



**MEETING OF THE  
TRUSTEES OF THE UNIVERSITY OF WYOMING**

**November 20-22, 2024**

**PUBLIC SESSION REPORT**

# University of Wyoming

## Vision

Use our unique strengths to make Wyoming and the world a better place.

## Mission

As Wyoming's university, we unlock the extraordinary in every person through education, research, innovation, engagement, and service.

## Values

- Access to an affordable, high-quality education.
- Real-world education where students learn by doing.
- A welcoming and supportive learning community fostered by integrity, inclusivity, freedom of expression, and respect.
- The growth, health, and leadership capacity of all members of the university community.
- Wyoming's wild and working lands as an asset to be utilized, understood, stewarded, and treasured.
- Our partnership and engagement with Wyoming communities in the creation and exchange of knowledge and resources.
- Our role as a catalyst for innovation and economic vitality.

*(Accepted January 2023)*



**TRUSTEES OF THE UNIVERSITY OF WYOMING  
BOARD MEETING AGENDA  
Wednesday, November 20 -Friday, November 22, 2024  
Marian H. Rochelle Gateway Center; Laramie, Wyoming**

**UNOFFICIAL MEETING SCHEDULE – COMMITTEE MEETINGS**

**Wednesday, November 20, 2024**

***Lunch will be provided to Trustees at the meeting location.***

**Meeting Location – Marian H. Rochelle Gateway Center**

***8:00 – 10:00 a.m. – Facilities Contracting Committee***

***Committee Members:*** Carol Linton (Chairman)/Brad LaCroix/Jim Mathis/John McKinley/Dave True  
Salon D

***10:00 a.m. – Noon – Fiscal and Legal Affairs Committee***

***Committee Members:*** Macey Moore (Chairman)/David Fall/ Dave True  
Salon C

***11:00 a.m. – 1:00 p.m. – Biennium Budget Committee***

***Committee Members:*** Laura Schmid-Pizzato (Chairman)/Brad Bonner/ Carol Linton/John McKinley  
Salon D

***1:00 – 3:00 p.m. – Research and Economic Development Committee***

***Committee Members:*** David Fall (Chairman)/ Brad Bonner/Brad LaCroix  
Salon C

***3:00 – 5:00 p.m. – Academic and Student Affairs Committee***

***Committee Members:*** Michelle Sullivan (Chairman)/Brad Bonner/Jim Mathis/Macey Moore/ Laura Schmid-Pizzato  
Salon C

***5:00 – 6:00 p.m. – Legislative Relations Committee***

***Committee Members:*** John McKinley (Chairman)/Carol Linton/Laura Schmid-Pizzato  
Boyd Conference Room



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<b>OFFICIAL MEETING SCHEDULE</b>
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**Thursday, November 21, 2024**

- |                          |   |
|--------------------------|---|
| <b>7:00 a.m.</b>         | Travel from Marian H. Rochelle Gateway Center to Science Initiative Building (transportation provided)  |
| <b>7:15 a.m.</b>         | Science Initiative Building, Room 4004 (coffee and pastries prior to tour)  |
| <b>7:30 a.m.</b>         | Welcome Remarks, Greg Brown, and Tour of SCROLL, Mark Lyford  |
| <b>7:45 – 8:15 a.m.</b>  | Tour of Level 1 research labs, support rooms and faculty offices; Model Organism Research Facility (MORF), Jay Gatlin   |
| <b>8:15 a.m.</b>         | Travel from Science Initiative Building to Marian H. Rochelle Gateway Center for regular meeting (transportation provided)  |
| <b>8:30 – 10:00 a.m.</b> | <b><i>Executive Session [Session I]</i></b><br><b>Meeting Location – Marian H. Rochelle Gateway Center, Salon D</b>   |
| <b>10:00 a.m.</b>        | <b><i>Break</i></b>   |
| <b>10:15 a.m.</b>        | Pledge of Allegiance [ <i>Marty Martinez, UW Marna M. Kuehne Foundation Veterans Services Center</i> ]  |
| <b>10:30 a.m.</b>        | Enrollment Follow Up from September 2024 Board Meeting: Getting Students Through the Funnel – Benham-Deal/K. Moore/Baldwin ..... 9/25<br><br><i>Biennium Budget Committee – Laura Schmid-Pizzato (Chairman)</i> <ul style="list-style-type: none"><li>• Financial Aid Plan: review structure and financial aid awarding strategy for AY 26-27 (per UW Regulation 7-11) (Approval in January) – Kean [<i>Please refer to Biennium Budget Committee materials</i>]</li></ul><br>Wyoming Community College Commission adopted rules related to Applied Baccalaureate – McKinley/Benham-Deal/K. Moore .....10 |
| <b>11:15 a.m.</b>        | Public Comment<br><i>[Public Comment is limited to a duration of three (3) minutes per person and is subject to the discretion of the UW Board of Trustees Chairman.]</i>   |





**TRUSTEES OF THE UNIVERSITY OF WYOMING  
BOARD MEETING AGENDA  
Wednesday, November 20 -Friday, November 22, 2024  
Marian H. Rochelle Gateway Center; Laramie, Wyoming**

**11:45 a.m.** Discussion: Governor's March 2024 Directive to Establish Policies that Allow for the Safe Carry of Concealed Weapons within UW Facilities – Seidel..... 12/39

*Legislative Relations Committee* – John McKinley (Chairman)

- Consideration and Action: Draft Rule related to Concealed Carry in UW Facilities

**12:30 – 1:30 p.m.** *Trustees' Lunch with ASUW Leadership  
(Legacy Hall, Marian H. Rochelle Gateway Center)*

**1:30 p.m.** Research Excellence Presentation: Programmable Multicellularity,  
Grant Bowman ..... 14/45

**2:00 p.m.** UW President Ed Seidel Update to Board -- Seidel

**2:30 p.m.** Annual Reports

- Trustees Education Initiative – Benham-Deal/Shim..... 15/54
  - Discussion of Praxis test scores (College of Education)  
– Shim ..... 17/69
- Tier I Engineering – Benham-Deal/Wright ..... 19/85

**3:00 p.m.** Update: COIFPM Multiuser Instruments Use DAPP and Data Acquisition Request  
Procedure – Chitnis/Piri ..... 20/130

**3:15 p.m.** *Break*

Roll Call

**3:30– 5:00 p.m.** **Trustee Committee Reports**

*Executive Committee*; Kermit Brown (Chairman)

- Board to Ratify Committee Action on Donor Agreements

*Academic and Student Affairs Committee*; Michelle Sullivan (Chairman)

*Biennium Budget Committee*; Laura Schmid-Pizzato (Chairman)

- Spending from the Student Athlete Achievement Success Scholarship Expendable Fund and the following funds managed by the UW foundation as an Endowment: Research Excellence and Student Success Reserve Accounts; Recruitment and Retention Reserve Account



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- UW Student and Business Enterprise Fee Book proposal for upcoming fiscal year (approval in January and March)

*Facilities Contracting Committee; Carol Linton (Chairman)*

*Fiscal and Legal Affairs Committee; Macey Moore (Chairman)*

- Annual External Audit Financial Report

*Legislative Relations Committee; John McKinley (Chairman)*

*Research and Economic Development Committee; David Fall (Chairman)*

**Optional Event**

***Thursday, November 21, 2024***

***5:00 – 6:00 p.m. Energy Resource Council Reception, Hilton Garden Inn***

**Special Event**

***Thursday, November 21, 2024***

***6:00 – 8:00 p.m. Trustees' Scholarship Dinner, Marian H. Rochelle Gateway Center***

**Friday, November 22, 2024**

***Travel on your own to the Hilton Garden Inn***

**7:00 a.m.** Breakfast, Joint Session with the UW Board of Trustees and the Energy Resource Council, Hilton Garden Inn

**7:30 a.m.** Joint Session call to order

**8:45 a.m.** Travel to the Marian H. Rochelle Gateway Center for regular meeting

**9:00 – 10:00 a.m. Executive Session [Session II] [as necessary]**

**Meeting Location – Marian H. Rochelle Gateway Center, Salon D**

**10:00 a.m. - Noon - Business Meeting**

**Meeting Location – Marian H. Rochelle Gateway Center, Salon D**

Roll Call



**TRUSTEES OF THE UNIVERSITY OF WYOMING  
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Approval of Board of Trustees Meeting Minutes (*Public Session & Executive Session*)

- September 19, 2024, UW Board of Trustees “Special” Meeting
- September 25-27, 2024, UW Board of Trustees Meeting
- October 16, 2024, UW Board of Trustees Meeting

***Trustees Open Discussion on Any Topic***

**Reports:**

ASUW - President Cameron Murfitt  
Staff Senate – President Adam Comeau  
Faculty Senate – Chairman Ray Fertig  
Wyoming Community College Commission – Executive Director Ben Moritz

Public Testimony [*Scheduled for Thursday, November 21, 2024, 11:15 a.m.*]

**Committee of the Whole**

**Regular Business**

Board Committee Reports [*Scheduled for Thursday, November 21, 2024, at 3:30 p.m.*]

**Trustee Committees** - [*Note: Committees of the Board will provide reports during the regular work sessions and will not have a formal report to provide during the Business Meeting.*]

**Liaison to Other Boards** –

- UW Alumni Association Board – Laura Schmid-Pizzato & Jack Tennant
- Foundation Board – Brad Bonner & David Fall
- Haub School of Environment & Natural Resources – Michelle Sullivan
- Energy Resources Council – Dave True
- Cowboy Joe – John McKinley

**Information Only Items:** [*written report received in advance, no action or work session*]

- Annual Report: Faculty Workload (per UW Regulation 2-9) (Academic Affairs) [*postponed to January*]
- Annual Report: Family Medicine Residency Program (College of Health Sciences) ..... 21/134
- Fiscal Year Carry forward Report (per UW Regulation 7-10) (Biennium Budget Committee)
- Contracts and Procurement Report (per UW Regulation 7-2)  
– Evans ..... 22/137
- Capital Construction Report – Brown/Mai (Facilities Contracting Committee)



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- Foundation Monthly Giving Report – Stark

**Proposed Items for Action:**

- I. Modification to *Trustees' Annual Schedule of Items to Approve, Discuss or Report* ..... 24/143
- II. Academic Personnel
- III. Non-Academic Personnel
- IV. Contracts, agreements, procurements over \$2 million or 10 years in length

New Business

Date of Next Meeting: December 11, 2024 (conference call)

Adjourn

**Optional Event**

***Saturday, November 23, 2024***

***5:00 p.m. Cowboys v. Boise State, War Memorial Stadium***

**AGENDA ITEM TITLE: Enrollment Follow Up from September 2024 Board Meeting: Getting Students Through the Funnel, Benham-Deal, K. Moore, Baldwin**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☐ Yes (select below):
  - ☐ Institutional Excellence
  - ☒ Student Success
  - ☐ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

In this presentation, university leadership will provide responses to questions posed by the Board in September 2024 about recruiting and strategic enrollment and marketing strategies. Topics that will be discussed include: (1) enrollment projections for AY2029-30, (2) admit-to-enroll yield rates across colleges, (3) improving institutional mechanisms to move students through the funnel and creating a culture of recruitment, (4) out-of-state enrollment and recruitment challenges, (5) marketing strategies that emphasize program quality. The presentation will conclude by addressing ways the Board can support recruiting and enrollment efforts.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

In July 2024, President Seidel and members of the university leadership discussed UW's strategic enrollment planning process, shared (1) the state of enrollment at UW and the current higher education landscape, (2) the long-term vision for enrollment at UW and how it serves the state of Wyoming, (3) addressing the needs of specific student populations, and (4) planned actions to achieve enrollment goals.

In September 2024, UW Administration provided an update on recent enrollment strategies and initiatives including fall census information, recruitment and marketing outcomes, and progress on the UW/LCCC co-advising pilot program.

**WHY THIS ITEM IS BEFORE THE BOARD:**

University leadership will provide information about recruitment and marketing in response to questions posed by the Board in September 2024.

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A

**PROPOSED MOTION:**

N/A

**PRESIDENT'S RECOMMENDATION:**

N/A

**AGENDA ITEM TITLE: Wyoming Community College Commission adopted rules related to Applied Baccalaureate:** McKinley, Benham-Deal, K. Moore

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☐ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☐ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

The Wyoming Community College Commissioners formed a committee to discuss and consider the implications to statewide higher education if the number of Applied Baccalaureate (AB) degrees allowed to be offered at a Wyoming Community College was increased from two per college. This committee met over the course of several months, wrapping up in June 2024 with a set of recommendations that included removing the cap on the number of AB degrees each Community College could offer and suggested changes be adopted by the Wyoming Community College Commission (WCCC) rules that include formal, non-voting participation of the University of Wyoming in the process. These recommendations are not final as the executive branch may make suggestions during the rules review and approval process.

In this presentation, University leadership will provide an update on what we currently know about the proposed rules and how they will affect UW, and what is still unknown. The Board will also be updated on planning efforts currently underway to formalize procedures for reviewing and submitting a response to proposed AB programs and upper division courses. As part of this effort, existing UW transfer policies, procedures, and criteria for evaluating courses and programs for transfer credit toward UW programs will be reviewed and revised as needed. In addition, a communication plan will be developed that addresses UW's policy for transferring credit that applies toward a UW program/degree.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

The topic of the Applied Baccalaureate working group was part of larger enrollment discussions in July and September. In September 2024, the BOT was informed that Wyoming Community Colleges were proposing a rule change that would be made to the WCCC in October 2024 related to Applied Baccalaureate.

**WHY THIS ITEM IS BEFORE THE BOARD:**

The Wyoming Community College Commissioners approved the plan for making changes to the WCCC Rules at their October 2024 meeting in Rock Springs. In preparation for these changes to be incorporated into the rule and take effect, the University is presenting an update of efforts in preparing a process for responding to newly proposed AB degrees.

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A

PROPOSED MOTION:  
N/A

PRESIDENT'S RECOMMENDATION:  
N/A

**AGENDA ITEM TITLE: Discussion: Governor’s March 2024 Directive to Establish Policies that Allow for the Safe Carry of Concealed Weapons with UW Facilities, McKinley/Seidel**

SESSION TYPE:

- ☐ Work Session
- ☐ Information Session
- ☐ Other
- ☒ [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC GOALS:

- ☒ Yes (select below):
  - ☐ Institutional Excellence
  - ☐ Student Success
  - ☒ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

EXECUTIVE SUMMARY:

During the 2024 Wyoming legislative session, the Repeal Gun Free Zones and Preemption Amendments, HB 0125, House Enrolled Act No. 49 (HB 0125), was passed by both houses but vetoed by Governor Gordon on March 22, 2024. HB 0125, as passed, would have created a new statute, entitled the Wyoming Gun Free Zones Act. The Bill would have specifically permitted that anyone lawfully carrying a concealed weapon could do so at “[a]ny public school, public college or university athletic event taking place on public property that does not sell alcoholic beverages” and “[a]ny public college or university facility.” The Bill would have given the legislature preemption of state entities, including the University, to regulate the storage, use, and possession of firearms. The Bill also included criminal and civil penalties for persons that knowingly prohibit entry to someone based on their possession of a concealed weapon.

Although the Governor vetoed the Bill, his veto memo reinforces his support for the Second Amendment, and advocates for “firearm freedom.” His veto was not based on an opposition to repealing gun-free zones, but rather that he viewed the legislation as the erosion of local control norms, and “giving sole authority to the legislature to micromanage a constitutionally protected right.” He also stated that were the bill enacted, it “would augment the Legislature’s reach into local firearms regulation” and extend the separation of powers of the Wyoming Constitution. The Governor has called on “school districts, community colleges, and the University [of Wyoming] to take up these difficult conversations again and establish policies that allow for the safe carry of concealed weapons in their facilities.”

In response to the Governor’s directive, UW sought constituent feedback on potential changes to UW Regulation 6-4 (Use of University Buildings, Grounds, and Services) and the results were presented to the Board of Trustees during its September 2024 meeting. During that meeting, the Legislative Relations Committee of the Board of Trustees directed UW administration to draft a rule that would allow University faculty, staff, students, and members of the public who possess a permit to carry concealed firearms in designated University facilities. As detailed in the proposed rule, there would be prohibition against concealed firearms in certain University facilities and an annual reporting and acknowledgement process to UWPD would be required to carry concealed firearms in allowable areas. To help educate campus on the proposed rule, the Firearms Research Center will conduct several outreach sessions and will meet with campus leadership groups to discuss the proposed rule and its impacts.

The Trustees Legislative Relations Committee will discuss the draft rule and provide a recommendation for approval, disapproval, or modification.



**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

This topic was last discussed during the September 2024 Board of Trustees Meeting.

**WHY THIS ITEM IS BEFORE THE BOARD:**

This item was requested by the Chair of the UW Board of Trustees.

**ACTION REQUIRED AT THIS BOARD MEETING:**

Consideration of the rule titled “Storing or Carrying Dangerous Weapons in University Facilities.”

**PROPOSED MOTION [LEGISLATIVE COMMITTEE]:**

I move to [approve, disapprove, or modify] the rule titled “Storing or Carrying Dangerous Weapons in University Facilities.”

**PRESIDENT’S RECOMMENDATION:**

The President will share his position during the discussion.

**AGENDA ITEM TITLE: Programmable Multicellularity-Grant Bowman**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☒ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

Biomanufacturing is the production of useful materials in living cells. This is a multibillion dollar worldwide industry with products ranging from human insulin to biofuels to luxury cosmetics. A widespread challenge to biomanufacturers is that product synthesis is inherently harmful to cell health, and this limits production lifetime and overall product yield. My laboratory, in collaboration with a startup company named AsimicA, is developing novel genetic technology to address this fundamental challenge.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

N/A

**WHY THIS ITEM IS BEFORE THE BOARD:**

Informational item

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A.

**PROPOSED MOTION:**

N/A

**PRESIDENT’S RECOMMENDATION:**

N/A

**AGENDA ITEM TITLE: Trustees Education Initiative Update, Shim**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☐ Student Success
  - ☒ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

The Trustees Education Initiative was established in 2016 to address the growing need for high-quality educators in Wyoming and supports UW's strategic plan, particularly objective 4 (Engage with and Serve the State of Wyoming). The Trustees Education Initiative has recently consolidated state outreach initiatives across the College of Education into one cohesive effort (see the attached brochure for an overview). Below are updates on key initiatives:

**Wyoming Teacher Mentor Corps (WTMC):** Cohort 2 of WTMC, which is designed to foster teacher excellence and provide expert support for emerging teachers, graduated in September, and members were named Affiliate Faculty in the College of Education. WTMC, currently partnered with Carbon County School District 1, has a "train the trainer" model for internal mentorship. Cohort 4 nominations will open in November, with a goal of adding 50 mentors and new district partnerships.

**Master Educator Competency Program (MECP):** According to our contract with 2Rev, the College of Education is responsible for developing 24 course drops by the end of June 2025, with 2Rev tasked with creating another 24. So far, we have delivered 25 drops to 2Rev, which are then sent to EdsUp for integration into the adaptive learning platform. This process introduces a lag of several weeks between the time we deliver the drops and when they are ready for release.

We are currently piloting five drops for Continuing Education Units (CEUs), which can be used toward teacher recertification requirements. Three additional drops are scheduled for release in early January, with more to follow throughout the Spring 2025 semester. These drops are rigorously tested to ensure seamless integration with state and university systems, prioritizing an engaging and effective professional development experience for teachers. In addition to CEU-eligible drops, we are offering two graduate-level courses—EDCI 5480 and EDCI 5070—that count toward a Master's in Curriculum and Instruction. EDCI 5070 is exclusively for RIDE program participants, while EDCI 5480 serves as a capstone experience available to teachers statewide.

**Project-Based Learning (PBL) Initiative:** Supported by a grant from the Wyoming Department of Education, this project includes partnerships with five districts and 31 participants. Training involves visits to exemplary PBL schools across several states, asynchronous coursework, and the development of participant PBL units. End-of-semester showcases will feature participant-designed units. Dr. Jessica Marcolini and the Science and Math Teaching Center are providing

essential academic and data support, focusing on identifying barriers to PBL implementation in Wyoming schools.

**307 Principal Leadership Academy (PLA):** A collaboration with the Wyoming Department of Education, 307PLA offers structured mentoring and professional development for Wyoming principals. Key components include the New Principal Conference, the Wyoming Principal Mentor Program, and ongoing Professional Learning Opportunities. The program will host a one-day PLC event in April 2025 in Casper and a second annual conference in August. Dr. Margaret Hudson leads the mentoring aspect, with vital support from WDE staff.

**Career and Technical Education (CTE) – Phase 2:** To inform the development of the CTE program, the College of Education has prepared a report on CTE job openings data across Wyoming (see attachment).

UW's CTE program, now in Phase 2, is progressing with 22 active students and ongoing recruitment for Spring 2025. Efforts include modernized curriculum integrating AI, with the completion of updates to EDSE 3277/EDCI 5250 and the initial rollout of EDSE 4077. A new 2000-level course for high school seniors will launch in Spring 2025. Recruitment and relationship-building efforts include visits to 22 schools across 18 districts and meetings with community college leaders to establish co-marketing and advising partnerships. The program recently hosted its first CTE alumni event, attended national conferences, and fundraised through UW Giving Day.

Learn more about TEI and other initiatives at our newly revised website: <https://www.uwyo.edu/tei>

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

A previous update on the Trustees' Education Initiative activities was provided during the Board of Trustees' January 2024 meeting.

**WHY THIS ITEM IS BEFORE THE BOARD:**

This item is required as part of the Trustees' Annual Schedule of Items to Approve, Discuss, or Report.

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A

**PROPOSED MOTION:**

N/A

**PRESIDENT'S RECOMMENDATION:**

N/A

**AGENDA ITEM TITLE: Discussion of Praxis test scores, Shim**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

Based on a request from an individual legislator, the Wyoming Legislative Service Office (LSO) requested information from the University of Wyoming's College of Education (COED) on its teacher preparation requirements, with a focus on the role of the Praxis II exam for licensure. The Praxis II tests are a series of standardized exams designed to assess the subject-specific knowledge and teaching skills of individuals preparing to enter the teaching profession. These exams are part of the Praxis series, but unlike the Praxis Core exams, which evaluate general academic skills, the Praxis II tests focus on a wide range of subjects, such as social studies, and various grade-level specializations. Praxis II is often required by states and educational institutions as part of the certification or licensure process to ensure teachers have the specialized content knowledge necessary for their specific teaching areas. LSO's inquiry covered multiple points, including why not all COED graduates take the Praxis, pass rates for those who do, and how Wyoming's licensure requirements compare with neighboring states.

The COED explained that while the Wyoming Professional Teaching Standards Board (PTSB) requires Praxis II for licensure in specific fields, passing the exam is not a requirement for all COED students or for graduation from the program. Currently, only Elementary Education (ELED) and Secondary Social Studies (SS) majors are required to pass Praxis II exams to qualify for a Wyoming teaching license. These programs account for approximately 43% of COED graduates in the 2023-24 academic year, with an average of 57% of graduates taking the Praxis since 2015. This selective requirement stems from the fact that many graduates pursue teaching positions in fields or states that do not require the Praxis, or opt for other licensure exams that align with their career goals. In particular, a significant number of graduates—about one-third—are from states outside Wyoming and may not need to pass the Praxis to teach in their home states. For COED graduates who do take the Praxis exam, pass rates show improvement over time. Within the first nine months of graduation, 74-80% of graduates pass the exam, with rates rising to approximately 85% within a year as teachers gain classroom experience and, if necessary, retake the test. Title II reporting requirements, a federal mandate, capture only initial pass rates and do not include subsequent attempts. As a result, the reported pass rates may not accurately represent the final success rates of COED graduates. In response to the LSO's question about how Wyoming's licensure requirements compare with neighboring states, COED highlighted that Wyoming has one of the most streamlined requirements, with only six sub-tests for teacher certification, while states like Montana and Idaho require up to 67. For elementary-level Praxis exams, Wyoming, Utah, and Idaho have similar score thresholds, typically in the range of 157-159, indicating a consistent approach to core knowledge requirements. However, score requirements for middle and high school subjects vary widely across the region; for example, Nebraska requires a higher score for Middle School Social Studies (155) compared to Idaho's

lower threshold (149). Wyoming's certification process is designed to ensure essential content knowledge while offering flexibility, aiming to support teacher preparedness without creating unnecessary barriers to entering the profession.

This report clarifies Wyoming's approach to the Praxis II exam within the context of regional licensure practices, reflecting the College of Education's commitment to preparing teachers to meet Wyoming's standards while remaining adaptable to individual career paths and licensure needs.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

This is the first time the topic of the Praxis examination as it currently stands is being brought before the Board of Trustees.

**WHY THIS ITEM IS BEFORE THE BOARD:**

Following a request from the Joint Education Committee LSO for information about UW College of Education students' Praxis exam requirements, pass rates, and comparisons with other states, the College of Education wishes to share this information with the Board of Trustees.

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A

**PROPOSED MOTION:**

N/A

**PRESIDENT'S RECOMMENDATION:**

N/A

**AGENDA ITEM TITLE: Tier-1 Engineering Initiative Report, Wright**

**SESSION TYPE:**

- ☐ Work Session
- ☐ Information Session
- ☒ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☒ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

The Tier-1 Engineering Initiative (EI), a joint effort between UW, the Wyoming Legislature, Governor’s Office and other critical stakeholders, seeks to advance UW’s capacity and status in engineering and related fields, including attaining Carnegie R1 status. This annual report captures the main activities related to the Tier-1 EI as of November 2024. For helpful context, the report is organized in a succinct “past, present, future” type of format. Considerable progress has been made in academic programs, student success, research activity, and facilities. Continuing Tier-1 funding of these areas, with new investments in shared equipment and new research opportunities, are described. Future growth in key areas, guided by Tier-1 goals and UW’s Strategic Plan, are also described.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

An update on the Tier 1 Engineering Initiative was last presented to the Board in November 2023.

**WHY THIS ITEM IS BEFORE THE BOARD:**

This item is required as part of the Trustees’ Annual Schedule of Items to Approve, Discuss or Report.

**ACTION REQUIRED AT THIS BOARD MEETING:**

None.

**PROPOSED MOTION:**

None.

**PRESIDENT’S RECOMMENDATION:**

NA.

**AGENDA ITEM TITLE: COIFPM Multiuser DAPP and Data Acquisition Request  
Procedure – Instrument Time Utilization Report –Chitnis, Piri**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☒ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

Vice President Chitnis and Dr. Piri will provide the Board with a comprehensive update on the Utilization of Instrument time via the Instrument Access Program. They will share details of steps taken to promote the use of these instruments across campus including information regarding regular tours of the High Bay facilities to further highlight the instruments available for Campus access.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

A draft of the Use agreement was presented during the March 2024 Board meeting; a refined agreement is presented that meets the requirements outlined by a footnote in the Wyoming Legislature's FY25-26 budget bill. In the course of drafting those documents, input from the SER Director and College of Engineering Dean was solicited.

In May the Board moved to adopt the COIFPM Multiuser DAPP and Data Acquisition Request Procedure to allow and encourage equipment and facility use by university faculty and graduate students.

**WHY THIS ITEM IS BEFORE THE BOARD:**

Update on program requested by the Board after the approval of the DAPP and DAR agreements in the May 2024 meeting.

**ACTION REQUIRED AT THIS BOARD MEETING:**

Information only.

**PROPOSED MOTION:**

N/A

**PRESIDENT'S RECOMMENDATION:**

N/A



**AGENDA ITEM TITLE: Family Medicine Residency Program Annual Institutional Review Executive Summary, Hilaire**

**SESSION TYPE:**

- ☐ Work Session
- ☒ Information Session
- ☐ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☒ Yes (select below):
  - ☒ Institutional Excellence
  - ☒ Student Success
  - ☒ Service to the State
  - ☐ Financial Growth and Stability
- ☐ No [Regular Business]

☒ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

The University of Wyoming Family Medicine Residency Programs (FMRP) are accredited through the Accreditation Council for Graduate Medical Education (ACGME). Each year, the director of the FMRP (officially titled the Designated Institutional Official or DIO) works with the Graduate Medical Education Committee (GMEC) to conduct a GMEC-required Annual Institutional Review (AIR). The AIR functions as the annual evaluation of the FMRP with the goal of identifying areas of success and areas of improvement needed to ensure long-term success and sustainability. The AIR is generated from a comprehensive assessment of FMRP successes, challenges and opportunities.

Per ACGME accreditation guidelines, “The DIO must annually submit a written executive summary of the AIR to the Sponsoring Institution’s Governing Body,” which for the UE FMRP is the Board of Trustees. Attached is the 2024 AIR Executive Summary for the UW FMRP, created and approved by the GMEC, the DIO, and the Dean of the College of Health Sciences. There is no action that is needed on behalf of the Trustees other than receipt of the document.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

The AIR is submitted annually to the Board of Trustees in November as an informational item.

**WHY THIS ITEM IS BEFORE THE BOARD:**

Per ACGME accreditation guidelines, the AIR must be submitted each year to the governing body of the sponsoring institution for the FMRP, which is the Board of Trustees.

**ACTION REQUIRED AT THIS BOARD MEETING:**

Information only item

**PROPOSED MOTION:**

N/A

**PRESIDENT’S RECOMMENDATION:**

N/A

**AGENDA ITEM TITLE: Service Contract and Procurement Reports, Evans**

**SESSION TYPE:**

- ☐ Work Session
- ☐ Information Session
- ☒ Other
- ☐ [Committee of the Whole – Items for Approval]

**APPLIES TO STRATEGIC GOALS:**

- ☐ Yes (select below):
  - ☐ Institutional Excellence
  - ☐ Student Success
  - ☐ Service to the State
  - ☐ Financial Growth and Stability
- ☒ No [Regular Business]

☐ *Attachments are provided with the narrative.*

**EXECUTIVE SUMMARY:**

Per UW Regulation 7-2 (Signature Authority), unless otherwise limited by UW Regulation or reserved by the Board of Trustees, the President shall have authority to approve and/or sign University contracts, federal contracts, agreements, memorandums of understanding, and procurements that involve an external party, require consideration (paid or received) valued less than \$2,000,000 (one-time or in aggregate), and for which the term is less than ten years. The President may delegate this authority to University Officers for such contracts, federal contracts, agreements, memorandums of understanding, and procurements that require consideration (paid or received) valued less than \$1,000,000 (one-time or in aggregate) and for which the term is less than five years.

As required by the Regulation, attached are the following reports:

- 1) Service Contracts (including contracts, federal contracts, agreements, and memorandums of understanding) valued at \$50,000 or above (one-time or in aggregate) from August 16, 2024 – October 15, 2024
- 2) Procurements valued at \$50,000 or above (one-time or in aggregate) from August 16, 2024 – October 15, 2024

**Service contract workflow**

Per the University's Standard Policy and Procedure (Signature Authority), the President can delegate signature authority to University officers for service contracts valued less than \$1,000,000 (one-time or in aggregate) and for which the term is less than five years.

**Procurement workflow**

Cost Center Managers (business manager level or designee) approve all purchases, and are the final approvers for purchases of \$99,999 or less. Deans/Associate Vice Presidents are the final approvers for purchases between \$100,000 and \$499,999. Vice Presidents are the final approvers for purchases between \$500,000 and \$999,999. The President is the final approver for purchases between \$1,000,000 and \$1,999,999. The Board of Trustees approves purchases of \$2,000,000 and above.

**PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:**

Standing information item at each in-person Board of Trustees meeting.

**WHY THIS ITEM IS BEFORE THE BOARD:**

Per UW Regulation 7-2 (Signature Authority), at each regular meeting of the Board of Trustees (excluding conference calls), the President shall provide a written report to the Board of Trustees identifying each contract, federal contract, agreement, memorandum of understanding, or procurement valued at \$50,000 or above (one-time or in aggregate) signed by the President or designee under this provision.

**ACTION REQUIRED AT THIS BOARD MEETING:**

N/A. Information Only.

**PROPOSED MOTION:**

N/A. Information Only.

**PRESIDENT'S RECOMMENDATION:**

N/A. Information Only.

**AGENDA ITEM TITLE: Modifications to the Trustees Annual Schedule of Items to Approve, Discuss or Report, and notice of update to Bylaws, Evans**

SESSION TYPE:

- ☐ Work Session
- ☐ Information Session
- ☐ Other
- ☒ [Committee of the Whole – Items for Approval]

APPLIES TO STRATEGIC PLAN:

- ☐ Yes (select below):
  - ☐ Institutional Excellence
  - ☐ Student Success
  - ☐ Service to the State
  - ☐ Financial Growth and Stability
- ☒ No [Regular Business]

☒ *Attachments are provided with the narrative.*

EXECUTIVE SUMMARY:

Pursuant to the footnote in the Wyoming Legislatures FY25-26 budget bill that reads “No funds from this appropriation shall be expended on the office of diversity, equity, and inclusion at the University of Wyoming,” the University recommends removing the Annual Report from the Vice President for Diversity, Equity, and Inclusion from the *Trustees Annual Schedule of Items to Approve, Discuss or Report*.

PRIOR RELATED BOARD DISCUSSIONS/ACTIONS:

The Board last approved housekeeping updates to the Trustees Bylaws and modifications of the *Trustees Annual Schedule of Items to Approve, Discuss, or Report* during its March 2024 meeting.

WHY THIS ITEM IS BEFORE THE BOARD:

Pursuant to Article VIII, the Bylaws may be changed or amended at any regular meeting of the Trustees by a vote of two-thirds of all the members, provided that notice of the intention to change, amend, or add to the Bylaws, in whole or part, shall have been given in the notice of the meeting or shall have been given at a preceding meeting of the Trustees.

ACTION REQUIRED AT THIS BOARD MEETING:

Notice of intention to change, amend, or add to the Bylaws, in whole or part was given during the September 2024 Board meeting, with final action to take place during the November 2024 Board meeting.

PROPOSED MOTION:

I move the Board approve and adopt the housekeeping updates to the Bylaws of the Trustees of the University of Wyoming, and modifications to the *Trustees Annual Schedule of Items to Approve Discuss or Report*.

PRESIDENT’S RECOMMENDATION:

N/A

**AGENDA ITEM TITLE: Enrollment Follow Up from September 2024 Board Meeting: Getting Students Through the Funnel, Benham-Deal, K. Moore, Baldwin**



A large crowd of people, likely students, is gathered on a football field. The field has yard lines and the number 50 is visible. A logo, possibly the University of Wisconsin logo, is also visible on the field. The crowd is dense and fills most of the field.

# UW Enrollment Follow-up: Getting Students Through the Funnel

Enrollment Management and Institutional Marketing



1. **LOOKING TO 2029**
2. **ENROLLMENT:  
GETTING STUDENTS  
THROUGH THE FUNNEL**
3. **THE UW BOARD AND  
FUTURE ENROLLMENT**
4. **EMPHASIZING PROGRAM  
QUALITY**

# **UW Enrollment Follow-up: Getting Students Through the Funnel**

Enrollment Management and Institutional Marketing



# Enrollment in the face of declining student numbers

## Enrollment Projections by Student Level & Full-/Part-Time

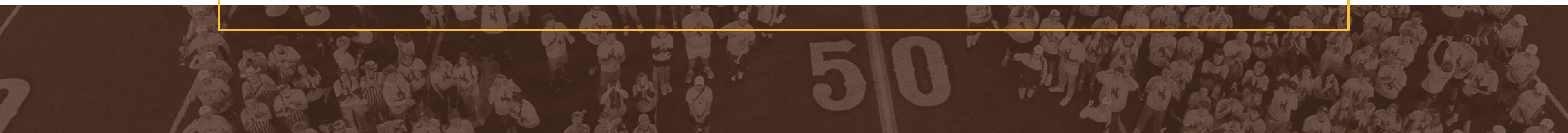
Student Level Full-/Part-time	Fall 2023				Fall 2029			
	Main	Online/ Distance	UWC	Total	Main	Online/ Distance	UWC	Total
<b>Undergrad</b>	<b>7,076</b>	<b>870</b>	<b>304</b>	<b>8,250</b>	<b>7,076</b>	<b>1,110</b>	<b>320</b>	<b>8,506</b>
Full-time	6,433	278	140	6,851	6,468	416	170	7,055
Part-time	643	592	164	1,399	608	694	150	1,451
<b>Grad/Prof</b>	<b>1,662</b>	<b>949</b>	<b>52</b>	<b>2,663</b>	<b>1,927</b>	<b>1,155</b>	<b>60</b>	<b>3,142</b>
Full-time	1,359	197	40	1,596	1,601	239	38	1,877
Part-time	303	752	12	1,067	326	916	22	1,451
<b>Total</b>	<b>8,738</b>	<b>1,819</b>	<b>356</b>	<b>10,913</b>	<b>9,003</b>	<b>2,265</b>	<b>380</b>	<b>11,648</b>

**Growth overall  
would be 7%**

**Majority of growth  
is in part-time  
students: 58%**

*Note: Used Fall 2024 proportion of students to get the fall 2029 composition.*

UW’S FALL 2024 FIRST-YEAR STUDENT ENROLLMENT IS DOWN 2% FROM LAST FALL.  
NATIONWIDE, THE DECLINE IS **8.5%** FOR PUBLIC UNIVERSITIES.

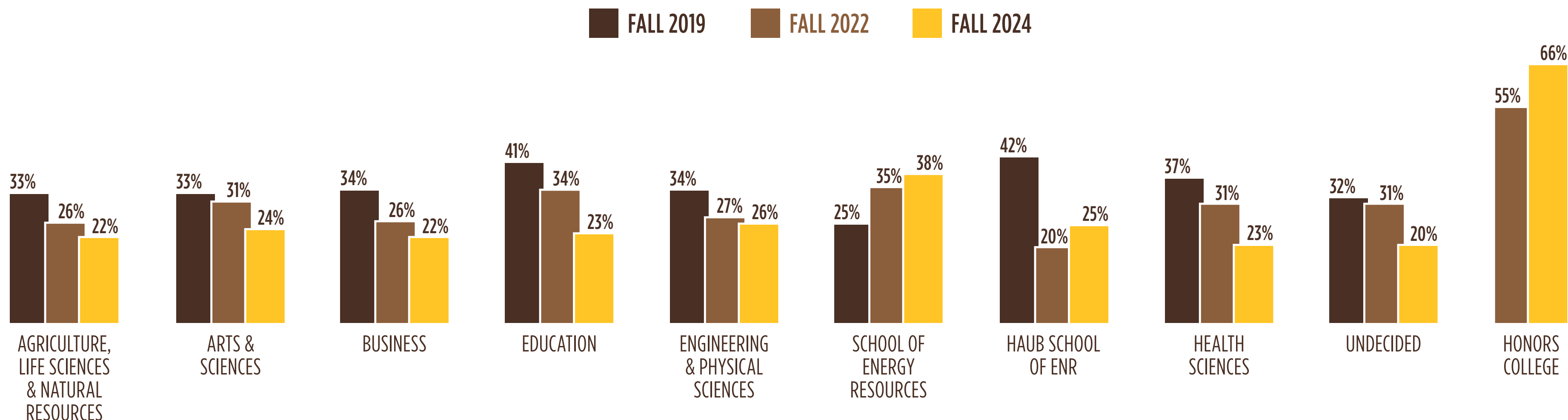




2

# Getting Students Through the Funnel

## Admit to Enroll Yield Rates by College/School



National average for 4-year, public universities: 25%



2

# Getting Students Through the Funnel

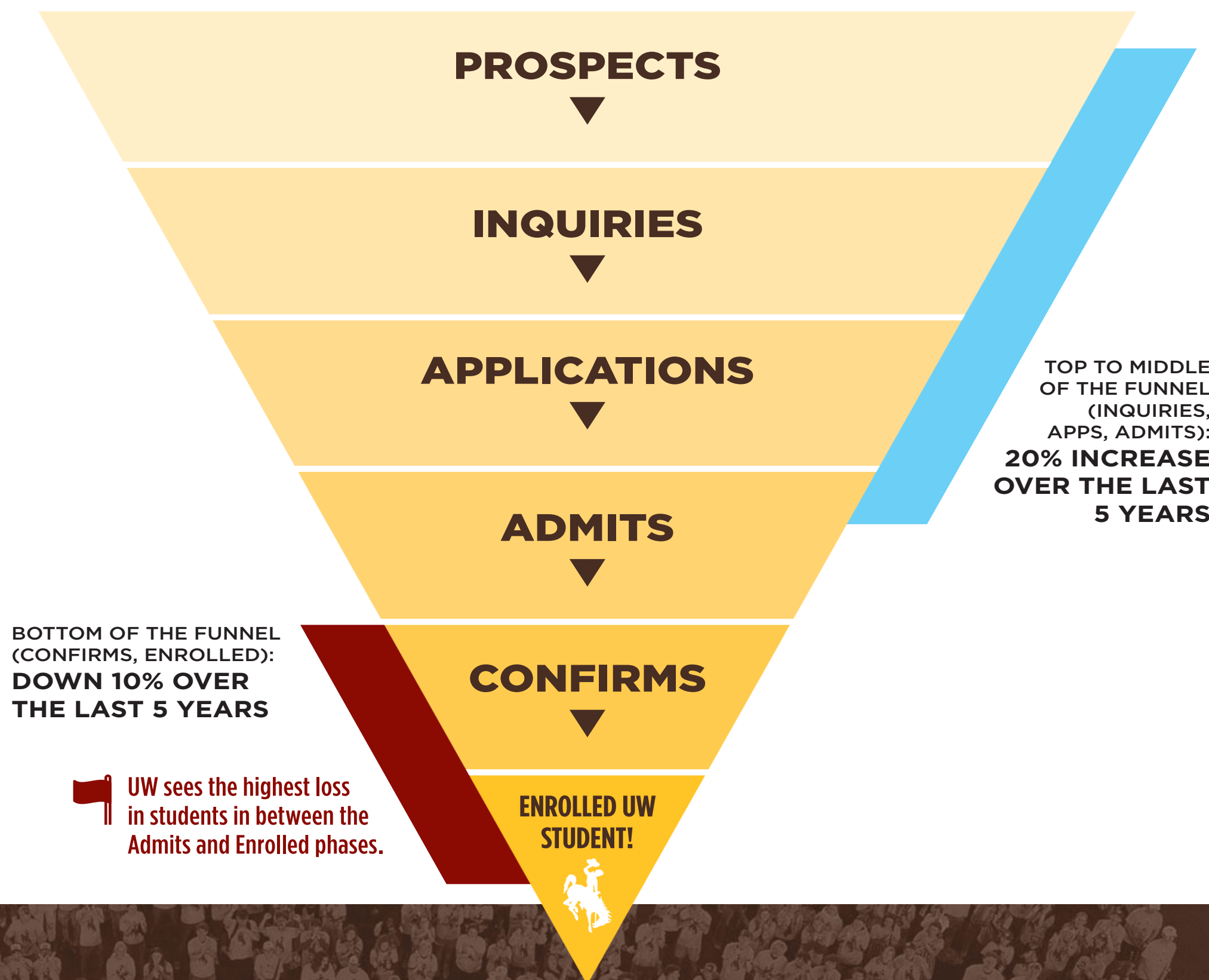
## Fall 2025 Early Indicators: Up 267 applicants

- Most from non-resident
- In-state apps holding steady from this time last year

	2024	2025	%Increase
Inquiry	27,512	30,660	11.0%
Applied	2,996	3,104	4.0%
Admitted	1,826	2,093	15.0%

## Enrollment Services Approach

Must adopt student-focus processes, interactions, and engagements. Administration is taking account of all processes, interactions and engagements in these stages.



2

# Taking Account

## Creating a Culture of Recruitment

### Addressing Declining Yield

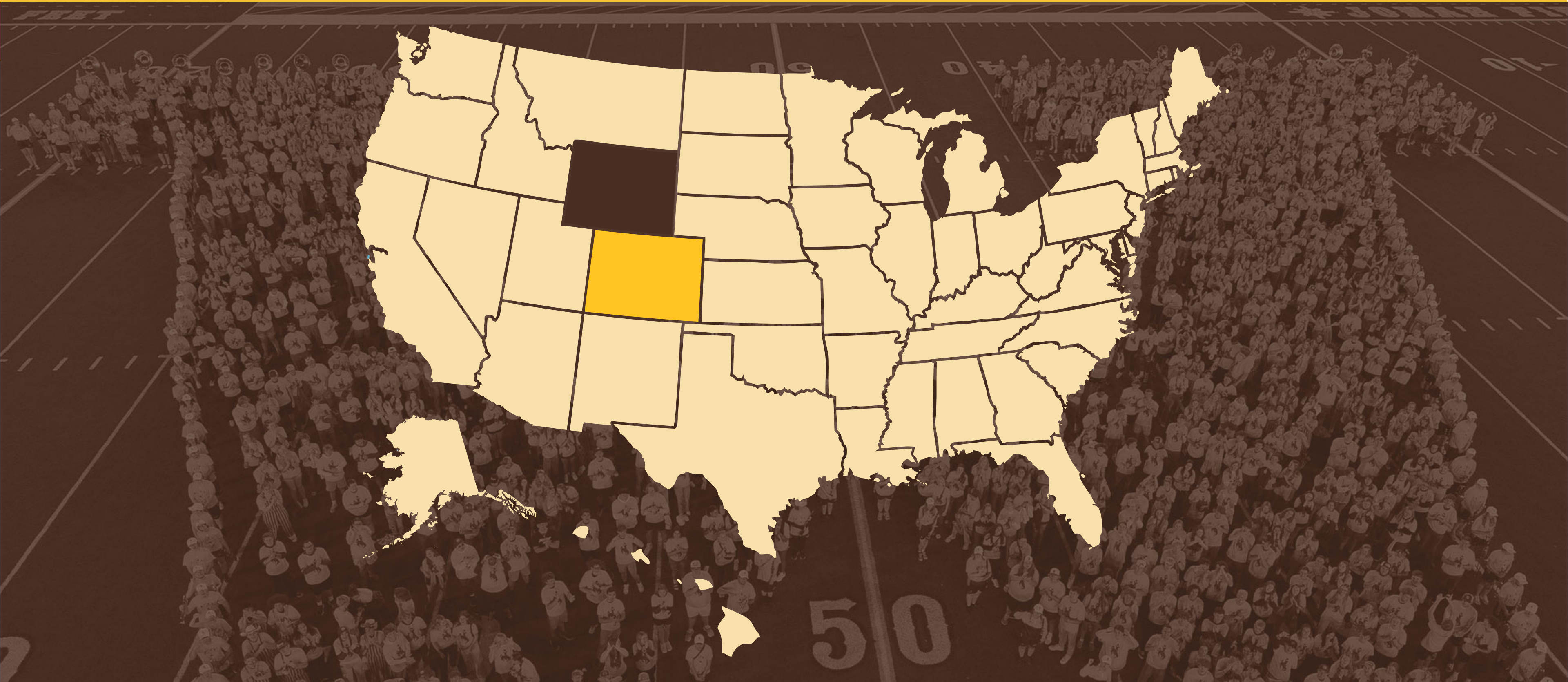
#### What we are doing:

- Meet student expectations through timely **Registration** and responsive **Advising**
- Provide timely and personalized delivery of **Cost of Attendance** information
- Showcase new **Residence Halls**
- Start **Onboarding** now – bring students *through*, not to
- Enhance personalized outreach from **Academic** departments, emphasizing:
  - Value of higher education
  - **Hands-on experience** in the major
  - Research investment
  - Degree to **career relevance**



# The UW Board and Future Enrollment

Recognizing the nuances in out-of-state recruitment

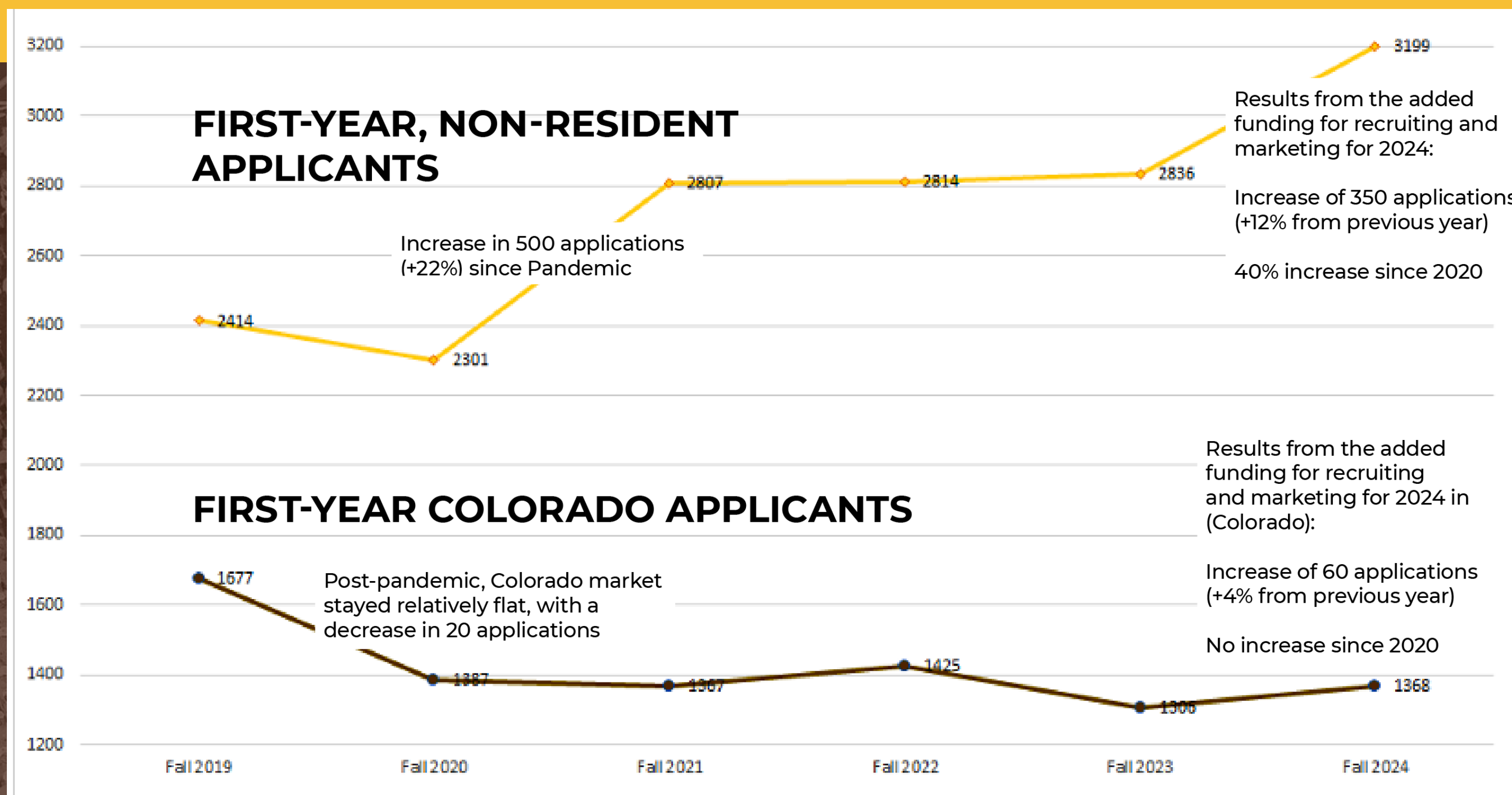




3

# First-Year, Out-of-State Recruitment

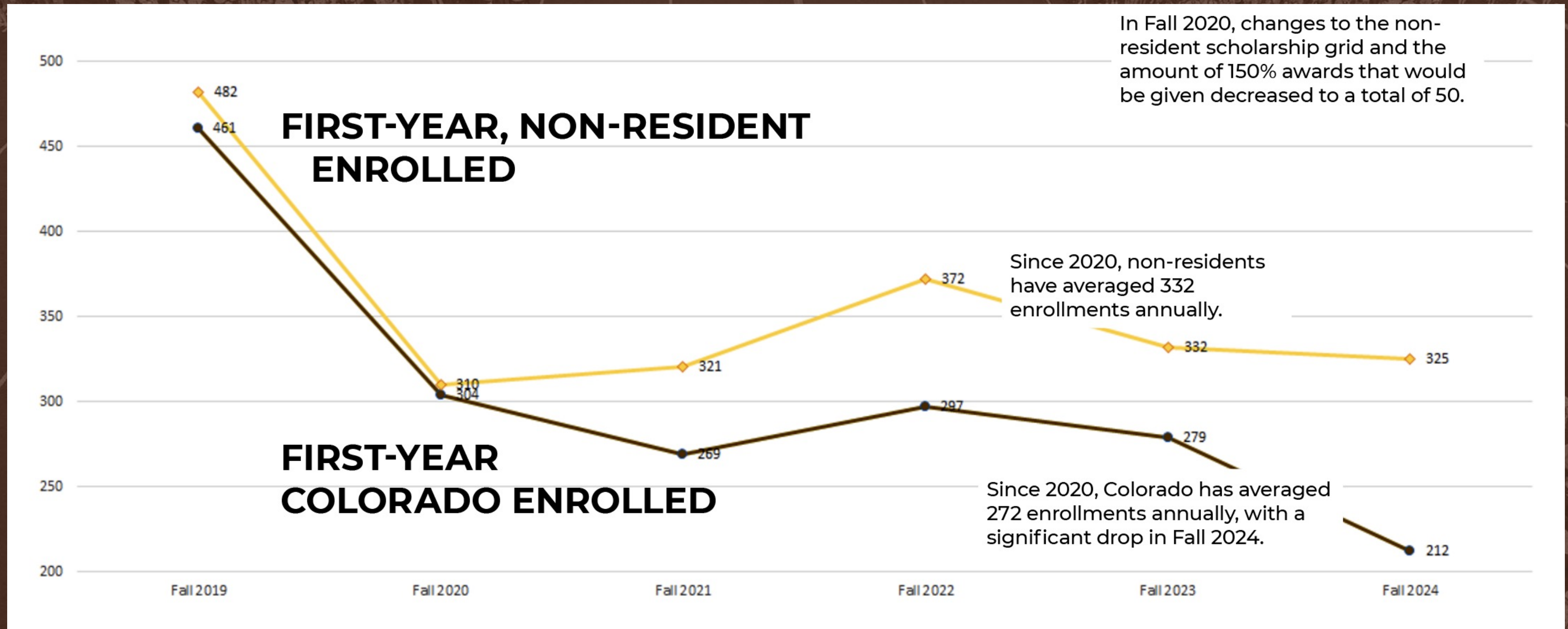
## Colorado vs. All Other Non-Residents



3

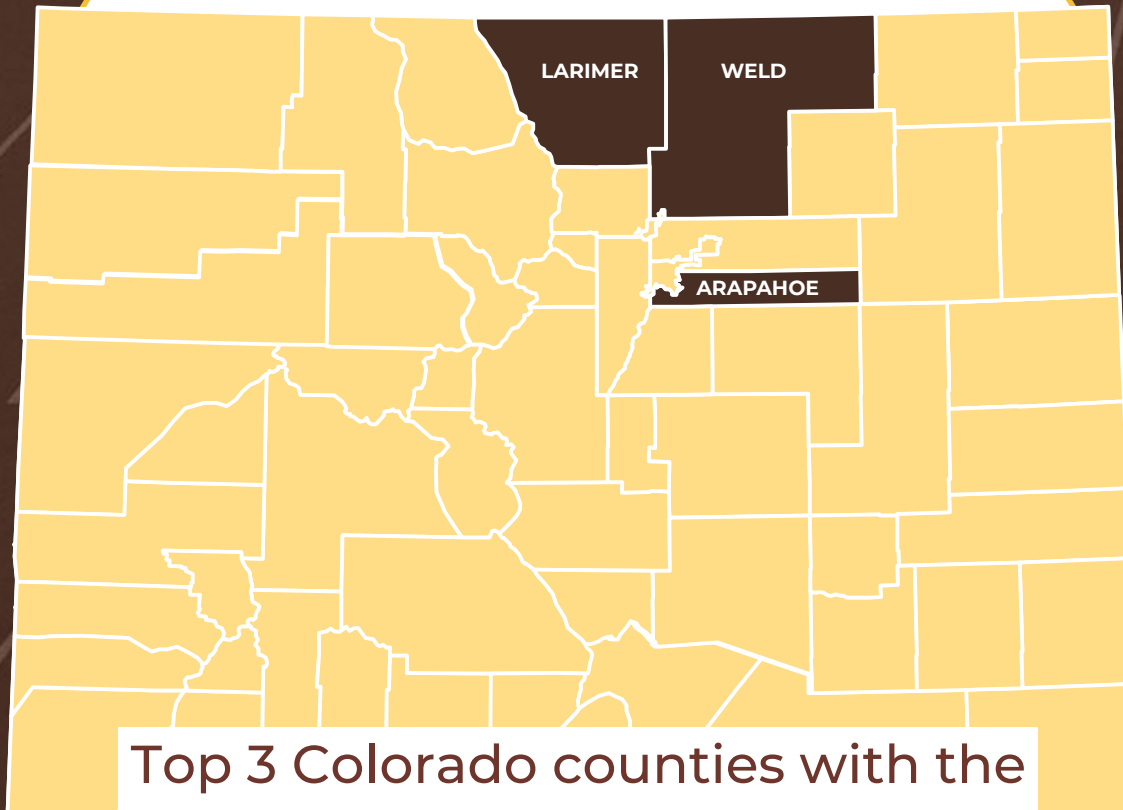
# First-Year, Out-of-State Recruitment

Colorado vs. All Other Non-Residents





## The Case for Colorado



Top 3 Colorado counties with the most lost enrollment over 6 years are Arapahoe, Larimer, and Weld

Majority of admits from these counties stayed in Colorado

46% of those who stayed in Colorado from those 3 counties went to CSU

105 more Colorado admits went to one of these 5 schools in 2024 than 2020:



### Cost Comparisons: UW vs. CSU



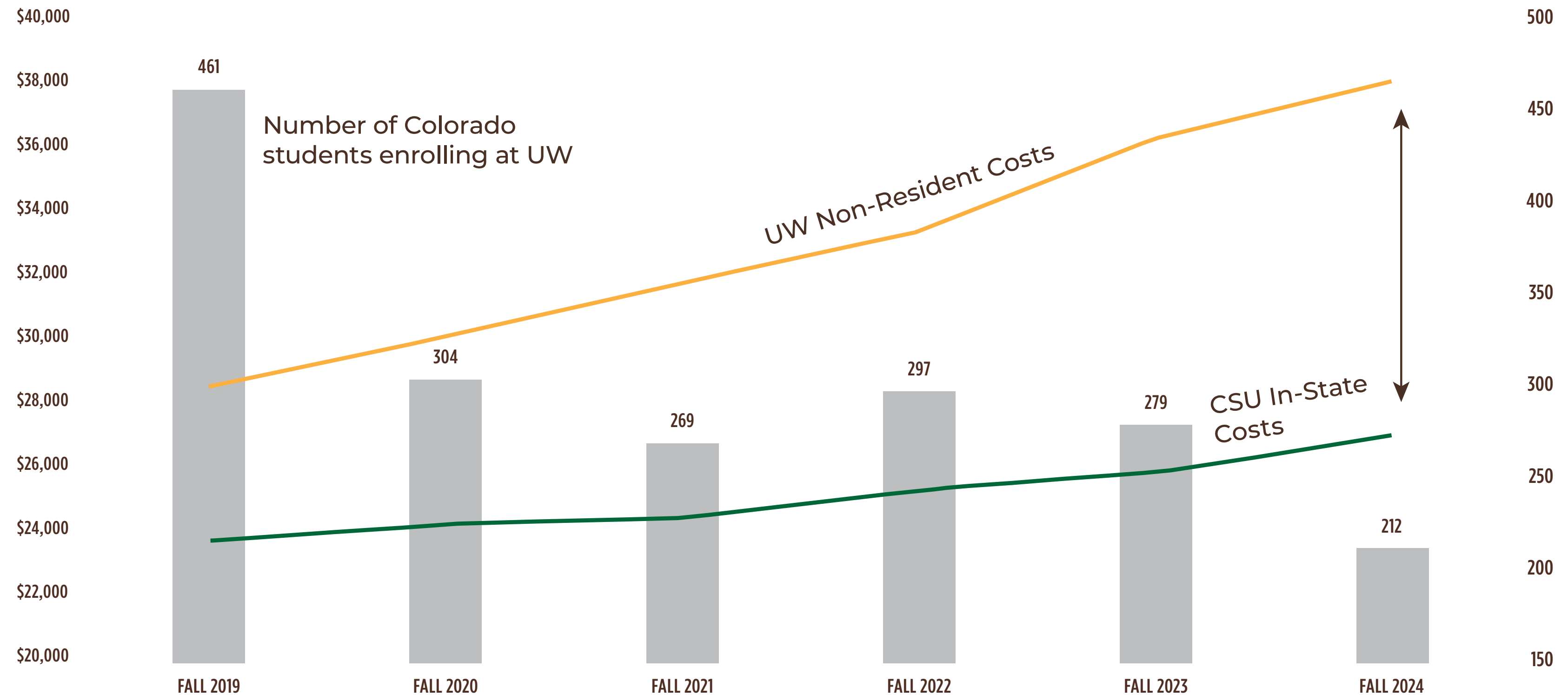
Costs for Colorado residents are rising slightly in-state at CSU:

**14% increase from 2019 to 2024**

The increase is much more significant at UW:

**33% increase from 2019 to 2024**

# The Case for Colorado





# Emphasizing Program Quality

## UW marketing messages in student recruitment emphasizes:

- Small class sizes and undergraduate research opportunities
- Hands-on learning and internship opportunities
- Lifestyle and outdoor adventure
- Study-abroad opportunities
- Career preparation and entrepreneurship
- School of Computing and digital offerings
- New residence halls
- Accessibility and affordability

These messages are embedded in the approximately \$1 million in digital advertising placed by Institutional Marketing and in the printed and digital materials created by IM for student recruitment.

## Program-level marketing:

- A search engine-optimized webpage for every degree program – Includes program details and areas of distinction; internship and hands-on learning opportunities; and career opportunities (including salaries). These pages serve prospective students who come to our site looking for program-specific information, as well as anyone doing a Google search for a specific degree program.
- Institutional Marketing annually places about \$84,000 in digital advertising for specific graduate programs.
- UW Online places digital ads for specific online programs.
- College of Education/IM mar-comm specialist placed digital ads for the CTE program only.
- IM previously placed digital advertising for specific College of Engineering and Physical Sciences undergrad programs; those did not produce significant results.

## Program-level marketing by other UW units:

- An inventory of this spending is underway. When it comes to student recruitment advertising, some has been placed through outside agencies by the College of Business MBA program; the College of Agriculture, Life Sciences and Natural Resources; UW-Casper; and the Department of Geology and Geophysics.





## *How the Board Can Help*

1. Explore separating Colorado from other non-residents
2. Provide feedback and support for engaging campuswide accountability for recruitment
3. Continue to support excellence in academic and student success

# UW Enrollment Follow-up: Getting Students Through the Funnel

Enrollment Management and Institutional Marketing

**AGENDA ITEM TITLE: Discussion: Governor's March 2024 Directive to Establish Policies that Allow for the Safe Carry of Concealed Weapons with UW Facilities, Seidel**



## **STORING OR CARRYING DANGEROUS WEAPONS IN UNIVERSITY FACILITIES**

### **Authority**

The University of Wyoming is a constitutionally established entity of the State of Wyoming, and pursuant to Wyoming Statutes § 21-17-203 et seq., the University Board of Trustees has custody and management over its buildings and all other property of the University. Wyoming Statute § 6-8-104(t)(x) requires prior written consent of the University's Security Service prior to any person other than a Peace Officer carrying a concealed firearm in a University Facility.

### **Purpose**

To establish a rule related to the storing or carrying of Dangerous Weapons in University Facilities.

### **Definitions**

- A. **"Controlled Substances"** means a drug, substance, or immediate precursor as listed in W.S. § 35-7-1002(a)(iv).
- B. **"Dangerous Weapon"** includes any Firearm, explosive, paintball gun, airsoft gun, taser or other electronic restraint device, sling-shot, mace or pepper spray container in excess of 1 ounce, knife (blades 3" or longer except in the apartments or for cooking purposes only), precursor for explosives, brass knuckles, blowgun, dart gun, bow, arrow, and martial arts weapons, including but not limited to a star, sword, nun chuck, and club.
- C. **"Facilities"** means buildings or structures or portions thereof, owned and controlled by the University. Buildings or structures leased by the University from another entity are excluded from this definition.
- D. **"Firearm"** means any pistol, revolver, or derringer designed to be fired by the use of a single hand, as defined by W.S. § 6-8-104(y)(ii).
- E. **"Hazardous Materials"** means any substance or chemical which because of their chemical, physical, or biological nature may present a health or physical hazard to individuals when handled in the normal course of their work, or which can cause harm to people, plants, or animals when released to the environment. A "release" may occur by spilling, leaking, emitting toxic vapors, or any other process that enables the material to escape its container, enter the environment, and create a potential hazard.
- F. **"Firearm Storage Container"** means a locked, hard-sided safe, gun case, lock box, or similar secure device designed specifically for storing firearms when not in use. This container must be accessible only by a key, combination, biometric device, or similar security measure to prevent unauthorized access.

- G. **“Patient Care”** means providing health care services or supplies to patients to prevent, diagnose, or treat illness, injury, conditions, disease or symptoms including but not limited to medical, dental, mental health, and substance abuse services.
- H. **“Security Service”** means, for the purpose of this rule only, the University of Wyoming Police Department (UWPD).
- I. **“Peace Officer”** means those officers assigned to duty in the state of Wyoming as listed in W.S. § 6-1-104(a)(vi).

### **Prohibitions and Exceptions**

- A. **Dangerous Weapons Prohibited.** Except as otherwise provided in Sections B or C below, no Dangerous Weapon may be carried in University Facilities.
- B. **General Exception.** Dangerous Weapons may be carried in University Facilities by the following individuals:
  - 1. Authorized Peace Officers;
  - 2. ROTC faculty members, or ROTC cadets under the direct and immediate supervision of ROTC faculty members, as part of official University business or University approved activities;
  - 3. Individuals directly transporting Dangerous Weapons to and from storage Facilities; and
  - 4. Individuals engaged in official University business or University approved activities with the written permission of the responsible Vice President.
- C. **Exception for Carry of Concealed Firearms.** University faculty, staff, students, and members of the public who possess a permit to carry a concealed Firearm under W.S. § 6-8-104(b) (a valid Wyoming permit) or W.S. § 6-8-104(a)(iii) (a valid permit authorized and issued by a governmental agency or entity in another state that recognizes Wyoming permits and is a valid statewide permit) may lawfully carry concealed Firearms in designated University Facilities as set forth below:
  - 1. Annual notice, including the name of the permittee and confirmation of possession of a valid permit, shall be provided to UWPD prior to a permitted individual carrying a concealed Firearm in University Facilities. Permittees will be required to sign a written acknowledgement along with this annual notice stating the following:
    - a. Per W.S. § 6-8-104(b), they will carry their permit, together with valid identification, at all times when carrying a concealed Firearm;

- b. They will display both the permit and valid identification upon request by UWPD;
  - c. Any Firearm carried will be fully concealed and secured while on their person; and
  - d. Firearms not carried on their person will be secured in a Firearm Storage Container within their direct control at all times.
- 2. Lists or other records maintained by UWPD pursuant to this Rule, which identify an individual applicant or permittee, are not considered a public record pursuant to W.S. § 6-8-104(bb) and will be kept confidential to the extent permitted by law.

#### **D. Prohibition against Concealed Carry**

- 1. Even those individuals who possess a permit and provide the required information to UWPD as noted above may not possess concealed Firearms in locations further restricted by federal and state law.
- 2. Per W.S. § 6-8-104(t), no person authorized to carry a concealed weapon shall carry a concealed Firearm into:
  - a. Any facility used primarily for law enforcement operations or administration without the written consent of the chief administrator;
  - b. Any detention facility, prison or jail;
  - c. Any courtroom, when being used as a courtroom by official judges of the United States or the State of Wyoming to hear or adjudicate or deliberate over actual cases at law or in equity, except that nothing in this section shall preclude a judge from carrying a concealed weapon or determining who will carry a concealed weapon in the courtroom (for the avoidance of doubt, this section does not apply when a courtroom is being used as a classroom to instruct students in the ordinary course of the College of Law's business);
  - d. Any meeting of the legislature or a committee thereof;
  - e. Any meeting of a governmental entity;
  - f. Any school athletic event, college athletic event or professional athletic event not related to Firearms; and
  - g. Any portion of an establishment licensed to dispense alcoholic liquor and malt beverages for consumption on the premises, which portion of the establishment is primarily devoted to that purpose.

3. Per the Federal Gun Free School Zone Act of 1990 (18 USC 922(q)(B)(ii)), it is illegal for any individual to knowingly possess a Firearm within a distance of 1000 feet of elementary or secondary school grounds unless that individual is licensed by their state to carry.
4. Concealed Firearms are **further** prohibited in the following University Facilities:
  - a. Any portion of a Facility primarily devoted to providing Patient Care, including but not limited to:
    1. Athletic Training Services and Wellness Center at Half Acre;
    2. Education Health Center of Wyoming: Family Medicine Residency Centers in Casper and Cheyenne and the Albany Community Health Clinic in Laramie;
    3. Mountain View Medical Plaza
    4. Psychology Center;
    5. Speech, Hearing, and Telepractice Clinic;
    6. Sports Medicine;
    7. Student Health Service and the Campus Pharmacy;
    8. University Counseling Center; and
    9. Wellspring Counseling Clinic.
  - b. Laboratories or locations with Hazardous Materials or Controlled Substances as identified by the University's Safety Office, including but not limited to:
    1. Chemical Stock Room;
    2. Regulated Materials Management Center; and
    3. Wyoming State Veterinary Laboratory.
  - c. A meeting of the Faculty Senate, Staff Senate, or Associated Students of the University of Wyoming (ASUW).

**E. Injury or Property Damage Involving a Firearm**

A person who carries a concealed Firearm is solely responsible for any injury or property damage involving the Firearm. Those carrying concealed Firearms shall abide by Wyoming law regarding the use of force and the defense of self or others. Any action taken will be in

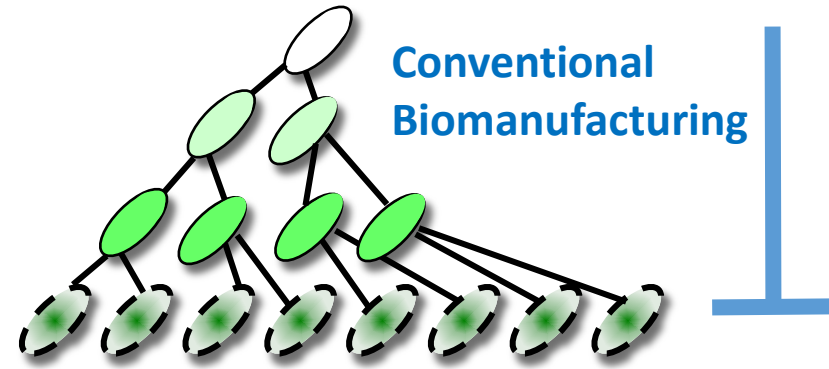
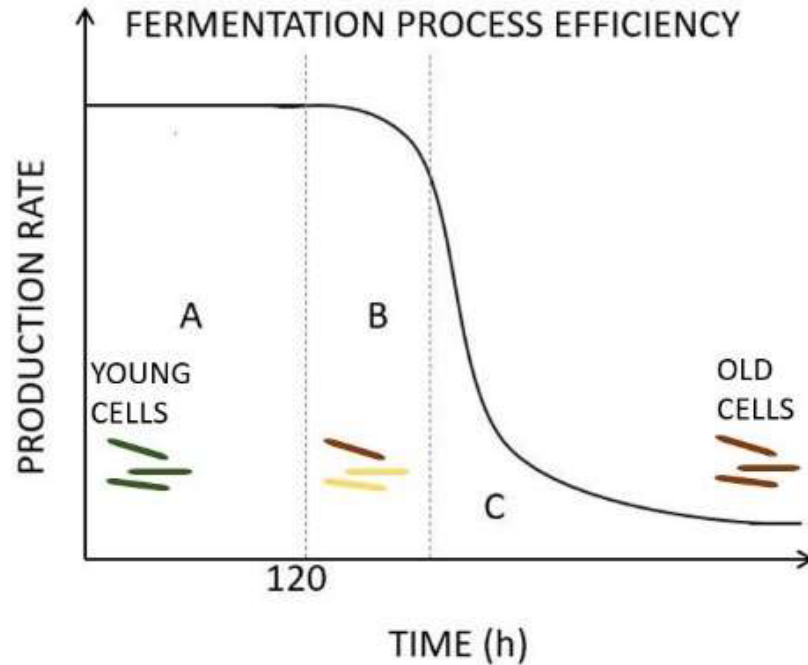
the individual's personal capacity, and any potential criminal or civil recourse that may result shall be the responsibility of the individual. Nothing contained herein shall be construed as a waiver of the State of Wyoming or the University of Wyoming's sovereign immunity.

- F. Administration.** Notwithstanding Sections B and C above, UWPD is authorized to request that any persons carrying a Dangerous Weapon in University Facilities, including a lawfully concealed Firearm, relinquish the Dangerous Weapon due to their failure to comply with this Rule, applicable law or regulation, or unsafe behavior, including alcohol or drug use while carrying a Firearm.
- 1.** The Dangerous Weapon shall be returned to the person when that person leaves the University Facility, unless UWPD has probable cause to detain either the person or the Dangerous Weapon or determines the Dangerous Weapon needs to be retained as part of a law enforcement investigation.
  - 2.** If a person carrying a Dangerous Weapon refuses to relinquish the weapon to UWPD, that person shall be denied access to the University Facility.
- G. Sanctions.** University students, faculty, and staff may be subject to disciplinary action for violation of this Rule up to and including termination or expulsion, as applicable. All persons violating this Rule may also be subject to criminal sanctions in accordance with Wyoming state law.



**AGENDA ITEM TITLE: Programmable Multicellularity-Grant Bowman**

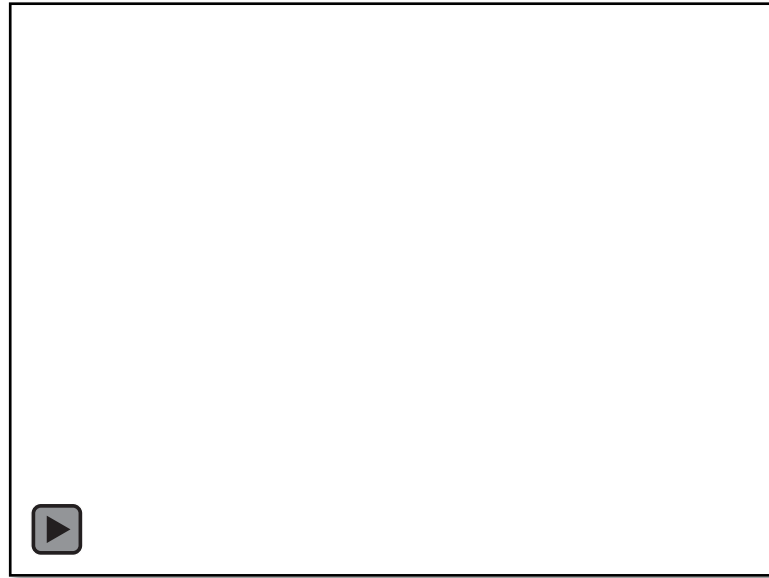
# Programmable Multicellularity: Why do this?



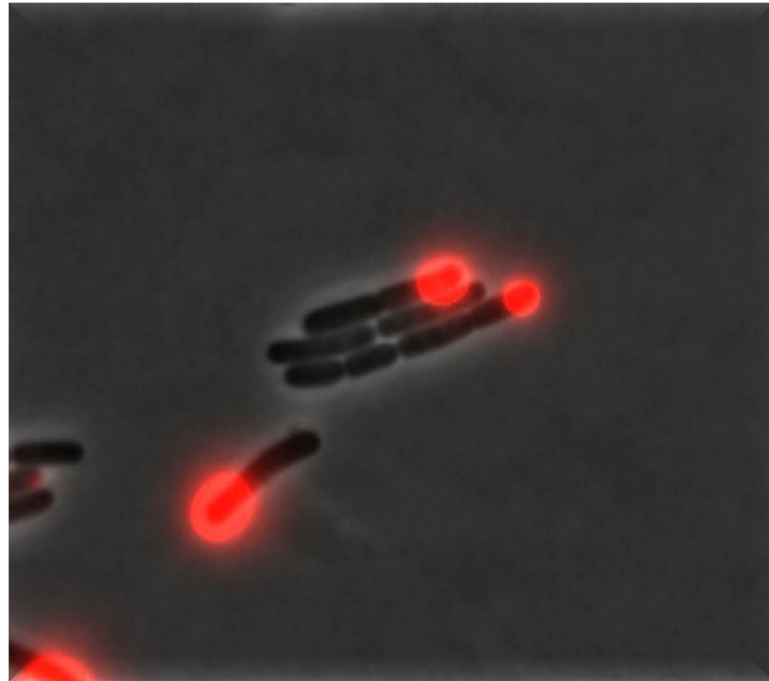
## “Aging” during biomanufacturing

- > high metabolic stress
- > toxicity / limited capacity
- > slow growth / death

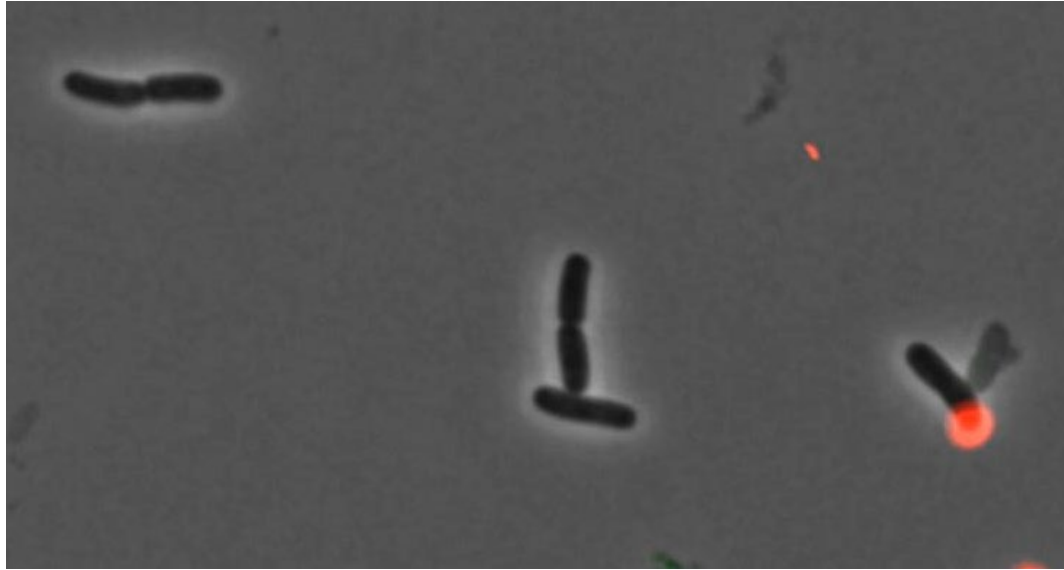
**Step #1:  
programmable  
asymmetric cell  
division**



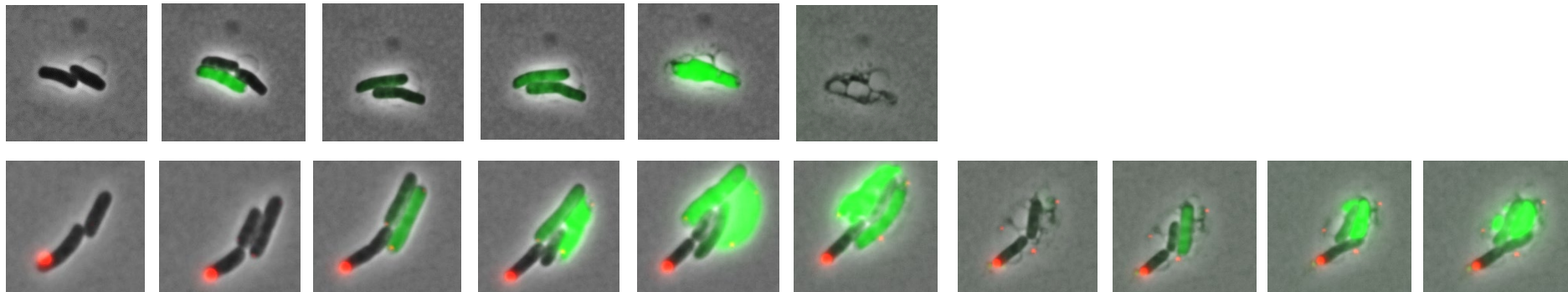
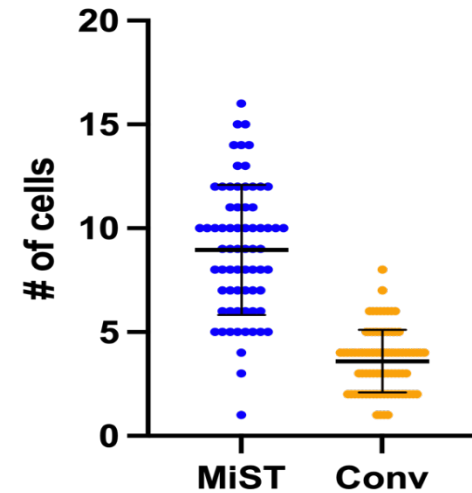
**Step #2:  
differential gene  
expression.**



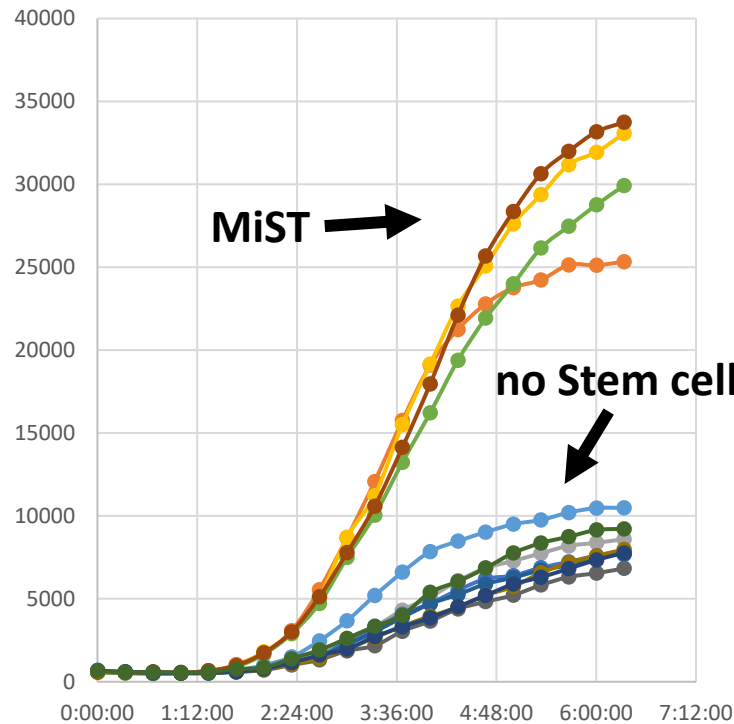
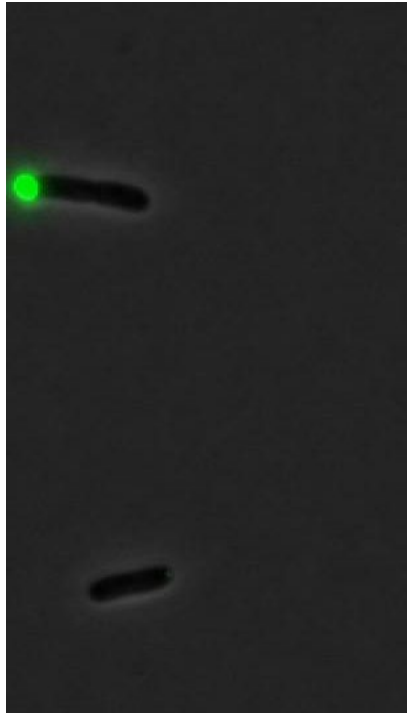
# Bacterial “Stem Cells” extend production lifetime



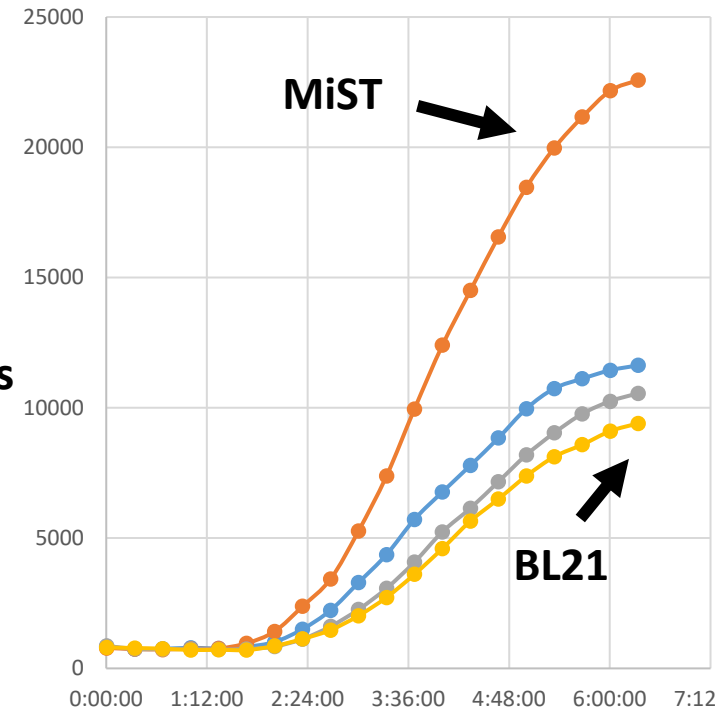
# of cell divisions before death



# Fully committing factory cells to production



**4X higher yield  
with stem cells**



**2X higher yield  
over conventional  
production strains**

## **Federal Grants**

One SIBR, One STTR, plus Wyoming matching funds: \$675k total (\$165k to UW)

NSF Research grant: \$511k total (to Bowman / UW)

## **Other Financial Support and Investments**



Innovation “Incubators”: Two. IndieBio and NSF Activate: \$505k to Asimica

Angel Investor to Asimica: \$75k

## **RETURN ON INVESTMENT**

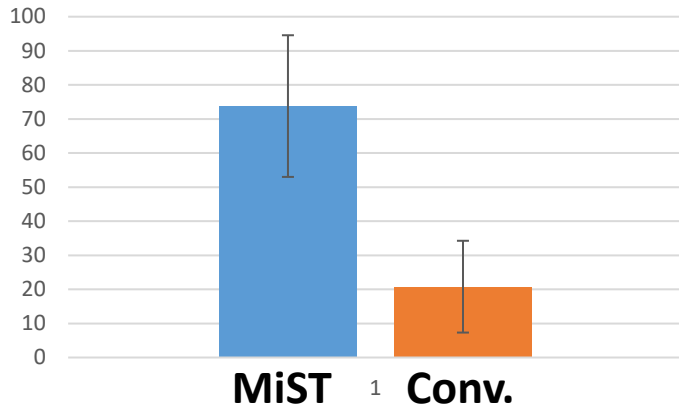
### **Personnel & Training:**

1 scientist/founder + 1 lab tech (Asimica), 3 PhD students (UW)

**Publications:** Two so far. One in Nature Biotechnology, 2 more in preparation

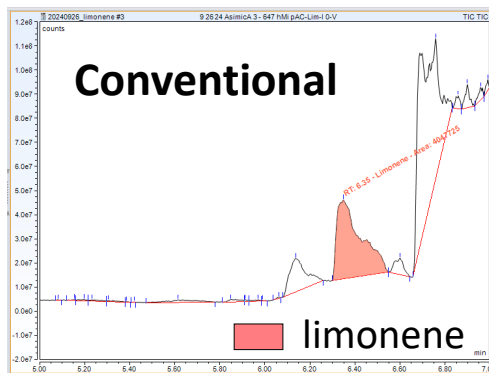
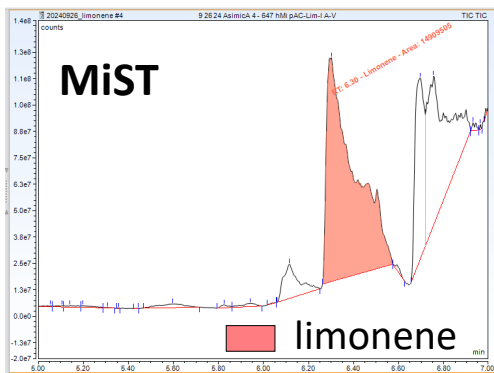
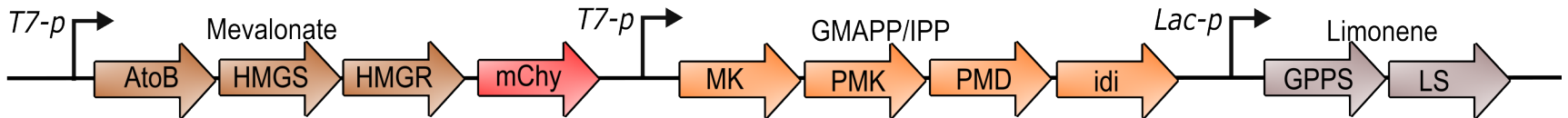
**Patents:** One Issued in 2021, One Provisional (To University of Wyoming and Asimica)

# Current Directions: Valuable Products



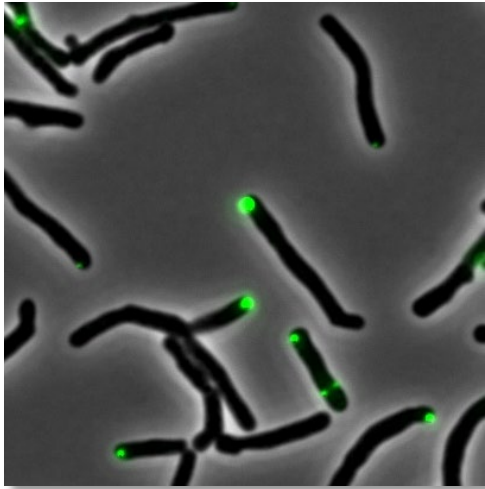
A. Increased production of human insulin (commercially manufactured in *E. coli*)

B. Increased production of limonene. (An industrial solvent and a precursor for fragrances and flavorings)

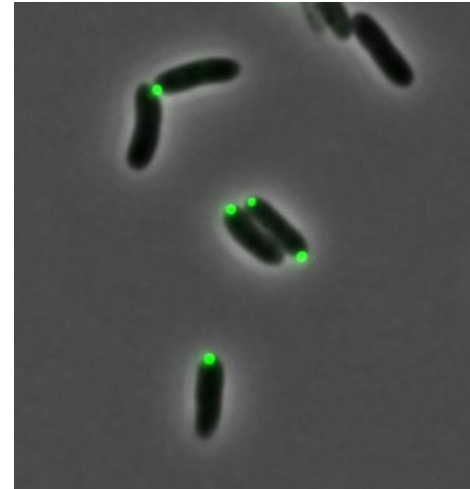


C. (Near Future)  
Scalability:  
Demonstration  
in a bioreactor

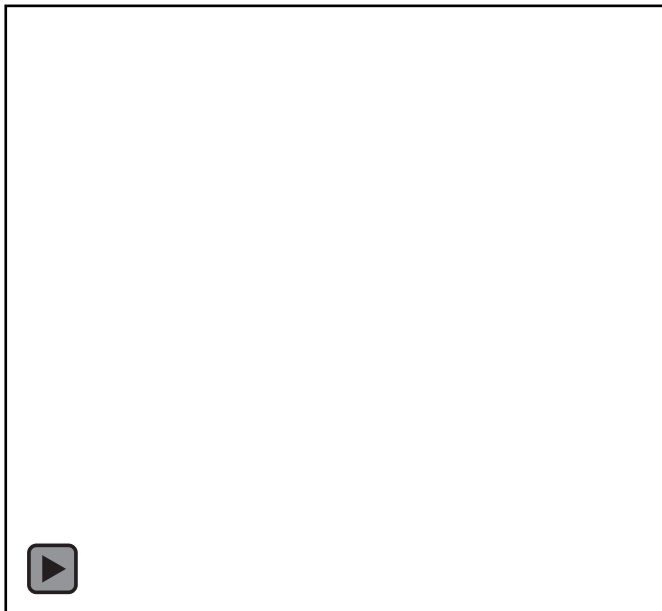
# Current Directions: Additional Species



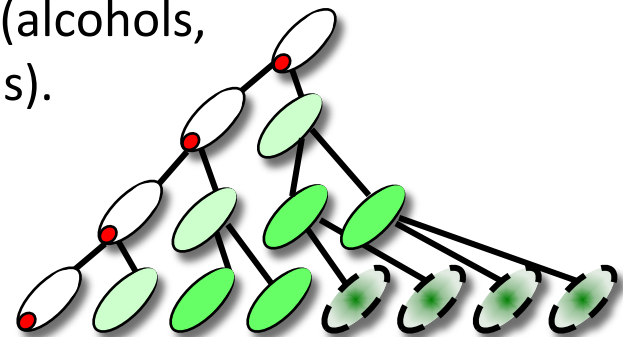
A. *Pseudomonas putida* (converts lignocellulosic feedstocks)



B. *Rhodococcus jostii* (makes oils / lipids).



C. Brewer's Yeast  
*Saccharomyces cerevisiae*.  
Most common commercial producer (alcohols, terpenoids).





# Thank you!

## Understanding Cell Polarity

Yasin Ahmed  
Kaylan Schilling  
Sammy Patterson

Krisztina Varga (UNH)  
Logan Brown (UNH)

Abigail Straight  
Ray Heffley  
Ainsley Hokanson  
Tess Palen  
Cody Mclarnon  
Ellie Groves  
Rachel Kaiser  
Maddie Sites  
Ben Radosevich

Josh Holmes  
Haibi Wang

## Biomanufacturing

Jacob Guidry  
Steven Poyer



Nik Mushnikov  
Ashley Park

Funding:



**AGENDA ITEM TITLE: Trustees Education Initiative Update**





# TRUSTEES EDUCATION INITIATIVE

# WORKING TOGETHER

## CONTACT COLBY GULL



[colby.gull@uwyo.edu](mailto:colby.gull@uwyo.edu)



(307) 766-3196

**Our Partners:** TEI relies on a diverse network of professionals and organizations to advance education throughout Wyoming. From state agencies to educational associations, our partnerships ensure that every initiative supports the development of highly effective educators across the state.

**Collaborative Efforts:** TEI works closely with state agencies, school districts, the Wyoming Governor's Office, the Wyoming Association for Career and Technical Education, and more. These collaborations are essential in driving innovation and ensuring meaningful progress in Wyoming's educational landscape.

For a complete list of TEI partners and collaborators, visit:  
[uwyo.edu/tei/partners-and-collaborators](http://uwyo.edu/tei/partners-and-collaborators)



For more information about TEI and to stay up to date, visit [uwyo.edu/tei](http://uwyo.edu/tei) or scan the QR code.



Shaping Wyoming's  
Educational Landscape

# ABOUT TEI

# TEI INITIATIVES

# OUR APPROACH

**Our Mission and Origins:** The Trustees Education Initiative was established in 2016 at the University of Wyoming College of Education to address the growing need for high-quality educators in Wyoming. TEI operates under the E-4 framework, focusing on Excellence in teaching, Enhancing teacher preparation, Engaging with stakeholders, and Empowering educators for the future.

**Statewide Reach:** TEI's work extends across Wyoming, ensuring that educators in every part of the state benefit from its initiatives. By targeting both urban and rural communities, TEI addresses unique educational challenges and brings cutting-edge teaching practices to schools statewide.

**Empowering Wyoming Educators:** The Trustees Education Initiative (TEI) at the University of Wyoming's College of Education drives transformative educational programs across the state. These initiatives empower educators, foster professional growth, and elevate student success, maintaining high standards in Wyoming and beyond.

- 307 Principal Leadership Academy
- Career and Technical Education (CTE)
- High Altitude Pathways Program (HAP)
- Master Educator Competency Program (MECP)
- Wyoming Early Childhood Outreach Network (WyECON)
- Wyoming Teacher Mentor Corps (WTMC)

**Collaborative Innovation:** TEI brings together educators, administrators, policymakers, business leaders, and community members to drive innovative teaching practices. These partnerships ensure that the initiatives are grounded in practical solutions that enhance the teaching profession and improve learning outcomes for K-12 students across the state.

**Driving Professional Development:** One of TEI's core focuses is providing comprehensive professional development for educators. Through workshops, mentoring programs, and cutting-edge research, TEI equips teachers with the skills they need to succeed in modern classrooms and adapt to evolving educational standards.





UNIVERSITY  
OF WYOMING

College of  
Education

—  
CTE In Wyoming

University of Wyoming Dean's Office

# What I will Cover

- Job Postings Wyoming's Education System
  - Public School Districts
  - (Briefly) Community Colleges and University of Wyoming
  - (Briefly) Private Sector

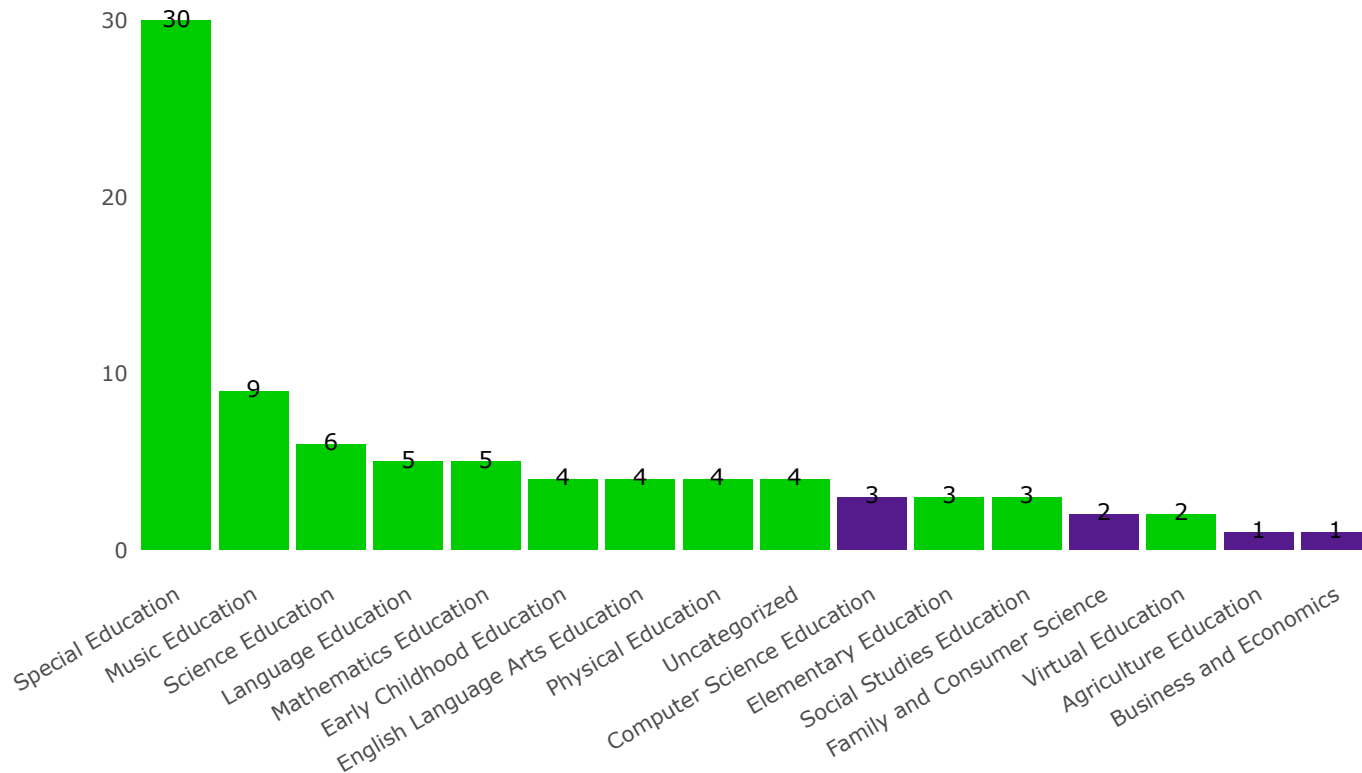
Using a data science software tool called R, we scraped this data and consolidated it into the following dashboards:

- Wyoming K12 Job Openings
- Wyoming Community Job Openings

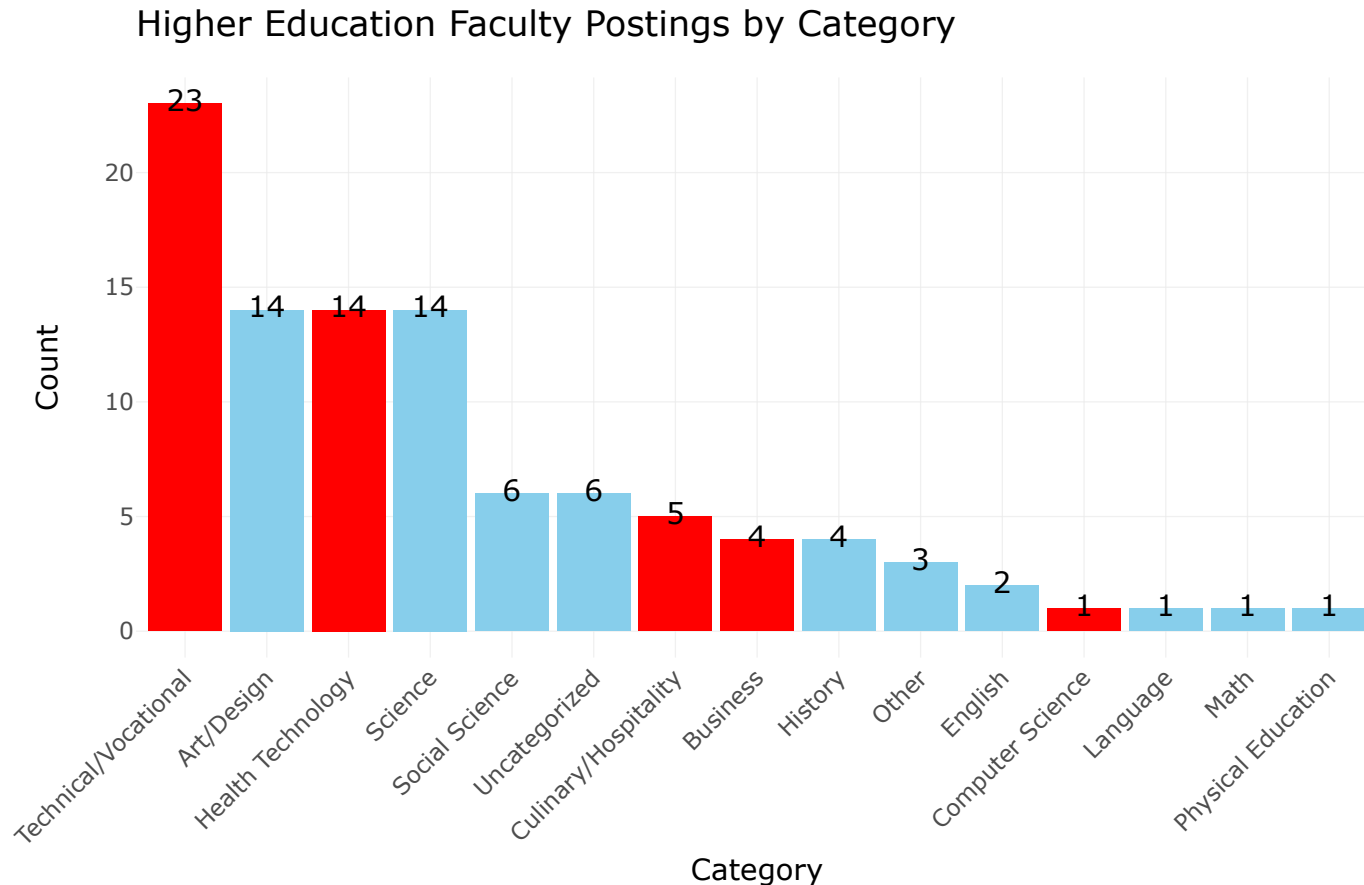


# Wyoming K-12 Teacher Jobs by Category as of Late July

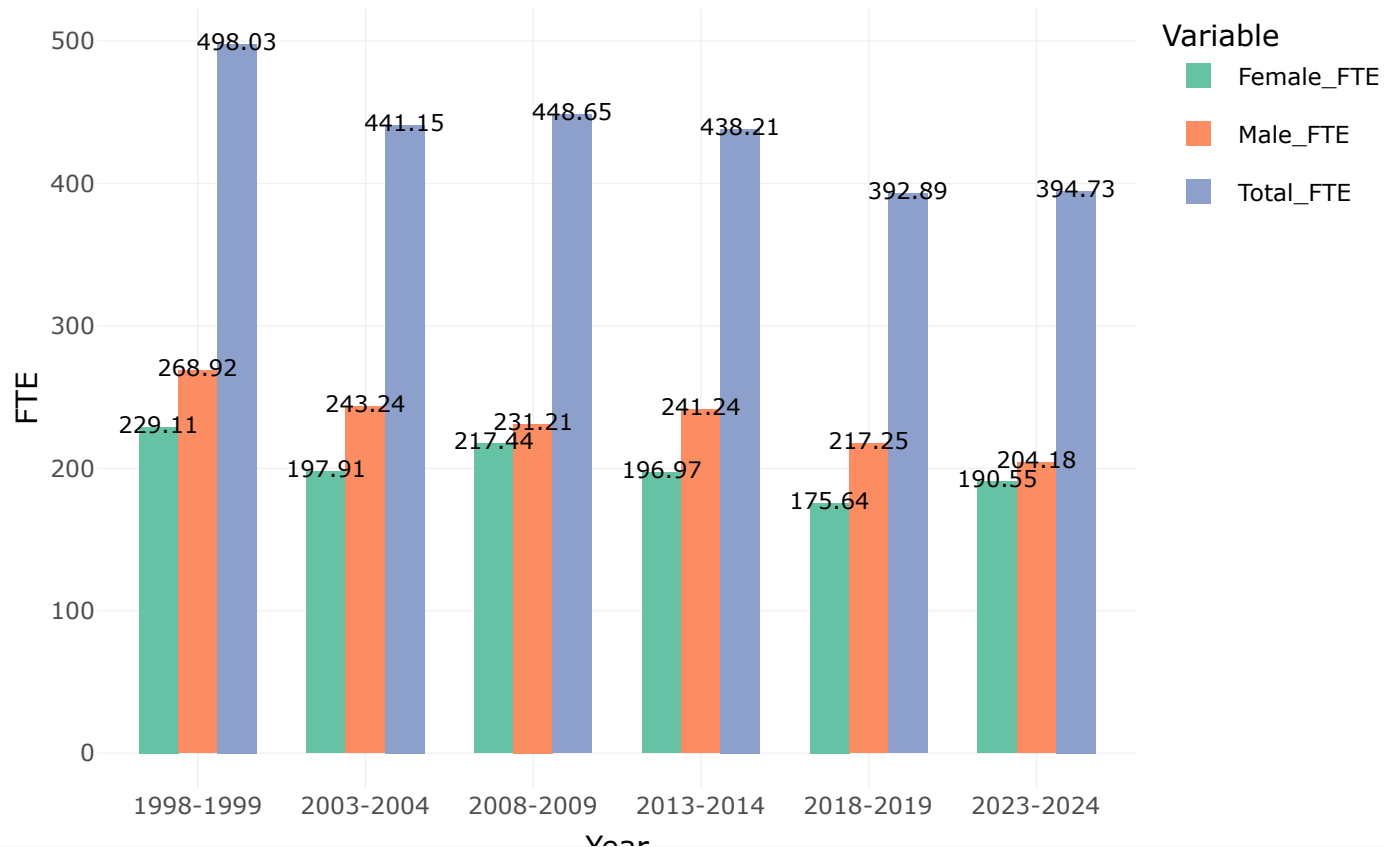
**Wyoming K12 Job Posting Categories**



# Wy Higher Education Faculty Positions as of Late July



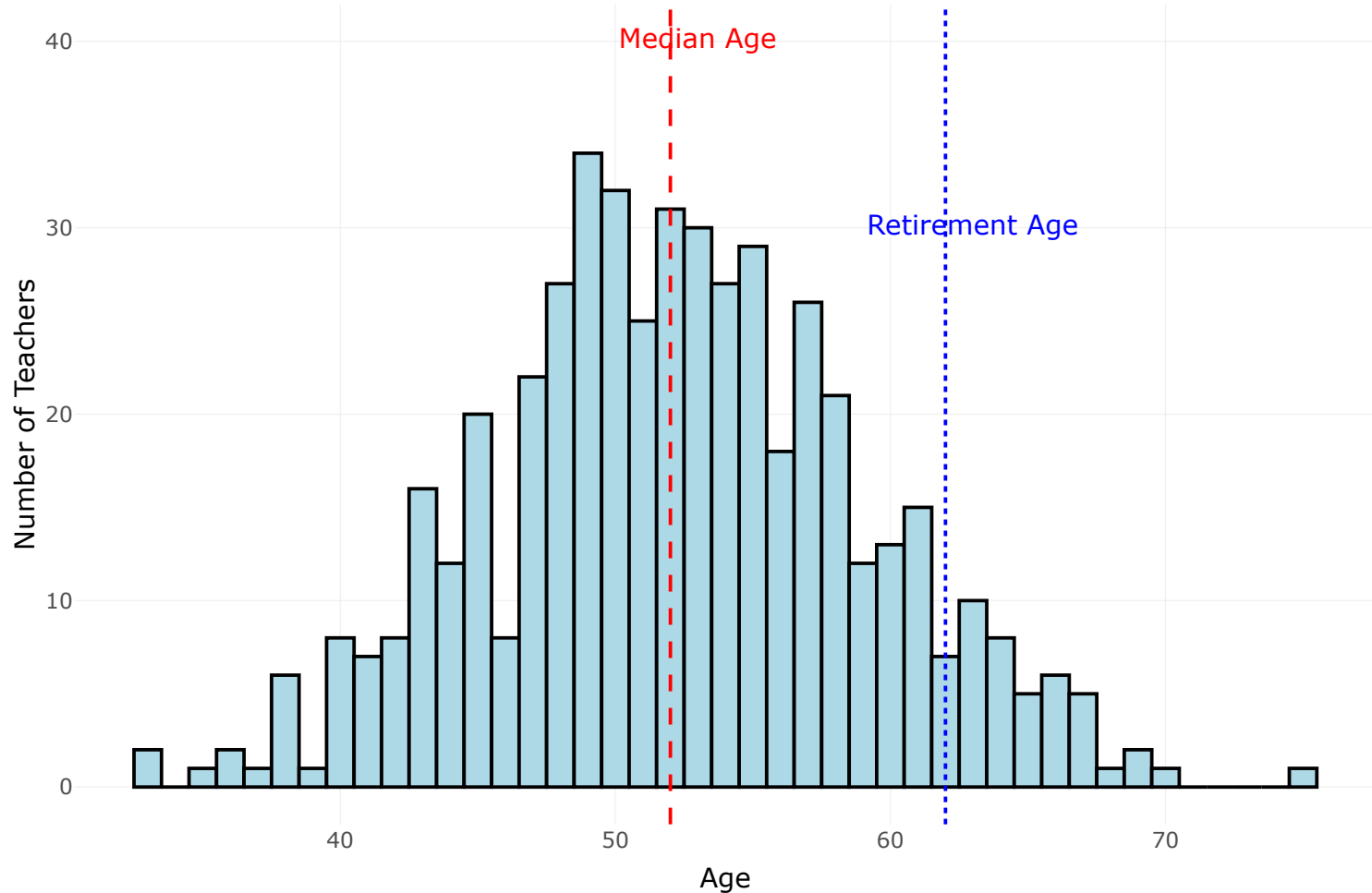
Even though teaching jobs are limited in CTE in Wyoming, overall FTE dropped by 100 in Wyoming despite increased enrollments



## Takeaways from the job postings data

- Nearly 50% of faculty needed in Wyoming's higher education system are CTE related.
- It appears that there is less demand for CTE teachers in K12 at this time
- There is much more to that story
  - There has been a decrease in 100 FTE in CTE teachers over the past 25 years
  - Approximately 250 CTE teachers are primed to retire in the next 10 years
  - CTE Enrollments continue to increase each year
  - It appears that CTE positions have been filled with temporary or non-CTE credentialed teachers
- We have a detailed report coming out in September
- We will report on those results

# Estimated distribution of WY CTE K12 teacher ages

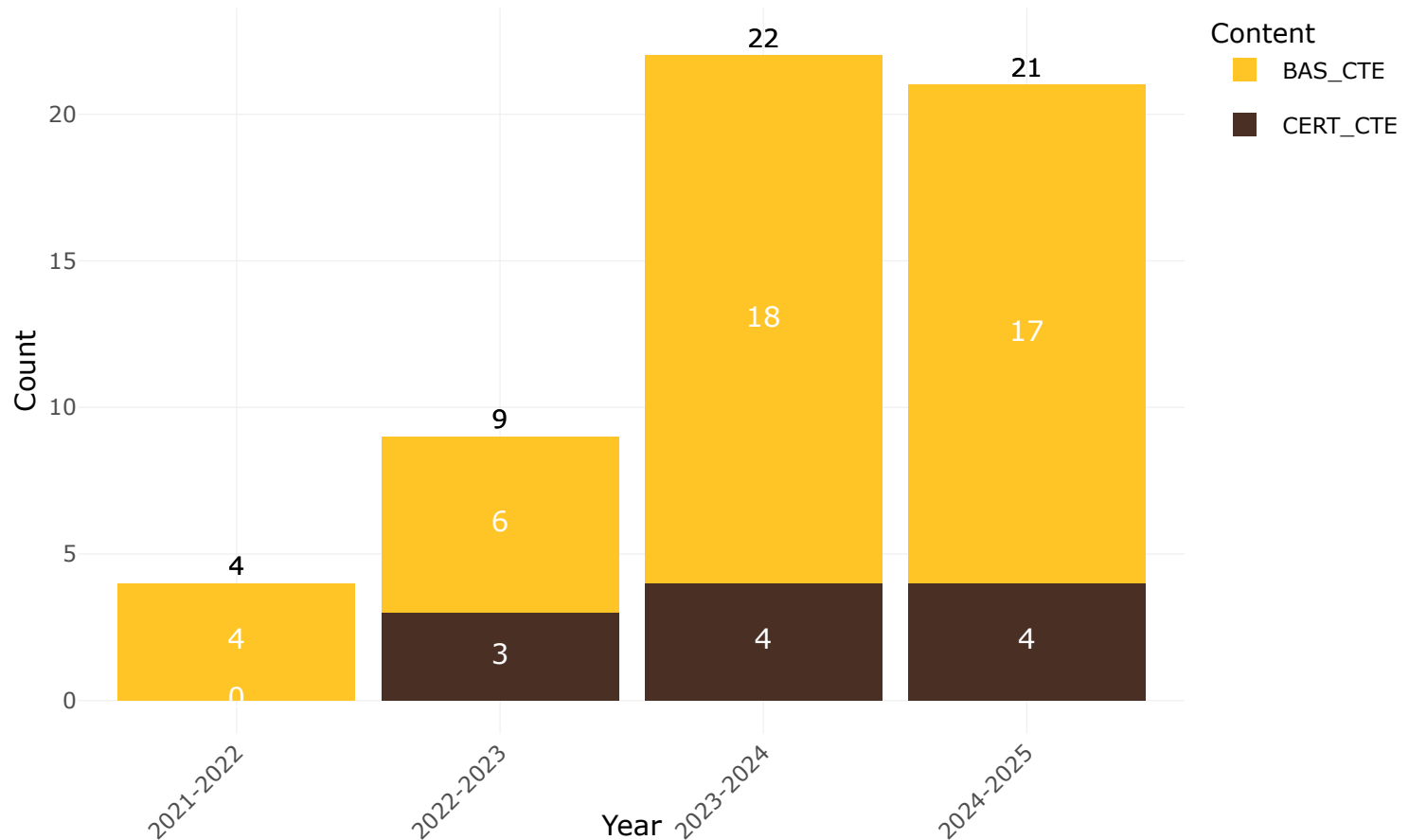


# CTE Job Related Demand in WY

- Lightcast, courtesy of Governor Gordon's office, provided us with some jobs data
- Artificial Intelligence classified these jobs into CTE and non-CTE related categories.
  - R was able to integrate large language modeling and classify job postings into different categories
  - This required several iterations to train the model
- **Total Job Postings: 5,695**
- **CTE-Related Job Postings: 2,907**

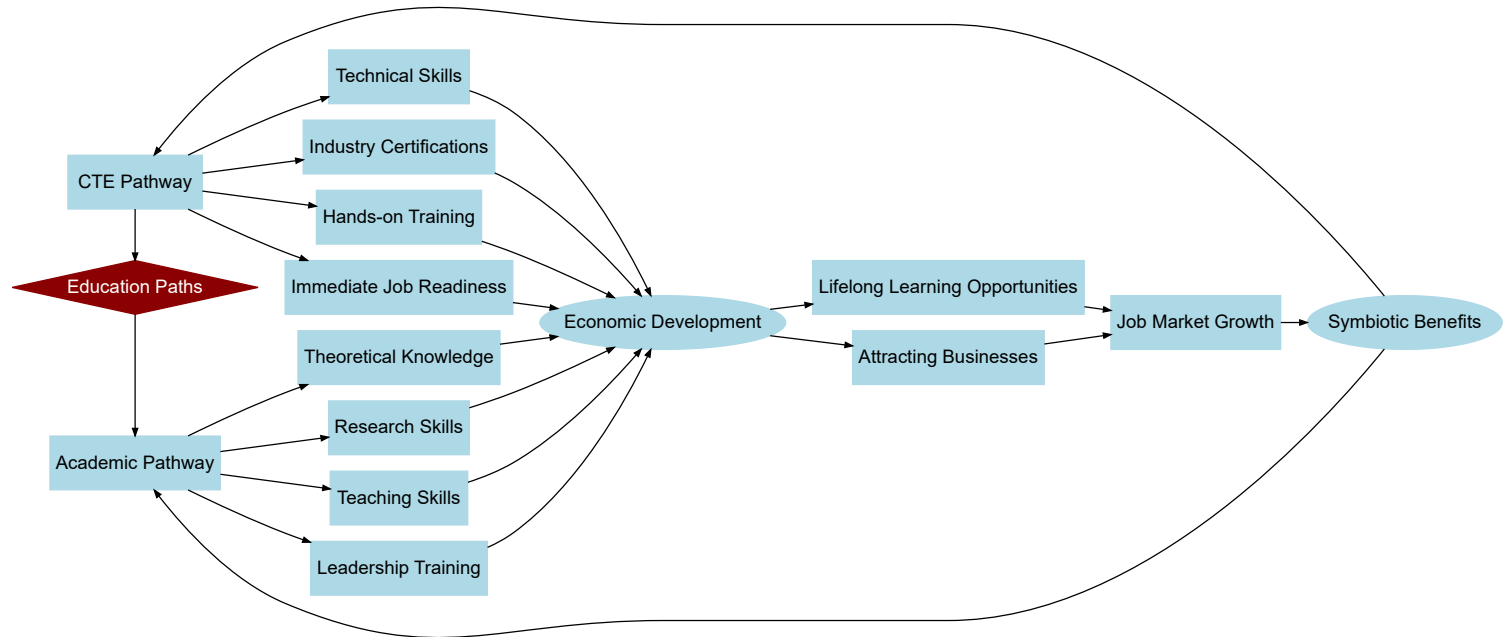
# The growth of UW CTE teacher licensure

CTE Content Area Counts by Year





# The Symbiotic Relationship between CTE and Higher Education





UNIVERSITY  
OF WYOMING

College of  
Education

# Questions?

Here is a link to the PDF of this Presentation:





UNIVERSITY  
OF WYOMING

College of  
Education

# College of Education Praxis Exam

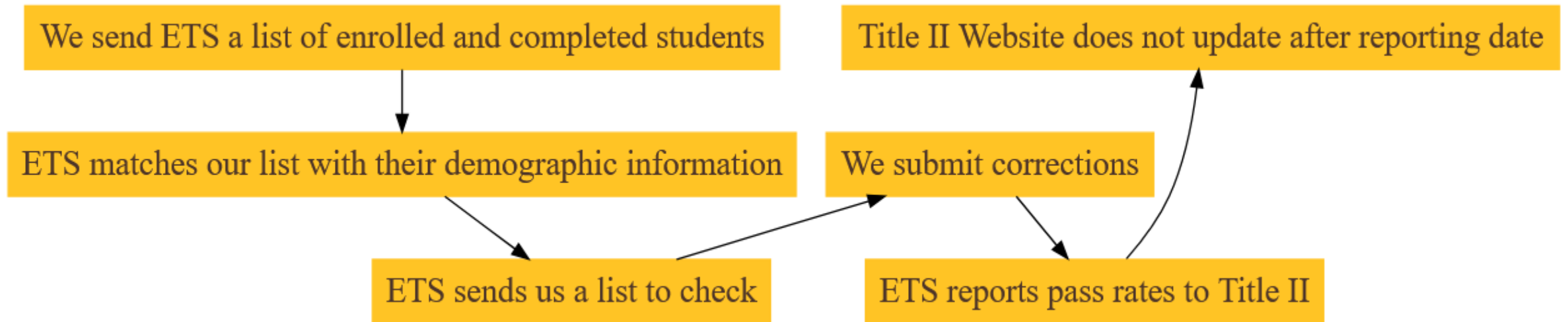


# Only Two Programs Require Students to Take the Praxis II Exam

- Elementary Education
  - Elementary Literacy
  - Elementary Math
  - Elementary Science
  - Elementary Social Studies
- Social Studies Education (Just one test)



# This is how Praxis Reporting Works with Educational Testing Services (ETS)

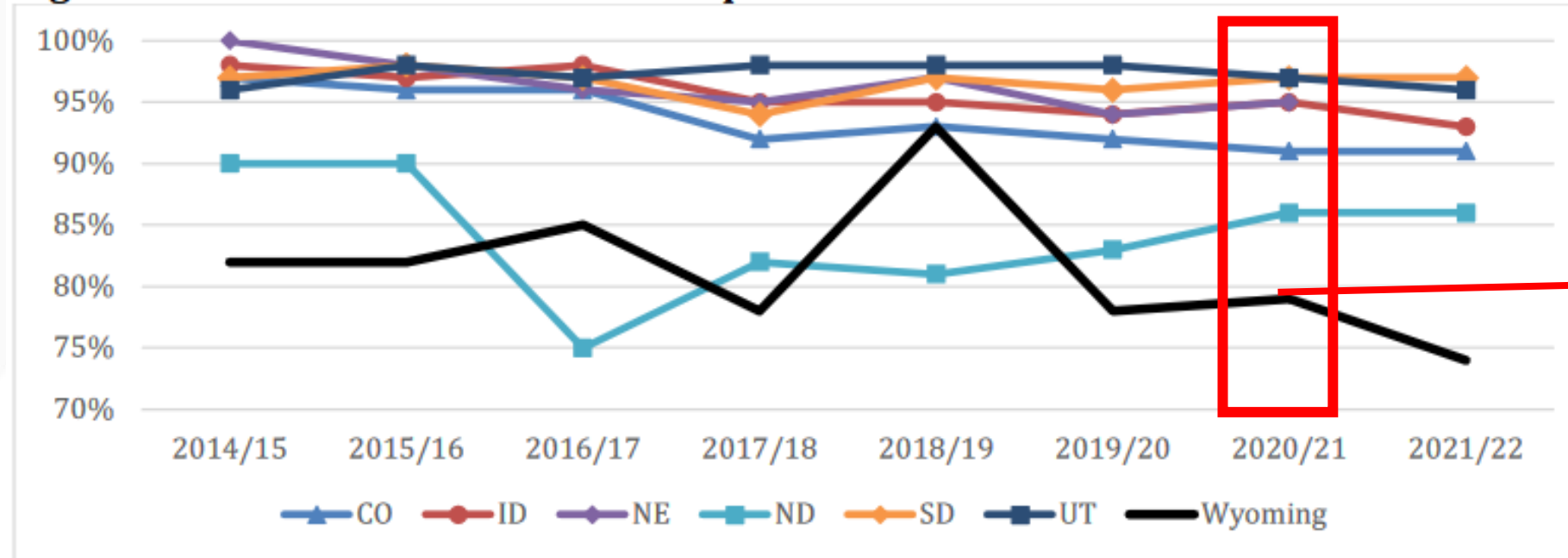






# This is How Wyoming was Compared to Other States at the Joint Education Committee in September 2024 (p. 23)

**Figure 12: Teacher certification exam pass rates**



Wyoming  
at 79% in  
2020/21

Source: Stoddard, C. (2024) Report to the join appropriations committee, September 2024.

[https://wyoleg.gov/InterimCommittee/2024/04-2024092603-03\\_StoddardIndicators\\_2024Final.pdf](https://wyoleg.gov/InterimCommittee/2024/04-2024092603-03_StoddardIndicators_2024Final.pdf)

These are two praxis reporting iterations two years apart.  
Notice the scores update.

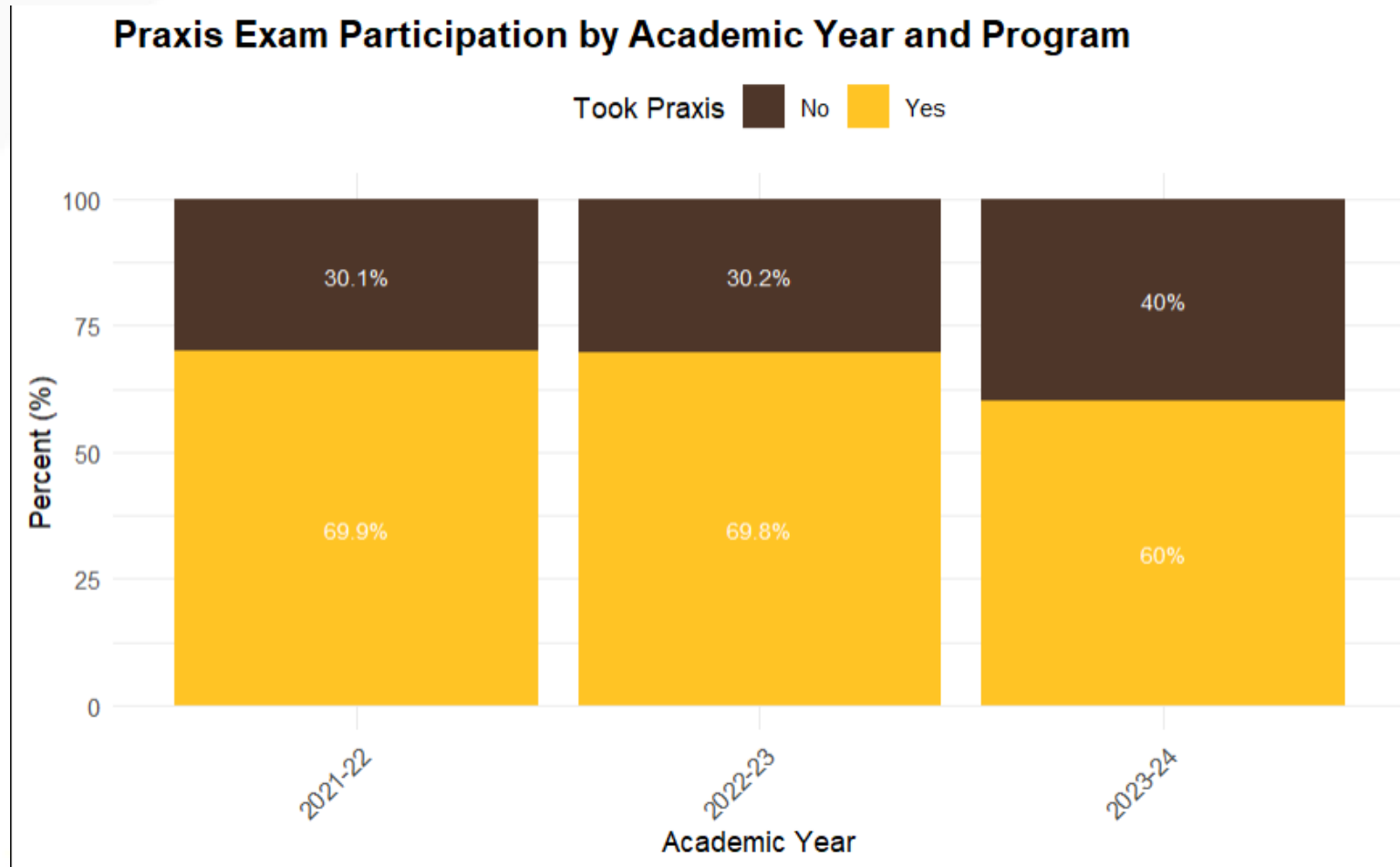
Group	Number taking tests	Number passing tests	Pass rate (%)
All program completers, 2020-21	105	83	79
All program completers, 2019-20	137	119	87
All program completers, 2018-19	122	117	96

Group	Number taking tests	Number passing tests	Pass rate (%)
All program completers, 2022-23	89	66	74
All program completers, 2021-22	120	99	83
All program completers, 2020-21	110	98	89

Our Scores Improved for the Same Graduates across reporting Years



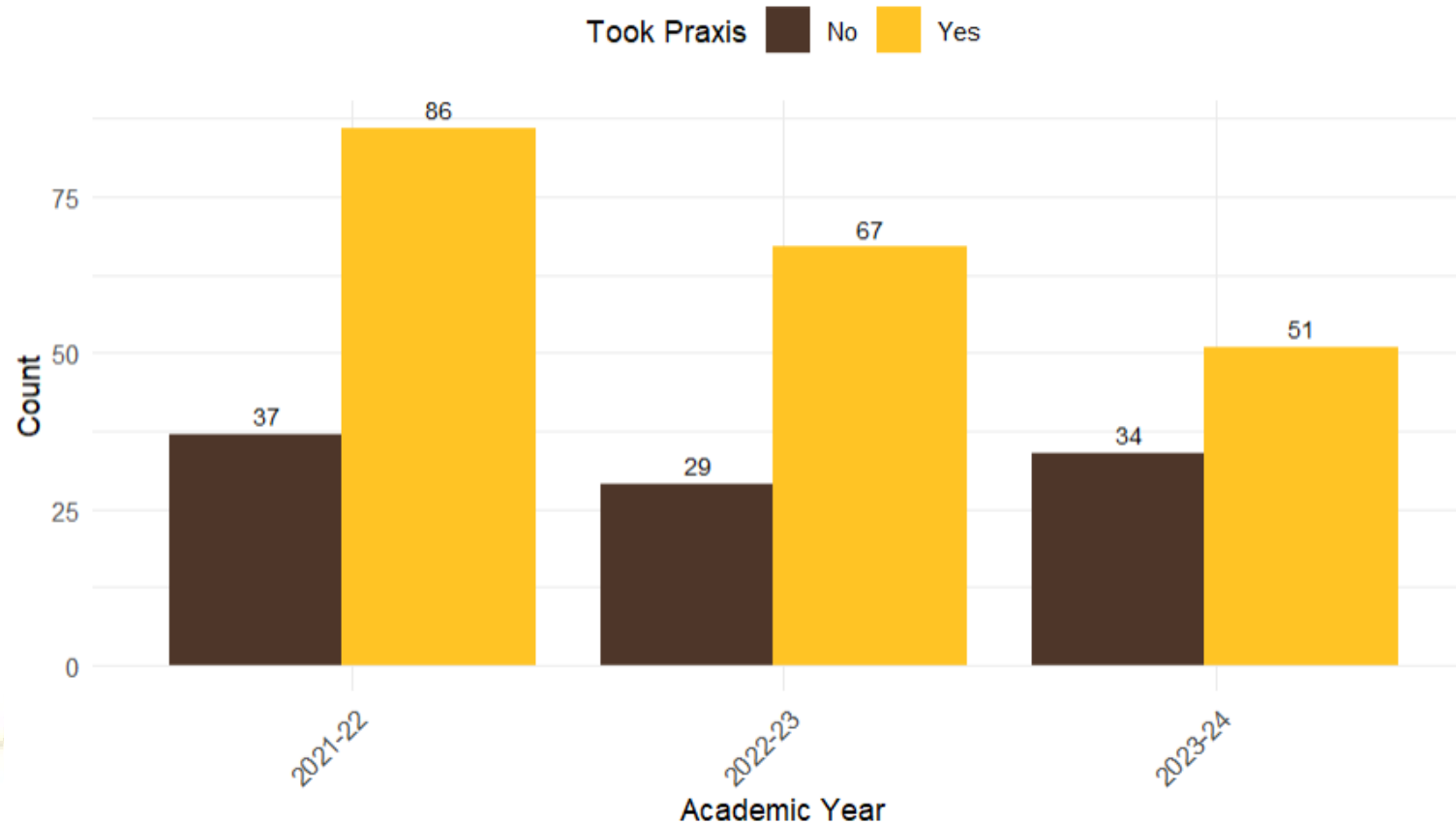
# What Proportion of Overall Graduates of those Programs Have Taken the Praxis Exam?





# What Count of Overall Graduates Take Praxis(Unduplicated)?

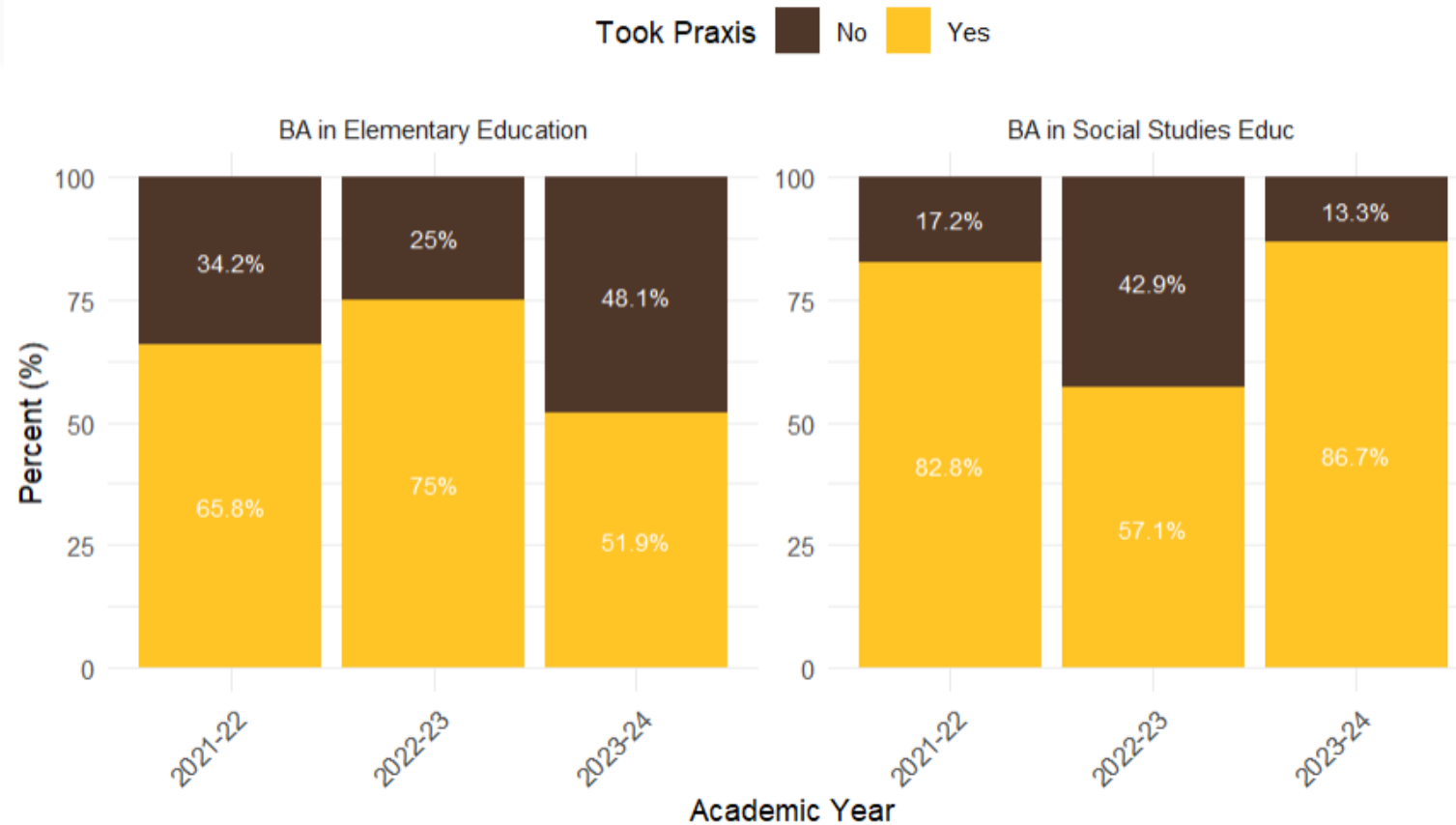
Counts of Praxis Exam Participation by Academic Year and Program





# What Proportion of Graduates by Program Take Praxis?

**Praxis Exam Participation by Academic Year and Program**

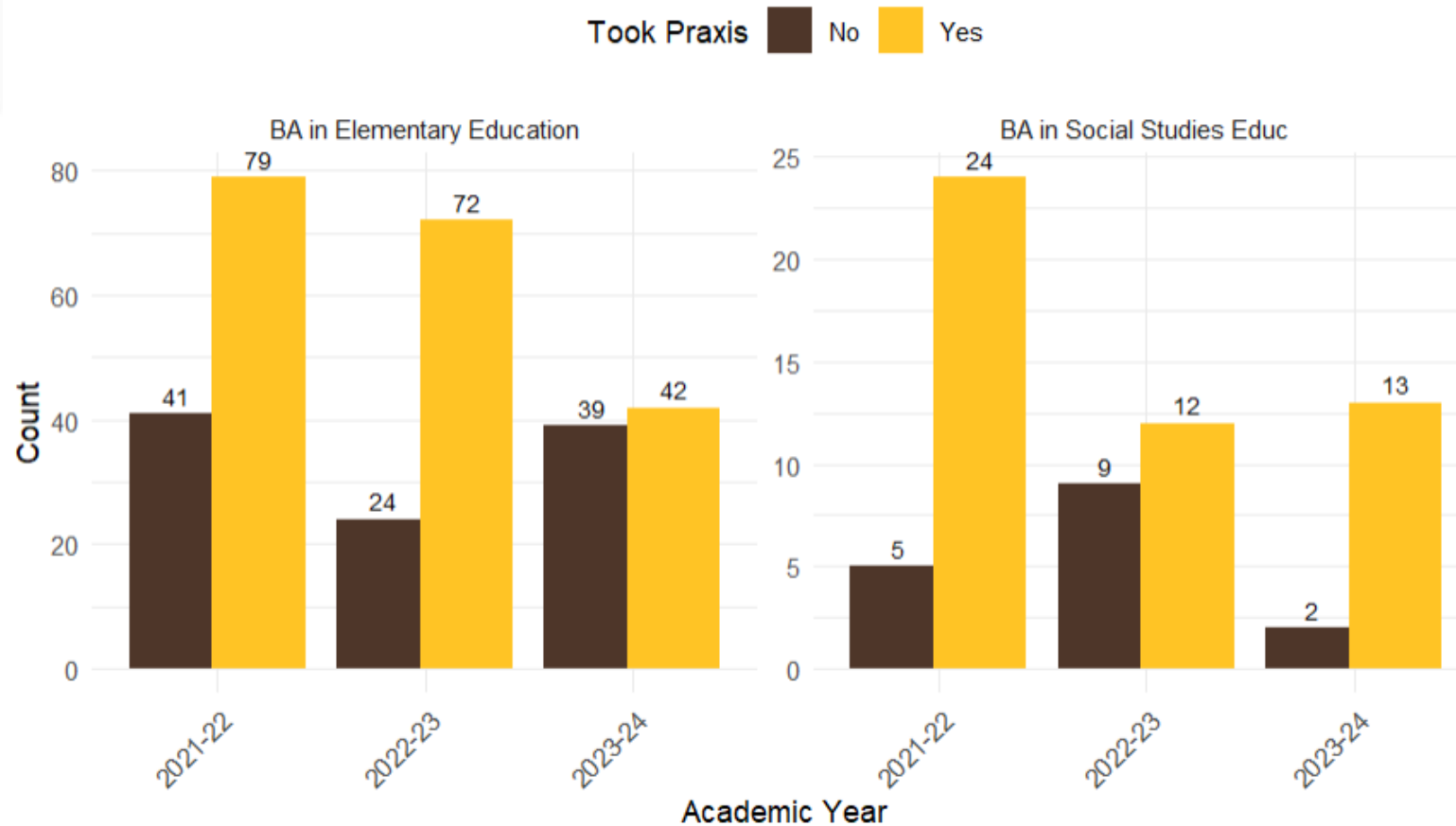






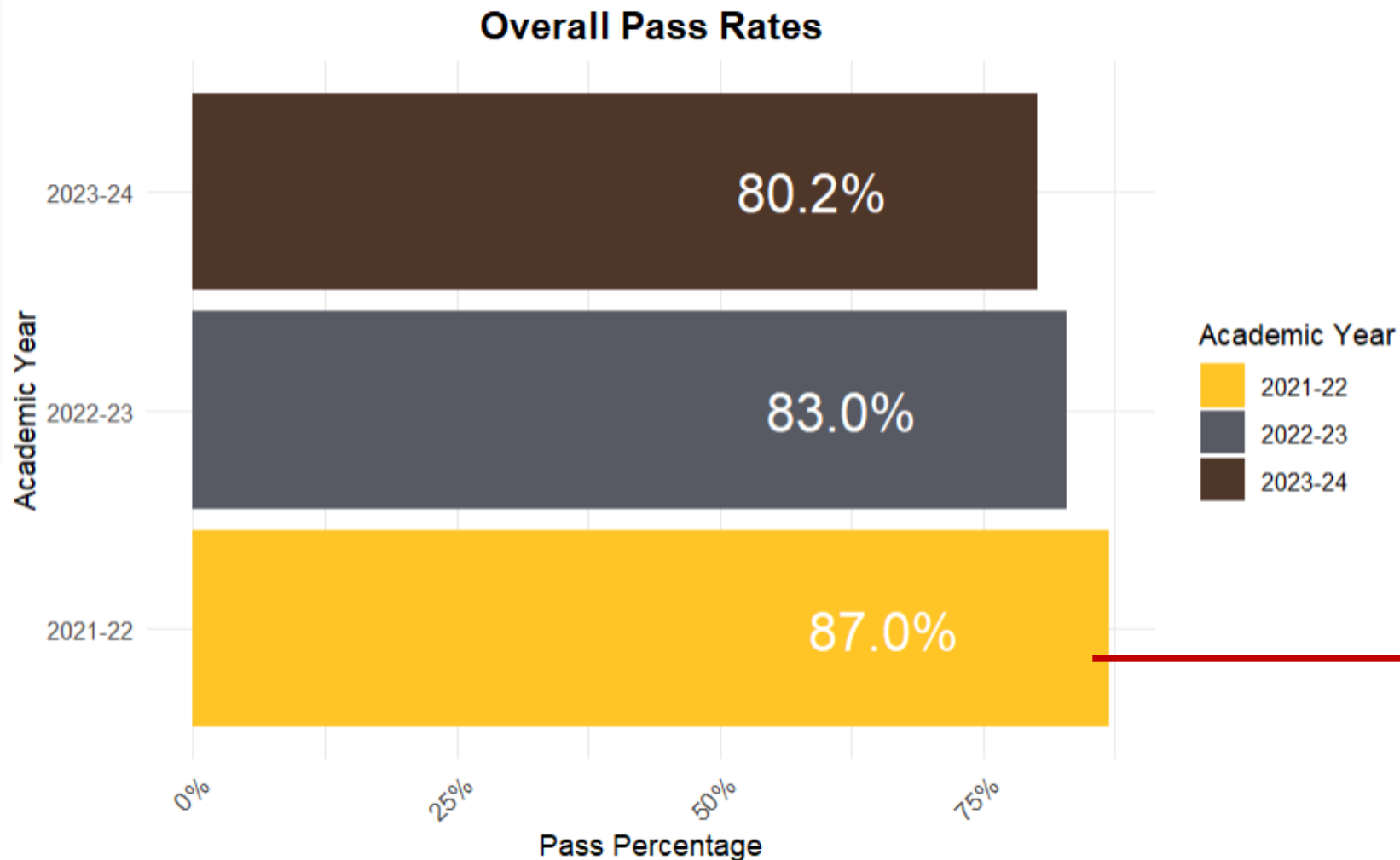
# What Count of Graduates by Program take Praxis (Unduplicated)?

**Counts of Praxis Exam Participation by Academic Year and Program**





# Overall, Most Current Praxis Pass Rates of Graduates by Year as of October 2024



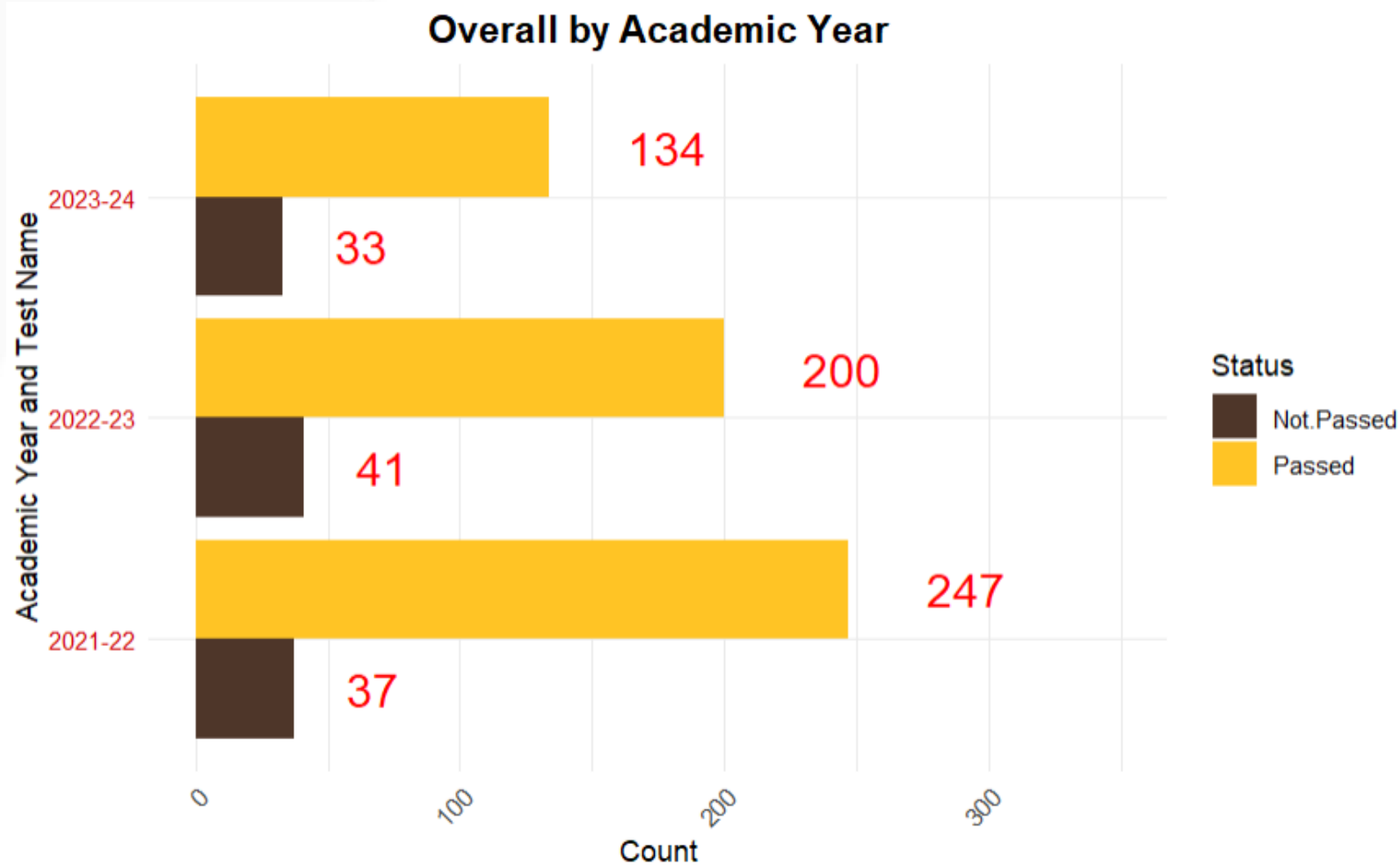
In 2022-2023, the scores for 2021-22 were 89%.

Now, in 2023-24, that same year's scores are 86% because others took it.



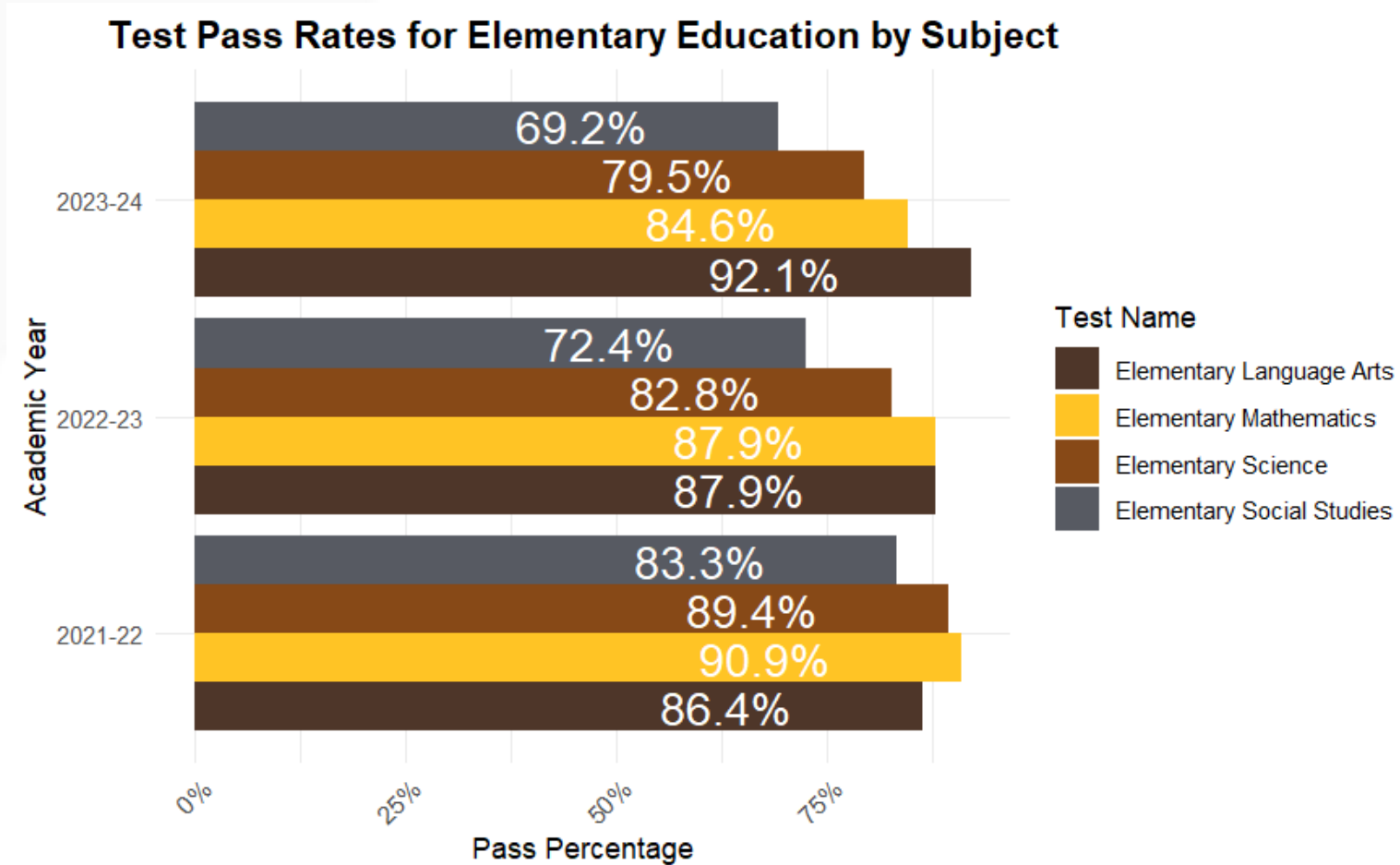
# Praxis Status Counts by Year

(This Includes Sub-Tests Across Same Student)



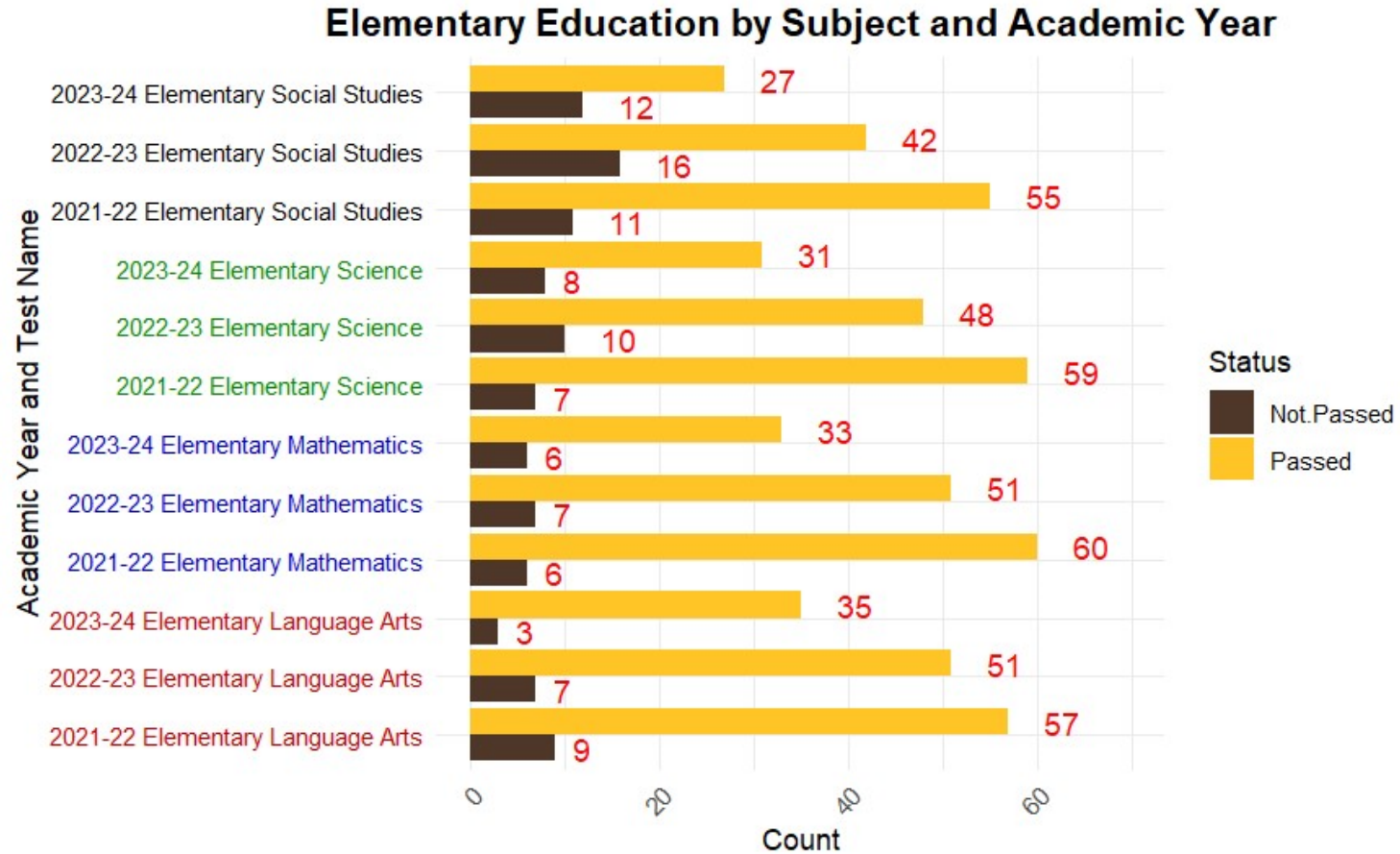


# Elementary Education Praxis



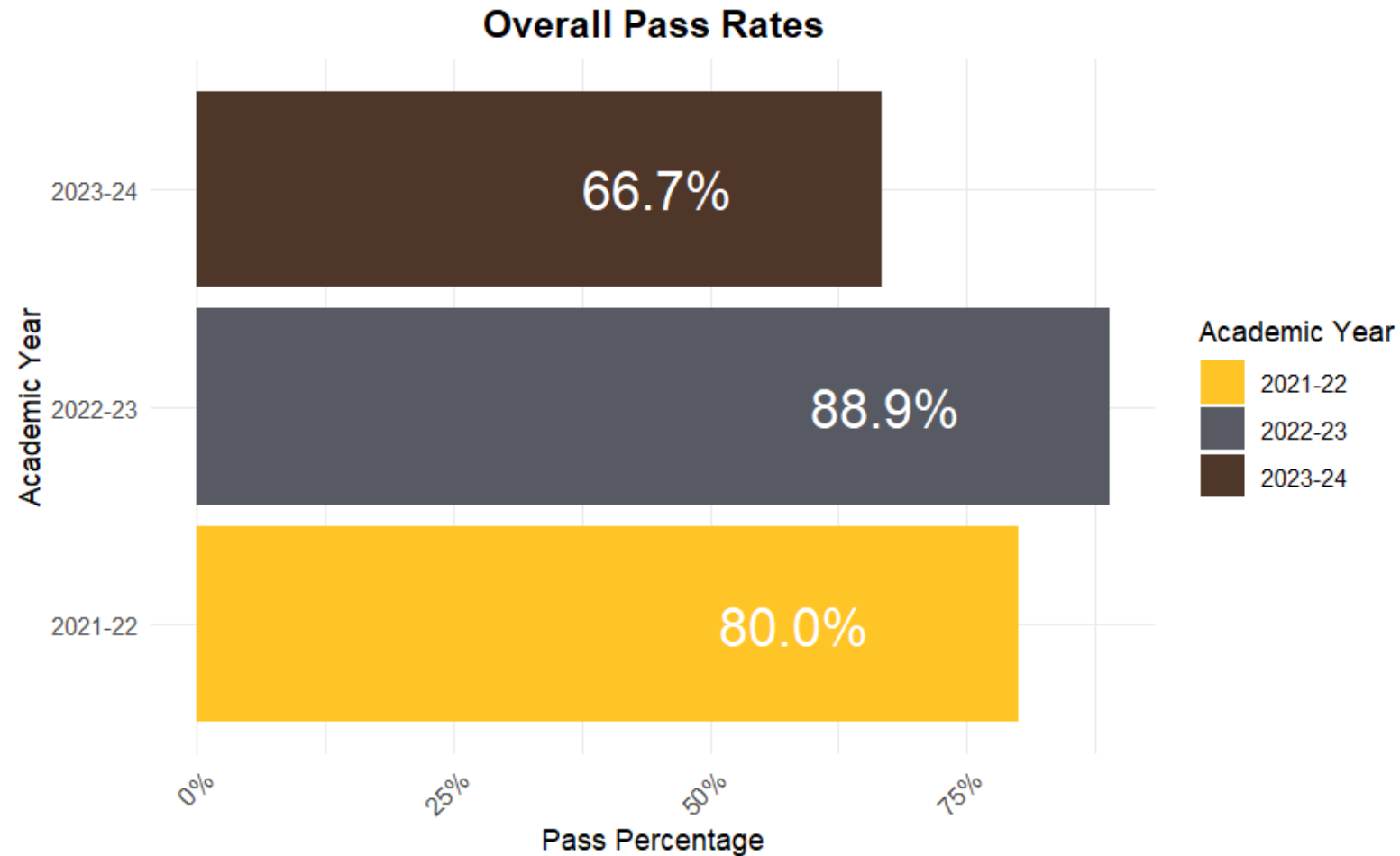


# Elementary Education Praxis Counts

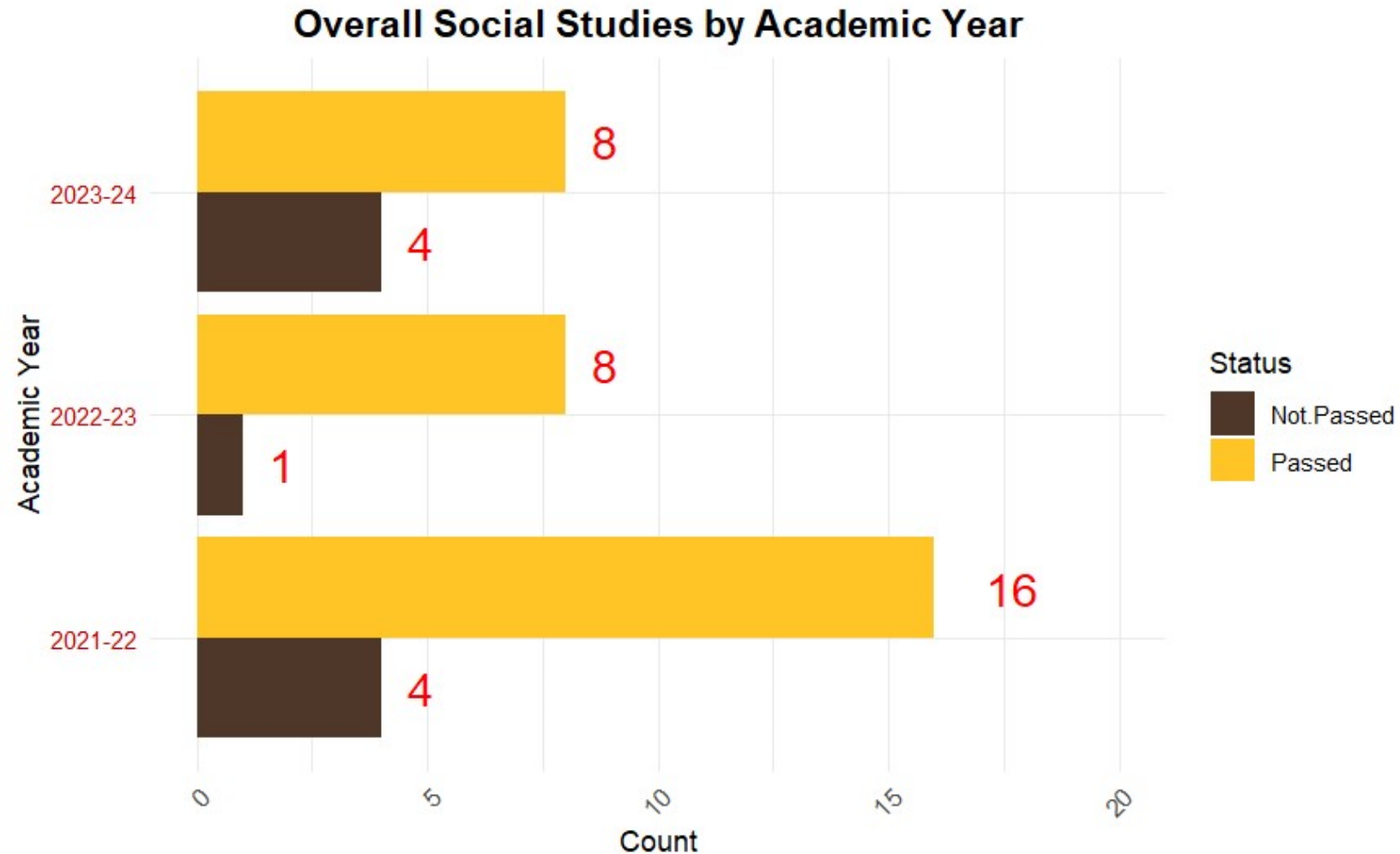




# Overall Pass Rates for Secondary Social Studies



# Secondary Social Studies Counts by Status





# Considerations on Praxis Scores

- 2023-24 numbers will continue to increase as more data come in.
- This is following the pattern of past years where our graduates are delayed in taking or delayed in passing the Praxis.
- This leads us to consider ways to adjust how we approach Praxis testing for our graduates.
- We can do things to ensure they are passed sooner than they have been.

**AGENDA ITEM TITLE: Tier-1 Engineering Initiative Report, Wright**

## Tier-1 Engineering Initiative Report to University of Wyoming Board of Trustees November 2024

### History and Background of the Tier-1 Engineering Initiative

The Tier-1 Engineering Initiative, originally conceived in 2012, first had funding available in the FY2015-2016 biennium budget. Original plans of the Wyoming Governor's Energy, Engineering, and STEM Integration Taskforce (often just called the Tier-1 Task Force) included 20 ambitious goals (see original 2013 Tier-1 document attached) to be aggressively funded. With the legislative Tier-1 Engineering appropriation, the College of Engineering and Applied Science (CEAS, at the time) made considerable progress on the goals laid out by the Tier-1 Task force. Since the inception of the Tier-1 Engineering Initiative, CEAS has added faculty and staff positions in key areas, added a new academic department for a world-class petroleum engineering program, funded high-recognition, nationally-funded research programs across many engineering disciplines, provided seed funding for research clusters in areas beneficial to Wyoming, provided matching funds for new research projects, greatly increased Ph.D. production, added the High Bay research facility, and added the Engineering Education and Research Building (EERB), which includes active learning classrooms and a fluids teaching lab, modern research lab spaces, a world-class drilling simulator, the "Innovation Wyrkshop" (a state-of-the-art Makerspace), and advanced machining capabilities. CEAS has also built a very strong Student Success Center, that includes professional advising for all undergraduates, career services for all students, internship coordination with Wyoming and out-of-state companies, K-14 outreach and state-wide programs, focused undergraduate student recruiting, and expanded marketing efforts.

Due to the college reorganization proposed in 2021 and finalized in 2023, CEAS became the College of Engineering and Physical Sciences (CEPS), with four new science/math departments moving over from the College of Arts and Sciences (A&S) in support of Goal 18 of the original Tier-1 task force. The "new" departments in the college have quickly integrated and expressed high levels of satisfaction with their "new home" in CEPS. Due to the reorganization, interdisciplinary collaborations have increased markedly, along with increased student services to those students transitioning from A&S into the college, and increased support for the faculty and staff who moved over from A&S.

In January 2022, the UW Board of Trustees authorized the creation of the School of Computing (SoC), to be initially incubated in CEPS where it could take advantage of the existing administrative infrastructure and experienced personnel. Its mission of advancing computing methods and computing expertise across the campus to all disciplines is ambitious but timely, and such Schools are being created at universities across the U.S. Tier-1 funds are being appropriately used to help support the SoC, in support of Goal 4 of the original Tier-1 task force. This new unit is growing and gaining momentum with the plan to become an independent unit within about four years from its inception. In July 2023, the UW Board of Trustees approved the move of the existing Wyoming Geographic Information Science Center (WyGISC) to UW's new School of Computing. Additional detailed information related to the SoC can be found in Dr. Gabrielle Allen's annual report to the Provost which is attached as part of this report.

Tier-1 funds have been essential to allowing us to keep our instrumentation and equipment (for both instructional purposes and research) operational and cutting-edge. In FY22, the college was able to fund nearly \$900K in new shared equipment purchases, upgrades, repairs, and maintenance agreements—



vital for ongoing and new research projects – across all departments in the college. Again, in FY23, the college funded nearly \$600K in one-time requests including past areas and adding lab infrastructure upgrades, and support for computer science and robotics outreach.

With the start of FY24, the legislature graciously increased the Tier-1 appropriation by \$5.5M, resulting in a \$9.2M annual appropriation. This higher level of appropriation has allowed CEPS to strategically rebuild the foundations of the college while strongly investing for future growth in key areas of opportunity in which CEPS can be competitive (e.g., controlled environment agriculture, artificial intelligence applications, computational science and engineering, energy, advanced materials and rare earth elements, quantum information science and engineering, to name a few). The increased funding will now support increased undergraduate and graduate student support, additional faculty and staff positions, a focused Engineering Science instructional division, increased support for marketing and student support services, additional research seed grants, support to the School of Computing for building a computational science and engineering program in partnership with CEPS (Goal 4), increased support for laboratory upgrades and renovations, and competitive new faculty startup packages.

As of November 2024, CEPS consists of 10 academic departments, a School of Computing (including WyGISC), and the Dean's Office unit, which includes an Engineering Science division, the Susan McCormack Center for Student Success, the CEPS Business Office, the Innovation Wyrkshop, the UW Machine shop, Marketing, and a Facilities Manager. It is the largest college on campus with regard to graduate students, and nearly the largest with regard to undergraduate students.

More details of the history of Tier-1 can be found in previous years' reports.

### **Current Initiatives of the Tier-1 Engineering Initiative**

During the course of the previous fiscal year, CEPS conducted 32 faculty searches, which resulted in 23 faculty members joining the college in August 2024, and 4 more to start January 2025. We also had 5 failed searches which have restarted this fall. Of these positions, 14 positions (totaling over \$1.7M with fringe) are new positions funded from the increased Tier-1 appropriation. New faculty are bringing expertise in both new and in traditionally strong areas. New areas of expertise include Artificial Intelligence (AI) applications, Controlled Environment Agriculture (CEA), Quantum Information Science and Engineering (QISE), Advanced Materials, and Cybersecurity/Blockchain, while our traditionally strong areas of expertise include energy, electric power grid, transportation/construction, atmosphere/weather, mining/extraction engineering, etc.

The college continues to maintain high levels of support in Student Services, Undergraduate Research Awards, Marketing, graduate students, outreach, and the Innovation Wyrkshop. We were fortunate in FY24 to be able to offer three separate requests for one-time funding proposals. The three separate one-time funding awards included:

- *Equipment* – the college received 31 proposals of which we were able to fund 21 for a total of \$991K. Funding included equipment/instrument repairs and maintenance agreements, engaging students with NASA Space Grant Educational Outreach, as well as replacing aging equipment and purchase of new equipment in every department in the college, as well as the Innovation Wyrkshop, and the UW Machine Shop.

- *Renovations* – the college received 12 proposals and funded 7 for a total of \$381K. Additionally, we approved funding for two other proposals from more appropriate funding sources, such as Program Fees and Foundation funds. Tier-1 funding included updates to the Wyoming Infrared Observatory, upgrades to a Chemistry classroom in the Physical Sciences building, upgrade of an Atmospheric Science classroom, upgrade and enhancement to the Science Kitchen for optimal STEM engagement, renovate lab space to establish the Hybrid Quantum Materials laboratory, upgrade audio-visual (AV) in the Chemical Engineering/Petroleum Engineering shared conference/classroom space, and upgraded the UW Planetarium with a state-of-the-art laser projection system. It's appropriate to note that the Harry C. Vaughn Planetarium is a powerful recruiting tool to increase students' interest in STEM fields at UW, and is very popular for community outreach (with over 10,000 visitors last year).
- *SER partnership* – Additionally, we partnered with SER to supplemental their call for equipment focusing on energy research, for which we funded 9 proposals totaling \$3.5M. Awards included rock compressibility testing equipment, Eco-Cem-Liquid cement(slurry) testing equipment, 4D x-ray micro-tomography system, nanoscale mechanical testing equipment, geological formation characterization equipment, characterization of critical minerals laboratory, solid-state materials synthesis laboratory, geophysical equipment for the UW Near-Surface Geophysics Instrument Center, and HPHT Foam Rheometer for the Integrated Research Laboratory.
- We also continued our seed grant program awarding 6 new one-year research seed grants totaling \$150K. Awarded proposals include PIs and co-PIs from Physics, Math/Stat, Geology & Geophysics, Energy & Petroleum Engineering, Mechanical Engineering, Chemistry, Chemical & Biomedical Engineering, Civil and Architectural Engineering, and Electrical Engineering and Computer Science. The seed grant program is designed to leverage PIs to become more competitive for external grant funding.

Many researchers in the college have made unsolicited remarks that this funding greatly enhances their competitiveness for more external grants, and helps to attract and retain top faculty members.

Additionally, we were able to commit to AV and technology upgrades in our EERB classrooms, atrium, and board room, as well as the UW Observatory, the Planetarium, and the Innovation Wyrkshop.

With the growth of our Susan McCormack Center for Student Success, the college created a new Assistant Dean position to focus on the many (and increasing) Student Success Center activities. Activities start with elementary age students and continue through the educational lifecycle to extensive careers. Our K-14 outreach programs utilize our student ambassadors to assist with hands-on problem-based learning in K-12 classrooms across the state, with the goal of enhancing the quality and quantity of students who pursue STEM programs at UW and STEM careers in Wyoming. We feel this outreach naturally leads to student recruitment, and once recruited we provide professional academic advising for all majors in CEPS. Our Career Services professionals very quickly start talking to our freshman about internships and about job opportunities after graduation. They continue to keep in contact throughout our alumni's careers as prospective employers and donors, in coordination with the UW Foundation.

The School of Computing also benefits from Tier-1 funding. In FY24, School of Computing activities supported by Tier-1 funds included research training for 11 graduate students and 4 undergraduate students; seed funding for 3 faculty-led research projects; GPU computing infrastructure; a new joint faculty with Math/Stat and a research scientist supporting computational science and engineering.

Additional joint faculty positions between CEPS & SoC are planned to build and strengthen computational science (including data science & AI) in CEPS and across the university.

## Looking to FY25 and Beyond: the Future

With the advent of the current academic year, the college established a dedicated teaching unit for the Engineering Science (ES) curriculum. This Engineering Science division will provide increased instructional consistency and quality of the entire multidisciplinary ES curriculum. We believe that with these dedicated ES instructors, our basic Engineering concepts will result in greatly increased continuity and consistency across sections and courses, as well as improve engineering student retention and time to degree. Three new Master's degree programs were also established. This includes two multidisciplinary Master of Science programs in areas of Artificial Intelligence and in Quantum Information Science and Engineering, with the third being a new Master of Engineering degree administered by the Energy and Petroleum Engineering department. Over time, more Tier-1 funds will be used to support new faculty lines to position the college to bring in faculty with expertise in areas that will attract more external funding and expose students to the latest trends in science and engineering.

An overview of our BoT-approved FY25 Tier-1 budget is provided here.

### FY25 Budget

Undergraduate Scholar Awards	\$ 315,000
Graduate Student Support	\$1,197,092
Faculty Salaries and fringe	\$3,018,126
Staff Salaries and fringe	\$1,023,512
Seed Grants	\$ 150,000
ESP4T Outreach	\$ 300,000
ML4HST Outreach	\$ 36,400
Makerspace; student salaries	\$ 41,320
Marketing	\$ 100,000
Career Services	\$ 25,000
School of Computing	\$ 500,000
Drilling Simulator	\$ 130,000
Faculty Startups	\$2,455,902
Total	\$9,292,352

The School of Computing FY25 planned expenditures include research training for 9 graduate students and 5 undergraduate students, seed funding for 5 faculty-led research projects, and continued faculty/research scientist support. The use of Tier-1 funds is already showing tremendous return on investment, resulting in significant new external funding from federal agencies and industry, new collaborations within CEPS and across the university, energizing the use of the NWSC supercomputer, and contributing to a coherent and visionary plan for Computational and Data Enabled Science and Engineering. [text adapted from "School of Computing: Tier 1 Engineering Funds Report," July 23, 2024, by Gabrielle Allen, Director, School of Computing]

Planning for the future is guided by the college's CEPS 2030 document (developed over the course of a year, with input from all units in the college plus external stakeholders), which is in full alignment with President Seidel's Strategic Plan for UW. CEPS will stay at the forefront in key areas of research and educational innovations, and provide broad opportunities for students. CEPS' future will include increased external sources of funding, synergistic collaborations with the evolving School of Computing, and accelerated progress in many of our key growth areas, such as artificial intelligence applications that span all the college's disciplines and beyond. We intend to continue an annual call for proposals for funding intended to jump-start new research projects of interest to Wyoming, more new Engineering Initiative shared equipment purchases, upgrades, repairs, and maintenance agreements, laboratory upgrades and renovations. We plan to grow more faculty depth in both new and traditionally strong areas of expertise, while looking to the future and expanding into more new areas of benefit to Wyoming, in which we can be competitive (e.g., Rare Earths extraction/separation, Nuclear-power-related engineering, Hydrogen economy, etc.).

We are also moving forward, in close collaboration with the School of Energy Resources, on two new certificates (undergrad and grad) to help contribute to the nuclear energy workforce in Wyoming. The plan is for the certificates to begin in the Spring 2025 semester.

Use of the Tier-1 Engineering Initiative funds will continue to maintain alignment with the four categories of the original Tier-1 strategic goals:

- Excellence in Undergraduate Education,
- World-Class Research and Graduate Education,
- Productive Economic Development,
- K-14 STEM Education.

At the College of Engineering and Physical Sciences, we will continue to focus on the primary mission, ***"to educate, motivate, and mentor the students who are entrusted to us."***

# School of Computing: Tier 1 Engineering Funds Report

July 23<sup>rd</sup>, 2024

## Executive Summary

As fully described in this report, the SoC has responsibly and strategically stewarded two years of specific funding<sup>1</sup> in support of Tier 1 computational science and engineering goals, which has included:

- Research training for 20 graduate students and 5 undergraduate students
- Seed funding for 12 faculty-led research projects
- Computing infrastructure including GPUs, visualization, and student workstations
- Faculty recruitment (1 tenure track faculty jointly hired with Math and Stats)
- Research scientists (partial support of 1 associate research scientist)

Planned expenditure for FY25 funds include

- Research training for 9 graduate students and 5 undergraduate students
- Seed funding for 5 faculty-led research projects
- Continued faculty/research scientist support

The use of Tier 1 funds is already showing tremendous return on investment, resulting in significant new external funding from federal agencies and industry, new collaborations within CEPS and across the university, energizing the use of the NWSC supercomputer, and contributing to a coherent and visionary plan for Computational and Data Enabled Science and Engineering.

## Background

### The School of Computing

The School of Computing (SoC) was approved by the Board of Trustees in January 2022. The inaugural director was appointed in March 2022 and is following a 5-year plan developed by a broad faculty committee. Initially administratively incubated in the College of Engineering and Physical Sciences (CEPS), the School seeks to move to be an independent unit led by a Dean reporting directly to the Provost in July 2025. The School of Computing is an interdisciplinary hub of innovation and knowledge exchange for computing and digital skills at the University of Wyoming (UW) impacting research, learning, and engagement across the university. The School works to provide University of Wyoming students, faculty and staff, and Wyoming businesses and citizens with the computational tools, skills, and approaches to drive transformation and innovation in the state.

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<sup>1</sup> SoC was provided with a one-time allocation of \$500K of internal (admin reserve) funds to support CSE goals in FY23 (with some of these funds also expended in FY24), from FY24 onwards the SoC receives \$500K from Tier 1 funds to support CSE. Since this report was requested on Tier 1 funds only, the use of the one-time internal \$500K is included as an appendix.



## SoC Tier 1 Engineering Funds

During their 2023 session, the Wyoming legislature appropriated an additional \$5.5 million annually to support “Tier 1 Engineering” at the University of Wyoming, with the UW Administration directing that \$500,000 of these funds be allocated annually for use in the School of Computing. This allocation is consistent with the original intent of the Tier 1 initiative, which specifically identified “High Performance Computational Science and Engineering” as a priority.

Per the Provost’s memo of March 27<sup>th</sup>, 2023, the expectation is that the primary use of these funds will be to support salaries of faculty, staff, technicians, postdocs, graduate students, or other personnel. Start-up commitments for new faculty and other programmatic support are also appropriate expenditures. The memo describes how the Tier 1 funds allocated to the School of Computing should be used to support people and programs that advance excellence in engineering at UW, and provides examples of disciplines such as robotics, artificial intelligence, and materials science in addition to computational science and engineering.

Note that the expenditures reported here are not the only SoC funds spent to support the aims of the Tier 1 engineering initiative, however the Tier 1 funds provide the capability to focus and provide more resources and emphasis to computational science and engineering while building an enabling, coordinated, and strategic hub for computational science and engineering.

The School of Computing is responsible and strategic in the use of these funds to support the Tier 1 initiative through investment in applied computing and the application of computing across engineering disciplines. In particular, funds will support the expansion of the CEPS-wide program in Computational Science and Engineering (currently offered as both an undergraduate and graduate minor). The long-term plan is for these funds to support tenure track faculty hired into joint positions with engineering units, in areas of importance for Research and Economic Development Division (REDD) strategic initiatives, SoC strategic areas, and CEPS Tier 1 priorities (including artificial intelligence, energy systems, quantum information science and engineering, controlled environment agriculture, HPC/computational science and engineering). In the shorter term these funds support engineering-related faculty and students, and the procurement of important computing infrastructure to support engineering research. A detailed document for Computational and Data Enabled Science and Engineering that describes the vision, activities, and plans that SoC is already following, including the CSE activities funded outside of the TIER1 funds, will be available by the end of July 2024.

## SoC Faculty Fellow Program

Web Site: <https://www.uwyo.edu/soc/initiatives/faculty-awards.html>

The SoC Faculty Fellows program is open to all faculty at UW, Tier 1 funds allow the support of additional engineering-related faculty for projects that will impact the growth of activities in Computational Science and Engineering. A few awards funded from Tier 1 funds to faculty not in a traditional engineering department where the project furthered general computational science initiatives.

The Faculty Fellows program is a competitive program, proposals are reviewed by a faculty peer group with multiple reviews per proposal, and a review panel that meets to discuss the merits of

each proposal. There is a focus on the outcomes, in particular potential for external funding and sustainability. Successful proposals in engineering and physical sciences are typically expected to have a clear proposal target as part of the project. Starting in the 2024-2025 cohort, each Faculty Fellow is assigned a SoC contact to work with throughout the year, and each Faculty Fellow meets with the director to discuss their project and how they can work with SoC. Brief reviews are provided to unsuccessful proposers, who are provided with an option to meet with the Director to discuss their proposal. The SoC works hard to encourage Faculty Fellow applications from applicants with diverse backgrounds, through attention to the solicitation and the review process, the success of these efforts can be seen in the awardees.

## SoC Graduate Computing Scholars

Web Site: <https://www.uwyo.edu/soc/initiatives/soc-grad-scholars.html>

The SoC Graduate Computing Scholars program is open to all graduate students at UW, Tier 1 funds allow the support of additional engineering-related students for projects that will impact the growth of activities in Computational Science and Engineering. A few awards funded from Tier 1 funds to students not in a traditional engineering department where the project furthered general computational science initiatives.

The Graduate Computing Scholars program is a competitive program that fund a one-year research stipend. Student proposals are reviewed by a faculty group with multiple reviews per proposal, and a review panel that meets to discuss the merits of each proposal. The focus for reviews is on the worth of the proposed work, and the impact for the student. In addition to their own research Computing Scholars work on a second smaller SoC project with a mentor, in the future these projects will align with supporting activities in the Advanced Computing center at SoC. Computing Scholars have monthly meetings as a cohort where they discuss their projects and their progress and find colleagues from other disciplines with similar CDSE interests. Computer Scholars are given the opportunity to attend SoC seminars, training and networking events, take part in organized activities (e.g. visiting NWSC, or IEEE Supercomputing Conference). At the end of the academic year the Computer Scholars make final presentations. The SoC works hard to encourage Computing Scholar applications from applicants with diverse backgrounds, through attention to the solicitation and the review process, the success of these efforts can be seen in the awardees.

## SoC TIER1 Budget Report FY24

<b>Investment</b>	<b>Description</b>	<b>Beneficiaries</b>	<b>Amount</b>
SoC Faculty Fellows	Allowable expenses appropriate for project	Dejam (Energy and Petroleum Engineering), Nguyen (Electrical Engineering & Computer Science), Sheshappanavar (EECS)	\$88,971.25
SoC Graduate Computing Scholars	Stipend, tuition and fees	Reddy, Kashgarani, Pandit (EECS), Li, Oladeji, Shokrgozaryatimdar (Geology and Geophysics), Luo (Physics and Astronomy), Afrifa (Atmospheric Science)	\$221,104.64
Faculty Salary	Operational salary	Taylor (SoC/MathStat/EECS), Kirby (SoC)	\$157,523.28
Computing Infrastructure	ARCC GPU Node	All SoC and affiliated faculty, staff, students, faculty fellows, graduate computing scholars, SURE undergraduates	\$27,485
<b>TOTAL</b>			<b>\$495,084.17</b>

- Details on Funded Faculty Fellow projects (each ~\$30K)
  - Dejam (Energy and Petroleum Engineering)
    - Title: *Computational Reservoir Description and Dynamics*
    - Computing Areas: *Simulation and modeling*
    - Student Impact: 1 graduate
  - Nguyen (Electrical Engineering & Computer Science)
    - Title: *Application of Random Matrix Theory in Design and Analysis of Resilient and Adaptive Online Distributed Machine Learning and Optimization Algorithms*
    - Computing Areas: AI/ML, Distributed Computing
    - Student Impact: 1 graduate, 2 undergraduate
  - Sheshappanavar (Electrical Engineering and Computer Science)
    - Title: *OpenGrocery: An Open-Source Grocery Infrastructure to Assist the Visually Impaired and Robotic Navigation*
    - Computing Areas: Computer Vision, Cyberphysical Systems, Software
    - Student Impact: 1 graduate, 2 undergraduate
- Details on Graduate Computing Scholar projects
  - Reddy (Electrical Engineering & Computer Science)
    - Title: *Feasibility and Effectiveness of Brain Biometrics for Building User Authentication Systems*
    - Computing Areas: Cybersecurity, Human Factor Computing
  - Kashgarani (Electrical Engineering & Computer Science)
    - Title: *Optimizing Parallel Computation for AI Problem Solving: A Hybrid Approach of Algorithm Selection and Portfolio Parallelization*
    - Computing Areas: HPC, AI, NWSC
    - Impact: Now senior Computational Scientist at Purdue
  - Pandit (Electrical Engineering & Computer Science)
    - Title: *Optimal Operation of Electric Vehicles to Improve Reliability of Microgrids Using Artificial Neural Network*
    - Computing Areas: AI, Cyberphysical systems
    - Student Impact: IEEE journal publication, Sandia National Labs
  - Li (Geology and Geophysics)
    - Title: *Statistical physics-informed machine learning algorithms for subsurface reservoir characterization*
    - Computing Areas: Modeling, AI/PINNs
    - Impact: Now postdoc at Stanford University
  - Oladeji (Geology and Geophysics)
    - Title: *Forecasting groundwater dynamics in a mountain watershed using deep learning and geophysical monitoring*
    - Computing Areas: AI, modeling, complex systems, data science
    - Impact: publication in Journal of Geophysical Research, AGU conference presentation
  - Shokrgozaryatimdar (Geology and Geophysics)
    - Title: *A Massively Parallel Processing (MPP) System for Physics-based Deep-learning and Its Application in Understanding the Weathering Process*

- Computing Areas: Modeling, AI, HPC
- Student Impact: publication in Bulletin of the Seismological Society of America, pending publications
- Luo (Physics and Astronomy)
  - Title: *A Computational and Data-Driven Approach for Cloud Motion Prediction using High Performance Computing*
  - Computing Areas: Modeling and simulation, AI, Edge Computing
  - Impact: ANL internship
- Afrifa (Atmospheric Science)
  - Title: *Bridging the Gap: Understanding Embedded Orographic Convection through High Resolution LES Modeling*
  - Computing Areas: Modeling and Simulation, NWSC
  - Impact: pending publication in Journal of Atmospheric Sciences and multiple conference presentations

## Plans for Next Year (FY25)

NB: The failed SoC/EECS multiple faculty search in Spring 2024, and the imminent arrival of a new head for EECS in Fall 2024 following the unsuccessful EECS head search in 2022-2023 means that planning for FY25 and the future is now ongoing.

Investment	Description	Beneficiaries	Amount
SoC Faculty Fellows	Allowable expenses appropriate for project	Demir (Civil and Architectural Engineering and Construction Management), Heinz (Mathematics and Statistics), Sabino (Chemical Engineering), Saraji (Energy and Petroleum Engineering), Shukla (EECS)	\$122,144.77
SoC Graduate Computing Scholars	Stipend, tuition and fees	Magar (EECS), Macy, Liu (Civil and Architectural Engineering and Construction Management), Rustamov (Chemical Engineering), Chen (Mechanical Engineering)	\$167,825.73
Faculty Salary	Operational salary	Taylor (SoC/Math/EECS), Kirby (SoC)	\$157,523.28 (upper limit)
<b>TOTAL</b>			<b>\$447,493.78</b>

### **Narrative:**

- SoC Faculty Fellows and Graduate Computing Scholars will become more targeted to strategic areas, in-line with REDD initiatives, SoC initiatives, and the overall Tier 1 plans. Funds allocated to Faculty Fellows/Computing Scholars will decrease as new faculty are hired. More funds were allocated to these for FY25 due to last year's unsuccessful faculty searches.
- Salary for Research Scientist Kirby is an upper limit, depending on pending proposals for external funding. The aim is for Research Scientists to have much of their funding coming from external sources. In 18 months of employment, Kirby has

- contributed to 10 proposals for external research funding from federal agencies, most in a PI or co-PI role, with a combined total of \$18.3M in requested funds, resulting in \$6M of funding to UW with another \$5.5M pending review.
- led the development of two contracts/projects with industry partners, resulting in nearly \$200K of industry funding in first-phase projects that are now anticipated to expand to larger activities.
- Details on Funded Faculty Fellow projects (each ~\$30K)
  - Demir (Civil and Architectural Engineering and Construction Management)
    - Title: *Enhanced Urban Energy Predictions through Deep Learning*
    - Computing Areas: Modeling/NWSC, AI, Visualization, Digital Twins, GIS
    - Student Impact: 3 undergraduates, 1 graduate
    - Partnerships: NWSC, ArcGIS, IDIAP research institute
  - Heinz (Mathematics and Statistics)
    - Title: *Five Questions for Wind Energy Related Computing*
    - Computing Areas: AI, computational mathematics, modeling/NWSC, CFD
    - Student Impact: 1 graduate
    - Partnerships: UW Wind Energy Center, NWSC
  - Sabino (Chemical Engineering)
    - Title: *Developing Computational Modeling Capabilities for Biomedical Applications*
    - Computing Areas: modeling/ARCC/NWSC, experiment-computing interface, early-stage faculty training
    - Student Impact: 1 graduate
    - Partnerships: ARCC/NWSC
  - Saraji (Energy and Petroleum Engineering)
    - Title: *Building Research Capacity for Physics-based Deep Learning in Energy Applications*
    - Computing Areas: modeling, AI, PINN
    - Student Impact: 1 graduate
    - Partnerships: New SER center planning, multi-institutional workshop
  - Shukla (Electrical Engineering and Computer Science)
    - Title: *Online Dynamics of Fake Information: Exploring GenAI's Impact*
    - Computing Areas: AI, ethics, human factor computing
    - Student Impact: 1 undergraduate and/or 1 graduate
    - Partnerships: Social science, journalism
- Details on Funded Graduate Computing Scholars
  - Magar (EECS)
    - Title: *Composite Power System Reliability Evaluation Using Quantum Computing*
    - Computing Areas: Quantum computing
  - Macy (Civil and Architectural Engineering and Construction Management)
    - Title: *Leveraging Digital Twin Technology to Improve Heating, Ventilation, and Air Conditioning (HVAC) Systems*
    - Computing Areas: Digital twins
  - Liu (Civil and Architectural Engineering and Construction Management)

- Title: *Enhancing Construction Safety Through Computational Predictive Modeling of Hazard Recognition*
  - Computing Areas: Modeling
- Rustamov (Chemical Engineering)
  - Title: *Advancing Physics of Fluids Enabled by Computational Data Science*
  - Computing Areas: AI/ML, data science, CFD
- Chen (Mechanical Engineering)
  - Title: *Toward Edge Computing Enhanced Next-Generation Composites Additive Manufacturing: Real-Time Print Quality Prediction and Printing Process Optimization by Machine Learning*
  - Computing Areas: Edge computing, AI/ML, modeling
- Potential expenditure of un-encumbered funds in FY25 include:
  - Scholarships for the new MS degree programs in Artificial Intelligence and Quantum Information Science and Engineering (AI/QISE)
  - Additional research scientist in HPC/computational science and establishing the SoC Center for Advanced Computing and Digital Engineering
  - Support for advancing the Computational Science academic program
  - Infrastructure important for maintaining close connection with CEPS with the upcoming move of the SoC to Crane Hall

Respectfully submitted,



Gabrielle Allen  
Director, School of Computing



Cameron H. G. Wright  
Dean, College of Engineering and Physical Sciences



## Appendix: SoC CSE Budget Report FY23/FY24

The School of Computing was provided with a one-time allocation of \$500K of internal (admin reserve) funds to support Computational Science and Engineering goals in FY23 (with some of these funds expended in FY24). This appendix describes the use of these funds, which while not coming from the Tier 1 initiative, supported initial computational science and engineering activities.

Investment	Description	Beneficiaries	Amount
SoC Faculty Fellows	Allowable expenses appropriate for project	Wang (Civil Engineering), Zhang (Mechanical Engineering), Zhou (Electrical Engineering & Computer Science), Brotherton (Physics & Astronomy), Dale (Physics & Astronomy), Kapoor (Chemical Engineering), Naughton (Mechanical Engineering), Rabiei (Energy and Petroleum Engineering), Saito (Atmospheric Science)	\$206,596.13
Faculty Salary	Operational salary	Kirby (SoC, research scientist)	\$43,622.64
Computing Infrastructure	Advanced Research Computing Center (ARCC) GPU Node	All SoC and affiliated faculty, staff, students, faculty fellows, graduate computing scholars, SURE undergraduates	\$34,811
Computing Infrastructure	UW Explore Collaborative Visualization, in partnership with SER	All CEPS and School of Energy Resources (SER)	\$212,794.50 (with equal investment from SER)
Computing Infrastructure	Workstations for SoC Undergraduate Research Experiences	CEPS undergraduates in the SoC SURE program	\$2,211.96
<b>TOTAL</b>			<b>\$500,036.23</b>

### Narrative:

- Computing Infrastructure:
  - SoC's GPU node (part of ARCC GPU cluster) provides priority access for the SoC community, including the Faculty Fellows, Graduate Scholars, etc.
  - The UW Explore visualization environment, with the central node deployed at the 3D Viz Center in collaboration with SER, will provide unique resources for collaboration (supporting funded interdisciplinary projects), decision support (and digital twin front end), and pilots for hybrid teaching (including with our community college partners).
- Details on Funded Faculty Fellow projects (each ~\$15K)
  - Wang (Civil and Architectural Engineering and Construction Management)
    - Title: *Large Scale Energy Modeling for the Built Environment*
    - Computing Areas: Modeling, NWSC
    - Student Impact: 1 graduate
  - Zhang (Mechanical Engineering)
    - Title: *Physics Informed Neural Networks to Accelerate the Solving of a Large Number of Similar Solid Mechanics Problems: A Comparison with Finite Element Project*
    - Computing Areas: AI, modeling, computational math

- Student Impact: 1 graduate
- Zhou (Electrical Engineering & Computer Science)
  - Title: *Automatic Digital Twin Generator for Autonomous Vehicles Based on Inverse Reinforcement Learning*
  - Computing Areas: Digital twins, cyberphysical systems, AI/ML
  - Student Impact: no students funded
- Brotherton (Physics & Astronomy)
  - Title: *Dynamically Modeling Quasars for Better Black Hole Modeling*
  - Computing Areas: Modeling, NWSC, data science
  - Student Impact: 2 graduates
- Dale (Physics & Astronomy)
  - Title: *Modeling Stellar Clusters Observed by the Hubble and Webb Space Telescopes*
  - Computing Areas: ARCC, HPC, Training
  - Student Impact: 1 graduate
- Kapoor (Chemical Engineering)
  - Title: *Fostering Inclusivity for Visually Challenged in Computational STEM Research*
  - Computing Areas: Visualization, ARCC, software
  - Student Impact: 1 graduate
- Naughton (Mechanical Engineering)
  - Title: *High Performance Computing for Processing and Analyzing Wake Measurements*
  - Computing Areas: HPC, CFD, Modeling, NWSC, Data-enabled HPC
  - Student Impact: 1 graduate
- Rabiei (Energy and Petroleum Engineering)
  - Title: *Synthetic Data for a Machine Learning Based Proxy Model for the Wyoming's Power River Basin's Shale Resources*
  - Computing Areas: Data Science, AI/ML, modeling
  - Student Impact: 1 graduate, 1 undergraduate
- Saito (Atmospheric Science)
  - Title: *Developing a Framework to Evaluate Solar Energy Resources in Wyoming using Spaceborne Big Data and Derecho Computational Capabilities*
  - Computing Areas: NWSC, remote sensing, AI/ML
  - Student Impact: 1 graduate

**University of Wyoming Engineering Initiative:  
Toward Tier 1 for Wyoming  
April 2013**

**Introduction**

This report presents a vision and accompanying plan to fundamentally transform the University of Wyoming's College of Engineering and Applied Science into an outstanding engineering school, providing a lasting legacy of value to the citizens of the state. The university aspires to move the college forward with academic excellence in every respect: recruiting outstanding students, infusing curricular innovation, generating deep industry connections, and developing a research enterprise aimed at fueling the state's economy.

The motivation for engineering excellence stems from many individuals, but was focused by the passion of a collection of Wyoming elected officials, whose desires are clearly articulated in Governor Matt Mead's charge letter to the 2012 Wyoming Governor's Energy, Engineering, STEM Integration Task Force:

*"It is only through a well-articulated, understandable strategy that we will be able to fulfill the challenge of becoming a Tier-1 academic and research institution in areas of excellence for Wyoming."*

The Task Force is comprised of a collection of outstanding government and corporate individuals who share a passion and affinity for the university and the state. During the past year, they have worked with UW's leaders to forge a vision for the future of the college. The present report represents the outcome of that endeavor.

In what follows, we lay out the strategy to advance UW's engineering school to national prominence, the result of which will have a profoundly positive impact on the future of Wyoming. Specific topics addressed with recommended actions include:

- Identifying performance metrics and providing a path to drive the college toward national prominence
- Elevating the quality of engineering undergraduates while forging authentic partnerships with industry
- Undergraduate curricular innovation stressing computational aspects of engineering
- Continuing UW's "rock solid" undergraduate engineering program, while graduating outstanding, well-rounded engineering students possessing professional experience and leadership skills obtained beyond the traditional classroom experience

- Developing niche areas of research excellence that have a major influence on Wyoming's future and, further, actively promoting deep connections between faculty researchers and industry and government agency partners
- Advancing economic development in the state through licensing intellectual property and promoting technology transfer
- Capital facilities designed to meet the technological innovation and teaching needs of engineering today
- Marketing the college and the university across the state and the nation
- Developing effective programs in Wyoming middle schools to introduce engineering as an exciting and rewarding career

### **A Premier College of Engineering—What is Tier 1?**

The notion of a Tier 1 engineering school has caused widespread discussion as to its precise meaning. Recognition of engineering excellence comes from multiple sources including prospective students, engineering alumni, private industry, and the peer institutions that make up such an elite group. It is not difficult to identify a collection of outstanding engineering schools. Our personal experience, coupled with accepted national rankings and quantifiable performance metrics, readily paint the landscape of engineering excellence. Our goal is to be elite, but not elitist.

We have chosen to define Tier 1 engineering education in the US today through a collection of data from 10 institutions that, by any definition, represent engineering excellence. Five of the ten schools reside in the *US News and World Report* ranking of top 10 graduate engineering programs in the United States. We excluded 4 private schools as well as Cal Tech, a school with a mission substantially different from UW. The remaining five programs were identified from public institutions with outstanding engineering credentials and a mission similar to UW. The schools chosen for benchmarking engineering excellence, along with their *US News* 2014 national ranking for graduate schools in engineering are shown below. In the end, however, excellence in engineering is not a function of a rating in one set of rankings or another, but rather of the quality, impact, and visibility of the program in our nation and in the world.

#### ***Benchmark Tier 1 Institutions (US News Graduate Eng. Rank: 2014)***

<b>School</b>	<b>Ranking</b>	<b>School</b>	<b>Ranking</b>
California—Berkeley	3	Texas—Austin	11
Illinois—Champaign-Urbana	5	Texas A & M	11
Georgia Tech	5	UCLA	16
Purdue	8	Wisconsin—Madison	18
Michigan	9	Washington	25

With 199 ranked schools, the top quartile of engineering schools is defined by those with a ranking higher than 50, making the above list truly elite. However, far more important than the numerical ranking is the immediate name recognition—the visibility—of engineering excellence associated with every one of these schools. We refer to this collection of schools in the report as the Tier 1 set. Clearly, other great schools exist and one can swap schools in and out. However, the metrics of interest change little or not at all.

### **How does UW Compare?**

Using our Tier 1 set of schools, we have introduced a collection of some of the most important benchmarks associated with developing a national reputation in engineering while also providing a measure of the quality of students attending these schools—see Figure 1. The figure provides statistical averages of the key metrics of interest. In addition, the same performance indicators are presented for the University of Wyoming along with an easily readable ratio that benchmarks UW against the statistical average of the Tier 1 set. Finally the same information and ratios provided for UW are also provided for the University of Utah and the University of Arizona. Both of these schools are located in the mountain west and rank right at the top quartile of *US News* 2014 graduate engineering programs, with Arizona at 48 and Utah at 51. The University of Utah's information is of particular interest as the state of Utah has had roughly a 13 year history of its own "engineering initiative," providing us a window into what is achievable for UW.

We believe two metrics, more than any others, serve to define a national reputation for engineering excellence at the graduate level. They are the production of high quality Ph.D. graduates and research funding. High levels of performance in these metrics naturally lead to other positive performance indicators including refereed research publications, patents, and licensing of intellectual property. Doctoral education and research funding also promote excellence in undergraduate education by providing students with opportunities to learn at the cutting edge of technology.

In 2011, the Tier 1 set of schools generated funded research awards averaging \$645K per tenure track faculty member (\$\$/TT). Research funding for UW was \$162K/TT, representing a ratio of 0.19 of the Tier 1 average. In contrast, Utah's research funding was \$551K/TT—a very impressive ratio of 0.85 of the Tier 1 set.

In 2011, the average annual Ph.D. production per tenure-track faculty member of our Tier 1 set was 0.71. Again, referencing Figure 1, UW's Ph.D./TT production ratio is 0.20 of the Tier 1 set. By comparison, Utah's ratio of Ph.D./TT production is 0.66 relative to the Tier 1 set—an indicator of a strong research college of engineering.

The Tier 1 Ph.D. production of 0.71 graduates per tenure-track faculty member is quite high as the time to graduation for a Ph.D. might require 5-6 years. Achieving this level of productivity requires the *average* faculty member to support 3-4 Ph.D. students at all times. Supporting a single

student may cost \$40K annually, providing some insight into the funds needed to support the enterprise. It should come as no surprise then, that research funding and Ph.D. production are inextricably linked.

While Ph.D. production may be a key metric for the national reputation of an engineering school, production of masters graduates is a critical service to industry. If we examine masters graduates per tenure track faculty for UW and the Tier 1 set, we find that UW's ratio is 0.36. While well below the marquee programs, the number is nearly double UW's ratio for Ph.D. production which was 0.20. The University of Utah's ratio for this metric resides at a very respectable value of 0.72 of the Tier 1 set.

An examination of the University of Arizona's (UA) performance indicators shows their research funding ratio at 0.54 of the Tier 1 set. While significantly above UW's ratio of 0.2, UA falls well below Utah's funding ratio of 0.85. UA's Ph.D. production and MS production per tenure-track faculty member are much more in line with Utah's and, again, significantly higher than UW's.

### **What is Achievable?**

As mentioned previously, the University of Utah is a valuable case study as it has been part of an engineering initiative for over a decade. In September of 2000, Governor Mike Leavitt announced ambitious plans to double the number of engineering and computer science graduates in the state in the next five years. Details of the Utah engineering initiative may be found at: <http://leavitt.li.suu.edu/leavitt/?p=14>.

Over a period of several years, approximately \$10M/yr in recurring funding was injected into engineering programs in the state, shared by the University of Utah and Utah State. While the general consensus was that the funding was not sufficient to reach the stated goals, one can still see signs of a major positive impact from the program. For example, Figure 2 shows the normalized growth in funded research per tenure track faculty since 2007 for the University of Utah and our set of Tier 1 schools. The rate of growth for Utah is dramatically higher than for the Tier 1 universities, and as a result Utah now compares favorably with the Tier 1 universities in this performance metric as their research funding is now 85 % of the Tier 1 average. A similar positive trend is found when one examines Ph.D. production per tenure track faculty member. Utah's Ph.D./TT production has risen 25% in this period while the Ph.D./TT production of the Tier 1 set has essentially been flat, actually declining slightly. In short, the Utah experience shows that it is possible to achieve improvements in key metrics associated with Tier 1 excellence in engineering. While change has been rapid since 2007, the engineering initiative driving this change is now 13 years old.

Finally, it is important to also note that Utah's tenure track faculty have risen dramatically from 122 in 2005 to 149 in 2010. The growth of faculty is critical to providing stability in key areas. More on this later!

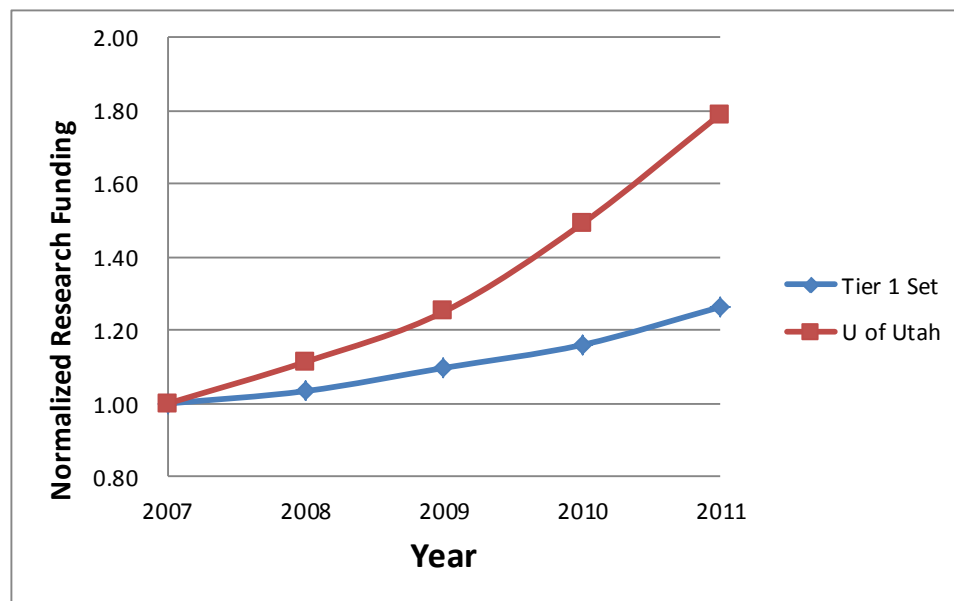


### **Goal #1**

There is a direct correlation between research prominence and national reputation in engineering. The University of Wyoming aspires to drive the College of Engineering and Applied Science into the top quartile of engineering rankings for graduate education. Key indicators of performance to be monitored include the metrics of:

- research funding/TT,
- Ph.D. graduates/TT, and
- masters graduates/TT.

The data for the University of Utah and the University of Arizona serve to quantify metrics representative of schools at the top quartile. Driving UW's metrics toward values comparable to schools at or near the top quartile is an explicit and quantifiable goal. Over time, the national rankings from various organizations will naturally reflect improvements in the key metrics identified. We outline a plan to achieve this goal in the section on "graduate education."



**Figure 2.** Normalized research growth (i.e., funding relative to 2007 levels) for the University of Utah compared to the average of the Tier 1 set.

### **Recruiting Undergraduate Students**

A premier undergraduate school of engineering begins and ends with the recruitment of outstanding students. Outstanding students have immeasurable positive impacts on the program; they attract other outstanding students, they enhance the reputation of the school and are a powerful and quantifiable metric, they allow the faculty to elevate expectations in the program, and

finally, they go on to do wonderful things for society. Over time, they will also find ways to give back to UW in a multitude of ways!

There are various metrics that may be used to gage the quality of students but, without question, one reliable and moderately valid indicator of academic performance and a readily accessible data set is the entering ACT score for college freshmen. ACT scores are reported on a 36 point scale. The distribution of scores along this scale is highly nonlinear. For example, the information below shows the percentile difference between a 30 and a 36 is quite small compared to the difference between a 24 and a 30.

<b>ACT Score</b>	<b>Percentile Ranking</b>
36	99 <sup>th</sup> %
30	95 <sup>th</sup> %
24	74 <sup>th</sup> %

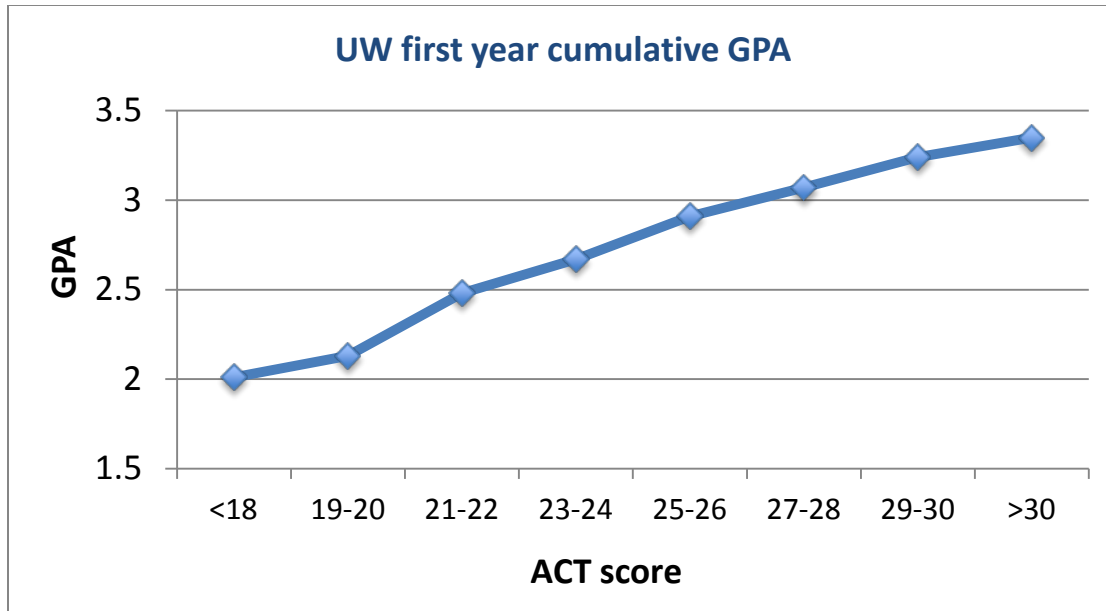
Figure 3 shows a correlation between ACT scores and the first-year GPA for students at UW. The relation is monotonic and almost linear. It demonstrates the value, in terms of academic performance, of attracting students with outstanding ACT scores. There is a wealth of national data available to further support this view. In brief, the ACT score is a good indicator of the probability a student will succeed in engineering courses. At the same time, tests such as the ACT do not measure all of the characteristics needed for later career success, such as creativity, common sense, communication skills, ability to work as part of team, ethical behavior, and good work ethic.

One measure of the make-up of a freshman class of engineering students is to examine the ACT scores of the top quartile (75<sup>th</sup> %) and the bottom quartile (25<sup>th</sup> %) of incoming students. For the base set of Tier 1 schools in Figure 1, the 25<sup>th</sup> and 75<sup>th</sup> percentile scores are 26-31. In the case of UW these same scores are 22-27.

If one examines the top quartile, we find that an ACT of 31 corresponds to 25 percent of the incoming students residing at the 97<sup>th</sup> percentile of all students taking the ACT. UW's ACT top quartile score of 27 places 25 percent of our students at the 87<sup>th</sup> percentile nationally.

Repeating this same analysis for the bottom quartile we find that our Tier 1 students reside at the 83<sup>rd</sup> percentile while UW's reside at the 62<sup>nd</sup> percentile. It is the lower end of the student class where UW falls markedly behind the Tier 1 schools.

Finally, an interesting comparison with the University of Utah and the University of Arizona shows that their freshman class profile is nearly identical to UW's. In Utah's case, the similar class profile may suggest that Utah's emphasis with their engineering initiative has been research and graduate education. Our objective is to move UW to a top quartile ranking in both undergraduate and graduate education. The undergraduate effort begins with the recruiting of a great class of students, year after year.



**Figure 3.** ACT score correlation to first-year academic performance at the University of Wyoming.

It is important to note that academic success is not tantamount to career success. Many very successful engineers who are leaders in their fields were not necessarily those who had the highest ACT scores, or, for that matter, college GPAs. UW must remain open to recruiting engineering students who possess other attributes that are likely to make them successful.

### **Goal # 2**

UW will aggressively pursue outstanding students throughout Wyoming and the nation through a combination of marketing and scholarships. We propose to provide "Tier 1 Scholarships" of \$6,000/yr. annually to the top-quartile of entering first-year students with support lasting for four years for continuing students.<sup>1</sup> We believe support at this level, combined with effective national marketing and pursuit of other goals outlined in this initiative, should be sufficient to drive our top quartile ACT scores to numbers comparable to our Tier 1 comparators—a score of 31 or greater to be precise. A natural consequence of improvements in our top quartile will be a rise in the bottom quartile as well.

A persistent national problem in engineering is the relatively low numbers of women in the profession. UW is no different and currently women make up 17 % of the undergraduate student population. UW has an opportunity to distinguish itself by recruiting from this poorly tapped talent pool, thereby dramatically altering the percentage of women in the college through a sustained long-term endeavor. A start toward achieving positive change is a commitment to attempt to devote 1/3 of the top quartile Tier 1

<sup>1</sup> A total of 500 Tier 1 Scholarships are being planned for based on an enrollment target of 2000-2400 undergraduate students. Moreover, this support would be in addition to other scholarship support for these students, e.g., Hathaway scholarships, private donors, etc.

*scholarships to women—representing twice the current percentage of women undergraduate students in the college.*

### **Goal #3**

The initiation of the Tier 1 Scholarship Program represents the perfect opportunity to begin a longitudinal study from program inception. *UW will track the performance of Tier 1 Scholarship students using metrics of GPA, freshmen to sophomore retention in engineering at UW, time to degree, job placement upon graduation and employer/employee satisfaction after graduation.* The relative small student population makes this endeavor a manageable task.

Finally, while UW must strive to improve the quality of undergraduate students, one must temper these goals with an understanding of the higher education landscape in Wyoming. By virtue of being the only university in the state, UW must provide unparalleled access to the students of the state. This access is clearly shown by UW's acceptance rate of 96%. In contrast, the Tier 1 engineering schools in our data set, all of which are located in states with other less selective public universities, have an acceptance rate of 50%. We believe in the open access model provided by UW in giving every qualified student the opportunity to pursue his or her dreams. Occasionally these dreamers produce memorable success stories. In short, recruiting more students at the high end is more important than excluding students at the low end.

### **Undergraduate Education**

UW aspires to deliver an outstanding contemporary undergraduate engineering education to its students, with curricular innovation reflecting the technological pace of today. Our goal is to produce leaders in the field of engineering—engineers who will make a difference, regardless of the precise career they choose to follow. For example, many successful engineering students become engineers, but others become entrepreneurs or executives in businesses or nonprofits. One key to these students' success is a forward-looking curriculum.

Historically, theory and experimental observation formed the foundational pillars of engineering. However, over a period of several decades, computational science has emerged as a critical aspect of engineering solutions. Computational science, more a methodology than a discipline, facilitates simulation, data acquisition, asset management, and visualization and communication. It also facilitates solutions to a large class of problems whose solutions were previously out of reach. Finally, computational science is a gateway to successful high tech spinoffs in a host of important engineering and science sectors.

Computational science is so prevalent today that it is now considered as a third pillar of engineering and shares an equal footing with theory and experiment in importance. Indeed, the majority of advances in technology today are driven by computational solutions. However, while computational science is prevalent in graduate-level research, in the national arena it has yet to

penetrate the undergraduate curricula to the depth needed for undergraduate students to enter industry ready to contribute immediately to advances under development.

Few US engineering programs are as well positioned as UW to pursue computational science as an overarching theme in their undergraduate engineering education programs. UW's world class computational facilities, its setting in an emerging core for data centers, and the nimbleness associated with a small college are important drivers for success in such an endeavor. Moreover, engineering curricular innovation in computational science will provide a strong attraction for the exceptional students we seek to attract to our programs.

#### **Goal #4**

UW will undertake major undergraduate curricular innovation to make use of all 3 pillars of engineering education by infusing computational science into the core Engineering Science courses in the college of engineering. Engineering Science courses are taken by every engineering student and represent the foundation of upper division advanced course work. By elevating the presence of computation science in the core curriculum, genuine curricular change at the upper division can occur with the use of advanced computational science algorithms and software. The end result will be an undergraduate engineering program at the leading edge of engineering education in the US. We refer to this innovative curriculum advance as C-STEM.

While curricular innovation in computational science is foremost in our minds, the college of engineering will strive to produce well-rounded outstanding graduates prepared to meet the engineering challenges of the future. An important aspect of professional development of an engineer is a progression of academic and professional experience leading to licensure as a *Professional Engineer (PE)*. An early step in the path to licensure is passing the Fundamentals of Engineering (FE) exam. All our students must take the exam as part of the college's graduation requirements; many engineering programs in the U.S. do not have this requirement, and only encourage their students to take the FE exam.

In October of 2012, the national pass rate for first-time test takers of the FE exam was approximately 70% compared to UW's pass rate of 83% for the same set of majors. Historically, UW students have consistently scored above the national average with pass rates typically in the range of 80-85%—despite UW's requirement that all students take the exam.

#### **Goal #5**

UW will continue to strive for engineering excellence of all students in the program. The college aspires to have a consistent pass-rate for the FE exam of at least 90%. Given UW's historical performance on the FE exam, a 90% pass rate is not unrealistic. Indeed, since 2002, a 90% pass rate has been obtained twice in 19 exams (the exam is administered twice a year). An assessment of program strengths and weaknesses and a drive for continuous improvement are critical in this endeavor.

A 90% pass rate on the FE exam will place UW significantly above national averages, providing a valuable marketing tool for student recruitment. Marketing the college is a consistent theme found throughout this report as part of our drive for Tier 1 excellence.

UW's performance on the national FE exam is a credit to the commitment to undergraduate education by the college's excellent faculty. Competitive compensation for the faculty is essential if we are to retain faculty members as they represent the foundation to build toward a Tier 1 college of engineering for Wyoming.

An essential part of an outstanding undergraduate engineering program is a deep and lasting partnership with industry. These connections provide direct employment benefits to our students and corporate partners while opening a communication pipeline to the very latest in technological advances from industry and research discoveries at UW.

A relationship between students and industry partners often begins through a valuable internship in the corporation. The internship is an important part of a student educational experience as they begin to launch their professional careers. Internships also provide a powerful form of recruitment by industry as both the student and the company can explore mutual interests in a long-term career.

#### **Goal #6**

UW's College of Engineering and Applied Science aspires to have 90% of its graduates complete at least one professional internship by the time of graduation. The college will actively partner with prospective employers to achieve this goal. Moreover, employment information collected by UW will be used as a means of determining the correlation between internships and future permanent employment.

An important aspect of a rewarding professional career in engineering and science is the opportunity to assume leadership positions within an industry or agency. Leadership development is often inadequately addressed in undergraduate engineering education, owing in part to some of the intangibles associated with defining and teaching leadership.

#### **Goal #7**

The college proposes to develop a unique relationship with its industry and agency partners by exploring opportunities to formally develop a required UW/industry/agency leadership program for all undergraduate engineering and computer science students. The integration of leadership development with industry and agencies could occur in multiple ways and continue throughout a student's education at UW.

Several interesting avenues exist for implementing a leadership theme. One possibility is to develop the college's internship (summer employment) program to include guided exposure to leadership practice in an industry or agency. A further interesting possibility is to develop a one-credit, three week short course that students would take once



in their academic career during the month of January (J-term). J-term courses are becoming increasingly popular at UW and the proposed course appears to be an excellent opportunity to take advantage of this time. A J-term course could be located on campus or embedded at an industry site. The opportunities for innovation here are exciting!

Other creative avenues for leadership development exist including partnerships with ROTC as well as the College of Business. Also worth exploring are focused seminar series of invited industry and agency speakers. These series can be built into existing courses, such as a capstone design course, or delivered as part of a seminar series for multiple degree programs.

One of the biggest marketing assets of an engineering school is the ability to advertise outstanding job placement data of its graduates. The college of engineering has failed to take advantage of this opportunity through any sustained form of data collection and the accompanying professional marketing of the data. UW currently has professional staff in place to actively promote job placement of its graduates as well as internships for its students. What is needed now is an accurate assessment of the success of these activities along with solid longitudinal data on professional employment and student satisfaction.

#### **Goal #8**

UW will develop a systematic approach to collect employment data of its engineering college graduates by initiating an aggressive survey in January of the preceding academic year's graduates. An effort will be made to reach every graduate and employment data will be collected and percentages computed for those responding to the survey. UW will monitor longitudinal data, seeking opportunities to improve the employment results while incorporating the latest results into marketing the program across the state and the nation.

UW does not need to reinvent the wheel when seeking to effectively promote employment opportunities for its graduates. Indeed, we can learn a great deal from engineering schools that specialize in marketing their students to industry. The college will determine a set of best practices for effectively placing its students in engineering positions in industry. Based on the information collected, the college will aggressively pursue programs aimed at placing engineering graduates in professional jobs.

Finally, in considering other avenues beyond the classroom to create a stellar undergraduate engineering experience, we agree with the Task Force assessment that UW alumni represent "an underutilized yet highly loyal resource." Opportunities exist for alumni mentoring programs, formalized recruiting using alumni (a common practice of private institutions), and alumni connections to job placement.

#### **Goal # 9**

The opportunities to engage engineering and science alumni are multifaceted and UW would be well served to survey the landscape of various forms of alumni involvement with

engineering schools. Armed with this information, the college will make a concerted effort to engage our alumni in activities designed to enhance the undergraduate experience.

In closing, we believe two objectives of our undergraduate programs should be foremost in our minds. First, when a student walks off campus for the last time, it is our hope that the student says, “I am glad I went to engineering school at the University of Wyoming.” Second, we want all our engineering graduates to be highly sought after by industry, immediately upon graduation and for the long haul—to be viewed as the future leaders in the field and, hopefully, in the State of Wyoming. These objectives succinctly sum up our drive for undergraduate engineering excellence.

### **Graduate Education**

UW’s graduate education programs have mixed areas of excellence with some areas that are weak or have a very limited presence. The fundamental difficulty in advancing excellence is a lack of depth in faculty numbers in any particular area. For historical reasons, areas of excellence in the College of Engineering and Applied Science tend to be based on the expertise of a faculty hire and not an area of distinction defined by the university. As a result, these areas of excellence are vulnerable to a resignation or retirement of a key faculty member. This feature of the college stands in contrast with recent trends in other fields at UW, such as neuroscience and Earth sciences. Lack of stability in areas of excellence is undesirable and certainly runs counter to the notion of developing a Tier 1 engineering program.

An anecdotal example of the transient nature of areas of excellence in the college is found in the composite materials program developed by Professor Donald Adams beginning in the 1970’s. Professor Adams turned the University of Wyoming into the premier institution of higher education for thermo-mechanical testing of composite materials. Companies and organizations from all over the world looked to UW to provide this information in an era where the use of composites was in its infancy. UW was a major player in the explosive entry of composites into the materials community. Professor Adams retirement after a stellar career signaled the decline of an area of excellence that could have been sustained. *Niche areas of excellence disappear as seemingly randomly as they appear*—not a sustainable model of excellence. The random arrival and decline of excellence is a consequence of a once-prevalent philosophy of “letting all flowers bloom.” Going forward, the college must adopt a far more focused hiring strategy, aligned with areas of distinction identified in UW’s strategic plan and aimed at the development of stable faculty strength in niche areas.

A converse example of building and retaining programmatic depth is the Department of Atmospheric Science (DAS). If we remove the word “department”, atmospheric science is truly a niche area of excellence at UW. While DAS contributes to the teaching mission of the college, it has no true undergraduate program that must be supported, allowing the department to focus on graduate-level research. As a result of known stable resources, the program has developed an international reputation while standing the test of time. Many outstanding faculty members have come and gone, yet the department continues to flourish. The Atmospheric Science program is viewed as a model for developing sustained niches of excellence in graduate education.

A quick profile of DAS shows an annual state budget of \$1.27M with 8 tenure-track faculty. Annual research expenditures per tenure track faculty are \$523K which yields a ratio of 0.81 with respect to the Tier 1 set and on a par with the University of Utah college of engineering. The department also capitalizes on resources unique to UW and Wyoming; the King Air experimental aircraft is one of only two “fully-instrumented” (mission ready) research aircraft in the country and Laramie is also one of the best locations in the world for high altitude balloon launches. The depth of faculty resources, coupled with valuable assets unique to UW and the state, provide a formula for lasting excellence that we intend to emulate in other niche areas.

We have identified five niche areas of excellence that are of major importance to the state, that align with UW’s strategic plan, and in which national prominence is attainable. A brief description of each niche area is provided below.

### ***Unconventional Reservoirs***

Unconventional hydrocarbon reservoirs represent the future of Wyoming’s natural gas and oil production. Indeed, the economic vitality of the state in the coming decades remains inextricably linked to accessing unconventional resources.

Over the last eight years the state has heavily invested in developing energy programs at UW. This effort has created a platform for developing world-leading capability in key technology areas that will lead to breakthroughs in fundamental knowledge critical for optimal production of fossil energy resources, particularly unconventional reservoirs. Chief among them is the world’s most advanced multi-scale flow and rock characterization research facility, established at UW over the last six years. In this facility, UW engineers and scientists are concerned with the development of a fundamental, improved understanding of flow and transport in unconventional reservoirs, e.g., shale oil and shale gas. Such understanding is pivotal to extracting maximum value from both unconventional and conventional reservoirs and is being obtained through collaborative multi-scale experiments, imaging, modeling, and simulation of flow and transport in porous media at multiple scales, i.e., meter to nanometer. This research will ultimately contribute to the design of strategies for improved oil and gas recovery from unconventional reservoirs.

UW benefits from an interdisciplinary array of faculty members with expertise in experimental science, mathematical and physical modeling, and high performance computing to advance the state-of-the-art knowledge in unconventional reservoir analysis. Further strengthening of this niche area provides UW an opportunity to achieve national and international prominence for the college—with lasting benefits to the state, the country, and the world.

### ***Advanced Coal Technologies and Energy Conversion and Delivery***

This niche area addresses the programs of education and research needed to create the value-adding technologies and expertise for converting Wyoming’s energy resources and ensuring their reliable delivery to markets. A topic of primary importance is advanced coal technologies including coal to liquid fuels, hydrogen production, advanced combustion turbines, and advances in

coal gasification technology. Interestingly, the primary research advances needed to improve coal's viability as an energy resource focus on developing new materials capable of meeting increasingly severe service environments. Novel material processing and computational solid mechanics represent major contributors to this research endeavor. Advanced coal technologies provide an opportunity for coal to remain an important part of world energy supplies for the foreseeable future.

Other energy conversion and delivery topics include the sound development and use of Wyoming's renewable energy resources (wind, solar) and nuclear energy resources, possibly in conjunction with technologies for producing liquid fuels and chemicals. UW's chemical, mechanical, electrical, and energy-systems engineering programs will play significant roles in developing this niche, doing so in collaboration with expertise in chemistry, business, and pertinent other UW programs.

### ***Computational Science and Engineering for Fluid Dynamics and Materials Science***

As noted in the write-up on undergraduate education, computational science has become a third pillar of engineering, sharing an equal footing with theoretical research and experimental research. Computational science is inherently interdisciplinary, involving expertise in applied mathematics, computer science, and specific engineering application domains. The state of Wyoming is blessed with outstanding high performance computing resources including the NCAR-Wyoming supercomputer and UW's recently acquired on-campus Advanced Research Computing Center. In addition, UW has made a sustained effort over the last 10 years to hire faculty in an array of disciplines whose expertise lies in computational research.

The college of engineering has a core of expertise in computational fluid dynamics, computational materials science, and high performance computing, and collaborates strongly with the mathematics department in areas related to computational science. Computational science and engineering is not only perfectly suited to UW, it is one of the most likely sources of business spinouts from the college. For instance, Firehole Composites is a university spinout with approximately 15 engineers devoted to the computational analysis of failure of high performance composite materials. Numerous other opportunities in computational science and engineering, enabled by the university and state commitments to high performance computing, are poised to support an important aspect of economic development in Wyoming in diverse areas such as aerodynamics of wind turbines, reservoir simulation, solid and liquid combustion processes, water resources, and novel material design and characterization.

### ***Water Resources***

The importance of Wyoming's water resources cannot be overstated. Wyoming's location as a headwater state, its largely semi-arid climate, and the roles of water in Wyoming's economy make determining, developing, and managing its water resources critically important. Significant efforts are needed to understand the hydrologic and climate processes influencing the availability of water in Wyoming, and to develop means to ensure its optimum use and quality.

The Water Resource niche area focuses on the science and technology of computational and field hydrology and subsurface flow to address water-resource issues facing Wyoming and the west. Issues of immediate practical importance include the development of energy and mineral resources, agricultural and municipal water supply, and the sound management of watersheds. Two recent large research grants from the National Science Foundation are already advancing UW toward national prominence in field hydrology and subsurface flow. The grants have also provided strong collaborations across colleges, notably with the Department of Geology and Geophysics. Finally, this niche area connects closely with other niche areas of emphasis to UW including unconventional reservoirs, computational science applied to porous-media flow, and atmospheric science.

### ***Biological and Biomedical Engineering***

UW's academic planning has made the life sciences an area of distinction. As a result, the university has developed several outstanding programs including interdisciplinary Ph.D. programs in neuroscience, molecular and cellular and life sciences, and the biomedical sciences. Moreover, the past decade has seen biological and biomedical engineering become a significant contributor to growth in the field of chemical engineering nationally and at UW. The Chemical Engineering Department, which offers a Biological Engineering concentration area, now has active research programs in tissue engineering, regenerative medicine, and biomaterials for infectious disease diagnostics, and cancer prognostics, diagnostics, and targeted drug delivery. Electrical Engineering also offers a Bioengineering option. These programs are focused on problems of enormous importance to society in general and the state of Wyoming in particular. In addition to conducting research on health-related issues of critical interest to Wyoming residents, faculty are actively training students who progress to medical school and return to practice medicine in Wyoming. Through infrastructure and programmatic development, the college has an opportunity to bring national recognition to UW biological engineering programs and increase competitiveness for National Institute of Health (NIH) research awards, which are among the largest available for engineering faculty.

An added benefit of the biological engineering niche is the strong attraction of this field for women. Developing this area of excellence will contribute to the college's goal of women making up 1/3 of the undergraduate student population.

### **Goal #10**

*UW should boldly develop the niche areas outlined above over the next decade, with the goal of achieving international prominence in each.* A commitment of 25-30 faculty positions, in addition to current resources in the areas, is viewed as sufficient to build the faculty depth needed to ensure lasting excellence while elevating UW to national recognition.

Generating momentum in the identified niche areas should lead to elevated funding levels through a national perception of leadership. The faculty numbers proposed here will position UW to compete for high profile national centers of excellence. These national centers typically come

with very substantial federal funding. Center funding is a major source of financial support for the Tier 1 schools noted in this report.

Increased research funding should also lead to opportunities to bring in “*research faculty*.” *Research faculty* members are fully supported on grant funding, either individually or through centers of excellence. They add further levels of expertise while bringing in additional funding and advising graduate students. The *research faculty* member can be a powerful driver in advancing the metrics we identified as critical for a Tier 1 institution. At present, UW has very few *research faculty* members, primarily the result of insufficient levels of research activity to support them.

Finally, success in advancing the niche areas of research to national prominence will benefit from developing deep connections with industry and government agency collaborators. Industry research and development divisions provide cutting edge technologies aimed at solutions to their most pressing challenges. It is not uncommon for industry technology advances to lead to further innovation from university partners.

An excellent example of an industry-university partnership was the development of the *finite element method* used to analyze and design all modern structures. The Boeing Company did a great deal of pioneering work in the 1950’s in an effort to analyze the extremely complex wing structures of commercial aircraft. During the 1960’s, significant finite element research was also advanced by professors at the University of California, Berkeley while working with structural engineers at Boeing. The synergy between these groups led to technologies that dominated structural analysis for 25 years and that now forms the basis of a multibillion dollar finite element industry with enormous benefits to society.

Another wonderful example of an industry-university partnership is the relationship between the University of Washington and Microsoft. During the early 1980’s, University of Washington computer science students made their way across Lake Washington to work for a fledgling company known as Microsoft. In the 1990’s, Microsoft exploded on to the international scene and became big contributors to the University of Washington program. Currently, US News and World Reports ranks the graduate computer science program at Washington as the 7<sup>th</sup> best in the nation. As a result, Microsoft has now been joined by companies like Amazon, Google, and Facebook—all seeking Washington talent to solve their problems. Indeed, a big problem for the university is the inability to produce enough graduates. University of Washington computer science faculty members promote one of their strengths as “the engagement between professors and the tech industry that will one day employ most of the graduates.”<sup>2</sup>

The niche areas suggested in this report present superb opportunities to tightly integrate UW researchers with industry. For instance, advances in the field of unconventional reservoirs are

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<sup>2</sup> [http://www.nytimes.com/2012/07/08/technology/u-of-washington-a-northwest-pipeline-to-silicon-valley.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2012/07/08/technology/u-of-washington-a-northwest-pipeline-to-silicon-valley.html?pagewanted=all&_r=0)



directly tied to industry leadership in horizontal drilling and hydraulic fracturing. Integrating this technology into the college will be a direct benefit to our students who can subsequently make an immediate positive contribution in industry. University researchers also have the opportunity to learn of the immediate challenges ahead with the opportunity to contribute to advances in a rapidly evolving field of huge importance to Wyoming.

An example of a strong partnership in computational science is the relationship between NCAR and UW surrounding the NCAR-Wyoming supercomputer. Student internships and joint faculty appointments are already underway. The NCAR-Wyoming relationship has ideally positioned UW to become a major research player in “big data,” a new frontier in computational science.

### **Goal #11**

Industry input is a critical aspect of a successful roll-out of the various niche areas. Industry provides the college a valuable connection to the leading technologies being pursued while identifying challenges and research opportunities with a longer time horizon. The college will strive to create an atmosphere that promotes industry collaboration on research and academic programs that are responsive to the most current technologies utilized today. We embrace the idea promoted by the Task Force of periodically conducting workshops with corporate CEO's and research vice presidents to keep the college connected to the most pressing challenges of the day.

A further important aspect of collaboration between the college and industry is the opportunity to hire “professors of the practice,” engineers and executives from industry on loan to UW for one year (or more) who would bring their wealth of practical experience to bear on the education of our students. Such professors of the practice have a unique contribution to make in preparing students for the world of work.

The heart and soul of UW’s research enterprise lies in the talented graduate students who work with the tenure-track faculty. Graduate assistants are often found in the laboratory, devoting substantial time to extensive experimental studies. They also often play a major role in field work—taking extended stays in the field when faculty are simply unable to do so.

In order to fully develop the niche areas to true national distinction, an infusion of top flight graduate student talent is essential. As in the case of adding faculty to the niche areas, we propose to provide secure long-term support in the form of graduate fellowships for each of the niche areas. These fellowships will be targeted at the most outstanding graduate students and are intended to be used solely to support the research mission. Hence, in contrast with UW’s standard graduate assistantships, students would not be asked to contribute to the teaching mission.

### **Goal #12**

We propose to ensure stability of graduate assistant researchers by adding 100 fellowships to the college. Assuming 5 niche areas, 100 fellowships would allow the college

to commit to supporting an average of 5 incoming students per niche area and extending their support for up to 4 years. Furthermore, we propose to fund these students at \$33K a year with a 10 month appointment. After adding tuition, fees, and health insurance, the total level of support is estimated at \$40K/year.

The gold standard for graduate research fellowships in the U.S. is the National Science Foundation Graduate Research Fellowship Program (NSF-GRFP). Through this intensely competitive program, NSF annually awards approximately 2000 doctoral level fellowships in STEM fields. Fellowship awards total \$40,500/yr including a \$30,000 stipend and an educational allowance of \$10,500 to cover tuition and fees. UW's proposed graduate fellowship program is very comparable to the NSF-GRFP and will position the college to compete for the best academic talent in the nation. The infusion of graduate student talent, combined with depth of faculty numbers and the state's unique resources, will ensure major contributions to the research enterprise and national recognition will naturally follow.

While the proposed niche areas are directly relevant to Wyoming's future, we recognize that the future of Wyoming and the nation is far from static. Periodically, a careful evaluation of niche areas of emphasis should be undertaken to accommodate changing environments and technologies along with new opportunities.

### **Economic Development and University Spinouts**

Google, Sun Microsystems, Silicon Graphics, Cisco Systems, Netscape—these companies are just a few of the high profile business spinouts from Stanford University that fire the imagination of entrepreneurial success. While Stanford enjoys a reputation as one of the finest research and entrepreneurial universities in the country, there are other notable schools. Universities highlighted in a recent article by Capital Formation Institute<sup>3</sup> (CFI) include Purdue, Wisconsin – Madison, and Iowa State (ISU). CFI notes: "ISU, for example, has over 450 active licenses and ranks in the top 5 for active licenses and licenses executed ...".

UW's engineering college has some notable successes related to university spinouts. In the past year, two companies born out of research in Mechanical Engineering have gone public. IDES Inc., the world's leader in delivery of a plastics database for engineering applications was publicly acquired in 2012. Firehole Composites, a company developing advanced failure analysis software for composite structures, was publicly acquired in the spring of 2013. Firehole customers include Boeing, Red Bull Formula 1 Racing, General Electric, and Owens Corning. In both the spinouts noted, the parent companies have chosen to leave Wyoming companies in Wyoming—a marvelous outcome for the state and an indicator of the long-term value of spinouts.

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<sup>3</sup> <http://www.cfi-institute.org/VP%20-%20University%20Spinouts%20Best%20Practices%20and%20Issues%20-%20Palminera.html>

Despite the success of the past year, economic development and university spinouts are currently an underappreciated aspect of the college. The views on business spinouts are not a reflection of on any group of individuals but rather an artifact of the history of higher education. We believe this culture must change if UW wants to fulfill the vision of a Tier 1 engineering school. Some concrete statements on best practices produced by CFI include:

- “Strong and focused university research feeds the pipeline for commercialization. Model universities have built strong, focused research bases by first assessing core competencies and then developing strategic plans around them. Following these plans they have (a) hired ‘stars’ in targeted fields, (b) targeted federal R&D funds, (c) increased corporate-sponsored research, and (d) promoted state initiatives that leverage federal and corporate funds.” We believe much of the advice outlined here is contained in the action items and goals of this report.
- “Entrepreneurial culture is key. Creating an entrepreneurial culture is both “bottom up” and ‘top down’, requiring a combination of leadership from the top and entrepreneurial drive from the bottom.”

### **Goal # 13**

The college of engineering can make significant advances toward Tier 1 status by recognizing entrepreneurial activity as a third leg of its mission combined with excellence in teaching and research. By adopting this attitude, and providing tangible incentives and rewards for entrepreneurial activities, UW can leap ahead of the vast majority of colleges and universities and join a select group of schools. Business spinouts resulting from technology transfer can have an enormous impact on the state economy.

### **Marketing the College**

While the preceding goals and objectives outline a solid approach to advance the college of engineering, they will not bring UW the national recognition sought without effective marketing of the initiative and the college. This marketing must be “permanently” sustained and at the highest professional quality. The finest colleges in America relentlessly market their institutions through multiple media outlets, never missing an opportunity to tout their virtues. Indeed, we believe that “perception is reality” is a suitable cliché for defining the importance of marketing.

The marketing effort must touch a broad spectrum of audiences. First and foremost, a statewide effort must be undertaken to elevate our citizens’ pride in the college and bring awareness to the college and the initiative underway. The same approach should be extended to the entire Front Range as this audience represents an excellent source of high quality students. Although many Colorado students find their way to UW, we believe we can do much more to attract them—promoting *excellence* in addition to value. Finally, a targeted national marketing program must be undertaken that reaches prospective students as well as peer colleges and universities. Raising our profile with our peers is a particularly important aspect of gaining national recognition.

We refer to our discussion of the Tier 1 set of schools where we noted: “far more important than the numerical ranking is the immediate name recognition of engineering excellence associated with every one of these schools.” Recognition is a surely the result of excellence, yet it also leads to further excellence.

UW has some built-in advantages when it comes to marketing the college and the Engineering Initiative. To begin, in a few years, the university will boast a collection of stunning facilities that provide integral support for the college including the Energy Innovation Center of the School of Energy Resources, the Enzi STEM Building, the Energy Engineering Research Facility, and the new engineering building currently in the planning stages. Taken collectively, these facilities will be among the finest the nation has to offer. UW must showcase these facilities as part of a marketing plan—including the visionary planning currently underway.

UW also has an opportunity to partner with a collection of wonderfully supportive industry partners. These partners can help to provide strong and consistent messaging about numerous terrific engineering opportunities. By promoting these opportunities, our corporate partners stand to gain substantial long-term benefits as the quality and number of graduates rise.

Finally, marketing is in large part about image and one cannot change an external image without first creating an outstanding internal image. In this vein, it is imperative to bring the faculty and staff of the college fully on board with the notion of developing an outstanding engineering school. In doing so, UW has an opportunity to promote itself through every message leaving the college. Engagement across the state and the nation represents an opportunity for shameless self-promotion.

This program, as it develops, will provide a model for other programs at UW. Thus, other colleges not included in this particular initiative should not view the initiative as competitive with them, but rather as providing a model for how they can be further developed. The program is an example of how a rising tide can raise all ships. As we achieve greater success in engineering, so in the future can we achieve greater success in other areas of endeavor that are important to our State as well.

#### **Goal #14**

*UW will develop a professional marketing plan to promote the engineering initiative to prospective students, citizens in the state, and our peer institutions across the nation.* The marketing plan should commence with the official launch of this initiative, signaled by Task Force endorsement, legislative financial support, and Trustee approval. Painting the vision through marketing is an important aspect of a long-term drive for excellence.

Finally, we believe one additional audience deserves special attention in the marketing of UW’s engineering initiative; the middle school children across our state. In brief, a concerted and sustained effort should be made to develop an engineering presence in middle school.

### **Goal # 15**

There is no question that engineering remains a mysteriously underrepresented field of choice in K12 career discussions. This unfortunate circumstance is arguably driven by lack of exposure to the profession. *UW proposes to work with legislators and K12 to develop a one-semester engineering course for middle school kids involving:*

- College preparation
- Benefits of an engineering degree and higher education in general
- Examples of “cool” engineering—the possibilities are unlimited!
- The science and math behind engineering

We believe this program has an opportunity to fundamentally positively alter the lives of many young students who might never consider engineering as a career.

The involvement of K12 and the university necessitates a careful collaboration with all parties involved. Funding considerations, personnel commitments, and finding some champions in K12 are all necessary for success. We suggest a reasonable approach is to find a couple of early adopter school districts who are willing to invest the effort—over time the payoffs may be remarkable. Finally, legislative approval is a must and any such program should not proceed prior to developing momentum for the project with key elected officials. *Furthermore, funding for the proposed initiative has not been included in the Engineering Initiative request as we believe it should be included as part of the K12 funding profile.*

### **Budget**

An annual budget increase of \$14.77 M is required to fully fund the University of Wyoming Engineering Initiative. The budget is directly tied to each of the key areas identified in this report. We echo comments from the governor’s Task Force for the Engineering Initiative in that this leap forward requires a broad commitment to excellence.

Resource Commitments	Number	Annual Budget
Faculty Positions	25-30	\$ 5,600,000
Graduate Fellowships	100	\$ 4,000,000
Undergraduate Scholarships	500	\$ 3,000,000
Academic Professionals & Technical staff	6	\$ 1,200,000
Support Staff	8	\$ 320,000
Professional Marketing & Support		\$ 400,000
Major equipment maintenance		\$ 250,000
Annual Total		\$ 14,770,000

Notes

1. Current college budget with employee benefits is \$16.6M
2. Budget estimate above includes employee benefits
3. Request represents approximately 4 % of UW's Section 1 budget

Some budget notes and highlights:

- Faculty positions are devoted to building critical depth to ensure sustained excellence in the niche areas identified.
- Graduate fellowships are nationally competitive and will provide the research engine for the niche areas of excellence.
- Academic professionals such as research scientists and engineers are essential for success in the laboratory driven environment of engineering. Technical staff are also a critical part of the research enterprise and the college is currently understaffed with technical support.
- Undergraduate Tier 1 Scholarships will provide \$6,000/yr of support for the college's top quartile of undergraduate students for a four year period. Combined with other scholarship support, UW has an opportunity to recruit an outstanding engineering class every year—the foundation of a Tier 1 program.
- Marketing of the programs nationally and to the state will benefit UW and the state far beyond the college of engineering. We envision outsourcing much of the marketing to a professional organization.



- Failure to plan for maintenance costs of the expensive equipment found in engineering can cripple the operation of the college. A good estimate of maintenance costs is 5-10% annually of the original purchase. The proposed budget is expected to cover maintenance for the 25-30 new faculty hires expected in the college.

The magnitude of the proposed advances for the college of engineering will require a staged funding approach. Academic hiring takes careful planning and there is a definite annual hiring season for faculty that is difficult to circumvent. Moreover, we believe there is merit in developing the niche areas in series as opposed to simultaneously developing them.

To accommodate the staging of the niche areas and the thoughtful development of the initiative in general, we believe the funding should be ramped up over time. A five-year horizon is believed to be sufficient to fully develop the program with proposed annual funding shown.

<b>Year 1</b>	<b>\$5 M</b>
<b>Year 2</b>	<b>\$7.5 M</b>
<b>Year 3</b>	<b>\$10 M</b>
<b>Year 4</b>	<b>\$12.5 M</b>
<b>Year 5</b>	<b>\$14.77 M</b>

Finally, private giving is an essential aspect of ensuring long-term success of the Engineering Initiative. In particular, we believe an endowment of \$30-40 M is needed to provide the college with critical funding to advance excellence on all fronts. Some examples of the use of these funds include:

- Providing funds for industry visiting faculty to teach critical technologies
- Salary retention for key faculty of outstanding quality
- Named professorships providing discretionary funding for “star” faculty
- Start-up funds for attracting new faculty (\$300K-\$500K per faculty member is not uncommon)
- Endowed faculty positions
- Developing innovative alumni programs

**Goal #16**

UW will work with the UW Foundation to formalize plans for a fund raising effort devoted to an excellence endowment of \$30-40M for engineering. This program may be a component of UW’s next Capital Campaign.

**Capital Facilities**

Advancing UW to a Tier 1 college of engineering for Wyoming requires numerous programmatic developments outlined in this report. However, many of these changes cannot occur

without substantial growth and upgrades of the college's capital facilities. In brief, the college is space constrained to the point where modernization of teaching laboratories and curricular innovation are being stifled.

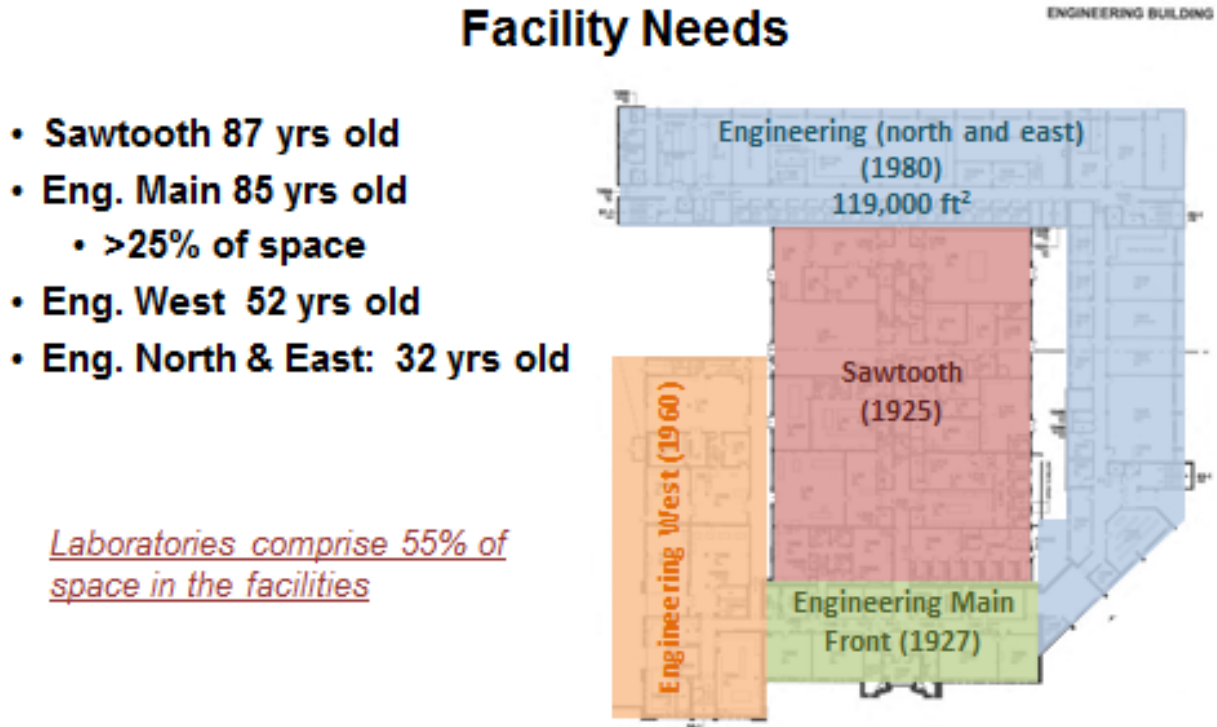
Figure 4 shows the footprint of the engineering complex consisting of a collection of buildings built at different times. The heart of the college is the venerable engineering Main Front Building built in 1927. An even older building, referred to as the Sawtooth, was built in 1925 and occupies the central core footprint of the complex. While these buildings represent a substantial amount of the total square footage available, neither is suitable for the placement of modern labs with their demanding power, ventilation, and IT requirements. The inability to properly upgrade these facilities with state of the art laboratories is problematic as 55 % of the total space in the engineering complex is devoted to laboratories.

The Engineering West Wing, also shown in Figure 4, is 52 years old. The size of this building is misleading in that 2 of the 3 floors are used for general university classrooms, leaving only the basement floor for engineering. The location of classrooms in the building, combined with the age of the building, also inhibits laboratory developments.

The newest part of the complex is the engineering north and east wings shown in blue that were built in 1980. From a practical perspective, any upgrades to engineering facilities must occur in this part of the complex. However, the "new" (1980) building is completely full and, indeed, there is an acute shortage of laboratory space. This space shortage has had numerous adverse effects on the research and teaching enterprise; student labs are severely undersized, some experimentally oriented faculty members have no lab space, and hiring decisions are impacted as experimentally oriented faculty may be passed over because of their laboratory needs.

To bring the college facilities up to meet the anticipated demands in classroom and laboratory space, a new building is in the design phase. The building is envisioned to provide 170,000 square feet of space of which roughly 2/3 is devoted to laboratories. However, the proposed new engineering building is not just about additional space, far from it. The need for the building is also a consequence of society's information and technological explosion. New discoveries astound us on a yearly basis and their developments rely on cutting-edge engineering facilities across the country. To venture into the Tier 1 arena, outstanding state-of-the art facilities are essential.

In the design of new engineering facilities, UW has an excellent opportunity to promote innovation through architecture. Construction of a new engineering building affords us the opportunity to weave programmatic integration into the fabric of the office and laboratory arrangements. This concept is nontraditional but not really new. It was the core architectural principle behind Bell Laboratories' Murray Hill headquarters, completed in New Jersey in 1941 and arguably the twentieth century's greatest center of innovation. The facility's design, especially its hallways and office configurations, enabled engineers and scientists from many disciplines to interact with one another, regardless of their department affiliations or project assignments. It



**Figure 4.** Footprint of current college of engineering facilities.

helped introduce newly minted Ph.Ds. to “the guy who wrote the book.” It mixed theorists with experimentalists. From this interdisciplinary ferment emerged the transistor, the laser, satellite telecommunications, the solar cell, light-emitting diodes, the principles enabling digital communications, digital cameras, cellular telephone networks, and the largest number of Nobel prizes of any corporate laboratory in history.

Advancing UW’s niche areas of excellence will require strong interdisciplinary connections across departments and colleges. Adopting the building concepts from Bell-Laboratories will emphasize collaborative spaces for faculty and students, while diminishing the architectural barriers that separate different departments and subdisciplines.

In addition to thoughtful placement of our faculty colleagues, the design of the building will focus on encouraging conversation. We envision a building with inviting spaces and corridors designed to create “people eddies,” where interaction among faculty and students will naturally occur. Student lounge access for undergraduates and graduates should also be prominently located—all designed to facilitate interactions while generating a powerful attraction for prospective students. In brief, we want the building to naturally market *excellence*.

### **Goal # 17**

The university planning process affords us the opportunity to create the engineering building of our dreams—and the dreams of the future outstanding students we expect to draw to the college. The building's Level 1 Plan provides a sound assessment of the space needed for laboratories, classrooms, and offices. This plan has been completed with an eye toward the laboratories of the future along with thoughtful plans for expansion of the college.

The integration and layout of the building including architectural planning begins with Level 2 planning that has yet to commence. *UW will work carefully with architects to develop a Level 2 plan for a spectacular facility focused on collaborative integration of faculty by niche areas described in this report.* Historically driven disparate departmental interests will be avoided in favor of creating environments that promote collaborative relationships focused on advancing the research goals of the college. An important part of this effort will be the creation of interdisciplinary collaborations between colleges as well as within the college, because much of the best work in science and engineering emerges when interdisciplinary teams work collaboratively on common problems.

*The facility will also be inviting for prospective students, while providing a sense of community for current students.* We view the *Energy Innovation Center* built for the School of Energy Resources as an excellent example of a facility that has the “WOW” factor the Task Force is advocating to see in engineering building.

While integrating engineering faculty in the new building to support the niche areas of research is foremost in our minds, we have also carefully considered opportunities beyond the college. The Department of Mathematics is arguably the closest department outside the college in terms of faculty collaboration in a host of important research programs. We believe there is merit in exploring the possibility of locating the Math Department in the proposed new engineering building. The synergy of having our math colleagues next door as opposed to across the campus is a valuable asset for inspiration and technological development, particularly in the innovative computational aspects of education and research highlighted in this report.

### **Goal # 18**

Faculty members in the Department of Mathematics are enthusiastic about the opportunity to join their engineering colleagues in a visionary engineering facility. *UW will determine space and cost estimates for moving the Math Department to the new engineering facility. If cost projections are feasible, Level 2 planning will address this exciting opportunity to develop a truly interdisciplinary strategy for advancing engineering excellence.*

Current capital facility funding costs for the engineering building are estimated at \$110M. A key component of the funding portfolio is a \$15M match from corporate or private donors.

**Goal #19**

*The UW Foundation will make engineering building matching support their highest priority for FY2014.* Moreover, if matching funds in excess of \$15 M are obtained, UW will seek state support to match these excess funds.

**Capital Facility Integration**

UW has been extremely fortunate to have the opportunity to develop several outstanding facilities in support of science and energy education. It is important to frame these new facilities in the context of the current needs for the college of engineering. A brief summary of the major STEM-related facilities is provided below.

***Michal B. Enzi STEM Facility:*** The Enzi Laboratory is devoted to support undergraduate science instruction for students in every college in the university except law. The building will house major science laboratories for chemistry, biology, and physics. Computational labs supporting undergraduates in mathematics and computer science are also envisioned for the facility. Every engineering student will spend time in the Enzi facility in their first and second years as they develop their core knowledge in the basic sciences. However, the Enzi facility will not support upper division or graduate engineering course and the building provides no research laboratories. Ground breaking for this facility occurred in March 2013.

***Energy Innovation Center:*** The Energy Innovation Center primarily supports research activities and teaching related to energy. Initial projects include research in enhanced oil recovery, and multiphase flow through porous media (expected to move to the high-bay facility when it is completed), as well as research devoted to conversion of fossil energy resources higher value products. A portion of the space is devoted to house the School of Energy Resources and the Enhanced Oil Recovery Institute staff. In addition, the facility will offer a distance collaboration center, and 3-D visualization research lab, and a state of the art classroom as shared assets for the campus. Finally, the facility offers significant hotel office space for visiting scientists, engineers and other professionals. The facility is expected to have some interaction with petroleum engineering but the majority of engineering disciplines will not directly work in the facility. This facility was completed in spring 2013.

***Energy Engineering (High Bay) Research Facility (EERF):*** The high bay research facility is a yet to be developed building designed to house large scale experiments that are beyond the size of a traditional engineering laboratory. A substantial portion of funding for this facility has come from corporate donations and the desire of donors are reflected in the original outlay of the building. Specific labs to be included are a geomechanics lab, a core-flood facility, a structural engineering lab, a possible wind tunnel and supporting facilities, among others. The high bay facility is currently in the Level 2 planning stages where architectural drawing and design specifications are being laid out.

***New Engineering Building:*** The proposed engineering facility is an integral aspect of the vision and plan for advancing a set of Tier 1 engineering programs for Wyoming. The design and plan of the facility will be thoughtfully integrated to support the objectives of the college and STEM education in general.

Current plans envision locating the new engineering building across Lewis Street and adjacent to the current engineering complex. The proposed location is consistent with the goal of tightly integrating engineering faculty and laboratories with undergraduate science education in the Enzi STEM building, the geosciences housed in the Geology and Geophysics building, and the School of Energy Resources whose new home is the Energy Innovation Center.

In contrast to the envisioned location of the new engineering building, current plans call for the EERF (high bay) facility to be located on the east campus, not far from the central energy plant. The high-bay facility is designed to have an interior clearance of 20 feet and horizontal crane access to move materials from large over the road vehicles (18 wheelers). High bay and horizontal cranes mean clear spans that are not conducive to building floor levels above. Because the EERF requires an estimated 80,000 gross square feet footprint with adjacent service yards, it is not a good fit for the residential neighborhood of the NW science/engineering cluster. The footprint alone would occupy the majority of a city block in this area. The east campus is also much better suited for high frequency heavy traffic loads that may involve hazardous waste. Noise generation and extreme power demands are additional considerations for locating the building on the more industrial east side of campus.

### **The Road to Tier 1**

The Engineering Initiative at the University of Wyoming represents one of the most exciting developments in the history of the college. The initiative poses substantial challenges that can only be met with a deep and lasting partnership between the university, the state, and private industry. A summary of the vision, complete with objective metrics used to measure UW's progress toward attaining that vision, is provided below.

- Identify the qualities of the best engineering schools in the nation and outline a path of excellence to lift UW into the top quartile of national rankings for undergraduate and graduate engineering education. Key metrics we are tracking include research funding/TT, Ph.D. graduates/TT, and MS graduates/TT. Our goal is to develop through engineering education leaders who will raise the economic competitiveness of the State of Wyoming and, ultimately, who will not only fill existing jobs, but contribute to the creation of new ones within the state.
- Through effective marketing and financial support, aggressively pursue the most talented prospective undergraduate students in Wyoming and the nation. The goal is to raise ACT scores of the top quartile to 31, representing students at the 97<sup>th</sup> percentile of ACT test



takers. A score of 31 would place UW's top quartile of students on a par with the very best programs in the nation.

- Use UW's outstanding computational resources to advance undergraduate curricular innovation by infusing computational aspects of engineering into every aspect of the program from the first year to graduation. The college's small size is a significant advantage as we develop this recognized third pillar of engineering to a level of comparable importance to theory and experiment. Curricular innovation of the magnitude envisioned here will place UW's programs in the vanguard of undergraduate engineering in the United States.
- Graduate outstanding, well-rounded engineering students possessing professional experience and leadership skills obtained through industry internships and programs aimed at leadership development. The college will match the emphasis and passion for undergraduate education with a mission devoted to connecting graduates with professional employment opportunities.
- Boldly develop niche areas of research that have a major influence on Wyoming's future and that align with UW's strategic plan. The niche areas will capitalize on unique assets possessed by the university and the state, making them a natural fit for the college. Lasting excellence in the niche areas will be achieved by hiring 25-30 faculty members to build sufficient programmatic depth to provide immunity from inevitable faculty resignations and retirements. Niche areas of research excellence will be further strengthened with an infusion of 100 graduate fellowships aimed at attracting the brightest academic talent from across the world.

Research in niche areas will be further strengthened by a concerted effort to integrate faculty into the leading technologies utilized in industry today. This synergistic relationship will have an immediate positive impact on research programs while ensuring our students are receiving the most advanced engineering education possible. UW's industry partners will also benefit by an infusion of academic talent aimed at the pressing challenges they currently face,

- Embrace a culture of economic innovation and entrepreneurial spirit by actively encouraging the development and licensing of intellectual property as well as technology transfer from research discoveries.
- Develop outstanding facilities needed to allow the college to grow while providing critical new space for laboratory research.
- Effectively market every aspect of the college and the university within the state and across the nation. The importance of a professional marketing program to the success of the entire endeavor cannot be overstated.

- Develop effective programs to introduce engineering as an exciting and outstanding career in middle school and/or junior high school throughout Wyoming. This objective is a priceless service to the youth of our state who will, in turn, give back to Wyoming in profound ways.

With a commitment and a vision UW will arrive at a Tier 1 engineering college that will benefit the state in immeasurable ways with a lasting legacy.

**AGENDA ITEM TITLE: COIFPM Multiuser DAPP and Data Acquisition Request  
Procedure – Instrument Time Utilization Report –Chitnis, Piri**

## Instrument Time Utilization Report

Center of Innovation for Flow through Porous Media, High Bay Research Facility

(Reporting Quarter: July 01, 2024 - September 30, 2024)

Instruments	COIFPM research group	Piri Technologies, LLC & Digital Pore Solutions, LLC	Maintenance	Available for use by the UW research community
ETEM	6%	0%	14%	80%
FIB-SEM	10%	0%	11%	79%
QEMSCAN	12%	5%	0%	83%
X-Ray Medical-CT Scanner	0%	0%	15%	85%
X-Ray Micro-CT Scanner	39%	14%	6%	41%

**Note (1):** The numbers reflect percentages of instrument time allocated to various users/activities.

**Note (2):** During this initial period, the requests from the UW research community were limited to FIB-SEM and utilized 1% of the instrument time.

- Center of Innovation for Flow through Porous Media (COIFPM) creates a more robust Instrument Access Program:** In Spring 2024 and in collaboration with the UW Research and Economic Development Division and UW research community, COIFPM developed and posted a robust multiuser instrument access program on its website (<http://coifpm.org/index.php/instrument-scheduling>). The program was approved by UW leadership and Board of Trustees. The multiuser instruments at COIFPM (e.g., ETEM, FIB-SEM, QEMSCAN, X-ray medical CT scanner and Micro-CT systems) are available for use by all faculty and researchers at the University of Wyoming for research and educational purposes. These instruments can be used for one-time data collection for exploratory research experiments to obtain preliminary data or long-time use in grants and contracts. COIFPM is committed to providing high-quality research support and lab services to the UW research community. Additional information on the instruments available for use, and the process for submitting access requests, can be found on the COIFPM website at [www.coifpm.org](http://www.coifpm.org), under the 'Instrument Scheduling' tab. For more details regarding this program, users can email [coifpm-business@uwyo.edu](mailto:coifpm-business@uwyo.edu).
- COIFPM announces regular tours of its facilities to highlight Instrument Access Program:** To further highlight instrument access program COIFPM has invited, through a public announcement, members of the UW research community to tour the High Bay Research Facility on Tuesday, Nov. 19, from 3-4:30 p.m. The event will spotlight the center's Instrument Access Program. COIFPM is committed to providing top-tier research support and lab services to the UW research community. The program is designed to streamline access to the center's state-of-the-art imaging instruments and facilities, ensuring that researchers can maximize the benefits of these advanced technologies. During the tour, attendees will learn about the capabilities of each of the imaging instruments available for use, including the ETEM, FIB-SEM, QEMSCAN, X-ray medical CT scanner and Micro-CT systems. COIFPM has also announced that for those unable to attend, individual tours can be arranged upon request. Additional tours are scheduled Feb. 3, May 5 and Sept. 8, 2025, from 3-4:30 p.m. Link for the public announcement: <https://www.uwyo.edu/news/2024/11/tour-of-uw-high-bay-research-facility-to-highlight-instrument-access-program.html>.

## Tour of UW High Bay Research Facility to Highlight Instrument Access Program

November 4, 2024 – The University of Wyoming’s Center of Innovation for Flow through Porous Media (COIFPM) invites members of the UW research community to tour the High Bay Research Facility Tuesday, Nov. 19, from 3-4:30 p.m. This event will spotlight the center’s Instrument Access Program.

Led by Director Mohammad Piri, COIFPM is committed to providing top-tier research support and lab services to the UW research community. The program is designed to streamline access to the center’s state-of-the-art imaging instruments and facilities, ensuring that researchers can maximize the benefits of these advanced technologies.

During the tour, attendees will learn about the capabilities of each of the imaging instruments available for use, including the ETEM, FIB-SEM, QEMSCAN, X-ray medical CT scanner and Micro-CT systems. Additional information on the instruments available for use, and the process for submitting access requests, can be found on the COIFPM website at [www.coifpm.org](http://www.coifpm.org), under the “Instrument Scheduling” tab. A direct link can be found here: [Instrument Scheduling](#).

For those unable to attend, individual tours can be arranged upon request. Additional tours are scheduled for Feb. 3, May 5 and Sept. 8, 2025, from 3-4:30 p.m.

For more details regarding the Instrument Access Program, email [coifpm-business@uwyo.edu](mailto:coifpm-business@uwyo.edu).





# High Bay Research Facility Tour

Showcasing state-of-the-art imaging instruments available for use by UW Researchers as part of Instrument Access Program at the Center of Innovation for Flow Through Porous Media

**Tuesday | November 19, 2024 | 3:00 - 4:30 PM**

Please RSVP to [coifpm-business@uwyo.edu](mailto:coifpm-business@uwyo.edu)





**AGENDA ITEM TITLE: Family Medicine Residency Program Annual Report, Hilaire**



**UNIVERSITY OF WYOMING  
ANNUAL INSTITUTIONAL REVIEW EXECUTIVE SUMMARY  
2023-2024**

**Institution:** The Institution continues to maintain Continued Accreditation, the highest level of accreditation by the Accreditation Council for Graduate Medical Education (ACGME), without any citations or areas for improvement. Additionally, the ACGME required self-study was completed in October 2023, with the 10-year accreditation site visit tentatively scheduled for October 2025.

The ACGME will be conducting a Clinical Learning Environment Review (CLER) visit on June 11–12, 2024 of the Casper EHCW, where the majority of our residents rotate. This is not an accreditation visit, but a review to provide feedback on patient safety, health care quality, teaming, supervision, well-being, and professionalism. A report will be received which will provide the clinic areas of improvement to advance the learning environment for the residents and fellow.

Meetings are underway to move forward and discuss a new sponsoring institution model with the four consortium partners (UW, EHCW, Banner-WMC, and CRMC). Application submission to the ACGME is planned for October 2024 for the consortium sponsoring institution model. With the consortium sponsorship completely finalized and in place before the start of AY2025.

**Cheyenne:** The Cheyenne Family Medicine residency program received Continued Accreditation with no citations or areas for improvement.

Resident attrition was an area of concern for the program this past year. The program had had two (2) residents leave the program due to professionalism issues. The program also faced a challenging match this year with only 3 of the 6 positions initially filled. However, through the SOAP process the program was able to successfully fill all positions for the class beginning July 2024. The program is looking to modify their recruitment efforts and strategy moving forward.

The results of the ACGME resident survey showed the program at or above the national Family Medicine specialty average in 6 of the 8 domains. The program did fall below the FM specialty average in Patient Safety and Teamwork, Educational Content, and Diversity and Inclusion. The program has implemented corrective actions to improve the results in the areas of concern and presented the plan at the May 2024 GMEC meeting.

The program is recognized for having a fully engaged faculty contingency. They have successfully recruited additional faculty and meet the ACGME requirements for the number of core faculty per resident ratio.

**Casper:** The Casper Family Medicine residency program received Continued Accreditation with no citations or areas for improvement. Of note, the Casper Family Medicine program had all previous citations from their last letter of notification resolved.

The program is still facing the challenges of faculty attrition and adequate coverage. Dr. Miller is leaving to pursue a fellowship in June 2024. Dr. Works helps on a part-time basis but is not available for relatively long stretches of time. Dr. Karnes plans to return to 0.6 FTE in the fall with the arrival of Dr. Stanco to the faculty team. However, this still leaves the Casper faculty team short, especially in terms of Obstetrics coverage.

The results of the ACGME resident survey showed the program at or above the national Family Medicine specialty average in 5 of the 8 domains. The program fell slightly below the FM specialty average in Professionalism, Faculty Teaching and Supervision, and Clinical Experience and Education. This may be a result of the attrition in faculty numbers and the strain it is placing on the faculty at this time. Overall, the results of the survey were compliant and an improvement from the previous year.

The program had a very successful 2024 Match. They implemented a new approach to recruitment, increased engagement, and increased investment and adjustment to student rotations which resulted in matching a full class of candidates to begin in July 2024.



**Osteopathic Recognition Track – Casper:** The Osteopathic Recognition Track received Continued Accreditation with no citations or areas for improvement. Of note, the track did resolve the previous citations from their last letter of notification.

**Geriatric Medicine Fellowship – Casper:** The Geriatric Medicine fellowship received Continued Accreditation with no citations or areas for improvement. The program was awarded the GWEP Grant to assist with funding for the program. Dr. Stanco will graduate from the fellowship program and join the faculty.

**Thermopolis Rural Training Track (RTT) – Casper/Thermopolis:** The Rural Training Track program in Thermopolis continues to maintain Continued Accreditation with Outcomes with no citations or areas for improvement. The Title VII grant is expected to end in June of 2025. Moving forward, clinical income cost report adjustments, and FQHC GME funding will be utilized at the core and rural sites for ongoing financial support.

#### **Highlighted Achievements in 2023-2024**

- Started the development of a GME Department with the hiring of a GME Institutional Coordinator in December 2023.
- Developed an Institutional Resident/Fellow Forum to comply with ACGME accreditation requirements to allow residents/fellows the opportunity to convene in safe and confidential manner to openly discuss information about their work environment and in seeking proposed solutions.
- Received formal approval for the development of the consortium sponsoring institution model from the UW Board and started the process of meeting with constituents.

#### **Highlighted Action Plans for 2024-2025**


- Complete and receive ACGME approval for the consortium sponsoring institution model.
- Recruit a GME Business Manager and an Associate DIO to join the GME Department.
- Development of an improved anonymous feedback mechanism for residents and/or faculty to report any issues or concerns to the GME Office.
- Develop an Institutional Curriculum highlighting Faculty and Resident wellness, mentorship, and development.


**Summary:** Graduate Medical Education at the University of Wyoming continues to be robust. Financial constraints have not prevented our programs from prospering. Through strategic prioritization and operational efficiencies, we have maintained a strong learning environment.

The development of the new physician assistant program has required us to re-evaluate our resources to ensure we can continue delivering a high-quality, practice-based education for all our learners. Even as the University expands programs, we remain firmly committed to upholding the highest standards of excellence that have been our hallmark.

While we've faced some challenges, we are optimistic that our new consortium model will help establish a sustainable foundation to not only maintain, but elevate, our programs to new heights of excellence. Through the shared resources, expertise, and commitment of our partnering institutions, we anticipate achieving greater stability and access to the personnel, facilities, and instructional support needed to truly set the bar for outstanding clinical education experiences.

Finally, we take great pride in preparing highly skilled graduates who then choose to establish their careers here in Wyoming. By retaining this homegrown talent, we are actively strengthening the local healthcare workforce and enhancing the quality of care available to our communities. The continued influx of our programs' graduates into practice settings across the state ensures community residents have access to knowledgeable, locally-trained professionals deeply committed to improving health outcomes. This cycle of developing and retaining top clinical providers allows us to elevate the standard of care while also stimulating economic growth within Wyoming.

 10/4/24  
Beth Robitaille, MD  
Designated Institutional Official  
Chair, Graduate Medical Education  
University of Wyoming

 10/7/24  
Michelle Hilaire, PharmD  
Interim Dean, College of Health Sciences  
University of Wyoming

**AGENDA ITEM TITLE: Service Contract and Procurement Reports, Evans**



UW Regulation 7-2 (Signature Authority) Contracts Board Report - August 16, 2024 - October 15, 2024

Contract Number	Contract Name	Contract Type	Department	Supplier	Signed Date	Agreed Amount	Signer
32001-DanielsLaw-Aug2023	Daniels Law LLC	Services Contract	ASUW	Daniels Law LLC	2024-08-29	66,000.00	Kimberly Steich, VP for Student Affairs
22111-CoastProfessionals-Sep2024	Agreement - Coast Professionals Inc	Services Contract	Budget & Institutional Planning	Coast Professional Inc	2024-09-23	400,000.00	Alexander Kean, Vice President, Budget & Finance
22111-Conserve-Sep2024	Agreement - Collection Services	Services Contract	Budget & Institutional Planning	Conserve	2024-09-23	400,000.00	Alexander Kean, Vice President, Budget & Finance
22111-Williams&Fudge-Sep2024	Williams & Fudge General Services Agreement	Services Contract	Budget & Institutional Planning	Williams & Fudge Inc	2024-09-24	400,000.00	Alexander Kean, Vice President, Budget & Finance
15001-SummitSearch-Aug2024	Summit Search	Services Contract	College of Education	Summit Search Solutions Inc	2024-08-30	53,250.00	Tami Benham-Deal, Acting Provost/Professor
16101Avcon22024	Avcon Equipment Design	Services Contract	College of Engineering & Applied Science	Avcon Industries Inc	2024-08-22	90,400.00	Cameron Wright, Dean/Professor
16103-AFP Technology-Aug2024	Service Agreement	Services Contract	College of Engineering & Applied Science	AFP Technology	2024-08-19	413,334.00	Cameron Wright, Dean/Professor
16204-Eppendorf-August 2024	Quotation	Services Contract	College of Engineering & Applied Science	Eppendorf North America, Inc.	2024-08-22	55,188.22	Cameron Wright, Dean/Professor
17011-ACSD1-Aug2024	17011-ACSD1-Aug2024	Services Contract	College of Health Sciences	Albany County School District #1, Wyoming	2024-08-22	64,400.00	Michelle Hilaire, Interim Dean/Clinical Professor
17104340BasicsDEC2018	Amendment No. 3 Agreement for Services	Services Contract	College of Health Sciences	340 Basics	2024-08-16	900,000.00	Michelle Hilaire, Interim Dean/Clinical Professor
17107_Facktor_OSV Pre_08062024	Facktor Consulting OSV Prep	Services Contract	College of Health Sciences	Facktor	2024-09-06	55,575.00	Michelle Hilaire, Interim Dean/Clinical Professor
11001_RedLeafEnergy_May2024	11001_RedLeafEnergy_May2024	Services Contract	Enhanced Oil Recovery Institute	Red Leaf Energy	2024-10-03	325,000.00	Holly Krutka, Executive Director
11001_SunshineValley_Sept2024	11001_SunshineValley_Sept2024	Services Contract	Enhanced Oil Recovery Institute	Sunshine Valley Petroleum Corp	2024-09-20	125,000.00	Holly Krutka, Executive Director
11001_TROperating_Oct2024	11001_TROperating_Oct2024	Services Contract	Enhanced Oil Recovery Institute	TR Operating, LLC	2024-10-10	163,000.00	Holly Krutka, Executive Director
40002 LINX, Animal Science, August 2024	Animal Science 103 AV	Services Contract	Information Technology	LINX Multimedia	2024-08-26	99,048.85	Robert Aylward, Vice President
40002_AVISPL_AV_Upgrades_Oct2024	Fall 2024 AV Upgrades	Services Contract	Information Technology	AVI-SPL LLC	2024-10-04	382,062.24	Robert Aylward, Vice President
40003 Ellucian, Intelligent Learning Platform, September 2024	Renewal Number: 00130573.0	Services Contract	Information Technology	Ellucian Company L.P.	2024-09-09	125,164.00	Robert Aylward, Vice President
61002AllOverMediaAug2024	Advertising Contract- AllOverMedia	Services Contract	Institutional Marketing	AllOver Media, LLC	2024-09-03	92,750.00	Chad Baldwin, Assoc VP, Comm&Mkting
61002DilleyPrintingAug2024	Agreement for Svc.-Dilley Printing	Services Contract	Institutional Marketing	Dilley Printing	2024-08-23	100,000.00	Chad Baldwin, Assoc VP, Comm&Mkting
90202 UTEP June 2021	Football Agreement	Services Contract	Intercollegiate Athletics	The University of Texas, El Paso	2024-10-08	250,000.00	Matthew Whisenant, Deputy Director
90202-Arrow Stage Lines-Aug2024	Charter Bus Acceptances	Services Contract	Intercollegiate Athletics	Arrow Stage Lines	2024-08-20	53,676.00	Samuel Brodie, Assoc AD/Budgeting & Fin Mgmt
90202-STM Driven-Aug2024	Charter Bus Confirmations	Services Contract	Intercollegiate Athletics	STM Ground, Inc.	2024-08-20	82,600.00	Samuel Brodie, Assoc AD/Budgeting & Fin Mgmt
10041SuitableAugust2024	MeshNet, Inc. Extension	Services Contract	Provost	Meshnet Licensing Inc tm Suitable	2024-08-29	52,500.00	Robert Aylward, Vice President
10101-ParchmentInc-Jan2021	Parchment Credential Services	Services Contract	Provost	Parchment Inc	2024-10-14	136,912.50	Tami Benham-Deal, Acting Provost/Professor
10502 - Piri Technologies (CO2 Sequestration) - July 2024	HESS CO2 Sequestration	Services Contract	Research & Economic Development	Piri Technologies LLC	2024-08-21	935,000.00	Parag Chitnis, Vice President/Professor, Research & Economic Development
10502 - Piri Technologies (Hess Bakken IV) - July 2024	Hess Bakken IV	Services Contract	Research & Economic Development	Piri Technologies LLC	2024-08-30	1,759,000.00	Ed Seidel, President
70001-TechnicalSafetyServices-April2021	Technical Safety Services, Inc. (TSS)	Services Contract	Research & Economic Development	Technical Safety Services	2024-08-27	85,000.00	Parag Chitnis, Vice President/Professor, Research & Economic Development
70013-OfficeScapes-Aug2024	University of Wyoming - Science Initiative Add Ons - Alternates	Services Contract	Research & Economic Development	OfficeScapes of Denver LLC dba Slate	2024-08-28	98,061.64	Alexander Kean, Vice President, Budget & Finance
33011 - Niko Sushi - 0323	Agreement with Niko Sushi	Services Contract	Residence Life Dining	Niko Sushi & Steak	2024-08-28	250,000.00	Alexander Kean, Vice President, Budget & Finance
10501-Milwaukee Cylinder-August 2024	Test Stand Sale Agreement	Services Contract	School of Energy Resources	Milwaukee Cylinder Enterprises, LLC	2024-08-21	97,721.50	Holly Krutka, Executive Director
10501-TA Instruments, Waters-Aug2024	Univ of WY TGA 5500 Sept2024	Services Contract	School of Energy Resources	TA Instruments Inc	2024-09-13	87,204.00	Holly Krutka, Executive Director
10501-TriHydro_Dec2022	Agreement for Services Btwn UW & TriHydro Corp.Amendment No.3	Services Contract	School of Energy Resources	TriHydro Corp	2024-10-02	349,641.00	Holly Krutka, Executive Director
19002-The Company of Biologists-Aug2024	READ AND PUBLISH LICENCE AGREEMENT	Services Contract	University Libraries	The Company of Biologists Limited	2024-08-29	60,308.00	Cassandra Kvenild, Dean/Librarian ETT
26001AMGElectricAug2024RedButtesGeneratorReplacement	Agreement Between Owner & Contractor	Services Contract	University Operations	AMG Electric, LLC	2024-08-19	86,935.00	William Mai, Vice President, Campus Operations
26001AssetWorksIncSept2024AnnualProgramSupport	Annual Program Support	Services Contract	University Operations	AssetWorks LLC	2024-09-20	177,738.77	Robert Aylward, Vice President
26001ColoradoHazardControlSept20242024HazardousMaterialsRemediationServices	Agreement for Services	Services Contract	University Operations	Colorado Hazard Control LLC	2024-08-27	1,750,000.00	William Mai, Vice President, Campus Operations
26001EJServicesAug2024CollegeofBusinessDean'sOfficeRemodel	Agreement Between Owner & Contractor	Services Contract	University Operations	EJ Services LLC	2024-08-29	333,524.14	William Mai, Vice President, Campus Operations
26001EJServicesSept2024MountainViewMedicalPark1stFloorNorthRenovation	Agreement Between Owner & Contractor	Services Contract	University Operations	EJ Services LLC	2024-10-07	167,644.54	William Mai, Vice President, Campus Operations
26001GHPhippsSept2024CO1CasperFamilyMedicineClinicRenovations	Change Order No. 1	Services Contract	University Operations	GH Phipps Construction of Wyoming	2024-09-19	356,989.20	William Mai, Vice President, Campus Operations
26001LandmarkEnvironmentalOct2024FY25IndustrialHygieneServices(Consultant)	Consultant Agreement	Services Contract	University Operations	Landmark Environmental Inc	2024-08-20	450,000.00	William Mai, Vice President, Campus Operations
26001LegendsTransportationLLCJuly2024FY25FuelSupplyforCEP	Agreement Between Owner and Supplier	Services Contract	University Operations	Legends Transportation	2024-09-09	1,000,000.00	William Mai, Vice President, Campus Operations
26001NinoandMooreOct2024FY25IndustrialHygieneServices	Consultant Agreement	Services Contract	University Operations	Ninyo & Moore	2024-09-27	450,000.00	William Mai, Vice President, Campus Operations
26001RiskRemovalSept2024FY25HazardousMaterialsRemediationServices	Agreement for Services	Services Contract	University Operations	Risk Removal	2024-08-29	1,750,000.00	William Mai, Vice President, Campus Operations
26001TerraconConsultantsJuly2024FY25IndustrialHygieneServices	Consultant Agreement	Services Contract	University Operations	Terracon Consultants, Inc.	2024-08-20	450,000.00	William Mai, Vice President, Campus Operations

UW Regulation 7-2 (Signature Authority) Procurement Board Report - August 16, 2024 - October 15, 2024

PO Date	Supplier Name	Line #	Description	Quantity	Line Unit Price	Total Line Price	Total PO Amount	Department	Last Approver	Last Approver Title	Approval Date
08/16/2024	Campbell Scientific Inc	1	Integrated CO2/H2O Open-Path Gas Analyzer	1	29,474.93	29,474.93		EPSCoR/IDEA Office	Miller, Jamison	Dir, Business Operations	08/15/2024
08/16/2024	Campbell Scientific Inc	2	Integrated CO2/H2O Open-Path Gas Analyzer	1	29,474.93	29,474.93	<b>58,949.86</b>	EPSCoR/IDEA Office	Miller, Jamison	Dir, Business Operations	08/15/2024
08/19/2024	Straight Flight Inc	1	Straight Flight will complete a Phase 3 & Phase 4 inspection on the Transportation aircraft from 8/14-12/31/2024.	1	55,000.00	55,000.00	<b>55,000.00</b>	Business Enterprises	Greenawalt, Kaylyn	Director, Shared Business Serv	08/19/2024
08/19/2024	AFP Technology	2	DataBurst enables systems equipped with InView software and InQuest controller to record displacement data at rates up to 100 kHz for measuring high strain step loads, pop-in events and other high speed events	1	35,000.00	35,000.00		Engineering & Physical Sciences Deans Office	Wright, Cameron	Dean/Professor	08/19/2024
08/19/2024	AFP Technology	1	NanoIndentoer 6200X System-Warranty of Shipping and Insurance; Installation and Commissioning of equipment; Freight	1	378,334.00	378,334.00	<b>413,334.00</b>	Engineering & Physical Sciences Deans Office	Wright, Cameron	Dean/Professor	08/19/2024
08/19/2024	Northern Wyoming Community College District	1	SHERIDAN WATT AGRICULTURAL CENTER BUILDING SITE - ANNUAL GROUND RENT	1	123,783.03	123,783.03	<b>123,783.03</b>	Real Estate Operations	Samp, Michael	Assoc VP for Univ Operations	08/19/2024
08/19/2024	Laramie County Community College	1	LCCC PATHFINDER BUILDING - FY25 LEASE OF OFFICES AND CLASSROOMS ON THE 4TH FLOOR OF THE LCCC PATHFINDER BUILDING.	1	58,297.05	58,297.05	<b>58,297.05</b>	Real Estate Operations	Bryant, Darcy	Deputy Director, Business Serv	08/19/2024
08/19/2024	Gallagher Student Health & Special Risk	1	ICS Basic Insurance Premium Invoice 5203727	1	453,000.00	453,000.00		Risk Management Office	Evans, Teresa	Vice President & General Counsel	08/19/2024
08/19/2024	Gallagher Student Health & Special Risk	2	Cheer CAT Premium - Invoice 4763952	1	2,416.00	2,416.00	<b>455,416.00</b>	Office of the President	Evans, Teresa	Vice President & General Counsel	08/19/2024
08/20/2024	AVI-SPL LLC	1	AVI SPL BU 057 Auditorium AV installation	1	66,976.74	66,976.74		Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	08/20/2024
08/20/2024	AVI-SPL LLC	2	Installation AVI SPL BU Auditorium	1	32,953.88	32,953.88	<b>99,930.62</b>	Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	08/20/2024
08/21/2024	Communication Technologies Inc	1	Installation and parts for radio communication system for Transportation Services.	1	14,274.19	14,274.19		Transportation Services	Kunkel, Paul	Director, Transportation Services	08/21/2024
08/21/2024	Communication Technologies Inc	1	Installation and parts for radio communication system for Transportation Services.	1	11,960.14	11,960.14		Transportation Services	Kunkel, Paul	Director, Transportation Services	08/21/2024
08/21/2024	Communication Technologies Inc	1	Installation and parts for radio communication system for Transportation Services.	1	57,096.76	57,096.76	<b>91,057.87</b>	Transportation Services	Kunkel, Paul	Director, Transportation Services	08/21/2024
08/23/2024	Digital Pore Solutions, LLC	1	HESS GOM-DRT Project. Statement of work is confidential.	1	955,000.00	955,000.00	<b>955,000.00</b>	Center of Innovation for Flow through Porous Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	08/23/2024
08/26/2024	Douglas Budget	1	FY25 Branding Iron Publication Printing	1	60,000.00	60,000.00	<b>60,000.00</b>	Student Media	Steich, Kimberly	VP for Student Affairs	08/26/2024
08/27/2024	CDW Government, Inc.	1	JUNIPER CUSTOM JCARE HW SUP RNW	1	55,717.20	55,717.20	<b>55,717.20</b>	Enterprise Infrastructure	Christensen, Margaux	Exec Administrator, IT Business Services	08/27/2024
08/27/2024	Colorado State University	1	Lab service agreement with CSU Vet Lab	1	0.00	0.00		Wyo Natural Diversity Database	Roller, Sandra	Assistant Director, Business Operations	08/27/2024
08/27/2024	Colorado State University	1	Lab service agreement with CSU Vet Lab	1	10,766.37	10,766.37	<b>50,000.00</b>	Wyo Natural Diversity Database	Roller, Sandra	Assistant Director, Business Operations	08/27/2024
08/27/2024	Leachman Cattle of Colorado LLC	1	Feed and care of Steers for Cowboy Joe Club Steer A Year Program (SAY-8104-4650). Feed services for 8/01/2024 - 7/31/2025	1	165,000.00	165,000.00	<b>165,000.00</b>	Cowboy Joe Club	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	08/27/2024
08/28/2024	CliftonLarsonAllen	1	Compliance Assessment and ongoing tax consulting for the five-year period ending 12/31/28 not to exceed \$97,650.	1	97,650.00	97,650.00	<b>97,650.00</b>	Accounting Office	Keller, Timothy	University Controller, Sr. Director for Financial Affairs	08/28/2024
08/28/2024	Telonics	1	TGW-4277-5 GPS/Iridium instrumentation with cast-4 for Lynx	24	1,935.00	46,440.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	08/28/2024
08/28/2024	Telonics	3	Shipping	1	132.00	132.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	08/28/2024
08/28/2024	Telonics	2	CR-6 Collar release mechanism	24	395.00	9,480.00	<b>56,052.00</b>	Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	08/28/2024
08/30/2024	Wyoming Machinery Company	1	MODEL 246D3 COMPACT CONSTRUCTION EQUIPMENT (SKIDSTEER) WITH ALL STANDARD EQUIPMENT AND ADDITIONAL SPECIFICATIONS. WARRANTY PER QUOTE	1	68,780.00	68,780.00	<b>68,780.00</b>	Office of the President	Legg, Jerrod	Business Operations Mgr, Office of the President & General Counsel	08/30/2024
09/03/2024	ALLIED UNIVERSAL EVENT SERVICES	1	Allied Universal Staffing Services for 2024-2025 Athletics Events (amount based on 2023-2024 actuals with rate adjustment per new contract)	1	350,000.00	350,000.00	<b>350,000.00</b>	Game Management	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	09/03/2024
09/05/2024	Summit Search Solutions Inc	1	WY Excellence Chair search	1	50,000.00	50,000.00	<b>50,000.00</b>	Provosts Office	Stark, Stephanie	Dir, Business Operations	09/05/2024
09/06/2024	Piri Technologies LLC	1	HESS CO2 Sequestration Project. Statement of work is confidential.	1	935,000.00	935,000.00	<b>935,000.00</b>	Center of Innovation for Flow through Porous Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/06/2024
09/06/2024	Piri Technologies LLC	1	Hess-Bakken IV Technical Services Project. Statement of work is confidential.	1	1,759,000.00	1,759,000.00	<b>1,759,000.00</b>	Center of Innovation for Flow through Porous Media	Seidel,Ed	President	09/06/2024
09/09/2024	Troxell Communications Inc	1	Bluum AV Equipment SI 4030 WO# 225071-001	1	51,383.76	51,383.76	<b>51,383.76</b>	Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	09/09/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	14	small 3-shelf bookcase	1	148.42	148.42		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	15	ergohuman chairs	4	657.98	2,631.92		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	13	work table	1	315.40	315.40		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	12	storage cabinet	1	1,712.64	1,712.64		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	11	round table	1	414.27	414.27		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	10	printer stands	1	842.70	842.70		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	9	cubicle dividers for level 4 - small	6	1,565.17	9,391.02		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	8	cubicle dividers for level 4 - medium	6	1,535.39	9,212.34		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	7	cubicle dividers for level 4 - large	2	1,535.39	3,070.78		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	6	cubicle dividers for level 3 - small	6	1,565.17	9,391.02		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	5	cubicle dividers for level 3 - medium	6	1,535.39	9,212.34		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	4	cubicle dividers for level 3 - large	2	1,535.39	3,070.78		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	3	cubicle desks	20	813.52	16,270.40		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	2	conference room - chairs	51	277.08	14,131.08		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	1	Conference room - large table	2	2,982.85	5,965.70		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	17	estimated install/services and freight	1	8,557.47	8,557.47		Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	OfficeScapes of Denver LLC dba Slate	16	foundation tapered drum base table	2	1,861.68	3,723.36	<b>98,061.64</b>	Science Institute	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	3	M-10 SEALED MICROPLATE BUCKETS	1	0.01	0.01		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	1	SORVST8TC4X50 PKG	1	5,117.65	5,117.65		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	2	M10 SWINGING BUCKET ROTOR	1	1,496.47	1,496.47		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	4	1300 A2 SS 1.5 10 120V CONV PM	1	10,764.00	10,764.00		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	5	ULT FZ TSX40086FA GP UNIV VOLT	1	11,400.00	11,400.00		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024

09/10/2024	Fisher Scientific	6	RACK KIT 20 CU FT 4 DR 400	1	0.01	0.01		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	7	LIGHT BAR ACC TSX400/500	1	0.01	0.01		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	8	FBG FRZ 25 PNT SST 115V/60HZ	1	5,697.07	5,697.07		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	9	FBG REF 23 GLASS 115V/60HZ	1	4,490.49	4,490.49		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	10	PACIFIC TII 7 UV	1	7,646.34	7,646.34		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	11	PRE-TREATMENT FOR SMART2PURE	1	1,173.78	1,173.78		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	12	REMOTE DISPENSER	1	858.82	858.82		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	13	PURE WATER TANK 30L UP/UPW WIT	1	1,488.24	1,488.24		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	14	STERILE OVERFLOW FOR RESERVOIR	1	186.28	186.28		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	15	CO2 ADSORBER FOR TANK	1	0.01	0.01		VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Fisher Scientific	16	WALL BRACKET FOR 30L TANK	1	0.01	0.01	50,319.19	VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/10/2024	Polytec inc.	1	VibroFlex Meter	1	61,450.00	61,450.00	61,450.00	VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/10/2024
09/11/2024	Creighton University	1	2024-2025 cost of attendance for Wyoming students to attend the University of Creighton	1	623,076.00	623,076.00	623,076.00	WyDENT	Carman, Kevin	Exec Vice President for Academic Affairs & Provost/Professor	09/11/2024
09/11/2024	Reserve Account	1	RESERVE POSTAGE FOR POSTAL METER MACHINES. THIS POSTAGE WILL BE USED BY UW DEPARTMENTS.	1	80,000.00	80,000.00	80,000.00	Postal Services	Bryant, Darcy	Deputy Director, Business Serv	09/11/2024
09/12/2024	Marsh USA, Inc.	1	UW Property Insurance Renewal 7/1/24 - 7/1/25 WIRE TRANSFER Risk Management Approved	1	3,616,409.97	3,616,409.97	3,616,409.97	Risk Management Office	Seidel, Ed	President	09/12/2024*
09/12/2024	Marsh USA, Inc.	1	Fine Arts & Collectables Insurance Renewal 7/1/24 - 7/1/25 WIRE TRANSFER Risk Management Approved	1	182,069.99	182,069.99	182,069.99	Risk Management Office	Evans, Teresa	Vice President & General Counsel	09/12/2024
09/13/2024	Summit Search Solutions Inc	1	Chief Information Officer Comprehensive Search	1	66,500.00	66,500.00	66,500.00	Office of the CIO	Christensen, Margaux	Exec Administrator, IT Business Services	09/13/2024
09/13/2024	AMG Electric, LLC	1	Red Buttes generator replacement	1	86,935.00	86,935.00	86,935.00	Facilities Management	Bryant, Darcy	Deputy Director, Business Serv	09/11/2024
09/16/2024	Beck Total Office Interiors	2	Furniture for the College of Business Dean's Office remodel.	1	63,759.84	63,759.84		College of Business Deans Office	Tyrrell, Geoff	Business Manager, Executive	09/16/2024
09/16/2024	Beck Total Office Interiors	1	Conference table for Dean Office remodel.	1	11,528.42	11,528.42	75,288.26	College of Business Deans Office	Tyrrell, Geoff	Business Manager, Executive	09/16/2024
09/16/2024	Source Office Products	1	Furniture for Law Library, upstairs. Trustees did not like what we have. Two quotes attached.	1	50,797.75	50,797.75	50,797.75	Law Library	Kempert, Laurie	Business Manager, Executive	09/16/2024
09/16/2024	EJ Services LLC	1	College of Business Dean's Office Remodel	1	333,524.14	333,524.14	333,524.14	Facilities Engineering	Samp, Michael	Assoc VP for Univ Operations	09/16/2024
09/17/2024	Facktor	1	OSV Prep	1	25,008.75	25,008.75		Family Medicine Residency Programs Casper	Smoli, Thomas	Executive Director, Educational Health Ctr of Wyo (CEO)	09/16/2024
09/17/2024	Facktor	1	OSV Prep	1	11,115.00	11,115.00		Albany Community Health Clinic	Smoli, Thomas	Executive Director, Educational Health Ctr of Wyo (CEO)	09/16/2024
09/17/2024	Facktor	1	OSV Prep	1	19,451.25	19,451.25	55,575.00	Family Medicine Residency Programs Cheyenne	Smoli, Thomas	Executive Director, Educational Health Ctr of Wyo (CEO)	09/16/2024
09/17/2024	Altitude Chophouse & Brewery	1	Fall 2024 Wildcatter Catering for 6 home football games. Estimating \$28,000/game.	1	180,000.00	180,000.00	180,000.00	Cowboy Joe Club	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	09/17/2024
09/18/2024	Cintas Corp.	1	"Estimated expenses based on FY24 Athletics expenditures with Cintas. Custodial, janitorial, paper goods, and misc. supplies for Athletics Facility venues ongoing. Based on overall University of Wyoming Cintas Agreement."	30	2,000.00	60,000.00	60,000.00	Athletics Facilities	Freeman, Samantha	Asst AD/Budgeting & Fin Mgmt	09/11/2024
09/18/2024	National Public Radio	1	Program Fee: Core Fee including Morning Edition	1	261,126.12	261,126.12		Wyoming Public Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/18/2024
09/18/2024	National Public Radio	2	Program Fee: NPR, Fresh Air	1	9,596.70	9,596.70		Wyoming Public Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/18/2024
09/18/2024	National Public Radio	3	Program Fee: NPR, Here & Now	1	12,379.50	12,379.50		Wyoming Public Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/18/2024
09/18/2024	National Public Radio	5	Program Fee: NPR, Wait Wait...Don't Tell Me	1	12,816.00	12,816.00		Wyoming Public Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/18/2024
09/18/2024	National Public Radio	4	Program Fee: TED Radio Hour	1	2,730.50	2,730.50	298,648.82	Wyoming Public Media	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/18/2024
09/19/2024	TA Instruments Inc	2	Maintenance contract. Line 1.4 on quote.	1	4,200.00	4,200.00		School of Energy Resources Directors Office	Vogt, Francis	Business Manager	09/19/2024
09/19/2024	TA Instruments Inc	1	Discovery TGA 5500 from TA Instruments for Caleb Hill's Chemistry Core Lab. Please add this capital asset to SER's capital asset inventory.	1	83,004.00	83,004.00	87,204.00	School of Energy Resources Directors Office	Vogt, Francis	Business Manager	09/19/2024
09/19/2024	Hydrocarbon InSight LLC	1	Hydrocarbon InSight - Contract Geology for Teton East	60000	1.00	60,000.00	60,000.00	Enhanced Oil Recovery Institute	Hillibush, Roger	Deputy Director, EORI	09/19/2024
09/19/2024	LINX Multimedia	2	Panasonic TH-86EQ2W 86" 4K UHD, 500cd/m2, SDM, LED LCD Display	1	5,987.06	5,987.06		Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	09/19/2024
09/19/2024	LINX Multimedia	1	Panasonic PT-MZ11KLWU7 WO 223110-001	1	10,425.00	10,425.00		Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	09/19/2024
09/19/2024	LINX Multimedia	3	AV equipment Animal Science 103 WO 223110-001	1	76,685.73	76,685.73		Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	09/19/2024
09/19/2024	LINX Multimedia	4	Panasonic TH-86EQ2W 86" 4K UHD, 500cd/m2, SDM, LED LCD Display	1	5,987.06	5,987.06	99,084.85	Facilities Engineering	Bryant, Darcy	Deputy Director, Business Serv	09/19/2024
09/19/2024	Legends Transportation	1	FY25 - DELIVER 1/4" TO 2" STOKER COAL TO CEP	1	930,000.00	930,000.00		Utilities Management	Mai, William	Vice President, Campus Operations	09/19/2024
09/19/2024	Legends Transportation	2	FY25 - FUEL SURCHARGE	1	60,000.00	60,000.00		Utilities Management	Mai, William	Vice President, Campus Operations	09/19/2024
09/19/2024	Legends Transportation	3	FY25 - DELIVER ASH TO TORRINGTON (EMERGENCY CONDITION)	1	9,500.00	9,500.00	999,500.00	Utilities Management	Mai, William	Vice President, Campus Operations	09/19/2024
09/19/2024	University Corporation for Atmospheric Research	1	15th Installment of NCAR Support per agreement (15 of 20 Payments)	1	1,000,000.00	1,000,000.00	1,000,000.00	NWSC Innovation Center	Seidel, Ed	President	09/19/2024
09/20/2024	Redmaya Films	1	Production of film series for Wyoming Men's Basketball per agreement	1	9,650.00	9,650.00		Cowboy Joe Club	Whisenant, Matthew	Deputy Director	09/20/2024
09/20/2024	Redmaya Films	1	Production of film series for Wyoming Men's Basketball per agreement	1	40,350.00	40,350.00	50,000.00	Cowboy Joe Club	Whisenant, Matthew	Deputy Director	09/20/2024
09/23/2024	Shimadzu Scientific Instruments Inc	2	LC-40B XR UHPLC Binary Pump & Accessories; LCMS-2050 Single Quadrupole Detector & Accessories	1	179,726.78	179,726.78		VP for Research & Economic Development Office	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/23/2024
09/23/2024	Shimadzu Scientific Instruments Inc	1	Biospec-Nano & Accessories	1	10,254.18	10,254.18	189,980.96	VP for Research & Economic Development Office	Chitnis, Parag	Vice President/Professor, Research & Economic Development	09/23/2024
09/23/2024	Western Ecosystems Technology, Inc.	2	Consultation	1	26,500.00	26,500.00		Ecosystem Science & Management	Boyles, Victoria	Dir, Business Operations	09/23/2024
09/23/2024	Western Ecosystems Technology, Inc.	1	Consultation	1	25,000.00	25,000.00	51,500.00	Ecosystem Science & Management	Boyles, Victoria	Dir, Business Operations	09/23/2024
09/23/2024	Barcelona SAE, Inc.	1	MBA International study abroad program expenses for trip to Barcelona & Madrid, Spain 1/6 to 1/13/2025. Details of expenses are included on Exhibit A of the attached approved contract	1	125,000.00	125,000.00	125,000.00	MBA & Professional Graduate Programs	Tyrrell, Geoff	Business Manager, Executive	09/23/2024



09/24/2024	Chandler Engineering Company LLC	4	USB EXPANDER/ISOLATOR W/ 3M USB CABLE Part #: QC-A-1222-01	1	420.15	420.15		Center of Innovation for Flow through Porous Media	Seidel, Ed	President	09/24/2024
09/24/2024	Chandler Engineering Company LLC	3	Assy, CMD, ASSY, CMD, RECIRC, 7- 5.0 Cyl Recirc, 7-Cyl Part #: O5-A-1124	5	1,599.75	7,998.75		Center of Innovation for Flow through Porous Media	Seidel, Ed	President	09/24/2024
09/24/2024	Chandler Engineering Company LLC	2	Dual 6000-series pump module, 10,000 psi, Hastelloy C-276 wetted parts, high temperature to 165°C, CO2 Compatible. Part #: O6210-HC-H-DH-CO2	5	122,152.50	610,762.50		Center of Innovation for Flow through Porous Media	Seidel, Ed	President	09/24/2024
09/24/2024	Chandler Engineering Company LLC	1	Dual cylinder Q5210, 10,000 psi, Hastelloy C-276 wetted parts, high temperature operation to 165 C°. Compatible with CO2. Part #: O5210-HC-H-AH-CO2	20	60,300.00	1,206,000.00	<b>1,825,181.40</b>	Center of Innovation for Flow through Porous Media	Seidel, Ed	President	09/24/2024
09/24/2024	GenScript USA Inc	1	L00847-A Name: SARS-CoV-2 Surrogate Virus Neutralization Test Kit; Qty: 100; Catalog No: L00847-A; Size: 96.0Tests	100	700.00	70,000.00		Animal Science	Bisha, Bledar	Department Head/Assoc Prof	09/23/2024
09/24/2024	GenScript USA Inc	2	L00847-A Name: SARS-CoV-2 Surrogate Virus Neutralization Test Kit; Qty: 100; Catalog No: L00847-A; Size: 96.0Tests	1	375.00	375.00	<b>70,375.00</b>	Animal Science	Bisha, Bledar		09/23/2024
09/25/2024	PowerSchool Group LLC	2	Year 2 Intersect platform to source prospective student names for recruitment	1	30,918.00	30,918.00		Admissions	Frank, Cheri	Assistant Director, Business Operations	09/25/2024
09/25/2024	PowerSchool Group LLC	1	Year 1 - Intersect platform for access to prospective students for recruitment	1	30,918.00	30,918.00		Admissions	Frank, Cheri	Assistant Director, Business Operations	09/25/2024
09/25/2024	PowerSchool Group LLC	3	Year 3 - Intersect by Powerschool platform - source of prospective student names for recruitment	1	30,918.00	30,918.00	<b>92,754.00</b>	Admissions	Frank, Cheri	Assistant Director, Business Operations	09/25/2024
09/26/2024	Niche.com, Inc.	1	Digital marketing and recruitment of transfer students through Niche.com. Continuation of current contract includes triggered emails, remarketing with search, premium profile, market intelligence report, custom prospect subscription, etc	1	93,750.00	93,750.00	<b>93,750.00</b>	Admissions	Stark, Stephanie	Dir, Business Operations	09/26/2024
09/27/2024	American Public Media	3	C/24 Weekdays	1	7,516.00	7,516.00		Wyoming Public Media	Miller, Jamison	Dir, Business Operations	09/27/2024
09/27/2024	American Public Media	1	Affiliation Fee,	1	22,698.00	22,698.00		Wyoming Public Media	Miller, Jamison	Dir, Business Operations	09/27/2024
09/27/2024	American Public Media	5	C/24 Weekends	1	5,014.00	5,014.00		Wyoming Public Media	Miller, Jamison	Dir, Business Operations	09/27/2024
09/27/2024	American Public Media	4	C/24 Weekday Evenings	1	5,014.00	5,014.00		Wyoming Public Media	Miller, Jamison	Dir, Business Operations	09/27/2024
09/27/2024	American Public Media	2	BBC World Service	1	22,251.00	22,251.00	<b>62,493.00</b>	Wyoming Public Media	Miller, Jamison	Dir, Business Operations	09/27/2024
09/27/2024	University of Washington	3	3rd UW SOM Tuition & Fees Contract payment for 2024-2024 (March 2025)	1	2,267,352.00	2,267,352.00		WWAMI Medical Education Program	Seidel, Ed	President	09/27/2024
09/27/2024	University of Washington	2	2nd UW SOM Tuition & Fees Contract payment for 2024-202 (January 2025)	1	2,267,351.00	2,267,351.00		WWAMI Medical Education Program	Seidel, Ed	President	09/27/2024
09/27/2024	University of Washington	1	1st UW SOM Tuition & Fees Contract payment for 2023-2024 (Sept 2024)	1	2,267,351.00	2,267,351.00	<b>6,802,054.00</b>	WWAMI Medical Education Program	Seidel, Ed	President	09/27/2024*
09/27/2024	Telonics	3	Telonics Glenrock smart cable	1	130.00	130.00		Wyoming Coop Unit	Boyles, Victoria	Dir, Business Operations	09/27/2024
09/27/2024	Telonics	5	Telonics Glenrock freight	1	215.00	215.00		Wyoming Coop Unit	Boyles, Victoria	Dir, Business Operations	09/27/2024
09/27/2024	Telonics	4	Telonics Glenrock adapter	1	40.00	40.00		Wyoming Coop Unit	Boyles, Victoria	Dir, Business Operations	09/27/2024
09/27/2024	Telonics	1	Telonics Glenrock Recon 4560-4	50	710.00	35,500.00		Wyoming Coop Unit	Boyles, Victoria	Dir, Business Operations	09/27/2024
09/27/2024	Telonics	2	Telonics Glenrock CR-5A release mechs	50	330.00	16,500.00	<b>52,385.00</b>	Wyoming Coop Unit	Boyles, Victoria	Dir, Business Operations	09/27/2024
09/27/2024	AssetWorks LLC	1	SAAS AGREEMENT FOR AIM SOFTWARE & ACTION CODE SUPPORT- ANNUAL TERM 9/1/24-8/31/25	1	177,738.77	177,738.77	<b>177,738.77</b>	Business Services	Samp, Michael	Assoc VP for Univ Operations	09/27/2024
09/30/2024	Elsevier, Inc.	1	Elsevier 360 for Nursing RN, Books, Practice exams etc, 2026 Cohort	1	48,345.96	48,345.96		School of Nursing	Worden, Jilljean	Assistant Director	09/30/2024
09/30/2024	Elsevier, Inc.	2	Elsevier 360 for Nursing RN, Books, Practice exams etc, 2025 Cohort	1	30,594.20	30,594.20	<b>78,940.16</b>	School of Nursing	Worden, Jilljean	Assistant Director	09/30/2024
09/30/2024	Troxell Communications Inc	1	AV Equipment for SI 4004 WO# for reference is 211009-001	1	65,955.00	65,955.00	<b>65,955.00</b>	Facilities Construction Mgt	Bryant, Darcy	Deputy Director, Business Serv	09/30/2024
09/30/2024	City of Laramie, Wyoming	1	City of Laramie Police services for home football games and basketball games during the 2024-2025 season	1	74,000.00	74,000.00	<b>74,000.00</b>	Game Management	Freeman, Samantha	Asst AD/Budgeting & Fin Mgmt	09/30/2024
10/01/2024	Evident Scientific	1	Quote Q-00136998-V2 for Alex French	1	78,312.34	78,312.34	<b>78,312.34</b>	VP for Research & Economic Development Office	Miller, Jamison	Dir, Business Operations	09/30/2024
10/01/2024	Bob McCloskey Insurance	1	Student Athlete Claim Funding for July 2024-June 2025 (Sports Medicine - Medical Services)	1	400,000.00	400,000.00	<b>400,000.00</b>	Sports Medicine	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	10/01/2024
10/04/2024	Dantec Dynamics, Inc.	1	Dantec Dynamics / 3-Camera 24MP x 15fps 3D FlexDIC System / Option to upgrade to 4-Camera MulticamDIC	1	87,764.40	87,764.40	<b>87,764.40</b>	VP for Research & Economic Development Office	Roller, Sandra	Assistant Director, Business Operations	10/04/2024
10/04/2024	Wyoming Department of Transportation	1	State plane use for football recruiting trips through 6/30/25 (Football-Recruiting)	1	100,000.00	100,000.00	<b>100,000.00</b>	Mens Football	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	10/04/2024
10/04/2024	C & B Operations, LLC	1	2023 John Deere 6130M Cab Tractor includes guidance 7500 Universal RTK permanent license, meets specs & options. TRADE-IN OF TRACTOR: UW TAG# 308093 a 2015 KUBOTA M126 GXDTC. ATTACHED: BID JRB-2024-34, MEMO LETTER, QUOTE FROM C&B ON BID	1	137,875.85	137,875.85	<b>137,875.85</b>	R&E Center Sheridan	Crane, Kelly	Dean/Extension Educator, Sr	10/04/2024
10/07/2024	NWCCD Sheridan College	1	Dental Hygiene Fall 2024	1	81,000.00	81,000.00		General University Operations	Kean, Alexander	Vice President, Budget & Finance	10/07/2024
10/07/2024	NWCCD Sheridan College	1	Dental Hygiene Fall 2024	1	36,000.00	36,000.00	<b>117,000.00</b>	General University Operations	Kean, Alexander	Vice President, Budget & Finance	10/07/2024
10/08/2024	Sunshine Valley Petroleum Corp	1	Sunshine Valley NGL solvent flood Pilot project	125000	1.00	125,000.00	<b>125,000.00</b>	Enhanced Oil Recovery Institute	Krutka, Holly	Executive Director	10/08/2024
10/09/2024	Utah Tech University	1	Game Guarantee - Men's Basketball v Utah Tech on November 16, 2024	1	85,000.00	85,000.00		Mens Basketball	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	10/08/2024
10/09/2024	Bellarmine University Inc.	1	Game Guarantee - Men's Basketball v Bellarmine on December 19th, 2024	1	85,000.00	85,000.00	<b>85,000.00</b>	Mens Basketball	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	10/08/2024
10/09/2024	Tennessee State University	1	Game Guarantee - Men's Basketball v Tennessee State on November 10, 2024	1	90,000.00	90,000.00	<b>90,000.00</b>	Mens Basketball	Brodie, Samuel	Assoc AD/Budgeting & Fin Mgmt	10/08/2024
10/09/2024	AVI-SPL LLC	1	Fall 2024 AV Upgrades	1	382,062.44	382,062.44	<b>382,062.44</b>	General University Operations	Kean, Alexander	Vice President, Budget & Finance	10/09/2024
10/10/2024	Computer Comforts	1	AV Equipment for Multiple Classrooms	1	81,900.03	81,900.03	<b>81,900.03</b>	General University Operations	Courtney, Aaron	Associate Vice President, Budget & Institutional Planning	10/10/2024
10/11/2024	Wind River Development Fund	1	Rental Space Frank B Wise Plaza - 10/01/2024 to 09/30/2025	1	5,812.58	5,812.58		High Plains American Indian Research Institute	Roller, Sandra	Assistant Director, Business Operations	10/11/2024
10/11/2024	Wind River Development Fund	1	Rental Space Frank B Wise Plaza - 10/01/2024 to 09/30/2025	1	13,285.90	13,285.90		UW Extension	Roller, Sandra	Assistant Director, Business Operations	10/11/2024
10/11/2024	Wind River Development Fund	1	Rental Space Frank B Wise Plaza - 10/01/2024 to 09/30/2025	1	16,607.38	16,607.38		UW Extension	Roller, Sandra	Assistant Director, Business Operations	10/11/2024
10/11/2024	Wind River Development Fund	1	Rental Space Frank B Wise Plaza - 10/01/2024 to 09/30/2025	1	9,481.53	9,481.53		UW Extension	Roller, Sandra	Assistant Director, Business Operations	10/11/2024
10/11/2024	Wind River Development Fund	1	Rental Space Frank B Wise Plaza - 10/01/2024 to 09/30/2025	1	5,812.58	5,812.58	<b>50,999.97</b>	EPSCoR/IDEA Office	Roller, Sandra	Assistant Director, Business Operations	10/11/2024
10/15/2024	Vectronic Aerospace Inc.	4	Freight for Moose, Mule Deer and bighorn VITS	1	311.60	311.60		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	7	Shipping for mule deer fawn and bighorn sheep lamb collars	1	799.20	799.20		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024



10/15/2024	Vectronic Aerospace Inc.	2	MULE DEER UHF ID coded Vaginal Implant Transmitter medium 88mm including datalogger function for temperature values	70	243.00	17,010.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	1	MOOSE UHF ID coded Vaginal Implant Transmitter large 150MM including datalogger functions for temperature values	13	243.00	3,159.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	3	Bighorn UHF ID coded Vaginal Implant Transmitter medium 88 including datalogger function for temperature values	25	243.00	6,075.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	6	BIGHORN SHEEP LAMB VERTEX mini fawn-GLOBALSTAR with 1C battery. Includes: VHF Beacon, Mortality & Temperature Sensor, basic 3-axis activity sensor. Cotton belt break away.	20	640.00	12,800.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	5	MULE DEER FAWN VERTEX mini fawn-GLOBALSTAR with 1C battery. Includes: VHF Beacon, Mortality & Temperature Sensor, basic 3-axis activity sensor. Cotton belt break away.	80	640.00	51,200.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	4	Freight for Moose, Mule Deer and bighorn VITS	1	110.31	110.31		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	4	Freight for Moose, Mule Deer and bighorn VITS	1	57.53	57.53		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	7	Shipping for mule deer fawn and bighorn sheep lamb collars	1	199.80	199.80		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	8	Round spare unit 2D for GPS collar-Bighorn sheep	45	260.00	11,700.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	9	Oval spare unit 2D for GPS collar-female mule deer	65	260.00	16,900.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	10	Shipping for round and oval spare unit 2D for GPS collars	1	70.00	70.00		Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	Vectronic Aerospace Inc.	10	Shipping for round and oval spare unit 2D for GPS collars	1	105.00	105.00	120,497.44	Haub School of Environment & Natural Resources	Koprowski, John	Professor/Dean/Wyo Excellence Chair	10/15/2024
10/15/2024	TR Operating, LLC	1	TR Operating - 3D seismic at Raven Creek	163000	1.00	163,000.00	163,000.00	Enhanced Oil Recovery Institute	Krutka, Holly	Executive Director	10/15/2024

\*Approved by the Board of Trustees as part of the FY25 budget.

**AGENDA ITEM TITLE: Modifications to the Trustees Annual Schedule of Items to Approve, Discuss or Report, and notice of update to Bylaws, Evans**



## **UW Board of Trustees Annual Schedule of Items to Approve, Discuss or Report**

*[Approved April 10, 2024]*

### **January**

#### **Annual Reports/Presentations**

- Division of Research and Economic Development
- Science Initiative
- Required discrimination and harassment, mandatory report, and bystander intervention training
- Sabbatical/professional leave report for previous fiscal year (per UW Regulation 2-16)  
[information only; presentation by one faculty member]

#### **Consideration and Action**

- Emeritus faculty designations (per UW Regulation 2-1) [included in personnel report; no presentation]
- Financial Aid Plan for subsequent (year after next) fiscal year (per UW Regulation 7-11)
- UW Student Fee Book proposal for upcoming fiscal year (per UW Regulation 7-11)

#### **Discussion**

- Appointment of new Trustees
- Appointment of Trustee officer nomination committee
- Six-month budget v. actual of annual operating budget (action or follow up at March meeting if necessary)

#### **Information Only (no presentation)**

- Upcoming fiscal year Operating budget assumptions and timeline

#### **Notice (for consideration/action at upcoming meeting)**

- Annual UW Regulations housekeeping (as needed)

### **February**

No scheduled topics for this month

## March

### Consideration and Action

- Appointments to the Trustees Education Initiative
- Tenure, Promotion, and 5-year Fixed Terms for faculty (per UW Regulation 2-7) [included in personnel report; no presentation]
- UW Business Enterprise Fee Book Proposal for upcoming fiscal year (per UW Regulation 7-11)

### Discussion

- Annual UW Foundation fundraising priorities (per MOU with UW Foundation) [for approval in July]
- Legislative priorities (reported out of the Legislative Relations Committee)

### Information Only (no presentation)

- Orientation materials: new Trustees member (when applicable)
- Spring enrollment census information

### Notice (for consideration/action at upcoming meeting):

- Amendments to Trustee Bylaws (as necessary)
  - Revisions to Trustees Annual Schedule of Items to Approve, Discuss or Report
- Annual election of Board Officers to be effective May 1 of same year
- Recommendation of 3-year academic calendar from University Administration and Trustees Academic and Student Affairs Committee [Note: the Board reviews and approves a 3-year academic school year calendar (anniversary date of 2016)]

## April

April 15<sup>th</sup> UW budget materials delivered to Trustee Biennium Budget Committee and Board of Trustees

## **May (Annual Meeting and Action on Annual Board Administrative Matters)**

### **Annual Reports/Presentations**

- Recognition: Incoming and outgoing ASUW President and Faculty Senate Chair

### **Consideration and Action**

- 3-year academic calendar
- Amendments to Trustee Bylaws (as necessary)
  - Trustees Annual Schedule of Items to Approve, Discuss or Report
- Annual Internal Audit Plan (per Trustee Bylaws)
- Annual Internal Audit Charter
- Designate depositories for UW funds (WS. 21-17-426, WY Const. Art. 15, Section 7)
- Master list of academic programs (per UW regulation 2-119)
- Salary distribution policy for the next fiscal year (as necessary)
- Set the amount of the Deputy Treasurer's and Treasurer's bond and designate/set any other appropriate bonds (W.S. Sec. 21-17-203 (a)) (as necessary) [business meeting action item; no presentation]

### **Information (no presentation)**

- Biennium/Supplemental budget timeline (information item; discussion in July and approval in August)

### **Board Annual Administrative Matters**

- Trustees budget hearings (Monday-Tuesday prior to Board meeting)
- Designate Committee appointments and appoint committee chairs for following:
  - Fiscal and Legal Affairs (Sec 7-2 Bylaws)
  - Biennium Budget Committee (Sec 7-3 Bylaws)
  - Facilities Contracting Committee (Sec 7-4 Bylaws)
  - Academic and Student Affairs Committee (Sec 7-9 Bylaws)
  - Research and Economic Development Committee (Sec. 7-10 Bylaws)
- File Trustee conflict of interest disclosure statements in accordance with the policy
- First Trustee meeting conducted by Officers elected during preceding March meeting
  - Administer oath to Board Secretary (W.S. 21-17-206), notarize and file
- Other Trustee appointments:
  - Alumni Board
  - Cowboy Joe Club
  - Energy Resource Council
  - Enhanced Oil Recovery Commission (Governor Appointment)
  - Foundation Board
  - Governor's Science Task Force (Governor Appointment)

## **June**

Consideration and Action: Annual operating budget for next fiscal year (per UW Regulation 7-1)

## **July (Out-of Town Meeting: Planning and Strategy Retreat & Meeting with Legislators)**

### Annual Reports/Presentations

- Faculty Athletic Representative (FAR) [information only; no presentation – follow up at September meeting if necessary]

### Consideration and Action

- Annual UW Foundation fundraising priorities (per MOU with UW Foundation)
- Next cycle of planning initiatives
- Trustee Meeting Schedule for following two calendar years

### Discussion/information

- Biennium/supplemental budget (for approval in August)
- Tuition including preliminary administrative recommendations for subsequent (year after next) fiscal year (per UW Regulation 7-11)
  - If changes recommended, University President's Office will seek public input (for presentation at September meeting)

### Business Meeting (as necessary)

## **August**

### Consideration and Action

- Biennium/supplemental budget



## September

### Annual Reports/Presentations

- Balances, transactions and investment returns for the following Trustee reserve accounts (per Trustee Directive) [information only; no presentation]
  - Passenger Plane Reserve Account
  - Risk Pool/Litigation Reserve Account
  - Residence Hall Reserve Account
  - Recruitment and Retention Reserve Account
  - Special Project Reserve Account
  - Operating Reserve Account
  - Construction Reserve Account
- Expenditures Marian H. Rochelle Gateway Center Facilities Maintenance Fund (per lease agreement with UW Foundation) [information only; no presentation]
- Faculty appointments (per UW Regulation 2-1) [information only; no presentation]
- Intercollegiate Athletics (Athletic Director)
  - Faculty Athletic Representative (FAR) (attends as necessary)
- List of deleted and new courses (per UW Regulation 2-119) [information only; no presentation]
- New Temporarily Restricted Endowment accounts established during the past year (per Trustee Directive) [information only; no presentation]
- ~~Office of Diversity, Equity, and Inclusion~~
- Recognition: Incoming and Outgoing Staff Senate President
- Status of implementation of the Strategic Plan and President's Report on Accomplishments
- UW Foundation Investments (per MOU with Foundation) [information only; no presentation]

### Consideration/action

- Emeritus Faculty Designations [included in personnel report; no presentation]
- Recruitment and marketing outcomes
  - Including Fall enrollment census information
- Approval and adoption of final tuition recommendations for subsequent (year after next) fiscal year (per UW Regulation 7-11)
- Review of Tuition Policy [Note: the Board reviews and approves a tuition policy every 4 years (anniversary date of 2018)]

## October

No scheduled topics for this month

## **November**

### **Annual Reports/Presentations**

- Faculty workload (per UW Regulation 2-9) [information only; no presentation]
- Family Medicine Residency Program – College of Health Sciences (required for accreditation) [information only; no presentation]
- Fiscal Year Carry forward Report (per UW Regulation 7-10) [information only; no presentation]
- Spending from the Student Athlete Achievement Success Scholarship Expendable Fund and the following funds managed by UW Foundation as an Endowment: Research Excellence and Student Success Reserve Accounts; Recruitment and Retention Reserve Account
- Tier I Engineering
- Trustees Education Initiative

### **Consideration and Action**

- Annual external audited financial report (per Trustee Bylaws)

### **Discussion**

- Financial Aid Plan: review structure and financial aid awarding strategy for subsequent (year after next) fiscal year (for approval in January) (per UW Regulation 7-11)
- Legislative priorities (reported out of the Legislative Relations Committee)
- UW Student and Business Enterprise Fee Book proposals for upcoming fiscal year (for approval in January and March)

## **December**

No scheduled topics for this month

### **Recurring and As Needed Items:**

Consideration and Action: Approval of agreements, contracts, and procurements (per UW Regulation 7-2)

Personnel: Appointment of academic and non-academic employees

Open discussion from any Trustees

**Information Items (no action, discussion or work session)**

Capital Construction Report

Contracts and Procurement Report (per UW Regulation 7-2)

Foundation Monthly Giving Report

**Annual Schedule of Events**

January

- Reception honoring excellence in research and innovation [hosted by President and Division of Research and Economic Development]

March

- Lunch with Staff Senate & Trustees [hosted by Trustees]

May

- President's Commencement Dinner [hosted by UW President]

July (out-of-town meeting)

- Reception and Dinner with Trustees and Legislators [hosted by Trustees]
- Community Event with Alumni and Friends [hosted by Trustees]

September

- Lunch with Faculty Senate & Trustees [hosted by Trustees]
- Faculty Dinner honoring newly tenured, promoted and extended term and newly appointed faculty and academic professionals [hosted by UW President and Provost]

November

- Annual Trustees Scholarship Dinner [hosted by Trustees]
- Lunch with ASUW & Trustees [hosted by Trustees]
- Joint meeting with the Energy Resource Council (confirmed on an annual basis) [hosted/coordinated by SER]

**University President's Employment Contract**

Timely scheduling of review and evaluation of President's performance to satisfy employment contract terms