions, and public rhetoric regarding their audiences. He has begun to examine this research and conceptualize the book's primary questions and larger structure. In addition, Dr. Elkins read a great deal of secondary literature in media industries, aesthetics and taste, mass culture, and digital platforms, among other areas. As part of this broader project, he also drafted an article about Netflix's business engagements with the Obamas and submitted it for publication to a peer-reviewed journal. In addition to this, Dr. Elkins completed another co-written article about the cultural and industrial politics of professional sports, which has since been accepted pending minor revisions to *American Quarterly*.

The personal benefits from Dr. Elkins's sabbatical included time to work on his ongoing major research project as well as related side projects. The reading and research undertaken during the sabbatical has deepened knowledge in existing areas of interest and broadened his knowledge in other areas and disciplines. In terms of career, it will help build Dr. Elkins's reputation in the field and put him on a path to promotion to Professor. Regarding institutional benefits, the work undertaken on this sabbatical will help enhance CSU's existing areas of strength in communication and politics and help build up an even stronger institutional reputation and curriculum in film and media studies. In its effects on his own reputation as well his incorporation of this work in his teaching, it will help recruit top-tier M.A. and Ph.D. students to our graduate programs and enable him to synthesize various areas of communication studies for our undergraduate and graduate students.

Daniel Goble – Music, Theatre, and Dance (Fall 2022)

Dr. Daniel Goble's primary focus is to explore current practices for the assessment of audio and video recordings for performance faculty, with the intention of codifying best practices in the industry and making these available for colleagues throughout the United States. To achieve this, Dr. Goble prepared a new repertoire for saxophone and piano and performed this repertoire in live settings in preparation for recording. Rehearsals for the performances began in August 2022, continued through September and October, and culminated in performances at Colorado State University (October 24) and the University of Wyoming (October 25). An additional performance will occur on March 9, 2023, at Western Connecticut State University, with recording sessions scheduled at that institution in the Veronica Hageman Concert Hall in March 13—14, 2023, and May 22—24, 2023. The final product will be edited and mastered by Ms. Judith Sherman and prepared for release in November of 2023 through PARMA records, with physical compact disc distribution and worldwide digital distribution through NAXOS. The release will be made available in physical form (compact disc) through major retailers, including Amazon, iTunes and through major streaming services, including Spotify, Apple Music, YouTube, and Naxos.

This project is intended to not only help with the tenure and promotion process for performance faculty at CSU, but at other universities as well. This is a topic that is receiving much discussion amongst music executives and has been mentioned more than once as a potential NASM conference topic. This will have a highly positive on performance faculty throughout the United States. From the performance and recording perspective, the release of a recording project by a faculty member requires the same diligence and time-on-task as any other research project and is similar to writing and publishing a book in this regard. This is extremely important for all performance faculty, and recording remains one of the most viable vehicles for archiving and distributing creative work. CSU students are well-served by this project as well, assuring that their professors are active in the field. In the case of this project, it also provides evidence that the Director of the School of Music, Theatre, and Dance remains active in the field at a high level.

Aparna Gollapudi – English (Fall 2021)

Dr. Gollapudi planned to submit a book proposal for her monograph to an academic press after traveling to Harvard University for research pertaining to the project. Travel was prevented due to the pandemic, but she succeeded in the primary goal of submitting a book proposal. The proposal/prospectus for a book titled, *The Page's Part: Children on the Eighteenth-Century Stage*, which included an overview of her argument, detailed outlines of all chapters, and locating the project within current critical conversations in the field, was submitted as planned to the University of Delaware Press. It has passed the initial vetting stages and she has been invited to submit the completed manuscript for consideration in their series on *Performance and Celebrity*. Furthermore, she exceeded her sabbatical target by also submitting an article, "Satire, Smut, and the Child Actor in Garrick's *Lilliput*" to the Penn State University Press journal, *Restoration & Eighteenth-Century Theatre Research* in addition to the book proposal.

The sabbatical allowed Dr. Gollapudi to focus exclusively on her research so that she could work on the book's content and craft its organization by planning chapters, appendices, etc. The submission of the book proposal/prospectus to an academic press interested in publishing her research marks a necessary and significant procedural step towards making her book a reality. Her scholarly pursuits during the sabbatical vastly increased her expertise in eighteenth-century theatre; specifically, as child actors of the period are vastly under-researched. She can now offer significant contributions in the area. She will share some of her new research in the upcoming meeting of American Society for Eighteenth-Century Studies, publicizing her work while strengthening her professional profile along with that of CSU as a R1 institution. Already, due to her conference presentations on the topic and her recent publication of one of the book's chapters as a journal article, there has been some recognition of her work. For instance, the general editors of Cambridge University Press series, *History of Children's Literature*, recently invited Dr. Gollapudi to submit a chapter on children and drama/theatre in the eighteenth century – an offer that she has accepted. The sabbatical will help to further boost this trend.

Students in her classes will benefit greatly in two distinct ways. (a) Her research over the sabbatical is related to her current teaching assignments in the field of eighteenth-century literature/culture as well as in children's literature/culture. Thus, the research she conducted will positively inform the expertise in content areas she brings into the classroom. (b) She plans to channel the process of using databases for archival research into crafting innovative hands-on student research projects in public humanities and digital humanities for both graduate and undergraduate students.

Moti Gorin – Philosophy (Fall 2022)

Due to a change in project activities, Dr. Moti Gorin turned his attention to a new topic: the ethics of pediatric gender care. Dr. Gorin's agenda was threefold: 1. Gain in-depth knowledge of the literature in this field. This involved reading on topics in bioethics (autonomy in pediatric medicine), clinical research (scientific studies on the efficacy and risks of various treatments), policy documents (clinical guidelines, policy statements, government reports) and the philosophy of medicine (the nature of health and disease). 2. Find collaborators with expertise in areas (endocrinologists, psychologists, legal experts) and meet with them to gain additional area-specific expertise with an eye towards research collaborations at the intersection of bioethics and medicine. 3. Publish on the topic of the ethics of pediatric gender care. Dr. Gorin completed the following while on sabbatical: a draft, soon to be submitted for publication; a work-in-progress (single author) on conceptual issues (the relative weights of the values of autonomy vs beneficence, the distinction between legal and moral justifications for medical interventions on minors); and an online essay published in *The Hastings Center Report Bioethics Forum*.

Additionally, though Dr. Gorin only began seriously reading in the philosophy of medicine towards the end of his sabbatical, he continues to engage in this literature and will teach a philosophy of medicine seminar in Fall 2023.

Dr. Gorin was able to find and begin working with new collaborators at other institutions and to generate new work. Having some distance from the day-to-day responsibilities of teaching and

service allowed Dr. Gorin to “clear his head,” assess what direction he wanted to take his research and spend time delving into a new area.

Furthermore, Dr. Gorin is better prepared to teach a new graduate seminar that has never been offered and is better versed in topics covered in his undergraduate course in biomedical ethics. Dr. Gorin is generating research that will (hopefully) be published, which benefits CSU’s reputation as a research university. Dr. Gorin is also collaborating with researchers at other institutions, which is a form of knowledge exchange that indirectly benefits CSU via intellectual enrichment and research potential. Finally, Dr Gorin’s essay, published in *The Hastings Center Bioethics Report* has drawn the attention not only of other scholars working in his field, but also of journalists and policy makers who cover this field of medicine.

Roger Hanna – Music, Theatre, and Dance (Fall 2021)

Professor Hanna developed an illustrated book titled *Piper’s Waking Nightmare*. To guide his process, he formulated several questions that he sought to answer, most of which he found the answers to over the process of creating the book: adapting his approach of a theatre/film storyboard technique, typically part of the process of making a live production or a film, can be adapted to be a compelling product. Determining the format of the book helped shape the tone of the book and he realized that some of his potential approaches were more conceptually flashy than useful in a poignant book intended for parents. Whether the book will find publication and an audience remains to be seen and is outside the scope of the sabbatical, but the complete book has been sent for feedback to industry professionals.

Exploring storytelling in this new way allowed Professor Hanna to refine skills in photography and image processing, layout, and electronic illustration which he will be passing on to his students in design courses. It also helped him recognize that in addition to the work he does collaborating on a team for the university, he can serve as the single creator of an artistic work. Demonstrating this ability to fully form an artistic product might inspire his students to trust in themselves when creating work for theatre, which ironically will make them better collaborators, as it will result in more confident voices exploring more deeply as theatre artists.

Peter Harris – Political Science (Academic Year 2021-2022)

The primary purpose of Dr. Harris’s sabbatical was to write a book on US foreign policy. Funding for this project (from the Charles Koch Foundation) allowed the extension of this sabbatical into a second semester. Dr. Harris now has a draft of the book written, titled *Hardwired: Why America Can’t Retrench (And How It Might)*. He plans to revise the manuscript this Fall and submit it to university presses in Spring 2023. One reason for this timeline is to wait until at least halfway through President Biden’s term in office before submitting the manuscript for review, so that it can include a preliminary analysis of his administration as part of the book. Dr. Harris also took the opportunity to submit several peer-reviewed articles, book chapters, and op-eds; render service to the department, university, and discipline; begin a large grant-funded research project; and begin work on a second book-length manuscript (on Taiwanese security).

The main personal benefit derived from the sabbatical was the time needed to push through these research and service projects. Dr. Harris also benefited from the opportunity to establish lasting relationships with colleagues in the United States and overseas (Mauritius, India, Singapore, Australia, and elsewhere). Without the sabbatical, he could not have done as much, and would not enjoy such rich professional networks as he does now.

Kit Hughes – Communication Studies (Fall 2022)

Sabbatical activity for Dr. Kit Hughes comprised both time-intensive archival research and drafting several distinct projects for publication and presentation along two major themes: 1. How media makes the economy meaningful and legible to non-experts and 2. Historical intersections between 16mm film and television.

Dr. Hughes's archival research spanned collections at Maryland Public Television headquarters, Rocky Mountain Television Headquarters, the University of Washington, the University of Colorado – Boulder, Penn State University, Syracuse University, the Wisconsin Historical Society, the National Archives, Iowa State University, the Hagley Museum and Archives, and the Air Force Historical Research Agency. Dr. Hughes co-wrote an article for the premier American Studies journal *American Quarterly* (provisionally accepted 2/23), wrote and revised a book chapter (Oxford University Press, forthcoming 2023), revised and published a short essay provocation in top media studies journal, *Journal of Cinema and Media Studies* (published 2/23), completed research for an article on the program *Consumer Survival Kit* (presented in preliminary form at the April 2023 Society for Cinema and Media Studies Conference), and began research on the Green Thumb employment program (presented at the April 2023 Reflections on Broadcasting History Conference at the Library of Congress). Dr. Hughes gave an invited talk at the Television's Useful Images Workshop in Basel, Switzerland. In service to the university and his discipline, Dr. Hughes revised the narrative section of a National Endowment for the Humanities Challenge Grant to fund capital improvements to Clark for a Center for Engaged Humanities, served as a screening committee chair for the Peabody Awards, and took a masthead position as Archival News Editor for the *Journal of Cinema and Media Studies*.

Dr. Hughes's sabbatical was critical for laying the groundwork for the next phase of his scholarly career by expanding his research program into new areas and enabling considerable progress on publication projects. Dr. Hughes also explored how to merge his scholarly interests in how 20th and 21st-century financial institutions sold working- and middle-class Americans on inequitable economic systems with heightened popular interest in "the economy" and related concepts like inflation and unemployment.

With regards to Dr. Hughes's work on the history of technology, his participation in high-profile, time-sensitive writing projects related to the 100th anniversary of 16mm film would not have been possible without this dedicated time. While his well-placed 16mm film publications will boost his professional profile—particularly as one of the only television scholars who routinely crosses disciplinary divides to write on nontheatrical film—they also raise the visibility of the Communication Studies Department as a home for innovative interdisciplinary research.

Price Johnston – Music, Theatre, and Dance (Fall 2022)

In the Spring Term of 2022, Dr. Johnston began initial communications with Producer Peggy Young of the Estes Park Longs Peak Scottish/Irish Highlands Festival to create design opportunities for our Colorado State University Theatre Lighting/Projection Design students. Dr. Johnston's vision was to take their learning into the community and give them "real-world" practical design opportunities in a music festival setting. It was his intention to develop an annual experience that student designers could work towards and gain necessary professional experience prior to graduation. Dr. Johnston and Producer Peggy Young agreed to allow the students to design the Musical Concerts at the Estes Park Events Center, as well as the outdoor Celtic Rock and Folk tents. Students created Lighting/Video for the following nine international touring bands and artists: SYR, Albannach, Steel City Rovers, The Byrne Brothers, The Brigadoons, Tullamore, Ian Gould, Chambless & Muse, and Bryne and Kelly.

Working in the spirit of the land grant mission of Colorado State University, and after an incredible showing at the festival, Dr. Johnston created the necessary professional connection with Producer Peggy Young of the Estes Park Longs Peak Scottish/Irish Highland Festival. They have agreed upon yearly involvement of CSU Theatre Lighting/Projection Design Students with the festivals related venues. Students will have opportunities to showcase their design work in the four related music tents (Rock, Folk, Contemporary, and Dance) as well as the two nighttime Folk and Celtic Rock concerts in the Estes Park Event Center. Students will have the opportunity to interact with various international touring bands on a "first-hand" basis, including technical riders, design requests, and live lighting/video busking in a live concert/festival setting. Pre-planning and organizational meetings are already underway for the 2023 Festival, and Dr. Johnston is honored to be involved with such a unique and enjoyable collaborative experience for our students and global community.

Walton Jones – Music, Theatre, and Dance (Fall 2021)

Professor Jones set out to adapt Jeffrey Eugenides' novel, "The Virgin Suicides" and Horace McCoy's novella, "They Shoot Horses, Don't They?" for the stage. While the work produced compelling projects, he was unable to secure rights from the production companies that owned them.

While the result was not what he was hoping for, the fact that he was working on two new playscripts provided the theatrical community with the very public perception that he was still active and at work on another adaptation project and another new play.

Joon Kim – Ethnic Studies (Fall 2021)

For his sabbatical, Dr. Kim spent the fall 2021 semester at Seoul National University's (SNU) Department of Social Studies Education. Its research unit, the Multicultural Education Center, is a leader among many national programs that develop curricula for K-12 students, teacher training programs, and fora for scholars and teachers internationally. Dr. Kim has been fortunate to work with SNU colleagues in developing a book project titled "Multiculturalism and

Multicultural Education in Korea.” He expects such collaborations to continue and develop into other projects that can contribute to how multicultural education is framed and taught in the Korean context. This project is a culmination of some 30 years of his research on the evolving changes in Korea’s demography and multicultural debates. During his stay, he also visited with leading NGOs that have advocated for the expansion of migrant labor rights. Working closely with these organizations for many years provided valuable resources and networks that enabled him to write a book titled, *Organized Labor and Civil Society for Multiculturalism: A Solidarity Success Story from South Korea* (2020). During the annual celebration of International Migrants’ Day in December, Dr. Kim was invited by NGOs and the event’s co-sponsor, Changwon National University, to speak on the theme of U.S.-based anti-Asian hate crimes that may relate to the situation in Korea. Some of the conceptual and theoretical issues regarding hate crimes transcend national boundaries, and he is grateful for the opportunity to engage in such comparative discussions with a diverse array of people globally. Finally, building on his expertise, He also taught a graduate-level course titled “Civil Society and Multicultural Education” at his host institution. The students consisted of 15 MA and PhD students both within the department and across the university. Some of these students were in-service teachers who struggle with delivering multicultural education content in middle and high schools. Dr. Kim is proud that his course offered some theoretical frameworks for the current and future teachers.

Dr. Kim’s collaborative research projects and teaching opportunities in Korea significantly enhanced CSU’s reputation, and simultaneously he has brought back his experience and knowledge of working with migrant populations, advocacy organizations, and scholars on the topic of international migration and multiculturalism. These issues are omnipresent, and he incorporates his experience abroad in topics he teaches in his department. Dr. Kim’s sabbatical was spent very productively, and he is grateful for this professional growth opportunity to increase knowledge in his research area, and to enhance the reputation of CSU through his scholarship, teaching, and engagement activities on a global level.

Stephen Leisz – Anthropology and Geography (Spring 2022)

Dr. Leisz’s sabbatical proposal was originally for two semesters, with the first semester in Hanoi, Vietnam, at the Vietnam National University of Agriculture (VNUA) and the second semester working with the Earth Archive Initiative and carrying out follow-up research focused on Agrarian changes in the Red River Delta of Vietnam. Due to the continuation of restrictions on travel due to the covid-19 pandemic during the beginning of 2022 and the Earth Archive Initiative not having sufficient funds for the proposed work, a sabbatical revision from two semesters to one-semester was requested and approved.

The revised sabbatical focused on working with the Vietnam National University of Agriculture and doing follow-up research on the Agrarian changes in the Red River Delta of Vietnam, with a Fulbright Scholar Grant supporting the work in Vietnam. Due to Vietnam’s continued restrictions on entry, Fulbright amended the grant award to start at the end of March and continue through mid-August. Because of the delayed arrival, he was not able to accomplish all of the sabbatical goals. However, he did accomplish most of those associated with the Fulbright Scholar Award titled “Introducing new pedagogical experiences at the Vietnam National

University of Agriculture: Integrating research into teaching on land use transitions in rural northern Vietnam.” Due to limited funds, he was not able to accomplish the proposed work with the Earth Archive.

Ann Little – History (Academic Year 2021-2022)

Dr. Little’s sabbatical permitted her to rethink her current book and to reconfigure it substantially to support the department’s historic strengths in environmental history. She spent eleven weeks in 2021-22 traveling and conducting research in American and British archives and libraries. Because of her immersion in women’s diaries and letters from around the turn of the nineteenth century, she changed the focus of her book to be on women’s and environmental history, which will be called Natural Women: Nature, Maternity, and Liberty after the Revolution, and drafted two and a half of five chapters. After twenty-one years of listening to and learning from colleagues in environmental history, she will soon be able better to support our graduate students, many of whom concentrate in environmental history.

In addition to the progress on her third book, Dr. Little also wrote an essay in summer 2021 which was published in winter 2022 on “Native American Captivity and Slavery in North America, 1492-1848,” in the Oxford Research Encyclopedia of American History, ed. Jon Butler. She attended two conferences. She also advised two graduate students and met weekly with one through her Master’s thesis in the spring. She appeared in two sessions of two NEH-funded K-12 history teachers’ workshops at Historic Deerfield (Massachusetts) on the subject “The Edge of Empire.” She talked about writing her book *The Many Captivities of Esther Wheelwright* (Yale, 2016), and held discussions about Esther Wheelwright. She also appeared in an episode of NBC’s “Who Do You Think You Are” (air date July 31, 2022) with Zachary Levi.

Marilee Long – Journalism and Media Communication (Fall 2021)

Poor air quality is a growing health problem in Colorado and across the country. We must develop effective ways to communicate both the health risks from exposure to poor air quality and the effectiveness of protective health behaviors. During her sabbatical, Dr. Long worked on two interdisciplinary projects to develop effective ways to communicate about poor air quality to Colorado residents and people across the country. She helped analyze survey data and in-depth interview data, shared some of her findings with Colorado public health professionals, and worked on journal manuscripts to share their findings with researchers. She also helped secure funding for the continuation of this work.

Another major health problem in Colorado and across the country is the proliferation of misinformation (which includes disinformation) about health and science topics. During her sabbatical, Dr. Long joined an interdisciplinary team of researchers developing a community-based approach to combatting misinformation about infectious disease. They have been awarded a grant to support their work.

Dr. Long’s work in these two areas showcased Colorado State’s reputation for assembling interdisciplinary teams to address important societal problems. Likewise, this work strengthens

her department's reputation in health and science communication research, supports her course offerings on health and science communication, and furthers the work of the department's Center for Science Communication.

Ziyu Long – Communication Studies (Fall 2021)

Dr. Long's research focuses on gender, career, entrepreneurship, and inclusive organizing. During her sabbatical, she engaged in a variety of research activities to extend these lines of work, and has produced multiple research publications, presentations, and papers. Specifically, she worked on her ongoing research project on women's entrepreneurship, drawing from interview and observational data collected from China, Denmark, and the United States. She moved two manuscripts into publications. She also developed new manuscripts on resilience, resistance, and women's entrepreneurial work, drawing from data collected with women entrepreneurs in Colorado. In addition to empirical research on women's entrepreneurship, Dr. Long conducted a systematic literature review of entrepreneurial research in the field of communication and management during sabbatical to better understand new perspectives and trends in the field. In addition to research activities on entrepreneurship, Dr. Long continued to work on a collaborative project on organization and inclusion. In fall 2021, they generated multiple manuscripts which are expected to be published in late 2022.

During sabbatical, Dr. Long was able to continue to develop her lines of research in women's entrepreneurship and inclusive organizing. She generated a set of publications in top tier outlets, presentations at national and international conferences, and two manuscripts under review. Her academic achievements during sabbatical can continue to enhance her department's and CSU's national and international reputation. Furthermore, she had the chance to delve deeply into envisioning a research agenda for communication scholars to study entrepreneurial and inclusive organizing. This visioning process laid a solid foundation for her to build a sustainable research and teaching program post tenure.

KuoRay Mao – Sociology (Academic Year 2021-2022)

During the sabbatical year, Dr. Mao completed a book manuscript, published one journal article and one forthcoming book chapter, and developed a new multi-year, post-tenure research plan focusing on environmental victimization in Taiwan. In addition to writing and publishing, Dr. Mao did extensive fieldwork in southern Taiwan, interviewing environmental NGO activists, street-level bureaucrats, and victims of hazardous waste pollution. The data gathered will contribute to the writing of four journal articles and a book manuscript that critically examines how the formulation and enforcement of environmental regulations legitimized different forms of accumulation during periods of the agrarian transition in East Asia. Dr. Mao gave seven invited talks hosted by NTU, National Tsing Hua University (NTHU), National Quemoy University, National Sun Yat-Sen University, the Social Science Research Center at the Taiwanese Ministry of Science, and Academia Sinica; taught two courses pro-bono at NTU and NTHU in the spring of 2022; actively participated in graduate mentoring in both institutions; guest-edited a special issue for the journal *Sustainability*; and organized a symposium hosted by the Institute of Rural Development Chinese Academy of Social Sciences.

The personal benefits derived from the sabbatical leave included much-needed time to complete the book manuscript and related journal articles, as well as the rare opportunity to pivot the research direction from China-centered to East Asian comparative and charted out a new post-tenure research agenda to explore environmental governance issues in Taiwan. The institutional benefits include increased visibility of CSU scholarship in East Asia that may result in forming international strategic partnerships and generating knowledge with global impact. Dr. Mao's research experiences in Taiwan significantly enriched teaching materials and provided a more nuanced international perspective for teaching and mentoring duties. Research and teaching there may also recruit highly qualified Taiwanese graduate students to study at CSU in the future.

Katie McShane – Philosophy (Calendar Year 2021)

During her sabbatical leave, Dr. McShane conducted research and writing for a set of projects in environmental ethics focused on explicating different conceptions of welfare that are applicable to nonhuman organisms. This resulted in one published article, one article in press, one paper under submission, and three papers in preparation (two partially written and the third fully drafted and ready to submit). Dr. McShane also gave four public presentations, served as the external examiner for two Ph.D. theses in the UK, and oversaw the revision of the Interdisciplinary Minor in Environmental Affairs.

The opportunity for sabbatical leave significantly benefited CSU. First, it allowed Dr. McShane to enhance her research profile as a scholar. With three papers completed and three more in process, she started to make up for research productivity lost during the pandemic. Second, it deepened her expertise in the areas of focus for her research. She was able to do background research that not only formed the basis for completed and in-progress papers but will also inform the projects she has scheduled for the next four to five years. Third, it will benefit her students considerably, by making her teaching reflect the most cutting-edge, up-to-date work in the field. Dr. McShane's Spring 2022 graduate seminar, for example, was entirely based on research she did during her sabbatical leave. Likewise, the newly revised interdisciplinary minor will meet the needs of undergraduates much better than the former version did. Finally, during her sabbatical leave she was able to do more work internationally. She gave two international talks and prepared for an additional two, and she served on two Ph.D. dissertation committees overseas.

David Mushinski – Economics (Spring 2022)

Dr. Mushinski developed a theoretical model of physician decision making which included the Breach of Duty of Care element of the medical malpractice tort (no one has done this before) and analyzed the impact of caps on non-economic damages on physician decision making regarding vaginal births after cesarean sections (VBACs) when the duty of care lags behind medical innovations regarding VBACs. He also analyzed empirically the interaction between caps on non-economic damages and the breach of duty of care element of the medical malpractice tort on VBACs. This work is included in a paper entitled "Physicians' Duty of Customary Care, Innovation and Tort Reform" which was submitted to and reviewed by *The Journal of Law and Economics* (the top law and economics journal). He also started work on a paper which will

consider the role of top hospitals as drivers of regional innovation. Finally, he started research on work which will focus on the individual and combined roles of state scope-of-practice limitations on midwives and caps on non-economic damages.

The sabbatical allowed Dr. Mushinski to further a research agenda which focuses on the role played by tort reform on medical decision making. This agenda combines his legal and economic backgrounds with the intention of broadening the analysis of tort reform. Second, publishing papers arising out of the sabbatical in a law and economics and regional economics journal would enhance the Economics Department's and CSU's reputation in the law and economics and the regional economics fields. In terms of teaching, this work will be incorporated into several econometrics courses (at the undergraduate and graduate levels) and the Law and Economics (ECON327) and Health Economics (ECON325) courses.

Antonio Francisco Pedrós-Gascón – Languages, Literatures and Cultures (Fall 2022)

Dr. Francisco Pedrós-Gascón advanced his research and engagement in diverse ways during his sabbatical leave. He revised for publication the *Obras completas of Concepción Gimeno de Flaquer* (8 volumes, 4500 pages long manuscript, last set of galleys pending), and received financial support; conducted research in the National Library of Rome (October 2022), where the last search for documents relating this author's visit to Italy in 1906 was needed; curated an exposition on Concepción Gimeno (Alcañiz, September 29 to December 10); delivered several presentations for non-academics and feminist groups to familiarize them with the author (Casa de la Mujer de Zaragoza, Escuela Oficial de Idiomas, etc.); presented Gimeno to middle-schoolers and lead the discussion about the change of name of the local public middle-school; delivered a guest lecture at the Universidad Internacional de Andalucía on a seminar; participated in an international conference of the Asociación Española de Estudios del Siglo XIX (19th Cent Spanish Lit Association); engaged in the project with Universitat de Barcelona (3-year commitment); reviewed for publications two articles, accepted; interviewed for a documentary on Suso de Toro; and organized a conference in Spain and coordinated a volume of a journal.

Dr. Pedrós-Gascón's sabbatical has been extremely beneficial in advancing his research and has helped prepare him for spring submission of the promotion to Full Professor. He has been able to present on academic settings such as the Sociedad Española de Estudios del Siglo XIX and the Universidad Internacional de Andalucía, showcasing his engaged research to the feminist community of Spain and the citizens of Alcañiz, and guide visits of the expo for teachers, presentations to middle-schoolers, etc.

Dr. Pedrós-Gascón's had a very productive semester, academically and professionally. It has helped him introduce his work to different constituents and communities, as well as to establish a network with members from other institutions. Because of that, he was invited to organize a conference this summer in Spain and to coordinate a journal issue.

Anita Alves Pena – Economics (Fall 2022)

Dr. Anita Alves Pena made progress on several research projects. First, Dr. Alves Pena completed a first draft of a new paper on relationships between public spending and economic mobility of families in the context of Colorado using representative survey data. She was also able to advance three papers on economic impacts of COVID-19 and related policy responses to the stage of being “under review” at academic journals. In addition, Dr. Alves Pena joined a research team from the U.S. Department of Labor to conduct a validity study of a survey design of a large federal dataset, and this is now continuing work in progress. She continued to collaborate with researchers at CSU and several other universities on a large grant project from the National Institutes of Standards and Technology (NIST) pertaining to natural disaster management. Related to this and to personal interest in applications of diversity frameworks in economics, Dr. Alves Pena drafted a first version of a new paper on how the emerging field of stratification economics can be applied to natural disaster research. This work has been accepted for presentation at the National Bureau of Economic Research in March. Finally, I worked with five graduate students on their individual research projects to advance them to the stage of defending their preliminary dissertation proposals in fall 2022 and worked with two other students as they completed their final dissertation defenses for their PhDs in fall 2022 (one finishing the first week of spring semester 2023).

Dr. Alves Pena’s work on research projects during her sabbatical contributes to CSU’s R1 university research profile and the visibility of CSU scholarship. Her work with the Department of Labor and NIST increases CSU’s visibility and reputation with federal agencies. In addition, Dr. Alves Pena’s work on graduate student advising during sabbatical contributes to mentorship of CSU graduate students in the research process. Furthermore, she was able to increase more focused research productivity after time and resource substitutions of some activities during the pandemic period. Focused time for research and advising allowed Dr. Alves Pena to reposition herself and her students for timely success in upcoming post-sabbatical semesters.

Overall, the sabbatical allowed Dr. Alves Pena time to engage in broad, time-intensive research and service activity visible within and outside of the university in addition to new research related to Colorado public finance and to diversity issues in public policy responses to economic and noneconomic shocks, activities which are complementary to and interrelated with college and university goals.

Johnny Plastini – Art and Art History (Fall 2021)

As a continuation of his work catalyzed during 2020-2021 as a School of Global Environmental Sustainability (SoGES) resident research fellow, Professor Plastini embarked on international journeys to document lichen cultures in a variety of ecosystems during Fall 2021 sabbatical. He was awarded two externally funded artist residencies to Greece and Italy to document lichens in relation to ancient Mediterranean architectures of the western world. He also self-funded a research trip to Iceland to document lichens inhabiting Nordic ecosystems and, specifically, locations near the active volcano Fagradalsfjall. In total, Professor Plastini spent 22 days in Greece, 35 days in Italy, and 10 days in Iceland during his Fall 2021 sabbatical. The tangible output from this dedicated research time is clear in the 2000+ documentary lichen photographs that were produced during this time, as well as an edition of 640 RISOgraph prints that were

compiled into a suite of 40 crafted books with handmade marbled paper. The edition of books focuses on one site-specific project from Plastini's research trip to Rome, Italy: "Licheni Incantati di Villa Borghese" is a craft publication which relates issues of environmental and cultural sustainability through juxtaposing the evolving architectures of lichen structures to the eroded human-derived architectures of the Villa Borghese dwellings and sculptures.

Professor Plastini was invited as a visiting artist to Temple University-Rome during his sabbatical. This experience enabled him to connect collegially with faculty from that institution and share discipline specific as well as interdisciplinary knowledge. Professor Plastini was also awarded an artist residency to Crete, Greece through the American Alliance of Artist Communities MUDHOUSE program. While in Greece, Professor Plastini worked alongside and in collaboration with a diverse group of international artists from across the world. These culturally enriching activities were paired with skills-building in book arts and printmaking methods, which Professor Plastini has translated into new curricular opportunities for students at Colorado State University.

Laura Raynolds – Sociology (Academic Year 2021-2022)

Dr. Raynolds devoted the 2021/2022 sabbatical leave to furthering research and programmatic activities focusing on the successes and limits of Fair Trade in pursuing its three central goals of fostering trade fairness, sustainable livelihoods, and empowerment for farmers and workers in the Global South during times of crisis. Substantial new data was collected to fuel the ongoing research and publication agenda. She finalized a journal article that was in process, presented two conference papers, wrote an article that has appeared online in advance of print, and submitted a new co-authored journal article for review. Over this period, Dr. Raynolds continued to provide critical mentoring to graduate students to ensure their degree progress and professional success and continued activities as the Director of the world-renowned Center for Fair & Alternative Trade, ensuring CSU's visibility as a leader in this important field.

The sabbatical leave has brought important benefits in three major areas. (1) It bolstered professional growth, allowing Dr. Raynolds to maintain and enhance her position as one of the world's foremost Fair Trade scholars. (2) It built CSU's reputation through the globally recognized Center for Fair & Alternative Trade and students' educational experience in internationally grounded thesis projects. (3) It advanced knowledge regarding the capacity of Fair Trade and other certification efforts to address mounting global challenges in promoting trade fairness, sustainable livelihoods, and empowerment for farmers and workers in the Global South.

Ajean Ryan – Art and Art History (Spring 2022)

Professor Ryan created over 40 large scale mixed media drawings and 50 smaller works during the sabbatical. These works were exhibited in one solo and one two-person exhibition as well as three separate invitational/juried shows. This body of work was exhibited in a two-person exhibition at the Fort Collins Lincoln Center and a solo exhibition at the Louise Hopkins Underwood Center for Art in Lubbock, Texas. Individual artworks created during the sabbatical

have been exhibited in the Denver Art Museum, Arvada Art Center for the Arts, and the University Art Gallery at University of Indiana.

The research has created collaborations and connections with the community at CSU as well as within the Denver Metro region. The research activity gave Professor Ryan one highly reputable solo exhibition and a two-person exhibition and garnered multiple opportunities to exhibit work created during this time at three other venues. With the current momentum, Professor Ryan is currently working on several collaborative exhibitions both within Colorado and nationally.

The leave allowed Professor Ryan to engage with developing the skills of working on multiple mediums including but not limited to synthetic papers, walnut and other nut inks, and various non-traditional tools for drawing.

Ernesto Sagás – Ethnic Studies (Spring 2022)

Dr. Sagás's sabbatical project was titled Race in Bolivia: An Intersectional Comparative Perspective. While on a Fulbright grant in La Paz, Bolivia, he did comparative research on race and ethnicity in Bolivia in particular, and Latin America in general. The research project sparked collaborations with Bolivian colleagues, which has led to the development of an edited book on race and political polarization in the Americas, with support from the Friedrich Ebert Foundation. In addition, he is involved in planning a hemispheric conference on the subject next spring, and another edited book on race and electoral politics for 2024.

This sabbatical leave allowed Dr. Sagás to establish a new research agenda that will be pursued for years to come. He furthered research on race and ethnicity by expanding research into Bolivia in particular and Latin America in general. The Fulbright grant allowed him to establish contacts across the hemisphere that will lead to international collaborations. Once back in the United States, he developed a new upper-division undergraduate course on race and ethnicity in Latin America, which will be offered for the first time in spring 2023.

Joshua Sbicca – Sociology (Calendar Year 2021)

Dr. Sbicca had the opportunity to engage in several research endeavors. First, he founded and developed projects out of the Prison Agriculture Lab. This is a collaborative space for inquiry and action that focuses on a range of agricultural activities within the criminal punishment system. The research entails working with undergraduate and graduate students and any faculty or organizational partnerships interested in similar topics. This collaboration has contributed to deepened analysis and organizing of a nationwide dataset of prison agricultural practices in the United States. There are at least 660 adult state-operated and 18 federal-operated prisons with at least one agricultural activity. This data has been central to building of a publicly accessible ArcGIS map, a story map, and a satellite image gallery of prisons with agriculture. Second, he made substantial progress researching an in-depth case of agriculture and resistance to such practices in the penal system in Florida. He conducted 41 interviews, collected a special archive of 770 prisoner letters, and has organized and started analyzing thousands of archival documents of penal agricultural practices from both the turn of the 20th century and current documents like

department of corrections reports. Third, Dr. Sbicca has a rough draft of a book proposal for his next manuscript, currently titled, *Plantation Rising: Prison Agriculture, Carceral Control, and the Demand for Abolition*. Fourth, He co-edited a special double issue on related interests alongside Ashanté Reese in the journal *Food and Foodways* titled, *Food and Carcerality: From Confinement to Abolition*.

The sabbatical was enormously beneficial. The time he had to dive into a new research area not only allowed him time to make progress on data collection and analysis, but he has been able to read more deeply and broadly than in recent years. Additionally, he has had the chance to build networks with other scholars interested in the connections between agriculture, food, carcerality, and abolition. He also had the chance to communicate with journalists and practitioners interested in prison agriculture, which has helped him to integrate into a community of practice and thought. CSU will be recognized as a university that supports such work (e.g. the Prison Agriculture Lab). The Prison Agriculture Lab has been a space to integrate seven graduate students, one undergraduate student, and one post-doc to teach about and engage in collaborative research. Dr. Sbicca will be integrating the various prison agriculture maps into his teaching, and developing teaching modules that will assist interested colleagues as well.

Martin Shields – Economics (Spring 2022)

Dr. Shields's sabbatical project was titled "Modeling impacts and mitigation strategies for natural hazards in an era of climate change." He continued research on modeling the economic impacts of natural disasters and worked on improving the economic structure of the models. Specific research focused on: modeling the economic impacts of sea-level rise, increased rainfall intensities and wildfires; modeling the transition to a renewable energy economy; and modeling the spread of Covid-19 using satellite imagery data.

Dr. Shields finalized two papers for submission and have several working papers in various stages of preparation, developed (rudimentary) capabilities in QGIS, and improved skills with STATA (and decided not to learn R!). The research efforts resulted in establishing interdisciplinary teams at CSU to pursue funded research opportunities. Dr. Shields spent a fair amount of the sabbatical thinking about ways to improve the undergraduate economics degree program at CSU. Last fall, he became director of the department's undergraduate program. He used some of my sabbatical time to 1) review national trends in undergraduate economics enrollment, and 2) examine pedagogical trends in economics education, with the goals of improving the program's quality and increasing enrollment.

Jason Sibold – Anthropology and Geography (Fall 2021)

The focus of Dr. Sibold's sabbatical was on research and outreach. In the context of research, he collaborated on an ongoing project with the US Forest Service in Colorado to address issues of how to manage forested landscapes in response to accelerating forest health deterioration related to climate change. These projects included modeling and mapping Canada lynx habitat conditions and change, and spruce beetle and wildfire impacts to forested landscapes. He also conducted research in Rocky Mountain National Park on aspen forest change in response to

warming and wildfire, and the influence of the historic 2020 wildfire season in reshaping the forested landscapes of the park. All these projects in USFS and NPS lands were developed in collaboration with landscape managers and are focused on addressing pressing management and conservation issues. In addition to his research activities, he collaborated with US Senator Bennet and his staff on a \$60B bill focused on addressing threats from wildfires to communities and critical watershed in the eleven western states. Lastly, Dr. Sibold hosted three Chilean scientists for a week to discuss potential areas of research collaboration and student exchanges between geography programs in Chile and CSU.

Dr. Sibold's sabbatical activities contributed to his continued development as a professor and CSU. His research activities pushed him to develop new spatial modeling skills and start to incorporate new types of data that are becoming more widely available (LiDAR) into his research. These research activities also benefited students directly through opportunities to participate in field and lab research. Research findings and techniques will be incorporated into his classes in the 2022-23 academic year. This work also contributes to CSU's land-grant mission and reinforces our tradition as being the center for applied ecological research in our region. His work with Senator Bennet and Chilean scientists also contributed to his development and the reputation of CSU. Developing collaborative relationships with Chilean universities will hopefully provide Dr. Sibold and our students with opportunities to study and conduct research there as well as bring Chilean students to CSU.

Gayathri Sivakumar – Journalism and Media Communication (Academic Year 2021-2022)

During the sabbatical, Dr. Sivakumar published one article and revised and resubmitted two articles with top tier journals, and worked on writing the draft for a content analysis study which is a pilot project for a three-part study and completed data collection for a fourth study. Dr. Sivakumar started writing the NIH grant application for the three-part study and identified two other researchers who have agreed to work as Co-PI. Work with a non-profit organization called Antarang Foundation based in Mumbai, India was focused during the second half of the sabbatical, specifically helping them tweak their pre-and post-test surveys and designing an evaluation program.

The sabbatical allowed time to complete work on unfinished research projects. This has so far resulted in one publication with two other publication in state of near completion. These publications would result in increased visibility for CSU scholarship. The time has also helped identify the areas of research focus for the next couple of years. Work with the Anatarang Foundation helped support the foundation's community engagement efforts and will help them showcase the effectiveness of their work and potentially help them receive more grants and funding. Time spent on the NIH grant will hopefully result in securing funding that would be beneficial both for Dr. Sivakumar and the university.

Peter Sommer – Music, Theatre, and Dance (Fall 2021)

Professor Sommer composed and arranged nine pieces for his jazz septet (two saxophones, trumpet, trombone, piano, bass, and drum set) to be recorded at Mighty Fine Productions in

Denver, Colorado. After two performances in Denver and Lafayette to rehearse and prepare the material, all selections were recorded, including four pieces with a special guest vibraphonist and percussionist. He started the editing process in December and will complete mixing and mastering with the head engineer at MFP in Spring 2022. The project will be released as a part of a special performance in Denver on June 2, 2023. The music for this recording features the deep skills and experience of jazz musicians from the Denver Metro Area and the Front Range, and highlights traditional aspects of swing, melody, and improvisational energy in a modern mainstream setting.

The aforementioned work in composition, arranging, recording, producing, and performing as a leader of a working ensemble continues to build his creative career as a jazz artist, both regionally and nationally through the distribution of a high-quality recording. A recording project creates a “snapshot” of the work, but also gives us a springboard to move to the next project, whether that is continued live performance or more deep work in composition. Professor Sommer can bring these creative skills to his teaching as both a saxophone professor and jazz professor at the School of Music, Theatre, and Dance, on both an intuitive and direct level. Future CSU SMTD students seek out mentors who have experience in regular live performance and recording, as well as the production skills required to ensure their success.

Sasha Steensen – English (Spring 2022)

During the semester-long sabbatical, Dr. Steensen wrote an additional essay for an ongoing essay collection entitled “The Disobedient Reader,” an autobiography of her life as a reader. She researched the history of reading pedagogy and standardized testing, considering her own experiences as a reader in light of what she learned about this history, and she allowed the essay to go in several additional directions not anticipated. She also continued work on her sixth book of poetry entitled *Overland: A Poetic History of Three Acres and All that Surrounds*, which is a history of the land she currently inhabits. Somewhat unexpectedly, she also began writing a new book of poems while on sabbatical. In the past, she has found herself working on one book of poems at a time, but seeing *Overland* as a long-term project, she found herself wanting to work on shorter poems as well. A one-month residency at Willapa Bay AiR allowed her the time and space to begin this new project, tentatively called *A Handbook for Abandoned Poets*.

Having productive professors is crucial for our creative writing students, both at the graduate and the undergraduate levels, as it encourages them to remain productive and to send their own work out for publishers’ consideration. Furthermore, having productive, successful students further enhances the reputation of the Creative Writing Program, the English Department, the College of Liberal Arts, and, finally, Colorado State University. Continuing work on current poetry projects, as well as starting new projects, is essential to personal growth as a writer and to the reputation of the Creative Writing program at CSU, which contributes to more successful graduate student recruiting. Additionally, growing skills in other genres, namely creative nonfiction, is important as a writer to push outside comfort zones into other areas that are somewhat unfamiliar. Finishing the penultimate essay for her first nonfiction book allowed Dr. Steensen to challenge herself and grow as both a writer and, inevitably, as a teacher. She is excited to strengthen her

skills and reputation as a nonfiction writer to bring additional knowledge to students and the larger University.

Cyane Tornatzky – Art and Art History (Academic Year 2021-2022)

In addition to writing, during the sabbatical Professor Tornatzky found a book publisher for The Artistic Approach to Virtual Reality (CRC Press/Taylor and Francis for publication in 2023.) The research on VR in the artworld is complemented by research being done by a cross-disciplinary team of faculty, staff and student alumni at CSU. This team is working to develop a VR program to train students in veterinary operating room techniques (VetVR). The development of the VR application provides a foundation for their research on VR as an educational tool. During sabbatical, Professor Tornatzky was able to present this research at a prestigious VR conference in Singapore and won best presentation of the session. She also continued to make artwork and maintain a studio practice. This resulted in multiple exhibitions, but most importantly, one of her works is highlighted at Denver Meow Wolf's Convergence Station. Over one million people passed through Meow Wolf from fall 2021-2022, and her name is front and center on the work, unlike many artworks within Meow Wolf.

There are currently no books on VR as an artistic medium, in part because there are few art historians specializing in new media, and there are even fewer art historians working within the realm of VR. The publication of this book will highlight the voice of a new media faculty member at Colorado State University, firmly planting a flag on the metaphorical moon of critical virtual reality development. The work of Professor Tornatzky's VetVR research team is also in the vanguard of virtual reality development. Their two-pronged approach of developing within the VR realm and conducting educational research on VR users means that educational institutions nationally and internationally are very interested in what they – a team built out across CSU colleges – have to say. Lastly, with 1,000,000 visitors to Meow Wolf Denver, it can only help the reputation of CSU's Department of Art and Art History to have a faculty member showing there.

Marcela Velasco – Political Science (Spring 2022)

Based on the sabbatical work, Dr. Velasco wrote a manuscript titled "Collective Trauma Among Indigenous and Black Communities: Introducing a Framework and a Method." This paper was presented at the American Political Science Association's annual meeting and has been submitted for evaluation in a peer reviewed journal. This work breaks the trauma process into different phases and claims that territories represent a form of knowledge and produce feedback effects in the trauma process that help people connect emotionally and strategically with place.

This work now makes several original contributions to debates on trauma and territory and to research methods with marginalized ethnic groups. Both are new and growing areas of research. This work was well received by indigenous rights experts in Colombia and also in the APSA's indigenous studies network; Servindi, a Peruvian based communication service on indigenous rights in Latin America, published a piece dedicated to this work; and a blog was published for *Debates Indígenas*, a monthly periodical published by the International Work Group on

Indigenous Affairs (IWGIA). This work benefits Colorado State University by involving people from marginalized ethnic groups. It takes hard work to gain their trust by presenting work in a format and language that can be utilized by people from these communities, and they benefit from training activities from Dr. Velasco when visiting the region.

College of Natural Sciences

Henry Adams – Mathematics (Academic Year 2021-2022)

For the sabbatical from September 2021 until June 2022, Dr. Adams was a Visiting Professor of Mathematics at the Institute of Science and Technology Austria (IST Austria). He collaborated with the research group of IST Austria Professor Herbert Edelsbrunner, one of the founders of applied and computational topology, and with Professor Žiga Virk at the University of Ljubljana, Slovenia. Together, they applied perspectives from quantitative topology to advance the theory of geometric complexes arising in applied topology. During the sabbatical, seven papers were published or accepted for publication, including in Algebraic & Geometric Topology, Applied and Computational Topology, Foundations of Data Science, Michigan Mathematical Journal, and the International Journal of Computational Geometry and Applications. Six of the co-authors in these papers are graduate students, and three co-authors are undergraduate students. He gave invited in-person talks at Oxford University, Sorbonne Université, TU Graz, University of Copenhagen, Freie Universität Berlin, Technische Universität Berlin, and IST Austria, and 13 invited online talks.

Dr. Adams served on sabbatical as the Executive Director of the Applied Algebraic Topology Research Network (AATRN), which hosts online research seminars, interviews, tea times, poster sessions, and tutorial-a-thons. AATRN now has 450 videos and 4,400 subscribers on the YouTube channel, and averages 24 hours watched per day on YouTube. He also became an Associate Editor for the journal Foundations of Data Science. Finally, he started a new research initiative: a polymath-style project with 15 collaborators, connecting applied topology to equivariant topology and metric geometry. This polymath project is valuable for the Colorado State University graduate students involved because it allows them to broaden their areas of research training to include not only geometric complexes but also equivariant topology and metric geometry.

Mark Bradley – Physics (Fall 2022)

The scholarly activities for Dr. Mark Bradley included a month at the Helmholtz Zentrum Dresden-Rossendorf (HZDR) in Dresden, Germany. Dr. Bradley began a new collaborative project with researchers at HDZR, resulting in two publications nearing completion. He presented at two invited colloquia and submitted a proposal for an experiment at HDZR, which has been approved. In addition, Dr. Bradley participated in a conference on applications of ion accelerators in Texas, where he presented and chaired three sessions. He completed four papers for submission to archival scientific journals, of which three have been published. Dr. Bradley has four additional papers in preparation.

The personal benefits derived from Dr. Bradley's sabbatical included time to complete several major research projects, write four papers, and to make substantial progress in preparing four others. Dr. Bradley's visits to research groups in Europe and his participation in a conference enabled him to strengthen existing professional connections as well as to initiate new ones. In addition, Dr. Bradley worked on revitalizing and expanding his programming skills, which has made him a better research advisor to both undergraduates and graduate students at CSU. Dr. Bradley invited talks in Europe and the United States, and the papers published have enhanced CSU's reputation and international visibility. The experiments that will be conducted at HZDR will be directly relevant to Dr. Bradley's graduate student's thesis work and will enhance their educational experience. The insights gained while visiting other countries and universities will be incorporated into future research papers and proposals for funding.

Kristen Buchanan – Physics (Spring 2022)

Dr. Buchanan's primary scholarly activities during the semester-long sabbatical semester included collaborating with experts in magnetism and magnetic materials from national laboratories and universities. These collaborations were largely focused on research on magnetic skyrmions and spin waves in magnetic materials. Results from this research have appeared in two invited papers and in a third that is an Editor's Suggestion in *Physical Review Materials* and forms the basis of a US patent that filed this spring through CSU Ventures on a new strategy for information encryption based on magnetic skyrmions. They also worked on infrastructure improvements to their Brillouin light scattering system that significantly extends experimental reach with the addition of low temperature measurement capabilities and improvements to time resolved measurement setup.

Benefits resulting from the sabbatical included advancing Dr. Buchana's knowledge of current research topics in magnetism and magnetic materials and significant progress on ongoing projects including modeling work that enhances understanding of experimental results. Dr. Buchanan strengthened ties between CSU and national laboratories like Argonne and LBNL, thus increasing the visibility of CSU – especially magnetics research at CSU. She involved graduate students in aspects of the research undertaken during the sabbatical, which also enhanced their educational experiences. The infrastructure improvements completed during the sabbatical significantly expanded the research questions they can address, especially the addition of low-temperature capabilities to their Brillouin light scattering system. Very few research groups have this capability, and it will enable them to do temperature-dependent studies of multilayered materials, 2D materials, topological materials, and antiferromagnetically coupled materials that are both sensitive to temperature and of high interest in current condensed matter physics and potentially useful for a variety of applications.

Norman Buchanan – Physics (Spring 2022)

Dr. Buchanan's primary scholarly activities during the sabbatical semester included collaborating with experts in computation in high-energy physics from high-profile national laboratories and other institutions. The collaborations were largely focused on the development

of new tools and techniques that will be used to ensure that data collected by the Deep Underground Neutrino Experiment (DUNE) will produce results of the highest possible quality, and physics reach. During the sabbatical, he authored a chapter of a conceptual design report that is a key element of the Department of Energy planning and funding process for the DUNE project. He presented the information and plans to an oversight committee appointed by the Fermilab Director and the report has been sent for approval of the Director. He also took part in a multi-institution Department of Energy proposal, as co-PI, to fund a high-energy physics computing project that will utilize high-performance computing techniques and facilities for analyzing the enormous datasets that will be collected by DUNE.

The personal benefits resulting from the sabbatical included advancing his knowledge of scientific computing in high-energy physics and taking part in a critical component of the DUNE computing planning and implementation. Dr. Buchanan was able to strengthen ties between CSU and national laboratories like Fermilab and Brookhaven, thus increasing the visibility of CSU – especially regarding computation in high-energy physics. He involved postdocs and students (graduate and undergraduate) in aspects of the research undertaken during the sabbatical and is now including some of the new techniques and approaches he was exposed to during the sabbatical into a new computational physics course. Lastly, Dr. Buchanan further cemented his role as a computing leader in the DUNE project, where he serves as a co-convenor of the DUNE database group.

Silvia Canetto – Psychology (Fall 2021)

Dr. Canetto's Fall sabbatical in Italy was productive and fruitful, despite serious limitations to work, mobility and in person-interactions she had to deal with due to the COVID pandemic and a serious accident she had and the physical disabilities and the long rehabilitation journey that followed. In collaboration with University of Padova's colleagues, Dr. Canetto completed work on an empirical study, presented the findings of the study at the meeting of scientific conference, and submitted to a research journal a manuscript based on the study. She also collaborated with an international team of colleagues on a second empirical study that was submitted to a journal late Fall 2021. In addition, she delivered four invited presentations and two refereed presentations. Furthermore, during the sabbatical she gained training in, and practiced a new skill: writing about science for the public. The outcome was a 2022 article in a popular press magazine with high international visibility and impact. Finally, during her international sabbatical she collaborated with a multinational team on a proposal for a study of male veterans and first responders in the transition to retirement. She recently heard that the proposal will be funded.

Dr. Canetto's sabbatical leave to Italy generated many professional benefits for her and for CSU. Regarding research, the sabbatical gave her an opportunity to work in a sustained way on research with Italian colleagues—which led to a presentation and a manuscript submission. Thanks to the time she could devote to research during the sabbatical, a second manuscript with another international team was also submitted. During the sabbatical she was able to get training on and practice a new skill: writing about science for the public. The outcome was a 2022 article in a popular press magazine with high international visibility and impact. The institutional

benefits of her research productivity during the sabbatical include increased visibility for CSU scholarship. Her international sabbatical also positively contributed to her teaching. All the classes she teaches have a global perspective, consistent with CSU curriculum internationalization goals. The international sabbatical gave her sustained access to international information and perspectives. This information and perspectives will expand the international framework and content of her classes, with important benefits to the students who will take them.

Brad Conner – Psychology (Fall 2022)

The primary scholarly activities for Dr. Brad Conner included attending the following: Trainings on research and treatment with individuals who identify as transgender or gender expansive; a Clinical Intervention Training – Responding to Sexual and Gender Minority Stress: Transdiagnostic Behavioral Approaches; attending a gender affirming, completing online training via; and developing collaborative working relationships with the principal investigators of the PRIDE Study Drs. Annesa Flentje, Juno Obedin-Maliver, and Mitchell Lunn.

In addition, Dr. Conner worked with Dr. Lorinda Riley on assessing intergenerational trauma among Indigenous Hawaiians as a way of learning how to assess intersectional minoritized identities. This work resulted in completing two data use agreements with Stanford University and the University of California San Francisco (UCSF) to bring the PRIDE Data to Colorado State University and one data use agreement with the U.S. Tran Survey to bring their data to CSU. Dr. Conner wrote an administrative supplement grant to improve the assessment of sex and gender identity in large representative datasets to the NIH which would be attached to the PRIDE Study R01, and co-authored or agreed to co-author six manuscripts using the above-mentioned data which are either in progress or in preparation.

The personal benefits derived from Dr. Conner's sabbatical included time to complete major research projects and to develop new research initiatives, which have resulted in new collaborative relationships with experts in conducting research with individuals who identify as transgender and gender expansive, a major proposal, planning for two additional proposals, and beginning work on six new manuscripts in this area. Institutional benefits include new collaborative relationships between CSU and Stanford University and CSU and UCSF, increased visibility for CSU scholarship, and the acquisition of two different, gender inclusive datasets that Dr. Conner and his student workers can use for additional scholarship in this area. In addition, Dr. Conner completed a number of trainings that have improved his ability to conduct this research, to supervise clinicians in training in treating minority stress, and learning more about how gender identity, or the way society responds to gender identity, affects the mental health of those who identify as transgender or gender expansive. The insights Dr. Conner gained will be incorporated into my courses and scholarship.

Deanna Davalos – Psychology (Fall 2022)

The primary activities of Dr. Deanna Davalos included research to integrate the necessary pieces involved regarding clinical care and research. She completed a 20-hour certificate through the University of Wyoming Center on Aging to better understand how to incorporate research

involvement in clinical care. She developed a REDCap (Research Electronic Data Capture) resource guide for researchers at CSU. With the CHSCHA, IRB approved verbiage and instructions to access the database and/or use collected data housed in the database were developed. In addition, Dr. Davalos developed a tiered system of data inclusion, spanning from listserv participants from the Columbine Health Systems Center for Healthy Aging to older adults who have previously participated in research at Colorado State University to current older adult participants who are interested in continued communication regarding research opportunities and/or “check ins” to update their personal data in the database. She initiated a process to integrate research into the Aging Clinic of the Rockies. She completed and published three manuscripts focused on healthy and pathological aging and co-edited a special issue in *Frontiers in Psychiatry, Aging Psychiatry* section titled, “Biological Basis and Therapeutics of Behavioral and Psychological Symptoms of Dementia.” Dr. Davalos submitted three grant proposals focused on aging (one funded, one not funded, and one pending). Lastly, she participated as a speaker in two DARPA/CSU-sponsored conference events about mental health and resilience.

The personal benefits of Dr. Davalos’s sabbatical included having time and effort to develop a research database that will allow her to integrate five years’ worth of research across multiple funding sources. It also allowed her to identify new possibilities for grants. In addition, the development of the research database has prompted Dr. Davalos to start compiling funding opportunities that require larger data sets than we currently have access to for more complex data analyses. Dr. Davalos also has been able to collaborate with new partners on funding opportunities that include the research database and research access to the Aging Clinic of the Rockies, which was developed during her sabbatical. In terms of institutional benefits, the development of an older adult research database allows for researchers across the Colorado State University campus to have access to older adult participants and select pilot data (from cognitive assessments completed as part of their clinical evaluations) needed for funding proposals. The sabbatical has also led to work on the database that will improve cross-site collaboration. Access to older adult samples will enhance our ability to participate in multi-site grants. The sabbatical also provided time and effort to develop older adult research-related resources that can be shared with researchers at CSU who are interested in studying aging and older adults.

Oleg Emanouilov – Mathematics (Fall 2022)

Dr. Oleg Emanouilov completed revisions on papers and completed four following research papers while at the University of Tokyo. Being highly ranked, the University of Tokyo provides a great opportunity for scientific collaboration and personal growth and development within mathematics society. Dr. Emanouilov consulted with several colleagues in his field from Japan and Taiwan. In addition, he participated in a seminar on Partial Differential Equations and attended talks presented by Japanese and international researchers.

Dr. Emanouilov continued his collaborative research with Professor M. Yamamoto where they accomplished several research and teaching goals, including submission for publishing papers to various mathematical journals. Dr. Emanouilov gave a total of eight 90-minute lectures for students and researchers on Inverse Problems, Partial Differential Equations, Microlocal

Analysis, and Carleman Estimates. The material of those lectures is forming the foundation of a special course on Partial Differential Equations that he is planning to offer at Colorado State University.

Due to his sabbatical, Dr. Emanouilov had the opportunity to engage with Japanese colleagues and students while at the University of Tokyo. Focusing on his work, Dr. Emanouilov was able to accomplish his main goals and grow as a mathematician.

Stuart Field – Physics (Fall 2021)

Dr. Field's sabbatical was taken to strengthen a new collaboration between his group at CSU and that of Prof. Dan Dessau at CU Boulder. As detailed in his sabbatical application, this collaboration is focused on understanding unusual vortex phases, including a search for exotic half-quantized vortices, in unconventional superconductors such as the recently discovered material UTe₂. Besides its implications for basic scientific understanding, the work performed during this sabbatical has potential applications in new forms of fault-tolerant quantum computing. Originally the plan was that Dr. Field would spend much of his time at CU Boulder, working with a novel scanning SQUID microscope capable of nanoscale magnetic imaging that was being developed at CU and CU Denver. Having access to such an instrument would have expanded the technical capabilities of his group. There was also the understanding that a version of this instrument could eventually be installed at CSU. At the time of his initial sabbatical application the expectation was that this instrument would have been commissioned and operating. Unfortunately, this was not the case. The microscope was far from being ready by the start of his sabbatical, making any time that he would spend at CU unproductive. Dr. Field thus ended up spending his time at CSU which, although not the original plan, still allowed them to make significant progress in their overall project, although in different directions. The two groups still interacted closely, including by weekly Zoom meetings lasting an hour to an hour and a half. These meetings served to discuss the technical and science goals for the upcoming week(s).

The work during this period was successful although they do not yet have publishable results. They did spend considerable time in fabricating a new generation of Hall sensors used in their microscope, as well as performing cryogenic imaging on samples sent up from Boulder. In this regard they have been hampered by the quality of crystals sent from their collaborators at NIST, but more recently they have obtained crystals of significantly higher quality. This will help move forward the project considerably. One important product of his sabbatical leave was a joint proposal on this work submitted to NSF, with Dr. Field as the principal investigator and primary author. Having written this proposal has also informed their group to compete for future funding opportunities, such as the white paper that they, as part of a 10-institution collaboration, recently submitted to the DOE Energy Frontier Research Center Program. Expected funding for this program is in the range of \$8 to \$16 million over four years.

Daniel Graham – Psychology (Calendar Year 2021)

Dr. Graham's primary scholarly activities during my 2021 sabbatical year revolved around enhancing his research which is focused on promoting physical activity and healthy eating. Dr. Graham was able to accomplish several key goals that will benefit his work at CSU, despite being unable to travel or collect new data due to COVID-19-related restrictions. He submitted 9 papers for publication, (5 now published, 4 still under review). Notable among these is a significant review of over 70 papers from around the world on dietary changes resulting from COVID-19. He also used his sabbatical to strategically increase his competitiveness for federal grants. More specifically, Dr. Graham has submitted three large-scale NIH applications that were unfunded, but reviewers noted that the applications would be reviewed much more favorably if a) pilot data were published, or b) additional pilot data were presented. Therefore, for two of these projects he published the pilot data and for the third he prepared to begin data collection, which is now underway. He also established a new research collaboration during my sabbatical, and I collaborated with colleagues across multiple colleges at CSU and at other universities to submit three grant proposals during this time. Institutional benefits include increased visibility for CSU scholarship, particularly as most of the papers he published during this sabbatical were in open-access international journals.

In addition to the research successes accomplished during the sabbatical, Dr. Graham redesigned his undergraduate social psychology course to promote more student autonomy and flexibility in the scope and nature of the projects that students undertake in this course, and he is currently teaching his first section of this course with the revised approach. His teaching will also benefit from the sabbatical because he will incorporate the research he completed on health promotion into his graduate Health Psychology.

Jessica Hagman – Mathematics (Spring 2022)

Dr. Hagman's original sabbatical plan included an invited stay at the University of Auckland in New Zealand. The approved goals for this sabbatical plan included (1) to expand the Calculus Quantitative Research Collaborative, and (2) to expand Diversity, Equity, and Inclusion work internationally. Due to COVID, this travel was impossible, so instead 4 months were spent accomplishing these goals in Latin America, including Guatemala, Costa Rica, and Mexico, as was discussed and encouraged by the department chair senior faculty members. While this trip was not what was originally planned, it supported accomplishment of the original goals and allowed Dr. Hagman to spend time learning Spanish and to present research in Spanish at the University of Costa Rica. In addition to this work, she also spent 2 weeks in Golden participating in the HERS Leadership Institute. Dr. Hagman also collaborated with Ken McLaughlin to lead the Precalculus Task Force, which secured funding to provide pilot in person Precalculus and College Algebra courses at CSU. Dr. Hagman is grateful for the time spent establishing these international collaborations and continuing and broadening existing work.

Charles Henry – Chemistry (Spring 2022)

Dr. Henry's primary scholarly and research activities during the sabbatical semester included visiting collaborators in Thailand, working with the university spin-out company, Burst Diagnostics, and completing publishing of multiple manuscripts. Many of the original plans were

limited by continuing COVID-19 restrictions in foreign countries. Dr. Henry was in Thailand for 10 days and gave two lectures, one in the Department of Chemistry and a second in the Metallurgy and Materials Science Research Institute (MMRI). In addition, he was able to formalize his Adjunct Professor position in the MMRI after collaborating with groups in Thailand for 15 years; this new position will facilitate a better interaction between CSU and Thailand. He hopes to use this position to recruit additional graduate students to the Department of Chemistry and the School of Materials Science. He also spent time advancing his university spin-out, Burst Diagnostics. During the semester, they were able to secure their first private equity funding, hire their first employee, and move into physical space. This has allowed Dr. Henry to subsequently hire two CSU alumni as second and third employees and move the product forward towards commercialization. It has also given him new insight into key elements of regulatory pathways and commercialization that are already affecting the way he trains and mentors graduate and undergraduate research students in his laboratory. Finally, he was able to finish the submission of multiple manuscripts for peer review. To date, they have been able to finish submission of more than 20 manuscripts with most of these already accepted in top tier journals, and to complete submission of two proposals.

Dr. Henry also grew significantly during this time. He was able to spend time planning for the next seven years of his career at CSU. He read more than 500 journal articles during this time to help get some new directions for research. He also worked on new ideas for teaching, with the goal of starting two new classes for the 2022-2023 school year, one on Sensors and one on Microfluidics. The Sensors class was taught in Fall 2022 and the Microfluidics course Spring of 2023. And finally, he was able to take some personal breaks to recover from the stress of the COVID-19 pandemic and associated elevated level of stress.

Mary Meyer – Statistics (Academic Year 2021-2022)

During the sabbatical, Dr. Meyer was a visiting full professor in the statistics department at George Mason University and collaborated with members of the department and taught two classes. Professor Jiayang Sun (chair of the statistics department at GMU) and Dr. Meyer worked on a density estimation method where the observations are contaminated with measurement error, with the objective to estimate the original density before contamination. This has applications in a wide range of fields, but the immediate application is in astronomy. Interest is in determining whether the distribution of stellar velocities is bimodal or unimodal, where the velocities are measured with a known error distribution. They also worked with a PhD student on a model and variable selection method. Dr. Meyer gave a talk on survey domain estimation with inequality constraints in October 2021.

During the spring semester at George Mason University, Dr. Meyer taught a special topics class to PhD students, and spent time working on a monograph on Constrained Estimation and Inference, completing approximately two thirds of this volume that summarizes research in regression models with inequality constraints. She taught a special topic class for PhD students on this subject, using the notes for the monograph. During the fall semester, she taught a class in data analysis to graduate students in fields other than statistics. During the course of the semester she developed copious notes and synthesized these with notes from previously taught courses in

the form of a textbook. The text is intended to be used for a two-semester, non-calculus-based introductory course in statistics, or as a self-study program. The material is presented for people in non-STEM disciplines for which statistics is a tool, but is also appropriate for undergraduate statistics majors.

Rick Miranda – Mathematics (Fall 2021)

Dr. Miranda's sabbatical project was postponed from Spring 2021 to Fall 2021 because of the coronavirus pandemic. During Fall 2021 he visited the University of Rome II and the University Autònoma de Barcelona. During these visits he intensively collaborated with Prof. Ciro Ciliberto and Prof. Joaquim Roe. Dr. Miranda gave lectures in Rome and Barcelona on current research projects, participated in one conference in Rome, and was on the scientific committee and helped to organize a conference in Cetraro, Catania. For this part of the sabbatical project, they wrote three papers together and launched a line of research which they have continued to pursue, with another paper in draft form now. The travel to Barcelona was funded by a travel grant from the Centre de Recerca Matemàtica.

In addition to these collaborations, Dr. Miranda continued and further developed the theory of (-1) -curves (and related curves) in projective space, with Prof. Olivia Dumitrescu of the University of North Carolina at Chapel Hill. They have submitted two papers with a third nearing completion. He also finished the first part of a project with Dr. Aline Zanardini of the University of Leiden, on constructions of moduli spaces for elliptic surfaces. They have submitted a paper based on that work, which he believes is about to be accepted based on the positive referee report they have. They are working on further projects that come out of that research line. Dr. Miranda is currently teaching an upper-division Euclidean and Non-Euclidean Geometry class and some of the ideas from these research projects have already entered in to the curriculum. In discussions with the Mathematics Education faculty and graduate students, during the sabbatical, in preparation for teaching this course they developed some more interactive activities for many of the class periods which are being used this semester, to beneficial effect I believe.

Dhruba Naug – Biology (Spring 2022)

Dr. Naug was hosted at the National Centre for Biological Sciences at Bangalore, India by Axel Brockmann and was supported by a competitive Fulbright fellowship. During the time in this lab, Dr. Naug did lab and field work to measure metabolic rate in the individuals of three honeybee species in each of two different latitudes. This represents a "first" such dataset as no such data exists in published literature, and it was a critical piece of preliminary data that was included in the NSF proposal submitted in the summer to fund this work in the future. In addition to this primary effort, Dr. Naug also interacted with a wide range of scientists and beekeepers that would help expand this comparative work in India.

The sabbatical allowed Dr. Naug to collect preliminary data on metabolic rate on different honeybee species, data that served as critical preliminary data for the NSF proposal submitted last summer. The data will also be used to produce a publication. Collecting the data allowed him

to locate potential sampling sites and develop field-based methodology that will be important during expansion of this comparative work as a long-term research plan. The collaboration with the host, faculty in other academic institutions, NGOs and the beekeeping industry will be extremely useful through continuation of this work. The new lines of research developed during the sabbatical will help attract new grad students and new lines of funding that will be of direct benefit to the biology department and the university. Service in the Fulbright fellowship panel also allowed Dr. Naug to interact with various members of the Fulbright foundation that will help him mentor students who are interested in applying for this fellowship.

N. LeRoy Poff – Biology (Spring 2022)

Dr. Poff's primary scholarly activities during the sabbatical semester in Spring 2022 included traveling to Australia for a 3-week research collaboration in his role as a Faculty Adjunct at the University of Canberra. While there, he gave a seminar at the Institute for Applied Ecology and after returning, he attended the Society for Freshwater Science and gave an invited presentation on the ecological and societal tradeoffs of hydroelectric dam building. Other major sabbatical activities included invited participation in a workshop at the US Geological Survey's John Wesley Powell Center. He also completed invited editorial responsibilities for the internationally-organized *Encyclopedia of Inland Waters (2nd edition)*, for which he served as a section editor on "Rivers," which comprised some 40 individual articles he personally solicited from leading international topical experts. In sum, he completed and published 5 major technical and research papers.

The personal benefits derived from the semester-long sabbatical included time to complete major publications, and to develop a new collaborative research initiative in Australia on ecological water management of the Murray-Darling River basin. Institutional benefits include increased visibility for CSU scholarship and leadership in ecological water management. Dr. Poff's activities in Australia and in the U.S. and his editorial service for a major international online book have enhanced CSU's national and international visibility. The insights he gained while visiting Australia and collaborating with Australian scientists at two major universities will be incorporated into course lectures and future writing of papers on ecological water management.

Carol Seger – Psychology (Academic Year 2021-2022)

Dr. Seger's primary sabbatical goals were in the area of scholarly work, including designing new research projects. Dr. Seger spent an extended period at South China Normal University (SCNU) in Guangzhou, China, where many of collaborators work. The previous sabbatical was at SCNU (Spring 2014), and from then up to the start of the Covid-19 pandemic Dr. Seger travelled to China at least twice a year to continue research projects. Despite the challenges of travel to and living in China during the Covid-19 pandemic, she was able to spend five months at SCNU during the 2021-2022 academic year and benefited greatly from having that extended amount of time immersed in research and collaboration. Research was in three main areas. The first was category learning: using both behavioral methods and functional MRI brain imaging methods to study how people learn new concepts and categories and how they are represented in the brain. With collaborator Zhiya "Michael" Liu, Dr. Seger finished and submitted for publication three

studies, and designed and started data collection for four additional projects that are currently underway. A second research area is using learning theory, computational modeling, and brain imaging to better understand psychiatric and neurological disorders, with a focus on Obsessive Compulsive Disorder. Much of her research in this area is in collaboration with computational neuroscientist Qi Chen and psychiatrist Ziwen Peng. During the sabbatical, they completed and submitted for publication eight articles, six of which have now been published. A third project focuses on how an understudied part of the brain (the tail of the caudate) supports both rewarded motor learning and attentional learning. This research has implications for understanding the effects of alcohol and drug cues in relapse in substance use disorders. They performed two brain imaging studies in this area.

Dr. Seger also used the sabbatical to contribute to CSU initiatives in China. In 2016, she helped establish the SCNU-CSU International Laboratory for the Study of Mind and Brain. Through this collaboration, they have hosted faculty and student exchanges, and supported collaborative research projects. While in China, she had many conversations with colleagues about next steps in development of the laboratory. They hope to restart exchanges and begin new projects when the Covid-19 pandemic situation allows.

Patrick Shipman – Mathematics (Fall 2021)

Scholarly activities during the sabbatical semester focused on initiating new research projects, including writing and submitting two NSF grant proposals. Most of the time was spent at The University of Arizona. Research collaborations established during this time included developing novel geometric methods for solving equations describing liquids that link neighboring objects ('liquid bridges'), using insights from front propagation to understand shapes of conifer trees, and discovering a new interpretation to quantum theory that interprets interactions of elementary particles in terms of surfaces and their curvatures. Three weeks were spent at Colorado State University, focused on new experiments and mathematical models for plant pigments called anthocyanins, including an exciting new discovery of fluorescence enhancement when anthocyanins associate with other materials. Time was also devoted to developing experiments that can be incorporated into interdisciplinary STEM courses. Although hopes to travel to the Helmholtz Zentrum Dresden-Rosendorf (Germany), the University of Tennessee - Knoxville, and the Oklahoma Medical Research Foundation were not realizable due to Covid, the sabbatical allowed for virtual collaborations with colleagues at these institutions on research projects involving nanopatterns by ion bombardment, discourse markers in natural languages (including ancient mathematical texts), and changes in synthesis and decay rates of various muscle proteins in response to interventions. Dr. Shipman nearly completed a book, *A Primer on Mathematical Methods in Materials Science*, for the Society of Industrial and Applied Mathematics, together with colleagues at George Mason, Wake Forest, and Carnegie Mellon Universities.

The most significant personal benefit derived from the sabbatical was the opportunity to focus on conversations and background learning necessary to establish new directions of collaborative research. This included realizing projects that had been goals for quite some time before the sabbatical (geometry of liquid bridges, plant pigment models) and new ideas that arose from the

chance to spend time with colleagues at a different institution (geometry of quantum theory, discourse markers in natural languages). These new projects are an institutional benefit as well, since undergraduate and graduate students have become involved in the research, and the plan is to incorporate the natural language research into a Fall 2022 seminar that will establish new research collaborations within the CSU Math and Philosophy Departments. The institution will benefit from the time spent on ideas for experiments and mathematical modeling that can be incorporated into courses; there are plans for at least two math courses to include these experiments starting in Fall 2022. The publication of a book by the Society for Industrial and Applied Mathematics will enhance CSU's international reputation.

Mingzhong Wu – Physics (Fall 2021)

Dr. Wu's initial sabbatical plan was made with the expectation that the pandemic would be over by the fall of 2021. Since the pandemic was still ongoing in the fall, he converted some of the planned in-person activities to remote activities and thereby made his sabbatical a hybrid experience. Dr. Wu's major in-person activities included a two-week visit to Northeastern University (NU) and MIT, and a one-week visit to New York University (NYU). The remote activities included Zoom meetings with Professor Nian Sun's group in NU, the development and delivery of a guest lecture in a thin film technology class in NU, and one-day virtual visits to University of Delaware, Georgetown University, IBM Thomas J. Watson Research Center, the U.S. Naval Research Laboratory, and National Institute of Standards and Technology (NIST) at Gaithersburg.

Through the above-described in-person activities and virtual meetings, Dr. Wu got to learn about the latest advances and developments in the fields that are very closely related to his research program at CSU. The seminars he presented gave him excellent opportunities to broadly publicize his research work to the community, and the discussions after the seminars also allowed them to better understand and expand their work. His team's research includes investigations of topological and magnetic materials such as α -Sn and Bi_2Te_3 . These materials are excellent platforms for investigating fundamental questions in magnetism and spintronics. They are also interesting because of their potential technological applications in quantum information and low-energy-consumption electronics. His visit to NU enabled his group to start a collaboration with Professor Nian Sun's group on topological insulator/magnetic insulator heterostructures and a collaboration with Professor Arun Bansil's group on spin-momentum locking in topological semimetal α -Sn thin films. Dr. Wu's virtual visit to Georgetown University triggered a collaboration with Professor Kai Liu's group on the characterization of crystalline properties of α -Sn thin films. Further, with the help of Professor Nian Sun's group at NU, they recently started to grow topological insulator Bi_2Te_3 thin films via sputtering; this material will be used in their ongoing DARPA project, to provide strong spin-orbit torque for amplification of spin waves.

Wen Zhou – Statistics (Fall 2022)

Dr. Zhou engaged in a diverse array of academic pursuits, which primarily entailed visiting six institutions: Department of Biostatistics, Epidemiology, and Informatics at the University of

Pennsylvania; Booth School of Business at the University of Chicago; Department of Statistics at UC Berkeley; Marshall School of Business at the University of Southern California; Public Health Sciences Division at the Fred Hutchinson Cancer Research Center; and School of Mathematical Sciences at the University of Southampton.

Throughout these visits, Dr. Zhou presented five research seminars and established new lines of collaboration. He participated in the 15th International Conference of the ERCIM WG on Computational and Methodological Statistics in London, where he delivered invited talks and organized sessions. Dr. Zhou also completed three manuscripts and submitted two new proposals. Lastly, he commenced his role as chair or co-chair of scientific or organizing committees for four international conferences, including the *Dose Finding and Other Topics in Drug Development conference*, the *2023 Workshop of Statistical Network Analysis and Beyond*, *WNAR 2023*, and the *North America Machine Learning, Optimization and Statistics Symposium 2023*.

Dr. Zhou's sabbatical yielded personal benefits such as the opportunity to visit collaborators, initiate new and promising projects, which have resulted in four submitted proposals thus far, and guide the development of new dissertation work for his graduate students. Additionally, Dr. Zhou was able to dedicate time to completing ongoing research projects and associated manuscripts. Institutional benefits encompass an increased visibility of CSU scholarship. The four international conferences, including one held in Canada, along with the seminar and invited talks given in the UK, enhanced CSU's international presence. Seminars delivered at US institutions bolstered CSU's national visibility. The insights Dr. Zhou garnered from visiting institutions in the UK and elsewhere will be integrated into his course materials, informing future research endeavors and paper-writing pursuits.

College of Veterinary Medicine and Biomedical Sciences

Gregory Ebel – Microbiology, Immunology, and Pathology (Fall 2021)

Dr. Ebel's primary scholarly activities during the sabbatical semester were centered around work on tick-borne flaviviruses. He currently holds an R01 to study one of these, Powassan virus, and it was greatly beneficial to spend 6 months in a lab that focuses on these exclusively. As part of this work, Dr. Ebel learned about a technique for imaging intact whole brains and intends to bring this method to CSU to support work on POWV pathogenesis. He also had the opportunity to learn the basics of single-cell RNAseq analysis and worked with a student in his host laboratory to analyze a dataset on TBEV infected mouse brains. A manuscript describing this work is currently under review. This experience will contribute to a project in his lab that is using scRNAseq to study virus infection in mosquito midguts and salivary glands. The final main scientific goal of the sabbatical was to generate new molecular tools to study POWV tropism, replication and pathogenesis. This was conducted in collaboration with the host lab, and another group based in Estonia. The clones from this part of the work are currently being assembled in the laboratory of my Estonian colleagues. While on sabbatical, Dr. Ebel gave invited seminars in four international venues including: Universit t Ume  (Ume , Sweden),

Institut Pasteur (Paris, France), University of Tartu (Tartu, Estonia) and at the Keystone Conference on Positive Stranded RNA viruses (Keystone, CO, USA). The sabbatical leave supported existing research areas and will lead to several new approaches and projects that will be conducted in collaboration with partners that were identified during the sabbatical.

The personal benefits for Dr. Able significant. In particular, it was highly gratifying to make deep connections to scientists in other countries, and he found their perspectives on their science and their creativity to be refreshing. In general, their labs are less well funded than his own, but they do really interesting and original work. Also, the most recent few years at CSU have been very challenging as a scientist and leader of CVID. The opportunity to unplug from these obligations and recharge somewhat was welcome, and he plans to encourage others in his unit to strongly consider the possibility of using sabbatical leave in the future.

Christine Olver – Microbiology, Immunology, and Pathology (Fall 2021)

Dr. Olver had two academic activities during the sabbatical. Scholarly activity was conducted in the research laboratory of Dr. Marie-Caroline Dieu-Nosjean, a senior research director at Centre d'Immunologie et des Maladies Infectieuses (Cimi-Paris), site Pitié-Salpêtrière. She is leader of the research team “Immune Microenvironment and Immunotherapy” and a major contributor to the field of tumor immunology. During this 4-month period, Dr. Olver learned laser capture microdissection at the nearby Paris Brain Institute, participated in lab meetings, presented at lab meetings three times, and attended the Société Française d’Immunologie in Paris. Before leaving, Dr. Olver had just discovered that approximately 7% of canine soft tissue sarcomas harbor “tertiary lymphoid structures,” de novo immune structures that are fairly commonly described in human tumors (and also chronic infections). In humans, these immune structures impart a favorable prognosis for disease free survival. The goal was characterizing these structures based on laser dissecting them out of microscopic sections of tumor and analyzing their RNA for immune transcripts. She was able to extract RNA from 23 samples, and these RNA samples are being analyzed at the Curie Institute in Paris.

Several benefits were conferred including the stimulation that comes from entering a new lab, with new people, and becoming energized by new research. Dr. Olver integrated into the laboratory and into meetings and lunch (a French thing). For research, Dr. Olver completed the major research project described above, and additionally to submit two publications from previous research, both of which are in press. The sarcoma project is a new research initiative for her, and to be able to begin it in the laboratory of experts was very helpful. Institutional benefits include increased visibility for CSU scholarship and the introduction of a technique that is new to CSU (laser capture microdissection). She is in the process of providing this expertise to the Diagnostic Medicine Center, and to 5 different research laboratories at CSU. She will also continue the sarcoma project here, and she hopes to publish the first veterinary description of tertiary lymphoid structures in veterinary tumors with her French collaborator.

Warner College of Natural Resources

Joel Berger – Fish, Wildlife, and Conservation Biology (Fall 2021)

Dr. Berger divided his efforts among three primary activities: a) scholarly publications – revising, submitting, and publishing peer-reviewed research papers, b) communication and outreach activities, and c) development of protocols he enhanced for forthcoming research. In the area of scholarly publications, Dr. Berger published five scholarly papers along with co-authors. A book chapter was submitted and accepted after peer review, and an additional paper that he had been working on for five years was formally submitted. In the area of communication and outreach, Dr. Berger did podcasts internationally, nationally, and locally. He also concluded efforts on a personal profile of his Arctic work that was in the science journal *NATURE*. In conjunction with federal and state agency personnel, plans were developed for funding to better understand how recreation on public lands may affect biodiversity, using a bio-cultural icon in ancient rock art, desert bighorn sheep.

Benefits derived from the sabbatical leave included personal growth, but this, of course, has longer-term impacts for CSU and Colorado at large. The publication of scholarly papers on reconstituted ecosystems, human potential, and responses to the loss of Arctic Sea ice contributes to CSU as a R-1 institution. The outreach both within Colorado and at international scales maintains a fascination with science and can be inspirational at a public level as well as for educational and teaching purposes for our graduate and undergraduate students. The additional opportunities provided by being on the ground during the sabbatical leads to creative prospects for securing supplemental funds.

Kelly Jones – Human Dimensions of Natural Resources (Calendar Year 2021)

During her sabbatical leave, Dr. Jones advanced knowledge on market-based conservation approaches to protect forests for the benefits they provide to global climate regulation, watershed processes, and biodiversity. First, she participated in a large effort, led by Conservation International in Washington, D.C., to bring together policy makers, natural scientists, and social scientists to develop an inventory of natural climate solutions (NCS)—actions to conserve, restore, and modify natural and modified ecosystems to increase carbon storage or avoid greenhouse gas emissions—and the current state, distribution, and methods used for evidence on the links between NCS interventions and climate change mitigation outcomes. This study will lead to a global inventory of existing efforts and highlight critical knowledge gaps where future evaluation, research, and syntheses are needed. Second, Dr. Jones completed an assessment of the emergence and persistence of payments for watershed services (PWS) programs in Mexico that was co-developed with Mexican scientists and policymakers. Little is known about where and why local-level efforts to fund forest-based watershed protection emerge and succeed. To better understand this topic, she led an empirical investigation on PWS in Mexico, which has one of the largest and longest-running national PWS programs. This effort will contribute knowledge globally about what conditions are needed to encourage and sustain PWS development. Third, she started collaborating with five other U.S.-based universities on a new National Science Foundation (NSF) project to study innovative governance arrangements for funding wildfire mitigation and restoration in the Intermountain West. In 2021 she was able to develop a blueprint for the types of research efforts they want to implement over the next five years in Colorado and

beyond. Each of these new research projects will advance theoretical and empirical knowledge on the use of market-based approaches to enhance conservation outcomes, increase CSU's reputation on forest conservation and economics, and lead to new peer-reviewed publications and funding for her department.

During her sabbatical leave Dr. Jones also participated in the U.S. Fulbright Scholar program as a visiting research scholar to Bogotá, Colombia. In 2021, she developed two new research projects on tropical forest governance and conservation outcomes with policymakers and researchers in Colombia. The first project is a two-year research project and will lead to several papers and presentations and a workshop to present results back to the Colombian government agencies that are implementing post-peace agreement projects across the country. The second project will be one of the largest known studies of households in the Colombian Amazon on forest uses and decision making. The household survey will be implemented in 2022 and lead to several publications.

Sara Rathburn – Geosciences (Calendar Year 2021)

Dr. Rathburn's primary scholarly activity during the sabbatical year included a 4-month Fulbright Scholar appointment in Iceland. She received an NSF-Fulbright Arctic Research Grant and was hosted at the University of Iceland in Reykjavik. While there, she interacted with Icelandic geologists and ecologists and conducted field work on Icelandic rivers. She gave presentations to the Iceland Fulbright Commission and was an invited speaker in the Earth Sciences Department seminar series at the University of Iceland. In addition, she was an invited speaker at a 3-day symposium for Fulbright-Hays teachers, led a geology field trip of north Iceland, and assisted the teachers with a day of educational content development. Once she returned from Iceland, Dr. Rathburn gave invited research seminars at 2 US universities, presented the results of her Iceland research at a professional meeting, and co-authored abstracts with three of her graduate students at professional meetings. She conducted field research related to ongoing projects within the Colorado Front Range with a new graduate student, and helped another graduate student finalize his thesis and defend. Finally, Dr. Rathburn published two major research papers with her students, one commentary on how to support women faculty members as they ascend through the ranks of academia and was interviewed for a CSU SOURCE article.

The personal benefits derived from the sabbatical included time to complete major research projects and associated publications, and to develop new research initiatives in Iceland and Colorado with international and domestic colleagues, respectively. Conducting research in Iceland expanded her functional understanding of Arctic rivers and associated vegetation influences on channel stability. Additionally, a significant personal benefit was to immerse herself in Icelandic culture, begin to learn the language, develop professional relationships with other Fulbright Scholars and interact with the Icelandic people as a local citizen. Institutional benefits of Dr. Rathburn's sabbatical include increased visibility for CSU scholarship and reputation as a leader in river research. Her Iceland work includes collaborators from both Iceland and Scotland, and the research gained the attention of the Icelandic Forest Service (IFS) including a meeting with the IFS Director. Future work will be supported through collaborative

proposals that are currently in preparation. For her home department, no faculty member in WNCR has conducted research in Iceland, and few have received a Fulbright Scholar award. The insights she gained and research she conducted benefitted her graduate students who are already collaborating on data analysis and manuscript writing, and she will incorporate the data and knowledge into her undergraduate and graduate courses.

Walter Scott, Jr. College of Engineering

Mahmood Azimi – Electrical and Computer Engineering (Fall 2021)

Dr. Azimi planned to complete ten chapters (out of twenty) in his Digital Image Processing textbook and provide real-life examples for each algorithm covered in those chapters. He managed to complete eight of the ten chapters. He also generated rough drafts of the two additional chapters though the experiments are yet to be produced.

Dr. Azimi initiated collaborative work with two other members of his department whose interests are in exploiting AI and machine learning tools in their research projects. He worked with one of his PhD students to implement some of their ideas and algorithms that they have developed in life-long and in-situ learning for WIFI based indoor localization of individuals based upon the signals received from their cell phones. They plan to submit an NSF proposal in this area in order to acquire funding for this interesting and active area as well as submitting a journal paper documenting their accomplishments.

Dr. Azimi also initiated research meetings with Dr. Chen who is utilizing their deep neural network approaches for estimating precipitation using geostationary satellite imagery data. They expect this collaborative work to lead to a joint proposal and a journal paper.

During his sabbatical, Dr. Azimi also revised and rewrote many chapters of his graduate student's dissertation and thesis. He also prepared and submitted two final reports for two previously funded National Park Service and Office of Naval Research projects and revised and submitted a journal paper for publication in the IEEE Transactions on Signal Processing.

Ryan Bailey – Civil and Environmental Engineering (Academic Year 2021-2022)

During the sabbatical, Dr. Bailey worked on two main projects: developing a groundwater module (*gflow*) for the popular watershed modeling code SWAT+, and developing a salinity transport module for SWAT+. For each project, he worked closely with the SWAT+ developers at the USDA-ARS Grassland Soil and Water Research Laboratory (GSWRL) in Temple, Texas. The sabbatical provided an extended period during which Dr. Bailey could perform broad computer programming and learn new scripting skills required for the intended national-scale hydrologic modeling. He was successful in finishing the groundwater module and making significant progress on the salinity module, with the latter being finished after the sabbatical had ended. He was able to apply the modules to study watersheds across the United States, and help research collaborators in Belgium, Germany, China, Australia, Kenya, and Canada. Dr. Bailey

worked on several proposals related to the sabbatical projects, three as PI and two as Co-PI. He hired an undergraduate research assistant to aid with key data collection to support national-scale hydrologic modeling. Dr. Bailey was able to make important progress in state-of-the-art hydrologic modeling that would not have been possible without the sabbatical support.

Tony Maciejewski – Electrical and Computer Engineering (Spring 2020/Spring 2022)

Dr. Maciejewski's 4.5-month sabbatical was broken into two pieces due to covid 19, i.e., January to spring break of 2020 and then from spring break of 2022 to May 15 of 2022. Needless to say, the disruption due to covid had a significant impact on the sabbatical, however, he adjusted his efforts to achieve the goals and benefit the multiple facets of our faculty mission, i.e., teaching, research, and outreach. In terms of teaching, Dr. Maciejewski converted his robotics class ECE455 (a key senior technical elective and a beginning pathway course for international students) into a hiflex format to accommodate both remote and in-person instruction due to the covid pandemic.

Dr. Maciejewski continued to advise, sometimes remotely, seven PhD students, including three that were able to graduate earlier than anticipated due to additional mentoring. In terms of scholarly output, he contributed to the publication of 12 journal articles in both the engineering education and robotics fields, the two areas that were the focus areas of his sabbatical proposal. Although he was not able to physically visit collaborators in Asia, he gave an invited talk in India prior to the pandemic. He also worked with a collaborator at Deakin University in Australia to deliver their flagship SMC conference remotely and with a Japanese colleague to plan their flagship robotics conference in a hybrid format. In terms of the NSF RED project, the solicitation for new proposals was suspended, however, he worked with a colleague at Seattle University on social responsibility in engineering and served as an external advisory board member to the RED teams at Texas A&M and Montana State University. These connections to the RED community are likely to continue to spur collaborations in the future.

Christie Peebles – Chemical and Biological Engineering (Spring 2022)

Research in Dr. Peebles' lab is at the intersection of synthetic biology, metabolic engineering, and systems biology to solve biological problems in the areas of medicine, fuels, and chemicals. Dr. Peebles worked to lay an experimental foundation in three additional plant biotechnology areas: hairy root engineering, root-microbiome engineering, and drought tolerance cyanobacteria role in soil and impact on plants. Due to the slow timescales at which plants grow, these were pursued simultaneously while also training students to carry on the work in future semesters. She established a collaboration with Dr. Margarita Herrera-Alonso, materials engineering, to develop novel nanotech DNA delivery routes for plant genetic engineering. This is an area that is underexplored in plants but has shown great promise in mammalian cell engineering. They submitted one large DOE-BER proposal together and are working diligently to develop proof-of-concept experiments in sorghum to provide preliminary data for an NSF PGRP proposal submission. Another area of interest is utilizing crop-based hairy roots as a system for studying root-microbiome interactions under controlled experimental conditions. During the sabbatical, Dr. Peebles selected several soybean genotypes to work with, requested seeds from the USDA

seed bank, and worked on expanding the seeds to have sufficient quantities for experimentation. Lastly, she explored an interest in the role cyanobacteria play in desert soil crusts and whether cyanobacteria can be used to enhance water use efficiency of crops while improving nutrient availability. The goal of this research is to determine whether EPS produced by cyanobacteria in the soil can act as a hydrogel retaining moisture in the soil to reduce watering frequency in arid regions. Some of these cyanobacteria could fix nitrogen which could eliminate the need for nitrogen-based fertilizers for crops. This will serve as preliminary data for NSF and USDA proposals.

Within the sabbatical semester, Dr. Peebles developed and submitted 3 new proposals. One project, an NSF proposal entitled, “EAGER: Developing Biological drones for attacking targeted bacteria,” was funded for 2 years and \$200,000, one will be resubmitted, and one was unfunded but is being reworked for submission to the NSF and USDA. During the sabbatical, one paper was published and two are in preparation.

The timing of the Spring sabbatical allowed Dr. Peebles to invest significantly more time in mentoring and training students in experimental techniques which will soon result in several papers due to the additional efforts in mentoring. The sabbatical timing allowed her to have hands on mentorship with 7 undergraduate students and 1 high school student with diverse backgrounds. The sabbatical leave also provided her a great opportunity to serve as a panel manager for area A1531 (Bioprocessing and Bioengineering) within the National Institute of Food and Agriculture, United States Department of Agriculture.

Ali Pezeshki – Electrical and Computer Engineering (Spring 2022)

The Spring 2022 sabbatical was a continuation of a Spring 2020 sabbatical leave, which was disrupted by COVID19. In Spring 2020, Dr. Pezeshki went to Duke University but had to return to Fort Collins because of COVID19. However, he built several important connections during this initial visit that led to significant benefits to his research program and a fruitful collaboration during the Spring 2022 sabbatical. In May 2020, Dr. Pezeshki wrote a research proposal with collaborators from several other institutions for establishing a University Center of Excellence on Agile Waveform Design for Communication Networks in Contested Environment. Led by Duke University, they were awarded a five-year, \$5 million program involving eight PIs. Dr. Pezeshki’s share is \$590K. During the Spring 2022 sabbatical, he collaborated closely with center members on developing new methodologies for novel waveform design and optimization techniques that are both agile to changing network dynamics and robust to adversaries in contested environments, with provable bounds on performance. This collaboration has resulted in one journal submission and two conference articles so far.

Dr. Pezeshki also collaborated with Prof. Vahid Tarokh, from Duke University, on a three-year joint award from AFOSR, received in July 2021. They are developing a data-driven framework for space-time adaptive processing (STAP) radar, a collaboration that has so far resulted in one journal submission and three conference publications. He also wrote a proposal with Prof. Hamid Jafarkhani (University of California-Irvine) and Prof. Vahid Tarokh (Duke University) entitled “Collaborative Research: SWIFT: Dynamic Spectrum Sharing via Stochastic Optimization,”

which was submitted to NSF in June 2022 and funded in October 2022. This is a three-year, \$750k effort with Dr. Pezeshki's share of \$285,990k. The goal of the project is to develop new optimization methods for resilient spectrum sharing in current (5G) and future (6G) communication networks. The sabbatical work has so far resulted in three research awards to CSU, totaling \$951,490.

Brad Reisfeld – Chemical and Biological Engineering (Academic Year 2021-2022)

During his sabbatical leave, Professor Reisfeld was a Visiting Senior Scientist at the World Health Organization's International Agency for Research on Cancer (IARC) in Lyon, France. He also served as a Guest Scientist for the European Food Safety Authority (EFSA) for one month in Parma, Italy. At IARC, Dr. Reisfeld participated as chair of the Mechanisms section for the Monographs V130 Group focused on the carcinogenicity of 1,1,1-Trichloroethane and Four Other Industrial Chemicals. (IARC Monographs Vol 130 Group. Lancet Oncol. 2021 Dec;22(12):1661-1662) He also gave several presentations, including a prestigious "IARC Distinguished Speaker Series" talk. In addition, he organized and led a colloquium on Bioinformatics, Biostatistics, and Computational Biology.

During his sabbatical leave, he began several collaborations, including one with members of the Monographs Programme, which resulted in a publication (Reisfeld, et al. kc-hits: a tool to aid in the evaluation and classification of chemical carcinogens, Bioinformatics, Volume 38, Issue 10, 15 May 2022). He has also formed research relationships with scientists at EFSA, The Istituto di Ricerche Farmacologiche Mario Negri (Milan, Italy), and the Istituto Superiore di Sanita (Rome, Italy).

The above activities are anticipated to positively impact Colorado State University in terms of increased name recognition, improved reputation, and the potential for increased research expenditures in the future.

John Volckens – Mechanical Engineering (Spring 2022)

Dr. Volckens's sabbatical leave resulted in the development of a new engineering course in data science (MECH 476) and over \$1M in new sponsored research awards to CSU. The leave was originally approved for FA22 and SP20. However, the COVID19 pandemic interrupted the SP20 leave, as my laboratory (at the request of the Governor's COVID19 Task Force) provided mask and respirator testing services for the State of Colorado during the onset of the COVID19 pandemic through December 2021. As a result, the SP20 leave was deferred to SP22.

The sabbatical leave plan had two primary themes. The first was on Data Science with several months of sabbatical effort went towards the study of engineering data science, defined as the process of gathering, curating, analyzing, visualizing, and communicating complex, high-dimensional data that are generated through STEM-based research. Dr. Volckens taught himself the R programming language and subsequently developed a new course in Mechanical Engineering, "MECH 476 – Mechanical Engineering Data Analysis in R". This course was offered experimentally in FA20 (as MECH 486) and officially in FA22 (as MECH 476). The

textbook for this course was written in R and is freely hosted (open source) on GitHub. In addition, Dr. Volckens created and presented a series of professional development tutorials (“Data Science Bootcamp”) at national meetings to promote data science among the students, researchers, and practitioners in my professional community. These tutorials were given at the annual meeting of the American Association for Aerosol Research (in 2020, 2021, 2022) and the Air Sensors International Conference (in 2022). The second theme was on Industry Collaboration. The other half of the sabbatical included close collaboration with scientists and engineers at Access Sensor Technologies LLC (a CSU spinout company founded in 2015). These collaborations were focused on the development and commercialization of technologies that evolved from Dr. Volckens’ CSU research program in mechanical engineering and public health. This collaboration resulted in the submission of two federal grant applications that were both funded in the past year: 1. NIH/NIEHS R44ES024041: Validation of the UPAS+: A filter-based air sampler coupled with a suite of real-time sensors. 2. NIH/NIMHD R44MD014915: Citizen-Science Technology for Healthy Living at Home. Together, these grants exceed \$4.5M in total costs, with over \$1.3M coming to CSU as subawards from Access Sensor Technologies.

John Williams – Mechanical Engineering (Academic Year 2021-2022)

Dr. Williams’s research expertise is in the areas of advanced propulsion, atomic and molecular physics, and plasma engineering. Most of his work at Colorado State University is focused on plasma source technology and advanced plasma diagnostics. Although relatively well known in the electric propulsion field, he is less visible in the space vehicles/space environmental effects area, in the space plasma physics areas, and in the plasma diagnostics area outside of plasma thruster characterization. Dr. Williams aims to increase knowledge in these areas and develop strong collaborations with groups that are experts in these other areas as a key towards developing new programs at Colorado State University as well as successfully getting federal grants in the future. During the sabbatical, Dr. Williams visited ten universities, laboratories and companies to learn more about advanced propulsion activities and plasma engineering research outside of electric propulsion. He was also able to further develop research collaborations at several institutions.

Part of the sabbatical plan was to establish collaborative relationships between Colorado State University and the universities, companies, and laboratories that visited during my sabbatical. Towards sustainable development, it is essential to integrate new educational programs in a manner that will diversify the landscape of plasma engineering technology. Such collaborations will have great potential to lead further interactions, where researchers, students and faculty from diverse organizations and backgrounds can visit Colorado State University for acquiring advanced skills and performing research, and vice versa. To that end, Dr. Williams developed strong research collaborations with several entities. As a part of a possible exchange program, he will not only be working toward arrangement to bring students and researchers to CSU but also for our students to work with these individuals and be exposed to research inside and outside of academia as well as develop future collaborations with these entities.

Jianguo Zhao – Mechanical Engineering (Fall 2022)

Dr. Jinguo Zhao's scholarly activities include forging collaborations with researchers both within and beyond CSU to develop competitive collaborative proposals and high-impact joint papers. Dr. Zhao submitted four major collaborative proposals (with one recently recommended for funding) and initiated the development of four joint papers currently in progress. He also devoted time to working closely with my students to prepare a comprehensive manuscript on an innovative shape-morphing technology, which is submitted to *Science Robotics*, a journal with the highest impact factor in the robotics field. During his sabbatical, Dr. Zhao also allocated time to expand my knowledge of the recent rapid advancements in artificial intelligence, especially for robotic systems that can autonomously adapt to various environments. Dr. Zhao deepened his knowledge in this area through discussions with collaborators, systematically learning the fundamentals, reading state-of-the-art research papers, and attending a prestigious robotics conference on robot learning. Leveraging the extensive knowledge gained during my sabbatical, Dr. Zhao prepared preliminary materials for a new course targeted at senior undergraduate and graduate mechanical engineering students, titled "Introduction to Robot Reinforcement Learning," to introduce the fundamentals of powerful AI technologies. Finally, Dr. served on the operational committee for the 2023 American Control Conference (ACC), an annual event that attracts over 1000 attendees from nine professional societies.

The personal benefits derived from Dr. Zhao's sabbatical include the opportunity to cultivate new collaborations with potential for funded projects, craft journal papers for future high-impact research results, systematically explore the fundamentals of artificial intelligence applicable to my research, and, most importantly, strategize my future research directions. The collaborations established during Dr. Zhao's sabbatical are expected to result in funded projects and publications in high-impact journals, potentially leading to groundbreaking advancements in robotics that will bolster CSU's reputation in robotics research. Dr. Zhao's expanded knowledge in artificial intelligence will also lead to additional funded projects and other collaborations, further elevating CSU's standing. The development of the new course will benefit CSU by enriching the curriculum, providing mechanical engineering students with valuable knowledge on cutting-edge AI technologies, and positioning the university as a forward-thinking institution that equips its students with the skills needed to thrive in the rapidly evolving robotics and AI industries. Finally, by serving on the operational committee for the 2023 ACC, Dr. Zhao has not only contributed to the organization and promotion of this prestigious event, but also raised CSU's profile within the robotics and control research communities.

Board of Governors of the Colorado State University System

Meeting Date: June 7-9, 2023

Report Item

REPORT ITEM:

CSU-Fort Collins – Sabbatical Revisions

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

Faculty members approved for sabbatical leaves submit revision requests if their originally approved leave is modified. Common revisions include changes to the length, semester/s, or project. Some faculty decide to cancel their sabbatical. The following revision requests were reviewed and approved at the Department, College, and University levels during the 2022-2023 academic year. Sabbatical requests and revisions are evaluated with strict adherence to CCHE guidelines.

**Colorado State University-Fort Collins
Sabbatical Leave Revisions**

College of Agricultural Sciences

Cris Argueso, Associate Professor – Department of Agricultural Biology
Change from Fall 2022 to Spring 2023

M. Francesca Cotrufo, Professor – Department of Soil and Crop Sciences
Cancellation of Spring 2023 Sabbatical

John McKay, Professor – Department of Agricultural Biology
Change from Academic Year 2022-2023 to Fall 2022

Ioannis Minas, Associate Professor – Department of Horticulture and Landscape Architecture
Change from Fall 2022 to Spring 2024

College of Business

Susan Golobic, Chair and Professor – Department of Management
Cancellation of Fall 2023 Sabbatical

College of Health and Human Sciences

Soo Kang, Professor – Department of Food Science and Human Nutrition
Cancellation of Spring 2024 Sabbatical

College of Liberal Arts

Maite Correa, Associate Professor – Department of Languages, Literatures and Cultures
Change Sabbatical Plan A to conduct study in Spain rather than on Semester at Sea

Greg Luft, Professor – Department of Journalism and Media Communication
Change from Spring 2023 to Fall 2023

College of Natural Sciences

Alan Knapp, Professor – Department of Biology
Sabbatical approved for Fall 2023

Laurie Stargell, Chair and Professor – Department of Biochemistry and Molecular Biology
Change from Spring 2023 to Spring 2024

Warner College of Natural Resources

Troy Ocheltree, Associate Professor – Department of Forest and Rangeland Stewardship
Change from Fall 2022 to Fall 2023

College of Veterinary Medicine and Biomedical Sciences

Franklyn Garry, Professor – Clinical Sciences
Cancellation of Spring 2022 Sabbatical

Sheryl Magzamen, Associate Professor – Environmental and Radiological Health Sciences
Cancellation of Spring 2021 Sabbatical

Richard Slayden, Professor – Department of Microbiology, Immunology, and Pathology
Change from Spring 2022 to Academic Year 2023-2024

REPORT ITEM:

CSU-Fort Collins – Curriculum Report

EXPLANATION:

Presented by Janice L. Nerger, Interim Provost and Vice President for Academic Affairs

The attached reports provide data for the number of majors (primary and secondary) in each degree program and degrees awarded over the last 6 years (2017 to 2022).

Analysis of student enrollment in degree programs, degrees awarded, student learning, and student success for each program occurs during the Academic Program Review process. Each program is reviewed every 6-7 years, and the process promotes reflection and dialogue, leading to evidence-based analysis and strategic planning for programs. It begins with a self-study involving broad faculty engagement to reflect on the departmental operations and each degree/certificate program(s) offered in the department. A team of faculty and administrators, from outside the unit as well as outside the university, complete a two-day site visit. This team provides a written report with constructive feedback for consideration in planning for the future. Any program with declining or low enrollment is provided guidance on actions needed to determine the future of the program.

The following reports provide data on the enrollment and degrees awarded over each of the last five years in each academic program at CSU-Fort Collins.

The largest increases in undergraduate majors over the last five years were in:

- Computer Science (+396)
- Business Administration (+385)
- Psychology (+361)
- Zoology (+356)
- Horticulture (+134)

The programs with the largest declines over the past five years in undergraduate majors were:

- Communication Studies (-202)
- Health and Exercise Science (-157)
- Human Development and Family Studies (-154)
- Economics (-153)
- Biological Science (-129)

The largest undergraduate majors in Fall 2022 were:

- Business Administration (2852)
- Psychology (1565)
- Computer Science (1071)
- Health and Exercise Science (1048)
- Biological Science (969)

A scan of the number of degrees awarded across the past 5 years indicate that the largest increases occurred in:

Bachelors:

- Civil Engineering
- Political Science
- Biological Science
- Computer Science

Masters:

- Natural Resource Stewardship
- Natural Sciences
- Computer Science
- Fish, Wildlife & Conservation Biology
- Counseling & Career Development
- Statistics

PhD:

- Systems Engineering
- Chemistry
- Civil Engineering
- Biomedical Sciences

Primary and Secondary Majors by Term (RI and Non-RI) Degree Level and Major Desc	Fall Semester						Change
	FA17	FA18	FA19	FA20	FA21	FA22	
Bachelors							
Agricultural Biology					17	30	30
Agricultural Business	295	297	261	251	231	236	-59
Agricultural Education	57	50	35	26	29	33	-24
Animal Science	476	458	489	483	522	565	89
Anthropology	186	188	229	221	219	220	34
Apparel and Merchandising	336	353	392	368	378	382	46
Applied Computing Technology <i>deactivated</i>	143	141	123	91	44	17	-126
Art	483	443	470	502	525	597	114
Biochemistry	306	336	299	316	272	271	-35
Biological Science	1,098	1,119	1,147	1,062	1,057	969	-129
Biomedical Engineering	430	448	428	413	405	354	-76
Biomedical Sciences	653	665	666	660	700	728	75
Business Administration	2,467	2,459	2,386	2,318	2,552	2,852	385
Chemical and Biological Engineering	307	303	301	247	219	206	-101
Chemistry	157	178	177	164	158	145	-12
Civil Engineering	402	457	447	407	384	323	-79
Communication Studies	663	642	620	546	465	461	-202
Computer Engineering	150	136	148	138	139	142	-8
Computer Science	675	651	694	756	940	1,071	396
Construction Management	516	548	554	580	534	473	-43
Continuing Education	454	531	457	446	452	383	-71
Dance	42	46	47	49	55	58	16
Data Science		18	47	80	106	103	103
Early Childhood Education	50	27	49	50	53	55	5
Economics	451	498	450	407	324	298	-153
Ecosystem Science and Sustainability	291	318	380	344	375	339	48
Electrical Engineering	268	259	261	260	235	229	-39
Engineering Science <i>deactivated</i>	71	57	40	18	10	3	-68
Engineering Science and International Studies <i>deactivated</i>	11	11	14	7	7	6	-5
English	355	366	345	310	323	331	-24
Environmental and Natural Resource Economics	45	55	61	64	63	70	25
Environmental Engineering	175	177	179	198	214	228	53
Environmental Horticulture	58	74	71	65	64	64	6
Equine Science	388	362	375	355	327	305	-83
Ethnic Studies	44	53	52	53	50	43	-1
Family and Consumer Sciences	49	42	37	40	38	30	-19
Fermentation Science and Technology	150	127	104	77	70	62	-88
Fire and Emergency Services Administration	56	64	64	44	37	28	-28
Fish, Wildlife, and Conservation Biology	513	547	573	547	598	607	94
Forest and Rangeland Stewardship	137	155	169	154	160	173	36
Geography	9	30	45	62	44	39	30
Geology	154	132	113	121	114	104	-50
Health and Exercise Science	1,205	1,165	1,134	1,085	1,031	1,048	-157
History	259	260	293	280	288	298	39
Horticulture	181	260	305	311	287	315	134
Hospitality Management	182	186	192	171	161	144	-38
Human Development and Family Studies	973	1,037	1,041	973	889	819	-154
Human Dimensions of Natural Resources	123	140	139	143	120	116	-7
Interdisciplinary Liberal Arts	267	250	240	251	196	197	-70
Interdisciplinary Liberal Arts and Engineering Science <i>deactivated</i>	1	2	1	1			-1
Interior Architecture and Design	123	126	136	153	173	195	72
International Business				1	2	2	2
International Exchange	40	32	34	3	20	25	-15
International Studies	211	221	205	185	180	138	-73
Journalism and Media Communication	397	376	387	455	514	511	114
Landscape Architecture	104	111	117	112	110	114	10

Primary and Secondary Majors by Term (RI and Non-RI)		Fall Semester					
Degree Level and Major Desc	FA17	FA18	FA19	FA20	FA21	FA22	Change
Languages, Literatures, and Cultures	186	165	184	154	133	125	-61
Mathematics	250	277	268	206	188	159	-91
Mechanical Engineering	807	789	751	732	781	866	59
Music	240	241	232	225	203	185	-55
Natural Resource Recreation and Tourism <i>deactivated</i>	9	1					-9
Natural Resource Tourism	226	196	172	150	129	127	-99
Natural Resources Management	189	178	179	173	145	142	-47
Natural Sciences	43	46	40	45	41	37	-6
Neuroscience	238	269	276	289	247	262	24
Nutrition and Food Science	262	241	219	208	202	199	-63
Philosophy	75	93	87	78	73	78	3
Physics	108	118	110	95	82	69	-39
Political Science	404	500	535	550	544	496	92
Pre-Construction Management	281	254	300	219	170	195	-86
Pre-Interior Architecture and Design	84	78	113	138	173	172	88
Pre-Music		1	2				0
Psychology	1,204	1,241	1,334	1,370	1,489	1,565	361
Restoration Ecology	18	23	34	55	61	76	58
Social Work	349	344	331	321	282	257	-92
Sociology	512	523	553	573	560	628	116
Soil and Crop Sciences	96	93	83	69	61	53	-43
Statistics	89	73	70	72	70	55	-34
Teacher Licensure - Agricultural Education	22	19	11	6	4	7	-15
Teacher Licensure - Art	21	17	18	19	11	23	2
Teacher Licensure - Biology	14	14	16	15	18	16	2
Teacher Licensure - Chemistry	2	3	5	8	6	6	4
Teacher Licensure - Early Childhood Education	50	53	50	50	53	55	5
Teacher Licensure - English	57	50	42	40	45	33	-24
Teacher Licensure - Family and Consumer Studies	14	13	9	10	6	9	-5
Teacher Licensure - French	1	2	3			1	0
Teacher Licensure - General Science	4	2	4	3			-4
Teacher Licensure - Geology	1	4	2	1			-1
Teacher Licensure - German						1	1
Teacher Licensure - Mathematics	22	25	18	13	19	19	-3
Teacher Licensure - Music Education	29	29	23	20	29	26	-3
Teacher Licensure - Physics	3	2	1				-3
Teacher Licensure - Social Studies	21	23	32	32	39	54	33
Teacher Licensure - Spanish	1	1	3	2	2	1	0
Teacher Licensure - Speech	1		1	2			-1
Teacher Licensure - Technology Education	1	2	4	3	1		-1
Theatre	95	100	116	136	130	134	39
Undeclared Art Interest	8	6	5	1			-8
Watershed Science	43	40	45	38	25	18	-25
Watershed Science and Sustainability						3	3
Women's and Gender Studies	11	10	17	16	16	14	3
Zoology	466	549	632	686	810	822	356
Masters							
Accountancy	38	39	38	34	34	23	-15
Addiction Counseling in Psychology	8	19	23	21	21	29	21
Agribusiness and Food Innovation Management						6	6
Agricultural and Resource Economics	19	9	10	11	11	15	-4
Agricultural Sciences	84	85	68	72	64	55	-29
Animal Sciences	36	34	30	33	40	34	-2
Anthropology	36	32	26	27	25	27	-9
Applied Industrial/Organizational Psychology	49	47	46	47	46	34	-15
Applied Statistics	71	74	69	81	72	69	-2
Art	20	16	18	13	13	10	-10

Primary and Secondary Majors by Term (RI and Non-RI) Degree Level and Major Desc	Fall Semester						Change
	FA17	FA18	FA19	FA20	FA21	FA22	
Arts Leadership and Cultural Management	69	71	58	71	79	57	-12
Atmospheric Science	34	29	34	32	48	37	3
Bioagricultural Sciences	15	15	21	20	16	20	5
Biochemistry	5	6	11	12	13	8	3
Bioengineering	7	7	3	5	10	10	3
Biological Science		3	9	8	9	2	2
Biomanufacturing and Biotechnology			4	7	5	4	4
Biomedical Sciences	96	93	95	100	95	91	-5
Botany	6	3		2			-6
Business Administration	813	892	989	988	917	852	39
Cell and Molecular Biology	4	5	6	6	4	4	0
Chemical Engineering	8	8	4	6	4	3	-5
Chemistry	3	4	5	6	7	7	4
Civil Engineering	126	101	99	78	72	67	-59
Clinical Sciences	46	47	45	46	54	54	8
Colorado School of Public Health	1	2	1		3	2	1
Communication Studies	24	24	23	22	23	16	-8
Communications and Media Management		19	26	22	23	20	20
Computer Engineering	4	27	31	30	27	35	
Computer Information Systems	210	193	193	172	138	126	-84
Computer Science	107	98	129	126	106	116	9
Conservation Leadership	19	41	23	22	43	36	17
Construction Management	21	14	12	7	9	12	-9
Continuing Education	293	239	311	302	255	239	-54
Counseling and Career Development	41	40	41	34	43	46	5
Creative Writing	36	37	37	45	42	37	1
Design and Merchandising	20	21	18	19	20	21	1
Ecology	33	33	23	24	36	44	11
Economics	10	17	6	13	8	9	-1
Ecosystem Science and Sustainability	13	15	7	6	23	35	22
Ecosystem Sustainability		1	5	5	11	8	8
Education and Human Resource Studies	244	250	207	191	186	157	-87
Electrical Engineering	100	69	73	72	74	55	-45
Engineering	160	192	187	190	181	177	17
English	67	53	59	43	47	54	-13
Environmental Health	13	6	8	14	16	18	5
Environmental Leadership	21	1	21	19	2	5	-16
Ethnic Studies	14	15	6	3	1	1	-13
Extension Education	9	21	25	20	19	19	10
Finance	22	25	21	21	23	19	-3
Fish, Wildlife, and Conservation Biology	27	43	57	68	74	73	46
Food Science and Nutrition	78	55	58	41	38	32	-46
Forest Sciences	15	19	15	17	20	20	5
Geosciences	38	34	37	30	30	28	-10
Health and Exercise Science	23	23	21	21	17	13	-10
History	26	26	23	23	25	22	-4
Horticulture	19	13	19	21	23	51	32
Human Development and Family Studies	24	32	27	29	30	29	5
Human Dimensions of Natural Resources	7	7	11	11	6	9	2
International Exchange			2				0
Journalism and Media Communication	41	40	31	28	27	30	-11
Landscape Architecture <i>deactivated</i>	3	1					-3
Languages, Literatures, and Cultures	17	14	12	7	5	9	-8
Management Practice <i>deactivated</i>	2	1					-2
Materials Science and Engineering	3	5	6	12	10	4	1
Mathematics	17	23	14	13	13	14	-3
Mechanical Engineering	76	58	50	42	41	34	-42

Primary and Secondary Majors by Term (RI and Non-RI) Degree Level and Major Desc	Fall Semester						Change
	FA17	FA18	FA19	FA20	FA21	FA22	
Microbiology	49	37	40	27	47	72	23
Music	166	167	161	135	122	125	-41
Natural Resources Stewardship	126	120	104	155	204	179	53
Natural Sciences	25	26	25	32	35	42	17
Natural Sciences Education	52	46	50	45	31	26	-26
Occupational Therapy <i>deactivated</i>	114	109	111	130	119	69	-45
Park and Protected Area Management						57	57
Philosophy	26	21	22	21	23	24	-2
Physics	4	10	5	3	4	4	0
Political Science	23	25	19	20	26	20	-3
Prevention Science Practice						2	2
Principal Licensure	4	2	1	6	24	18	14
Psychology	29	53	57	56	48	33	4
Public Policy and Administration				20	49	55	55
Radiological Health Sciences	25	24	21	23	23	20	-5
Rangeland Ecosystem Science	3	3	4	6	7	6	3
Social Work	149	148	187	167	146	154	5
Sociology	15	18	17	19	18	15	0
Soil and Crop Sciences	18	14	13	13	15	17	-1
Sport Management				21	47	53	53
Statistics	30	24	13	5	2	8	-22
Student Affairs in Higher Education	128	102	93	80	71	65	-63
Systems Engineering	25	34	40	47	44	43	18
Teacher Licensure - Agricultural Education			1	1	1	1	1
Teacher Licensure - Art		2			2	4	4
Teacher Licensure - Business Education	6		5		2		-6
Teacher Licensure - Early Childhood Education	7	11			12		-7
Teacher Licensure - English	6	3	8	2	2	4	-2
Teacher Licensure - French			1	1			0
Teacher Licensure - General Science	9	10	11		9	6	-3
Teacher Licensure - Instructional Technology		1	1				0
Teacher Licensure - Mathematics		3			2		0
Teacher Licensure - Music Education	2	1			3	4	2
Teacher Licensure - Social Studies	7	6	6		7	6	-1
Teacher Licensure - Spanish		3	1				0
Teacher Licensure - Speech			1				0
Teacher Licensure - Technology Education					1		0
Tourism Management	101	108	108	109	101	86	-15
Toxicology	74	43	52	40	47	44	-30
Watershed Science	19	12	14	16	14	14	-5
Zoology	8	7	6	1			-8
Ph.D.							
Agricultural and Resource Economics	17	18	21	25	30	33	16
Animal Sciences	25	28	15	20	19	24	-1
Anthropology		4	8	12	14	13	13
Applied Developmental Science	10	8	9	11	18	18	8
Applied Statistics		1					0
Atmospheric Science	43	48	47	46	42	49	6
Bioagricultural Sciences	26	22	21	20	18	17	-9
Biochemistry	38	37	37	31	32	33	-5
Bioengineering	35	30	28	28	28	28	-7
Biological Science		7	11	11	10	12	12
Biomedical Sciences	35	37	37	42	37	30	-5
Botany	10	8	4	1			-10
Cell and Molecular Biology	55	48	41	39	41	43	-12
Chemical Engineering	16	9	9	9	11	10	-6
Chemistry	193	178	179	174	173	161	-32

Primary and Secondary Majors by Term (RI and Non-RI) Degree Level and Major Desc	Fall Semester						Change
	FA17	FA18	FA19	FA20	FA21	FA22	
Civil Engineering	96	100	91	83	85	84	-12
Clinical Sciences	20	16	17	15	16	18	-2
Communication	6	11	15	17	20	21	15
Computer Engineering		3	10	11	10	12	12
Computer Science	36	40	41	44	52	53	17
Earth Sciences	10	14	11	8			-10
Ecology	95	87	89	84	93	87	-8
Economics	59	51	58	53	59	51	-8
Ecosystem Sustainability		1	3	3	5	4	4
Education and Human Resource Studies	190	196	190	199	194	206	16
Electrical Engineering	78	67	60	56	45	39	-39
Environmental Health	17	16	11	14	16	21	4
Fish, Wildlife, and Conservation Biology	13	14	11	13	13	15	2
Food Science and Nutrition	17	10	9	10	11	14	-3
Forest Sciences	11	6	6	7	8	6	-5
Geosciences	1	1	7	10	21	24	23
Horticulture	14	17	20	19	21	14	0
Human Bioenergetics	11	12	14	15	14	13	2
Human Dimensions of Natural Resources	24	23	22	23	27	24	0
Materials Science and Engineering	1	3	11	14	19	25	24
Mathematics	50	46	55	50	44	55	5
Mechanical Engineering	44	46	53	61	63	56	12
Media Communication						6	6
Microbiology	36	36	40	46	48	50	14
Molecular, Cellular, and Integrative Neurosciences	3	3	3	7	5	5	2
Music Therapy					2	3	3
Occupation and Rehabilitation Science	11	11	11	13	13	15	4
Occupational Therapy						48	48
Pathology	24	26	23	23	22	27	3
Physics	59	56	66	65	59	69	10
Political Science	20	21	21	22	22	20	0
Principal Licensure					2	8	8
Psychology	67	45	41	46	40	61	-6
Public Communication and Technology	24	20	21	27	26	21	-3
Radiological Health Sciences	7	9	10	12	10	13	6
Rangeland Ecosystem Science	3	5	2	3	4	3	0
Social Work	5	4	12	10	17	15	
Sociology	25	29	28	28	29	33	8
Soil and Crop Sciences	23	21	28	31	30	32	9
Statistics	19	30	35	39	42	39	20
Systems Engineering	81	116	146	174	208	205	124
Toxicology	7	7	5	6	3	4	-3
Watershed Science	10	12	12	12	9	9	-1
Zoology	12	10	8	6	6	4	-8
Professional							
Doctor of Veterinary Medicine	579	583	590	601	608	609	30

Degrees Awarded by Level and Major Description Row Labels	Year					Change
	2018	2019	2020	2021	2022	
Bachelors						
Agricultural Business	71	53	57	63	42	-29
Agricultural Education	13	18	9	5	5	-8
Animal Science	75	74	80	80	88	13
Anthropology	51	50	44	47	62	11
Apparel and Merchandising	68	56	79	82	67	-1
Applied Computing Technology	30	31	18	25	13	-17
Art	115	89	96	95	87	-28
Biochemistry	43	67	44	53	63	20
Biological Science	173	170	204	224	221	48
Biomedical Engineering	53	51	65	60	63	10
Biomedical Engineering with ME	2					-2
Biomedical Sciences	70	90	87	61	97	27
Business Administration	713	702	705	685	651	-62
Chemical & Biological Engineer	80	77	97	105	75	-5
Chemistry	24	27	35	35	31	7
Civil Engineering	46	84	100	90	109	63
Communication Studies	207	189	197	186	161	-46
Computer Engineering	17	12	24	17	21	4
Computer Science	142	150	137	138	189	47
Construction Management	148	158	149	184	181	33
Dance	1	10	8	8	8	7
Data Science				2	18	18
Early Childhood Education	24	26	24	23	25	1
Economics	148	195	157	156	119	-29
Ecosystem Sci & Sustainability	65	75	75	102	79	14
Electrical Engineering	67	55	56	56	67	0
Engineering Science	6	6	17	4	8	2
English	93	89	91	72	82	-11
Engrg Sci and Intl Studies	1				1	0
Env and Natural Resource Econ	9	10	15	20	10	1
Environmental Engineering	31	31	31	31	32	1
Environmental Health	23	24	18	9	16	-7
Environmental Horticulture	15	19	15	14	16	1
Equine Science	75	70	65	61	75	0
Ethnic Studies	11	16	13	16	13	2
Family and Consumer Sciences	10	19	6	10	11	1
Fermentation Sci & Technology	31	41	25	33	15	-16
Fire & Emergency Services Admn	17	15	22	16	8	-9
Fish, Wildlife & Conserv Biol	113	96	109	116	107	-6
Forest & Rangeland Stewardship			3	10	25	25
Forestry	20	27	22	19	5	-15
Geography		4	11	17	10	10
Geology	45	33	29	11	34	-11
Health and Exercise Science	249	242	226	233	207	-42
History	74	74	78	84	79	5
Horticulture	27	33	50	61	56	29

Degrees Awarded by Level and Major Description Row Labels	Year					Change
	2018	2019	2020	2021	2022	
Hospitality Management	52	49	54	49	50	-2
Human Devlpmnt & Family Stdies	249	253	296	276	261	12
Human Dimensions of Nat Rsrces	13	36	40	28	37	24
Interdisciplinary Liberal Arts	100	93	76	98	55	-45
Interior Architecture & Design		32	29	41	45	45
Interior Design	37	6				-37
International Studies	57	44	52	49	50	-7
Journalism and Media Communica	123	114	129	128	131	8
Landscape Architecture	22	18	18	24	22	0
Languages, Lit, and Cultures	43	48	58	42	44	1
Mathematics	48	62	67	61	51	3
Mechanical Engineering	212	254	218	153	179	-33
Microbiology	59	72	75	61	51	-8
Music	32	42	42	37	38	6
Natural Resource Tourism	59	62	68	47	38	-21
Natural Resources Management	65	50	33	59	43	-22
Natural Resrce Recr & Tourism	11	2	1			-11
Natural Sciences	7	8	7	16	8	1
Neuroscience	18	43	39	44	50	32
Nutrition and Food Science	67	50	55	39	36	-31
Philosophy	16	28	31	21	22	6
Physics	13	17	20	18	15	2
Political Science	88	123	121	139	141	53
Psychology	226	239	255	274	256	30
Rangeland Ecology	9	11	6	2	2	-7
Restoration Ecology			1	4	11	11
Social Work	111	104	99	98	88	-23
Sociology	165	143	141	156	138	-27
Soil and Crop Sciences	26	30	26	19	14	-12
Statistics	20	15	16	18	21	1
Theatre	21	22	16	16	26	5
Watershed Science	14	13	11	14	13	-1
Women's and Gender Studies	1	3		2	3	2
Zoology	70	54	85	77	93	23
D.V.M.						
Doctor of Veterinary Medicine	138	142	144	147	147	9
Ph.D.						
Agricultural and Resource Econ	5	2	1	3	1	-4
Animal Sciences	1	12	5	3	3	2
Applied Developmental Science	5	2	2		2	-3
Atmospheric Science	11	8	10	12	11	0
Bioagricultural Sciences	5	3	2	6	8	3
Biochemistry	8	3	9	5	6	-2
Bioengineering	8	7	1	4	6	-2
Biological Science		1			3	3
Biomedical Sciences	1	5	3	6	11	10
Botany		1	2	2		0

Degrees Awarded by Level and Major Description Row Labels	Year					Change
	2018	2019	2020	2021	2022	
Cell and Molecular Biology	12	11	13	9	4	-8
Chemical Engineering	4	4	2	1	2	-2
Chemistry	17	26	30	21	32	15
Civil Engineering	10	16	17	11	20	10
Clinical Sciences	5	4	7	1	3	-2
Communication					3	3
Computer Engineering			1		1	1
Computer Science	6	6	8	4	10	4
Earth Sciences	1	5	5	1		-1
Ecology	13	19	16	13	18	5
Economics	9	8	7	5	8	-1
Educ & Human Res Studies	19	22	25	15	22	3
Electrical Engineering	11	10	14	7	10	-1
Environmental Health	4	6	1	2	2	-2
Fish, Wildlife & Conserv Biol	2	2	6		2	0
Food Science and Nutrition	8	2	2	2	2	-6
Forest Sciences	2	1	2	2	1	-1
Geosciences			1		2	2
Horticulture	3	1	1	3	7	4
Human Bioenergetics	2	1	3	3	6	4
Human Dimensions of Nat Rsrces	2	2	3	3	2	0
Materials Science & Engineerin					2	2
Mathematics	6	8	3	11	11	5
Mechanical Engineering	8	9	3	7	15	7
Microbiology	7	5	5	7	10	3
Occupation & Rehab Sci	2	2	4	3	1	-1
Pathology	5	4	3	5		-5
Physics	10	5	6	11	3	-7
Political Science	2	2	1		4	2
Psychology	12	12	10	12	16	4
Public Communication & Tech	5	2	1	2	2	-3
Radiological Health Sciences	1	3	2	1	1	0
Rangeland Ecosystem Science		1		1	1	1
Social Work	2	1	2		1	-1
Sociology	1	1	5	1	2	1
Soil and Crop Sciences	6	1		3	5	-1
Statistics	2	8	4	3	7	5
Systems Engineering	4	6	5	7	20	16
Toxicology	2		2	1	2	0
Watershed Science				1	1	1
Zoology	1	3	1	1	1	0
Masters						
Accountancy	28	33	37	32	32	4
Addiction Counseling		7	9	2		0
Addiction Counseling in Psych				9	8	8
Agricultural and Resource Econ	14	3	6	6	3	-11
Agricultural Ext Education	3					-3

Degrees Awarded by Level and Major Description Row Labels	Year					Change
	2018	2019	2020	2021	2022	
Agricultural Sciences	27	24	24	15	17	-10
Animal Sciences	8	20	14	10	10	2
Anthropology	8	8	9	7	7	-1
Applied Industrial/Org Psych	10	18	15	15	16	6
Applied Statistics	23	31	37	26	38	15
Art	10	3	6	6	3	-7
Arts Leadership & Adminstrtion	4					-4
Arts Leadershp & Cultural Mgmt	9	28	26	24	30	21
Atmospheric Science	15	13	10	8	15	0
Bioagricultural Sciences	4	7	6	8	3	-1
Biochemistry	4	3	8	4	12	8
Bioengineering	2	2	2	4	1	-1
Biological Science			1		4	4
Biomanufacturing & Biotechnolg				2	4	4
Biomedical Sciences	73	75	75	76	82	9
Botany	4	3		1	1	-3
Business Administration	306	228	264	313	321	15
Cell and Molecular Biology	2	7	5	2	3	1
Chemical Engineering	1	1	3	3	2	1
Chemistry	10	10	11	12	9	-1
Civil Engineering	37	42	36	32	29	-8
Clinical Sciences	16	15	16	11	15	-1
Communication Studies	8	6	7	8	9	1
Communications and Media Mgmt			10	8	11	11
Computer Engineering	4	14	11	12	16	12
Computer Information Systems	75	78	81	64	70	-5
Computer Science	39	31	32	46	56	17
Conservation Leadership	20	19	22	6	16	-4
Construction Management	10	11	7	3	7	-3
Counseling and Career Developm		8	25	15	16	16
Creative Writing	14	10	7	18	9	-5
Design and Merchandising	4	8	4	10	2	-2
Ecology	6	15	8	5	8	2
Economics	6	5	16	8	8	2
Ecosystem Sustainability				1	3	3
Educ & Human Res Studies	101	132	118	89	92	-9
Electrical Engineering	57	33	19	21	29	-28
Engineering	60	65	73	67	65	5
English	33	22	24	20	18	-15
Environmental Health	6	5	3	2	2	-4
Environmental Leadership				16	3	3
Ethnic Studies	3	3	4	3	2	-1
Extension Education		4	11	9	7	7
Finance	18	22	18	16	19	1
Fish, Wildlife & Conserv Biol	2	7	13	14	19	17
Food Science and Nutrition	35	22	22	12	22	-13
Forest Sciences	6	8	6	8	7	1

Degrees Awarded by Level and Major Description Row Labels	Year					Change
	2018	2019	2020	2021	2022	
Geosciences	11	7	11	7	11	0
Greenhouse Gas Mgmt and Acctg	2	5	6	2	1	-1
Health and Exercise Science	8	10	8	9	9	1
History	12	15	10	7	12	0
Horticulture	4	7	3	5	5	1
Human Devlpmnt & Family Stdies	11	9	13	13	8	-3
Human Dimensions of Nat Rsrces	4	2	3	3	1	-3
Journalism and Media Communica					3	3
Landscape Architecture	7	1			1	-6
Languages, Lit, and Cultures	4	8	9		5	1
Management Practice	1	1				-1
Materials Science & Engineerin			3	1	8	8
Mathematics	7	13	11	7	7	0
Mechanical Engineering	27	27	33	12	19	-8
Microbiology	37	28	34	25	26	-11
Music	58	47	65	53	34	-24
Natural Resources Stewardship	33	50	32	44	58	25
Natural Sciences			11	11	17	17
Natural Sciences Education	16	11	14	19	17	1
Occupational Therapy	48	51	48	52	49	1
Philosophy	3	7	6	4	3	0
Physics	6	10	13	12	10	4
Political Science	5	6	8	5	4	-1
Prof Sci Master's, Natural Sci	11	16				-11
Psychology	12	11	19	11	11	-1
Public Communication & Tech	9	15	11	6	6	-3
Public Policy & Administration					3	3
Radiological Health Sciences	7	13	7	10	7	0
Rangeland Ecosystem Science			1	1	1	1
Social Work	83	55	76	86	63	-20
Sociology	5	5	3	7	6	1
Soil and Crop Sciences	6	6	5	2	4	-2
Sport Management					16	16
Statistics	4	9	11	3	1	-3
Student Affairs in Higher Educ	39	33	35	26	21	-18
Systems Engineering	7	9	11	10	9	2
Tourism Management	59	60	50	58	53	-6
Toxicology	36	38	31	24	26	-10
Watershed Science	5	5	3	4	6	1
Zoology	2	2	2	2	1	-1
Grand Total	7,452	7,604	7,745	7,547	7,567	115

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

MATTERS FOR ACTION:

Report on annual faculty performance. Report Item. No Action Necessary

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs, CSU Pueblo.

INTRODUCTION: The report summarizes major actions taken during the 2022-2023 academic year.

REPORT ON FACULTY ACTIVITY FOR AY 2022-2023

Colorado State University Pueblo has in place policies, procedures, and practices to ensure that every tenure-track faculty member meets or exceeds the performance expectations for his/her position when hired and throughout his/her career at the University. This report summarizes the relevant procedures and recent review results.

The performance review process begins with the hiring of new faculty (Section I below) and continues with the annual performance reviews (Section II). Untenured faculty members undergo an annual review of progress toward tenure and are reappointed only if satisfactory performance is documented (Section III). The critical decision concerning tenure normally occurs in the sixth year (Section IV). Tenured faculty members undergo periodic comprehensive reviews (Section V). The outcomes of these reviews for 2020-21 indicate that the vast majority of Colorado State University Pueblo faculty are performing at or above the expectations for their assignments.

I. PROCESS FOR FACULTY HIRES

Hiring qualified new faculty members is among the most important responsibilities of department faculty and college administrators. The process used in soliciting applications and interviewing candidates is thorough, objective, and conforms to central policies. Searches share the following characteristics:

All tenure-track faculty searches are conducted nationally. Positions are advertised in printed and electronic form in locations appropriate for the discipline involved. All positions are posted on the University's website and, typically, in the discipline's major print and electronic resources for job searches. Members of search committees are expected to be proactive in soliciting nominations and applications, and, typically, contact is made with leading doctoral programs in the discipline, especially those with high rates of minority and Hispanic graduates. Advertising specifies the expectations of the successful applicant in terms of teaching, scholarship, and faculty duties unique to the position.

Applicants are asked to provide a letter of interest, résumé (curriculum vitae), evidence of excellent teaching performance, and names of references and/or letters of recommendation.

A search and screen committee is named, with the majority of members representing the discipline in which the position exists. Faculty from other disciplines sometimes are named to the search and screen committee in order to promote diversity or to represent the teaching interests of related fields.

Candidates meeting minimum qualifications are determined after a careful review by the search and screen committee and in strict adherence to clearly defined University guidelines. The group of qualified candidates is further reviewed through a more extensive examination of submitted materials, telephone interviews with references, and/or telephone or online video interviews with the top candidates.

The resulting finalists are invited for an on-campus interview. Interviews usually include meetings with those who are likely to have important roles in the professional life of the successful applicant. This includes members of the faculty of the department conducting the search but often also includes faculty members from other departments where interactions and collaborations might occur. Students are included in the interview process. The interview almost always includes two presentations by the applicant: a teaching demonstration and a presentation of scholarly work.

II. ANNUAL PERFORMANCE REVIEWS

Performance reviews are conducted for tenure and tenure-track Colorado State University Pueblo faculty on an annual, calendar-year basis. Each faculty member prepares an annual activities report, which details his/her activities in teaching, scholarship/creative activity, and service/outreach in relation to the faculty member's annual performance goals and plan. The department chair assesses the activities of the faculty member in light of formal departmental and college performance standards and University performance criteria. The faculty member and the chair meet to discuss the evaluation, which is then forwarded to the college (or school) dean's office for review. The dean's and the chair's recommendations are forwarded to the provost for further review, and then all recommendations are submitted to the president for final approval. Visiting and adjunct faculty performance reviews are also conducted annually within the department, with reports forwarded to the dean's office for review. These reviews inform professional development and faculty assignments to maintain academic quality.

For the calendar year 2022, 103 tenured and tenure-track faculty members were reviewed (compared 117 in 2021, 121 in 2020, 127 in 2019, and 133 in 2018). This number includes department chairs.

The outcomes are tabulated below:

College Abbreviations

- *CHASS: College of Humanities and Social Sciences*
- *CHEN: College of Health, Education and Nursing*
- *STEM: College of Science, Technology, Engineering and Mathematics*
- *HSB: Hasan School of Business*

Table 1: Results of Annual Faculty Review Process

	Tenure-track faculty	Tenured faculty	Total	%
Exceptional performance	2	24	26	25%
Exceeds expectations	16	42	58	56%
Meets expectations	10	9	19	18%
Below expectations/Unsatisfactory	0	0	0	0%

81% of our faculty were rated at exceeds expectations or exceptional performance. This trends similarly with 2020 (81%) and 2021 (79%).

As part of the annual review process, all faculty receive feedback about the quality of their performance, and this feedback affects the identification of performance goals for the next year. Additionally, faculty members receiving “below expectations” evaluations overall or in any evaluation category prepare special development plans, in consultation with their chairperson (see below).

III. REAPPOINTMENT

Academic faculty on regular appointments who have not acquired tenure are appointed on a contractual basis not exceeding one year. Such faculty members undergo an annual review of progress toward tenure as part of the standard annual review process. Faculty members making satisfactory progress are reappointed. A midpoint performance review is also conducted in the midpoint of a tenure-track faculty member’s normal probationary period (i.e. typically in the third year of the six year probationary period).

IV. TENURE AND PROMOTION

Table 2 summarizes Colorado State University Pueblo promotion and tenure outcomes for Spring 2023.

Table 2: Summary of Tenure and Promotion Decisions

Academic Unit	Tenure & Promotion to Associate Professor	Promotion to Associate Professor	Promotion to Full Professor	Denied	Total Actions
CHASS	4	0	0	0	4
CHEN	0	0	0	0	0
HSB	4	0	0	1	5
Library	0	0	0	0	0
STEM	2	0	0	0	2
TOTAL	10	0	0	1	11

**Tenure and promotion counted as two separate actions*

There were no requests for senior lecturer promotions in 2022-2023

V. COMPREHENSIVE REVIEW OF TENURED FACULTY

All tenured faculty at Colorado State University Pueblo must complete a comprehensive, post-tenure review every five years. This review consists of the annual performance review for the current year plus a review of performance over the previous four years. If the comprehensive review results in a non-meritorious rating or if two successive annual reviews result in a non-meritorious rating, a cumulative performance review is scheduled for the following year. In the interim, the faculty member works closely with the department chair to analyze deficiencies and to develop a detailed professional development plan for improvement. This process of analysis and developing a plan is tied closely to the formally defined University criteria and college/school and department standards for performance. The cumulative review includes a self-assessment of performance, and assessments conducted by the department chair, the College Personnel and Review Committee, the dean, and the provost. In the past academic year, five comprehensive reviews were scheduled. Table 3 summarizes the results of the reviews by college/school and by outcome.

Table 3: 2022 Comprehensive Post-Tenure Review Summary

College*	Number scheduled	Meets or exceeds expectations	Delayed or Canceled
CHASS	0	0	0
CHEN	1	1	0
HSB	2	2	0
Library	0	0	0
STEM	2	2	0
Totals	5	5	0

VI. FACULTY WORKLOAD

The chart below is an update from material submitted for prior Board of Governors meetings. Data are obtained from the Integrated Postsecondary Education Data System (IPEDS).

Table 4: CSU Pueblo Faculty Workload

	2018*		2019*		2020*		2021*		2022*	
	CSU Pueblo	Peer Median	CSU Pueblo	Peer Median	CSU Pueblo	Peer Median	CSU Pueblo	Peer Median	CSU Pueblo	Peer Median
IPEDS UG Student Faculty Ratio	14	17	15	16	15	16	15	17	15	
UG FTE/IPEDS Instructional Faculty	24.49	24.02	24.95	23.79	26.10	23.10	24.18	22.74	20.96	
UG Degrees/IPEDS Instructional Faculty	5.15	5.68	5.68	6.15	6.12	5.91	6.47	6.18	4.79	
GR FTE/IPEDS Instructional Faculty	14.41	2.86	17.79	2.92	10.57	3.70	9.17	3.39	5.64	
GR Degrees/ IPEDS Instructional Faculty	0.82	1.32	1.02	1.65	0.95	1.86	1.34	1.24	1.34	
Research Exp./IPEDS Instructional Faculty	32,459	3,626	37,934	4,302	37,670	4,496	33,830	4,019	20,368	

Source: All variables are directly from IPEDS. The most recent available data is used; data may be “provisional” when used. Peer data generally reflects the prior year as compared to CSU Pueblo data. 2022 Peer Median data was not available at the time of submitting this report. “Peers” are from the peer set approved in December 2011; see section VII for details.

* Each year refers to students & faculty in the fall of that year; degrees awarded and research expended are for the fiscal year that includes the fall of that year (i.e., FY21 is reported with Fall 2021).

Operational Definitions:

IPEDS UG Student Faculty Ratio: Self-reported to IPEDS; essentially, it's (full-time undergraduate students + 1/3rd of part-time undergraduate students) DIVIDED BY (full-time faculty + 1/3rd part-time faculty).

UG FTE/IPEDS Instructional Faculty: Computed as (full-time undergraduate degree-seeking students + 1/3rd of part-time undergraduate degree-seeking students) DIVIDED BY (IPEDS reported instructional [tenured and tenure-track, FT+PT/3] faculty)

UG Degrees/IPEDS Instructional Faculty: Computed as (undergraduate degrees conferred) DIVIDED BY (IPEDS reported instructional [tenured and tenure-Track, FT+PT/3] faculty)

GR FTE/IPEDS Instructional Faculty: Computed as (full-time graduate students + 1/3rd of part-time graduate students) DIVIDED BY (IPEDS reported instructional [tenured and tenure-track, FT+PT/3] faculty)

GR Degrees/IPEDS Instructional Faculty: Computed as (graduate degrees conferred) DIVIDED BY (IPEDS reported instructional [tenured and tenure-track, FT+PT/3] faculty), using master's degrees only.

Research Exp./Instructional Faculty: Computed as (IPEDS reported annual research expenditures) DIVIDED BY (IPEDS reported instructional [tenured and tenure-track, FT+PT/3] faculty))

Data indicate that CSU Pueblo has a student-to-faculty ratio that continues to be slightly less than our peers (Table 4). The average ratio for peer institutions has not changed substantially over the previous 4 years. Comparison data for peer institutions is not yet available for this year. While this may create a positive classroom experience, it is important to achieve balance in efficiency and effectiveness. The second and fourth rows of the table indicate that, on average, CSU Pueblo's tenured and tenure-track faculty continue to have more students than the median of the peer set, but this is mainly attributable to the success of Extended Studies in attracting non-degree-seeking students in as well as the continued decrease in the number of tenured and tenure-track faculty. The latter are included in the student FTE but not instructed by CSU Pueblo faculty. The ratio of undergraduate and graduate degrees awarded per faculty member (tenured and tenure-track) is comparable to the peer median.

VII. FACULTY COMPENSATION COMPARISONS

The most recent peer set was determined at the December 2011 Board of Governors meeting and is listed below. Faculty salaries relative to this peer set, as obtained IPEDS, are summarized in the Table 5. Note that data from peer institutions is not yet available for the current year. The data in Table 5 demonstrates a shift in the CSU Pueblo faculty salaries by rank with an inversion in salary between Assistant and Associate Professors, which is largely driven by market forces associated with near record inflation over the past couple of years. This is something that will need to be addressed by regular salary adjustments in coming years. Looking at data from the most recent year that comparison

Board of Governors of the Colorado State University System
June 2023
Report Item

data is available, on average, CSU Pueblo professors earned \$7,836 less than their peers, associate professors earned \$6,836 less, and assistant professors earned \$7,270 less. This was an improvement over recent years realized in part due to targeted equity adjustments.

The peer set, approved by the CSU System Board in December 2011, is:

Augusta State University
California State University-Stanislaus
Emporia State University
Midwestern State University
Missouri Western State University
The University of Tennessee-Martin
The University of Texas at Tyler
University of Colorado-Colorado Springs
University of Michigan-Flint
University of South Carolina-Upstate
Washburn University

As noted in the table, Augusta State University no longer exists, having merged with Georgia Health Sciences University and forming Georgia Regents University in the fall of 2013. The current University includes both a dental and a medical school. It is worth noting that CSU Pueblo has the smallest number of tenured and tenure-track faculty among our peer institutions based on 2021-22 data (Table 5).

Board of Governors of the Colorado State University System
 June 2023
 Report Item

Table 5: Faculty Salaries - Board of Governors Peer Group

Institution	AY 2022-2023						AY 2021-2022						AY 2020-2021					
	Professor		Associate Professor		Assistant Professor		Professor		Associate Professor		Assistant Professor		Professor		Associate Professor		Assistant Professor	
	#	average salary	#	average salary	#	average salary	#	average salary	#	average salary	#	average salary	#	average salary	#	average salary	#	average salary
Augusta State University*							NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
California State University-Stanislaus							130	106,206	65	91,444	77	80,316	134	106,455	53	93,311	83	79,484
Colorado State University Pueblo	44	85,421	30	62,794	38	67,435	37	85,973	36	70,194	38	60,552	42	85,927	37	68,809	38	61,031
Emporia State University							66	71,513	61	65,602	76	60,203	68	70,782	57	66,521	78	61,524
Midwestern State University							47	94,664	78	77,191	85	62,776	48	94,211	74	77,779	92	62,475
Missouri Western State University							51	75,464	48	59,932	55	60,930	48	74,868	50	60,947	81	56,910
The University of Tennessee-Martin							91	79,576	70	72,417	54	65,720	82	79,468	78	71,183	45	65,641
The University of Texas at Tyler							65	100,593	96	85,750	63	71,583	61	100,448	86	83,976	73	70,056
University of Colorado-Colorado Springs							79	108,092	81	87,254	112	71,503	70	118,026	83	91,598	111	78,288
University of Michigan-Flint							40	124,924	99	84,632	61	77,972	46	120,459	96	85,441	70	78,545
University of South Carolina-Upstate							42	78,253	57	72,703	64	63,044	42	78,566	56	71,441	68	62,719
Washburn University							70	98,808	45	73,370	66	64,172	77	96,494	48	69,297	71	61,050
Averages of peers							68.1	93,809	70.0	77,030	71.3	67,822	67.6	95,222	68.1	78,842	77.2	68,146
CSU Pueblo as % of peer average								91.6%		91.1%		89.3%		90.2%		87.7%		89.6%
CSU Pueblo as % of peer median								88.9%		93.2%		93.2%		90.1%		92.2%		95.1%

Note-IPEDS salaries include faculty on 9, 10, 11, or 12-month contracts. Our peers are predominately on 9-month contracts. The average salaries of peers are weighted by # of faculty. Because of availability, peer data is as of the prior fiscal year compared to CSU Pueblo data.

*-Augusta State University no longer exists, having merged with Georgia Health Sciences University to form Georgia Regents University.

VIII. FACULTY DEMOGRAPHICS

The ten most recent years of faculty rank and demographic data are summarized in the table below. The number of faculty peaked in 2013-14 at 199 and was at its lowest in 2019-2020, rebounding slightly in the last two years (Table 6). The number of full-time faculty has decreased by 21 over the ten years, with tenure and tenure-track faculty positions accounting for all the decline and more. At the same time, the number of unranked faculty, including lecturers and visiting assistant professors, has increased to balance this decline.

Table 6: Full-time faculty by rank, gender and ethnicity

Academic Year	Professor	Associate Professor	Assistant Professor	Total Tenured/TT	Total Unranked	Total Full Time	Men	Women	Minority
2022-2023	44	30	24	98	80	178	98	80	47
2021-2022	37	36	38	111	70	181	96	85	46
2020-2021	42	37	38	117	54	171	90	81	36
2019-2020	42	35	40	117	47	164	94	70	33
2018-2019	41	45	42	128	46	174	96	78	33
2017-2018	45	47	41	133	63	196	104	92	40
2016-2017	47	45	32	124	58	182	95	87	40
2015-2016	45	53	27	125	56	181	97	84	42
2014-2015	44	51	25	120	60	180	99	81	39
2013-2014	45	55	36	136	63	199	110	89	41

The percentage of full-time faculty that are self identified as being from a minority group has reached a ten year high at more than 26% of full-time faculty (Table 6), however this increase is largely among unranked faculty (Table 6 & 7). The table below (Table 7) provides further depth to the data, with a breakdown by rank and gender for tenured or tenure-track faculty. The data shows that while the decline in tenured and tenure-track faculty has occurred across ranks, genders, and race/ethnicity, the representativeness of the faculty has changed only slightly from year-to-year over the past ten years.

Table 7: Tenured or tenure-track faculty by rank, gender, and ethnicity

Academic Year	Professor		Associate Professor		Assistant Professor		Total Men	Total Women	Total Minority	Total Faculty
	Men	Women	Men	Women	Men	Women				
2022-2023	30	14	16	14	12	12	58	40	25	98
2021-2022	26	11	20	16	19	19	65	46	27	111
2020-2021	29	13	20	17	19	19	68	49	25	117
2019-2020	31	11	20	15	20	20	71	46	23	117
2018-2019	29	12	26	19	19	23	74	54	25	128
2017-2018	30	15	27	20	20	21	77	56	31	133
2016-2017	31	16	25	20	14	18	70	54	31	124
2015-2016	31	14	27	26	16	11	74	51	29	125
2014-2015	30	14	25	26	16	9	71	49	30	120
2013-2014	34	11	26	29	22	14	82	54	33	136

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

MATTERS FOR ACTION:

Emeritus Rank Designation. Report Item. No action necessary.

EXPLANATION:

Presented by Dr. Chad Kinney, Provost and Executive Vice President for Academic Affairs.

The faculty members approved for emeritus status have met the qualifications to be awarded the status of Emeritus as set forth in the CSU Pueblo Faculty Handbook. This recommendation has been reviewed at the Department, College, and University levels and has received approval at each level. As delegated by the Board of Governors, President Timothy Mottet has reviewed this emeritus designation. The faculty member listed below has met the qualifications to be awarded the status of Professor Emeritus as set forth in the *CSU Pueblo Faculty Handbook*, effective immediately:

College of Humanities, Arts, and Social Sciences

Dr. Collette Carter, department of History, Political Science, Philosophy & Geography

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

MATTERS FOR ACTION:

Report on CSU Pueblo sabbatical and educational leaves completed in AY 2021-2022.

No action required -- report only.

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs. This report provides summaries of the sabbaticals completed during the 2021-2022 academic year.

REPORT ON APPROVED SABBATICAL LEAVES

As described in section 2.11.2 (Sabbatical Leaves) of the CSU-Pueblo Faculty Handbook, “The purpose of sabbatical leave is to provide tenure contract faculty an opportunity to engage in research, scholarly or creative activity, or otherwise enhance professional stature as teachers and scholars.”

Summary Listing

College of Humanities and Social Sciences

Distinguished Professor Alegria Ribadeneira, Spring 2022 semester

College of Health, Education, and Nursing

Distinguished Professor George Dallam, AY 2021-2022

Professor Tim Peters, Fall 2021 semester

Distinguished Professor Ribadeneira participated in sixteen professional development opportunities, shared her expertise in 9 presentations, completed first drafts of two Open Educational Resources (OER), and provided service in three areas at the university and national levels.

Dr. Ribadeneira’s professional development centered around areas that benefit our students, including Heritage Language Teaching, OER, and administrative leadership. Her presentations were in Language Teaching and OER as well, with highlights below:

Language Teaching:

- “Engaging Online Language Learners through SEL.” TedEd Lesson. University of Hawaii. February 10, 2022
- “Building Motivation and Proficiency through Project Based Learning.” (invited) University of Michigan – Dearborn. April 1, 2022

Open Educational Resources:

- “Creating a ZTC degree for Spanish at a Hispanic Serving Institution: Challenges and Opportunities.” With Katie Brown, Tatiana Johnston, Jorge Arroyo. [2022 Conference - Open Language Resource Center \(OLRC\)](#) University of Kansas and Center for Open Educational Resources & Language Learning (COERLL) University of Texas at Austin. March 5, 2022
- Reimagining Leadership and Empowering Students through Open Education Panel. (invited) With Karen Cangialosi, Rebeca Oritz, Esperanza Zenon, Cathy Germano, Manish Khetrpal, Bridget Raymundo, Eizabeth Bratz, and Suzanne Wakim. [Open Education Week. OE Global](#). March 8, 2022.
- Engaging Students and Keeping our Promise through Open Educational Practices. (invited) [CU Denver](#) – May 17, 2022.

Dr. Ribadeneira also worked on two main projects and was able to produce two book-length OER drafts to be used as part of our University’s ZTC Spanish Degree Initiative and beyond. While all these resources are still in pilot mode, she has already placed a couple of units in global repositories and received requests from future users. Her students used these resources beginning in Fall 2022, saving each student approximately \$100 in textbook costs.

1. [HOMENAJE](#): Un curso de español para estudiantes bilingües con distintas historias de aprendizaje (approx. 250 pages)
This OER titled “Homage” pays tribute to all bilingual students who want to continue developing their bilingualism despite challenges..
2. [COMUNICACIÓN EN CONTEXTO](#): Manual para hablar y escribir efectivamente (appx. 100 pages)
This OER titled “Communication in Context” seeks to help students develop their oral and written skills in Spanish so they can use them effectively in professional settings.

Overall campus OER efforts, with the support of Dr. Ribadeneira as Coordinator, saved students approximately \$200,000 during the 2022-2023 school year.

Distinguished Professor Dallam aimed to write a book addressing his main research during his sabbatical. However, many other projects drew his attention as well. He has now completed a first draft of six chapters towards this project at approximately 28 pages (single spaced) and 41,260 words based on 150 references. It is written towards a scientifically interested population in a position to change basic practice in the field of exercise physiology, fitness and coaching. It was submitted to Human Kinetics for publication.

Dr. Dallam participated in three lengthy podcasts regarding the Nasal Breathing Paradox as well:

- **How to improve your health and athletic performance with nose breathing * George Dallam, PhD.** January 12, 2022.
<https://simonward.podbean.com/e/how-to-improve-your-health-and-athletic-performance-with-nose-breathing-george-dallam-phd/>
- **Mountain Wellness Podcast: George Dallam PhD - Breathing for High Performance.** December 13, 2021. <https://www.buzzsprout.com/1077001/9713307-george-dallam-phd-breathing-for-high-performance?t=0>

- **Wise Athletes – Athletic Performance Longevity Podcast** December 3, 2021.
<https://www.wiseathletes.com/podcast/50-the-science-of-better-breathing-with-george-dallam-phd/>

He also gave an additional interview upon which the following article was based.

The surprising benefits that come from breathing entirely through your nose, USA TODAY online, September 21,2021. Interviewed for article addressing nasal breathing.
<https://www.usatoday.com/story/life/health/wellness/2021/09/21/breathing-problems-try-closing-your-mouth-breathing-only-through-nose/8416937002/>

Dr. Dallam also continued university service by assisting the incoming Institutional Review Board (IRB) chair with the transition to the position. Not only did he assist with operational transitions but he also assisted with moving the process online to Quali modules.

Dr. Dallam worked with a colleague on a research design, funding, and IRB approval processes, and this is ongoing.

Professor Tim Peters spent his sabbatical researching three dominant controversial topics that were fostering unrest and protest in school board meetings across America: race, gender identity, and COVID-19. His focus was to write a treatise on the topic of teaching race in school, gender identity issues in schools, and COVID-19 school policies. My purpose was to write an explanatory text for school board members on either side of the political and cultural spectrum, left or right, liberal or conservative, Democrat or Republican.

Because Fall 2021 was still a hybrid environment, and Dr. Peters was able to watch online school board meetings, research Critical Race Theory, evaluate curriculum debates regarding such controversial topics, and collaborate with colleagues on gender identity issues.

These three sections, Race, gender identity, and COVID-19 comprise the three sections of the book, *A School Board Primer: Race, Gender and COVID-19*. The book proposal and excerpts from the book have been sent to the Association for Supervision and Curriculum Development and at the time of Dr. Peters' report, he was waiting for a response.

MATTERS FOR ACTION:

Report on CSU Pueblo approved sabbatical leaves for 2023-2024. Report Item. No action necessary.

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs. This report provides the names and term for sabbatical requests for the 2022-2023 academic year.

Per section 2.11.2 (Sabbatical Leaves) of the Faculty Handbook, “The purpose of sabbatical leave is to provide tenure contract faculty an opportunity to engage in research, scholarly or creative activity, or otherwise enhance professional stature as teachers and scholars.” 2.11.2.2.i states in part that “Sabbatical leaves will be granted on the merits of the faculty members application, the availability of funds, and institutional priorities... Faculty members must demonstrate in writing, as part of their application, a well-structured plan involving research, scholarly or creative activity, study for advanced degrees outside their primary discipline, or other activities which will result in the faculty members professional growth, increase the overall level of knowledge in the leave holders area of expertise, and enhance the institutions reputation, and the students educational experience.” The following individuals submitted proposals that were reviewed and approved at the department, and college/school levels. All were recommended to and approved by President Mottet, who determines final approvals/denials:

College of Humanities, Arts, and Social Sciences

Dr. Katie Brown	English/World Languages	Spring 24
Dr. Joel Johnson	History/Political Science/Philosophy/Geography	Spring 24
Dr. Danilo Leon	English/World Languages	Spring 24
Dr. Chris Messer	Sociology/Criminology/Anthropology/Women’s Studies	Spring 24
Dr. Arlene Reilly-Sandoval	Social Work	Fall 23
Dr. Grant Weller	History/Political Science/Philosophy/Geography	SY 23 - 24

Hasan School of Business

Kevin Duncan	Economics	Fall 23
Lae Choi	Marketing	Spring 24
Aun Hassan	Economics	Spring 24
Ida Whited	Finance	Spring 24
Justin Holman	Management	SY 23-24

College of Science, Technology, Engineering, and Mathematics

Dr. Claire Ramos	Biology	Fall 23
Dr. Neb Jaksic	Engineering	Spring 24

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

MATTERS FOR ACTION:

Curricular Audit Report. Report Item. No Action Necessary

EXPLANATION:

Presented by Chad Kinney, Interim Provost and Executive Vice President for Academic Affairs, CSU Pueblo.

INTRODUCTION:

Curriculum Report for Colorado State University Pueblo
2017 - 2022

The report below summarizes the enrollment and degrees awarded by programs at CSU Pueblo over the academic years of 2017-2022 with the number of majors expressed as a 3-year average. This period has seen a decline in the overall enrollment at CSU Pueblo. However, some programs have experienced growth in recent years, and many of the newer programs have demonstrated continued growth. A few important observations include:

1. An analysis of the three year rolling averages as reported last year compared to those reported this year indicates an overall growth in the number of majors (+4.5%) in the most recent 3 years reported. Note that the total number of majors exceeds the student headcount as a result of some students pursuing more than one major.
2. The last column in Table 1 expresses the number of majors for next academic year at the time that the data was collected. The number of majors for AY23 is more than 19% greater than this time last year for AY22. This is consistent with strong persistence data this academic year, as well as enrollment data currently being tracked on campus.
3. Noteworthy areas of growth at the undergraduate level include Psychology, Health Sciences, Business Management, and Nursing among well-established programs. Newer programs that are continuing to demonstrate growth include Criminology, Art and Creative Media, Cannabis Biology and Chemistry, and Wildlife and Natural Resources.
4. Several graduate programs are demonstrating growth including the Doctorates of Educational Leadership and Nursing Practice, the Biology-MS, Master's of Education, and

Board of Governors of the Colorado State University System
 Meeting Date: June 2023
 Report Item

the MBA program.

- Key programs coming online in fall 23, and not yet reflected, in these tables include Civil Engineering as well as 3+2 programs in Health Science/Healthcare Administration and Physical Education/Health Education.

Table 1: Average 3-Year Enrollments per Program

COLLEGE	DEPARTMENT	PROGRAM	AY17-AY19 AVG.	AY20-AY22 AVG.	% Δ	AY2023 YTD
CHASS	Art & Creative Media	BA/BFA Art	107.0	70.7	-34.0%	38
CHASS	Art & Creative Media	BA/BFA Art & Creative Media	-	18.0	-	45
CHASS	Art & Creative Media	BFA Gaming & Immersive Media	-	-	-	5
CHASS	English & World Languages	BA English	93.7	71.3	-23.8%	53
CHASS	English & World Languages	BA World Language-Spanish	98.3	66.7	-32.2%	43
CHASS	History, Philosophy, Political Science, and Geography	BA/BS History	84.0	64.0	-23.8%	49
CHASS	History, Philosophy, Political Science, and Geography	BA/BS Political Science	64.3	51.0	-20.7%	39
CHASS	Humanities & Social Sciences	BA Humanities & Social Sciences	1.3	15.0	1025.0%	13
CHASS	Media & Entertainment	BA/BS Media & Entertainment	196.0	121.7	-37.9%	88
CHASS	Music	BA Music	111.3	88.3	-20.7%	88
CHASS	Psychology	BA/BS Psychology	314.3	279.7	-11.0%	237
CHASS	Social Work	BSW Social Work	202.7	132.3	-34.7%	130
CHASS	Social Work	MSW Social Work	-	75.0	-	83
CHASS	Sociology, Criminology, and Anthropology	BA/BS Criminology	75.0	170.7	127.6%	171
CHASS	Sociology, Criminology, and Anthropology	BA/BS Sociology	340.3	145.3	-57.3%	82
CHEN	Education	BS Early Childhood Education	8.0	37.7	370.8%	54
CHEN	Education	BS Liberal Studies	233.0	144.3	-38.1%	62
CHEN	Education	BS Middle School Mathematics	-	1.5	-	3
CHEN	Education	DE Educational Leadership	-	-	-	11
CHEN	Education	MED Education	77.0	157.7	104.8%	296
CHEN	Health Science & Human Movement	BAS Health Science & Administration	-	20.0	-	29
CHEN	Health Science & Human Movement	BS EXPER	313.3	231.3	-26.2%	162
CHEN	Health Science & Human Movement	BS Health Sciences	275.0	387.3	40.8%	382

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

CHEN	Health Science & Human Movement	MS Athletic Training	-	18.5	-	13
CHEN	Nursing	BSN Nursing	284.7	385.3	35.4%	341
CHEN	Nursing	DNP Nursing	7.0	36.3	419.0%	38
CHEN	Nursing	MS Nurse Manager & Leader	-	3.0	-	4
CHEN	Nursing	MS Nursing	118.3	92.3	-22.0%	73
EXTENDED STUDIES	Extended Studies	BS Interdisciplinary Studies	1.0	20.0	1900.0%	21
HSB	Hasan School of Business	BAS Leadership & Organizational MGMT	-	7.0	-	10
HSB	Hasan School of Business	BS Automotive Industry Management	70.3	45.3	-35.5%	33
HSB	Hasan School of Business	BAS Automotive Industry Management	-	3.0	-	7
HSB	Hasan School of Business	BS Computer Information Systems	144.0	147.7	2.5%	171
HSB	Hasan School of Business	BSBA Accounting	50.3	38.7	-23.2%	44
HSB	Hasan School of Business	BSBA Business Management	269.3	255.0	-5.3%	209
HSB	Hasan School of Business	BSBA Economics	68.0	51.0	-25.0%	41
HSB	Hasan School of Business	BSBA Marketing	-	15.0	-	35
HSB	Hasan School of Business	BSBA Pre-Business	340.7	230.7	-32.3%	235
HSB	Hasan School of Business	MBA Business Administration	112.0	132.7	18.5%	128
STEM	Biology	BS Biology	331.0	264.7	-20.0%	236
STEM	Biology	BS Wildlife & Natural Resources	60.5	66.7	10.2%	62
STEM	Biology	MS Biology	15.3	24.7	60.9%	26
STEM	Chemistry	BS Cannabis Biology & Chemistry	-	45.5	-	51
STEM	Chemistry	BS Chemistry	92.3	46.0	-50.2%	40
STEM	Chemistry	MS Chemistry	6.0	2.7	-55.6%	2
STEM	Chemistry	MS Biochemistry	1.7	1.5	-10.0%	1
STEM	Engineering	BSE Engineering	132.7	79.0	-40.5%	46
STEM	Engineering	BSIE Industrial Engineering	26.7	16.3	-38.8%	10
STEM	Engineering	BSIE Pre-Engineering	19.7	19.0	-3.4%	61
STEM	Engineering	MEM Engineering Management	-	-	-	1
STEM	Engineering	MS Industrial & Systems Engineering	8.0	7.0	-12.5%	2
STEM	Engineering	MS Mechatronics Engineering	7.0	12.3	76.2%	17
STEM	Engineering	BS Construction Management	145.0	179.3	23.7%	192

Board of Governors of the Colorado State University System
 Meeting Date: June 2023
 Report Item

STEM	Engineering	BSCET Civil Engineering Technology	91.0	61.7	-32.2%	53
STEM	Mathematics & Physics	BA/BS Mathematics	58.7	31.7	-46.0%	16
STEM	Mathematics & Physics	BS Physics	21.0	8.7	-58.7%	7

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

Table 2: Average Degrees Awarded per Program

COLLEGE	DEPARTMENT	PROGRAM	AY17-AY19 TOTAL	AY20-AY22 TOTAL	% Δ	AY2023 YTD
CHASS	Art & Creative Media	BA/BFA Art	61	36	-41.0%	13
CHASS	Art & Creative Media	BA/BFA Art & Creative Media	-	2	-	1
CHASS	English & World Languages	BA English	57	36	-36.8%	14
CHASS	English & World Languages	BA World Language-Spanish	46	41	-10.9%	8
CHASS	English & World Languages	CT English	-	6	-	1
CHASS	History, Philosophy, Political Science, and Geography	BA/BS History	52	40	-23.1%	8
CHASS	History, Philosophy, Political Science, and Geography	BA/BS Political Science	27	23	-14.8%	6
CHASS	History, Philosophy, Political Science, and Geography	CER Homeland Security Studies	-	-	-	2
CHASS	Humanities & Social Sciences	BA Humanities & Social Sciences	-	17	-	6
CHASS	Media & Entertainment	BA/BS Media & Entertainment	131	78	-40.5%	16
CHASS	Music	BA Music	32	38	18.8%	13
CHASS	Psychology	BA/BS Psychology	168	149	-11.3%	41
CHASS	Social Work	BSW Social Work	161	98	-39.1%	43
CHASS	Social Work	MSW Social Work	-	65	-	35
CHASS	Sociology, Criminology, and Anthropology	BA/BS Criminology	-	79	-	27
CHASS	Sociology, Criminology, and Anthropology	BA/BS Sociology	217	146	-32.7%	22
CHEN	Education	BS Early Childhood Education	-	8	-	1
CHEN	Education	BS Liberal Studies	81	64	-21.0%	15
CHEN	Education	MED Education	70	107	52.9%	77
CHEN	Health Science & Human Movement	BAS Health Science & Administration	-	7	-	11
CHEN	Health Science & Human Movement	BS EXPER	179	137	-23.5%	32
CHEN	Health Science & Human Movement	BS Health Sciences	-	70	-	55
CHEN	Health Science & Human Movement	MS Athletic Training	-	13	-	4
CHEN	Nursing	BSN Nursing	272	384	41.2%	110
CHEN	Nursing	CTPM Nurse Educator	-	-	-	2
CHEN	Nursing	CTPM Nursing Adult/Gerontolog ACFNP	-	-	-	1
CHEN	Nursing	CTPM Nursing Adult/Gerontology ACNP	-	1	-	0
CHEN	Nursing	CTPM Nursing Psych-Mental Health NP	-	6	-	4
CHEN	Nursing	DNP Nursing	-	5	-	16

Board of Governors of the Colorado State University System
Meeting Date: June 2023
Report Item

CHEN	Nursing	MS Nurse Manager & Leader	-	-	-	1
CHEN	Nursing	MS Nursing	107	101	-5.6%	30
EXTENDED STUDIES	Extended Studies	BS Interdisciplinary Studies	-	10	-	6
HSB	Hasan School of Business	BAS Leadership & Organizational Management	-	-	-	1
HSB	Hasan School of Business	BS Automotive Industry Management	44	22	-50.0%	4
HSB	Hasan School of Business	BS Computer Information Systems	72	81	12.5%	31
HSB	Hasan School of Business	BSBA Accounting	43	31	-27.9%	8
HSB	Hasan School of Business	BSBA Business Management	218	228	4.6%	60
HSB	Hasan School of Business	BSBA Economics	75	46	-38.7%	10
HSB	Hasan School of Business	BSBA Marketing	-	2	-	5
HSB	Hasan School of Business	CERT NSA-Designated Institution: Cyber Security & Defense	-	2	-	9
HSB	Hasan School of Business	MBA Business Administration	123	140	13.8%	34
STEM	Biology	BS Biology	119	99	-16.8%	17
STEM	Biology	BS Wildlife & Natural Resources	11	37	236.4%	10
STEM	Biology	MS Biochemistry	1	1	0.0%	0
STEM	Biology	MS Biology	9	9	0.0%	7
STEM	Chemistry	BS Cannabis Biology & Chemistry	-	-	-	1
STEM	Chemistry	BS Chemistry	32	17	-46.9%	2
STEM	Chemistry	MS Chemistry	3	1	-66.7%	1
STEM	Engineering	BSE Engineering	45	38	-15.6%	12
STEM	Engineering	BSIE Industrial Engineering	17	10	-41.2%	5
STEM	Engineering	CER/CT Six Sigma Green Belt	-	18	-	7
STEM	Engineering	MS Industrial & Systems Engineering	6	10	66.7%	2
STEM	Engineering	MS Mechatronics Engineering	9	7	-22.2%	9
STEM	Engineering	BS Construction Management	34	50	47.1%	15
STEM	Engineering	BSCET Civil Engineering Technology	49	34	-30.6%	7
STEM	Engineering	CER Construction Management	-	2	-	1
STEM	Engineering	CER Estimating & Planning Construction Costs	-	1	-	2
STEM	Mathematics & Physics	BA/BS Mathematics	28	18	-35.7%	4
STEM	Mathematics & Physics	BS Physics	2	6	200.0%	0

Board of Governors of the Colorado State University System June 8-9, 2023

Report Item

REPORT:

CSU Global Faculty Activity Report for AY2022-2023

EXPLANATION:

Presented by Dr. Becky Takeda-Tinker, CSU Global Campus President

Colorado State University Global has a well-defined process for recruiting, training, monitoring, and evaluating faculty. The following report describes this process including work force analysis.

Faculty Overview

CSU Global appoints faculty in a range of roles that include: Lead Program Director, Program Director, Senior Faculty Associate, Faculty Associate, and Part-time Faculty Instructors. CSU Global is committed to maintaining the highest faculty standards dedicated to instructional excellence and strict adherence to institutional and, more specifically, student expectations. When faculty meet institutional expectations, the student and faculty experience is greatly enhanced.

I. FACULTY HIRING

CSU Global uses a traditional employment process (e.g., position posting, initial screening, candidate interviews) to hire faculty in the roles of Lead Program Director, Program Director, Senior Faculty Associate, and Faculty Associate. As the majority of CSU Global's faculty are part-time faculty instructors, we use a three-phase approach to hiring and onboarding them.

Phase I: Applicants and Credential Screening

Highly skilled HR Faculty Recruiters complete initial screenings, background checks, and preliminary assessments of candidates. Applicants who meet the following qualifications are advanced to Program Directors and academic leadership for interviews and credentialing approval:

- Applicants are evaluated and credentialed in four HLC-aligned areas:
Academic, Scholarly, Expertise, and Professional qualification.
- Minimum of having taken 18 hours of graduate coursework in the disciplinary area they will be teaching
- Must have a terminal degree to teach graduate courses
- Meets additional criteria (e.g., specialization, certification) for certain programs

Interviews with part-time faculty instructor candidates are conducted by the Program Director and can include Senior Faculty Associates and Faculty Associates. Instructor candidates are given opportunities to discuss their educational background, scholarship, research agenda, on-ground teaching and syllabus writing experience, online teaching and course development experience, and inquire about programmatic leadership experience.

Phase II: Candidates and Instructor Training

Applicants approved to move forward become candidates and must successfully complete FCC100, a

three-week Instructor Training Course (non-compensated). Upon the completion of this course, they must be recommended and approved by the FCC100 Instructor to move forward to Phase III, or they are removed from the application process.

Phase III: Mentored First Course

Part-time faculty trainees are mentored/supervised by vetted faculty members who guide faculty trainees during the first online course. The new faculty trainees must consistently meet/exceed all faculty expectations during the mentored course to be recommended by the mentor and approved by the Director of Faculty Operations and the Program Director to be hired as a part-time faculty member.

II. ANNUAL EVALUATION

Lead Program Directors, Program Directors, Senior Faculty Associates, and Part-time Faculty Instructors complete an annual evaluation process to review their accomplishments and establish goals for the coming year.

Part-time faculty instructor performance is continually monitored in all eight-week terms to ensure that expectations are being met. Faculty are monitored using a range of approaches including data received through analytic tools, review of courses and data from the Canvas learning management system, student course ratings, student escalations, program director review, and general feedback. Lead Program Directors, Program Directors, and Faculty Associates work with the Faculty Operations Department and Part-time Faculty Instructors to ensure that university expectations and student needs are communicated and met.

If faculty instructor performance is below expectations, a faculty performance deficiency notice will be shared with the faculty member identifying and documenting areas of concern or gaps in instructional performance. This notice allows a faculty member the opportunity to demonstrate improvement. Lead Program Directors and Program Directors are included in conversations about part-time faculty instructor performance. Program Directors and Faculty Associates coach part-time faculty instructors as needed and communicate with Faculty Operations to ameliorate performance issues and provide a positive student experience in course delivery and assessment.

CSU Global faculty and part-time faculty have a strong tenure at the institution. Currently, faculty have been at the university for 2-4 years (22%), 5-6 years (21%), 6-10 years (33%), 11+ years (24%).

III. REAPPOINTMENT

CSU Global faculty appointments are “at-will” and subject to termination by either party, at any time, although termination cannot be for a reason that is contrary to applicable federal, state, or local laws. An appointment can be terminated for violation of any of the terms, expectations, and policies as outlined in the Faculty Handbook, in the Employee Handbook, or of any other CSU Global employment policies. CSU Global is under no obligation to follow or use progressive discipline with a faculty member. A faculty appointment continuing is contingent upon funds being appropriated, budgeted, and otherwise made available. A faculty appointment may be terminated for any reason including but not limited to:

- **Mutual agreement:** At any time, CSU Global and a faculty member may mutually agree to discontinue a faculty member’s appointment.
- **Request of the faculty member:** Faculty may resign by email notification to the appropriate faculty supervisor (e.g., Provost, Lead Program Directors, Program Director, Director of Faculty Operations) and/or human resources.
- **Failure to meet performance expectations:** Faculty who have failed to meet CSU Global’s performance expectations may be placed in a limited or an inactive status for course assignments and/or may be

terminated.

- **Unacceptable conduct or behavior:** Faculty who have engaged in unacceptable conduct or behavior in violation of state or federal law or CSU Global policy may be placed in a limited or an inactive status for course assignments and/or may be terminated.
- **Inactivity of the faculty member:** Part-time faculty instructors who have not taught for a period of six (6) consecutive months without prior notification and approval of CSU Global may have their faculty instruction appointment terminated.

IV. Tenure and Promotion

N/A – CSU Global does not award tenure or assign academic faculty ranks (e.g., assistant professor, associate professor).

V. Comprehensive Review Of Tenured Faculty

N/A – CSU Global does not have tenured faculty.

VI. Faculty Instructor Workload Analysis

Ratio	Calculation	Fall 2021	Fall 2022	1-Year Change %
Student-to-Faculty Ratio	(IPEDS UG Student Faculty Ratio from IPEDS Fall Enrollment) / (IPEDS FTE Instructional Staff)	25-to-1	15-to-1	-40% *
Undergraduate enrollment per Faculty	(UG FTE IPEDS 12 Month Enrollment) / (IPEDS FTE Instructional Staff)	26.50	23.18	-12.5%
Undergraduate degrees per faculty	(UG Degrees from Completions) / (IPEDS FTE Instructional Staff)	10.06	8.87	-11.8%
Graduate enrollment per faculty	(GR FTE IPEDS 12 Month Enrollment) / (IPEDS FTE Instructional Staff)	14.69	11.04	-24.9%
Graduate Degrees per faculty	(GR Degrees from Completions) / (IPEDS FTE Instructional Staff)	7.55	7.18	-4.7%
Research exp. per faculty	N/A – CSU has no funded research expectation of its faculty	N/A	N/A	N/A

* Note from Institutional Effectiveness: Prior years were not calculated correctly and included GR headcount in the numerator (total students) vs. just UG students. If we calculated the same as previous years, it would have been 21-to-1, but we could not continue to report it incorrectly once we identified the error.

VII. Faculty Demographics

	Fall 2023 PT Faculty Instructor	Fall 2023 Faculty Leadership (Lead Program Directors Program Director, Senior Faculty Associate)	Total
Non-Resident Alien	0	0	0
Latino/Hispanic	27	3	30
Asian	24	1	25
American Indian/Native Alaskan	3	0	3
Black or African American	78	5	83
Hawaiian/Other Pacific Islander	10	1	11
White	326	16	342
Two or More Races	6	0	6

Unknown	31	1	32
Female	215	16	231
Male	290	11	301
Total Faculty	505	27	532

VIII. Faculty Compensation

CSU Global Lead Program Directors, Program Directors, and Senior Faculty Associates are compensated as managerial professionals and their compensation meets market rates.

CSU Global part-time faculty instructors are compensated for teaching assigned courses based on the number of students in each course section. Assignment of courses is on an as-needed basis, and faculty should have no expectation of current or future course assignments. Faculty instructors are paid on a per-student basis using a formula indexed to the number of students enrolled in the course.

For faculty with a terminal degree, compensation starts at \$350 for the first student in a three-credit class and reaches a maximum of \$3,500 for 26 students in a three-credit class. For faculty with a Master's degree, compensation starts at \$330 for the first student in a three-credit class and reaches a maximum of \$3,027 for 26 students in a three-credit class. For four-credit-hour courses, the remuneration for a Master's-degree holding faculty member is \$404 for one student up to \$4,036 for 26 students; for terminally degreed faculty, the remuneration is \$467 for one student up to \$4,667 for 26 students.

While CSU Global does not have access to other adjunct faculty compensation for online peer institutions, CSU Global's level of engagement and compensation for its part-time faculty instructors is competitive based on the number of applications for open part-time faculty instructor positions at over 1,865 applicants in just FY23.

Board of Governors of the Colorado State University System
 June 8-9, 2023
 Report Item

REPORT:

CSU Global Curriculum Report – June 2023

EXPLANATION:

Presented by Dr. Becky Takeda-Tinker,, CSU Global Campus President
 Colorado State University Global offers 33 degree programs – 18 at the bachelor-level and 15 at the Master’s-level with ongoing teach-outs: 4-Master’s, 3-bachelor’s, 1-grad certificate, 3-undergrad certificates.

Degree program	Fall Trimester Headcount - by Academic Year							% Change
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	(2015-16 to 2022-23)
BS - Accounting	1,087	1,025	931	1,020	903	748	595	-45%
BS - Applied Social Sciences ¹	175	170	133	52	24	13	6	-97%
BS - Business Management	1,655	1,568	1,406	1,375	1,199	976	844	-49%
BS - Communication ¹	244	245	250	155	76	29	14	-94%
BS - Computer Science	12	13	19	156	451	592	708	5800%
BS - Criminal Justice	293	285	294	305	287	256	255	-13%
BS - Cybersecurity	5	5	3	13	92	229	296	5820%
BS - Finance	3	7	8	15	102	167	215	7067%
BS - Healthcare Administration and Management	673	728	707	631	572	455	359	-47%
BS - Human Resource Management	579	668	633	596	553	448	403	-30%
BS - Human Services	310	315	324	376	368	307	249	-20%
BS - Information Technology	983	1,107	934	821	649	494	392	-60%
BS - Interdisciplinary Professional Studies	13	11	27	62	66	50	56	331%
BS - Management Information Systems and Business Analytics	331	392	417	380	354	309	255	-23%
BS - Marketing	392	416	379	404	411	331	310	-21%
BS - Organizational Leadership	564	554	526	512	488	402	320	-43%
BS - Project Management	435	501	562	646	603	520	452	4%
BS - Public Management ¹	37	16	10	1	2	1	2	-95%
Master Business Administration (MBA)							130	100%
Master - Criminal Justice	106	105	99	124	108	81	71	-33%
Master - Finance	264	372	388	360	353	282	191	-28%
Master - Healthcare Administration	831	922	987	925	892	715	487	-41%
Master - Human Resource Management	450	575	665	659	607	503	376	-16%
Master - Information Technology Management	116	160	208	193	177	169	140	21%
Master - Interdisciplinary Professional Studies							5	100%
Master - International Management ¹	74	62	48	41	27	16	4	-95%
Master - Professional Accounting	259	322	388	383	407	318	236	-9%
Master - Project Management	253	289	330	315	322	285	236	-7%
MS - Artificial Intelligence and Machine Learning					75	178	193	100%
MS - Data Analytics	8	9	125	285	338	316	234	2825%
MS - Management	305	255	208	195	174	140	79	-74%
MS - Military and Emergency Responder Psychology					20	68	87	100%
MS - Marketing							7	100%
MS - Nursing ¹					1	3	0	100%
MS - Organizational Leadership	551	573	610	613	592	499	405	-26%
MS - Teaching and Learning	227	236	224	216	234	182	118	-48%
Total Unique Headcount - Fall Trimester only	11,235	11,906	11,843	11,829	11,527	10,082	8,730	-22%
Total Unique Headcount for Fall, Winter, Spring Trimesters	16,980	17,729	17,895	17,677	16,494	13,781		

Degree program	Fall Trimester Headcount - by Academic Year							% Change
	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	(2015-16 to 2022-23)
BS - Accounting	1,087	1,025	931	1,020	903	748	595	-45%
BS - Applied Social Sciences ¹	175	170	133	52	24	13	6	-97%
BS - Business Management	1,655	1,568	1,406	1,375	1,199	976	844	-49%
BS - Communication ¹	244	245	250	155	76	29	14	-94%
BS - Computer Science	12	13	19	156	451	592	708	5800%
BS - Criminal Justice	293	285	294	305	287	256	255	-13%
BS - Cybersecurity	5	5	3	13	92	229	296	5820%
BS - Finance	3	7	8	15	102	167	215	7067%
BS - Healthcare Administration and Management	673	728	707	631	572	455	359	-47%
BS - Human Resource Management	579	668	633	596	553	448	403	-30%
BS - Human Services	310	315	324	376	368	307	249	-20%
BS - Information Technology	983	1,107	934	821	649	494	392	-60%
BS - Interdisciplinary Professional Studies	13	11	27	62	66	50	56	331%
BS - Management Information Systems and Business Analytics	331	392	417	380	354	309	255	-23%
BS - Marketing	392	416	379	404	411	331	310	-21%
BS - Organizational Leadership	564	554	526	512	488	402	320	-43%
BS - Project Management	435	501	562	646	603	520	452	4%
BS - Public Management ¹	37	16	10	1	2	1	2	-95%
Master Business Administration (MBA)							130	100%
Master - Criminal Justice	106	105	99	124	108	81	71	-33%
Master - Finance	264	372	388	360	353	282	191	-28%
Master - Healthcare Administration	831	922	987	925	892	715	487	-41%
Master - Human Resource Management	450	575	665	659	607	503	376	-16%
Master - Information Technology Management	116	160	208	193	177	169	140	21%
Master - Interdisciplinary Professional Studies							5	100%
Master - International Management ¹	74	62	48	41	27	16	4	-95%
Master - Professional Accounting	259	322	388	383	407	318	236	-9%
Master - Project Management	253	289	330	315	322	285	236	-7%
MS - Artificial Intelligence and Machine Learning					75	178	193	100%
MS - Data Analytics	8	9	125	285	338	316	234	2825%
MS - Management	305	255	208	195	174	140	79	-74%
MS - Military and Emergency Responder Psychology					20	68	87	100%
MS - Marketing							7	100%
MS - Nursing ¹					1	3	0	100%
MS - Organizational Leadership	551	573	610	613	592	499	405	-26%
MS - Teaching and Learning	227	236	224	216	234	182	118	-48%
Total Unique Headcount - Fall Trimester only	11,235	11,906	11,843	11,829	11,527	10,082	8,730	-22%
Total Unique Headcount for Fall, Winter, Spring Trimesters	16,980	17,729	17,895	17,677	16,494	13,781		

CSU Global Curriculum Report - Fall Trimester Unique Headcount

Date: June 2022

Degree program	Number of Program Graduates - by calendar year							% Change
	2016	2017	2018	2019	2020	2021	2022	(2016 to 2022)
BS - Accounting	251	303	277	221	257	243	217	-14%
BA - Applied Social Sciences ¹	76	48	54	54	25	8	6	-92%
BS - Business Management	420	436	378	351	365	330	310	-26%
BS - Communication ¹	64	73	75	79	63	30	20	-69%
BS - Computer Science					4	38	106	100%
BS - Criminal Justice	54	79	79	64	93	69	67	24%
BS - Cybersecurity						7	52	100%
BS - Finance						12	40	100%
BS - Healthcare Administration and Management	146	160	201	174	144	162	144	-1%
BS - Human Resource Management	96	148	184	172	179	172	149	55%
BS - Human Services	46	73	80	65	92	91	81	76%
BS - Information Technology	278	304	331	288	274	196	157	-44%
BS - Interdisciplinary Professional Studies	1	7	0	4	15	22	20	1900%
BS - Management Information Systems and Business Analytics	61	77	89	110	100	104	90	48%
BS - Marketing	89	104	105	87	105	116	105	18%
BS - Organizational Leadership	141	120	172	132	136	133	130	-8%
BS - Project Management	77	106	113	130	140	172	135	75%
BS - Public Management ¹	40	14	9	5	4	1	1	-98%
Master - Criminal Justice	26	26	29	28	41	36	44	69%
Master - Finance	52	73	109	137	124	120	96	85%
Master - Healthcare Administration	220	262	313	346	334	336	335	52%
Master - Human Resource Management	45	99	181	205	223	217	191	324%
Master - Information Technology Management	29	38	41	79	56	68	84	190%
Master - International Management ¹	15	20	20	25	12	7	7	-53%
Master - Professional Accounting	28	74	117	159	130	159	125	346%
Master - Project Management	48	59	87	108	90	108	102	113%
MS - Artificial Intelligence and Machine Learning						6	68	100%
MS - Data Analytics				5	57	91	123	100%
MS - Management	99	97	91	78	59	51	59	-40%
MS - Military and Emergency Responder Psychology							0	100%
MS - Nursing ¹							0	100%
MS - Organizational Leadership	165	148	199	149	231	235	191	16%
MS - Teaching and Learning	66	93	91	109	74	103	83	26%
Total Number of Graduates	2,633	3,041	3,425	3,364	3,427	3,443	3,338	27%

¹ = Degree program is closed for new enrollment. Program is on or proposed for teach-out.

Section 12

*Real Estate and Facilities
Committee*

**BOARD OF GOVERNORS OF THE
COLORADO STATE UNIVERSITY SYSTEM
REAL ESTATE/FACILITIES COMMITTEE MEETING AGENDA
June 9, 2023**

Committee Chair: Betsy Markey (Chair)

Assigned Staff: Jason Johnson, General Counsel, Ajay Menon, CSU Research Foundation

EXECUTIVE SESSION

None

OPEN SESSION

- | | |
|---|----------------------------|
| 1. CSU Advanced Laser and Plasma Institute Program Plan | Action Item (15 min) |
| 2. CSU Pueblo Campus Plan | Presentation Item (30 min) |

Board of Governors of the
Colorado State University System
Meeting Date: June 7-9, 2023
Action Item

MATTER FOR ACTION:

Approval of the Colorado State University Program Plan for the Advanced Laser and Plasma Institute

RECOMMENDED ACTION:

MOVED, that the Board of Governors of the Colorado State University System approves the Program Plan for the Advanced Laser and Plasma Institute.

EXPLANATION:

Presented by Brendan Hanlon, Vice President for University Operations.

This project will construct an approximately 43,000 gsf two-story laser laboratory adjacent to the Advanced Beam Lab at Foothills Campus. The Department of Energy is interested in providing funding for equipment construction (a multi-PW laser) once CSU has constructed the building. DOE would also fund the long-term operation of the facility as part of LaserNet US.

CSU is part of LaserNet US, a network of the most powerful lasers in the US funded by the US Department of Energy. We are internationally recognized for the development of advanced ultra-high intensity solid state lasers that are used as drivers of table-top X-Ray and Extreme Ultraviolet (EUV) lasers, and for the applications of these lasers to imaging, patterning, and probing of chemical composition at the nanoscale.

The existing Advanced Beam Laboratory is at capacity and cannot accommodate the additional equipment that DOE is interested in constructing. A new facility is required with adjacency to the Advanced Beam Laboratory, either immediately south of the existing ABL as an addition, or on a native site east of the AWER facility.

The estimated budget is \$60M-\$70M with scope options to finish core and shell space for additional research labs, teaching classrooms and offices. The project will be funded with a mix of university resources, grants and donations.

Once necessary approvals are in place it is estimated that the project will take 42-48 months to complete.

A more detailed project description can be found in the attached Summary of the Program Plan, and the full program plan is posted at fm.colostate.edu.

Board of Governors of the
Colorado State University System
Meeting Date: June 7-9, 2023
Action Item

SUMMARY OF PROGRAM PLAN FOR THE ADVANCED LASER AND PLASMA INSTITUTE

This project will construct an approximately 43,000 gsf two-story laser laboratory adjacent to the Advanced Beam Lab at Foothills Campus. The Department of Energy is interested in providing funding for equipment construction (a multi-PW laser) once CSU has constructed the building. DOE would also fund the long-term operation of the facility as part of LaserNet US.

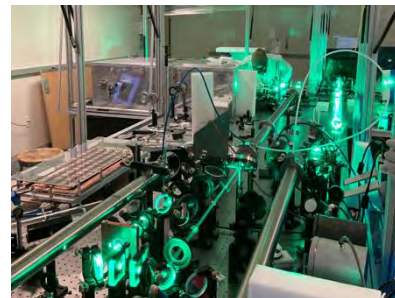
Research at the Laboratory for Advanced Lasers and Extreme Photonics (L-ALEPH) covers the development of ultra-high intensity solid state lasers; studies of intense laser/matter interaction; advanced optical coatings; and the development of soft x-ray lasers and their applications to nanoscale metrology. Research has been funded by the US Department of Energy; DoD Office of Naval Research; DoD US Air Force; National Science Foundation; US Department of Homeland Security, W.M. Keck Foundation, NSF Engineering Research Center Program, State of Colorado OEDIT and ASML/Cymer.

The existing Advanced Beam Laboratory is at capacity and cannot accommodate the additional equipment that DOE is interested in constructing. A new facility is required with adjacency to the Advanced Beam Laboratory, either immediately south of the existing ABL as an addition, or on a native site east of the AWER facility.

Construction of this facility will allow CSU, in collaboration with the federal government and private industry, to build a cluster of high intensity lasers that will be unique in the world. The Center will be able to attract the most talented people in the field and the best students to solve some of the most challenging societal problems. Both federal agencies and private industry (e.g. Marvel Fusion) are strongly encouraging CSU to move ahead with the creation of an internationally leading Center, with the most advance facility.

Specific benefits include:

- **Advanced Lasers:** The facility will allow us to deploy three ultrahigh power lasers that will be able to be fired in synchronization to produce for a brief amount of time a peak power of 14 Petawatt or ~ 14,000 times larger than the power produced by all power plants in the US. (Two lasers costing \$ 50 M will be financed entirely by industry- federal grants will fund the third laser).
- **Clean energy:** The facility will become a leader in fusion energy studies. Fusion is how the sun produces energy. Laser fusion energy, which feasibility was demonstrated for the



first time in a December 2022 experiment at Lawrence Livermore National Lab (LLNL), promises to safely generate practically unlimited clean carbon free energy forever. The ultimate solution to global warming.

- **Medicine.** The facility will produce high energy ion beam with high flux and precision that can deposit their energy in a very localized region for tumor treatment (hadron therapy).
- **Materials and manufacturing.** The facility will produce intense ultrashort flashes of x-rays and gamma rays to generate with very high spatial resolution radiographs and tomography of material structures and large dense objects (for example airplane turbines in full motion). High power lasers also produce extreme ultraviolet light (sometimes called soft x-rays) that is key in the lithography of the most advance computer chips.
- **National Security: imaging of dense objects and large structures.** The facility will produce high energy muons, highly penetrative sub-atomic particles. Muons naturally generated by cosmic rays were recently used to image the Egyptian pyramids, discovering a previously undetected chamber -but it took months to take an image. High power lasers promise to do this on demand for applications in national security and industrial applications for example to image mountains for mining.
- **Hands on training of students in advanced multi-disciplinary technologies.** The new facility, with an investment of nearly \$ 100 Million in advanced lasers and supporting equipment, will provide a unique highly inter-disciplinary environment to train students. The lasers and the experiments require the development of optical systems, advanced power electronics, high precision mechanical component, advance heat transfer, system's control, programing, machine learning, advanced materials such as thin multilayer films, nanostructures and non-linear optical materials, and atomic, quantum, and relativistic s. Student involvement will increase the quality of education and retention. For example, 7 Ph.D CSU graduates trained on lasers and laser-matter interaction now work at ASML in San Diego the world's only supplier of the machines that print the most advance computer chips.
- **Attracting the most talented faculty, research scientists, and students.** The new facility will immediately become a focus of national and internationally attention. With some of the most advanced lasers in the world it will attract and retain the most talented faculty and research scientist. It will help attract the best local, national and international students.
- **Regional and State economic impact.** CSU and Fort Collins would become a hub for fusion energy and advanced laser development attracting fusion energy companies such as Marvel Fusion and Xcimer. Investment in fusion energy in the past year alone exceeds \$ 3 Billion, and is accelerating.
- **Increased collaboration with national laboratories, industry and other universities**

Board of Governors of the
Colorado State University System
Meeting Date: June 7-9, 2023
Action Item

The capability of the unique 3-laser facility will attract new collaborators. The CSU lasers group is already collaborating with Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Princeton Plasma Physics Laboratory, Lawrence Berkeley National Laboratory, Pacific Northwest Laboratory and several universities. The number and strength of the collaborations will be significantly expanded.

- **Elevate CSU’s academic prestige.** As noted above the Center, equipped with high power lasers that will be unique in the world, will immediately become a focus of national and internationally attention. Much of the work will be in the frontiers of science and technology and will be published in high impact journals, increasing CSU reputation.

The estimated budget is \$63M-\$68M with scope options to finish core and shell space for additional research labs, teaching classrooms and offices. The project will be funded with a mix of university resources, grants and donations.

Once necessary approvals are in place it is estimated that the project will take 42-48 months to complete.

Approved

Denied

Board Secretary

Date

COLORADO STATE UNIVERSITY PUEBLO CAMPUS PLAN

**BOARD OF GOVERNORS
FINAL CAMPUS PLAN
JUNE 2023**

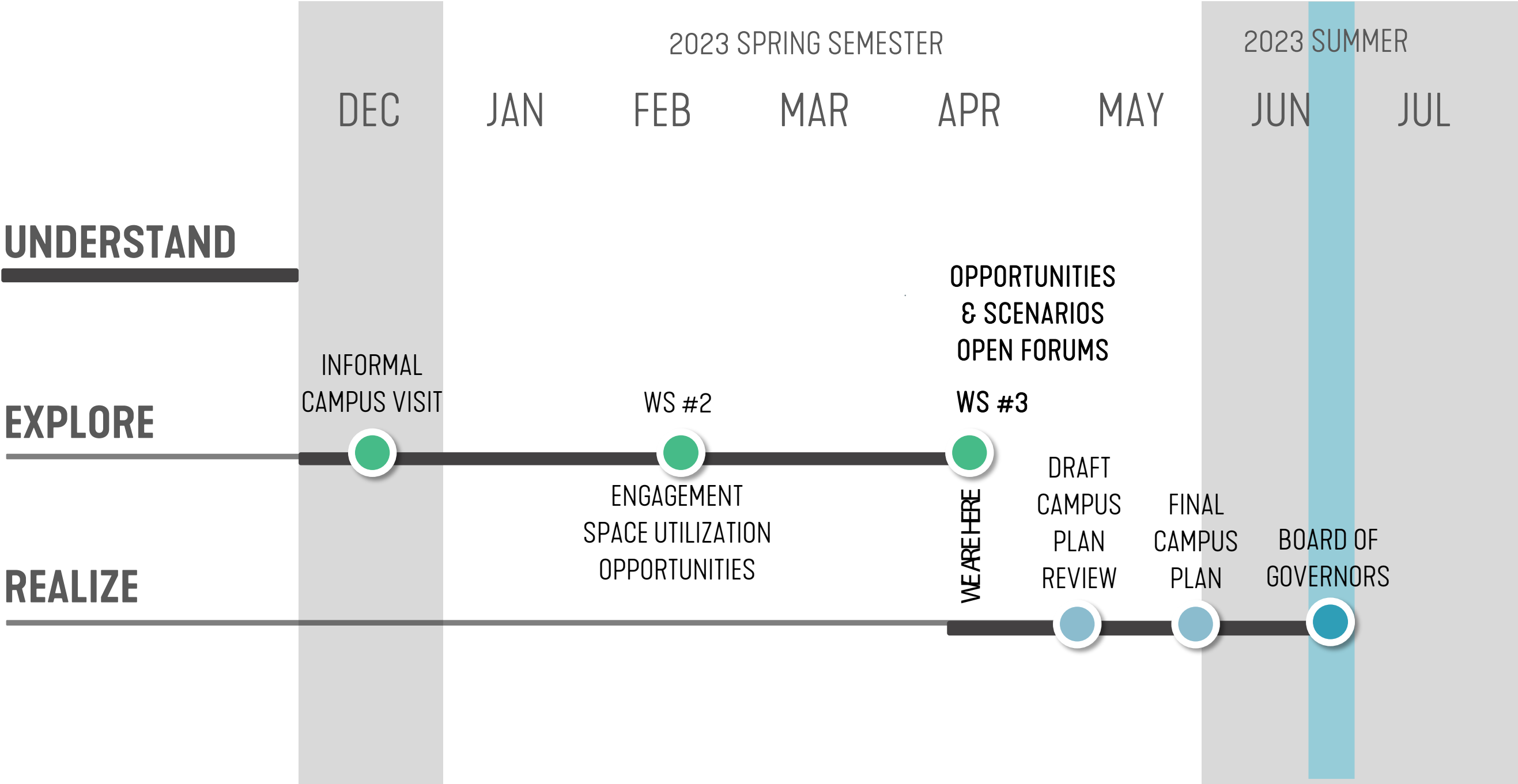
SMITHGROUP

AGENDA



- **SCHEDULE**
- **PROCESS**
- **GUIDING PRINCIPLES**
- **STRATEGIC OPPORTUNITIES**
- **SUMMARY & DISCUSSION**

SCHEDULE



THE PATIO: ONE-YEAR ANNIVERSARY



TRANSFORMING CAMPUS SPACES

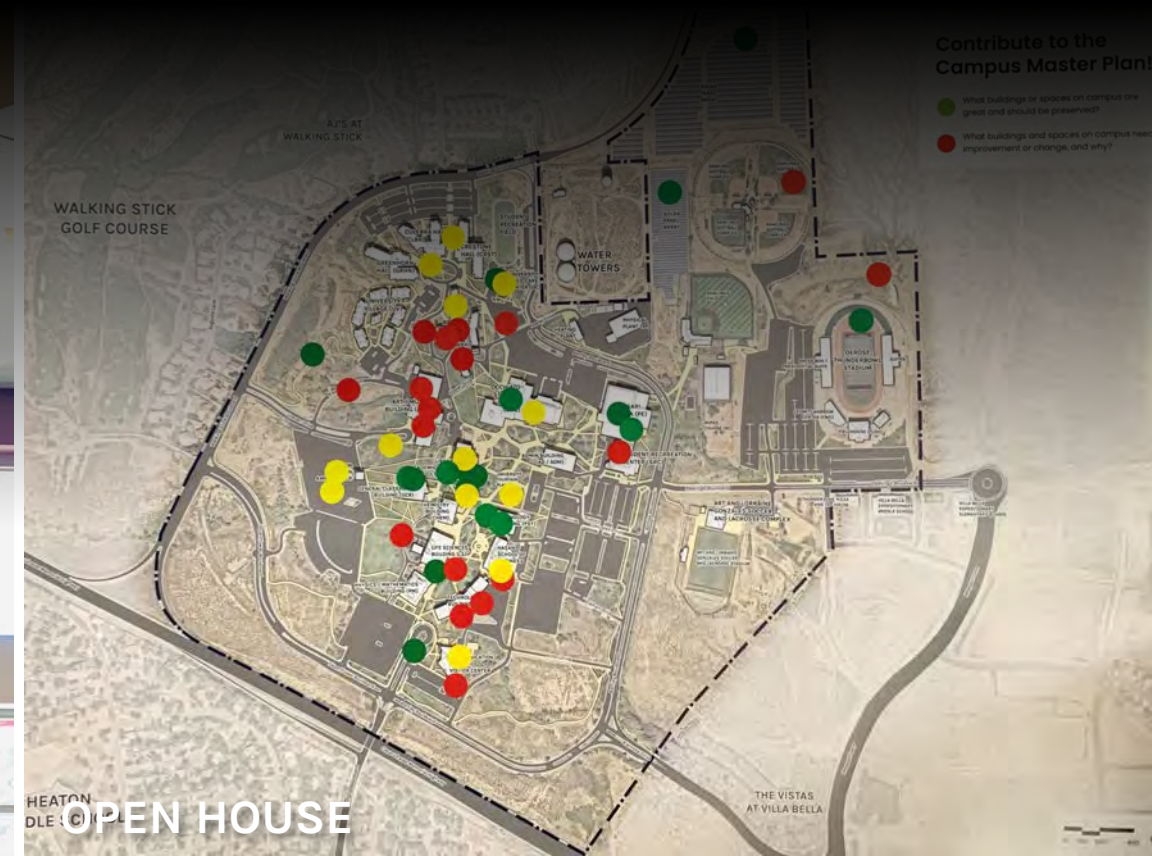


PROCESS

Campus Outreach & Engagement



CSU BOARD MEETING



OPEN HOUSE



POP-UP BOOTH

PROCESS

Campus Outreach & Engagement



← Center for International
← Office of Diversity
← Military & Veteran

YOUR VOICE MATTERS!

YOUR VOICE MATTERS!


COLORADO STATE UNIVERSITY
PUEBLO
WELCOMES

CSU SYSTEM

BOARD OF GOVERNORS

CAMPUS VISIT

PROCESS

Key Issues & Challenges

RE-IMAGINE THE FRONT DOOR OF CAMPUS

- Existing campus navigation is confusing.
- Wayfinding could be more intuitive.
- “Front Door” isn’t a welcoming destination for the campus community.

CREATE A NEW VISITOR’S CENTER & ONE-STOP EXPERIENCE

- Students and visitors are confused where to go for services, advising, and assistance.
- Personalized service ensures students go where they need but is time consuming for administrative staff.
- Desire for an improved space to showcase campus to local high school and other prospective students.

IMPROVE FIRST-YEAR EXPERIENCE

- Today’s students here are more than just students, they are also parents, caregivers, returning veterans, working professionals, etc.

NEED TO RIGHT-SIZE SPACE PROGRAM

- Currently using 762,100 ASF but with a 60,000 ASF surplus (includes the General Classroom Building which is temporarily offline and does not include the Belmont Residence Hall (76,700 ASF), the Technology building (42,800 ASF), and other inactive space totaling 6,000 ASF).
- At target year enrollment growth within ten-years, space need is 680,200 ASF.

COST TO MAINTAIN AGING FACILITIES

- Walking Stick Apartments are approaching the end of their life-cycle.
- Music Hall is in major need of improvement.
- Crestone Hall continues to be increasingly costly to maintain.
- Life Sciences, and Math/Physics building have poor academic quality, and need better collaborative and social spaces.

INCREASE ADAPTABILITY & FLEXIBILITY OF SPACE PROGRAM

- Current building naming convention limits flexibility and diversity of space functions.
- There’s a great need to reinvent use of offices while also ensuring there are places for private and sensitive conversations.
- Inefficient and underutilized spaces in large lecture halls, storage areas, and computer centers.

MORE PLACES TO SOCIALIZE & COLLABORATE

- People want to be outside and desire more diverse experiences to socialize, relax, and recreate.
- Surplus of landscape open space could adapt to enhance environmental health, native ecology, and outdoor learning opportunities.
- Re-envision Belmont Hall as a community destination that enhances the campus identity and utilization.

SPACE NEEDS

3,133 STUDENTS ON CAMPUS ENROLLMENT

Space Category	Existing ASF	Guideline ASF	Surplus/(Deficit)	Percent Surplus/ (Deficit)
CAMPUS TOTAL	762,119	615,606	146,513	19%
<i>Inactive/Conversion Space</i>	125,493			
<i>Outside Organizations</i>	3,198			

4,000 STUDENTS ON CAMPUS ENROLLMENT

Space Category	Existing ASF	Guideline ASF	Surplus/(Deficit)	Percent Surplus/ (Deficit)
CAMPUS TOTAL	762,119	680,247	81,872	11%
<i>Inactive/Conversion Space</i>	125,493			
<i>Outside Organizations</i>	3,198			

GUIDING PRINCIPLES



**CONNECT WITH THE
LOCAL AND REGIONAL
COMMUNITY**



**IMPROVE CAMPUS
ARRIVAL AND WAYFINDING
EXPERIENCE**



**OPTIMIZE
CAMPUS
RESOURCES**



**PROMOTE CURIOSITY,
INNOVATION, AND
INTERDISCIPLINARY
COLLABORATION**

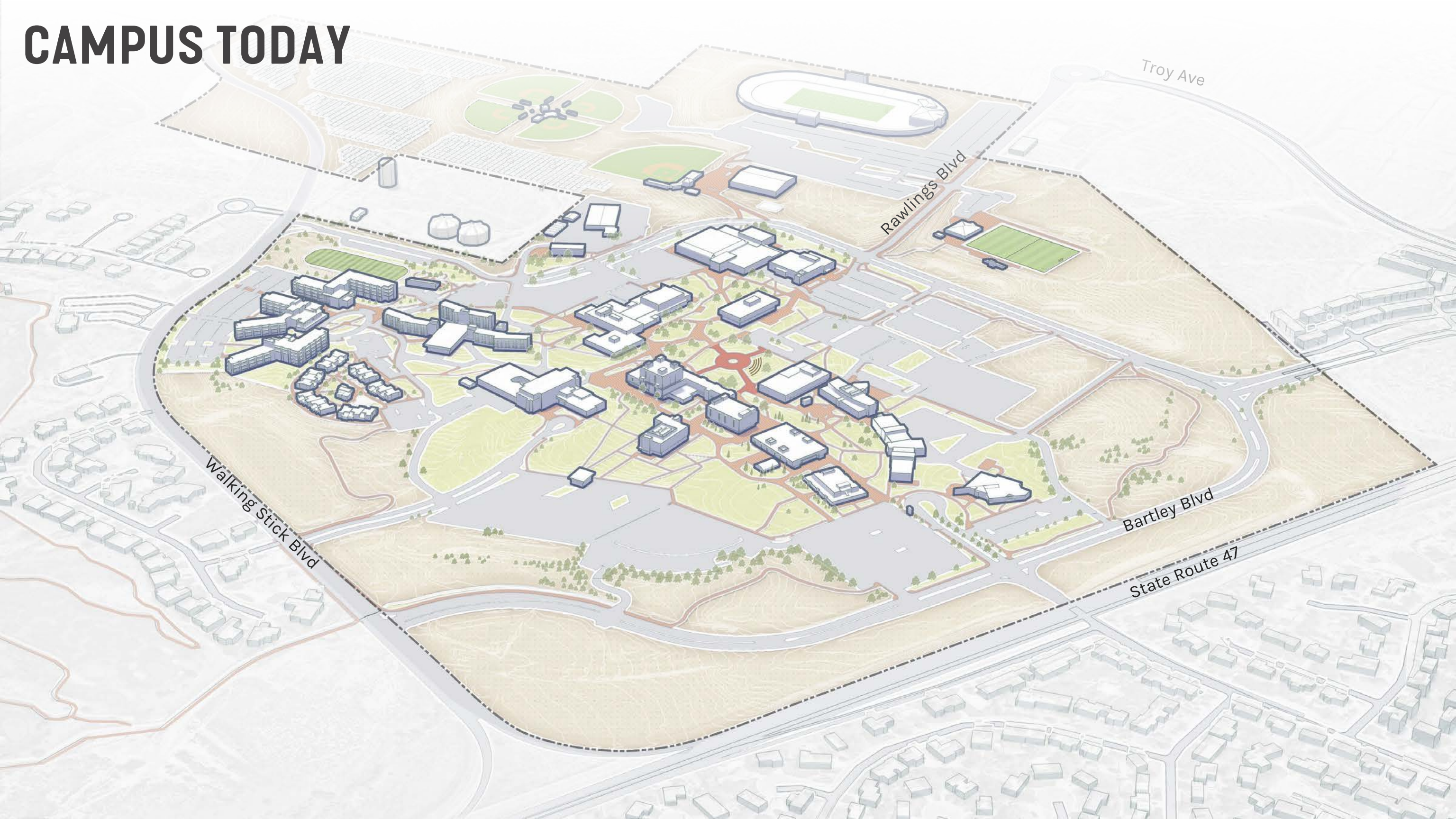


**SUPPORT A VIBRANT
AND INCLUSIVE CAMPUS
EXPERIENCE**

An aerial, grayscale photograph of a university campus. The image shows a dense cluster of buildings, courtyards, and green spaces. The text "STRATEGIC OPPORTUNITIES" is centered in the middle of the image in a bold, white, sans-serif font. The background is a dark, muted gray, providing high contrast for the white text.

STRATEGIC OPPORTUNITIES

CAMPUS TODAY



Troy Ave

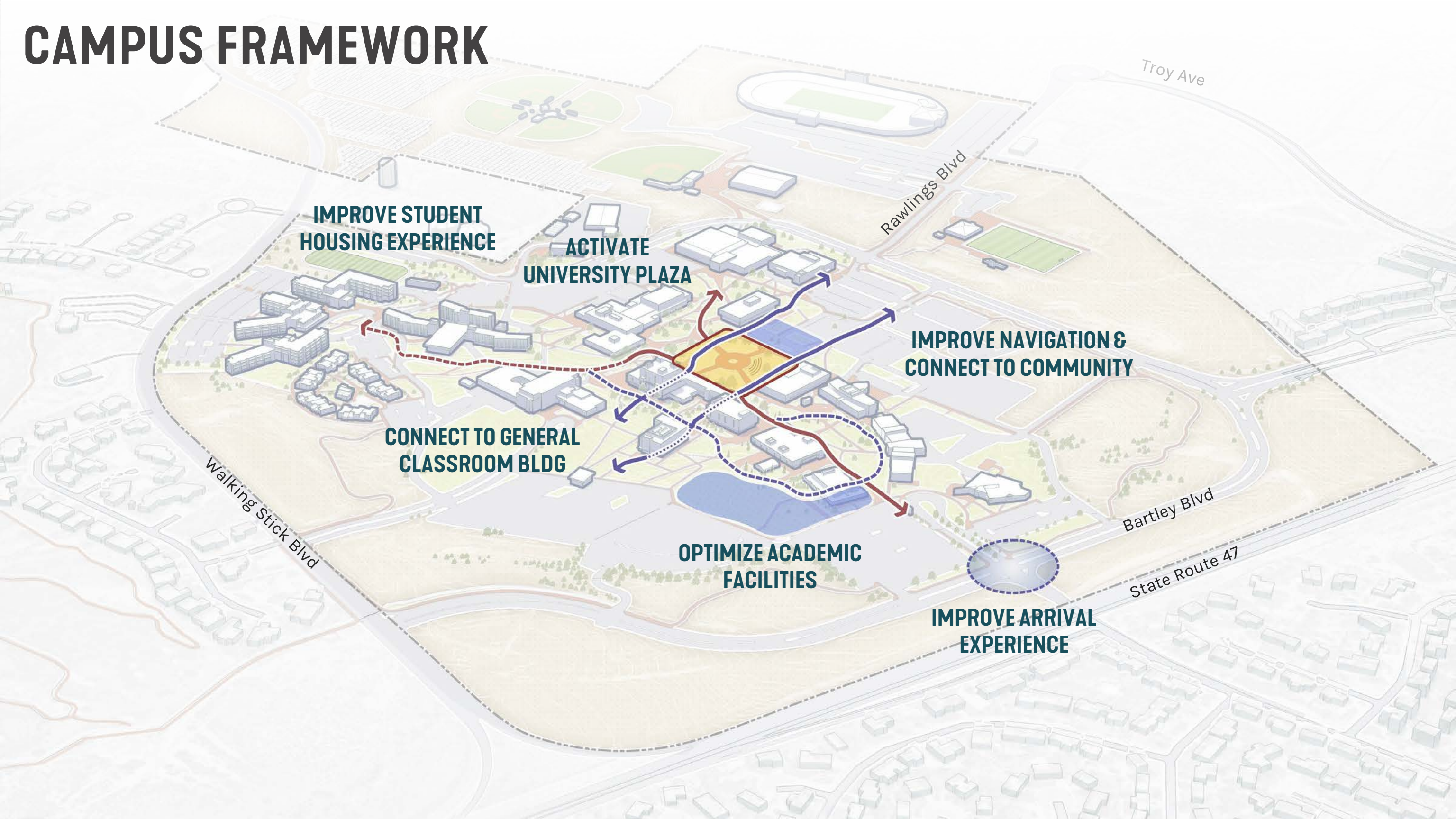
Rawlings Blvd

Walking Stick Blvd

Bartley Blvd

State Route 47

CAMPUS FRAMEWORK



IMPROVE STUDENT HOUSING EXPERIENCE

ACTIVATE UNIVERSITY PLAZA

IMPROVE NAVIGATION & CONNECT TO COMMUNITY

CONNECT TO GENERAL CLASSROOM BLDG

OPTIMIZE ACADEMIC FACILITIES

IMPROVE ARRIVAL EXPERIENCE

Walking Stick Blvd

Rawlings Blvd

Troy Ave

Bartley Blvd

State Route 47



**PROMOTE INTERDISCIPLINARY
COLLABORATION**

PROMOTE INTERDISCIPLINARY COLLABORATION

There's a desire to de-silo the university where department designated buildings can be thought of as more interdisciplinary.

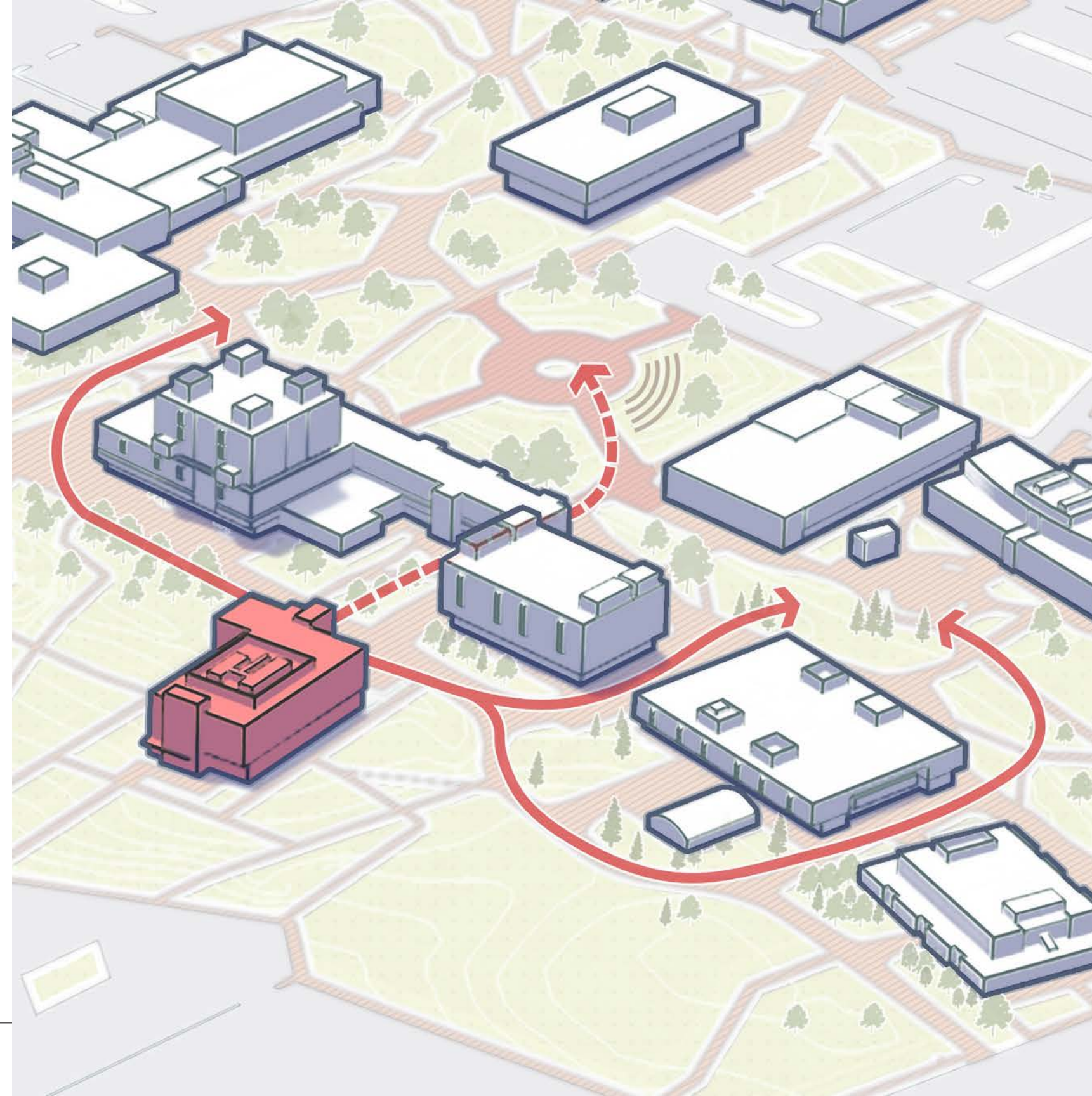
POTENTIAL STRATEGIES

- Renaming Buildings for more interdisciplinarity.
- Ground level activation and transparency.
- Tutoring, makerspace, and other academic support services could be distributed on campus, ideally on the first floor of buildings, near the entrance, and transparent/visible from both inside and outside of the building.
- Chemistry, Life Sciences, Physics/Math, and Business buildings have potential to energize the campus central space as well as the individual buildings.

GENERAL CLASSROOM BLDG. DIFFICULT TO ACCESS

VISUAL & PHYSICAL BARRIER FROM CAMPUS CORE

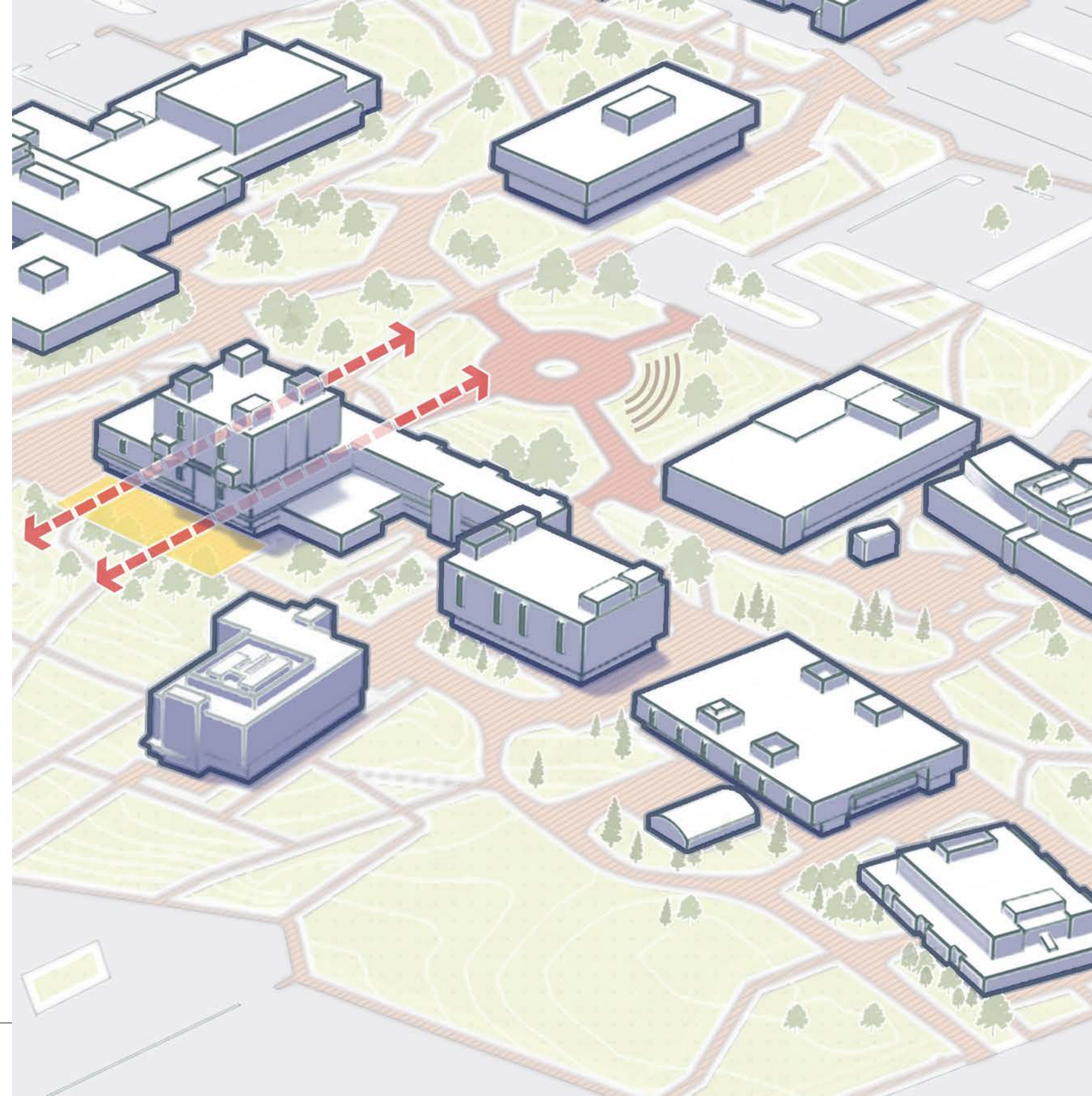
- Once the GBC is online, it will occupy general courses and change circulation patterns on campus
- Limited signage to point you to building.
- Underutilized open spaces adjacent to building.



LIBRARY WITH NEAR-TERM WELCOME CENTER

SECURITY ZONE MOVES TO LEVEL 2 GROUND LEVEL FLOW-THROUGH CIRCULATION

- The library is an ideal location for an academic one-stop center on floors two and three, integrated with library functions.
- The library collection can be consolidated on floors 4 through 6.
- Security for the collection can be relocated to level 2 along with the circulation desk.
- The main level could be a promenade through the building connecting to the Art/Music and General Classroom buildings.
- Possible to pair this building with a new visitor center and use the existing auditorium in the library as the tour departure point.



LIBRARY WITH ONE-STOP SHOP

COLLECTIONS SECURITY MOVES TO LEVEL TWO



Program Elements

- Writing Center
- LINC
- Digital Repository
- Open Education Resources
- Aztlan Center

With One-Stop Shop



Program Elements

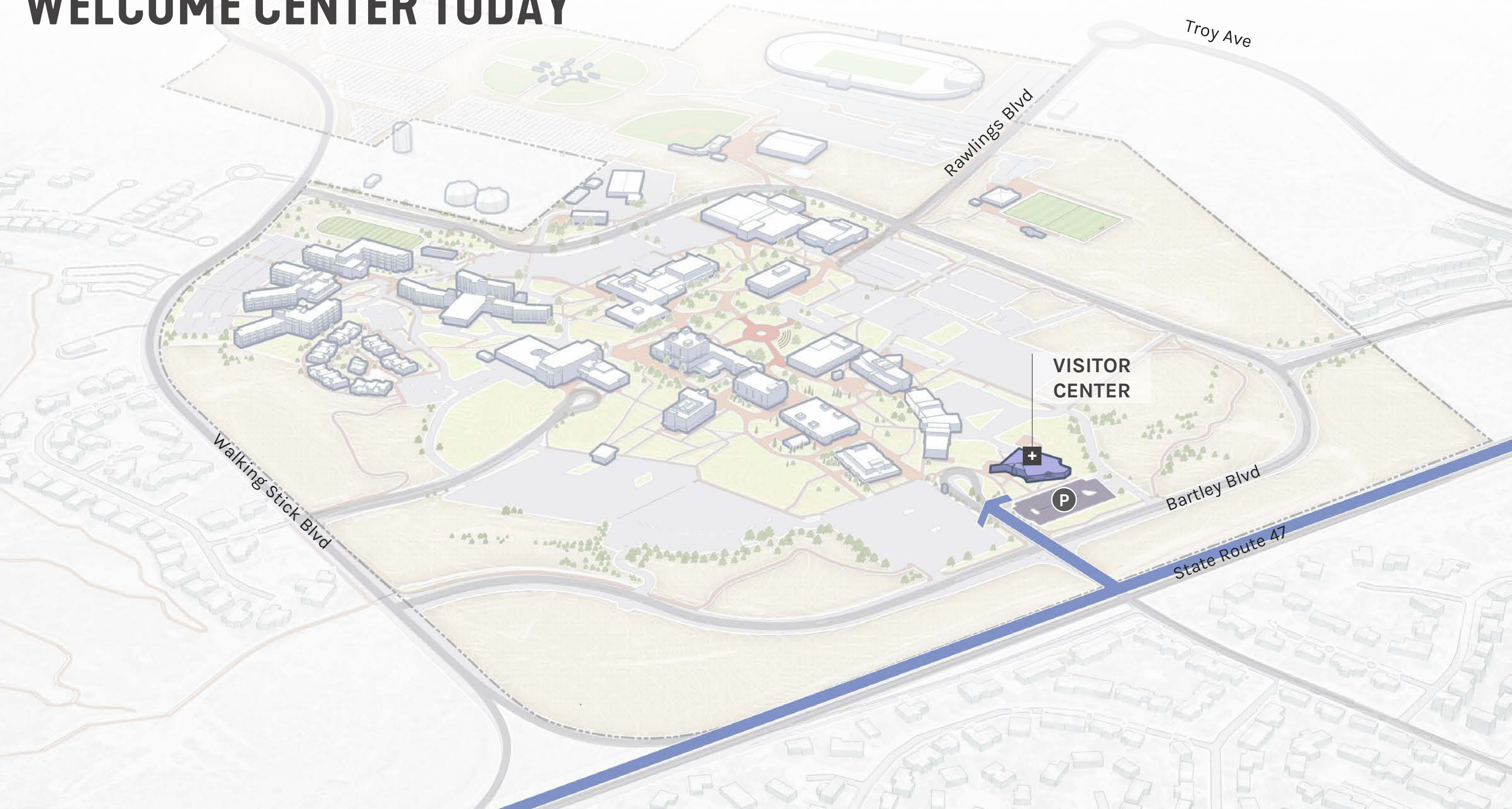
- Library collection consolidated on L4-6
- Security zone moves up to L2
- L2-3 becomes Library/Academic One-Stop
- L1 remains as common space with additional collaboration/study areas, and temporary welcome center



IMPROVE CAMPUS ARRIVAL, VISITOR AND WAYFINDING EXPERIENCE

Colorado
State
University
Buell Communications
Center
Visitor Center

WELCOME CENTER TODAY



Troy Ave

Rawlings Blvd

VISITOR CENTER

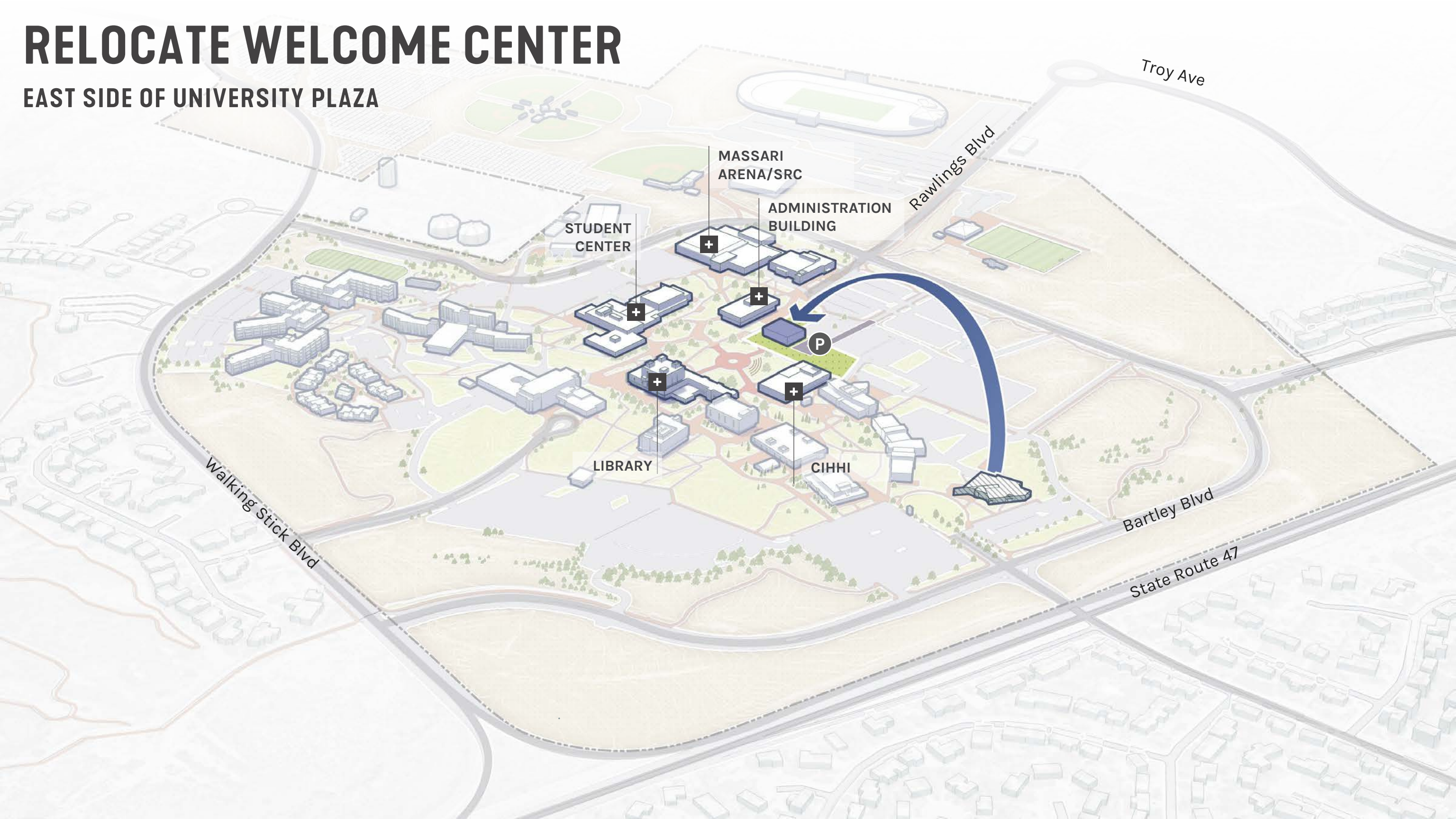
Walking Stick Blvd

Bartley Blvd

State Route 47

RELOCATE WELCOME CENTER

EAST SIDE OF UNIVERSITY PLAZA



Troy Ave

Rawlings Blvd

MASSARI
ARENA/SRC

ADMINISTRATION
BUILDING

STUDENT
CENTER

P

LIBRARY

CIHHI

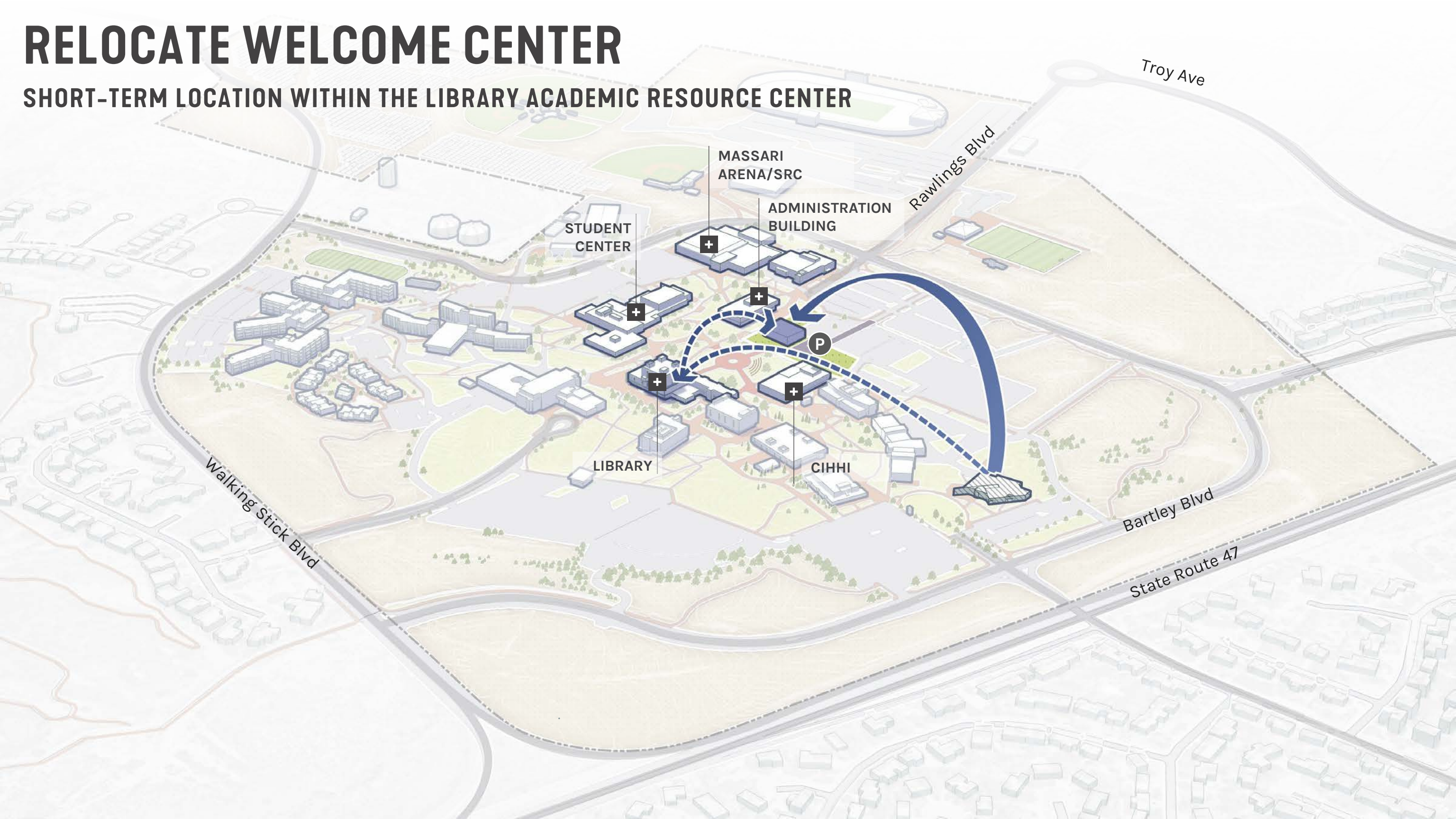
Walking Stick Blvd

Bartley Blvd

State Route 47

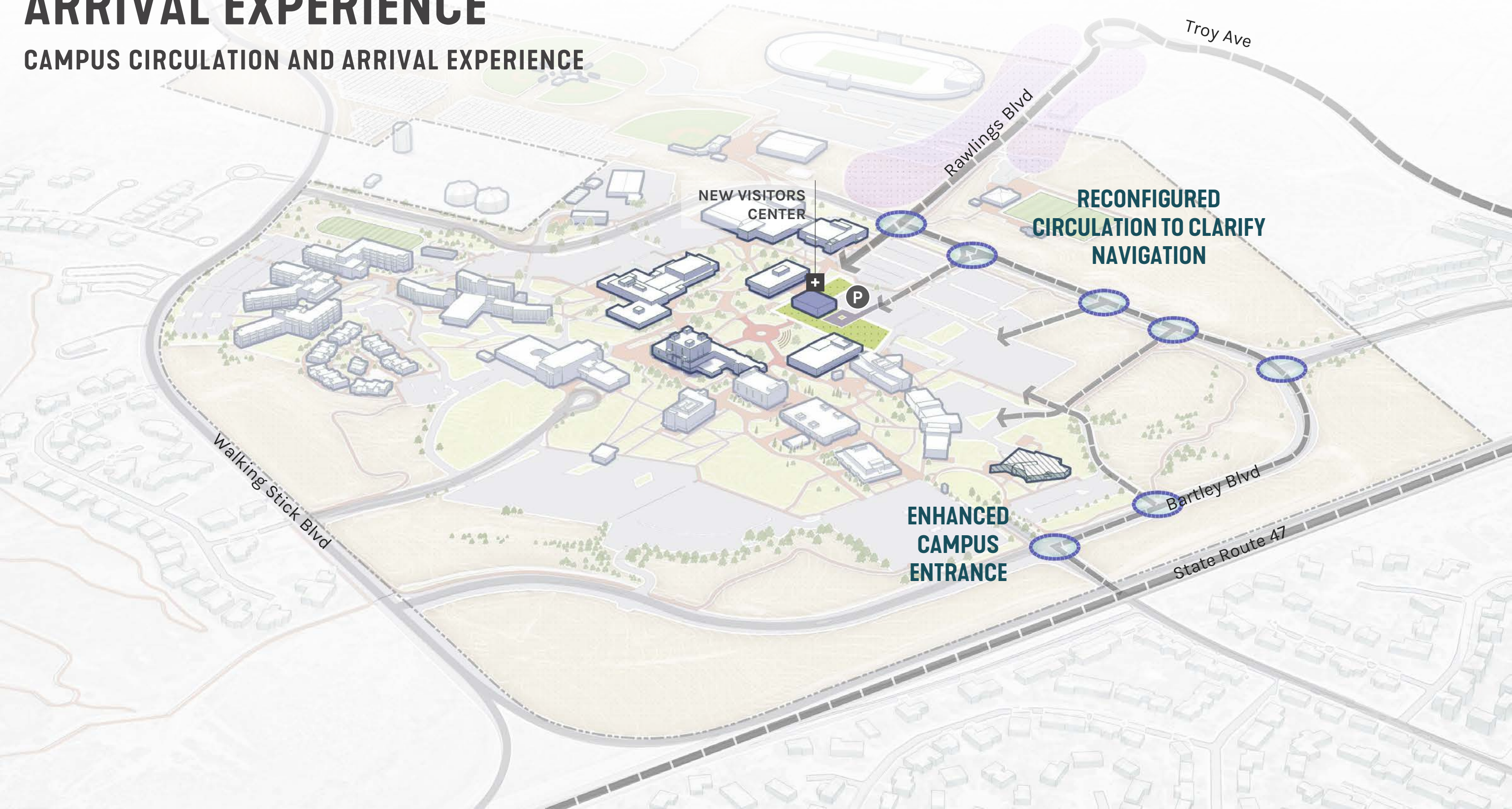
RELOCATE WELCOME CENTER

SHORT-TERM LOCATION WITHIN THE LIBRARY ACADEMIC RESOURCE CENTER



ARRIVAL EXPERIENCE

CAMPUS CIRCULATION AND ARRIVAL EXPERIENCE



NEW VISITORS CENTER

RECONFIGURED CIRCULATION TO CLARIFY NAVIGATION

ENHANCED CAMPUS ENTRANCE

Troy Ave

Rawlings Blvd

Bartley Blvd

State Route 47

Walking Stick Blvd

WELCOME CENTER LOCATION

OPPORTUNITY SCENARIO

ADMIN

- Administrative One-Stop Shop
- Admissions Back of House

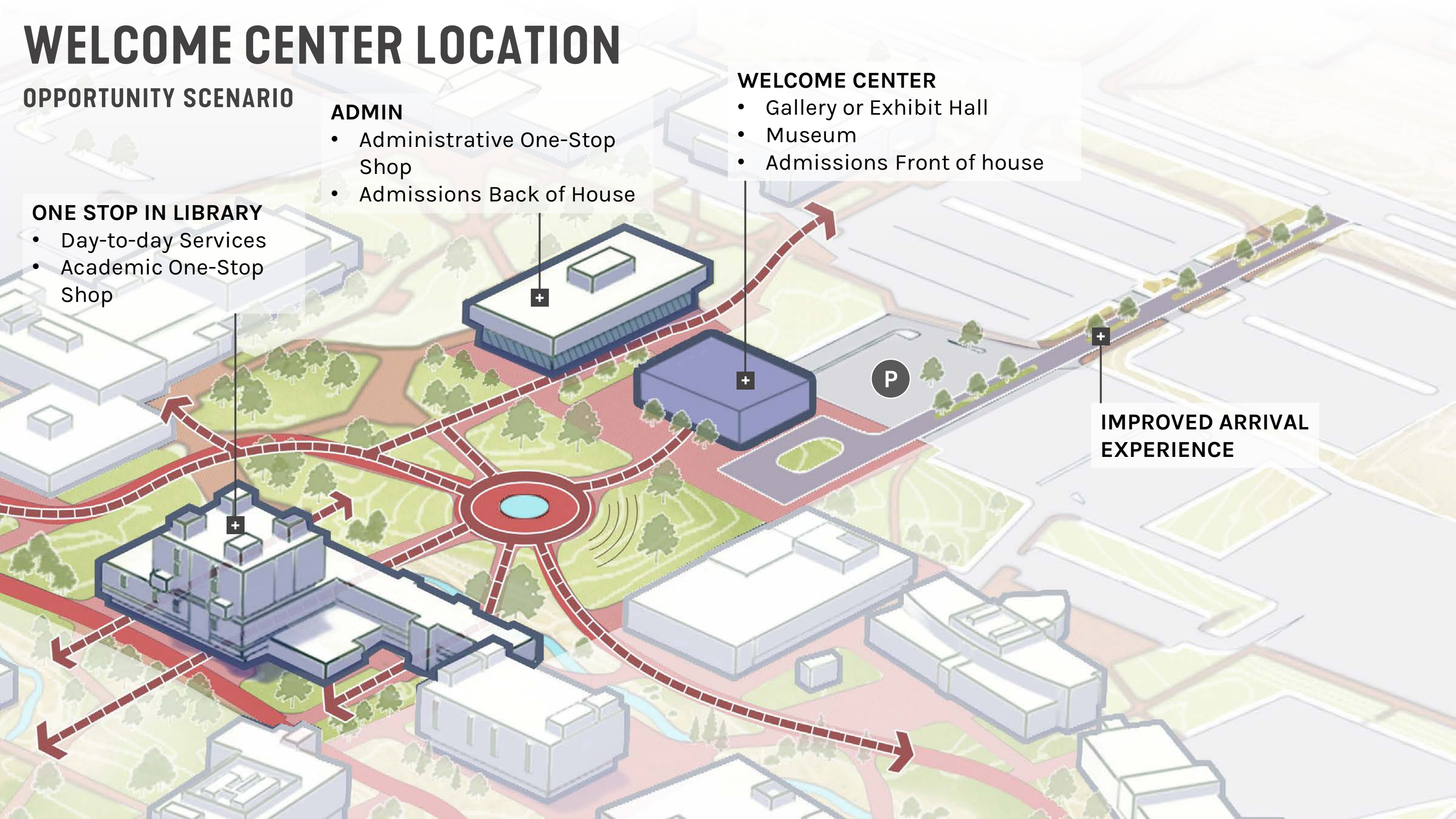
ONE STOP IN LIBRARY

- Day-to-day Services
- Academic One-Stop Shop

WELCOME CENTER

- Gallery or Exhibit Hall
- Museum
- Admissions Front of house

IMPROVED ARRIVAL EXPERIENCE



WELCOME CENTER



WELCOME CENTER

CULTURAL
EXHIBITION
SPACE



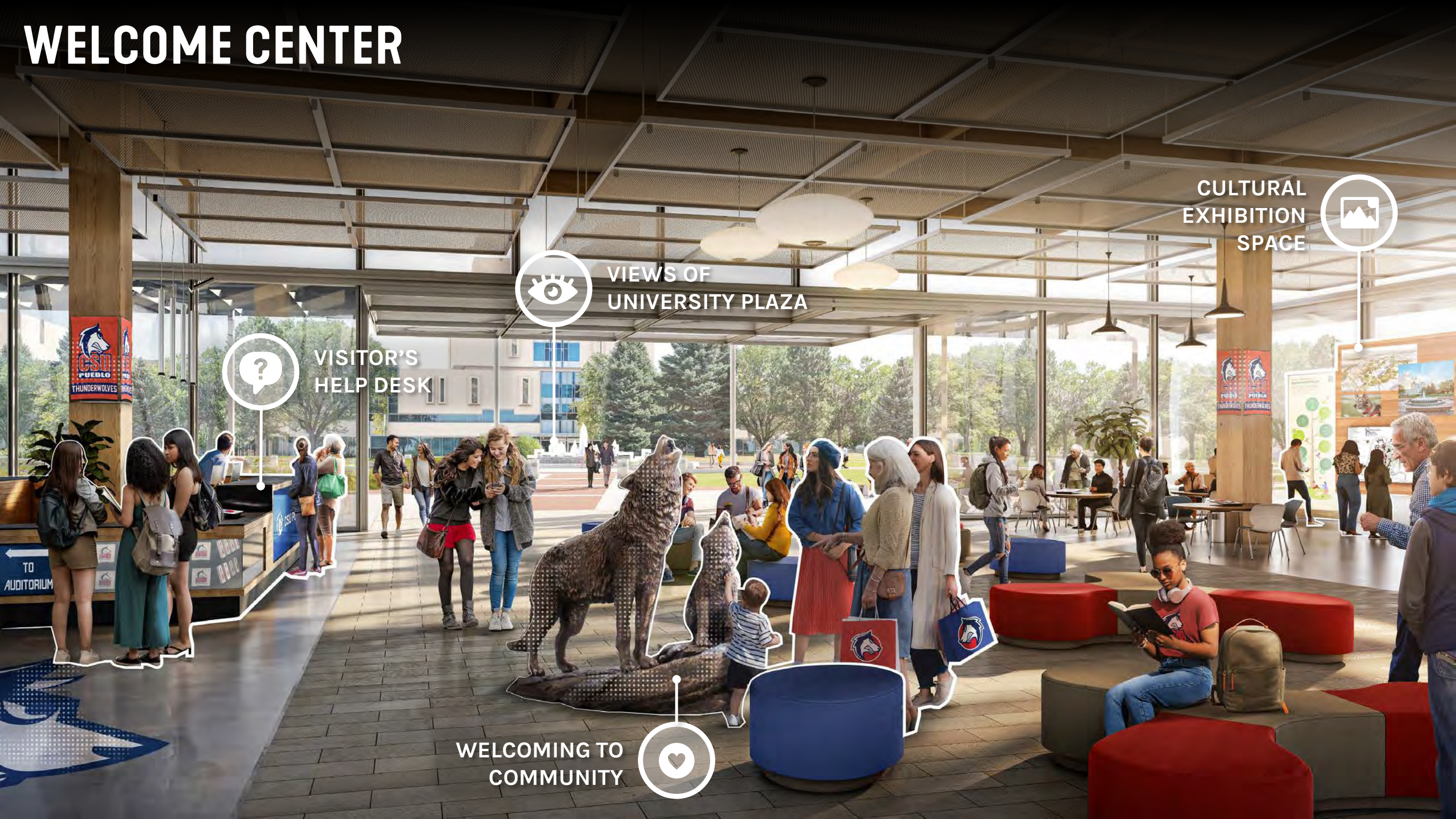
VIEWS OF
UNIVERSITY PLAZA



VISITOR'S
HELP DESK



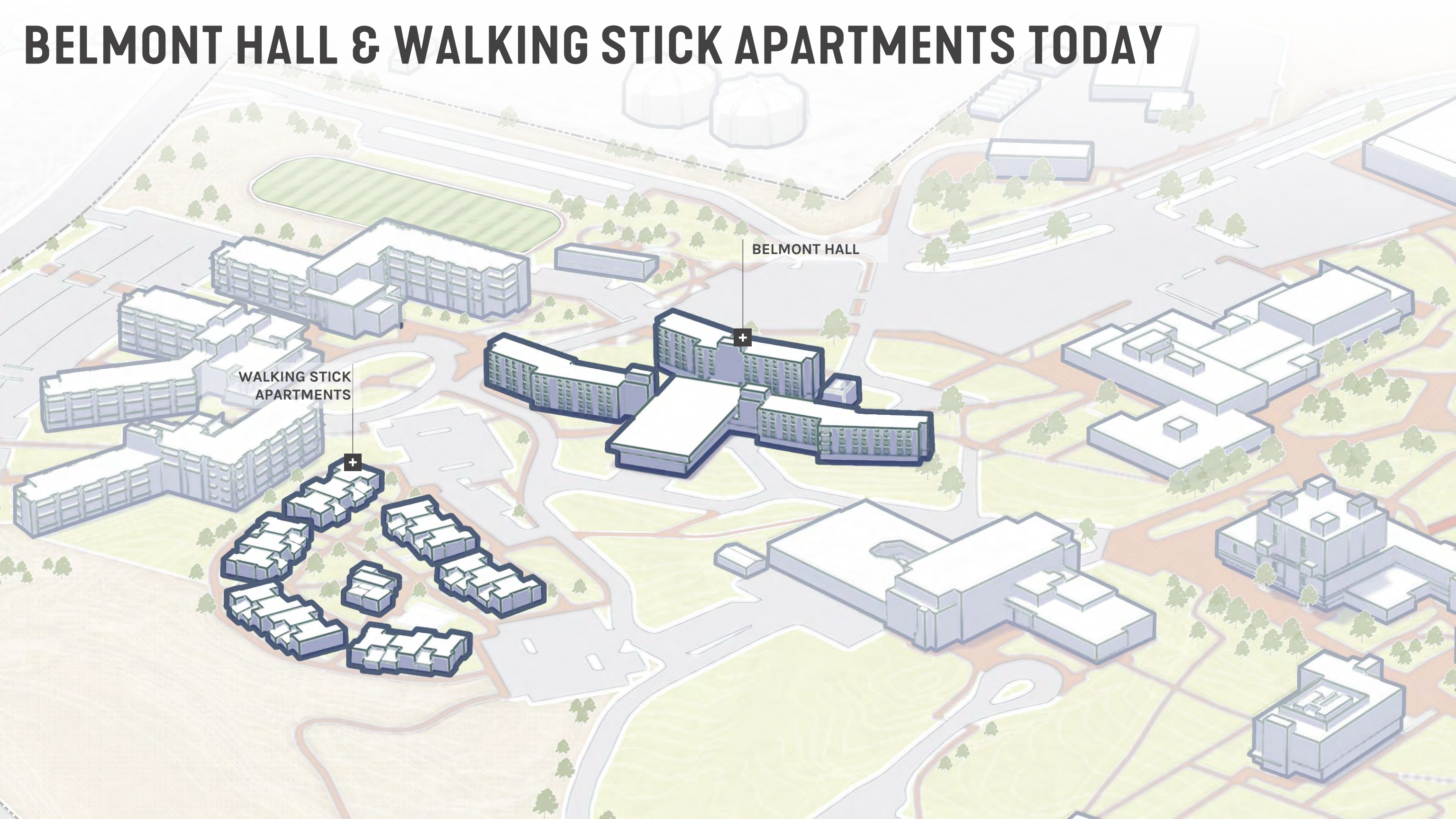
WELCOMING TO
COMMUNITY



TRANSFORM BELMONT HALL AREA



BELMONT HALL & WALKING STICK APARTMENTS TODAY



BELMONT HALL

WALKING STICK APARTMENTS

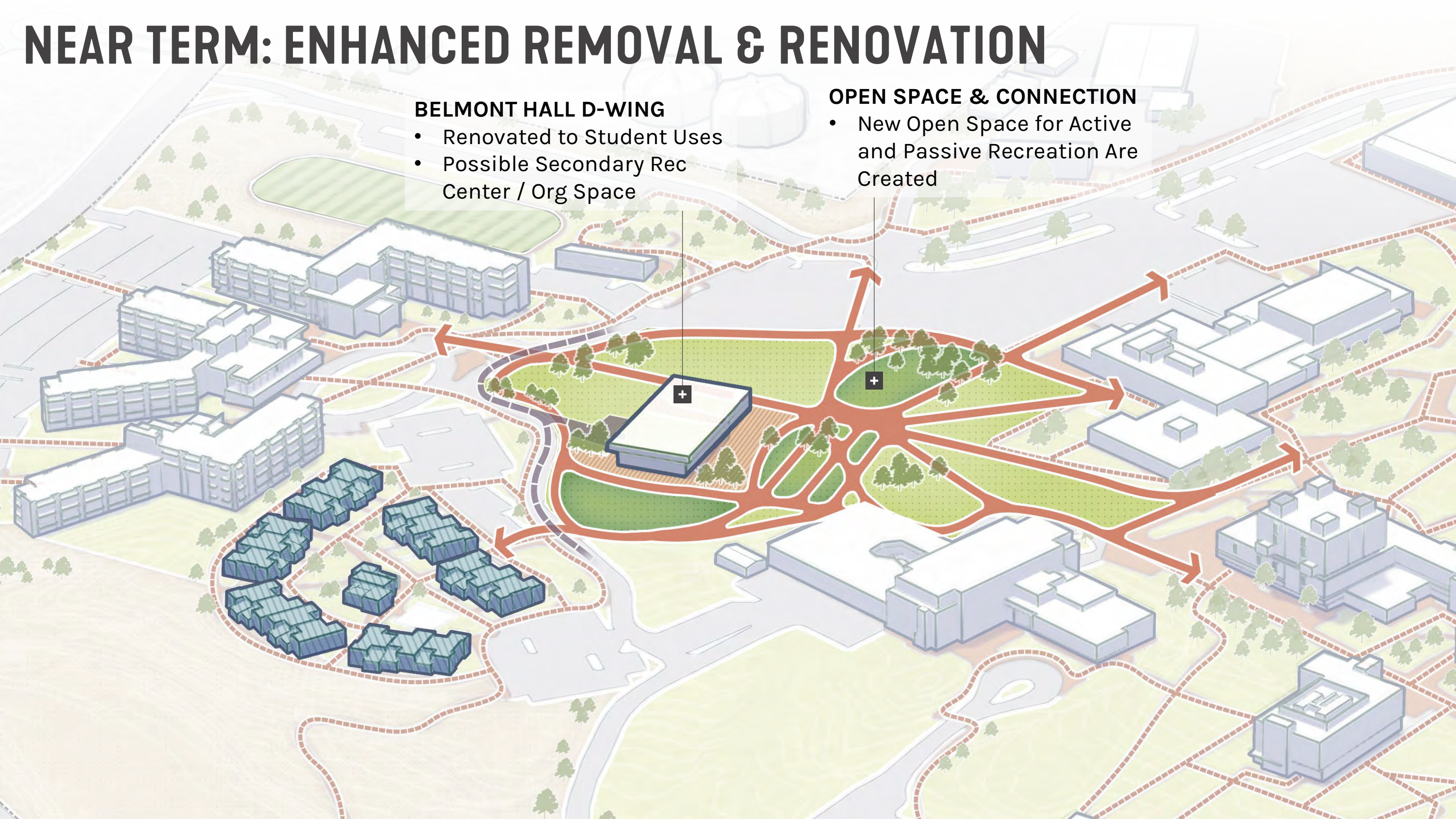
NEAR TERM: ENHANCED REMOVAL & RENOVATION

BELMONT HALL D-WING

- Renovated to Student Uses
- Possible Secondary Rec Center / Org Space

OPEN SPACE & CONNECTION

- New Open Space for Active and Passive Recreation Are Created



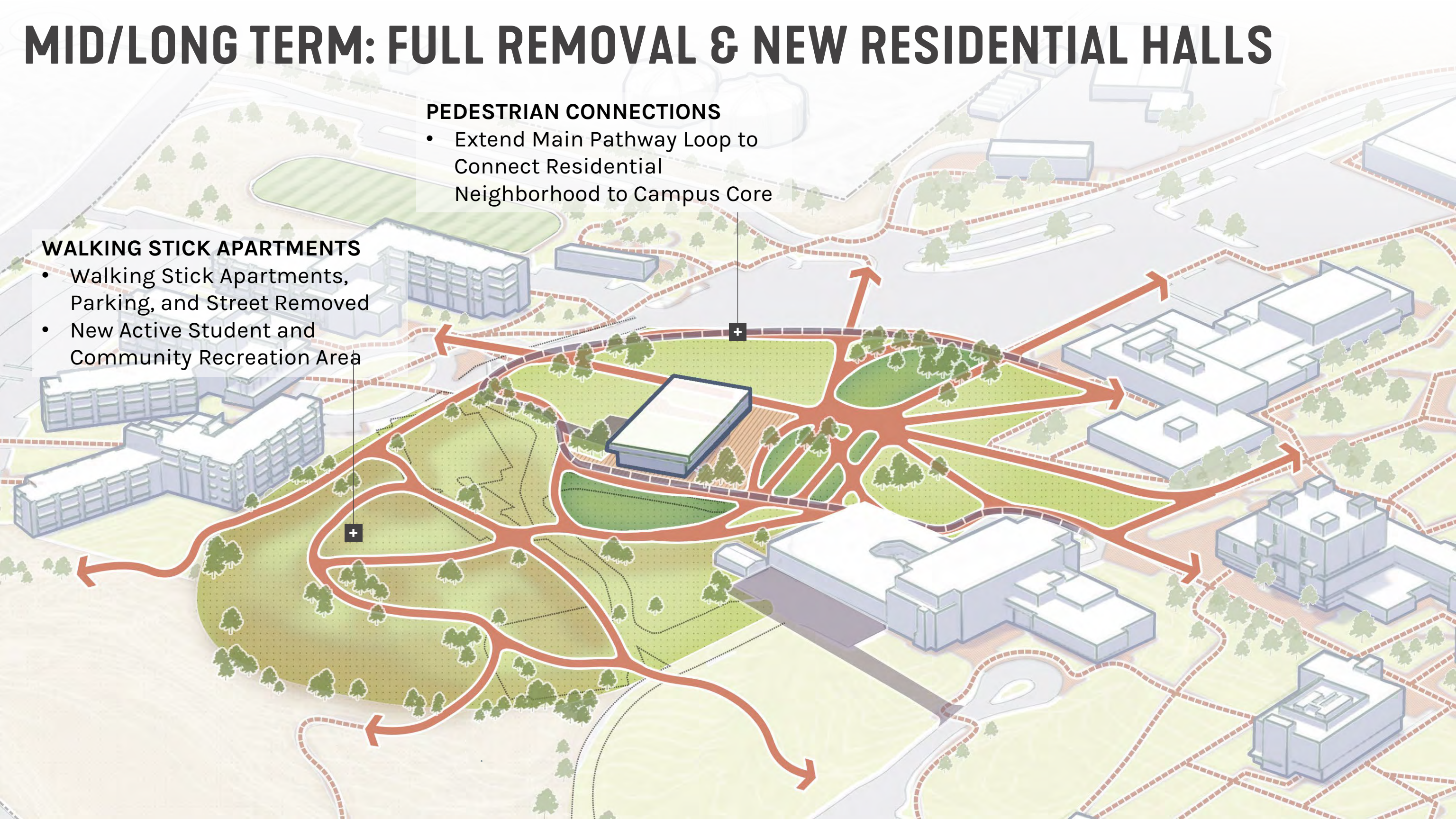
MID/LONG TERM: FULL REMOVAL & NEW RESIDENTIAL HALLS

PEDESTRIAN CONNECTIONS

- Extend Main Pathway Loop to Connect Residential Neighborhood to Campus Core

WALKING STICK APARTMENTS

- Walking Stick Apartments, Parking, and Street Removed
- New Active Student and Community Recreation Area



BELMONT STUDENT & COMMUNITY ACTIVITIES CENTER



BELMONT STUDENT & COMMUNITY ACTIVITIES CENTER

MOUNTAIN VIEWS



ACTIVE HUB AT REPURPOSED BELMONT D-WING



FLEXIBLE & PROGRAMMABLE OPEN SPACE



CULTURAL ARTS PROGRAM



NATURAL & RESILIENT LANDSCAPE



CAMPUS IDENTITY & BRANDING



AREAS OF RESPITE



WALKING WITH THE WOLVES TRAIL



BELMONT STUDENT & COMMUNITY ACTIVITIES CENTER



SEASONAL FOCAL INTEREST



OPPORTUNITY FOR SEASONAL COMMUNITY ENGAGEMENT



NATURAL & RESILIENT LANDSCAPE



LIGHTING & SAFETY



WALKING WITH THE WOLVES TRAIL



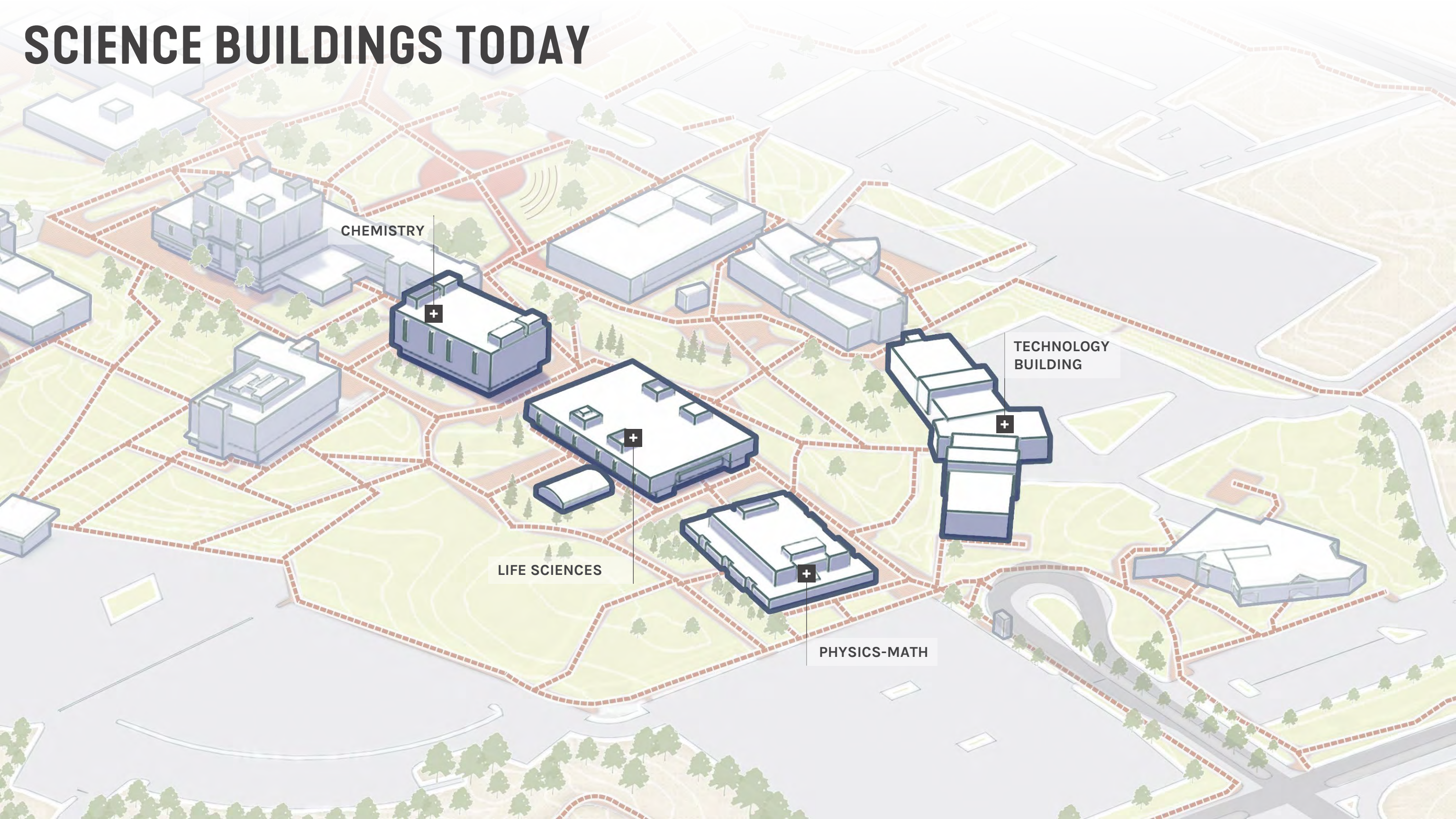
CAMPUS IDENTITY & BRANDING



A photograph of a campus landscape at dusk. In the foreground, a circular fountain with multiple jets of water is illuminated. The fountain is surrounded by a brick-paved plaza. In the background, there is a grassy hill with a large tree on the left and a statue of a dog on a rock in the center. The sky is a soft, hazy blue. The text "IMPROVE THE CAMPUS EXPERIENCE" is overlaid in white, bold, sans-serif font across the middle of the image.

IMPROVE THE CAMPUS EXPERIENCE

SCIENCE BUILDINGS TODAY



CHEMISTRY



TECHNOLOGY BUILDING



LIFE SCIENCES

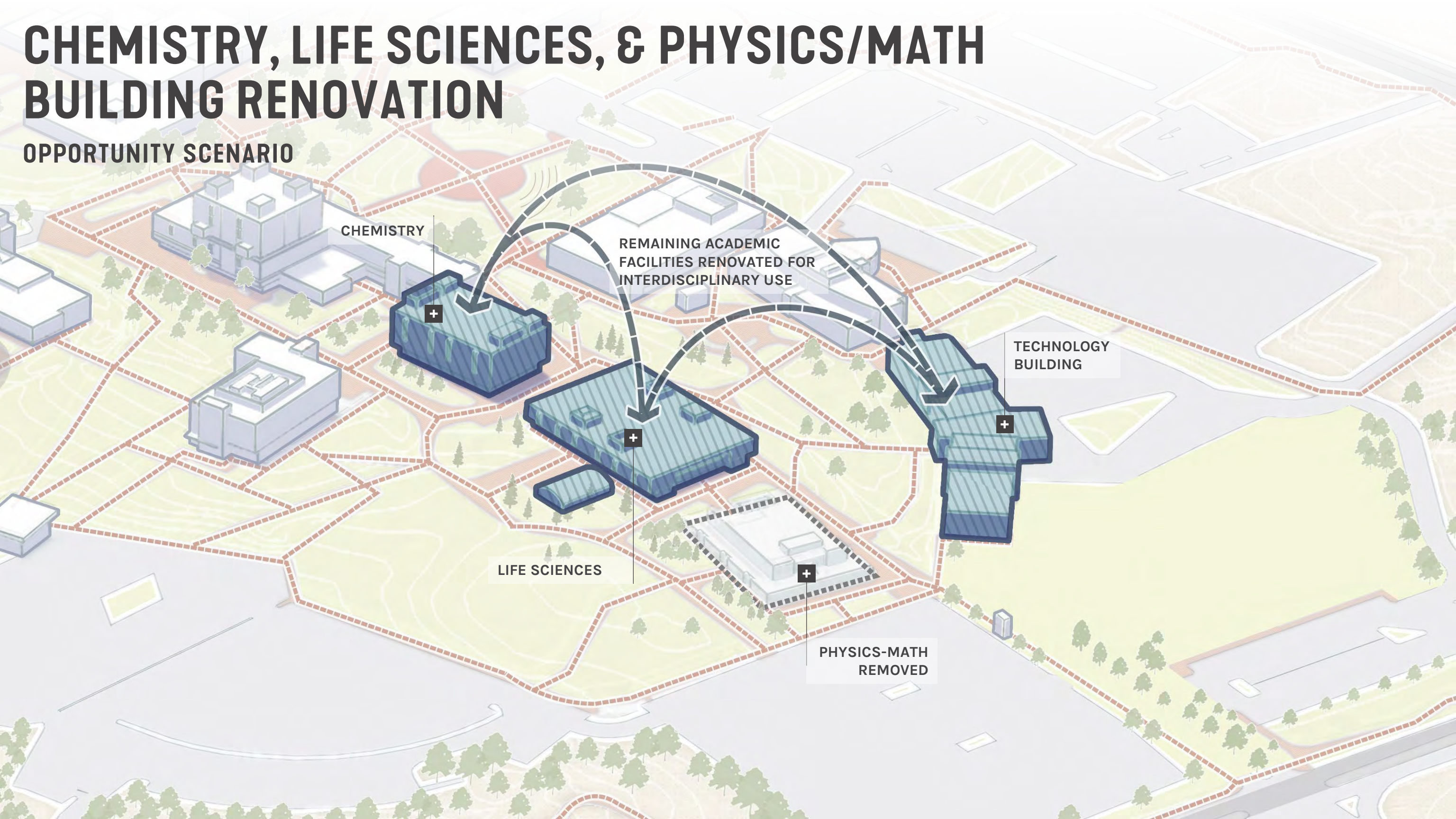


PHYSICS-MATH



CHEMISTRY, LIFE SCIENCES, & PHYSICS/MATH BUILDING RENOVATION

OPPORTUNITY SCENARIO



CHEMISTRY

REMAINING ACADEMIC FACILITIES RENOVATED FOR INTERDISCIPLINARY USE

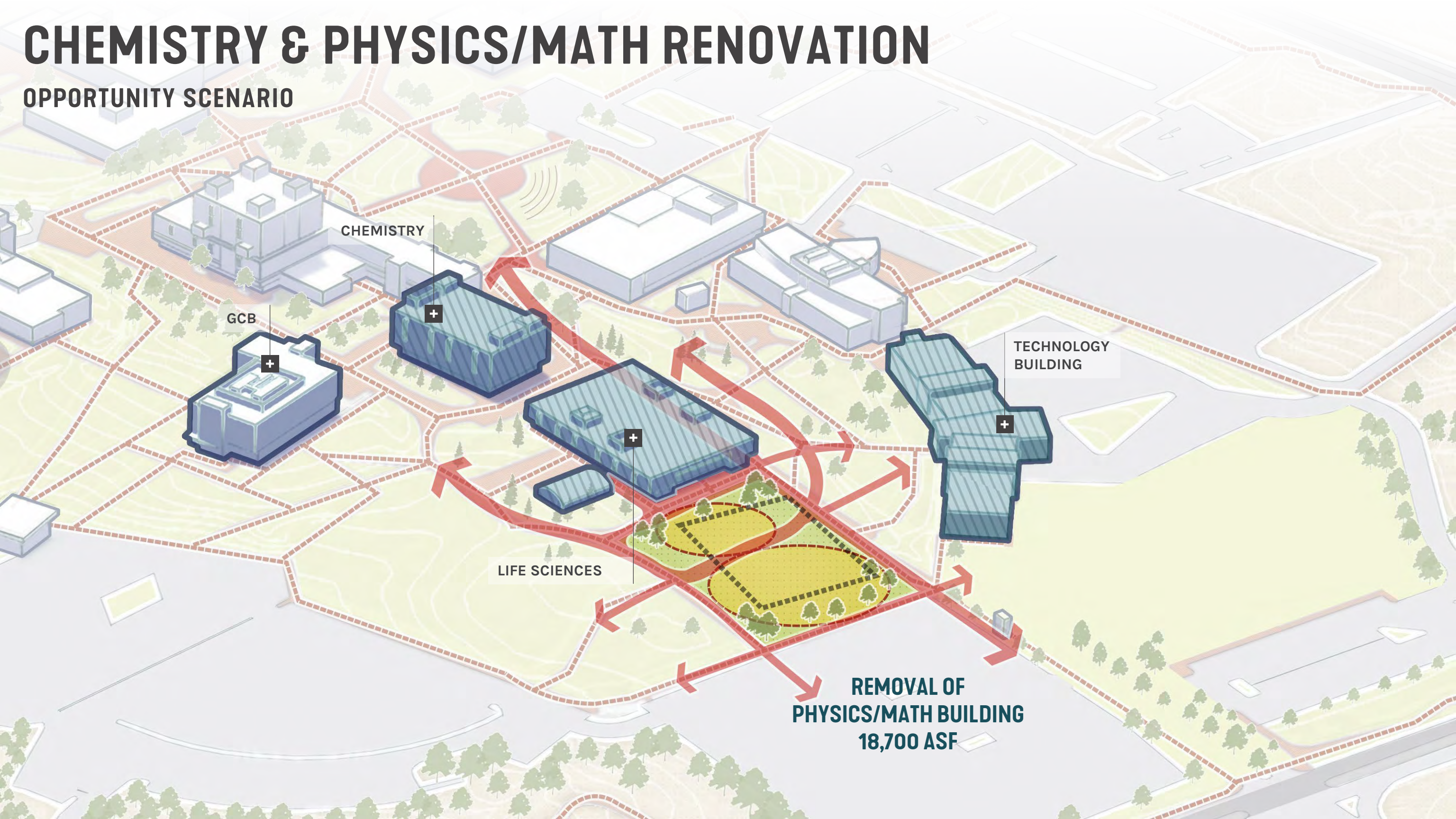
TECHNOLOGY BUILDING

LIFE SCIENCES

PHYSICS-MATH REMOVED

CHEMISTRY & PHYSICS/MATH RENOVATION

OPPORTUNITY SCENARIO



CHEMISTRY

GCB

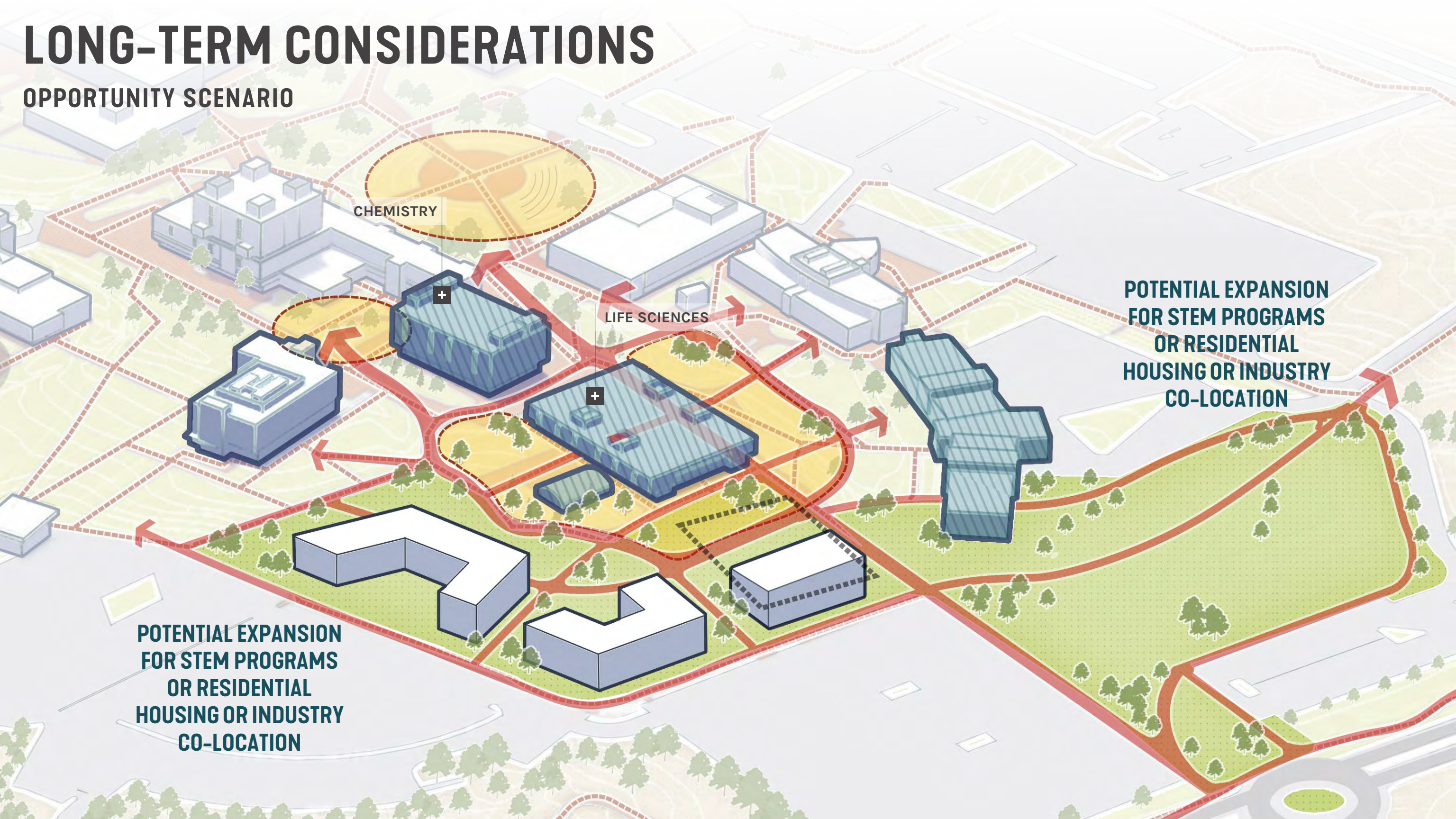
TECHNOLOGY BUILDING

LIFE SCIENCES

REMOVAL OF PHYSICS/MATH BUILDING
18,700 ASF

LONG-TERM CONSIDERATIONS

OPPORTUNITY SCENARIO



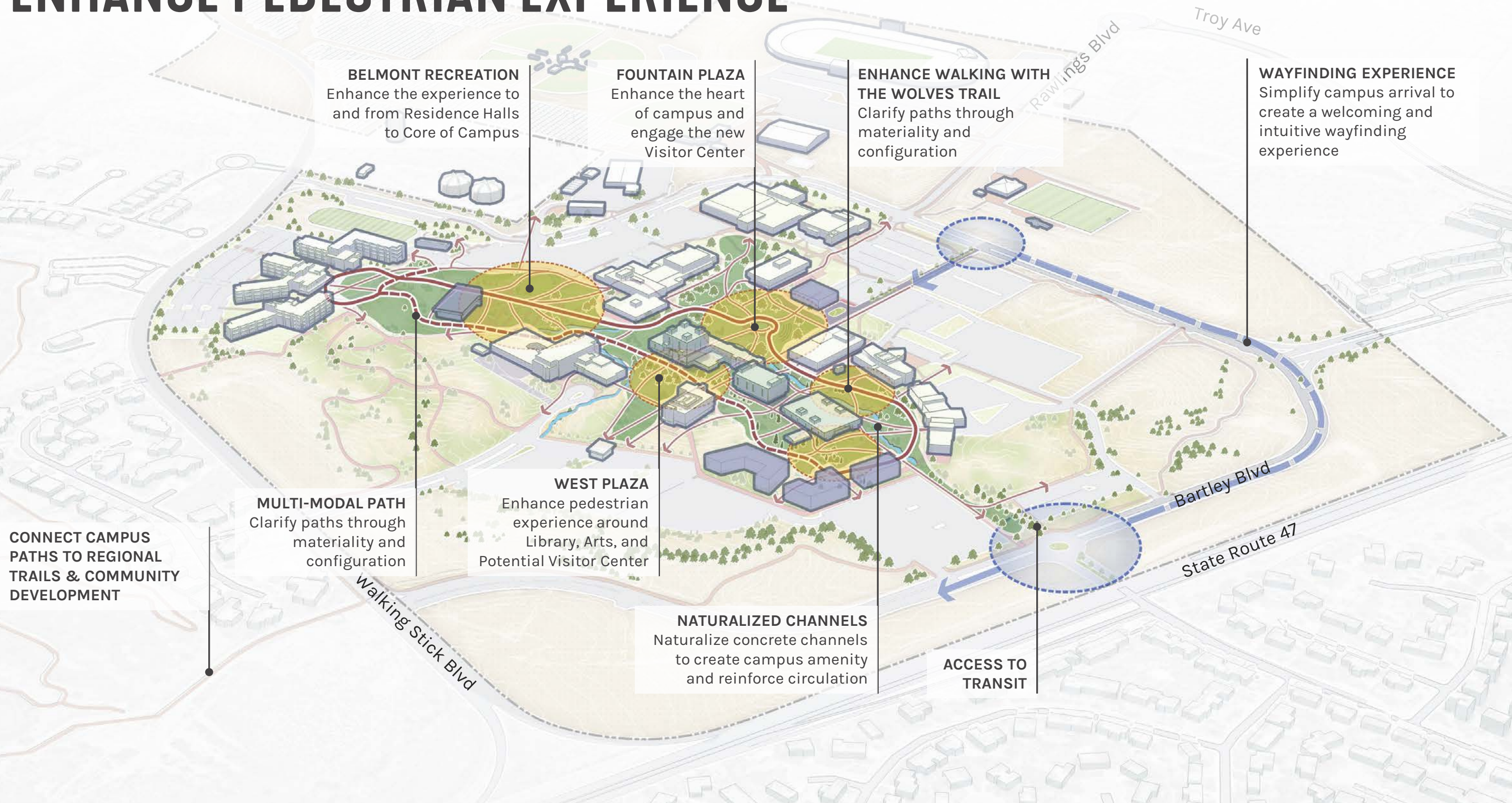
CHEMISTRY

LIFE SCIENCES

POTENTIAL EXPANSION
FOR STEM PROGRAMS
OR RESIDENTIAL
HOUSING OR INDUSTRY
CO-LOCATION

POTENTIAL EXPANSION
FOR STEM PROGRAMS
OR RESIDENTIAL
HOUSING OR INDUSTRY
CO-LOCATION

ENHANCE PEDESTRIAN EXPERIENCE



BELMONT RECREATION
Enhance the experience to and from Residence Halls to Core of Campus

FOUNTAIN PLAZA
Enhance the heart of campus and engage the new Visitor Center

ENHANCE WALKING WITH THE WOLVES TRAIL
Clarify paths through materiality and configuration

WAYFINDING EXPERIENCE
Simplify campus arrival to create a welcoming and intuitive wayfinding experience

MULTI-MODAL PATH
Clarify paths through materiality and configuration

WEST PLAZA
Enhance pedestrian experience around Library, Arts, and Potential Visitor Center

NATURALIZED CHANNELS
Naturalize concrete channels to create campus amenity and reinforce circulation

ACCESS TO TRANSIT

CONNECT CAMPUS PATHS TO REGIONAL TRAILS & COMMUNITY DEVELOPMENT

SOUTH CAMPUS TODAY



SOUTH CAMPUS RESIDENTIAL VILLAGE & SCIENCE DISTRICT



SOUTH CAMPUS RESIDENTIAL VILLAGE & SCIENCE DISTRICT



IMPROVED ACCESS
TO GENERAL
CLASSROOM
BUILDING



RESIDENTIAL
VILLAGE



NATURALIZED
CHANNELS AS
AN AMENITY



NATURAL &
RESILIENT
LANDSCAPE



WALKING WITH THE
WOLVES TRAIL



INNOVATION
COLLABORATIVE
CENTER

CAMPUS PLAN

FACILITIES & LANDSCAPE IMPROVEMENT ZONE



Troy Ave

Rawlings Blvd

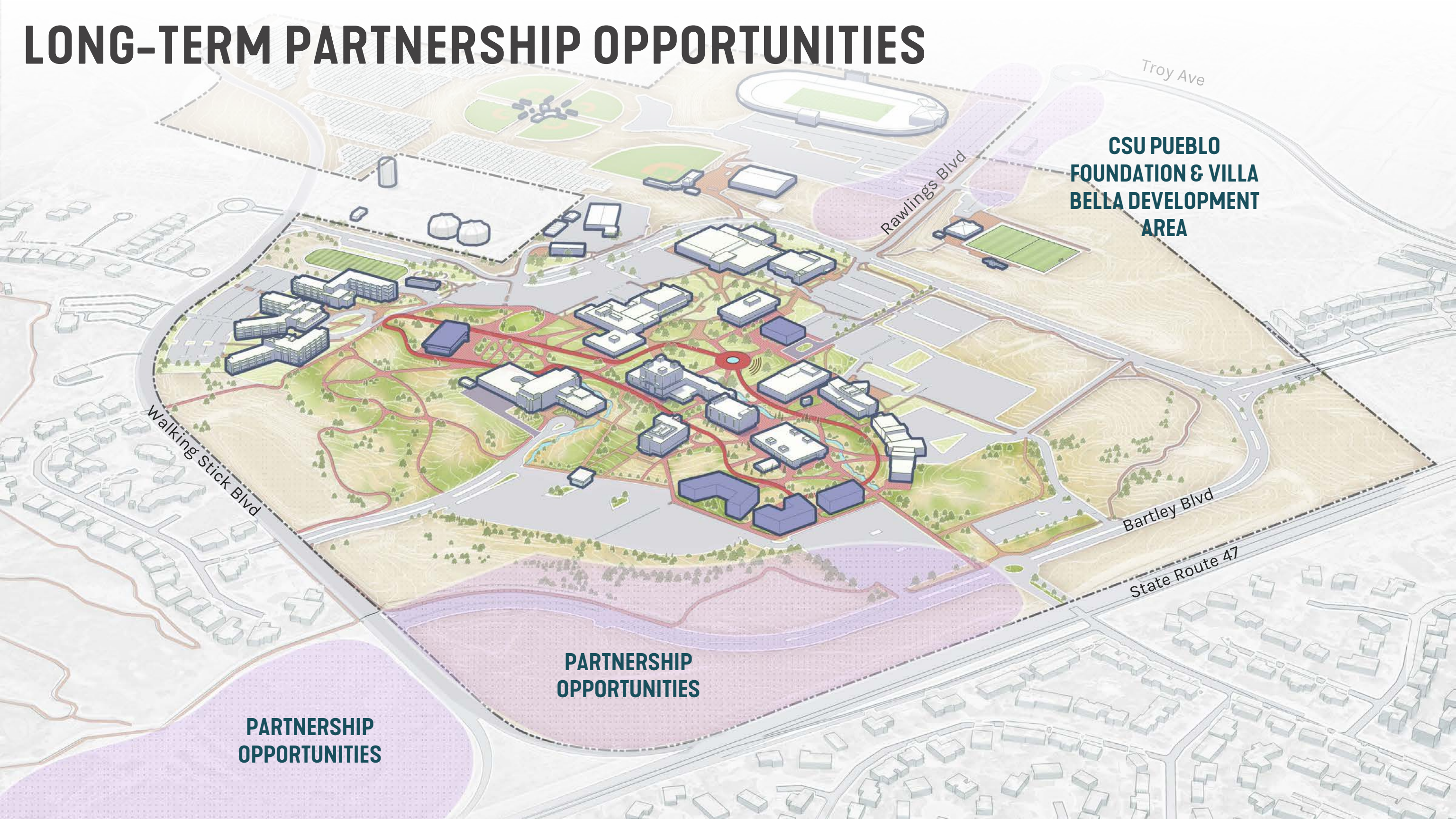
Walking Stick Blvd

Bartley Blvd

State Route 47

- DEMOLISHED
- NEW
- RENOVATED

LONG-TERM PARTNERSHIP OPPORTUNITIES

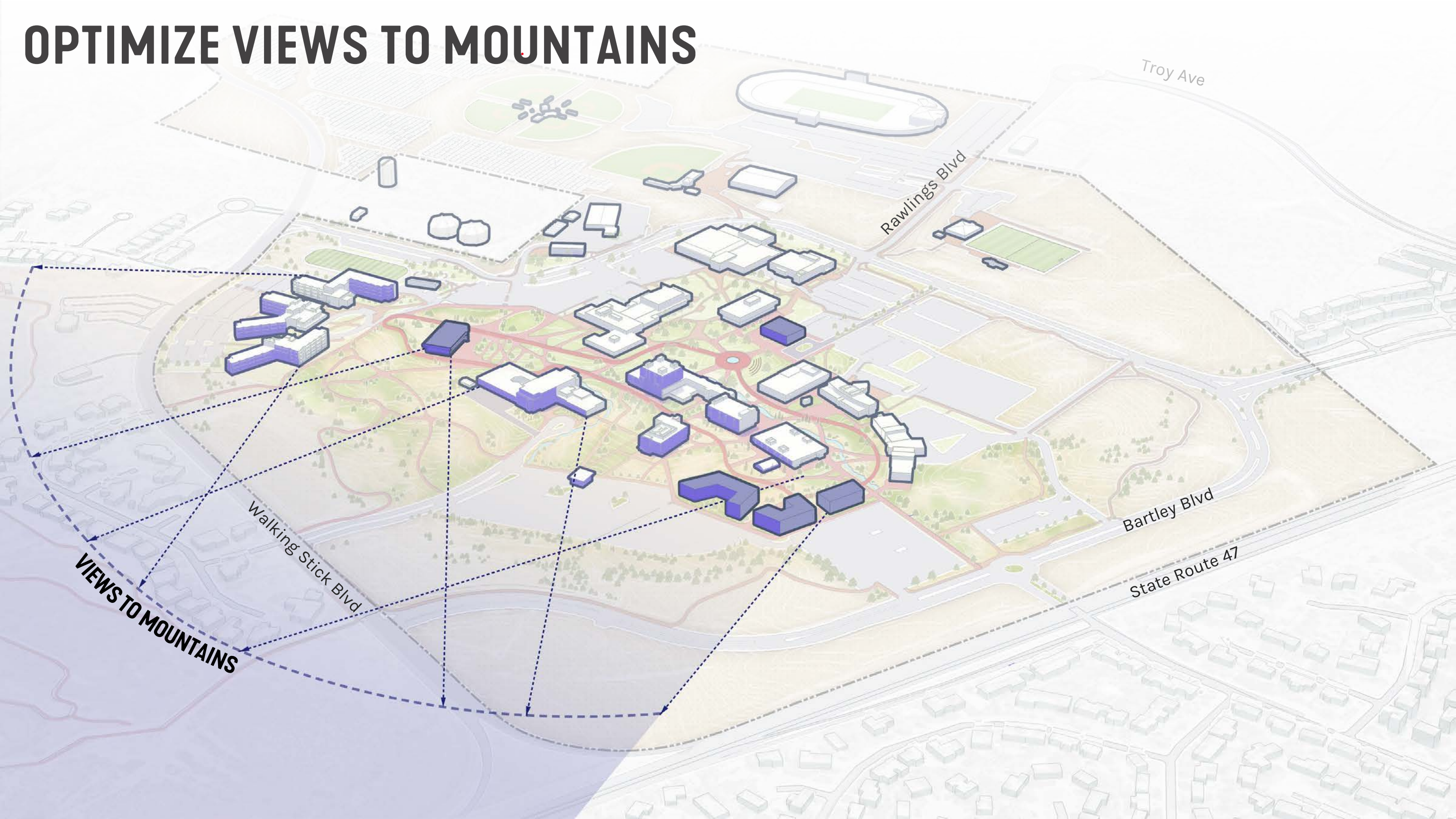


**CSU PUEBLO
FOUNDATION & VILLA
BELLA DEVELOPMENT
AREA**

**PARTNERSHIP
OPPORTUNITIES**

**PARTNERSHIP
OPPORTUNITIES**

OPTIMIZE VIEWS TO MOUNTAINS



Troy Ave

Rawlings Blvd

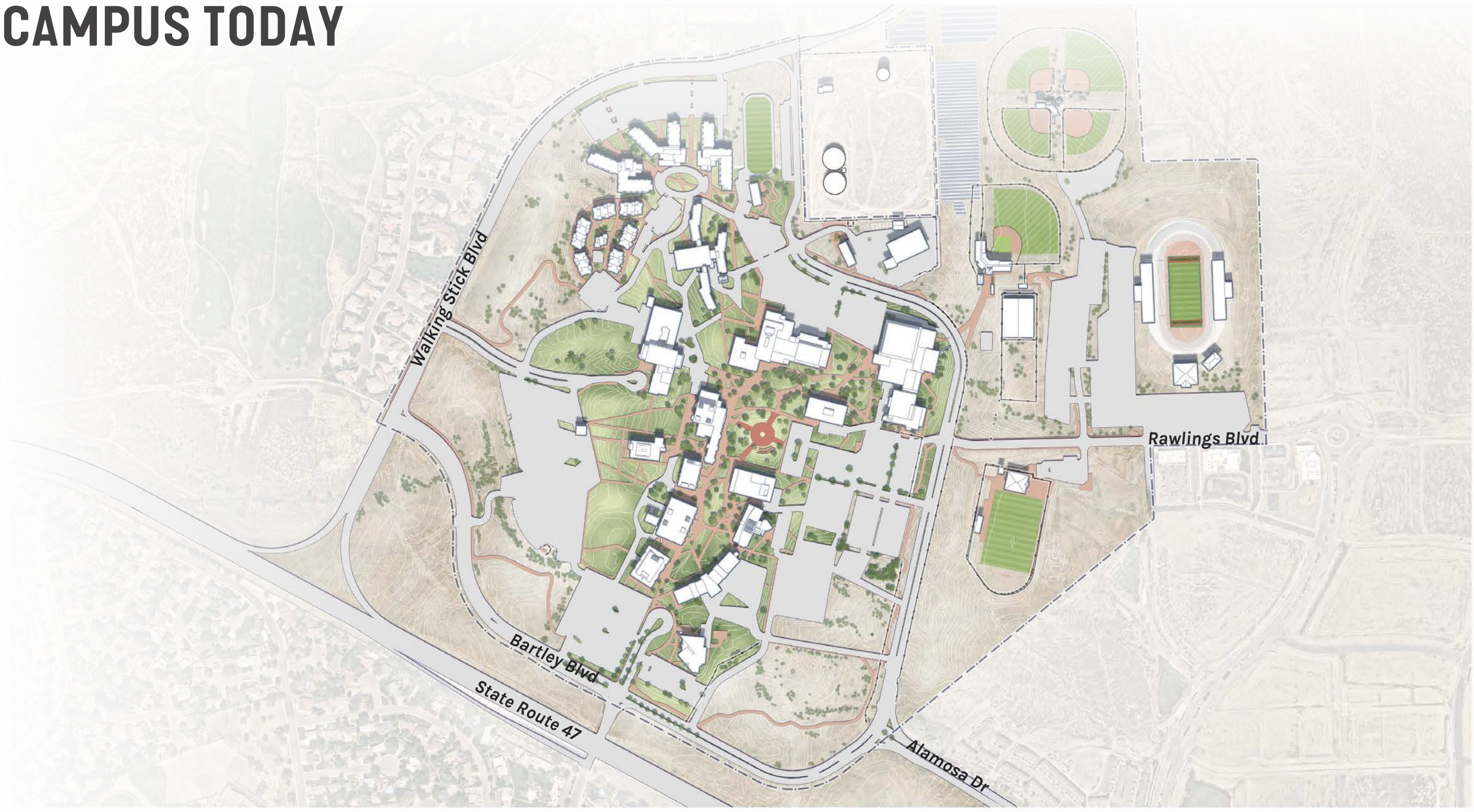
Bartley Blvd

State Route 47

Walking Stick Blvd

VIEWS TO MOUNTAINS

CAMPUS TODAY



CAMPUS PLAN



Walking Stick Blvd

Rawlings Blvd.

Bartley Blvd

State Route 47

Alamosa Dr

CAMPUS PLAN

1. IMPROVE CAMPUS GATEWAY ENTRANCE
2. IMPROVE ARRIVAL EXPERIENCE
3. NEW WELCOME CENTER
4. NEW INNOVATION HUB
5. NEW STUDENT HOUSING VILLAGE
6. NEW STUDENT & COMMUNITIES ACTIVITIES CENTER
7. ADMIN BLDG UPGRADE
8. LIBRARY/LARC UPGRADES & TEMPORARY WELCOME CENTER
9. CONNECT TO GENERAL CLASSROOM BLDG
10. MUSIC BLDG UPGRADE
11. CHEMISTRY BLDG UPGRADE
12. LIFE SCIENCES BLDG UPGRADE
13. RELOCATED STUDENT HOUSING & LANDSCAPE IMPROVEMENTS
14. FACILITIES MGMT ACCESS UPGRADE
15. SURFACE PARKING REDUCTION
16. CIRCULATION UPGRADE & NATURALIZED LANDSCAPE IMPROVEMENTS





DISCUSSION

Section 9

Consent Agenda

Colorado State University System

- Minutes of the May 1, 2023 Audit and Finance Committee
- Minutes of the May 4-5, 2023 Board and Committee Meetings

Colorado State University

- Faculty Manual Changes
 - Section C.2.1.2, C.2.6, C.2.7 integrating “Shared Governance” into code
 - Section C.2.4.1.1, C.2.4.2.1 integrating “Shared Governance” into code

Colorado State University Pueblo

- Discontinuing Programs
 - Advanced Construction Manager
 - Construction Manager
 - Teach Out: Automotive Industry Management
- Waiver Request, Faculty Repay Salary
- Additional Location – Youth Offender System site in Pueblo
- Additional Location – Walsenburg
- Contractual agreements with Distance Providers for CSU Pueblo Teacher Ed Program
- Program Review Calendar
- Program Accreditation

Colorado State University Global Campus

- Discontinuing Programs
 - Teach Out: Fundraising
 - Teach Out: Military and Emergency Responder Psychology
 - Teach Out: Marketing
 - Teach Out: Networking

THE BOARD OF GOVERNORS OF THE COLORADO STATE UNIVERSITY SYSTEM
AUDIT AND FINANCE COMMITTEE
MEETING MINUTES
Conducted Remotely
May 1, 2023

ROLL

Governors present: John Fischer (Chair); Treasurer

Administrators and staff present: Tony Frank, Chancellor, CSU System; Jason Johnson, General Counsel, CSU System; Henry Sobanet, Senior Vice Chancellor and CFO, CSU System; Rick Miranda, EVP, CSU; Brendon Hanlon, VPUO, CSU; Susy Serrano, Director of Internal Auditing, CSU System; Tim Mottet, President, CSU Pueblo; Meg Brewer, CSU Pueblo; Bridget Mullen, CSU System; Becky Takeda Tinker, President, CSU Global; Patti Arroyo, CFO, CSU Global; Suzanne Zimmerer, CSU System Treasury; Angie Neilson, CSU Fort Collins; Dave Ryan, Controller, CSU.

CSU System Staff present: Melanie Geary, Board Liaison

CALL TO ORDER

Chair Fischer called the Committee Meeting to order at 11:01 a.m. and asked Henry Sobanet to begin. Mr. Sobanet welcomed everyone and turned it over to Susy Serrano, Director of Audit Serrano to review the Audit section.

AUDIT AND FINANCE COMMITTEE

Ms. Serrano presented the Dashboard, noting that Internal Audit was at 94% of the plan progress with one project not initiated due to the department being audited not being ready. She explained that the process to develop the Audit plan for next fiscal year was almost complete and a draft would be shared with management soon. She discussed the Athletics audit focused on name image and likeness and ticket sales and the Global payroll audit which they used an external firm to complete. She noted that there was one special project underway which was generated by the Hotline. She then talked about the new look of the Executive summaries which now contain additional context and risk rating.

She discussed the Institute for Cannabis audit and CSU Global Financial Aid, along with the Inclusive Excellence transition and the VP of Operations and CFO transition which focused on Business Financial Services, Office of Budgets, Procurement Services and Office of Risk Management.

She noted the Quality Assurance review had been validated and Internal Audit was in general compliance, which they were very pleased with. Noting there were nine recommendations for improvement in the review. Chair Fischer asked if there were any audits that were not performed due to limited resources. Ms. Serrano responded that the highest priorities are being achieved. She also shared that if there were 17 auditors then they could do everything on the priorities list, but she was confident that the highest priorities were being met. She noted the high-risk recommendation for CSU Pueblo was coming off the list as it had been completed and implemented.

Finance Items

State Budget Update – CFO Henry Sobanet noted the Long Bill includes an 11.5% (\$119.9 M) increase for higher education, which equates to an 11% (\$22 M) increase to the CSU System. Funding was allocated through the funding formula, with an allowable 5% increase in resident, undergraduate tuition. Sobanet noted that the CSU campuses were not advocating for a full 5% increase in tuition because of the impacts on students and competitiveness in the higher education marketplace. Other highlights include additional funding for cybersecurity projects (\$1.2 M), network hardware upgrades (\$2.2 M), state-funded controlled

maintenance projects (\$9.7 M), and \$23.9 million for the Clark Building revitalization. He discussed other bills of note emerging from the legislative session.

FY 23 3rd Quarter Financial Statements

CFO Sobanet noted that the Financial Statements stood as submitted noting they were on track and on budget.

Campus Budget Scenarios with Tuition Discussion

CFO Sobanet discussed the work being done to balance tuition and compensation needs in next year's campus budgets, noting that they would like the Board's input prior to bringing them forward for approval in June.

President Parsons provided context on the CSU draft budget, noting that it was not significantly different from what was shared with the Board in February. She shared that it was a budget that prioritized compensation with a 5% merit increase for all employees, with the hopes for some additional funding for some equity increases. She noted that the plan was to keep the tuition increase to 4%. She introduced CFO Brendan Hanlon, who reviewed budget specifics including mandatory costs, new expenses of \$39.8 M and closing the structural deficit carried over from the pandemic of \$2.7 M.

President Mottet introduced the CSU Pueblo budget priorities. He explained that the Budget included a 5% salary increase and an additional \$250,000 for equity, and an additional \$200,000 for adjunct faculty compensation increases. He shared that anticipated mandatory costs were increasing by 6%. He discussed \$3.9 M in new resources including \$1.1 M from a transfer from extended studies. The proposed tuition increase was 3 %, and the campus would deploy reserves as approved by the Board of Governors to balance the budget. He noted that the carried forward structural deficit would be down to \$1 M and remedied next fiscal year. He went on to share that enrollment was trending ahead of this time last year and they were anticipating reaching enrollment goals. He noted that retention efforts were still needed. He also explained efforts to improve efficiency and reducing the number of adjunct faculty teaching low enrolled courses.

President Takeda-Tinker shared that CSU Global was working to achieve their enrollment goal. They would have a slight reduction in staffing occurring on May 5th to right size and were focusing efforts to increase student head count. She also noted they were closely monitoring revenue and expenses. CSU Global would be bringing that forward a proposed budget at the June meeting.

CSU System Treasury Update

CFO Sobanet provided the Treasury update, noting there were \$22.7 M remaining of undistributed gains after other obligations. \$21 M was earmarked for initiatives; \$1.5 M had been paid to Joyce McConnell; \$18.4 M had been distributed to CSU Fort Collins in interest earnings. He also shared that there would be an action item for the Amended and Restated 23rd Supplemental which would authorize refunding of up to \$225 M of Tender Offer Bonds within the set criteria.

Composite Financial Index (CFI) Presentation

CFO Hanlon reviewed the status of the Composite Financial Index which he noted was imperfect but had been adopted by rating agencies. He noted that it helps gain understanding of an institution's overall financial health. He explained that in FY 21 there was an infusion of Federal dollars and in FY 22 the CFI dropped as a result of market losses consistent with national trends.

With no further business the committee adjourned at 12:08 p.m.

**THE BOARD OF GOVERNORS OF THE
COLORADO STATE UNIVERSITY SYSTEM
MEETING MINUTES
May 4-5, 2023
Colorado State University
Translational Medicine Institute
2350 Gillette Drive, Fort Collins, Colorado
Grand Event Hall**

ROLL

Governors present: Kim Jordan, Chair; Armando Valdez, Vice Chair; John Fischer, Treasurer; Nate Easley, Secretary; Polly Baca; Kenzo Kawanabe; Betsy Markey; Louis Martin; Ray Baker; Dr. Jennifer Davis, Faculty Representative, CSU Global; Dr. Andrew Norton, CSU Faculty Representative; Mikayla Lerch, CSU Pueblo Student Representative; Paige Martinez, CSU Global Student Representative; Dr. MD Islam, CSU Pueblo Faculty Representative; and Rob Long, CSU Student Representative.

Administrators present: Tony Frank, Chancellor, CSU System; Jason Johnson, General Counsel, CSU System; Rick Miranda, Executive Vice President, CSU; Amy Parsons, President, CSU; Timothy Mottet, President, CSU Pueblo; Becky Takeda Tinker, President, CSU Global; Henry Sobanet, Senior Vice Chancellor and CFO, CSU System; Susy Serrano, Director of Internal Auditing, CSU System; and Roze Hentschell, Interim Chief Academic Officer, CSU System.

CSU System Staff present: Melanie Geary, Board Liaison; Adam Fedrid, IT Manager; Wayne Hall, IT Manager.

Guests present: Dr. Chad Kinney, Interim Provost, CSU Pueblo; Johnna Doyle, Deputy General Counsel, CSU Pueblo; Dr. Jan Nerger, Interim Provost, CSU; Jocelyn Hittle, AVC, CSU System; Tiana Kennedy, AVP, CSU System/CSUFC; Dr. Blanche Hughes, VP for Student Affairs, CSU Fort Collins; Dr. Donna Souder Hodge, CSU Pueblo; Dr. Van Winkle, Presidential Fellow, CSU Pueblo; Jeff Dodge, Director, Internal Communications, CSU Fort Collins; Dr. Pam Jackson, CSU Provost's Office; Brendan Hanlon, VP for Operations, CSU Fort Collins; Gena Alfonso, Director Marketing, Communications, and Community Relations, CSU Pueblo; Kelly Lyell, Fort Collins Coloradoan; Kate Siegel Shimko, AVC, CSU System; Dr. Brad Gilbreath, CSU Pueblo; Kyle Henley, VP for Marketing and Communications, CSU Fort Collins, Mike Hooker, Community Relations, CSU Fort Collins; Emily Amedee, Director of Academic Operations, CSU System; Lise Youngblade, Dean of Health and Human Sciences, CSU Fort Collins; Cheri O'Neil, CEO, CSU Foundation; Kauline Cipriani, VP for Diversity and Inclusion, CSU; Joe Mendoza, CSU Communications; June Greist, President's Office, CSU; Rico Munn, President's Office, CSU; Mary Van Buren, CSU; Bea Yung; Cara Neth, CSU System; Danielle Demetious; John Hitchens; Jim Bradeen, CSUFC; Mari Strombom, CSU Housing and Dining.

CALL TO ORDER

Chair Jordan called the Board meeting to order at 9:00 a.m. and welcomed everyone.

She then asked General Counsel Johnson to administer the oath of office for new Board member Ray Baker, who affirmatively agreed to perform the duties as a member of the Board of Governors of the Colorado State University System and to uphold the laws of the State of Colorado, the Constitution of the State of Colorado, and the Constitution of the United States.

Next, Chair Jordan introduced the Undergraduate Teaching award, which is awarded to each campus annually. She asked CSU Provost Jan Nerger to introduce the recipient of the Excellence in Teaching Award for CSU, Dr. Ashley Harvey. Interim Provost Jan Nerger introduced Dr. Harvey and discussed her contributions to undergraduate teaching excellence. Dr. Harvey thanked the Board of Governors, her Department Head, and Dean Lise Youngblade for the honor.

PUBLIC COMMENT

Chair Jordan then discussed the customary Public Comment that occurs at every meeting. She noted that Public Comment is an important part of our Board meetings, and the Board considers the comments as they carry out their duties. Five people signed up for public comment and they were each allotted three minutes to share their comments.

CSU faculty member Mary Van Buren discussed concerns about salary equity and proposed increased salary levels.

Graduate student Bee Leung discussed graduate student concerns about the budget and fair graduate student wages and benefits.

Graduate student Danielle Demateius discussed graduate student concerns about salaries and perceptions that graduate students are not supported by CSU.

Non-tenure-track faculty member John Kitchens discussed struggles of low-income faculty and graduate students, including hunger and transportation insecurity.

Stephen Maddock, CoWins, CSU discussed concerns about losing facilities staff.

Chair Jordan acknowledged the comments and noted that the Board of Governors was actively discussing these issues as it considers the Budget for the coming year.

CHANCELLOR'S REPORT

Chancellor Frank thanked interim Chief Academic Officer Roze Hentschell for continuing in her role through the fall. He then noted that Associate Vice Chancellor Kennedy was taking on a dual role with the flagship campus in the CSU Fort Collins Communications and Marketing Department. He then discussed state and federal relations, particularly work throughout the legislative session. Chancellor Frank also discussed Senior Vice Chancellor Sobanet's work on state tax policy and continued engagement in statewide economic policy issues. He then recognized recent developments at Spur including recognition as the Outstanding Government Partner of Denver Public Schools this year.

Action on Board Policies 122 and 402

Board Policy 122: Policies and Procedures. General Counsel Johnson explained that occasionally the Board, in accordance with best practices, updates and modifies its policies. The change to Board Policy 122 regarding Board Appointments would clarify that Chancellor approval is required before a campus President may offer tenure or an employment agreement to a senior executive officer. The modification to Policy 402 regarding the Board's Student Fee Policy provides that a program plan must be approved by the Board before any new student fee for capital improvements will be considered, and the institutions are directed to update their annual Campus Fee Plans accordingly.

Motion/Action: Governor Kawanabe moved for Board approval of Board Policies 122 and 402. The Motion was seconded by Governor Louis and carried unanimously. This Action Item is included in the Board meeting materials.

Association of Governing Boards (AGB) Conference Re-cap

Governors Easley and Kawanabe discussed their experience at the AGB Conference in April. They noted the value of the connections and understanding what is happening with campuses and boards around the country and shared information on governance duties and best practices.

CSU Spur Update

AVC Hittle provided an update on the Spur campus. She noted that the Hydro Backyard construction was almost complete. She shared that an Arts Advisory Group had been launched and the Western Daughters Kitchen was open. AVC Hittle also noted that additional educators had been hired. She discussed education highlights and recognized the hard work of the Education Team, noting that approximate 8,000 students and teachers from 250 unique groups had visited the campus and the campus is building a strong volunteer corps, with 33 active volunteers. AVC Hittle went on to discuss summer programming starting this summer. She shared that Second Saturdays at Spur had attracted more than 1,000 guests and thanked the communications team lead by AVC Kennedy for their work on increasing awareness. She explained efforts underway to develop fundraising strategies and standard operating procedures. AVC Hittle also discussed the work to create a policy presence at Spur around water policy, building on the expertise of CSU campus faculty. Governor Valdez asked how they're tracking the impact Spur was having on the broader community; AVC Hittle noted that this work is part of CSU's commitment to being an anchor institution, and they are in the foundational stages of starting to track metrics around the anchor institution model.

Retreat Follow-up: Campus Collaboration

Chair Jordan then transitioned the discussion to the follow-up from the past Board retreat explaining that people would break into six working groups to discuss the topic of Campus Collaboration for approximately one hour. The groups moved into breakout sessions at 9:44 a.m. The Board paused for a break at 10:44 a.m. and resumed at 10:49 a.m.

AUDIT AND FINANCE COMMITTEE

Chair Fischer called the Committee Meeting to order at 10:50 a.m. and asked Internal Auditing Director Susy Serrano to lead off the Audit items. Ms. Serrano presented the Dashboard, noting that Internal Audit was at 94% of its plan progress with one project not initiated due to the department being audited not being ready. She explained that the process to develop the Audit plan for next fiscal year was almost complete and a draft would be shared with management soon. She discussed how the CSU Athletics audit focused on Name Image and Likeness, as well as ticket sales, and the CSU Global payroll audit, which they used an external firm to complete. Ms. Serrano noted that there was one special project underway that was generated by the CSU System Reporting Hotline. She then talked about the new look of Internal Audit's Executive summaries, which now contain additional context and risk rating.

Ms. Serrano then discussed the Institute for Cannabis audit and CSU Global Financial Aid, along with the CSU Office of Inclusive Excellence transition and the VP of Operations and CFO transition that focused on Business Financial Services, Office of Budgets, Procurement Services and Office of Risk Management. She noted the external Quality Assurance review of the Internal Audit Office had been validated and Internal Audit was in general compliance, which they were very pleased with. She noted the high-risk recommendation for CSU Pueblo was coming off the list as it had been completed and implemented.

Finance Items

State Budget Update – CFO Henry Sobanet noted the Long Bill includes an 11.5% increase for higher education, which equates to an 11% increase to the CSU System. Funding was allocated through the funding formula, with an allowable 5% increase in resident, undergraduate tuition. CFO Sobanet noted that the CSU campuses are not advocating for a full 5% increase in tuition because of the impacts on students and competitiveness in the higher education marketplace. Other highlights include additional funding for cybersecurity projects, network hardware upgrades, state-funded controlled maintenance projects, and \$23.9 million for the Clark Building revitalization. He discussed other bills of note emerging from the legislative session.

FY 23 3rd Quarter Financial Statements

CFO Sobanet shared the third quarter financial statements and notes for the System and institutions.

Campus Budget Scenarios with Tuition Discussion

CFO Sobanet discussed the work being done to balance tuition and compensation needs in next year's campus budgets, noting that they would like the Board's input prior to bringing them forward for approval in June.

CSU President Parsons provided context on the CSU draft budget, noting that it represents significant work from many people across campus and is informed by discussions with faculty, students, and the broader campus community. She shared that it was a budget that prioritized compensation with a 5% merit increase for all employees, with funding to bring all administrative professionals and faculty up to a baseline of \$50,000, and noting that State classified salaries are determined by the State. She shared that there was also funding to ensure that the lowest-income students do not feel the impact of the tuition increase, and the plan to keep the tuition increase to 4%. She introduced CFO Brendan Hanlon, who reviewed budget specifics. Governor Kawanabe asked how much the budget is likely to change between now and June; VP Hanlon responded that it was about 98% final. Chancellor Frank shared that the answer really fell to the Board, as this meeting was their opportunity to ensure the budgets align with their concerns and priorities.

Governor Markey asked for a historical presentation on how tuition, salaries, and incremental budgets and how they've changed over the last few years. Governor Norton asked for an explanation on how enrollment increases were being accounted for in the budget, and VP Hanlon explained that they had moved to a rolling average estimate now that Covid-era volatility had subsided. Governor Long discussed student concerns about the budget and that students were increasingly asked to pay a greater share of educational costs. If one student can't return because of this tuition increase, it is a shared failure, he said.

Chair Jordan discussed how the System helped underwrite campus budget shortfalls; CFO Sobanet shared that federal resources helped staunch the immediate shortfalls, and then the System had been able to provide bridge funding to shore up in the next year. While there had been a structural deficit, internal resources were available to close that with salary savings but those have not all been made permanent. President Parsons thanked Governor Long for his concerns; she acknowledged the concerns and thanked Governor Long for his engagement throughout the process of building the budget. She noted that for in-state students, this increase was \$198 per semester, and around \$500 for non-resident students. She also discussed the need for greater transparency around budget accountability and development, starting with college and divisional presentations in the fall. They were also looking at a new budget model so that next year, they would be able to assess the old and new models alongside each other prior to implementation. Governor Norton said faculty were very appreciative of the engagement around the budget.

Chancellor Frank said if funding were available, no one would vote for tuition increases and we would be increasing compensation more aggressively. Even with plenty of good reasons for the tight budgets, the statements made in public comment were real – people are hurting and struggling to keep up with increasing

costs and stagnant wages. He stated with a \$1.5 B budget, why can't we make more progress? He went on to explain how budgets are set up and managed by units, stating that with any strategic changes at the university level requiring tightening and reallocation in those units. He reviewed scenarios for providing compensation increases without tuition increases and noted that anything you do in one area impacts another part of the budget. The budgets attempt to balance the complex, competing interests of the university. Leadership can't just look at the issues of today; they and the Board are charged with the health of the organization over the long term.

President Mottet introduced the CSU Pueblo budget priorities, including managing the carried-forward deficit. He explained that the draft CSU Pueblo budget included a 5% salary increase and an additional \$250,000 for equity, and an additional \$200,000 for adjunct faculty compensation increases. He shared that anticipated mandatory costs were increasing by 6% driven by IT expenses. The proposed tuition increase was 3%, and the campus would deploy reserves as approved by the Board of Governors to balance the budget.

President Takeda-Tinker shared that they were closely evaluating the budget and projections for CSU Global and would be bringing that forward at the June meeting.

CSU System Treasury Update

CFO Sobanet provided the Treasury update, noting there were \$22.7 M remaining of undistributed gains after other obligations. \$21 M was earmarked for initiatives; \$1.5 M had been paid to Joyce McConnell; \$18.4 M had been distributed to CSU Fort Collins in interest earnings. Governor Fischer asked if the returns observed were sustainable. CFO Sobanet shared that the portfolio was designed to generate returns over a long term. Noting that the strategy was relying on historical trends, with 60% equity, 40% non, and if there was a significant downturn, the CSU System treasury would feel it along with everyone else with invested assets. Governor Jordan discussed the importance of prudent reserves for overall solvency.

Action on the Approval of Amended and Restated 23rd Supplemental Resolution

CFO Sobanet explained that the resolution would authorize refunding of up to \$225 M of Tender Offer Bonds within the set criteria.

Motion/Action: Governor Baca moved for Board approval of the 23rd Supplemental Resolution. The Motion was seconded by Governor Easley and carried unanimously. This Action Item is included in the Board meeting materials.

Composite Financial Index (CFI) Presentation

CFO Hanlon reviewed the status of the Composite Financial Index in the context of market losses over the last year.

CFO Sobanet shared that the presentation was a demonstration of the collaboration among the campuses, with considerable support coming from the Fort Collins campus. Governor Fischer said we were very fortunate to have the strong staff in places like auditing and finance. He said recent years had been enormously challenging for financial managers and thanked the staff for their great work.

The Board paused for a Shared Governance lunch at 12:31 p.m. with members of faculty, Administrative Professional, Classified Personnel councils and ASCSU.

The meeting resumed 1:42 p.m.

CSU REPORTS

Student Report

Governor Long introduced the next president and vice president of ASCSU, Nicholas DeSalvo and Alex Silverhart. He reiterated the importance of the student voice in university governance. He then discussed progress made in supporting student wellness and mental health.

Faculty Report

Governor Norton reported that he had been re-elected to his representative position. Faculty Council Chair Sue Doe became the director of The Institute for Learning and Teaching. He thanked the Board of Governors for making the time to join Faculty Council meetings this year. He shared that the CSU employee councils met monthly to share information and look for common ground. He noted there had been considerable discussion among faculty about how to deploy the salary exercise, which was a pleasant change from discussing whether there would be a salary exercise. He discussed reports from the Fall 2022 task forces, and thanked President Parsons for engaging with each of the task forces. He discussed the National Science Foundation-sponsored program to elevate the status of faculty, particularly women faculty, to improve equitable treatment of faculty as part of a nationwide effort. He also shared that Elected Faculty Council leadership attended a national meeting on the status of college athletes in preparation for major changes to college athletics, and they expect to continue to stay involved in that discussion.

President's Report – Presented by Amy Parsons

President Parsons shared that the Report stood as submitted and then she highlighted the Veterinary Hospital's new #2 national ranking and designation as a top Fulbright-producing institution. She reviewed the latest STARS ranking that cements CSU's status as the most sustainable university in the country. She shared that she had survived her first 90 days and expressed gratitude to the Board and President's Office staff. She introduced new CSU leaders June Greist, Director of Presidential and Administrative Communications; Kyle Henley, VP for Marketing and Communications; Derek Dictson, VP for Advancement; Eric Ray, VP for Human Resources; Rico Munn, Chief of Staff; Christa Johnson, Interim VP for Research; Tiana Kennedy, AVP for Communications. She also noted the dean searches underway and the launched provost search.

President Parsons then previewed "An Open Door," a documentary by CSU alumni and students on Professor Temple Grandin. Dean James Pritchett introduced Dr. Grandin, who received a standing ovation from the Board. Director of Development for College of Agricultural Sciences John Festerv and talked about the origins of the documentary; director and CSU alumnus John Barnhardt and student editor Rachael Mild discussed the film's production and importance. Dr. Grandin talked about the importance of encouraging children to do things and helping students think differently to be successful.

President Parsons announced that CSU had received a (US Department of Agriculture) USDA grant that would be announced on Friday morning at a public event.

CSU GLOBAL REPORTS

Student Report

Governor Martinez thanked the Board for the opportunity to serve. She reported on a commercial that she was involved in filming for the university. She shared that CSU Global would continue to provide an opportunity for students to attend CSU Fort Collins football games. She then discussed the recent news that CSU Global would be sunsetting the Military and Emergency Responder Psychology program. She introduced Laxman Adhikari, the new student representative from CSU Global. Chair Jordan thanked Governor Martinez for her service and expressed her appreciation for her leadership.

Faculty Report

Governor Davis noted that her replacement would be Dr. Susan Aloï. She reported that there had been a lot of transition in CSU Global's leadership through the spring and expressed appreciation for the openness during that time. She said there were some rumblings about the changes and encouraged continued outreach to faculty to help them stay informed.

President's Report

Dr. Becky Takeda Tinker said the university would be supporting the graduation of students currently in the Military and Emergency Responder Psychology program throughout the planned teach out. She reported on enrollment goals and progress and retention by term. She applauded the hard work of staff and faculty. She also shared that a data warehouse project she began several years ago was now up and running and accessible. An international partnership with Global Learning Exchange was also now underway. She noted that on June 3, the university would celebrate commencement at the First Bank Center in Broomfield. She then thanked Governors Davis and Martinez for their time and dedication to serving on the Board of Governors.

CSU-PUEBLO REPORTS

Student Report

Governor Lerch shared that she was concluding her tenure as CSU Pueblo student representative and thanked the Board for the opportunity. She then reported on recent activities including participation the 1st Annual Leadership Summit connecting with student leaders from high schools in southern Colorado.

Faculty Report – Presented by MD Islam

Governor Islam shared he was also concluding his tenure as CSU Pueblo faculty representative. He thanked President Mottet and the faculty for the opportunity to serve. He highlighted a few items from his written report including the hiring of CSU Pueblo's new provost and new dean of the Hasan College of Business. He then discussed the award to undertake a two-year pilot project to increase broadband access to underserved communities in Pueblo. He also discussed ongoing concerns about faculty compensation.

To continue the theme of shared governance, President Mottet discussed ongoing concerns and frustrations around compensation. He introduced a group of faculty who asked for the opportunity to address the Board.

Special Faculty Input

Dr. Judy Gaughan, Professor of History: She shared that she was concerned that the Board was not aware of the depth of faculty frustration over compensation and that money being spent on administrators would be better spent on faculty. She discussed her activities as a faculty member and said a low salary was hurtful.

Dr. Jonathan Pluskota, Chair & Associate Professor – Department of Media & Entertainment. Discussed expectations he had when he was hired, re: faculty positions and funding, and how they had not been fulfilled. He said there were real and serious struggles, including asking departments to return portions of their operating budgets for reallocation. He pointed to money spent on fake plants for a rooftop and a new sign and said one-time funds would be better spent on building accessibility issues. At his former university in Mississippi, they were paying adjunct faculty more than CSU Pueblo, when Colorado was one of the most affluent states in the US. He said that shared governance was non-existent and there was no transparency. He said Vision 2028 had potential to transform CSU Pueblo, but not in its current form. He invited the Board to get to know the CSU Pueblo faculty.

Jennifer Bruton, Assistant Professor of Music, Director of Choral Activities. She shared she was in her first year at CSU Pueblo and expressed concerns about funding of academic programs and faculty salaries, including compression issues. Noting that low salaries make it hard to provide for students when worrying about personal financial well-being. She noted that it was difficult to recruit students whose high school facilities were better than what is available at the university.

Chair Jordan thanked the guests for their comments and commitment to CSU Pueblo students.

President's Report

President Mottet thanked the faculty for attending and Mikayla Lerch and MD Islam for their Board service. He reported on the hiring of the new provost and end-of-the-year activities celebrating students and employees. He discussed commencement plans including open houses on campus after the ceremony.

The Board adjourned at 3:21 for a break and resumed at 3:31 p.m.

ANNUAL PHILANTHROPY REPORT

CSU Pueblo

Donna Souder Hodge, VP Operations and Advancement acknowledged the leadership of Alex Brady in leading philanthropic efforts as they had worked to build the brand, alumni engagement, and a stronger pipeline of support. She shared that they had raised \$1.8 million in new gifts in 18 months. She shared a video showcasing the Festival of Winds, which serves 360 high school participants every year. She noted that through strategic leveraging of resources, they were able to institutionalize the program, which had been in existence for years thanks to the leadership of faculty. She noted that funds had also been used to elevate the appeal of campus through creation of new outdoor spaces. She also discussed engagement activities, including awarding an honorary doctorate to alumna Dana Perino.

CSU

President Parsons introduced new VP for Advancement Derek Dictson, who thanked Karen Dunbar and Rudy Garcia for jointly serving as Interim VPs for Advancement. Interim VP Dunbar presented the annual report noting that they would be creating a Land Grant Ambassador program in the coming year. She reviewed total invested assets vs endowment and explained how cash and investments were categorized. She shared that Academic and Instructional Support was the largest segment, followed by Student Support. She reviewed private support numbers over the past five years, as well as private support by college and unit. Governor Kawanabe asked about gift acceptance guidelines; Ms. Dunbar said there were conversations with donors to make sure gifts benefit the unit's mission and purpose. If there were concerns about the source of the money, that is also discussed, and the University's naming policy provides specific guidelines. Governor Easley asked how much the funds raised reflect institutional priorities vs. donor desires; Ms. Dunbar said donor intent generally drives individual gifts. Chancellor Frank noted that in the last campaign, there were goals for endowed chairs, scholarships, both of which exceeded the goals and gifts to support physical facilities underperformed the goals set at that time. Governor Markey asked a clarifying question about when gifts are reflected in the university's balance sheets. The Chancellor said they were most readily visible at the unit or division level. He also noted that reports were done at the request of the Board, and Board members were welcome to ask for format changes or additional information.

The Board adjourned for the day at 4:09 p.m.

FRIDAY, MAY 5, 2023

The Board began the day with breakfast with various CSU coaches and student athletes, including: Coach Jay Norvell-Football: Athletes: Tory Horton and Paddy Turner; Coach Niko Medved-Men's Basketball: Athletes Josiah Strong and Patrick Cartier; Coach Laura Cilek-Women's Golf; Lacey Uchida; Coach Mai Ly Tran- Women's Tennis: Athletes Sarka Richterova and Zara Lennon; Coach Ryun Williams-Women's Basketball: Athletes McKenna Hofschild and Cailyn Crocker; Steve Cottingham-Admin; Shalini Shanker-Admin

Chair Jordan reconvened the Board meeting at 9:11 a.m.

ACADEMIC AND STUDENT AFFAIRS COMMITTEE

Chair Easley introduced Chief Academic Officer Roze Hentschell to present the committee's agenda. Dr. Hentschell discussed the following new programs for CSU: Associate of General Studies; Major in Livestock Business Management; Graduate Certificates: Climate Adaptation and Risk Management; Global Supply Chain Management; Political Economy; and a Discontinued Academic Program: Political Economy. At CSU Pueblo: Retitle Bachelor of Applied Science in Organizational Leadership.

She then presented the Faculty Manual Changes, which include modifications to the Preface, changes to Section C.2.1.3.1 related to Elected Members, and Section E.10.5 related to Procedures for Granting Tenure.

CSU System Collaboration

CAO Hentschell then discussed the emphasis on Systemwide collaboration around admissions, student success, and dual/concurrent enrollment. She announced that the System had received a (National Association of System Heads) NASH Equity Action Intensive Grant, one of four systems across the nation to receive that funded opportunity.

Provost's Update on Enrollment/Access, Program Development/Pedagogical Initiatives, Top of Mind
CAO Hentschell introduced the Provosts to each report on enrollment/access, program development/pedagogical initiatives, and Top of Mind items.

Interim Provost Jan Nerger reported for CSU Fort Collins. Her overview included a presentation on the first-year implementation of the academic master plan.

Interim Provost Chad Kinney reported for CSU Pueblo, including a focus on what they were doing to grow graduate enrollment. He provided an overview of the faculty and administrative professional compensation models, noting that there was roughly a \$2.5 million gap they needed to overcome to get to market rates.

President Takeda-Tinker reported for CSU Global. She reviewed enrollment marketing and conversion strategies. She shared that filling the Provost position was top of mind, along with strategic process and organizational changes.

Governor Kawanabe asked for more information on the Provost's Ethics Colloquium discussion on ChatGPT and whether there was a Systemwide conversation on the impact of AI. Jan Nerger discussed the symposium and the challenges AI poses for higher education.

Chair Jordan asked whether any CSU Fort Collins students continue to be housed at the Best Western off campus. Provost Nerger shared that all were moved into on-campus housing by the start of the Spring

semester. Governor Norton noted that he had observed that students who enroll at the last minute tend not to be as successful.

Governor Valdez asked about the Bachelor's of Applied Science at CSU Pueblo, which grew out of a legislative change that enabled community colleges to offer those degrees. Provost Kenney shared that CSU Pueblo was now able to offer that streamlined degree type that was more vocationally centered.

At Governor Valdez's request, Dr. Takeda-Tinker shared additional detail about the alternative credit review process.

Governor Easley noted that the first-year retention rates were stellar and represented a great return on the Board's investment in student success.

Dr. Hentschell then discussed program assessment and review processes at each campus noting that termination of programs came to the Board. She noted that the institution is obligated to get everyone in the program through the program before it closes. Governor Easley noted that some of the programs in which he earned degrees no longer exist, and that was part of the process of higher education. He expressed his support for the presidents in making difficult decisions on programmatic offerings.

ANNUAL ALUMNI REPORT

CSU Pueblo – Donna Souder Hodge, VP Advancement and Operations

Dr. Souder Hodge shared the 2023 Alumni Report and introduced Advancement Director Alex Brady, who discussed developments in the operation and progress on events and engagement activities. He highlighted areas where they could continue to drive growth, engagement, and better data collection.

CSU – Kristi Bohlender, Executive Director, Alumni Association, provided the report for CSU Fort Collins. She reviewed the history of the association and shared updates on current activities, including the activities of Cam the Ram, volunteer engagement, and interaction with alumni groups worldwide. She also discussed communications initiatives, and the importance of helping alumni become donors.

Governor Fischer asked about the difference between alumni networks and clubs. She noted that they were similar but clubs are often based in philanthropy. The CSU association lets the leadership of each network determine their priorities, which may be networking, service, or fundraising. Governor Baca noted that she has been an Alumni Association member for 60 years. She asked whether the Alumni Association has been involved with the University Center for the Arts. Ms. Bohlender noted that many programs focus on the arts because the College of Liberal Arts has a large segment of CSU alumni.

CSU Global – Becky Takeda Tinker, President, presented for CSU Global. Dr. Takeda-Tinker discussed the (Return on Investment) ROI on a CSU Global degree and noted they are re-engaging their work with the credit bureaus to assess alumni income data.

APPROVAL OF CONSENT AGENDA

Motion/Action to Approve Consent Agenda: General Counsel Johnson presented the Consent Agenda to the Board of Governors for approval. Governor Baker moved for approval of the Consent agenda. Governor Markey seconded the Motion, and the Motion carried unanimously.

Colorado State University System

Minutes of the January 31, 2023 Audit and Finance Committee

Minutes of the February 2-3, 2023 Board and Committee Meetings

Colorado State University

New Academic Programs: Associate of General Studies; Major in Livestock Business Management; Graduate Certificates: Climate Adaptation and Risk Management; Global Supply Chain Management; Political Economy

Discontinued Academic Program: Political Economy

Faculty Manual Changes: Preface; Section C.2.1.3.1 Elected Members; Section E.10.5 Procedures for Granting Tenure

Colorado State University Pueblo

Retitle Bachelor of Applied Science in Organizational Leadership

The Board paused for a break at 10:51 a.m. and reconvened at 11:01 a.m.

REAL ESTATE AND FACILITIES

Chair Kawanabe convened the Committee at 11:02 a.m. and asked CSU Pueblo VP for Operation Donna Souder Hodge to lead off with the Physical Plant report. Dr. Donna Souder Hodge provided a presentation on deferred and controlled maintenance and capital construction priorities for CSU Pueblo.

VP Brendan Hanlon provided the physical plan presentation for CSU Fort Collins. He noted the highest deferred maintenance priorities would be part of the proposed state list that would come to the Board in June. He then discussed the 5-10 building redevelopment/renewal priorities and Capital Construction Priorities.

Governor Baker asked about whether the State Architect visits the campuses, which happens every June. The VPs noted the need for a complete facilities assessment on each campus.

Governor Jordan reviewed plans for the upcoming press conference.

The Board paused the meeting at 11:35 a.m. to join the press conference and to have lunch with Senator Michael Bennett.

The Board meeting resumed at 1:15 p.m.

BOARD CHAIR'S FINAL AGENDA

Chair Jordan shared that when she started on the Board, we were two-thirds of the way through the stadium, and Spur was more than an idea but less than a groundbreaking, we were just starting to talk about commitment to rural Colorado. She shared that she wanted to remind everyone that there were things that had been started that were just starting to bear fruit. She shared that she had been continually impressed with the faculty and staff, and it had been the honor of a lifetime to serve on this Board. She looked forward to seeing what seeds the current Board plants.

CSU Global President Takeda-Tinker thanked Governor Jordan for her leadership during uncertain times.

Governor Martinez expressed her deepest gratitude for serving as student representative of CSU Global and read a statement of appreciation.

Governor Davis noted that she'd only been on the Board a short time but appreciated the experience and the Board's willingness to lean into the difficult issues confronting higher education.

Governor Islam said he came onto the Board with the belief that the Board was blind to the challenges faced by faculty, and that people in power weren't good people – he shared that the experience had changed his

views. He believes the Board are good people who have a deep understanding of the universities, and he learned a lot about his own university at the same time.

Governor Norton will continue on for one more year representing Fort Collins.

President Rob Long said it had been a pleasure serving on the Board and thanked the Board for welcoming him with open arms. He asked that the Board continue to seek student input and reach out to the community. When he started, he assumed that the Board was just a bunch of rich people who didn't care about students, and he realized his bias was wrong and he would like other students to get to know who they were. He thanked them for picking him up every time he fell.

Governor Lerch said thank you for the privilege of serving for two years and acknowledged all she had learned about CSU Pueblo and the CSU System as well as herself. She intends to pursue a legal career. She thanked the Board for caring about the individual students and said the work the Board does truly enhance student success.

Chair Jordan introduced the new representatives who will be joining the board in June. CSU Global Student Representative; CSU Pueblo Student Representative, Gavin Graham; CSU Fort Collins Student Representative, Nick DeSalvo; CSU Global Faculty Representative, Susan Aloï; CSU Pueblo Faculty Representative would be voted in on May 8, 2023.

ELECTION OF OFFICERS

Kim Jordan then presented the proposed slate of Officers stating that in accordance with the Bylaws, the election of Board officers generally takes place at the May Board meeting in years ending in odd numbers. The officers assume their positions at the conclusion of the meeting at which they are elected and serve for a period of two years or until their successors are elected. She asked for a motion to accept the nomination of the following slate of officers: Armando Valdez, Chair; John Fischer, Vice Chair; Nate Easley, Secretary; Kenzo Kawanabe, Treasurer.

Motion/Action to Approve Election of Officers: Governor Baca moved for approval of the proposed slate of officers. Governor Baker seconded the Motion, and the Motion carried unanimously.

New Chair Valdez thanked Governor Jordan for her work to identify an evolutionary path for the Board to work together collectively and leading the System during a challenging period.

Governor Jordan said she tried to have a light touch, and her goal was that love and fun permeated the room even during tense times.

Board members and staff shared their personal thanks and reflection for Governor Jordan, describing her as among the rarest of leaders – extraordinarily successful but who truly cares about other people and lends her perspective so everyone can benefit from her experience. They thanked her for her leadership and empathy, consideration and kindness, and how she handles controversy.

Governor Valdez announced committee assignments:

Evaluation: Chair, John Fischer and all voting board members

Academic and Student Affairs: Chair, Nate Easley, Polly Baca and Kim Jordan

Audit and Finance: Chair, Kenzo Kawanabe, Louis Martin and Armando Valdez

Real Estate: Chair, Betsy Markey, Nate Easley, Ray Baker,
CSU Pueblo Foundation Liaison: Ray Baker
CSU Foundation Liaison: Polly Baca
City of Fort Collins: Betsy Markey

EXECUTIVE SESSION

Motion/Action: Governor Baker moved for the Board to go into combined Executive Session of the Board of Governors and Executive Session of the Evaluation Committee for the reasons listed in the public notice. The Motion was seconded by Governor Martin and carried unanimously. General Counsel Johnson read the Board into Executive Session at 1:50 p.m. and noted the reasons for going into Executive Session under the Colorado Open Meetings Law, as stated in the meeting notice:

As stated in the public notice and as discussed by the Board as part of the Motion to go into Executive Session, the Board has MOVED to go into a combined Executive Session, which will begin with the Board's general Executive Session and then Executive Session of the Evaluation Committee.

For the Board's general Executive Session, the Board is going into Executive Session under C.R.S. § 24-6-402 (3)(a)(II), (3)(a)(IV), and (3)(a)(VII), for matters concerning trade secrets, privileged information, and confidential commercial, and financial data furnished by or obtained from any person, for discussions related to specialized details of security arrangements, as well as discussions and questions with legal counsel regarding the meeting topics referenced in this public notice and the meeting agenda, and to receive the Litigation Report from General Counsel related to pending and imminent litigation, as well as specific claims or grievances.

Also, the Board is moving to go into Executive Session of the Evaluation Committee under C.R.S. § 24-6-402(3)(b)(I) and (3)(d) for discussions regarding the Board's evaluation and performance reviews for the Chancellor, Presidents, and professional staff employees of the Board, and to receive legal advice about employment matters, which are confidential pursuant to C.R.S. § 24-6-402(3)(a)(II).

Following a Motion, second, and unanimous vote to leave Executive session, the Board reconvened in open session at 1:50 p.m.

With no further business the Board adjourned at 3:41 p.m.

Section 14

Action Items From Executive Session

This section intentionally left blank

APPENDICES

- Appendix I: Construction Reports
- Appendix II: Correspondence
- Appendix III: Higher Ed Readings

APPENDIX I

Construction Status Reports

Construction Projects: Status Report

No Report Submitted from CSU Fort Collins

June 2023



COLORADO STATE UNIVERSITY SYSTEM

COLORADO STATE UNIVERSITY | CSU - PUEBLO | CSU - GLOBAL

Construction Projects: Status Report

Colorado State University Pueblo | Board of Governors, June 2023

Prepared by Dr. Donna Souder Hodge
VP Operations and Advancement



COLORADO STATE UNIVERSITY SYSTEM

COLORADO STATE UNIVERSITY | CSU - PUEBLO | CSU - GLOBAL

Projects In Progress

Started, Not Complete | Funded, Not Started/Preliminary Stages



In Progress: Started, Not Complete (Ongoing)

Replace campus water lines (Phase I and Phase II)

\$900,680 State-funded controlled maintenance

Phase I consists of replacing existing valves and adding new valves for building isolation

Phase II includes new water main tap with distribution

Phase III ongoing expansion of I and II

Technology Building - Construction Management, Engineering, Education, and Automotive Industrial Management | Nunn/HCM selected as Design-Build team

Design phase has begun; abatement expected to be complete by April 28, 2023

Nunn Construction will take over building in May 2023

Master Plan, FY 22/ FY23 – SmithGROUP | Work is in final stages. Presentation to BOG in June 2023

**COLORADO STATE
UNIVERSITY SYSTEM**

COLORADO STATE UNIVERSITY
CSU - PUEBLO | CSU - GLOBAL



In Progress: Funded, Staged and Preliminary

Upgrade building fire alarms (phase I and II)

AX/Athletics buildings are currently system financed

(anticipated: Summer/Fall 2023)

Refurbish elevators, upgrade ADA compliance in four

buildings – 1 of 4 (HSB) complete; 3 of 4 in progress

(scheduled LS, CHEM, and ADMIN for May – August 2023)

**COLORADO STATE
UNIVERSITY SYSTEM**

COLORADO STATE UNIVERSITY
CSU - PUEBLO | CSU - GLOBAL



Replace Campus Water Lines, Phase II and Phase III

Phase II includes new water main tap with distribution (**approved FY23 Long Bill; work began, spring 2023**)

Problem:

- 1) CSU Pueblo does not have the capacity to effectively irrigate
- 2) Existing water lines have deteriorated, and many existing isolation valves are inoperable

**COLORADO STATE
UNIVERSITY SYSTEM**

COLORADO STATE UNIVERSITY
CSU - PUEBLO | CSU - GLOBAL



Upgrade Fire Alarms, Phase II

To replace infrastructure in four more state selected buildings to include horns, strobes, wire and smoke detectors (approved, FY23 Long Bill; work began spring 2023)

COLORADO STATE
UNIVERSITY SYSTEM

COLORADO STATE UNIVERSITY
CSU - PUEBLO | CSU - GLOBAL



3 Roofs, Replaced

To replace roofs on 3 critical buildings: Art/Music, Heat Plant, Physical Plant (**approved, FY23 Long Bill; work began, spring 2023**)

**COLORADO STATE
UNIVERSITY SYSTEM**

COLORADO STATE UNIVERSITY
CSU - PUEBLO | CSU - GLOBAL



New Projects: Upcoming Priorities

Phase II, Technology Building Renovation (apx. \$14.5M) **PRIORITY FY 25**

Administration Building Renovation, \$21-31M

Physical Plant Renovation, \$20-32M

Controlled Maintenance: Upcoming

Campuswide Electrical upgrades, \$3-\$4M

Campus Elevator Replacements, \$7-\$10M

Campuswide C-Bord Upgrades, \$3-\$4M

Replacement/Upgrade of Building Fire Alarm Equipment, Phase 3, \$1.6M



Thank you

Questions? Email: donna.souder@csupueblo.edu



APPENDIX II

Correspondence

APPENDIX III

Higher Ed Readings

Presidents are changing their tune on free speech

The Chronicle of Higher Education | May 3, 2023

Campuses are increasingly the site of fights over free speech, from legislation dictating what professors can and cannot teach (particularly around diversity, equity, and inclusion), to requests for trigger warnings from students, to an increased tendency for student groups to shout down or otherwise disrupt controversial speakers on campus. While in the past campus presidents were loath to speak out too forcefully, lest they invite more pushback from students or funding cuts from legislators, they are beginning to speak up in more forceful terms, seeing free speech as not only a bedrock of American democracy but as an essential skill to be taught at colleges and universities.

Measuring outcomes in income

Inside Higher Ed | May 4, 2023

New data from the Department of Education's College Scorecard, comparing more than 36,000 different degree programs across institutional sectors, shows a wide future-earnings disparity between tech and STEM majors vs. liberal arts and humanities majors. It comes at a time when the public is increasingly skeptical of higher education and institutions and legislators are looking to make tough decisions in terms of funding for various programs. Supporters say this data provides the most accurate look at the ROI for specific programs, but criticism of the emphasis on such data ranges from whether it is ethical to determine a program's ROI based solely on monetary earnings; to the disparities in pay for women and people of color; to the simple fact that a functioning society needs people working in fields with less monetary return on investment, like teachers and social workers.

Arizona State's big bet on virtual reality labs

Inside Higher Ed | May 10, 2023

Arizona State University recently moved all offerings of its introductory biology course to an immersive virtual reality experience, replacing traditional biology labs. The move was made after one year of running the two courses simultaneously – with some students in the VR version and some students in the traditional version – in which students, including those who have been historically underrepresented in higher education, performed significantly better in the VR version of the course. Supporters of

the approach point to increased accessibility for underrepresented students and students with disabilities, potential to bridge the urban-rural divide, and how sensory experiences can improve student enthusiasm for, and engagement with, course content. But critics worry that the long-term results on learning are not known and argue that VR cannot completely replace traditional lab work and in-person interaction. Some also worry about who benefits from the use of for-profit technology in a world where data is increasingly a form of currency.

Tony Frank: On First-Generation student success

Check out the latest Chancellor's letter from Dr. Frank.

CSU Spur: May update (The Hydro Backyard opens June 8!)

Check out the latest news from CSU Spur.

Together We Grow: May update

Check out the latest news from Together We Grow and Executive Director Lauren Baer.

ColoradoCast: Q1 2023

Check out the latest short-term economic forecast for Colorado from the Colorado Futures Center.

Presidents are changing their tune on free speech

The Chronicle of Higher Education

The tales are swapped in conference-hotel hallways or over quiet dinners: controversial speakers attracting rowdy protests, professors drawing fire for an offhand comment during a lecture and then posted online, legislators trying to codify what can and can't be taught in classrooms.

College presidents know a free-speech controversy is going to burst forth on their campus if it hasn't already. One week it's a guest lecturer shouted down at Stanford. The next it's a Florida bill that would restrict how campuses can teach about race in general-education courses. The next it's a request for mandatory trigger warnings at Cornell.

While in the past a president's response to such a controversy may have been silence or a carefully worded message, now college leaders are beginning to speak up in more forceful terms.

Here and there, in notes to campus communities, speeches during formal events, and open letters, university presidents and other administrators are pushing back in defense of academic freedom and free speech. They're not standing on soapboxes shouting against would-be censors, but the words they choose, the battles they pick, and the signals they send suggest a renewed fondness for free-speech principles. Leaders at Stanford, Pennsylvania State, Cornell, and elsewhere, are talking bluntly about the value of the First Amendment; a group of former presidents have mobilized to protect campus speech from legislative attacks; and The Washington Post editorial board, among others in the media, is looking on with approval, describing these developments as "a welcome reminder that academic institutions have the power to defend their fundamental values — and are willing to use it."

Those unfurling from a defensive crouch say they are doing so because they believe higher education needs the ability to explore all topics and viewpoints.

“For us, academic freedom is at the heart of what universities do,” President Martha E. Pollack of Cornell University told *The Chronicle*. “Without it, knowledge doesn’t advance.”

Pollack chose last fall’s new-student convocation as the forum to showcase a full-throated defense of free speech.

After the expected praise of the depth and brilliance of the class in her welcome speech, Pollack used the bulk of her address to tell students that the key to success at Cornell is to “engage across difference,” “develop an appreciation of the importance of free speech,” and learn how to responsibly participate in civil discourse.

“Free speech is under attack in our country, from across the political spectrum,” she said. “But free speech, as difficult and as challenging as it is, is not only the bedrock of higher education. It’s also the bedrock of democracy and a free society. Chipping away at that bedrock — even for what we think are good reasons, like protecting others — diminishes our capacity as a learning community to do our work, and it puts our democracy at risk.”

She continued: “Because if we ever accept that someone, anyone, has the right to tell us what we’re allowed to say — we’ll also be giving them the right to control what we’re allowed to hear and to know.”

Seven months later, at the end of March, those words would be put to a test. Cornell’s Student Assembly unanimously passed a resolution that proposed requiring professors to place trigger warnings in syllabi for “any traumatic content” that would be discussed, as well as excuse any student wishing to opt out of learning that material. Pollack and Provost Michael Kotlikoff rejected the resolution in early April, taking the opportunity to underline their commitment to academic freedom.

The pair wrote that the resolution “would have a chilling effect on faculty, who would naturally fear censure lest they bring a discussion spontaneously into new and challenging territory, or fail to accurately anticipate students’ reaction to a topic or idea. And it would unacceptably limit our students’ ability to speak, question, and explore, lest a classroom conversation veer

into an area determined 'off-limits' unless warned against weeks or months earlier."

That chilling effect would most likely pop up in dialogue in a class as a professor and students explored a topic, Pollack explained to The Chronicle. Her decision drew hosannas from those on the political right, who saw the move as a defense against "woke" students.

But it wasn't a political move, Pollack said. "There are pressures from both ends of the political spectrum," she said, noting the push from the right to censor what is being said and taught is more frequent and heavier, especially in attacks on diversity, equity, and inclusion programs.

It's a balancing act to both protect students and also allow free speech, Pollack acknowledged. "It's my job to honor both of those values," she said. "We allow speakers but also support students who disagree with those speakers."

That line's not an easy one to walk.

Earlier this academic year, Stanford's law school invited as a speaker Judge Stuart Kyle Duncan, who was appointed by former President Donald Trump to the United States Court of Appeals for the Fifth Circuit. He was met by student protesters who disrupted his speech. After Duncan asked for administrators present to intervene, an associate dean of diversity spoke up, seemingly asking Duncan if the speech was worth all the fuss and criticizing him for his stands on various positions.

A couple of days later, President Marc Tessier-Lavigne of Stanford and Jenny S. Martinez, dean of the law school, apologized to Duncan in a joint letter.

"What happened was inconsistent with our policies on free speech, and we are very sorry about the experience you had while visiting our campus," the letter read. "We are very clear with our students that, given our commitment to free expression, if there are speakers they disagree with, they are welcome to exercise their right to protest but not to disrupt the proceedings." Later, Martinez penned a 10-page letter elaborating on how the law school would handle free-speech issues, declaring, among other

things, that the school's "commitment to diversity, equity, and inclusion actually means that we must protect free expression of all views."

Martinez also announced future educational programming on the topic — something leaders elsewhere have also embraced. Two weeks after rejecting the trigger-warning resolution, Pollack announced that the university will dedicate the 2023-24 academic year to free speech and academic freedom, including special events and discussions to highlight the history of academic freedom.

The goal is to help students learn to engage with different opinions, but it's more than just that.

"Knowledge doesn't advance unless we are able to engage all ideas, even those some don't want explored," Pollack said.

One factor prompting more leaders to speak out on free speech is the escalating nature of the threat against it. Republican legislators in some states have passed or proposed bills that would restrict campus speech. College leaders recognize this trend as a much more dire threat to what they do than students' asking for trigger warnings or shouting down speakers.

"Proponents of these laws attempt to justify them by repeating claims that universities are places where political correctness runs rampant and students are intolerant of alternative viewpoints. In my experience, these problems are much less pervasive than media coverage suggests, but they do exist," wrote Christina Paxson, president of Brown University in a recent New York Times essay. "But it is ludicrous to claim that state-sponsored censorship — which carries the full force of the government and can even entail criminal penalties — is justified by student misconduct or peer pressure."

She added that the "ironic truth" is that such laws "are themselves attempts to indoctrinate students into seeing the world through one lens. This is exactly the opposite of what colleges and universities should do."

While some presidents have testified against bills in their states, they're loath to speak out publicly and risk antagonizing the holders of state purse strings.

"Too often ... university and college leaders face an impossible choice: openly criticizing educational censorship laws could make it more difficult for them to secure or maintain needed funding for their campuses, inviting negative consequences for their students, faculty, and staff," said 100 former presidents in a recent statement. "Accordingly, they are often unable to mount a consistent public response to the deluge of educational gag orders and other legislative intrusions into America's classrooms and campuses."

Those former presidents and chancellors have signed on to a group to mount that response. Champions of Higher Education, led by PEN America, began in mid-April to, in their words, "defend the autonomy of educational decisions made by colleges and universities against political and legislative incursions." They plan to do so by using their connections and public visibility to advocate in protection of free speech and academic freedom.

That battle might happen on two fronts. Some presidents say the pandemic left students ill-prepared for the hard conversations that civil discussion requires.

At the start of the 2021-22 academic year, colleges welcomed students who had spent large chunks of time primarily interacting virtually. Accustomed to the flame-throwing ethos of social media and shaped by Trump-era political divisiveness, students were out of practice in engaging with strangers outside of virtual communities.

It became more routine, presidents said, for protesters to shout down guest speakers and for students to post videos of their instructors saying controversial things.

"We need to recognize the impact Covid has had on social discourse," said Darren Reisberg, president of Hartwick College, a small, private institution in upstate New York. "Students are spending more time on social media and in echo chambers. They are less and less likely to engage with ideas they don't agree with."

Descriptions of students as fragile, coddled, and hypnotized by social media are likely to provoke grimaces among some educators. Real-life students are often more complex and resilient than such narratives suggest. Indeed, Reisberg said that Hartwick's small size made for a more-familiar community, used to disagreeing. "Because of how tightknit the campus is, there is more trust," he said. "So if faculty were to say something in a class, a student may give them the benefit of the doubt because they know the person and where they are coming from."

At Hamline University, a small college in Minnesota, one instructor did not get the benefit of the doubt. Last year, a lecturer showed two artistic depictions of the Prophet Muhammad, dating to the 14th and 16th centuries, in an online session of a class on global art history. After controversy erupted when a devout Muslim student objected to the prophet's image, the instructor's contract was not renewed. National criticism from free-speech groups followed, and the university backtracked from a statement by administrators that students' feelings should have "superseded" academic freedom.

The Hamline controversy brought to the fore a question about the right conditions for learning. In siding with students, administrators seemed to affirm that classrooms need to be safe and supportive above all else, even the rights of instructors to teach how they see fit. But Sian Beilock, the current president of Barnard College and president-elect of Dartmouth College, said the right approach may be less absolute.

"There's a tendency to characterize the learning environment as a place where you are safe," she said. "We need to have brave spaces."

That means students and faculty members being able to engage in tough conversations. It's a president's job to help equip the faculty to have those conversations, she said, noting Barnard has a staff person dedicated to this topic.

"Having these conversations is something you have to learn," she said.

Presidents' new messaging will certainly be put to the test, though it may look different than past dilemmas.

Take the white supremacist Richard Spencer, who several years ago showed up on campuses all over America, including a March 2018 speech at Michigan State University. Hours before the event, hundreds of protesters showed up at the speech venue on the far edge of campus. Then, shortly before the speech was to begin, a bunch of Spencer's supporters marched in formation down a blocked-off street toward the venue. As they got closer, they and protesters began screaming obscenities at each other, culminating in a massive brawl.

Spencer seemed to relish the chaos. "If you aren't getting protested, you aren't doing anything that matters," he said then, according to media reports.

Appearances like Spencer's tested colleges, especially public institutions that responded by scrambling to communicate that they could not legally bar someone from speaking on campus. (Though some got creative in providing distractions from such events.)

Controversial speakers are still frequenting campuses. Last month, Neeli Bendapudi, Penn State's president, released a video explaining why the university can't — and won't — turn them away.

But the age of the campus provocateur — someone who's there mainly to stir up controversy — has since faded, said Maurie McInnis, president of Stony Brook University. Springing up in its place is a whole new array of challenges.

The Foundation for Individual Rights and Expression released a report on a recent study that found the number of complaints seeking to penalize campus speech had skyrocketed between 2000 and 2022.

Komi Frey, the director of faculty outreach at FIRE, who compiled the database for the report and updates it weekly, said social media is an undeniable force in fueling such demands. "It's easier to share Change.org petitions and have people from all over sign them," she said.

FIRE's analysis of that database found that complaints from on campus tended to oppose speech from the political left, while complaints from off campus tended to come from the right.

Amid those conflicting forces, some colleges have turned to institutional neutrality as a way to broadly encourage speech without picking sides. Some campuses dusted off the Kalven Report, a document written by a University of Chicago faculty committee in 1967, which proclaimed that universities should almost never take political positions.

Reisberg, who came to his current position from the University of Chicago, said he agrees that presidents should be careful about what they say.

“When an academic leader puts their thumb on the scale with a position on a controversial issue, they are effectively speaking for the institution and, whether intentionally or not, creating a chilling effect and fear of repercussion.” Speaking forcefully in defense of academic freedom and free speech, then, is not just an urgent priority, presidents say. It's also a way to speak up without taking political sides. And it's clear their words matter.

“Presidents have always been vocal on these topics,” Beilock said, but as the push to limit conversations grows, “they have to continue to speak.”

Measuring outcomes in income

Inside Higher Ed

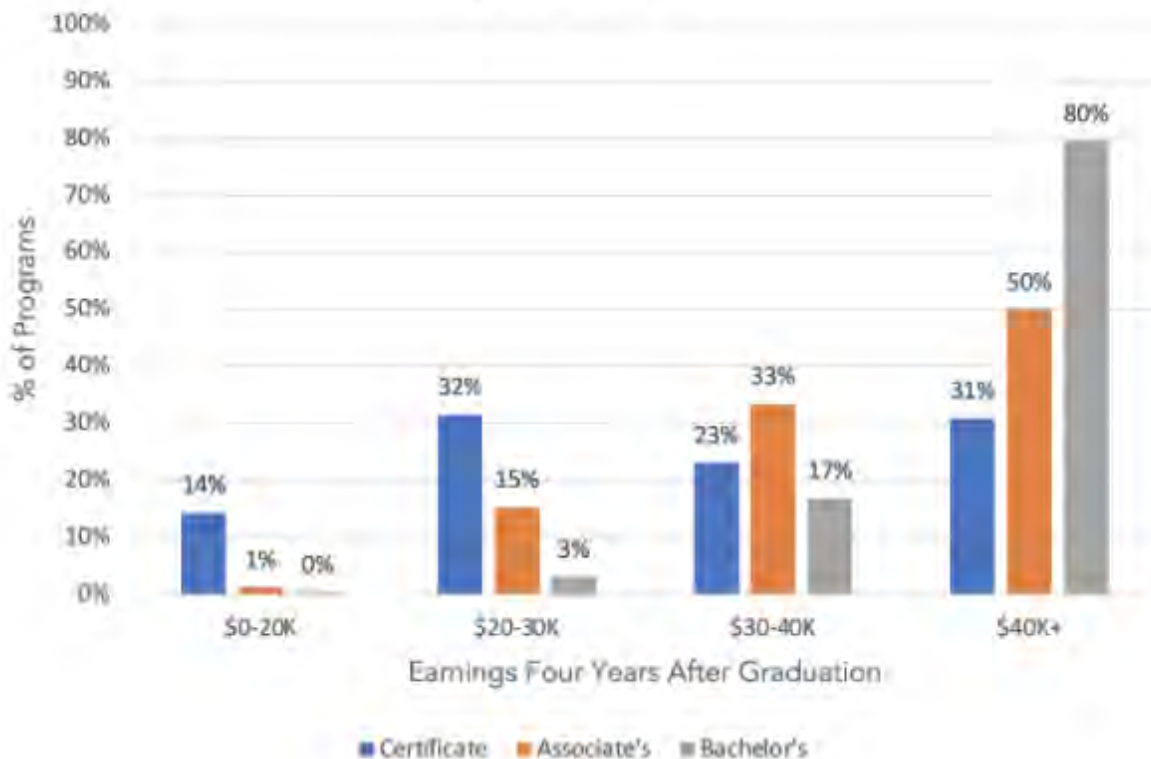
New data from the Department of Education's College Scorecard show that tech and STEM majors still vastly outpace liberal arts and humanities majors in terms of future earnings.

The data, released April 27, compare the relative earnings of graduates of more than 36,000 different programs across institutional sectors, from community colleges to for-profit institutions. Computer science programs made up 16 of the top 20 slots on the list, and all but five of the top 100 programs were in STEM fields; the others were in finance or economics, with the exception of Carnegie Mellon University's Design and Applied Arts program, which came in at 96.

Computer science programs at elite universities like Harvard University and the California Institute of Technology earned the top five spots for four-year degrees, with graduates earning average salaries of over \$240,000 four years after receiving their diplomas. The five lowest-earning bachelor's programs included health-care programs at universities in the Caribbean and Puerto Rico, a music degree from Brigham Young University, and the Fine and Studio Arts program at the California Institute of the Arts, whose graduates make a median of \$13,336 a year.

Many associate degrees in STEM fields such as nuclear engineering—as well as credentials in high-paying vocations like nursing—led to significantly higher median earnings for graduates than over half of the four-year degrees included in the study. The median income for those who earned an associate degree in nuclear engineering from Bismarck State College, for instance, was \$140,386—almost three times as high as the median salary for a journalism major from the University of Arkansas.

Earnings of Graduates at College Programs by Degree Type



A graph comparing median earnings of certificate, associates and bachelors degree earners across degree fields. The Scorecard data showed many two-year or certificate programs in STEM fields led to higher earnings than four-year humanities degrees. / Michael Itzkowitz/HEA

Michael Itzkowitz, founder and president of the higher education consulting group HEA, has pored over each batch of Scorecard data for years and said he wasn't surprised by the results.

"Earnings from STEM degrees have been historically and consistently much higher," he said. "That's just kind of always been the case."

The new data come at a time when Americans are increasingly doubtful that a college degree is worth the average price of admission, and as institutions and policy makers look to trim fat and prioritize high-return programs in the face of looming enrollment declines and rising costs. The future viability of humanities programs is also raising alarm.

The Education Department pulls the data from IRS filings and uses federal financial aid records to tie graduates back to their institutions and degree programs, which means it only accounts for program graduates currently in the workforce who qualified for federal aid.

This is the fourth year that the department has collected data on specific degree programs, and thus the first time outcomes can be viewed four years after graduation. Itzkowitz said that makes them the most accurate and telling data to date on programs' economic returns.

But not everyone is sold on the data's importance. Patricia McGuire, the president of Trinity Washington University, said she doesn't think tying earnings to specific degree programs is as relevant to employers or students as some researchers and policy makers suggest.

"It is certainly true that many vocations or industrial jobs require specific skill sets, and that's what's going to get those students the best careers," she said. "But most corporate employers want graduates who can read and write and think. You can train someone to build software after you hire them. It's much harder to give someone critical thinking skills and a wide base of knowledge, and that's where liberal arts comes in."

Practical Applications

Itzkowitz's HEA released an analysis of the Scorecard data Tuesday, along with a spreadsheet organizing them into different categories. His main takeaways are that often the program a student chooses can matter more than the institution, and that institutions struggling to recruit students should focus on programs that differentiate them and lead to the highest return on investment.

"It provides a flag to areas where those presidents can at least begin to dig deeper to understand what's not working in specific programs," he said. "And there's a role for federal and state policy makers here to play as well in terms of the most effective use of taxpayer dollars per student."



A visualization of the College Scorecard data showing that the majority of higher ed programs produced graduates earning \$40K a year or more. Those earning above \$80K tended to have STEM degrees. / Michael Itzkowitz/HEA

Martin van der Werf, director of editorial and educational policy at Georgetown University’s Center for Education and the Workforce, said data like the Scorecard’s are “going to be increasingly important” in this regard.

“Data on earnings is just one metric, but for a lot of students it’s a really important one,” he said. “So from both an institutional and public policy standpoint, these are going to be increasingly important data points to address increasingly important questions.”

McGuire said what makes research like the Scorecard data so dangerous is the way they are wielded. Emphasizing economic returns, she said, is part of

a destructive agenda driven by those who want to defund and marginalize higher education in American society.

“Part of the problem is that this research and reporting in the public sphere ends up becoming a self-fulfilling prophecy,” McGuire said. “This obsession with exactly what kind of job you have and how exactly that’s tied to your major is really new, and it’s very political. It is absolutely driven by a political system that is attacking higher ed all over.”

‘Stripping Away Passion’

The Scorecard’s focus on financial returns has its detractors in higher ed, who say it ignores students’ many noneconomic reasons for pursuing a particular field of study.

McGuire said Trinity, a historically women’s college in D.C., collects its own alumnae data on employment and degree returns but focuses on factors besides ROI, such as personal fulfillment and community service.

“There are reasons students pick certain careers that have nothing to do with earnings. It’s about service and passion,” she said. “This whole discussion around earnings strips that idea of passion out of the equation and reduces the decision-making matrix to dollars and cents, which I think is frankly unethical.”

McGuire also said focusing on earnings can obscure realistic outcomes for groups vulnerable to pay disparities, like Black graduates and women. She added that Trinity’s student body, which is 95 percent students of color—65 percent of them Black—and nearly all female-identifying, is particularly misrepresented by the Scorecard data.

“Earnings data is inherently skewed against graduates who are Black, Hispanic or women,” she said. “To understand the data as it relates to a student body, an observer would have to go probing and actually know about wage discrimination, race and gender discrimination and so forth, and factor that into the calculations.”

Van der Werf said that while earnings alone are “probably not the first thing students think about” when deciding where to apply to college, it can be particularly helpful for those comparing several similar programs at different institutions, and it is clearly an “increasingly important metric” for leaders making tough decisions regarding institutional finance or lawmakers allocating public funds.

“Colleges have mushroomed in recent years, just grown so much, and many aren’t differentiating themselves,” he said. “So what I think we’ll see, especially at public systems with multiple campuses, is programs being consolidated, offered at one or two institutions instead of all of them.”

At the same time, van der Werf added, good gainful employment for students and productive workforce development outcomes for regional and state economies are often completely unrelated—or even at odds.

“We can’t all be engineers. The world needs more social workers, more teachers, and those tend to be degrees with a lot less return on investment,” he said. “So you wouldn’t want lawmakers or institutional leaders to only use the earnings data to make decisions about program cuts, for instance. It’s just one factor.”

“But,” he added, “it is becoming a more and more important factor.”

Arizona State's big bet on virtual reality labs

Inside Higher Ed

Arizona State University had a problem. Many students arrived on campus eager to study science, technology, engineering and mathematics subjects. But by the end of their first year at the university, nearly half switched to non-STEM majors or left the university altogether, according to Annie Hale, executive director of the Action Lab at Arizona State. Though that statistic tracked with the national trend, campus leaders were concerned that these students were no longer on track for high-paying STEM jobs.

“We measure ourselves by our charter of who we include and not who we exclude,” Hale said—the institution has been designated a Hispanic-serving institution by the U.S. Education Department.

To address the problem, Arizona State turned to an unlikely source: Hollywood. Dreamscape Immersive, a virtual reality company co-founded by an individual responsible for blockbuster movies such as *WarGames* and *Men in Black*, partnered with the university to create Dreamscape Learn. The new educational company revamped Biology 181—the university’s introductory course. In the new version, which was offered first in the spring of 2022 alongside the original version, immersive VR experiences replaced traditional labs.

When researchers at the university later compared outcomes from the two courses, they found that students, including those who have been historically underrepresented in higher education, performed significantly better in the VR version of the course. Those in the VR labs enjoyed getting to “know” named cartoonlike animals through immersive, cinematic stories. Many even found themselves crying when—spoiler alert—the matriarch of a dinosaur herd dies.

Arizona State deemed the experiment a success. As a result, beginning last fall, the university replaced all of Bio 181’s traditional labs with the virtual reality version.

But some academics caution against the wholesale replacement of traditional labs with VR labs for training emerging scientists. Though

students are often enthusiastic about immersive VR experiences, the technology has shortcomings in replicating the quality and fidelity of scientific pursuits. Arizona State's experiment offers promising results, including in boosting success among underrepresented students. But the experiment is in an early stage, and the long-term outcome is yet to be determined.

"It's a really interesting-sounding technical problem to figure out how you would create a lab in a virtual space," said Nicholas Evans, chair and associate professor of philosophy at the University of Massachusetts at Lowell. "But it sounds more like a science experiment in its own right than a settled piece of pedagogy."

For VR in Science, Lots of Enthusiasm, Mixed Learning Outcomes

Virtual reality technology can help students visualize abstract concepts, simulate first-person encounters, practice skills and take virtual field trips. Such sensory, narrative experiences can improve student enthusiasm for course content, which in turn may positively impact motivation and engagement. Further, in biology, VR can boost students' empathy for nature and offer insight that is inaccessible by other means.

In science classrooms, students are generally enthusiastic about immersive virtual reality experiences, but the learning outcomes are "mixed," according to a 2022 review of 64 studies considering how science educators design, implement and evaluate VR-based learning. (Most of the studies in the review focused on biology classrooms, though the Arizona State study was not part of the review.)

Educators often do not align their rationales for adopting VR with course learning outcomes, according to the review. For example, some instructors used three-dimensional visualization to help students "see" abstract science concepts, which consistently amazed students. But the students were often passive recipients of the information, with limited opportunities to interrogate ideas, construct knowledge or build scientific understanding from the experience.

Some, including those who see opportunities for VR-enhanced biological learning, caution against the wholesale replacement of traditional labs with VR labs for instruction. That's because VR designers can only add scientific content that they already know. As a result, students pursuing science in VR may be conditioned to think that unexpected results are wrong results.

"In biology, unexpected results may not be wrong results," Evans said. "They may be new discoveries." When students "react to a system where all of the outcomes are determined, that really stops it from being science."

Some tasks, such as learning how to set up equipment, may be good candidates for modeling in VR, Evans suggested. But others, such as relying, in part, on intuition to ensure safety or recalling that the growth factor purchased long ago may now be expired, makes life in a real lab quirkier.

"There's only so much we can model in virtual reality right now," Evans said. "I would be deeply suspicious about the degree to which the virtual reality labs would mirror the experience of working in a physical laboratory."

John Vanden Brooks, professor and associate dean of immersive learning at Arizona State, often fields questions from VR skeptics about biology students' alleged needs to learn to pipette. But he and fellow biologist Mike Angilletta—also a professor and associate dean of learning innovation at Arizona State—have not pipetted in their careers.

"It's very hard for me to argue that pipetting is a foundational skill of all biologists," Vanden Brooks said, adding that students can learn pipetting if or when they need that skill. "But what's foundational for all biologists is building a foundational model that I can make a quantitative prediction about, that I can analyze and go back and apply. Those are the skills that [Arizona State's VR] lab-based curriculum is teaching" by way of fostering students' emotional connections through cinematic narratives followed by group work.

The review highlighted that some studies concerning the effectiveness of VR in science classes overrelied on self-reported (i.e., student-reported) measures of learning. Also, many students reported positive learning experiences even when they had difficulty learning with VR. Here, the

researchers hypothesized that social desirability bias—a tendency to give a socially desirable answer rather than one that reflects their true feelings—may have played a role.

“There is some promise, and there is some also some peril,” said Douglas McCauley, associate professor of ecology, evolution and marine biology and director of the Benioff Ocean Initiative at the University of California, Santa Barbara. “We need to be eyes wide-open as we consider these tools for [science] teaching.”

ASU’s Promising Results, With Caveats

In a recent VR experience, ASU biology students found themselves in a virtual habitat for astelars—imaginary starfish-like creatures that change colors.

“Every creature is made up. Every organism is made up. Every bacterium is made up. There aren’t any earth-based organisms that exist in the biology curriculum,” Vanden Brooks said. “Students are given novel problems that they care about solving that they cannot google the answer to.” In the VR, students went on a journey to investigate why the astelar population is in decline.

Upon removing their goggles, the students gathered in small groups to consider data and model scenarios related to whether the species might fare better in a physically hot environment or in a predator’s environment. As the group hovered over a spreadsheet flush with data, one student offered a proposed solution.

“Don’t do that!” another student responded as Hale and her team looked on. “You’re going to fucking kill the astelars!” That was the moment that Hale understood that VR fostered the students’ empathy for the (imaginary) creatures.

“I’ve been blown away by students’ reactions,” Hale said. “The VR is the glue that’s really engaging the students and inviting them to participate in the curriculum, willingly excited to look at Excel spreadsheets.”

In Arizona State's spring 2022 experiment, nearly 500 of the 660 enrolled students consented to participate in the study exploring the differences between the VR and non-VR versions of the lab. Participants were randomly assigned to one of the groups, and the groups were balanced with respect to demographic factors such as first-generation status, racial identity and Pell Grant eligibility, a marker of low socioeconomic status.

Students in the VR lab group were 1.7 times more likely to score between 90 percent and 100 percent on their lab assignments than were students in the non-VR lab sections, according to the university's report. Historically marginalized students also performed better in VR lab sections than in non-VR lab sections. The researchers also considered intersectional identities. For example, a subgroup of women who were members of underrepresented minority groups and Pell eligible earned an average of 84 in the traditional lab section versus 90 in the VR lab section.

"This continues across the board" for other intersectional identities with which the institution seeks to boost engagement and achievement, Hale said. "And when we look at this for fall 2022, we are seeing even higher marks."

But more than one-quarter of the spring 2022 Bio 181 students opted out of the experiment. Those who opted out had significantly lower GPAs than did those who participated. Also, those who opted out were significantly more likely to be Pell eligible. As a result, the study was unable to report on how this marginalized socioeconomic group with disproportionately higher academic needs would have fared in the VR labs. Also, students who withdrew from the VR labs were not included in the study.

Most students in the VR lab preferred the format over the non-VR alternative, based on interviews conducted immediately after removing their headsets, according to Hale. But some researchers warn against putting too much stock in feedback that happens soon after a learning experience.

"It's not to say we're not excited" about opportunities for harnessing VR to teach science, said Jeffrey Ward, clinical professor of law and director of the Center on Law and Technology at Duke University. "But before we replace full-scale all educational funding and efforts in a certain direction, it would

be nice to know answers to longer-term questions.” Many inclusion efforts focus on the beginning of the pipeline, while problems remain in the middle and at the end of the pipeline, Ward said.

Like Comparing a Paintbrush and an Apple

Controlled educational studies, including those that attempt to isolate a single feature such as the presence or absence of technology, are rarely slam dunks, as Inside Higher Ed has reported in the past. In Arizona State’s case, the researchers acknowledge some factors for which they did not control.

The researchers assessed the designs of the VR lab and the non-VR lab using a Quality Matters rubric that considered eight general standards (such as learning objectives, instructional materials and learner support) and 23 essential standards (such as whether the learning objectives are suited to the level of the course and whether assessments are sequenced and varied). The VR version of the course received a score of 88, and the non-VR version of the course received a score of 49. (A score of 85 is considered passing.) Ideally, the design scores of the two versions under consideration would have been comparable.

“The courses were about as similar as a paintbrush and an apple,” Hale said.

Also, teaching assistants in the VR labs were observed checking in with students, answering their questions and behaving in a friendly and reassuring manner more than twice as often as teaching assistants in the non-VR labs, according to the study. The study also did not indicate whether an attempt was made to control for the quality of instruction, and a difference there could impact the result. For example, instructors who are drawn to teaching with emerging technology may be more innovative or less experienced in the format. Likewise, those who are drawn to traditional teaching environments may have deep expertise in or be bored with the format.

But Arizona State’s experiment was less an effort to design a controlled experiment than it was to address a real problem at hand.

“The business-as-usual class was going to go live no matter what,” Hale said of the course after which nearly half the students left the major or university. “It’s a little uncomfortable because these are our colleagues ... It’s a bit of an indictment about the way things have been done previously. That landed hard for some at ASU.”

The Je Ne Sais Quoi of Real Biology Labs

Virtual reality may offer students unparalleled experiences in biology, such as the opportunity to explore protein structures or to interact with extinct animals. But the technology also has shortcomings, according to some academics. For example, cinematic experiences may reproduce possibly biased narratives in an immersive format that becomes students’ go-to representation of events.

Also, emerging biologists must, at some point, wrestle with moral questions related to research that involves pieces of animals or whole animals, according to several researchers with whom Inside Higher Ed spoke.

“To do biology, often a lot of animals have to die,” Evans of UMass Lowell said. “It’s not clear to me that we want to actually take that away from students.”

To be clear, Arizona State offers traditional labs in biology courses beyond its introductory course. Since the study is in an early phase, the university does not yet have long-term data concerning attrition rates or outcomes when students trained in early VR labs are expected to work in real labs. All outside experts consulted for this story argued that, even in the presence of new technologies, traditional labs play an important role in training emerging scientists.

“Sometimes the chatter that happens on the sidelines with the professor and their peers is every bit as important” as the lab activity itself, McCauley, of UC Santa Barbara, said. Such conversation may spark students’ thinking about their personal scientific trajectories. Also, the real world may ground them more viscerally in human concerns and ethical obligations.

“When you’re in a lab with others and working in a community that’s not intermediated by technology, human values are present,” Ward said.

But some argue that VR need not preclude such chatter.

“It’s a dance between what’s inside and outside of VR,” Vanden Brooks said. During the semester, lab students cycle through sessions in which they spend 15 minutes in the VR and three hours outside the VR. “That’s where all of the chatter happens.” Such a model, Brooks argues, better replicates how biologists work in the real world, as many gather data on their own, after which they might gather to discuss, analyze and craft hypotheses based on them.

Also, not all side conversations are productive. When the Arizona State researchers observed students in the non-VR lab course, students in the lab engaged in side conversations about music, what they did over the weekend or the dating scene, Hale said. Some were disengaged and looking at Facebook.

VR may be impressive to experience, but so is real life, others are quick to note. McCauley is the kind of professor who compels his students to get up out of bed before the sun rises to hear morning bird choruses, smell good and bad smells wafting up wetlands, and even relish moments stepping on (real) cow pies. He advocates for layering augmented and virtual reality tools on top of field experiences.

“You can’t in any kind of accurate way represent those things that haven’t been discovered or things that are changing in ways that we can’t necessarily predict,” McCauley said. “Nature is a moving target in an ever-changing world.”

Ethical Concerns and Opportunities

In an era in which data are a form of currency, some worry when colleges show too much deference to for-profit ed-tech companies.

“There is a slew of for-profit VR companies preying upon the educational world right now,” Ward said. “What protections are there for students about

[tracking] eye movements, about brain data, about feedback? If this were driven by educational institutions, I'd have a lot more trust that those protections are in in place.”

But technology also offers opportunities to foster diversity, equity and inclusion. Some students who opt out of dissection labs on moral grounds can have a less diminished experience with next-generation digital tools for learning about anatomy.

“We respect the decisions our students make about how they engage with these labs in class,” McCauley said. “Our use and dependency on [traditional] labs has evolved a lot over the years.”

Also, students with disabilities may benefit from virtual reality labs that offer greater access to more meaningful or robust experiences, and the technology could help curb the urban-rural educational access divide, Ward said.

“I start with optimism” while also remaining cognizant of concerns, Ward said.

For now, all introductory biology students at Arizona State have traded real pipettes for VR goggles. Hale acknowledged that some faculty members at the university were “disgruntled” about the decision to adopt the VR lab in all Bio 181 classes.

“They wanted students to dissect a [real] beetroot,” Hale said. “It’s an experiment ... Give me a few more semesters until we get students that are in their junior year, and who knows what we’ll find? Will they be better prepared? Will they be at a disadvantage? What will those faculty think?”



Community focus | Statewide engagement | Global impact

The CSU System includes three campuses: CSU in [Fort Collins](#), [CSU Pueblo](#), and [CSU Global](#).



Of all the people I've worked with at Colorado State University, few embody the spirit of the land grant university as much as Paul Thayer.

Soft-spoken and gentle in his manner, Paul is also an incredibly strong and persuasive person who seems always to have used those powers for good. He is the exact opposite of whatever it means to be self-promotional. Instead, he has a gift for looking into other people, seeing their enormous potential, and coaxing them into believing in themselves as much as he does. He seems to operate from a core conviction that people are generally good and deserving, that we owe it to one another to invest in each other's success – and that we owe it to ourselves to invest our hopes and energy in a brighter future.

Paul found a professional home at CSU, where our land-grant mission commits us to provide access and opportunity to students from all walks of life. Armed with that mission, he spent his career knocking down obstacles and opening doors for students to enter in. He knew it was within his power to help students, even if it required him push for systemic and cultural change. He did this for generations of students at CSU over his long career, which culminated in 2016 when he retired as our associate vice president for student success. Today, there are educators, professionals, and community leaders all over Colorado who will tell you they owe a share of their success to Paul Thayer and his belief that they belonged and deserved to be in college.

Thanks largely to his leadership, CSU became the first university in the country to offer scholarships to First Generation students in 1984. This quickly became the model that other universities around the country have followed. For the last 12 years, we have also offered CSU's Tuition Assistance Grant, which ensures the lowest-income Colorado students automatically receive financial support that covers 100% of tuition and fees for four years, shielding these students from the impact of tuition increases. Since its launch, 50% of students receiving this award have been First Generation – that's about 14,000

First Generation students who have paid no tuition or fees to attend CSU for the last 12 years.

The official definition of a First Generation student is defined in the Higher Education Act of 1965 as *“(A) an individual both of whose parents did not complete a baccalaureate degree; or (B) in the case of any individual who regularly resided with and received support from only one parent, an individual who’s only such parent did not complete a baccalaureate degree.”*

Today, First Generation students are the most rapidly growing student demographic. They are the future of higher education, and as Paul would tell us, we need to do better by them.

First Gen students are critical in the higher education landscape. They are a part and parcel of providing educational access to students of color, veterans, and any number of students with intersectional identities. And we know they need help. These students attend college at lower rates, and when they do attend, they graduate far less often – with a failure rate more than double that of a student whose parents graduated college. When economic status is layered into the First Generation equation, we see that these students borrow more and are forced to default on their loans more often than non-First Generation students.

And while institutions like CSU can be rightly proud of their support for First Generation students, we should all be completely clear on this point: providing access to education without taking the steps needed to assure the success of these students is a cheat; an illusion. It is beneath what we should expect of ourselves, and what Colorado should expect from its universities. Scholarships to attend are just the first step and must be paired with a robust menu of supportive services including mentorship, tutoring, connections, and high expectations.

Today, at CSU Pueblo, about 1,100 students – 44% of the total resident student population – are First Generation, and they have a track record of graduating at a higher rate than the student body as a whole. At CSU Fort Collins, more than 5,600 students who are currently enrolled identify as First Generation, about 25% of our total student population, and the graduation gap between these students and majority students at CSU is less than half the national average – but there’s still a gap.

And as long as there’s any gap, we have work to do. Additional support for First Gen students should be a part of how we, as a society, fund higher education because we know the success of First Generation students does, in fact, improve with resources that fund programs we know are critical to whether these students graduate. As an example, at CSU, we are able to pair some First Generation Students with a Scholar Contact – a faculty or staff member who is there to answer questions and provide individualized support. Often, these Scholar Contacts were once First Generation students themselves, who know firsthand how disorienting and frightening it can be to travel a road that no one in your family has previously walked.

This type of support takes time, and it takes funding. We would like to be able to offer this support to every First Generation student because it has a real impact on whether they leave with a diploma in hand.

And every time we graduate a First Gen student, it shifts the trajectory of an entire family. Somewhere in the family of everyone who holds a college degree, there was a First-Generation student. Every family starts with one person who makes the difficult choice to break with family tradition and pursue a higher education. That choice brings with it all the rich benefits of education itself, as well as the countless ancillary benefits that we know college graduates see in return for their investment, including higher salaries and more career options over a lifetime.

By the time a First Generation student applies to college, many of them have already had a lifetime of overcoming obstacles. They've charted a course for academic success, and we should do everything in our power to help them realize it. It's absolutely the moral thing to do, and it's within our power.

- tony

Tony Frank, Chancellor
CSU System

LATEST AT THE CSU SYSTEM

— CSU Pueblo President Timothy Mottet announced he will depart CSU Pueblo, effective December 31, after six years leading the university. In a [joint message](#), CSU System Chancellor Tony Frank and Chair of the Board of Governors of the CSU System Armando Valdez thanked President Mottet and his spouse, Rick Gonzalez for their leadership and recognized the significant achievements under Mottet's tenure. They also acknowledged the impact of his departure on the campus community.

— Ray Baker is the [newest member](#) of the CSU System Board of Governors after taking the oath of office during the May meeting. Born in Pueblo, Governor Baker has played an active role in the nonprofit world as well as community banking and real estate throughout the Denver metropolitan area and the Western Slope. He is a partner at Gold Crown Management Company, as well as the co-founder and president of the Gold Crown Foundation, a nonprofit organization that provides access to after-school sports for children throughout the Metro area.

— The CSU System was recently selected to participate in the National Association of System Heads' first-ever Equity Action Intensive. NASH's Equity Action Intensive is a funded opportunity for a handful of university systems to work collaboratively in developing action plans, with expert technical assistance, to address gaps in equity practices. As with all NASH work, the results we produce through the EAI will be tested, proven, and scaled across the country with our peer public systems looking to improve their equity practices. The CSU System is honored to have been asked to help take the lead on this work with NASH and its member systems.

— Please join the [CSU Spur](#) and [Denver Water](#) teams to celebrate the opening of the beautiful outdoor space at CSU Spur's Hydro building "The Backyard" and Denver Water's new state-of-the-art Water Quality Laboratory. Explore the fully opened CSU Spur campus, enjoy a drink in The Backyard at Spur from Western Daughters Kitchen, tour the country's first publicly visible water quality testing lab, and experience newly revealed large-scale art installations from Colorado artists Nikki Pike and Anthony Garcia. [RSVP today](#). The Mayor's Office of the National Western Center will also be holding its riverfront opening the afternoon of June 8.

CAMPUS SPOTLIGHTS

— **CSU Fort Collins** — in partnership with Oregon State University — [will enter into](#) a five-year, \$30 million cooperative agreement to establish the Northwest and Rocky Mountain

Regional Food Business Center, serving Colorado, Idaho, Montana, Oregon, Washington and Wyoming. Part of a [\\$400 million initiative by the USDA](#), the CSU center will be one of 12 facilitating cross-state coordination, technical assistance, and capacity building to help agricultural producers and businesses across the food system access new markets and navigate federal, state, and local resources.

— On Thursday, May 11, nine students [became the first graduates](#) from the [Sturm Collaboration Campus](#) when they received their bachelor's degrees at a ceremony held at the campus in Castle Rock. This unique group of graduates completed a two-year degree pathway in cybersecurity through a strategic partnership between Arapahoe Community College (ACC) and **CSU Pueblo**.

— In alignment with its value of providing equitable and workplace-based education, **CSU Global** [partnered with Global Learning Exchange](#), an organization that provides international students with affordable access to top-tier online learning solutions coupled with local support resources. Through this partnership, CSU Global's roster of fully online, career-focused degree and certificate programs will soon be available to GLX students in the Bahamas. GLX launched its inaugural program in the Bahamas in 2022 and is currently focused on launching additional programs in Africa and several other emerging markets around the world. GLX Hubs provide learners with internet access and in-person support that emphasizes engagement, professional development, and career planning.

HIGHER EDUCATION LANDSCAPE

— The U.S. Department of Education [is urging colleges](#) to stop asking applicants about whether they have criminal histories, arguing that little research links campus crimes to students with criminal records. (*Higher Ed Dive*)

— In several states, Republican-backed budget provisions that would curtail college DEI spending [are facing opposition](#) — including from other Republicans. (*The Chronicle of Higher Education*)

— As of July 2021 the population of students with some college but no degree [had grown](#) by more than one million from a year earlier to reach 40.4 million, an increase of 3.6 percent, according to the National Student Clearinghouse Research Center. That represents almost one in five people in the United States who are age 18 and older. (*The Chronicle of Higher Education*)

Read the latest issue of **STATE**

STATE is the official CSU System magazine. The Winter 2023 issue includes:

- [The opening of the CSU Spur Hydro building](#)
- [An interview with Brad Udall](#) about the implications of the 23-year megadrought for the Colorado River Basin
- [Camp Amache](#), a former Japanese-American internment camp and its new status as a National Historic Site



- [CSU Global's efforts](#) to provide programming that meets the needs of the veterans and other students with military ties

And more! [Dive into the latest issue](#) or email chancellor@colostate.edu with your name and address to receive a print copy biannually.



*Copyright © 2023 Colorado State University System.
All rights reserved.*

CSU System mailing address:
555 17th St., Ste. 1000
Denver, CO 80202

You are receiving this publication because you are affiliated with the CSU System or have expressed interest in the CSU System and its initiatives.

[Manage your preferences.](#)

food. water. health.

THE MONTHLY *Newsletter* FROM CSU SPUR



CSU Spur, the CSU System's campus at the [National Western Center](#), is now fully open and free to the public year-round! Visit all three CSU Spur buildings — [Vida](#), [Terra](#), and [Hydro](#) — 9 a.m.-5 p.m. Monday-Friday and 10 a.m.-3 p.m. the 2nd Saturday of every month, and read on to learn more about what's happening at CSU Spur, including stories spotlighting neighbors, partners, and collaborators on this landmark project.



THE HYDRO BACKYARD OPENS JUNE 8!

**WE'VE SAVED THE
BEST FOR LAST!**

The Backyard and the Denver Water laboratory are opening at CSU Spur!

PLEASE JOIN US!
JUNE 8

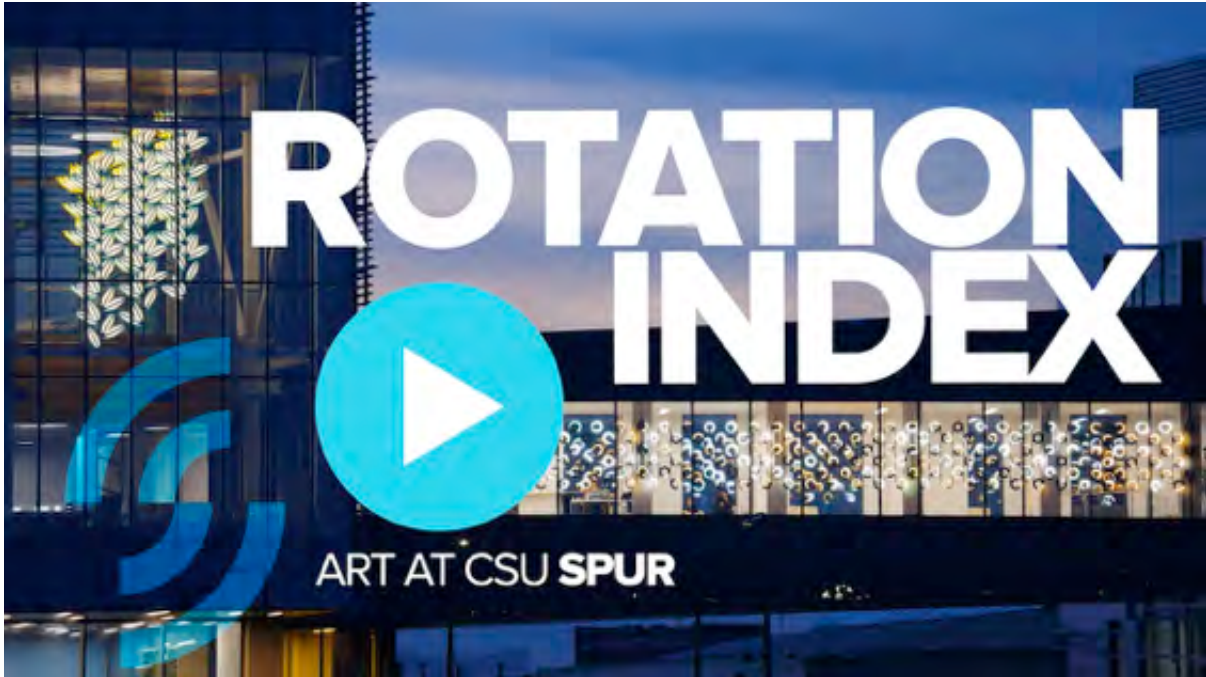
Please join the [CSU Spur](#) and [Denver Water](#) teams from 4-6 p.m. on June 8 as we celebrate the opening of the beautiful outdoor space at CSU Spur's Hydro building "The Backyard" and Denver Water's new state-of-the-art Water Quality Laboratory.

Explore the fully opened CSU Spur campus, enjoy a drink in The Backyard at Spur from Western Daughters Kitchen, tour the country's first publicly visible water quality testing lab, and experience newly revealed large-scale art installations from Colorado artists Nikki Pike and Anthony Garcia.

CSU Spur has something for everyone, and we welcome you to enjoy a summer afternoon with us to celebrate this one-of-a-kind campus. It will be fun, and you'll be a part of this final milestone for our historic campus at CSU Spur.

[RSVP to join us](#), and reach out to csusystemspur@colostate.edu with questions.

ART AT SPUR: ROTATION INDEX



Jason Bruges, one of the eight artists who created [art installations at CSU Spur](#), is the artist behind [Rotation Index](#) on the bridge between Terra and Hydro. *Rotation Index* is a matrix of rings that digitally represent live experiments happening within the Spur campus. The rings take inspiration from the fields of Colorado, the use of circular patterns within data visualizations, and the idea of an angular mechanism filling and emptying.

Jason Bruges Studio has become internationally renowned for creating interactive spaces and surfaces that sit between the world of architecture, site specific installation art, and interaction design. [Watch the video](#) and [visit Spur](#) to see it for yourself!

WATER IN THE URBAN ENVIRONMENT: AN IMPACT(O) MAP STORY

Urban development now dramatically affects how much and where water flows, and Civil and Environmental Engineering Assistant Professor Aditi Bhaskar has found changes to streamflow vary significantly from city to city. Bhaskar and her colleagues analyzed streamflow change in 53 watersheds over

20-year periods of peak urbanization.

The study found urbanization does not change streamflow consistently.

Bhaskar observed the biggest streamflow differences in places where wastewater, water supply, and flood control infrastructure had transformed the way water would naturally flow.

[Dr. Bhaskar's research](#) is featured on the [CSU Impact Map](#), available [online](#) or at the CSU Spur Terra building, which shares stories about the CSU System's efforts to tackle our planet's major challenges, including improving our food, water, health, environment, energy, and more.



ARE YOU FOLLOWING US ON SOCIAL?

- ✓ Campus sustainability facts
- ✓ A day in the life of an FFA officer
- ✓ A preview of Anthony Garcia's new massive mural (*psst* new video coming soon!)

These are just a few of the things you're missing if you're not following [@CSUSpur](#) on social media — [get social with us!](#)

P.S. We love to see your photos! Have you visited CSU Spur recently? Observed an equine therapy session? Gotten your hands dirty in the stream table? Tag us on social [@CSUSpur](#)!

QUICK HITS

— **BIOBLOTTZ IN THE BOOKS:** Spring BioBlitz took place earlier this month, with partners from the Denver Department of Public Health and Environment, the Butterfly Pavilion, Pinyon Environmental, the Colorado Natural Heritage Program, and River Network coming out to track changes in biodiversity along the stretch of the South Platte River closest to CSU Spur. [Check out photos](#) from the day!

— **HOST YOUR EVENT AT SPUR:** CSU Spur has a variety of event spaces available for educational offerings, social and professional events, and business meetings and

conferences. [Check out all available spaces](#), including room capacity, costs, and photos, and fill out a request form!

— **WOWZA:** CSU Spur has seen almost 30K visitors since the start of the year! Are you one of them?

— **JOIN THE SPUR TEAM:** Positions are now open for education, engagement, and operations roles, and more position openings are expected soon. [View our job postings](#).

— **RAMS ROADSHOW:** Shake hands with some of CSU's fan favorite coaches during a Meet the Coaches community event from 5-7:30 p.m. on May 24 at Hydro! [Learn more and register](#).

— **LAST CALL:** Mayor Michael B. Hancock, the Mayor's Office of the National Western Center, and National Western Center campus partners (including CSU Spur!) are celebrating the opening of the Riverfront Open Space along the South Platte River adjacent to CSU Spur from 4-7 p.m. TONIGHT (May 18)! There will be a ribbon cutting followed by a family-friendly campus celebration with music, food, drinks, activities, and games; [RSVP](#) to join the fun!

— **GUIDED TOURS:** CSU Spur volunteers are offering guided tours of all three CSU Spur buildings from 10-11:30 a.m. on June 30, July 19, and August 11. [Register to join](#), but please note: tours are NOT required to visit CSU Spur.

— **SUMMER CAMPS ARE STARTING SOON:** Whether your student is interested in science, animals, or the arts, CSU Spur offers rotating summer camp opportunities that combine grade-level learning with hands-on fun! [Learn more and register](#).

— **SEE MACHINES IN USE:** CSU Extension and the Colorado Fruit and Vegetable Growers Association are hosting automated weeder demos from 9 a.m.-1:30 p.m. on June 16 at the CSU Arkansas Valley Research Center in Rocky Ford. See machines in operation weeding onions and broccoli, learn more about the leading automated weeders, and meet company representatives. Registration is \$17.85 and includes lunch; [learn more](#).



The [CSU Spur of the Moment](#) podcast explores how experts are tackling big challenges in their fields. In the latest episode, host Jocelyn Hittle talks with Ben Shepherd, director and planning practice leader at Atelier Ten, an environmental design consulting firm based in New York City, with extensive experience in urban ecology, renewable energy, and green development.

[Listen and subscribe](#) wherever you find your podcasts.



*Copyright © 2023 Colorado State University System.
All rights reserved.*

CSU System mailing address:
555 17th St., Ste. 1000
Denver, CO 80202

You are receiving this publication because you are affiliated with CSU Spur or have expressed interest in the CSU System and its initiatives.

[Manage your preferences.](#)



[Together We Grow](#) (TWG), a consortium of some of the world's largest agribusiness interests, is focused on building a skilled, diverse, and inclusive agriculture workforce. It is headquartered at the [CSU Spur campus](#) at the National Western Center in Denver.



Facebook



Twitter



LinkedIn



Instagram

For many people, May is a month of transition. Universities are winding down the semester, students are graduating with excitement about their next steps and future, K-12 students and their families are engaged in a busy month of activities and celebrations before transitioning to summer schedules, and spring is turning into summer with all the changes that seasonal shifts bring. I am personally excited about my garden coming to life in the coming weeks and more opportunities to be outside in the warm sun. (Although it's snowing as I write this; oh, Colorado...)

For Together We Grow, this is a season of change and transition as well. We are continuing to work with our team (consultants, Strategic Planning Committee, TWG staff) to define the strategies, goals, and objectives for the organization. The summer will be a busy time for this work, and we look forward to communicating our path forward in the coming months, including where intentional partnership in this work is needed. Thanks to each of you who have participated in our stakeholder engagement process through surveys, focus groups, or 1:1 conversations — this data is critical to our understanding of our future direction! If you haven't participated and would like to, please check out the strategic planning survey link in this newsletter. Ten minutes of your time can make a difference on TWG's impact in the U.S. agriculture and food sector.

Better together!

Lauren Baer
Executive Director, Together We Grow

STRATEGIC PLANNING SURVEY

Do you want to be a part of TWG's strategic planning process? Please complete the TWG survey [HERE](#) to provide your insights and support the greatest impact we can make as an organization.

REACHING NEW AUDIENCES ONLINE

In 2023, TWG is focused on growing our online reach and building on what was achieved in 2022 with over 23 million impressions on our social media channels. In partnership with AgCareers.com, TWG launched [Hot Jobs in Agriculture and Food](#) in early 2023 to highlight TWG member job postings. Since this launch, we have worked to engage our social media followers and visitors with our website and the job board. The results are looking great!

Between January 1 and May 11, TWG's website has achieved the following:

- 3,600+ active users (with over 3,400 of those being NEW visitors)
- 15,000+ page views
- 2,500+ views of the [Hot Jobs in Agriculture and Food page](#)

For TWG members, this means that organization and institution jobs have been viewed over 2,400 times by potential future employees! If you would like to be a part of these results, reach out to AgCareers.com to post your jobs today.

Between January 1 and May 15, TWG's social media channels have achieved the following:

- 2 million+ people reached
- 7.5 million+ impressions
- 400,000+ engagements (likes, views, shares, comments, etc.) with TWG posts

We are reaching new audiences for agriculture and food online. Take a look at our recent storytelling partnership with MANRRS in this newsletter and reach out to learn more about how to partner with TWG in these efforts

MANRRS STORYTELLING PARTNERSHIP



Together We Grow and [MANRRS](#) recently partnered at the MANRRS National Conference in Atlanta, Ga., to collect student stories for online audiences in agriculture and food. Through this partnership, TWG collected nearly 40 stories that will be co-branded and shared on TWG and MANRRS social media sites in the coming months. These participants represented 18 universities and 23 college majors from horticulture and animal science to accounting and biosystems engineering. By sharing their “why,” these participants will help reach audiences for the agriculture and food sector, highlighting the opportunities this sector offers!

Do you have an event you would like to partner on to tell co-branded stories about the agriculture and food sector? Reach out to Russell Schiller at Russell.schiller@colostate.edu to discuss opportunities!

WELCOME, NEW MEXICO STATE UNIVERSITY

TWG is excited to welcome [New Mexico State University](#) (NMSU) to the consortium membership in the higher education institution category. NMSU’s College of Agricultural, Consumer and Environmental Sciences, ACES, provides students with education, knowledge, and life-changing experiences to develop their talents and passions. With an ACES education, students are enabled to make an impact and positively shape not only their future, but the future of New Mexico and the world.

To see a full list of TWG members, check out the [Our Members page](#) on the TWG website.



The AgCareers.com Ag & Food HR Roundtable is the premier North American event for HR and educational professionals that provides relevant content examining recruitment and retention within the agriculture and food industry. The combination of HR and educational professionals provides a unique and rewarding networking experience found nowhere else. Expert speakers ensure engaging educational keynotes and breakout sessions. Join AgCareers.com on August 2 and 3 in Denver, Colorado, at the CSU Spur campus for invaluable networking, education, and development. Find out more [HERE](#) and register today to take advantage of early bird discount pricing.

JOIN US FOR TWG VIRTUAL MEMBER SHARING

The *Workforce Next and Best Practices Working Group* will next meet from 9-10:30 a.m. MDT on June 27. This session is a follow up conversation on the topic of inclusive communications and addressing societal events as organizations, both internally and externally. TWG member organizations Corteva Agriscience and Land O'Lakes will share learnings and experiences from DEI and communication leader perspectives related to the challenges and successes of addressing societal events in the agriculture and food sector. This will be an interactive and engaging discussion, and we encourage you to invite colleagues that have responsibility for communications from your organization to join you at this session and build greater collaboration and understanding between DEI, HR, and communications.

The *Inclusive Excellence in Higher Education Working Group* is currently on hold while TWG completes the strategic planning process. More information to come about next steps with this group and its alignment with overall organizational strategy and collaboration.

If you wish to be added, removed, or to appoint someone from your organization to these groups, please email Lauren Baer at lauren.baer@colostate.edu.

AG & FOOD IN THE NEWS

- [Balenciaga uses AR to raise awareness of regenerative agriculture](#)
- [A radical seed-breeding project could help southern farmers adapt to climate change](#)
- [Why General Mills is embarking on a farmer-driven regenerative agriculture strategy](#)
- [How ADM and Brightseed are using AI to expand microbiome potential](#)
- [Women are ardent leaders in ag](#)
- [Nurturing the next generation of food scientists](#)

WE NEED YOUR STORIES!

Help us tell your stories to expand the frame for how young people understand careers in the food and agriculture sector! We are looking for recorded video content answering the following questions:

- How are you impacting the world?
- What are the most interesting parts of your job or your day?
- What are your goals and how are you achieving them?
- What are you doing to drive innovation in food & agriculture?
- How do you critically apply your work to your daily life?

Connect with us and share your story by contacting Russell Schiller at russell.schiller@colostate.edu and follow us on social at the links below!

[Instagram](#) | [Twitter](#) | [LinkedIn](#) | [Facebook](#) | [TikTok](#)

*Copyright © 2023 Colorado State University System.
All rights reserved.*

CSU System mailing address:
555 17th St., Ste. 1000
Denver, CO 80202

You are receiving this publication because you are affiliated with Together We Grow or have expressed interest in the CSU System and its initiatives.

[Manage your preferences.](#)



ColoradoCast

ECONOMIC FORECAST Q1 2023



The [ColoradoCast](#) is a short-term (~6 month) economic forecast for the Colorado economy developed by the [Colorado Futures Center](#), a 501(c)(3) organization that serves as part of the [Colorado State University System](#) and is dedicated to informing economic, fiscal, and public policy issues impacting community economic health and quality of life.

LATEST COLORADOCAST FORECASTS WEAKENING STATE ECONOMY

Last week the Colorado Futures Center released the ColoradoCast for the first quarter of 2023 with a short-term monthly outlook to August 2023. For the first time since the pandemic, the ColoradoCast is projecting three out of six months with negative economic growth, suggesting increasing uncertainty and that the Colorado economy is not immune to the greater pressures facing the US economy.

The main drivers of the additional negative forecast months are house prices and the yield spread, indicative of both local and national headwinds. The slightly negative outlook was offset modestly by stronger equity market performance in the past few months and the slight narrowing of the corporate yield spread, resulting in a projection of slightly positive growth in the remaining three months. The forecast pattern of just above and below zero monthly growth suggests increasing risk of a recession, albeit at this time a modest one.

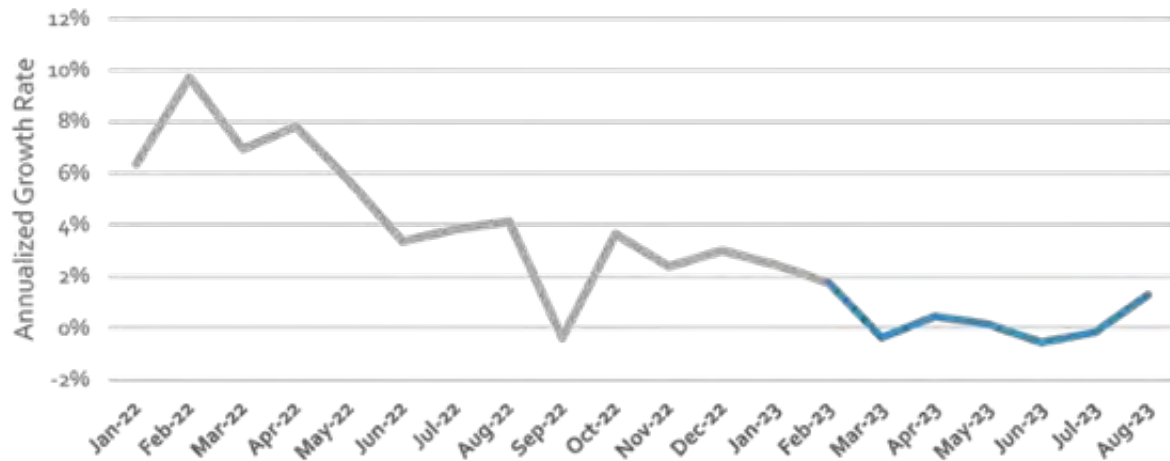
[Read the full report.](#)

Thank you,

Dr. Phyllis Resnick
Executive Director and Lead Economist, Colorado Futures Center

Annualized Growth Rate

Highlighting the Current Year 



*Copyright © 2023 Colorado State University System.
All rights reserved.*

CSU System mailing address:
555 17th St., Ste. 1000
Denver, CO 80202

You are receiving this publication because you are affiliated with the Colorado Futures Center or have expressed interest in the CSU System and its initiatives.

[Manage your preferences.](#)