



UW: INSTITUTIONAL CAPACITY ANALYSIS REPORT

PREPARED FOR THE BOARD
OF TRUSTEES

JANUARY 18, 2018



UNIVERSITY
OF WYOMING

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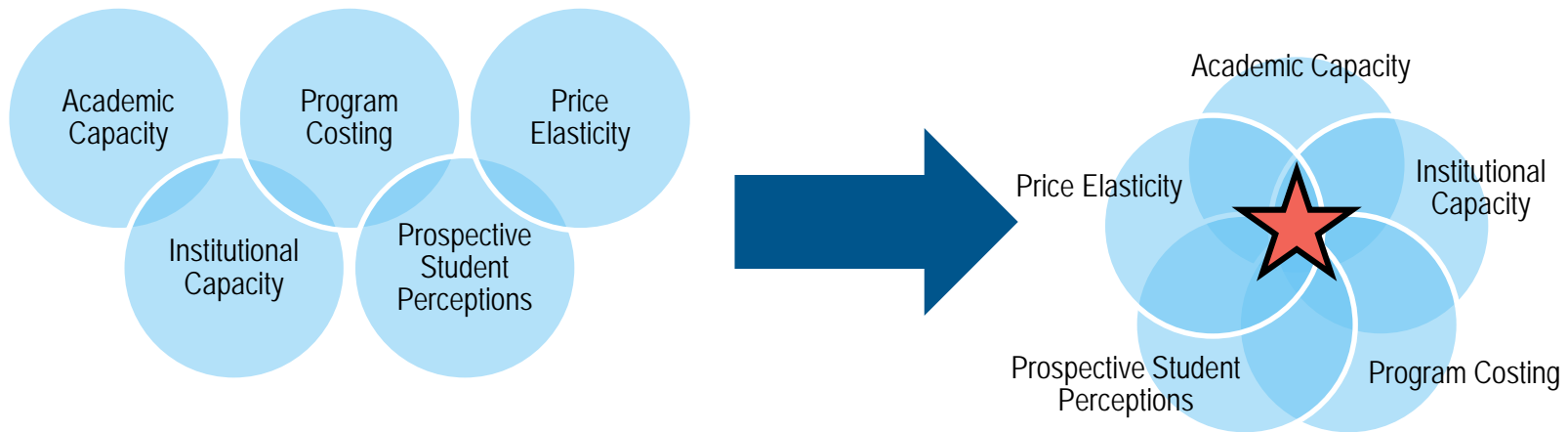
Recommendations: The Path Forward

Appendices

- *Institution Capacity & Growth Potential*
- *Recommendations: The Path Forward*

INSTITUTIONAL CAPACITY PROJECT

Today's meeting brings together various insights gleaned from capacity analyses, programmatic costing, student willingness to pay (elasticity), and the prospective student survey with a comprehensive scenario valuation model illustrating potential paths forward.



MEETING OBJECTIVES

Today's meeting contains a variety of individual sections that are used to inform final pricing recommendations and enrollment scenarios.

A few of the lessons learned from the project include:

- + **Prospective Student Survey: Colorado & Nebraska:** Over 80% of potential students believe going out-of-state will be more costly and over 50% of potential students have removed institutions from consideration due to tuition sticker prices
- + **Out-of-State Student Elasticity: Colorado & Nebraska:** Historical discounting and aid strategies for high-achieving out-of-state students has resulted in over-aiding; resetting the price closer to \$9,500 can likely increase additional out-of-state demand
- + **Capacity Valuation & Growth Scenarios:** Data analysis suggests that the cost of an average additional student is approximately \$3,500 and growth is possible within current infrastructure capabilities pending student demand to fill them
- + **The Path Forward:** Growth, while desired by institutional leadership, necessitates increased attention towards data stewardship, effectiveness in managing academic costs, and a stronger registrar function amongst other operational needs

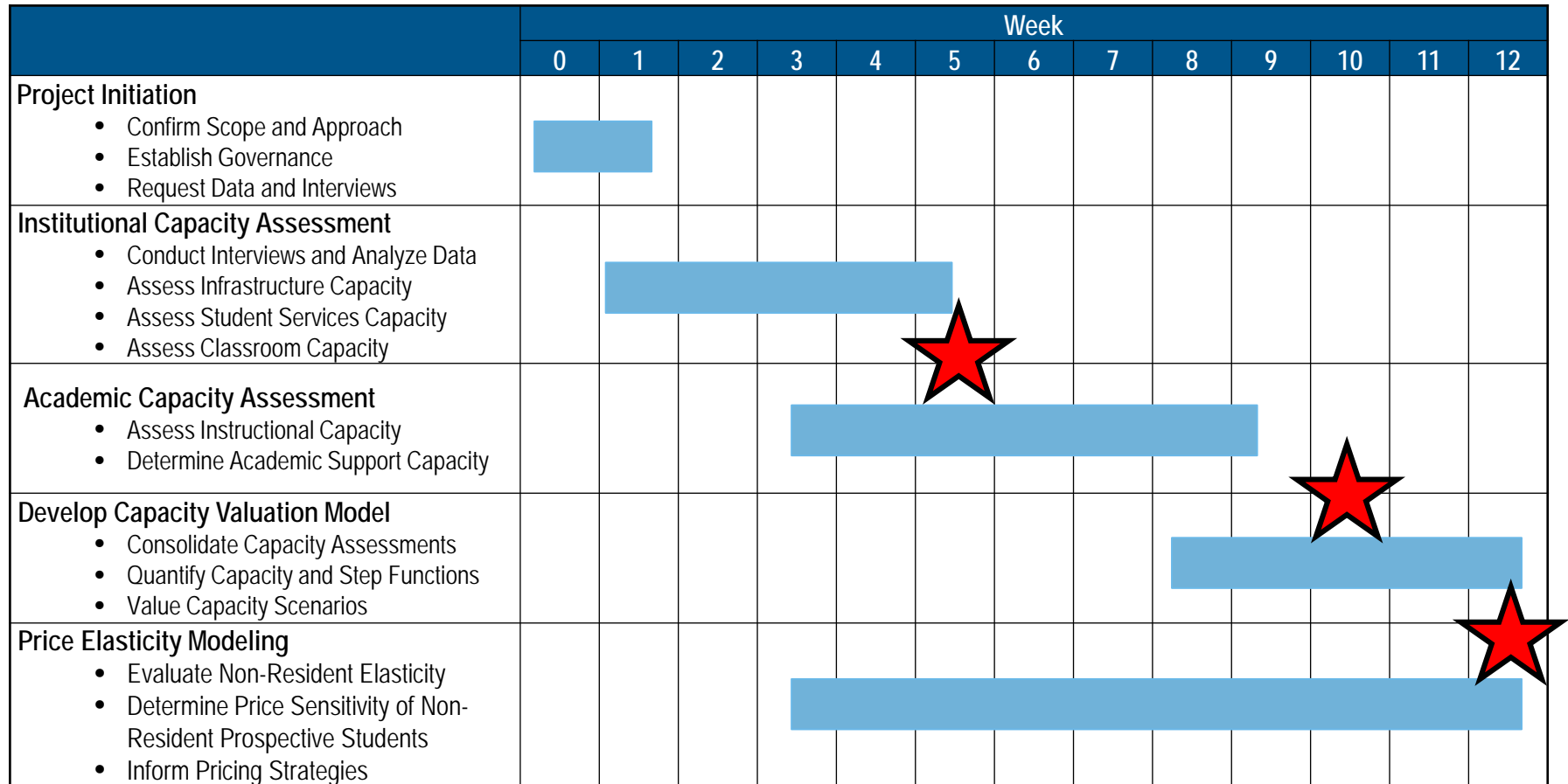
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PROJECT OVERVIEW

TIMELINE: KEY MILESTONES

PROJECT OVERVIEW

Huron's Institutional Capacity Assessment took place over nearly 3 months during the Fall/Winter of 2017 and consisted of five key tasks; regular updates were provided to the project steering committee to further inform the recommendations of this report.



Denotes steering committee meeting; committee included President Nichols, Provost Miller, Trustee Bostrom, Trustee Brown, David Jewell, and Kyle Moore (other university leaders were invited as deemed appropriate)

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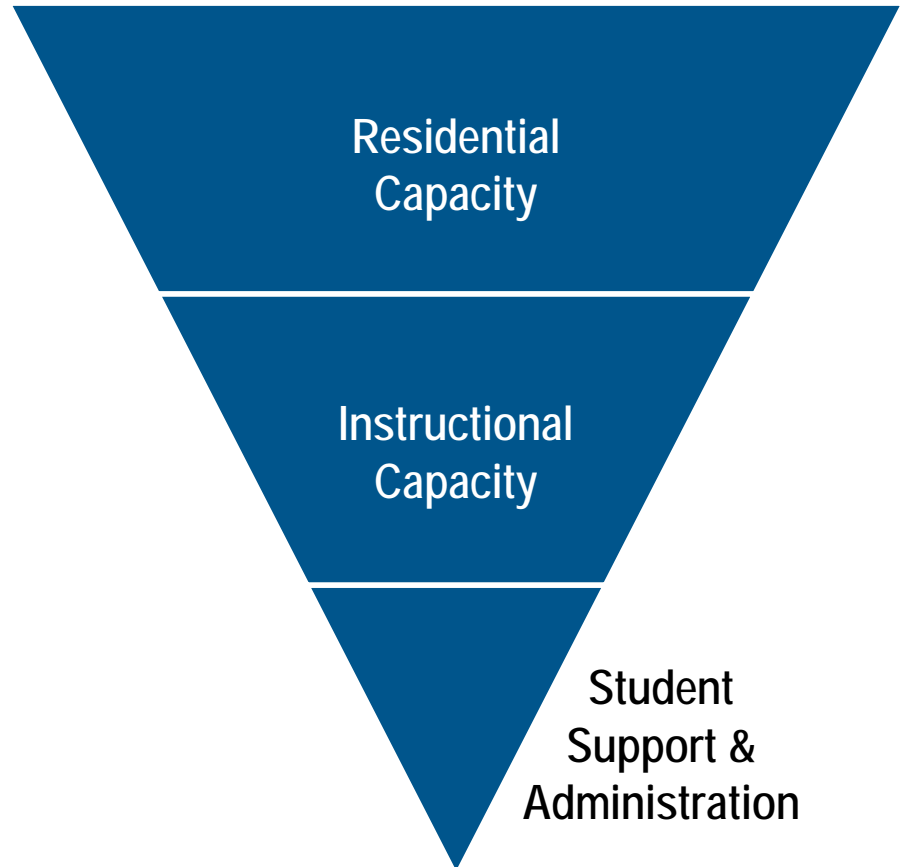
INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

ASSESSING INSTITUTIONAL CAPACITY

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

When assessing institutional capacity, Huron reviewed the three primary areas across campus that may create barriers to additional student headcount.

- + **Residential Capacity:** Residential capacity is measured by the number of student billable beds on campus and in the absence of new buildings to facilitate additional growth, an understanding of the extent to which policies can be adjusted to accommodate larger cohorts
- + **Instructional Capacity:** Instructional capacity is measured by the number of seats offered in courses as scheduled by the university. While hiring faculty members can be a lengthy and expensive process, enhanced management and alignment of the academic enterprise through section management and scheduling can greatly increase the number of available seats on campus
- + **Student Support & Administration:** Student support and administration is measured by the number of non-academic professionals needed to support the student population on campus and is generally supported by additional investments in personnel and at times investments in infrastructure



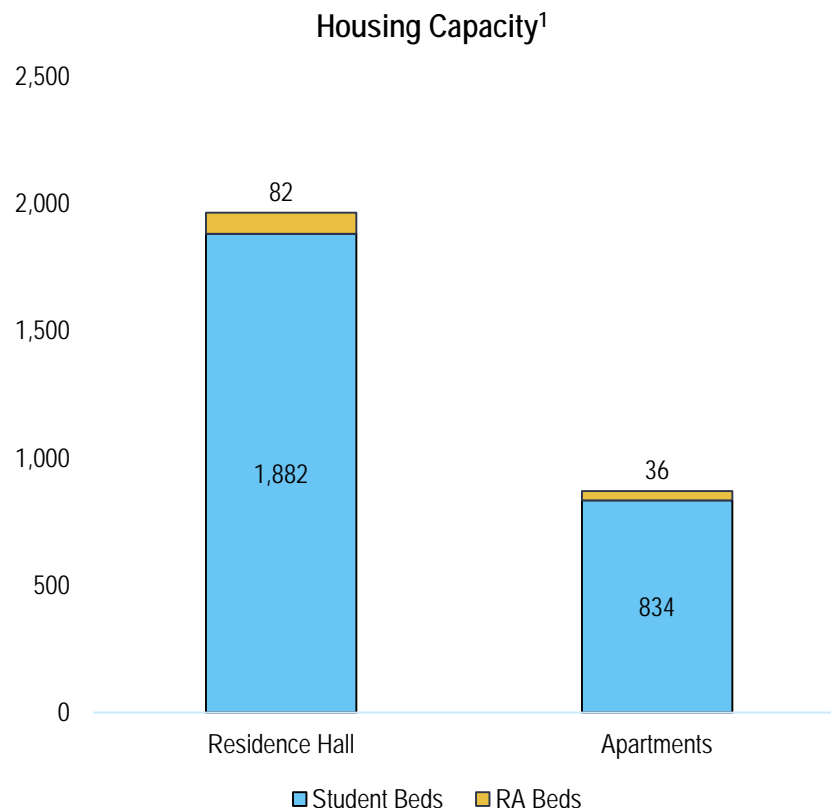
Barriers to growth, as you move down the institutional capacity pyramid, are easier to overcome as these are increasingly driven by personnel rather than infrastructure needs.

RESIDENTIAL CAPACITY

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Current housing capacity consists of a combination of residence halls (freshmen) and apartments (upperclassmen) to house all freshmen students that do not exempt the residency requirement and any interested upperclassmen who seek on campus space.

- + Wyoming's housing policy requires that all incoming new students live in the residence halls for their first academic year on campus
- + Currently, two buildings are off-line in preparation for demolition and subsequent residence hall construction; with current standing structures, there appears to be between 1,850-1,900 freshmen beds depending on configuration and RA placement
- + If incoming freshmen totals exceed the number of beds in residence halls, the institution could decide to reduce the number of upperclassmen living on campus to accommodate up a total of approximately 2,700 students which exceeds current housing demands



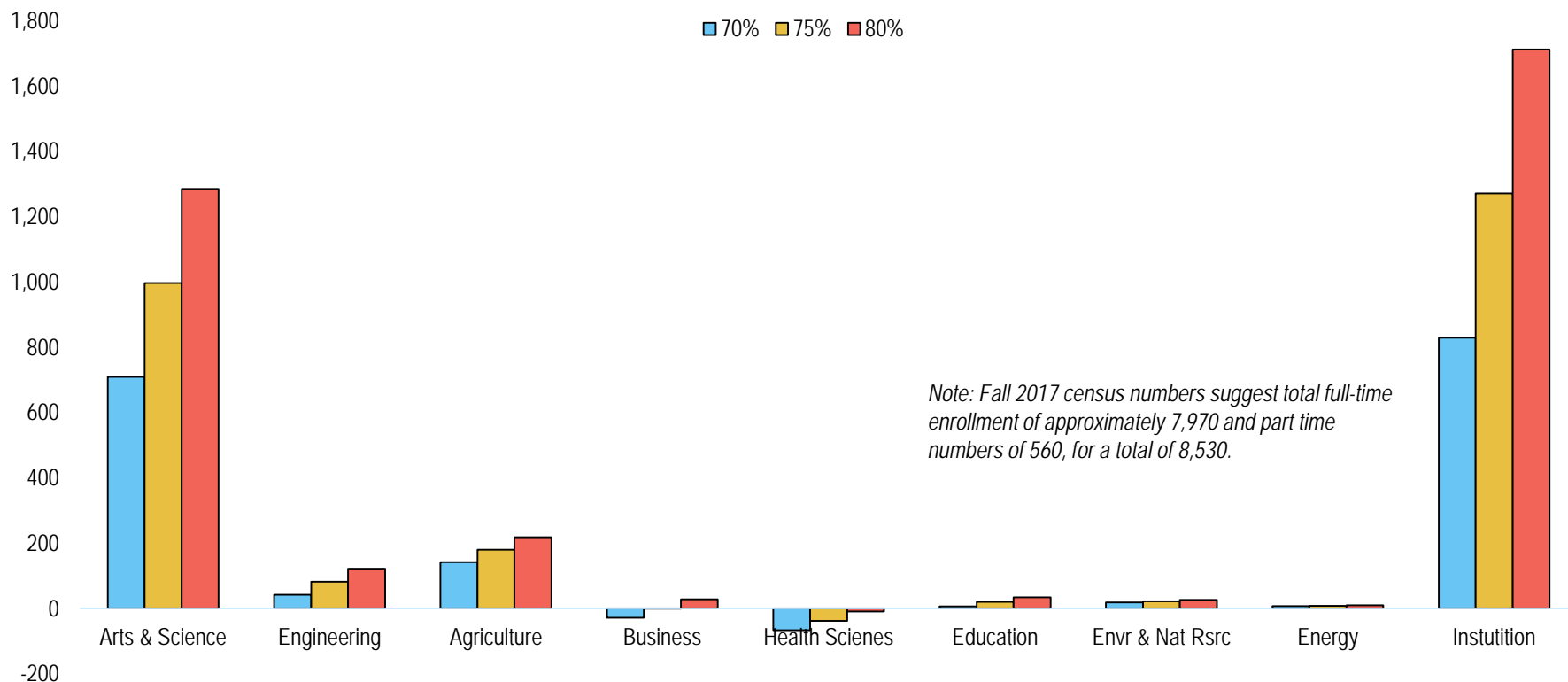
With the pending 10-year housing plan and the ability to change institutional policy surrounding residency requirements by year in school, there does not appear to be a constraint in capacity for housing students on campus.

INSTRUCTIONAL CAPACITY

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Based on target capacities ranging between 70-80% for undergraduate sections, with currently scheduled courses, the university appears to have capacity for an additional 800-1,700 students to take 10 courses during the academic year.

Excess (Shortage) Capacity by Utilization Level



This analysis, combined with enhanced management of the academic enterprise adding seats, suggest the near-capacity seat constraints in many of the smaller academic units can be met with limited, if any, additional instructional effort¹.

STUDENT SUPPORT & ADMINISTRATION

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Capacity concerns related to student support and administration are typically easier to address given the limited infrastructure and marginal staffing additions required; however, if additional facilities are required, can be equally as taxing.

- + Many of the student support units on campus expressed beliefs that they are pushing the upper limits of both internally and nationally acceptable staffing ratios on campus and expressed desires for additional headcount regardless of additional growth on campus
- + The staffing changes aligning with institutional transformational change limited Huron's ability to conduct year-over-year benchmarking for staffing levels across campus; however, the growth scenarios valued in subsequent slides include additional expense allocation for 14 positions across 10 departments on campus, ranging from Enrollment Management to Advising, Disability Support Services to Student Health, and more¹
- + With perceived space constraints for student support functions, opportunities may exist for reducing the extent to which student services are "fractured" across space as co-location may enable not only modernization but also aggregation of additional space for utilization
- + If Wyoming was to grow by 1,700 students, the biggest limitation and potential barrier to additional growth in this area appears to be staff and space limitations for Student Health and Mental Wellness offerings on campus; with the changing and increasing demands on student support staff, additional investment is likely required in this area

Huron's interviews and data analysis suggests that the vast majority of growth within student support and administration can occur with marginal investments generated by additional students.

GROWTH POTENTIAL: WY, CO, & NE

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

While there may be space at the institution for additional students, changes in the college-going population from Colorado, Nebraska, and Wyoming, in number, ethnicity, and college preparedness may create challenges for additional headcount growth.

Projected Percentage Change in Public High School Graduates (2017-18-2027-28) ¹						
	<u>White</u>	<u>Hisp.</u>	<u>Black</u>	<u>Asian/Pacific Islander</u>	<u>American Indian/Alaska Native</u>	<u>Projected Change</u>
WY	10.1%	34.5%	31.2%	16.9%	22.6%	787
CO	2.5%	2.8%	1.1%	3.7%	-24.0%	1,303
NE	-1.9%	26.5%	-0.2%	48.4%	-18.9%	879
Total	998	1,658	50	364	-102	2,969

College Readiness of ACT Test Takers ²				
	Nebraska	Colorado	Wyoming	National
English	68%	61%	58%	61%
Reading	48%	42%	38%	44%
Mathematics	43%	39%	33%	41%
Sciences	40%	36%	31%	36%
All Four	28%	25%	20%	26%

- + While Huron has modeled institutional projected revenue and growth associated with incoming headcount steady state totals of 200, 300, 350, 400, and 600 students, growth exceeding 300 students per year from Colorado and Nebraska may be the upper bound given competitive pressures as price alone will not attract more students (note: 300 students a year aligns with previously stated strategic plan goals and targets)
- + The institution should continue to refine and market its value proposition to students and, combined with a newly communicated out-of-state price, may be able to attain and attract additional non-resident students

Declining growth in college going students in the region will only exacerbate enrollment competitive pressures for Wyoming as it competes for desirable students within neighboring states and at home.

STUDENT GROWTH AT WYOMING

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Huron's assessment of institutional capacity at Wyoming—residential, instructional, and support—suggests that there is **sufficient space for roughly 1,000 – 1,400 students** with further investments in instructional effort and staff support to facilitate that growth.

- + **Residential Capacity:** The assessment of institutional capacity illustrated that housing would be the first constraint with planned undergraduate student growth; however, with additional capacity in the upperclassmen residence halls and the potential for policy adjustments, supply seems capable of meeting demand
- + **Instructional Capacity:** While there are pockets of departments and academic units that are approaching current capacity constraints at varying levels of target utilization, increased academic section size and scheduling management combined with higher utilization targets can accommodate additional students with limited additional instructional effort
- + **Student Administration:** Leadership from student support services expressed additional staffing needs irrespective of potential growth adjustments and these concerns should not be forgotten as growth activity moves forward over the next three to five (3-5) years
- + **Demographic Constraints:** Growth, even with the available capacity, will be challenging as there is a combination of limited growth amongst the student population in Wyoming and surrounding states and the college preparedness of these students may not meet Wyoming admission standards
- + **Sources for Growth:** Additional growth of students can come from a variety of avenues aside from growth in out of state students, and potential capacity will likely be filled by a combination of marginal growth of in-state students, increased demand from out-of-state students with the new price, transfer students, and increases in student success metrics (e.g. retention)

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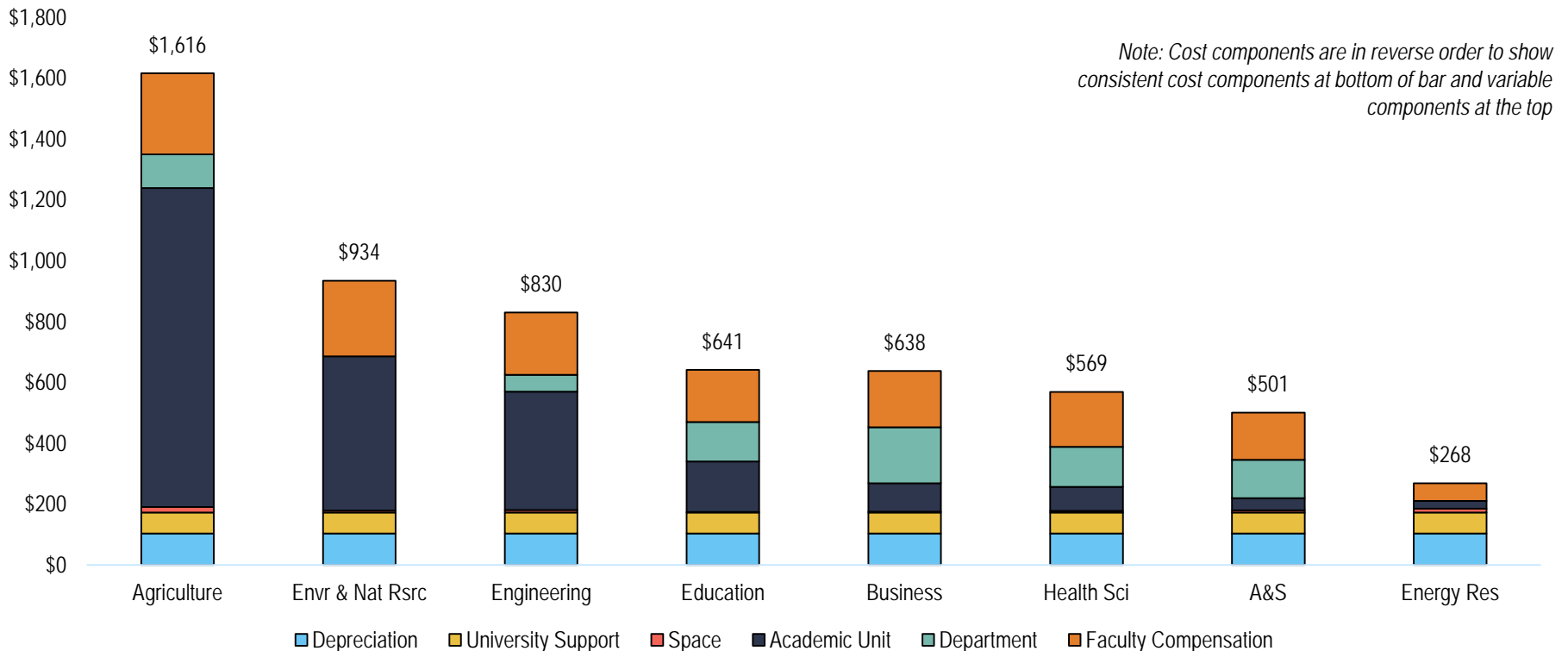
ACADEMIC PORTFOLIO & SEAT UTILIZATION

UNDERGRADUATE ACADEMIC PORTFOLIO

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The programmatic costing model identified an average university undergraduate credit hour cost of approximately \$641 and varies by academic unit ranging from \$501 (Arts & Sciences) to \$1,616 (Agriculture).

Average Academic Unit Undergraduate Credit Hour Cost by Component



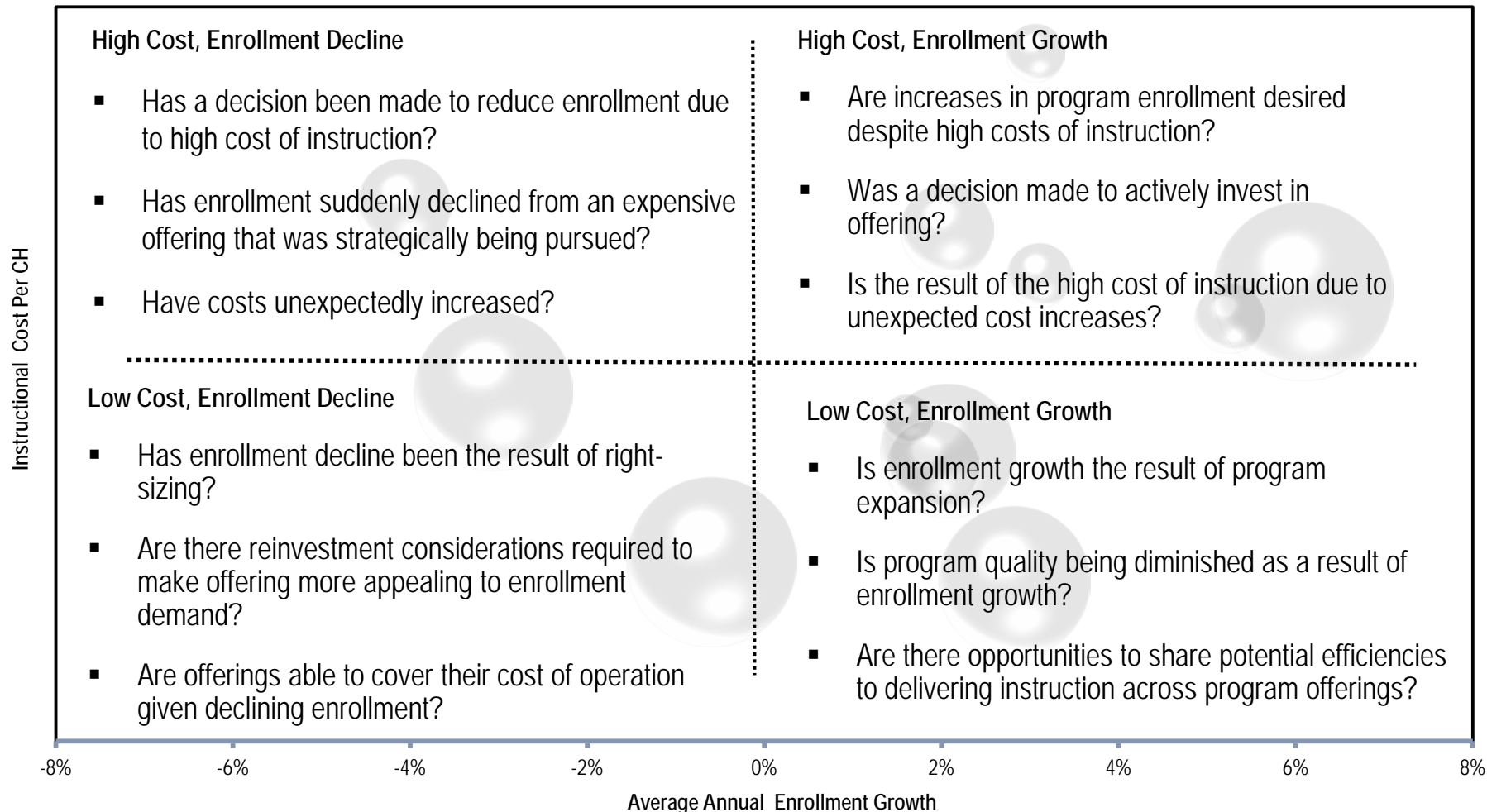
The data provided limited ability to allocate costs as locally as possible (e.g. course, department, academic unit), resulting in limited ability to see differentiated costs between programs within the same academic units.

Source: UW Program Costing Model; Huron Analysis

PORTFOLIO MANAGEMENT

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

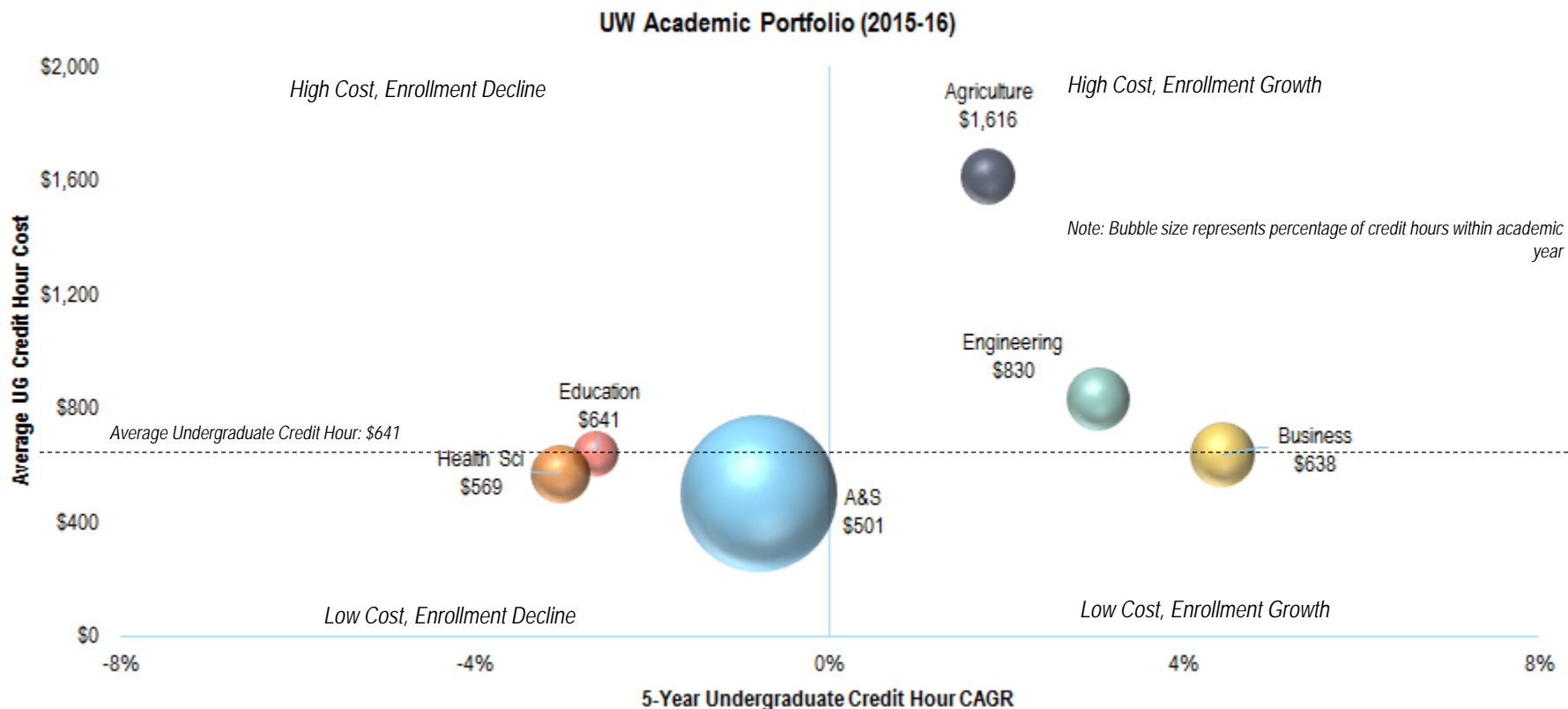
Utilizing program costing information, the steering committee is able to rationalize why programs are placed in the quadrants they currently reside in and whether or not this is desirable for the long-term success at Wyoming.



ACADEMIC PORTFOLIO

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

While the number of academic units appears to be evenly located around cost and growth, over 70% of credits are generated by units experiencing annual decreases (left of center) and expensive credit hours production areas are growing (top right).



While the lowest cost credit hours are within the College of Arts & Sciences, the school is experiencing a slight annual decline in credit hour production and its ability to offset higher cost areas may be declining.

Source: UW Program Costing Model; Huron Analysis

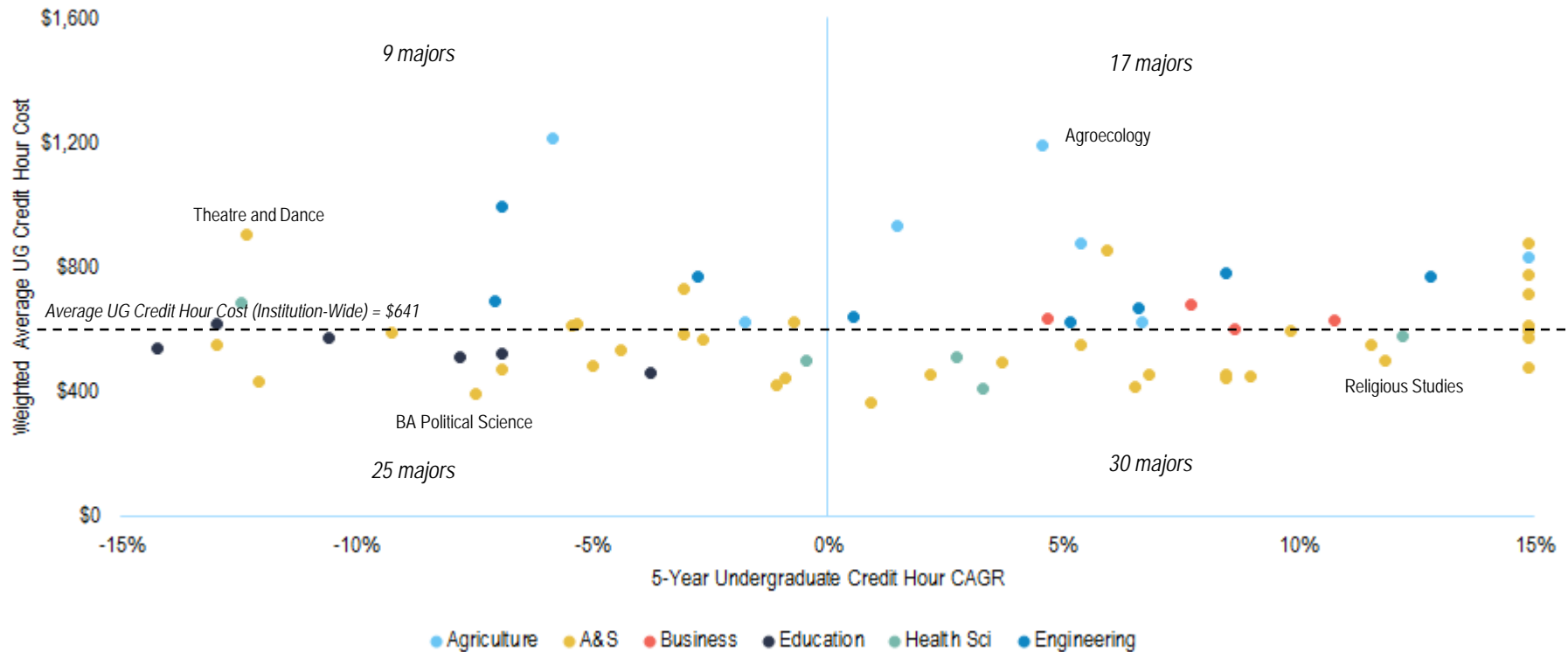
Note: School of Energy Resources and Haub School of Environmental and Natural Resources are excluded

UNDERGRADUATE MAJOR COST PER CREDIT

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Major costs per credit hour are inclusive of major, elective, and core credit hours and with the extensive options provided to students, the variability in cost per credit hour per major ranges between \$365 (Criminal Justice) and \$1,215 (Rangeland Ecology)¹.

UW Undergraduate Majors Cost Per CH



The location of the higher cost academic programs is spread relatively equitably between percentage of high cost majors to percent of graduating students (e.g. 12% of high cost majors, 12% of graduates—Business)

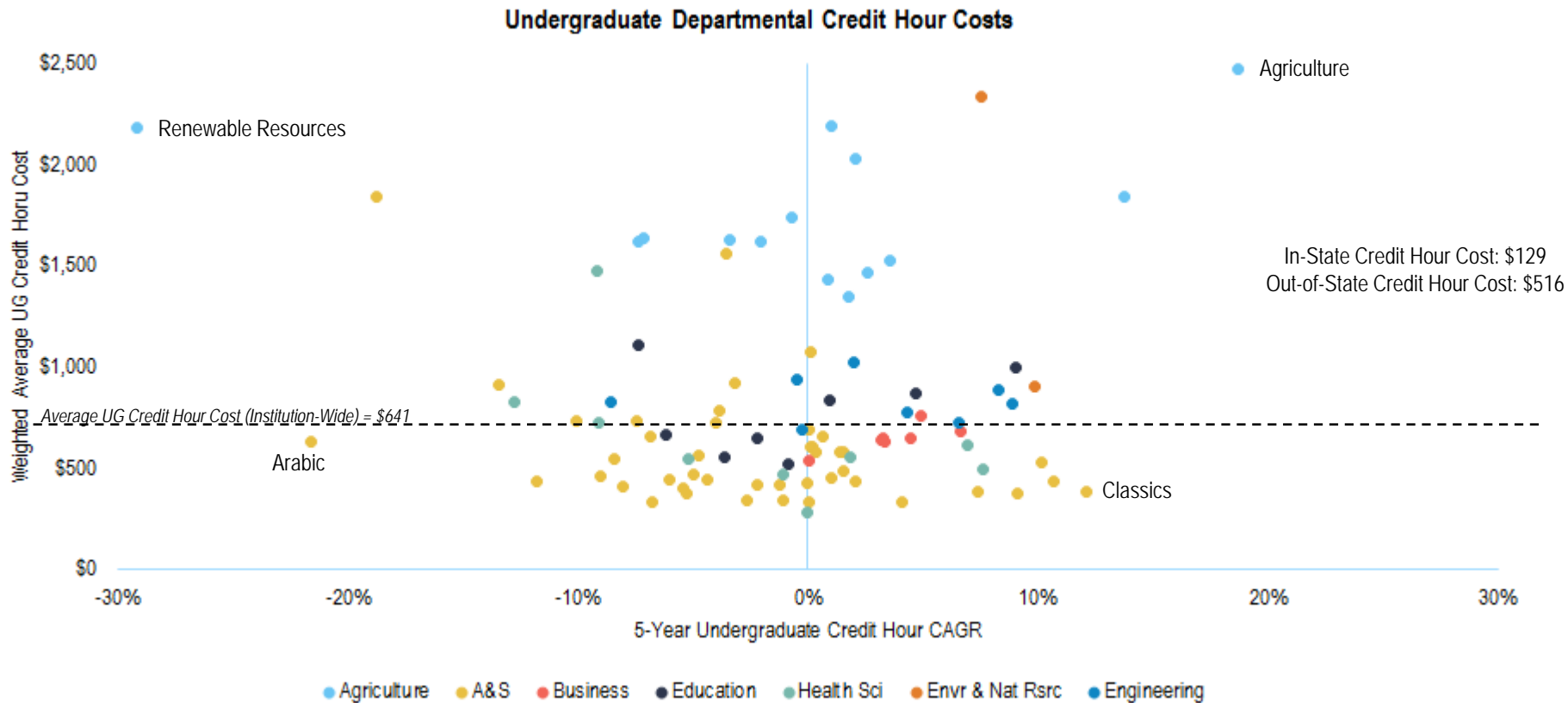
Source: UW Program Costing Model; Huron Analysis. Additional detail for each unit can be found in the appendix

¹ Programs with insufficient data for CAGRs are excluded (e.g. -100%, 0%), explaining why totals are less than 103

DEPARTMENTAL UG COST PER CREDIT

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Nearly 60% of the departments have average undergraduate credit hour costs that exceed the institutional average of \$772, with over 60% of the high costs departments within Agriculture, Arts & Sciences, and Engineering.



Arts & Science, Business, and Education are the only academic units with departments below the average undergraduate cost per credit hour metric at the University.

Source: UW Program Costing Model; Huron Analysis. Additional detail for each unit can be found in the appendix
Programs with insufficient data for CAGRs are excluded (e.g. -100%, 0%)

CAPACITY AND COST: AGRICULTURE

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Agriculture: Course Code Capacity and Cost Per Credit						
Department	Cost of UG CH	Five Year Average Utilization		Department	Cost of UG CH	Five Year Average Utilization
Agricultural Economics	\$2,056	34.0%		Microbiology	\$1,469	64.1%
Agriculture	\$3,890	44.6%		Molecular Biology	\$1,803	39.2%
Agroecology	\$2,083	55.8%		Pathobiology	\$2,458	56.2%
Animal Science	\$2,925	55.4%		Plant Sciences	\$4,938	39.5%
Entomology	\$3,532	39.9%		Rangeland Ecology and Watershed Management	\$2,485	54.2%
Family and Consumer Science	\$1,795	75.7%		Renewable Resources	\$2,498	28.3%
Food Science	\$2,304	47.5%		Soil Sciences	\$2,844	47.0%

CAPACITY AND COST: ARTS & SCIENCE (1 OF 2)

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Arts & Sciences: Course Code Capacity and Cost Per Credit				Arts & Sciences: Course Code Capacity and Cost Per Credit		
Department	Cost of UG CH	Five Year Average Utilization		Department	Cost of UG CH	Five Year Average Utilization
African-American Diaspora Studies	\$1,005	52.3%		Chemistry	\$1,151	87.9%
Air Force ROTC	\$787	14.1%		Chicano Studies	\$1,695	42.1%
American Indian Studies	\$1,314	49.7%		Chinese	\$402	66.7%
American Studies	\$1,825	44.1%		Classics	\$446	52.7%
Anthropology	\$927	80.2%		Communication and Journalism	\$558	77.4%
Arabic	\$720	53.9%		Criminal Justice	\$554	58.7%
Army ROTC	\$387	32.4%		English	\$917	74.3%
Art	\$1,136	64.5%		English as a Second Language	\$931	9.3%
Arts and Sciences	\$3,988	1.8%		French	\$550	56.8%
Astronomy	\$852	71.8%		Gender and Women's Studies	\$1,034	51.5%
Botany	\$2,740	32.0%		Geography	\$1,014	68.0%

CAPACITY AND COST: ARTS & SCIENCE (2 OF 2)

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Arts & Sciences: Course Code Capacity and Cost Per Credit					
Department	Cost of UG CH	Five Year Average Utilization	Department	Cost of UG CH	Five Year Average Utilization
Geology	\$902	71.8%	Philosophy	\$1,008	57.9%
German	\$741	63.7%	Physics	\$1,427	84.6%
Global and Area Studies	\$1,720	32.8%	Political Science	\$478	78.5%
History	\$589	74.9%	Religious Studies	\$649	61.2%
Honors Program	\$1,093	67.3%	Russian	\$650	44.2%
Japanese	\$350	59.3%	Sociology	\$591	74.9%
Languages	\$700	46.6%	Spanish	\$936	81.7%
Latin	\$1,408	45.8%	Statistics	\$1,107	84.5%
Life Science	\$600	87.2%	Theatre & Dance	\$1,421	72.8%
Mathematics	\$680	78.0%	University of Wyoming	\$765	43.4%
Music	\$1,381	33.2%	Zoology and Physiology	\$916	64.4%

CAPACITY AND COST: BUSINESS

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Business: Course Code Capacity and Cost Per Credit		
Department	Cost of UG CH	Five Year Average Utilization
Accounting	\$5,852	80.6%
Business	\$821	61.5%
Decision Science	\$1,436	78.8%
Economics	\$1,976	68.5%
Finance	\$1,681	68.9%
Information Management	\$1,134	84.5%
International Business	\$2,868	69.0%
Management	\$727	77.8%
Marketing	\$937	81.1%

CAPACITY AND COST: EDUCATION

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Education: Course Code Capacity and Cost Per Credit		
Department	Cost of UG CH	Five Year Average Utilization
Agricultural Education	\$769	43.4%
Counseling	\$807	82.2%
Curriculum and Instruction	\$1,268	45.9%
Early Childhood Education	\$671	73.0%
Educational Studies	\$582	79.8%
Elementary Education	\$807	62.4%
Exceptional Children	\$552	78.8%
Instructional Technology	\$1,181	90.4%
Secondary Education	\$1,156	36.4%

CAPACITY AND COST: HEALTH SCIENCES

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Health Sciences: Course Code Capacity and Cost Per Credit		
Department	Cost of UG CH	Five Year Average Utilization
Health Education	\$964	82.1%
Health Sciences	\$1,855	53.8%
Kinesiology	\$634	70.4%
Nursing	\$1,097	75.5%
Pharmacy	\$2,390	56.5%
Physical Education- Activity	\$719	74.2%
Social Work	\$838	57.3%
Speech Language Pathology	\$1,215	65.2%
Wyoming Institute for Disabilities	\$1,263	72.4%

CAPACITY AND COST: ENGINEERING

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The following table(s) illustrate historic five year (fall/spring) utilization by course code and modeled cost per undergraduate credit hour listed alphabetically by each academic unit¹.

Engineering: Course Code Capacity and Cost Per Credit		
Department	Cost of UG CH	Five Year Average Utilization
Architectural Engineering	\$1,132	33.5%
Atmospheric Sciences	\$4,744	63.9%
Bioengineering	\$1,270	23.7%
Chemical Engineering	\$1,121	62.1%
Civil Engineering	\$1,024	48.8%
Computer Science	\$1,065	70.8%
Electrical Engineering	\$1,070	64.4%
Energy Systems Engineering	\$2,601	28.0%
Engineering Science	\$1,028	84.4%
Mechanical Engineering	\$1,118	72.2%
Petroleum Engineering	\$826	77.4%

CAPACITY BY ACADEMIC UNIT

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Total number of undergraduate seats offered declined by 2.35% during the review period, aligning with institutional enrollment and utilization trends.

Total Number of Undergraduate Seats Offered							
School	2012-13	2013-14	2014-15	2015-16	2016-17	Average	CAGR ¹
Arts & Science	115,835	113,349	112,870	113,234	119,417	114,941	0.61%
Engineering	15,842	16,386	16,604	16,106	14,716	15,931	-1.46%
Agriculture	15,415	15,317	14,978	14,692	16,487	15,378	1.35%
Business	10,783	10,869	11,415	11,701	11,792	11,312	2.08%
Health Sciences	12,224	12,215	11,586	10,261	10,264	11,310	0.02%
Education	5,867	5,221	5,747	5,674	5,671	5,636	-2.30%
Envr & Nat Rsrc	1,034	1,630	1,582	1,455	1,860	1,512	11.36%
Energy	327	376	346	356	476	376	7.80%
Total	177,327	175,363	175,128	173,479	180,683	176,396	-0.47%

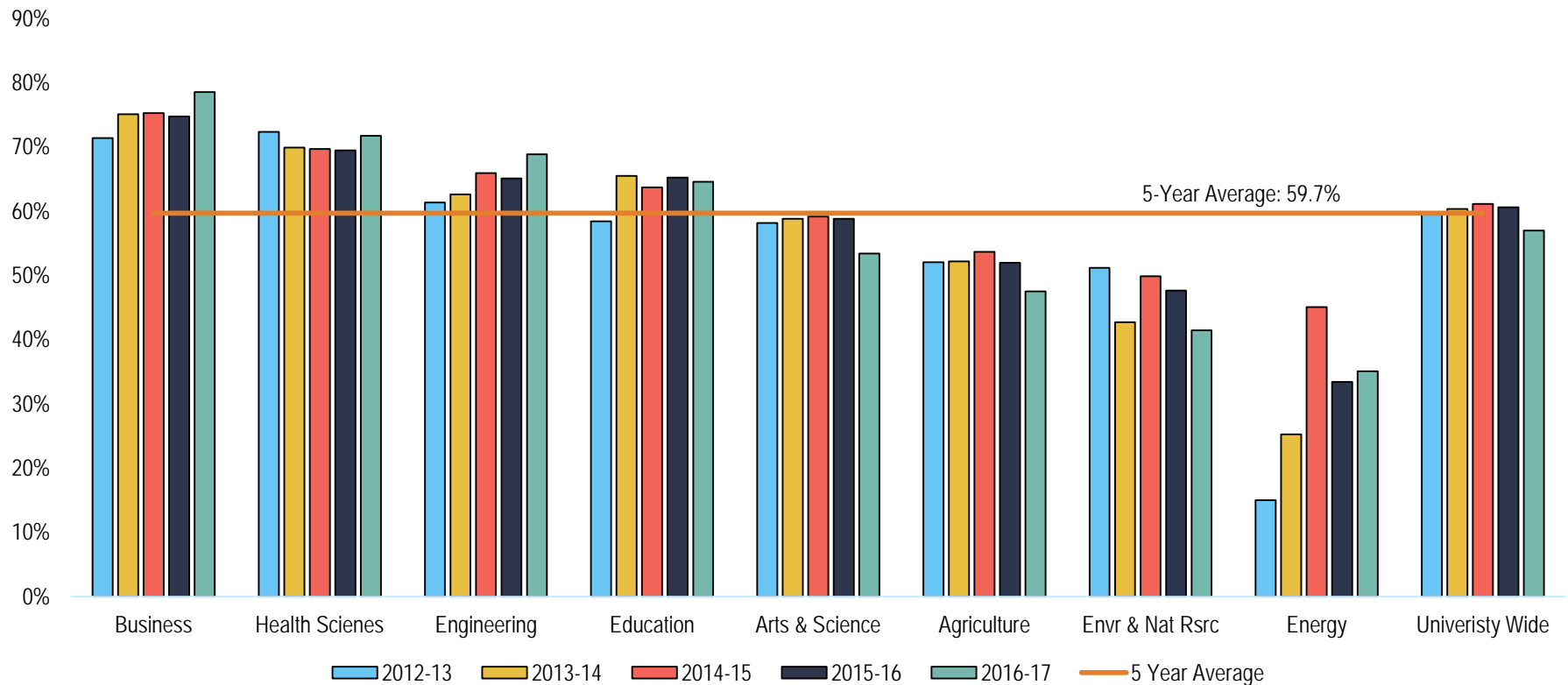
Total undergraduate section utilization has been approximately 60% during the past five additional years; an increase to 75% could result in annual student space (assuming 10 course seats/students) of nearly 600 students.

UNDERGRADUATE SEAT UTILIZATION

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Seat utilization increases in business, and engineering follow national trends for student interests; however, credit hour production declines in education combined with high utilization illustrate unit adaptations to changing student demand.

Undergraduate Seat Utilization by Academic Unit



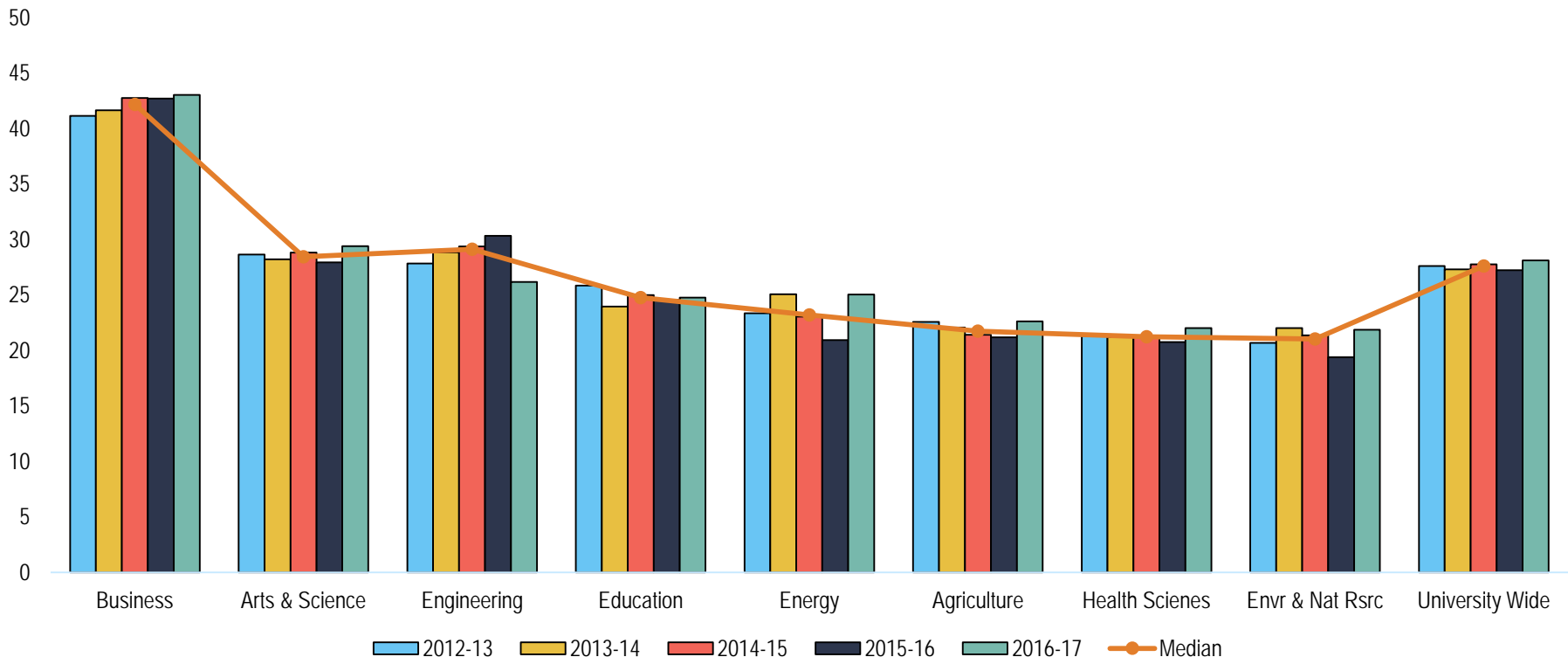
University wide utilization of two-thirds of available seats suggests opportunities to increase section utilization and potentially increase available sections offered without changing total faculty effort.

UNDERGRADUATE AVERAGE CLASS SIZE

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The university-wide average class size for academic units has remained relatively consistent over the past five academic years but many academic units have experienced high levels of inconsistency in section size.

Undergraduate Average Class Size



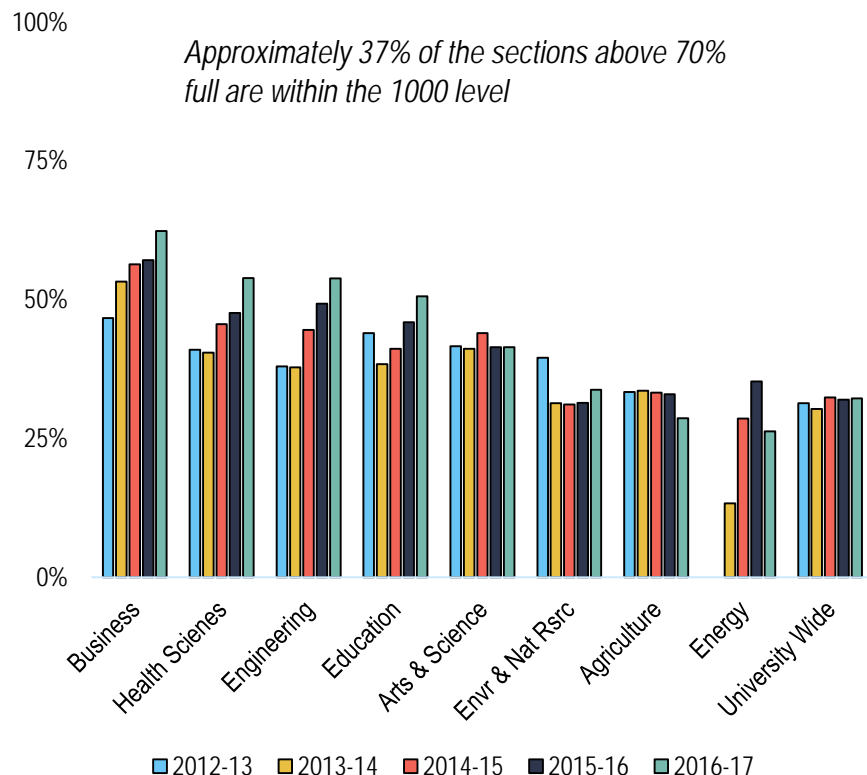
While the wide spread of average undergraduate class size may reflect pedagogical differences, the high degree of variability can create challenges in efficiently utilizing space across campus.

LOW AND HIGH UTILIZED COURSES

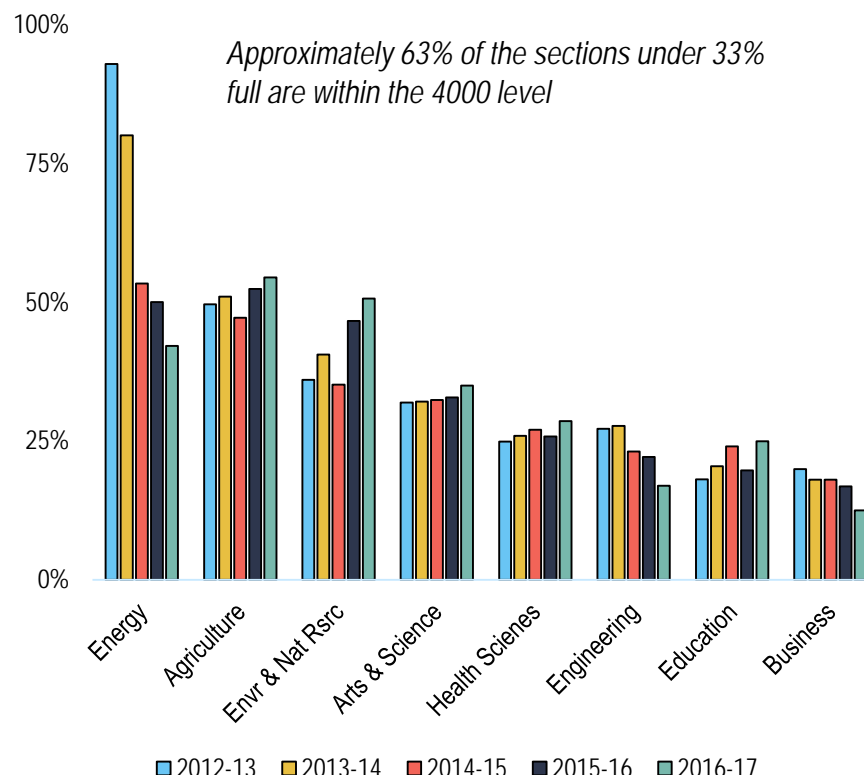
INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

While 2016-17 resulted in recent record highs for sections above 70% utilization for many schools, nearly a similar number had experienced the most sections that were 33% or less full.

Percent of Undergraduate Sections above 70%



Percent of Undergraduate Sections below 33%



The polarization of sections that are both relatively full ($\geq 70\%$) and empty ($\leq 33\%$) as defined by their maximum capacity may present an opportunity for section consolidation at the university.

USP CORE UTILIZATION

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

The variability in utilization of core requirements suggests that specific requirements (e.g. communications) may have an excess of courses and sections offered compared to others that are nearly full in every section.

		2015-16			2016-17		
	USP Core Requirements	Total Seats Offered	Total Seats Consumed	Utilization	Total Seats Offered	Total Seats Consumed	Utilization
1	First-Year Seminar	2,218	1,779	80%	2,001	1,833	92%
2	Communication 1	1,903	1,397	73%	1,448	1,220	84%
3	Communication 2	2,863	2,120	74%	2,562	1,932	75%
4	Communication 3	5,004	3,486	70%	4,808	3,611	75%
5	Physical & Natural World	15,758	13,832	88%	15,526	13,189	85%
6	Human Culture	17,960	11,200	62%	16,582	10,047	61%
7	US & WY Constitution	2,846	2,822	99%	3,069	2,905	95%
8	Quantitative Reasoning	7,332	5,968	81%	8,298	6,778	82%
	Total	55,884	42,604	76%	54,294	41,515	76%

Despite the wide variety of courses to fulfill core requirements, when reviewed in aggregate many are nearing capacity, illustrating a need to be intentional with course scheduling and section offering within the core.

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PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

OVERVIEW AND KEY FINDINGS

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

As we consider the University of Wyoming's pricing strategy, the voice of the current market of prospective students is key. To this end, Huron collaborated with the University of Wyoming to design and field a survey of prospective undergraduate students.

Our goals were to better understand overall perceptions of the University of Wyoming, what decision factors are most important to these prospects as they consider where to apply, how they consider cost, including their tuition expectations, and how well informed they are about discounting.

In total, nearly 1,200 respondents completed the survey illustrating the following key findings:

- + **Cost** is the primary decision factor for prospective students in these markets (ranked higher than other important factors such as location, programs offered, size, and ranking)
- + UW is perceived to have an appealing campus culture and location (with good access to outdoors activities) and strong academics, on par with its competitors. Many prospects believe **UW offers an affordable education**.
- + However, **some** prospects are **removing UW from their consideration set based on sticker price**; many (83%) assume that out-of-state education will be more costly.
 - More than half of prospects have taken some universities off their consideration list because of their published tuition.
- + 2/3 of prospects wish that they had a better sense of how much financial aid to expect from UW, and **only 18%** have heard of the Rocky Mountain Scholars Award.
- + In aggregate, Colorado & Nebraska prospects define a "good value" tuition level for the University of Wyoming as \$12,000.

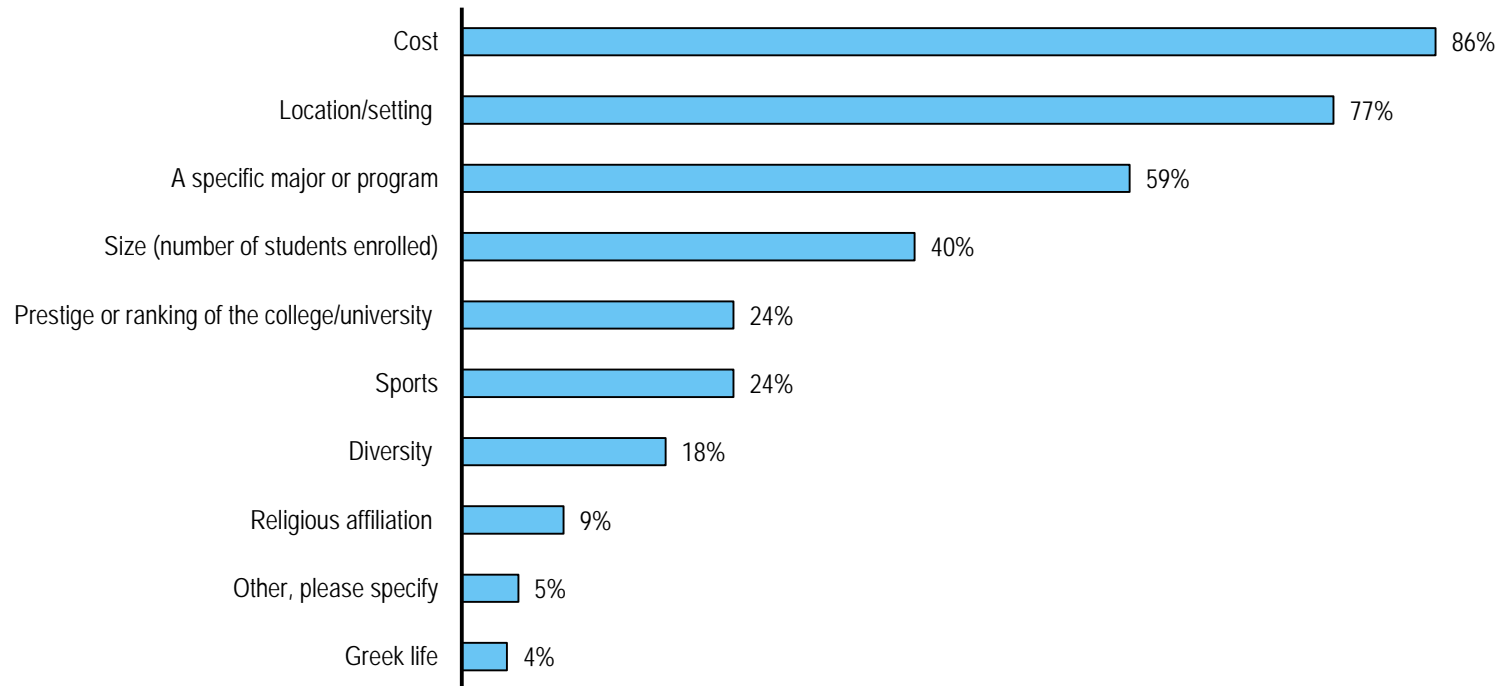
Lowering the University of Wyoming's published out-of-state tuition rate closer to \$12,000 would increase clarity and appeal for the market.

VOICE OF THE MARKET INSIGHT: COST IS KEY

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Prospective students place cost and location as their top two most important factors in choosing a university. Given the importance of cost, it is not surprising that prospects would like to have as much clarity as possible on cost.

Which of the following factors are very important to you in thinking about the college/university you would like to attend? Please select no more than four.



Prospective students consider cost in the broader context of the other attributes here to assess the overall value proposition, but cost remains the highest consideration.

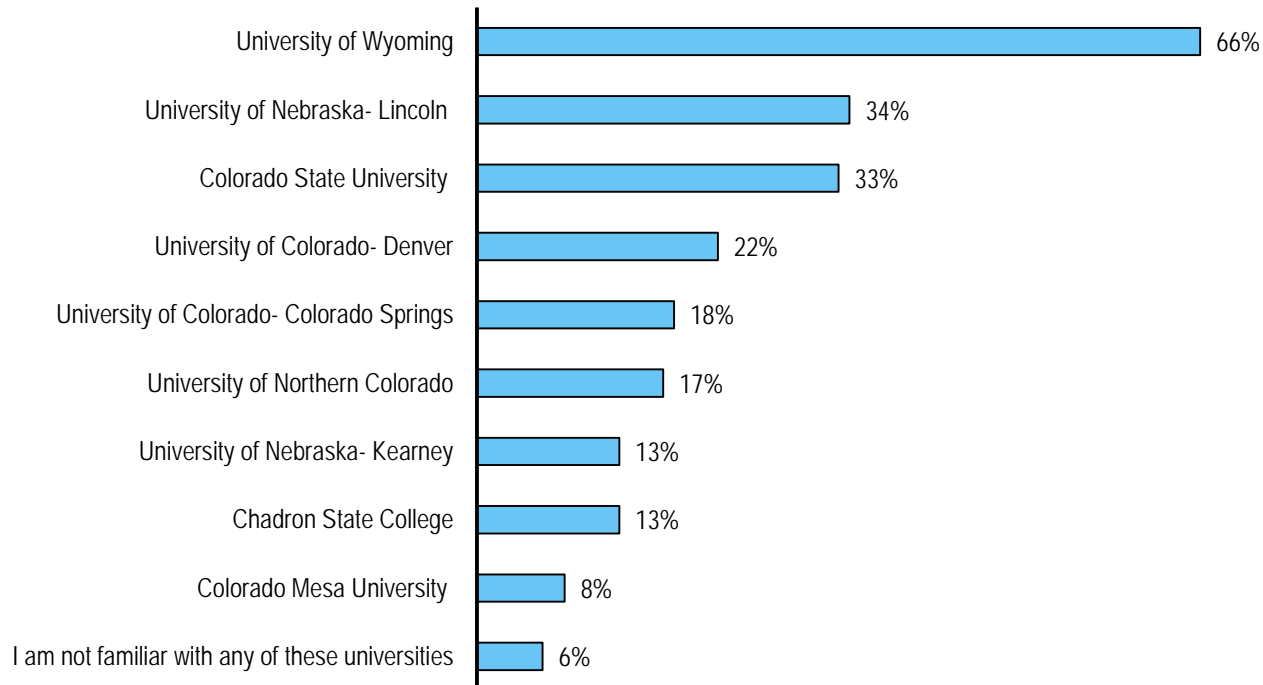
VOICE OF THE MARKET: UW'S COMPETITORS

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

The majority of the prospective students who took part in the study (drawn from UW's list of prospects) are considering applying to UW. Other universities in UW's competitor set in Colorado and Nebraska that these prospects are considering are shown below.

In the analysis on the following slides, the "top choice competitor" findings are an aggregate of ratings from prospects who specified a competitor as the university they are most likely to attend.

Which of the following colleges or universities are you considering applying to?
Please select all that apply.

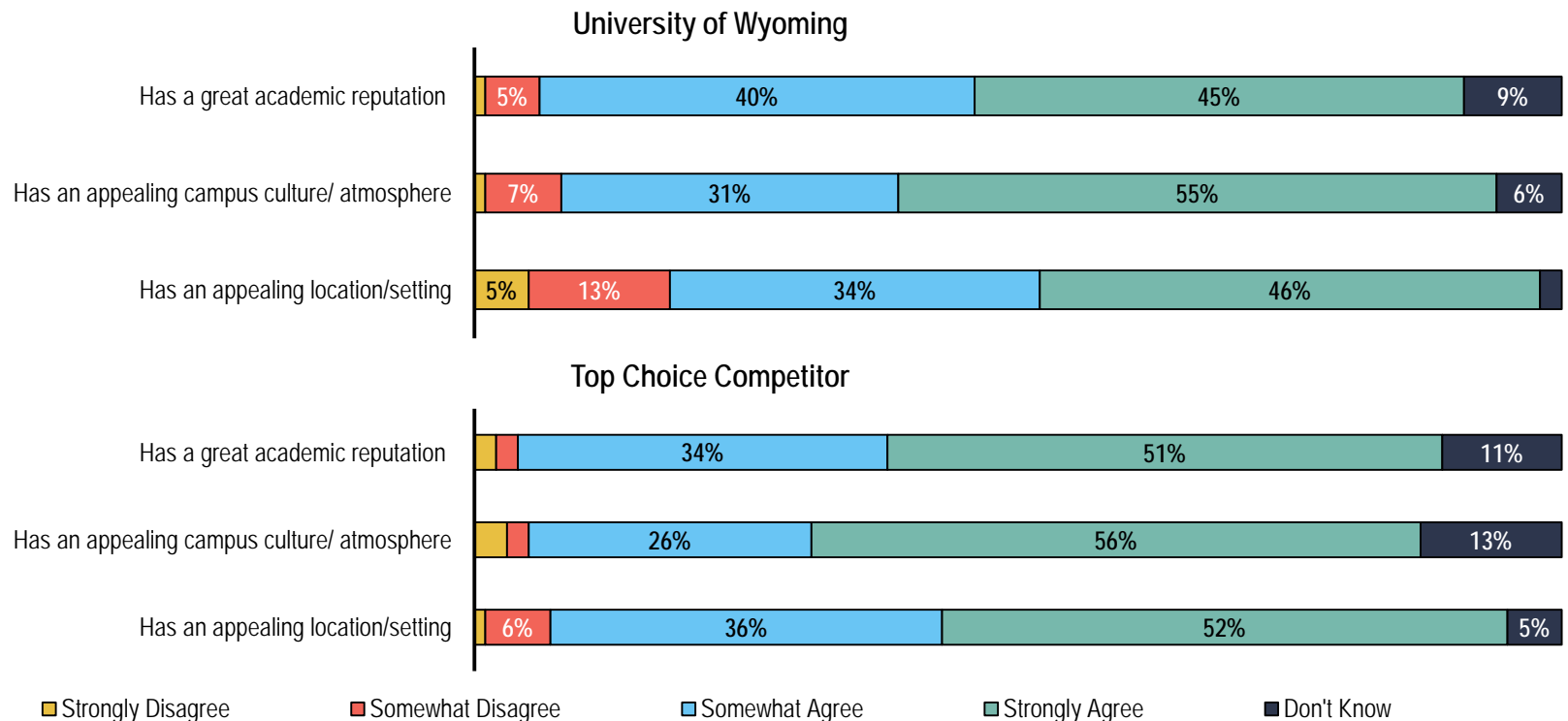


VOICE OF THE MARKET: UW PERCEPTIONS

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

A strong majority of prospects consider the University of Wyoming to offer a great education and an appealing campus atmosphere and location.

Among those who say they prefer one of UW's competitors, ratings of that top choice university are similar to the ratings for UW, with UW trailing somewhat on rating of location. When asked what aspects of location are appealing, 61% said proximity to outdoor activities, while another 47% prefer an urban location (see appendix).

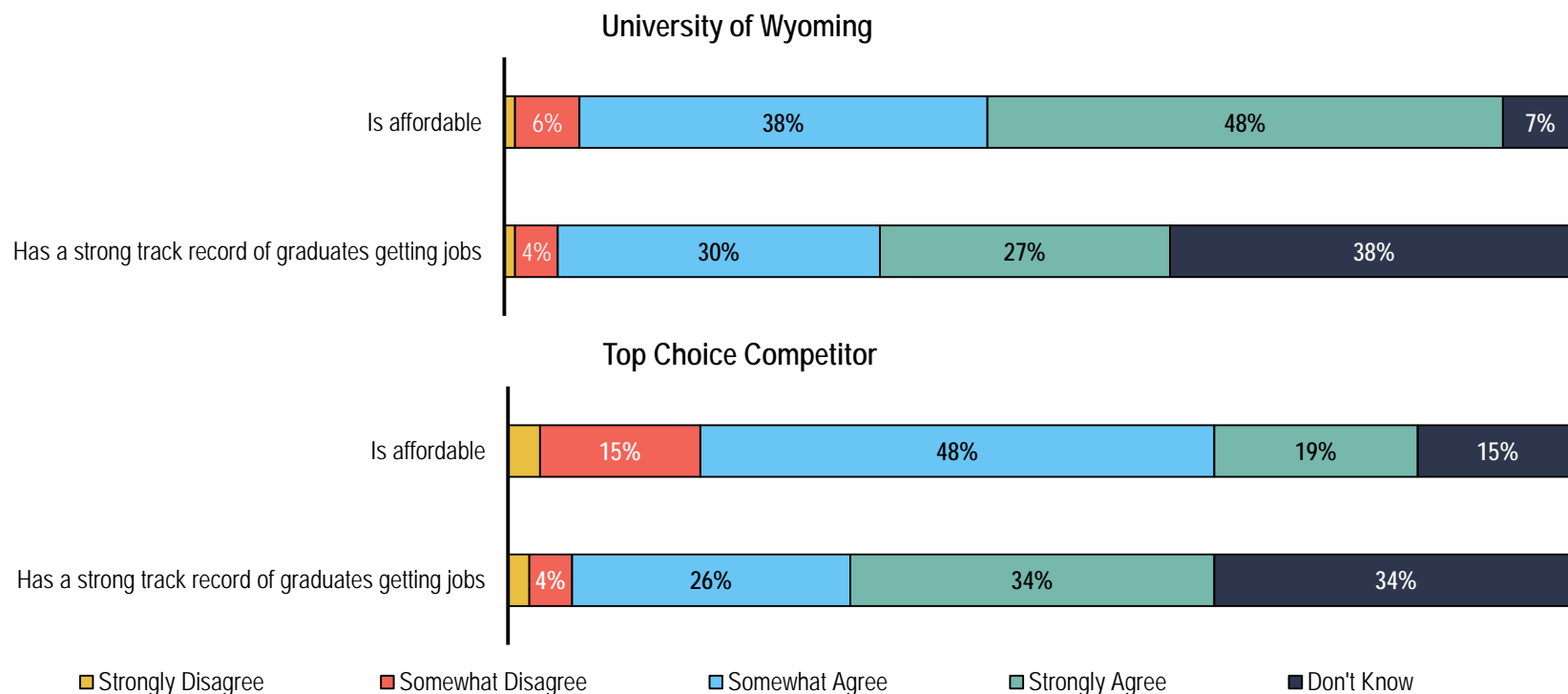


VOICE OF THE MARKET: AFFORDABILITY

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

A majority of prospects agree that the University of Wyoming is affordable; average ratings of affordability are higher for UW than for the top choice competitor.

Another component of how prospects consider the overall value proposition is the rate of employment among graduates. Prospects give similar ratings to UW and its competitors on this measure, but nearly a third report that they do not have good insight on this point, suggesting an opportunity to more strongly communicate UW's commitment to good employment outcomes.

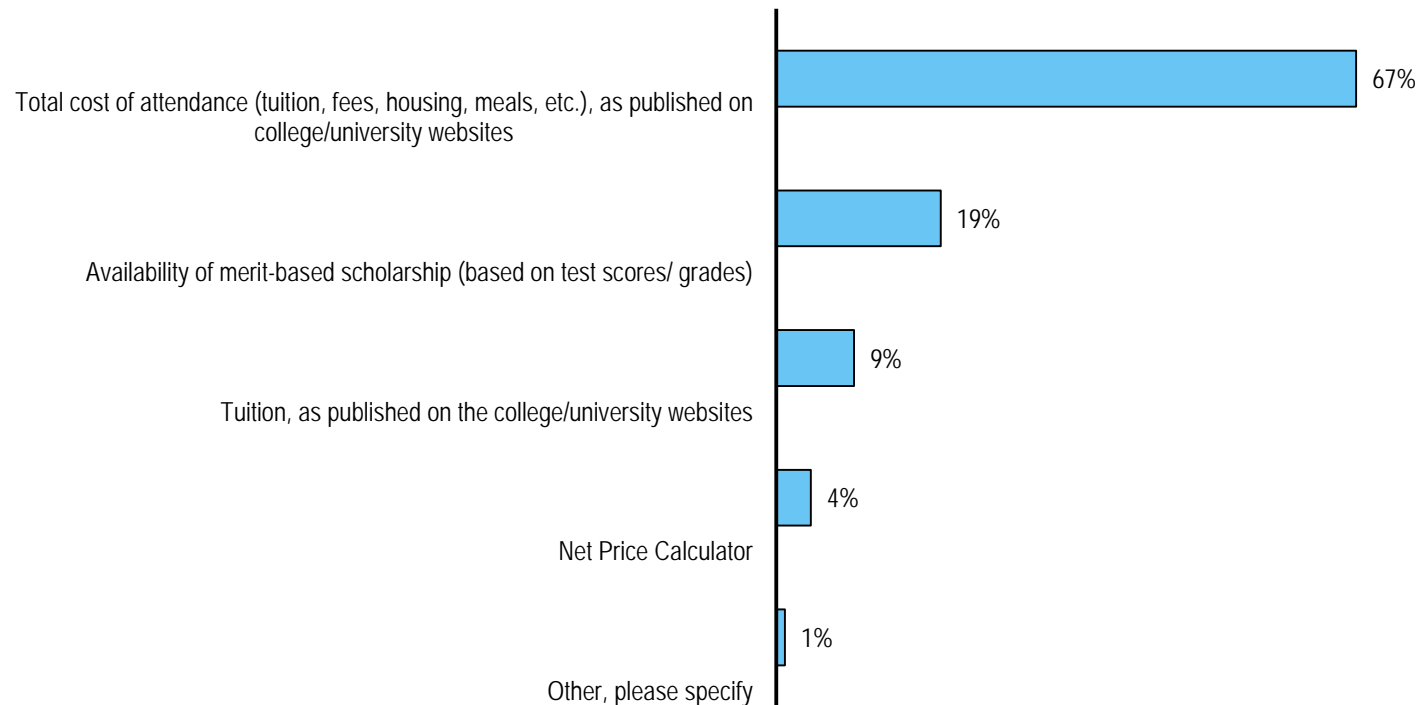


VOICE OF THE MARKET: COST CONSIDERATIONS

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

About 1 in 5 prospects are most attentive to merit-based scholarships as they research the potential cost of their education, while the majority focus on the published cost of attendance.

Which of the following do you pay most attention to when you consider cost? Please select one.



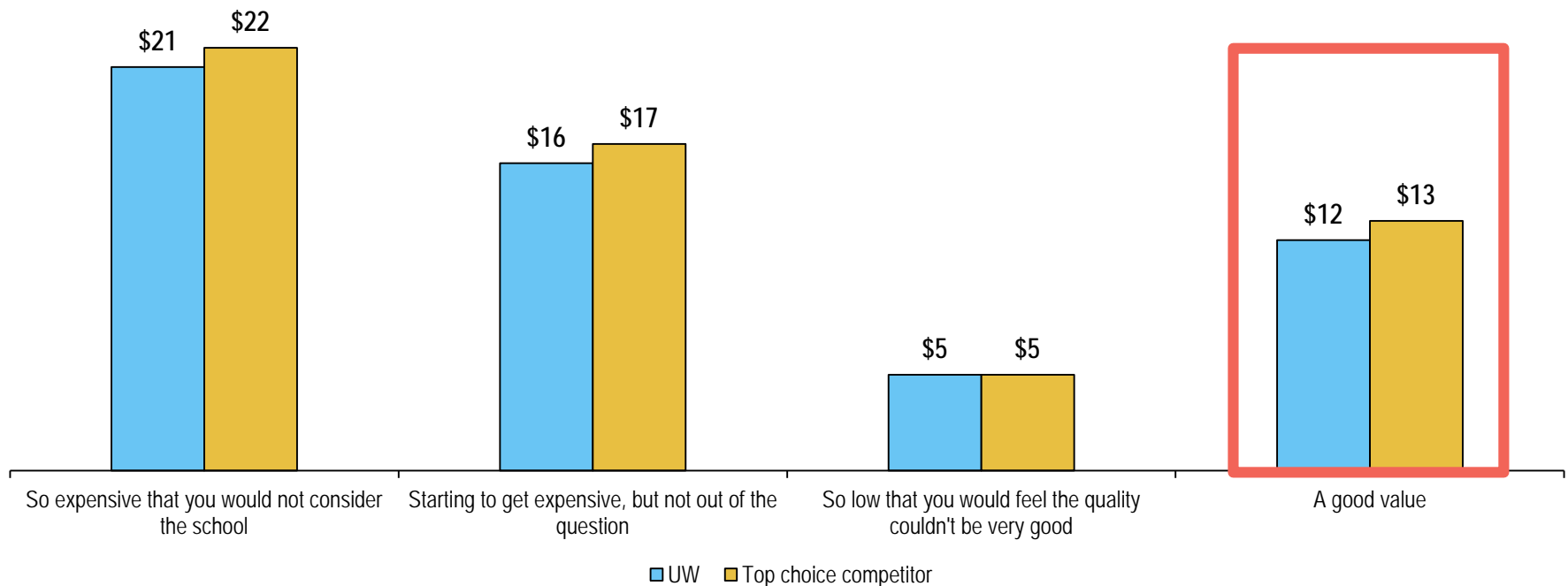
This finding suggests that information about the Rocky Mountain Scholars Award, for example, would be most helpful if communicated (e.g. on the web site) in terms of total cost of attendance.

VOICE OF THE MARKET: EXPECTED TUITION

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

CO and NE prospects suggest an annual tuition of \$12-\$16K reasonable for UW; the tolerated tuition range for their first choice competitor is only slightly higher, indicating that other decision factors are not sufficiently compelling to change the expected tuition.

For one year of full time study, what annual tuition would you consider...
Mean responses, in thousands of dollars

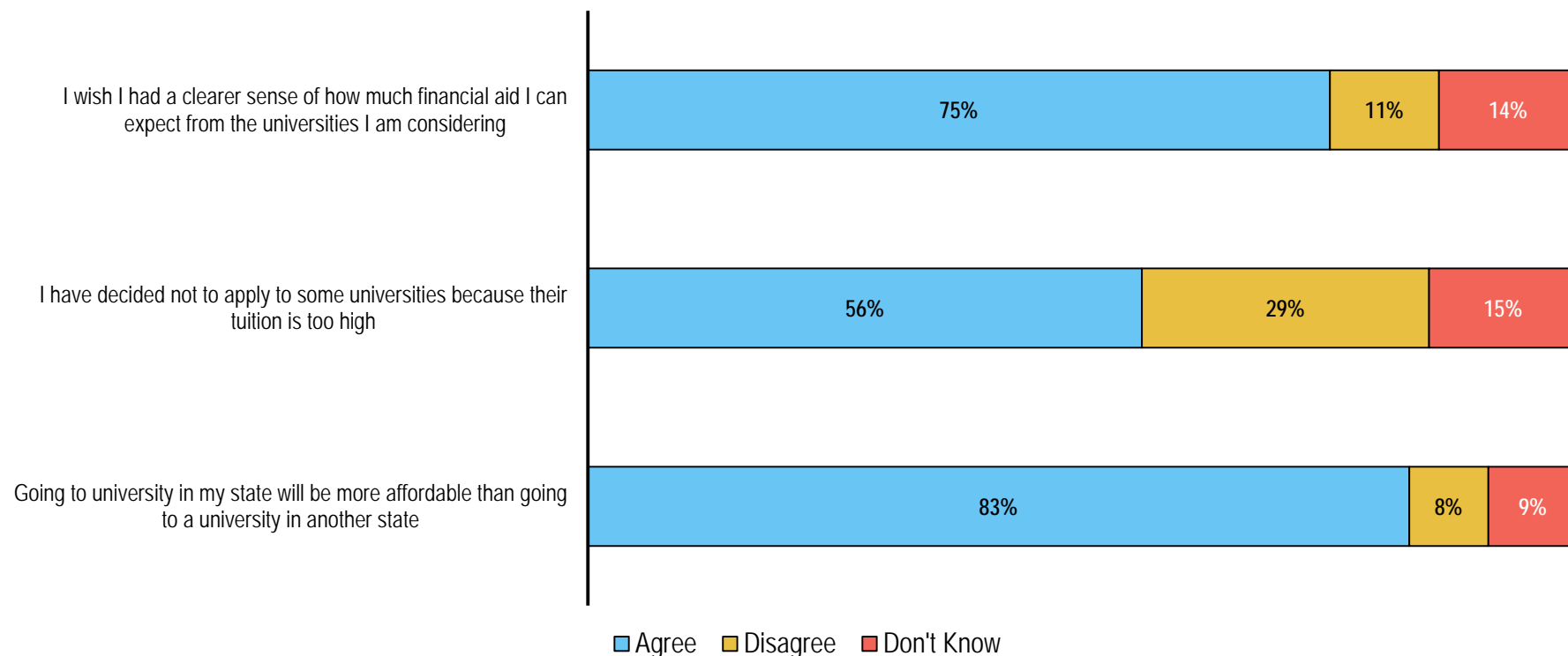


Note that these findings address published annual tuition, as opposed to final discounted cost, which is not yet well understood by these early-stage prospects, as is confirmed in the following slides.

VOICE OF THE MARKET: STICKER PRICE

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

The findings below suggest that despite the best efforts of universities to communicate that “sticker price” is not the final word, more than half of prospects have taken some universities off their consideration list because of their published tuition.

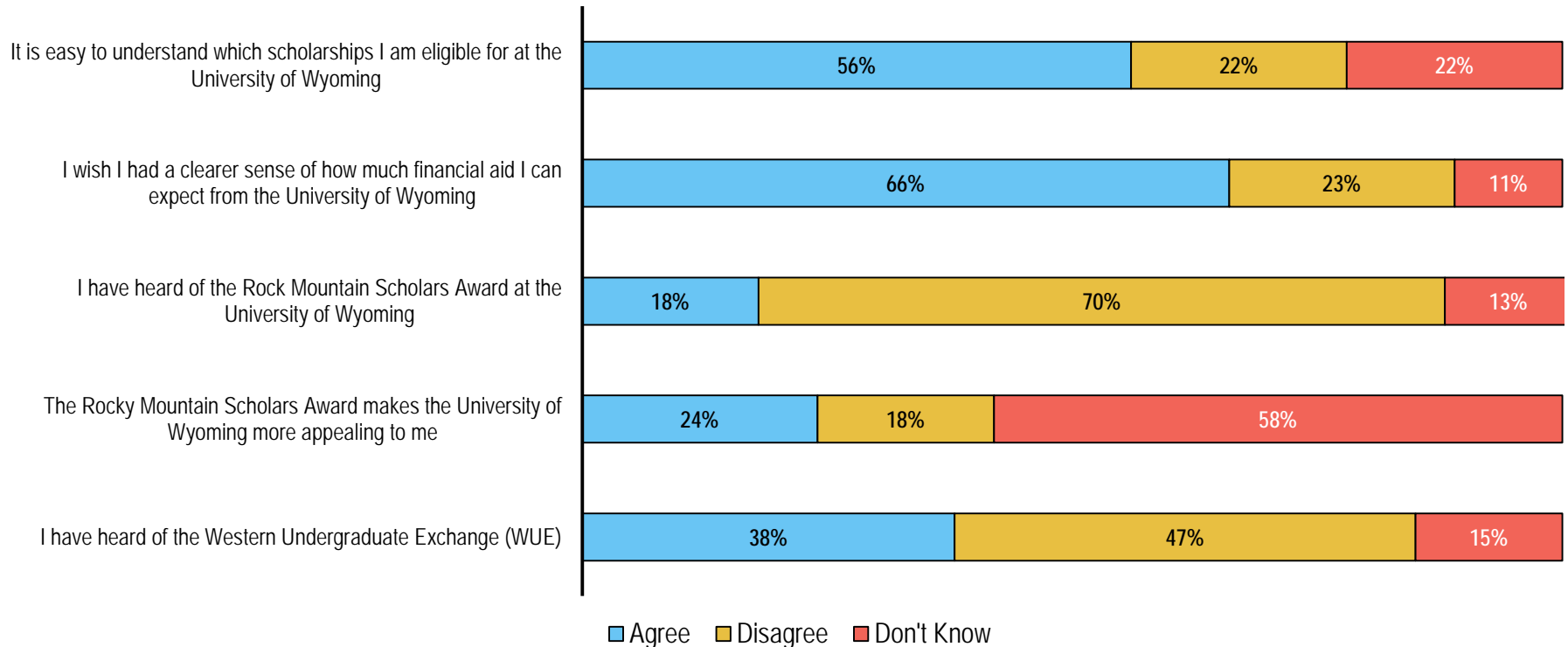


These findings affirm that the prospective student market would welcome the University of Wyoming's plans to more clearly communicate its affordability for out-of-state students.

VOICE OF THE MARKET: AID AWARENESS

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

2/3 of prospects at this stage of consideration wish that they had a clearer sense of how much financial aid to expect from UW while ½ half think they have a good understanding of the scholarships they are eligible for at UW.



Only 18% have heard of the Rocky Mountain Scholars Award and as prospects look into universities and their costs, simplicity and clarity are crucial for the message of affordability to resonate.

ENTERING FIRST-TIME FULL-TIME FRESHMEN

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Before reviewing potential changes in student behavior for Colorado and Nebraska Freshmen, Huron and HCRC first validated the prior three years of historical first-time full-time (FTFT) student data.

	2015	2016	2017	1 Year Change	2 Year Change
Admits	3,899	4,268	3,592	-676	-307
Matrics	1,525	1,453	1,640	187	115
Yield	39.1%	34.0%	45.7%	11.6%	6.5%
Average Igrant	\$2,252	\$2,312	\$2,445	\$134	-\$107
Average Waiver	\$1,111	\$1,121	\$1,250	\$129	\$139
Average Tgrant with Waivers	\$6,552	\$6,397	\$6,589	\$192	\$37
Average NTR	\$5,818	\$6,307	\$6,213	-\$94	\$395
Aggregate NTR	\$8,872,260	\$9,164,775	\$10,189,714	\$1,024,938	\$1,317,454
Average Need	\$10,040	\$10,297	\$9,584	-\$713	-\$456
Average EFC	\$23,099	\$23,051	\$24,382	\$1,331	\$1,283
Median Parent Income	\$98,176	\$97,494	\$103,205	\$5,711	\$5,030
Average ACT	24.8	24.5	24.6	0.2	-0.2
Average GPA	3.50	3.48	3.48	0.00	-0.01
Average HS Quality	74.5%	74.0%	73.9%	-0.01%	-0.6%

SUMMARY: COLORADO AND NEBRASKA

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY





Given that the elasticity efforts were focused on Colorado and Nebraska students, a similar summary was utilized to narrow in modeling efforts on Colorado and Nebraska students, excluding athletes and special scholars.

	2015	2016	2017	1 Year Change	2 Year Change
Admits	1,145	1,146	955	-191	-190
Matrics	304	277	310	33	6
Yield	26.6%	24.2%	32.5%	8.3%	5.9%
Average Igrant	\$3,305	\$3,011	\$3,663	\$651	\$358
Average Waiver	\$2,354	\$2,589	\$2,505	-\$84	\$151
Average Tgrant with Waivers	\$6,397	\$6,371	\$7,041	\$670	\$644
Average NTR	\$9,883	\$10,589	\$10,670	\$81	\$787
Aggregate NTR	\$3,004,331	\$2,933,099	\$3,307,595	\$374,497	\$303,265
Average Need	\$13,675	\$13,793	\$12,602	-\$1,191	-\$1,073
Average EFC	\$23,556	\$25,654	\$29,113	\$3,459	\$5,558
Median Parent Income	\$95,537	\$98,799	\$114,175	\$15,377	\$18,638
Average ACT	25.0	24.8	24.8	0.1	-0.1
Average GPA	3.42	3.42	3.43	0.02	0.01
Average HS Quality	80.1%	77.8%	77.5%	-0.3%	-2.6%

ANALYZING BY ACADEMICS & NEED

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

To help better understand student responses to price, Huron and Human Capital Research Corporation (HCRC) split students into four categories based on academic merit (chart to the right) and six categories based on demonstrated need (bottom table).

Rocky Mountain Scholarship Band	
	1) Less than 21 ACT and Less than 3.0 GPA ¹
	2) Cream Area on Chart
	3) Brown Area on Chart
	4) Gold Area on Chart

Need Band	
1) Non-Aid Application Filers ("Non-Aidap")	
2) \$0 in Need	
3) \$1 - \$10,000 in Need	
4) \$10,001 - \$20,000 in Need	
5) \$20,001 - \$35,000 in Need	
6) Pell Eligible Students	

SAT	ACT Composite	Cumulative High School GPA (4.0 unweighted scale)										
		3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0
1060-1090	21											
1100-1120	22		\$3,000									
1130-1150	23											
1160-1190	24											
1200-1230	25					\$6,000						
1240-1270	26											
1280-1300	27											
1310-1340	28											
1350-1380	29											
1390-1410	30											
1420-1440	31											
1450-1480	32											
1490-1510	33											
1520-1550	34											
1560-1590	35											
1600	36											

150% of Resident
Tuition
\$9,675 Value
Considered as WUE award in
participating states.

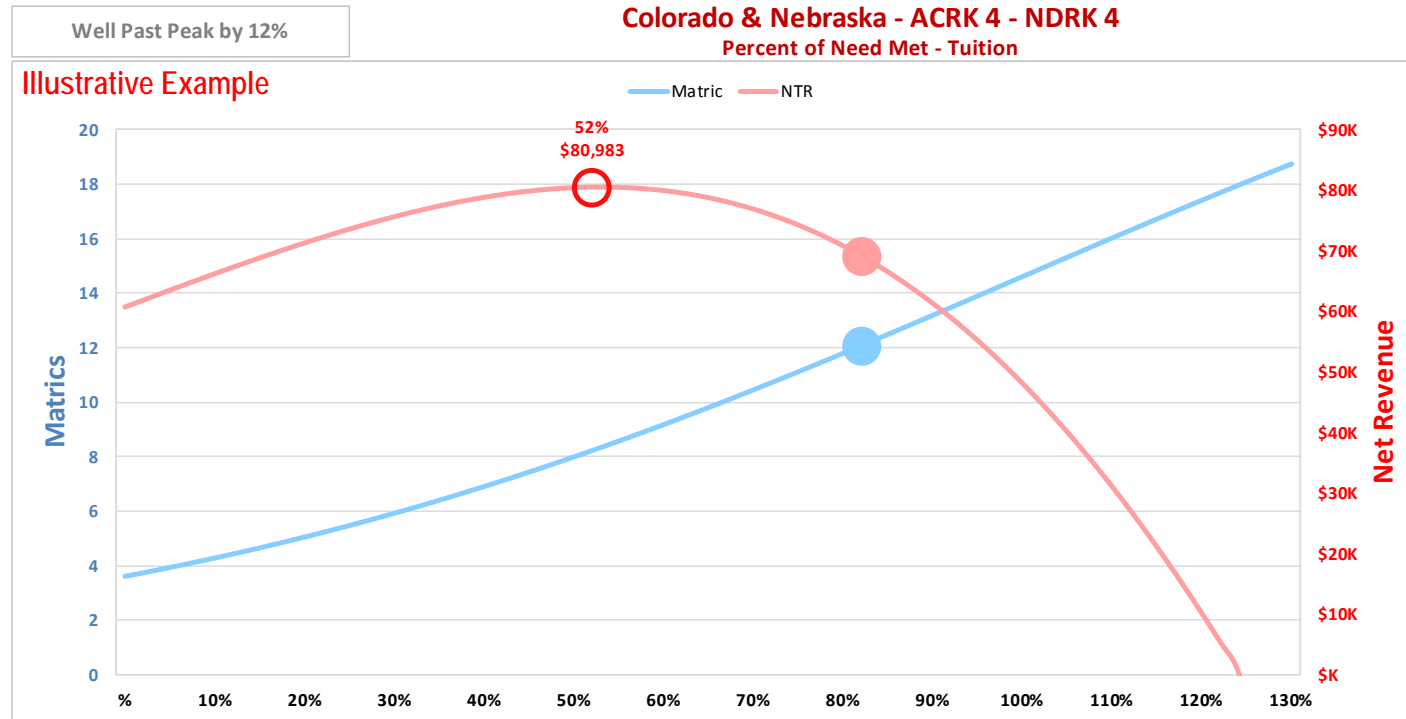
Source: Analysis conducted by Human Capital Research Corporation

¹ HCRC analysis suggests that 769 students matriculated with below a 21 on the ACT and a 3.0 GPA over the past three years, which is below the minimum university admission standards

OUT-OF-STATE (CO & NE) ELASTICITY

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

The elasticity analyses helped evaluate how Wyoming could alter its pricing strategy for students from Nebraska ("NE") and Colorado ("CO") to adjust headcount and revenue, both net-tuition and aggregate.



In the example to the left, UW would achieve higher net tuition revenue (empty red circle) by reducing the discount rate (left on the x-axis) relative to the current discount rate and headcount numbers (filled in circles)

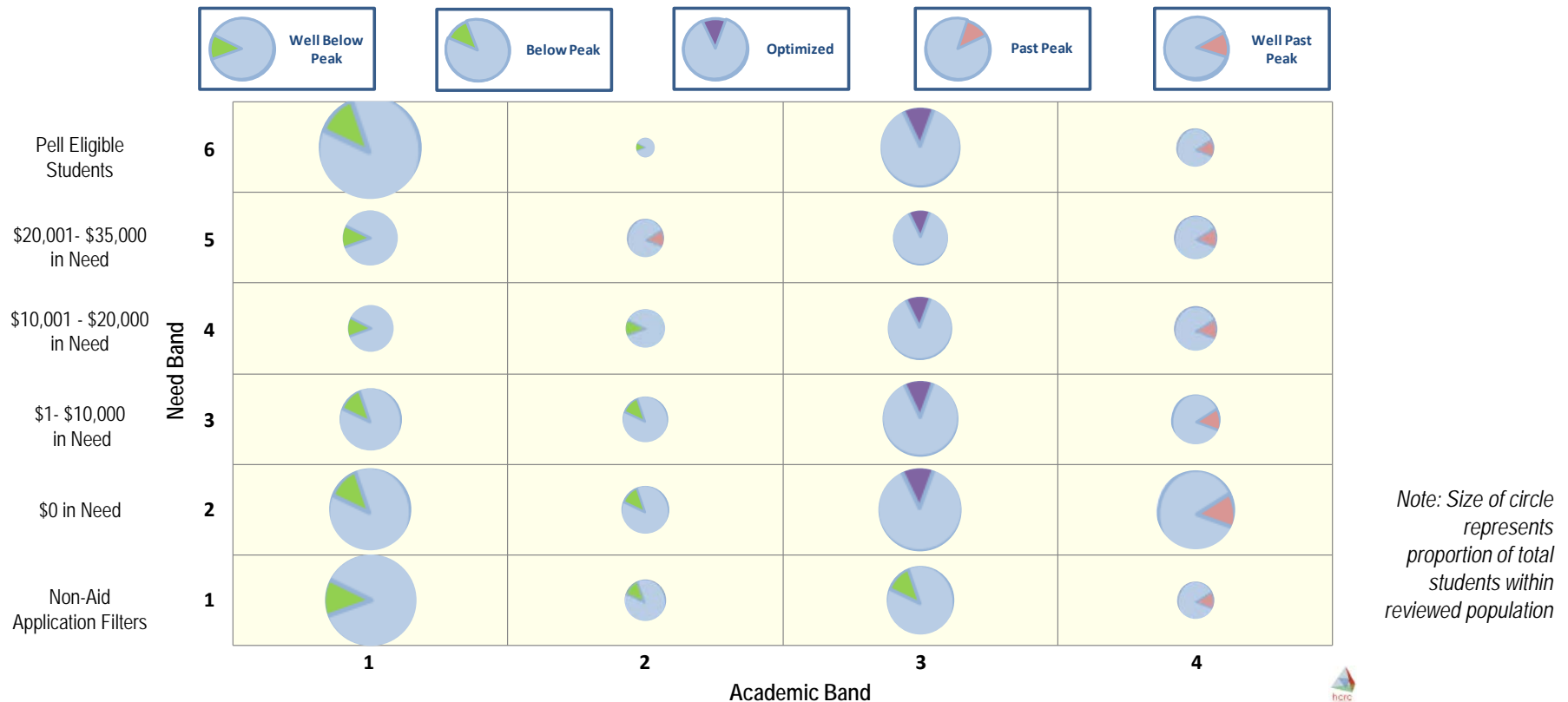
- + The process utilizes a multidimensional approach using the historical behavior of admitted students that explicitly considers distinct price-response effects attributable to strength of profile, family ability to pay, level of net cost, and affinity
- + These analyses help develop an understanding of where Wyoming can increase and/or decrease its price to utilize or grow capacity and maximize net tuition revenue relative to historical practices

FINANCIAL AID OPTIMIZATION BY SEGMENT

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Based on the prior three years of aid strategies for undergraduate freshmen from Colorado and Nebraska, elasticity results suggest that the institution is well past peak in regards to financial aid optimization for its highest achieving students¹.

Colorado & Nebraska - Clock Chart - Tuition



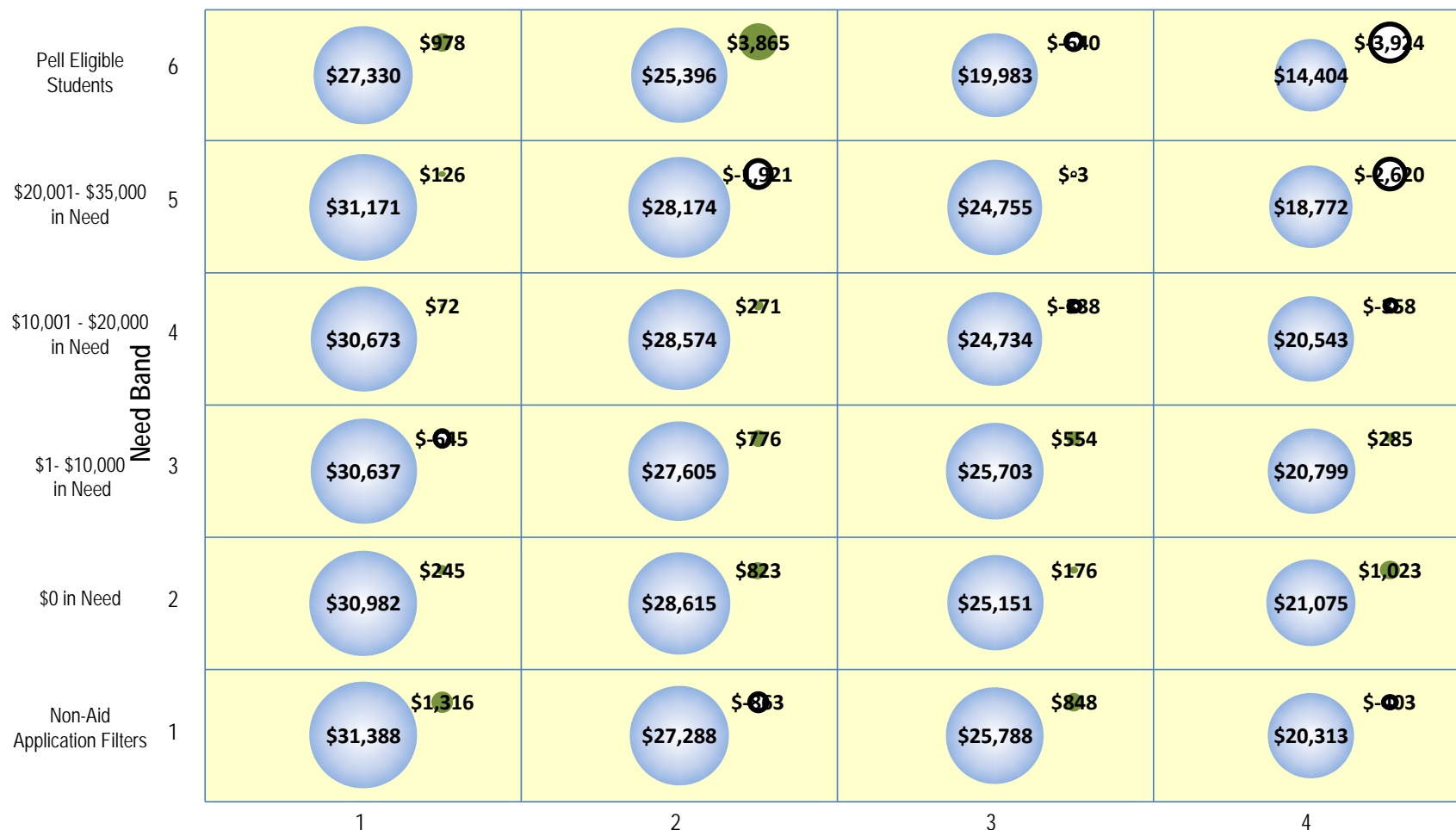
There is an opportunity to increase financial aid amongst Academic Bands 1 and 2 to grow headcount and net revenue. However, the University should ensure academic quality remains stable by focusing enrollment growth on Bands 2 and 3.

AVERAGE NET COST BY STUDENT SEGMENT

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Average Net Cost for Enrolled Students 2016 vs. 2017

● 2017 ● Change from 2016



Academic Band

*Colorado and Nebraska Freshmen

Source: Analysis conducted by Human Capital Research Corporation

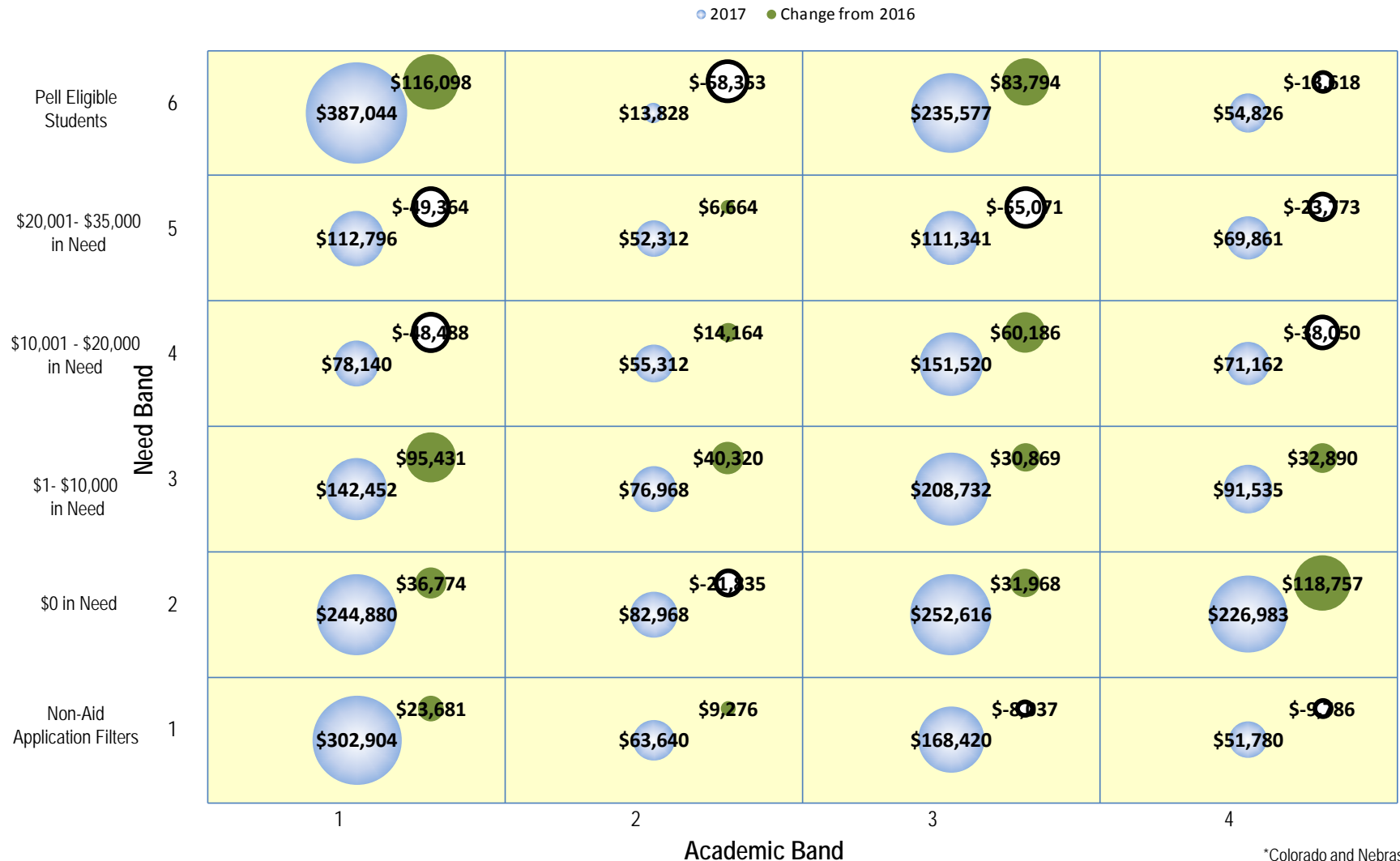
Note: Size of circle represents relative size of average net cost per student within each segment; Out-of-State (CO & NE) Elasticity



AVERAGE NTR BY STUDENT SEGMENT

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Aggregate Net Tuition Revenue for Enrolled Students 2016 vs. 2017



Academic Band

*Colorado and Nebraska Freshmen

Source: Analysis conducted by Human Capital Research Corporation

Note: Size of circle represents relative size of average net cost per student within each segment; Out-of-State (CO & NE) Elasticity

SCENARIO OVERVIEW: OUT-OF-STATE (CO & NE)

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

To best understand how Colorado and Nebraska students might respond to various pricing options, Huron and Human Capital Research Corporation ran scenarios at price points between \$8-\$12,000 with varying levels of discount to top academic students¹.

Scenario Descriptions:

N) \$9,000 tuition, \$1K scholarship to top students
O) \$9,000 tuition, \$2K scholarship to top students
P) \$9,500 tuition, \$1K scholarship to top students
Q) \$9,500 tuition, \$2K scholarship to top students
R) \$10,000 tuition, \$1K scholarship to top students
F) \$10,000 tuition, \$2K scholarship to top students

Note: Huron recommends a price of \$9,500 to \$9,750 with a discount of \$1,000 to students of the highest academic merit. This price point not only opens up additional demand to students but also remains below competitive options within Colorado and Nebraska.

	Scenario N	Scenario O	Scenario P	Scenario Q	Scenario R	Scenario F
<i>admits</i>	0	0	0	0	0	0
<i>metrics</i>	37.2	42.2	27.3	32.2	17.5	22.3
<i>yield</i>	1.0%	1.2%	0.8%	0.9%	0.5%	0.6%
<i>avg. coa</i>	-\$1,174	-\$1,169	-\$1,084	-\$1,078	-\$998	-\$991
<i>avg. comp fee</i>	-\$1,183	-\$1,178	-\$1,093	-\$1,086	-\$1,007	-\$999
<i>avg. tuition+fees</i>	-\$1,186	-\$1,182	-\$1,095	-\$1,089	-\$1,008	-\$1,001
<i>avg. total grant</i>	-\$1,205	-\$1,164	-\$1,179	-\$1,139	-\$1,153	-\$1,115
<i>avg. net cost (COA - tgrant)</i>	\$30	-\$5	\$95	\$62	\$154	\$124
<i>avg. net cost (tuition+fees - tgrant)</i>	-\$24	-\$64	\$50	\$12	\$119	\$83
<i>avg. institutional grants & waiver</i>	-\$1,173	-\$1,126	-\$1,160	-\$1,113	-\$1,146	-\$1,101
<i>aggregate inst. grants & waivers</i>	-\$1,830,013	-\$1,738,002	-\$1,832,419	-\$1,742,932	-\$1,834,783	-\$1,747,810
<i>avg. net tuition revenue</i>	-\$16	-\$58	\$62	\$22	\$135	\$97
<i>aggr. net tuition revenue</i>	\$204,777	\$163,602	\$273,208	\$236,352	\$333,032	\$300,327
<i>avg. net revenue</i>	-\$13	-\$55	\$64	\$24	\$137	\$99
<i>aggr. net revenue</i>	\$589,108	\$598,603	\$555,165	\$568,360	\$513,851	\$530,476
<i>avg. ACT</i>	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
<i>avg. HS GPA</i>	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
<i>avg. HS Quality</i>	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
<i>% male</i>	0.2%	0.2%	0.2%	0.2%	0.3%	0.2%
<i>% soc</i>	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>% urm</i>	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>% in state residents</i>	-1.2%	-1.3%	-0.9%	-1.0%	-0.6%	-0.7%
<i>% colorado residents</i>	1.6%	1.8%	1.2%	1.3%	0.7%	0.9%
<i>% nebraska residents</i>	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>% pell</i>	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
<i>% athlete</i>	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%

Source: Analysis conducted by Human Capital Research Corporation

Note: Table listed above represents changes from baseline scenario of 2016/2017 data analysis

¹ Additional information on peer pricing can be found in the appendix of this document.

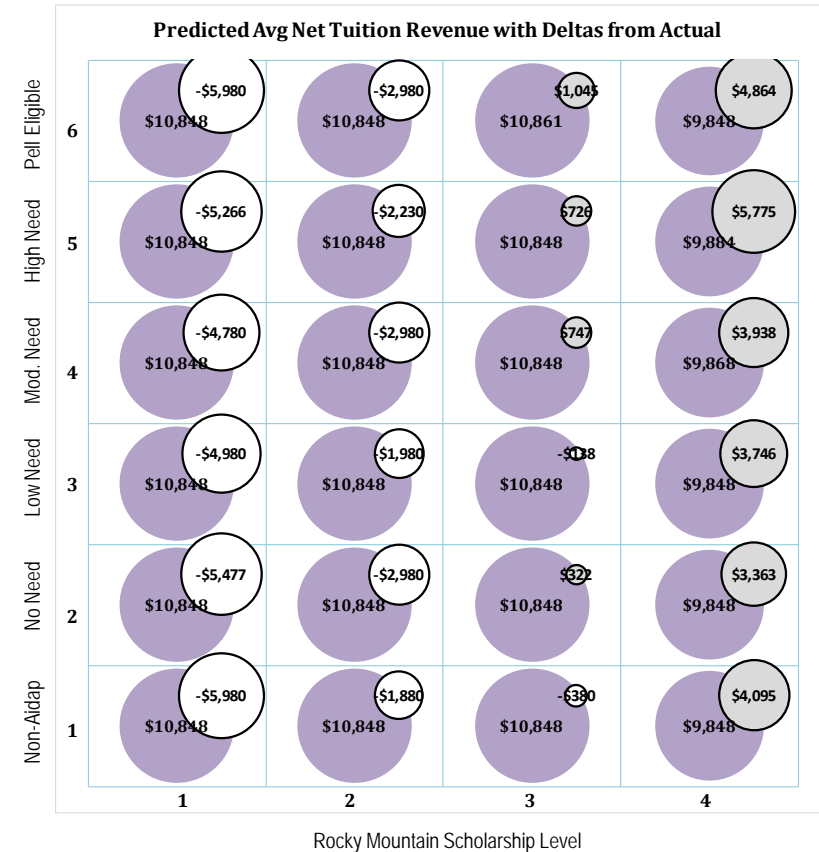
RECOMMENDED PRICING SCENARIO

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

The following scenario illustrates modeled headcount and financial changes for a flat price of \$9,500 for all Colorado and Nebraska students with a \$1,000 discount to students in the highest academic band¹.

Colorado and Nebraska				All Freshmen		
	2017	Scenario P	Delta	2017	Scenario P	Delta
<i>admits</i>	955	955	0	3592	3592	0
<i>matrics</i>	310	337.3	27.3	1640	1667.3	27.3
<i>yield</i>	32.5%	35.3%	2.9%	45.7%	46.4%	0.8%
<i>avg. coa</i>	\$31,525	\$25,544	-\$5,981	\$24,345	\$23,261	-\$1,084
<i>avg. comp fee</i>	\$16,837	\$21,172	-\$5,981	\$20,092	\$18,999	-\$1,093
<i>avg. tuition+fees</i>	\$16,837	\$10,856	-\$5,981	\$9,909	\$8,814	-\$1,095
<i>avg. total grant</i>	\$7,041	\$1,098	-\$5,943	\$6,589	\$5,411	-\$1,179
<i>avg. net cost (COA - tgrant)</i>	\$24,484	\$24,446	-\$38	\$17,760	\$17,855	\$95
<i>avg. net cost (tuition+fees - tgrant)</i>	\$9,874	\$9,755	-\$119	\$4,758	\$4,807	\$50
<i>avg. institutional grants & waiver</i>	\$6,168	\$236	-\$5,931	\$3,695	\$2,536	-\$1,160
<i>aggregate inst. grants & waivers</i>	\$1,911,944	\$79,764	-\$1,832,180	\$6,060,597	\$4,228,178	-\$1,832,419
<i>avg. net tuition revenue</i>	\$10,670	\$10,614	-\$56	\$6,213	\$6,275	\$62
<i>aggr. net tuition revenue</i>	\$3,307,595	\$3,580,352	\$272,757	\$10,189,714	\$10,462,922	\$273,208
<i>avg. net revenue</i>	\$20,990	\$20,934	-\$56	\$16,396	\$16,461	\$64
<i>aggr. net revenue</i>	\$6,506,795	\$7,061,495	\$554,699	\$26,890,180	\$27,445,344	\$555,165
<i>avg. ACT</i>	24.8	24	-0.9	24.6	24	-0.2
<i>avg. HS GPA</i>	3.43	3.35	-0.09	3.48	3.47	-0.02
<i>avg. HS Quality</i>	77.5%	77.8%	0.3%	73.9%	74.3%	0.4%
<i>% male</i>	46.1%	47.2%	1.0%	50.7%	51.0%	0.2%
<i>% soc</i>	13.2%	14.2%	1.0%	15.3%	15.4%	0.1%
<i>% urm</i>	11.0%	11.9%	0.9%	12.9%	13.0%	0.1%
<i>% in state residents</i>	0.0%	0.0%	0.0%	52.9%	52.1%	-0.9%
<i>% colorado residents</i>	93.6%	93.5%	0.0%	23.1%	24.2%	1.2%
<i>% nebraska residents</i>	6.5%	6.5%	0.0%	1.9%	2.0%	0.1%
<i>% pell</i>	18.7%	19.4%	0.7%	19.5%	19.7%	0.2%
<i>% athlete</i>	0.0%	0.0%	0.0%	5.7%	5.6%	-0.1%

(Scenario P Avg NTR)



Source: Analysis conducted by Human Capital Research Corporation

¹ Out-of-State (CO & NE) Elasticity

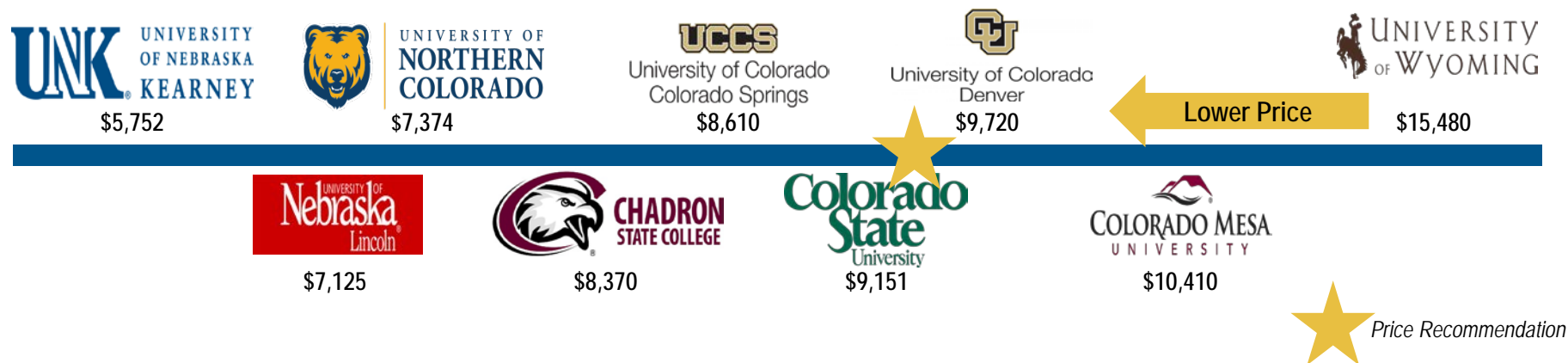
² Note that average price exceeds \$9,500 sticker price because it includes mandatory tuition and fees.

PRICE RECOMMENDATION

PRICING: PROSPECTIVE STUDENT SURVEY & ELASTICITY

Given the findings of the student survey and price elasticity efforts, Huron recommends setting a non-resident tuition price between \$9,500 - \$9,750 for CO and NE to increase demand by offering a competitive price with in-state options for these students.

- + The prospective student survey suggested that a price point of roughly \$12,000 appeared to be the “sweet-spot” of providing a good value while remaining an affordable option for prospective students
- + However, in-state options for Colorado and Nebraska students suggest that in order to remain competitive, UW may consider lowering its price to fall within the range of options that these students could expect to pay if they remained in state
- + With analysis suggesting that lowering the sticker price of tuition between \$9,500 - \$9,750 would create additional demand, Huron recommends choosing a price within this range while offering a \$1,000 discount to the highest qualified academic students (those that previously earned the 150% in-state rate)



While lowering the non-resident price will increase likely demand for CO and NE prospective students, price alone will not be sufficient to attract enrollments, and UW will need to augment recruiting efforts to compete with local options.

Note: Tuition prices were gathered from university websites in December 2017, price comparison is for each student paying in-state price against Wyoming out-of-state

5



SCENARIO VALUATION MODEL

OVERVIEW

VALUATION MODEL

Huron has created a scenario valuation model to help project the annual financial impact (revenue and expense) from additional students from Colorado and Nebraska at the University of Wyoming.

- + The model will consider the annual revenue impact of tuition, fees and auxiliary income in addition to the instructional and non-instructional expenses generated by each student
- + Tuition will be priced at \$9,500 with a \$1,000 discount to top students (ACT 34+, GPA 3.0 - 4.0)

Revenue Impact		
Tuition and Fees Revenue		
Tuition ¹	\$9,181	
Fees	\$1,415	
Total Tuition and Fees Revenue	\$10,596	
Auxiliary and Non-Tuition Fees Revenue		
	First-Year	Non-Freshmen
First-Year Orientation Fee	\$100	\$0
Room and Board	\$8,968	\$2,260
Total Non-Tuition Fees Revenue	\$9,068	\$2,260

Expense Impact	
Non-Instructional Expenses	
Total Positions	14
Combined Salary	\$769,678
Cost per new student	\$987
Instructional Expenses	
Average Class Size	28.8
Courses / New Students	10.00
% New Costs	51%
Average Cost Per Section	\$9,500
% Increase in Salary	2%
Average cost per new student	\$1,691

A 10 year financial projection will be calculated for the chosen enrollment scenarios showing only net new additional students added from Colorado and Nebraska at the price point identified with the elasticity results.

ANNUAL REVENUE IMPACT

VALUATION MODEL

Revenue impact is driven by a combination of the academic and non-academic revenue generated by each student and their standing within the university (e.g. freshmen impact on auxiliary revenue exceeds upperclassmen due to housing).

Tuition Financial Impact	
2017-18 Tuition Charges	
Annual Revenue Impact	Cost
Tuition ¹	\$9,181
ASUW	\$ 86
Consolidated Student Services	\$792
Intercollegiate Athletics	\$230
Music/ Theatre	\$12
Recycling	\$ 20
Student Media	\$42
Student Success	\$56
Transit Fee	\$108
Computing Fee	\$68
Total	\$10,596

Non-Tuition Financial Impact		
2017-18 Non-Tuition Charges		
	Freshmen Cost	Non-Freshmen Cost
Matriculation Fee	\$40	\$0
Orientation	\$60	\$0
Room	\$4,493	\$1,181
Dining	\$4,475	\$1,080
Total	\$9,068	\$2,260

ANNUAL EXPENSE IMPACT

VALUATION MODEL

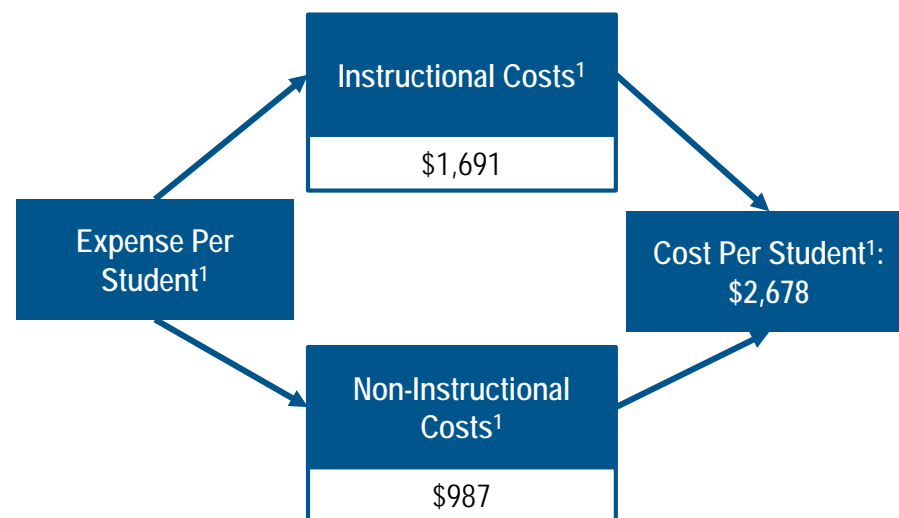
Conversations with academic and non-academic university leadership illustrated the perceived constraints of additional headcount. To represent these expenses, Huron identified both instructional and non-instructional costs for growth considerations.

Instructional Costs

- + Interviews with Deans and academic units suggest limited opportunity for additional instructional space without additional faculty headcount
- + While Huron's analysis shows space within the academic enterprise, varying levels of required new instructional support have been included within each scenario
- + Huron assumed that 100% of core classes would require additional instructional support and 35% of non-core classes would require additional instructional support, with the remaining seats required covered via improved academic management and current excess academic capacity

Non-Instructional Costs

- + To facilitate enrollment growth, 14 additional non-instructional costs were identified across 10 non-academic units
- + Using internal and national ratios, combined with average positional salaries, Huron identified a marginal non-instructional cost of \$987 per student



¹ Averages and inputs for instructional costs derived from Huron Analysis for Academic Capacity and Program Costing, additional detail can be found in the appendix of this document.

FIRST-TIME FULL-TIME RETENTION AND GRADUATION VALUATION MODEL

To account for student growth within a given year, new students are tracked through their student progression using historic student success metrics (e.g., retention, graduation) and total headcount exists for students in years 1-6.

First Time New Student Year to Year Progression ¹										
	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
Year 1	0	75	125	200	250	300	300	300	300	300
Year 2		0	56	94	150	187	225	225	225	225
Year 3			0	50	84	134	168	202	202	202
Year 4				0	50	84	134	167	201	201
Year 5					0	21	35	56	70	84
Year 6						0	4	7	12	15

Retention Rates ²	
Year 1 to 2	74.9%
Year 2 to 3	67.2%
Year 3 to 4	66.9%
Year 4 to 5	39.6%
Year 5 to 6	19.8%

Graduation Rates ²	
4-Year	27.2%
5-Year	49.2%
6-Year	55.1%

Source: Huron Capacity Valuation Model

¹ The modeled scenario is representative of 300 additional students a year in steady-state, this scenario is modeled in a later slide

² Retention rates and graduation rates were submitted to UW VP of Enrollment Management for validation

SUMMARY OVERVIEW

VALUATION MODEL

In partnership with University leadership, the following five growth scenarios were determined to illustrate growth for new students from Colorado and Nebraska.

- + The following table provides an overview of the 10 year financial impact for the five growth scenarios (appendix slides provide additional detail for each scenario listed below):

Model Growth Scenarios					
Scenario	Steady State: Incoming Cohort	Steady State: Total New Students	10-Year Revenue ¹	10-Year Expenses ¹	10-Year NPV
A	200	686	\$68,169,403	\$11,851,713	\$28,990,000
B	300	1,025	\$100,782,555	\$17,511,565	\$42,896,000
C	350	1,195	\$114,327,538	\$19,844,609	\$48,410,000
D	400	1,364	\$123,627,258	\$21,412,430	\$51,940,000
E	600	2,044	\$186,015,624	\$32,220,494	\$78,410,000

Using a combination of first-time students and historical retention and graduation trends, the valuation model uses the enrollment metrics to project the financial impact of additional students.

6



ONLINE EDUCATION PRICING

RECOMMENDATIONS

ONLINE EDUCATION PRICING

Based on our analysis, the University of Wyoming should implement the following changes to its online program pricing structure for out-of-state students to increase demand for program enrollments:

- + Maintain current pricing structure for in-state tuition for online programs, however, explore capping the number of credit hours campus-based undergraduate students can take online to accommodate space for fully-online degree seekers.
 - Undergraduate online course enrollment is increasing and pricing is extremely low compared to regional peers
 - Consider raising the online course fee to \$50 per credit hour for in-state students to recover additional costs for online education delivery.

- + Reduce undergraduate, graduate, and graduate certificate out-of-state tuition to be competitive with the Regional Peer Average (at or near peer average)
 - UW may experience a short-term reduction in revenue due to lower tuition rates for out-of-state enrollments
 - Current proportion of resident to non-resident undergraduate enrollment is 86%- 14%; graduate is 91% -9%; and certificate 96% - 4%
 - Reduction of tuition rates for out-of-state students could stimulate more demand resulting in more out-of-state enrollments that generate revenue gains in the long-term

- + Retain current pricing for niche programs (e.g. Executive MBA, Undergraduate Nursing Degree) as these programs are currently priced more closely to peer averages and appear to have sufficient enrollments for available capacity.

PEER ONLINE EDUCATION PRICING SUMMARY

ONLINE EDUCATION PRICING

Wyoming is very competitive with its in-state online tuition rates; however, Wyoming's out-of-state tuition is priced higher than its regional peers in nearly every undergraduate and graduate program. Huron recommends pricing near the regional peer average.

University	Undergraduate		Graduate		Certificates	
	In-State	Out-of-State	In-State	Out-of-State	In-State	Out-of-State
North Dakota State University	354	354	375	375	375	375
New Mexico State University	304	911	326	933	326	933
University of Nebraska	321	465	427	614	388	742
Colorado State University	487	487	767	767	738	738
Arizona State University	627	627	748	748	618	618
Washington State University	500	567	711	711	585	585
South Dakota State University	340	340	442	442	442	442
Montana State University	274	503	355	437	320	416
Chadron State University	279	279	348	348	-	-
Utah State University	299	325	345	415	345	415
University of Idaho	-	-	337	337	-	-
University of Wyoming	154	541	276	775	276	775
Regional Peer Average¹	313	319	370	381	402	420
Peer Average ²	328	450	455	575	368	503

¹ Regional Peer average includes: North Dakota State University, South Dakota State University, Chadron State University, Utah State University, and University of Idaho.

² Peer Average is the average of all the listed schools.

³ Prices listed are for 2017-18. Gathered from school websites in November 2017

WYOMING CURRENT PRICE SUMMARY

ONLINE EDUCATION PRICING

Considering the regional peer average tuition, it is suggested that Wyoming decrease its out-of-state, online tuition pricing to remain competitive with peers.

	Current Price	Suggested Price	Price Change	Credit Hour Production (AY 15-16) ¹	CH Production to Maintain Current Revenue	% of Total Online CH Production	% of Online CH Production by Level
Undergraduate In-State	\$154	-	-	11,182	-	65%	86%
Undergraduate Out-of-State	\$541	\$319	(\$222)	1,882	3,192 (70%)	11%	14%
Graduate In-State	\$276	-	-	3,289	-	19%	91%
Graduate Out-of-State	\$775	\$325	(\$450)	327	780 (138%)	2%	9%
Certificate In-State	\$276	-	-	616	-	4%	96%
Certificate Out-of-State	\$775	\$420	(\$355)	25	46 (85%)	<1%	4%

Note: Changes in gross tuition revenue due to increase/decrease in credit hour pricing by segment and credit hour production are shown on subsequent slides in the appendix

¹ Huron used the available AY 2015-16 online credit hour data for this scenario

Undergraduate courses exclude nursing courses, graduate courses exclude nursing and business course, certificate program are graduate only.

7

RECOMMENDATIONS: THE PATH FORWARD

PROJECT FINDINGS

RECOMMENDATIONS: THE PATH FORWARD

As University Leaders and Trustees plan a path forward for the University of Wyoming, it is important to find a way to balance the competing priorities of enrollment management with higher education pressures and internal opportunities for improvement.

- + **Balancing Tradeoffs with Enrollment:** Leadership will need to decide what will drive future enrollment growth—net tuition revenue, academic quality, or diversity
- + **Enrollment Growth Levers:** The institutional capacity analysis has focused on undergraduate capacity, and while the scenarios were all driven by out-of-state students, many other options exist for increased headcount, pending identifiable student demand
- + **National Trends in Enrollment:** UW is not alone in its desire to optimize its undergraduate efforts, many institutions are facing the pressures of a decreasing population of traditional college students and rising costs to maintain the status quo
- + **Enhanced Academic Management:** Prior presentations illustrated the opportunity to increase efficacy and efficiency within the block schedule alignment and space utilization to help improve student throughput
- + **Improved Data Stewardship:** While current efforts are underway to improve data accuracy and reporting within the institution, limited historical infrastructure resulted in data limitations in analyzing the academic enterprise
- + **Optimization of the Registrar Function:** Enhanced academic management combined with desired increased headcount will require a change in how the registrar function engages with the academic units to further support and engage with the schools and colleges

SUMMARY OF RECOMMENDATIONS

RECOMMENDATIONS: THE PATH FORWARD

While Huron's analysis suggests that there are limited constraints to further growth, the following recommendations have been identified to further support the institution's desire to grow and augment the size of its student body.

- + **Capacity:** Huron's review of residential, instructional, and student support & administration capacity suggest limited constraints and investments needed to support undergraduate student growth to true university capacity of an additional 1,200 to 1,300 students
- + **Out of State Undergraduate Tuition:** The average **net price** of current non-resident undergraduate students is close to \$10,600. Reducing the out-of-state sticker price to \$9,500 to increase demand while continuing to provide limited awards to top-tier students will likely increase overall net-tuition revenue for the out-of-state population. With limited students available in Wyoming and the neighboring states, Wyoming should offer this suggested price to **all** non-resident students to help increase demand and support growth objectives
- + **Academic Management:** Opportunities to optimize the academic enterprise at the university surrounding block scheduling, space management, faculty deployment, and tuition policies can greatly increase the number of available student touchpoints (e.g. seats offered) to support growth objectives with limited investments in additional faculty
- + **Online Pricing:** Review of peer prices illustrates the current disconnect between Wyoming prices and those of its peers for out-of-state students; reducing the price to peer averages should likely result in a significant increase in credit hour production

CAPACITY RECOMMENDATION

RECOMMENDATIONS: THE PATH FORWARD

Huron's review of key institutional capacity constraints illustrate the university's ability to support **1,200 – 1,300 additional students** using a sequenced growth plan over the next 5 years for adding 300-350 students per year at steady state with limited, but targeted, investments in instructional and non-instructional activities.

Growth Estimate				
Steady State: Incoming Cohort	Steady State: Total New Students	10-Year Revenue ¹	10-Year Expenses ¹	10-Year NPV
300	1,025	\$100,782,555	\$17,511,565	\$42,896,000
350	1,195	\$114,327,538	\$19,844,609	\$48,410,000
400	1,364	\$123,627,258	\$21,412,430	\$51,940,000

+ Marginal Expense Per Student: \$2,678

- Instructional: \$1,691
- Non-Instructional: \$987

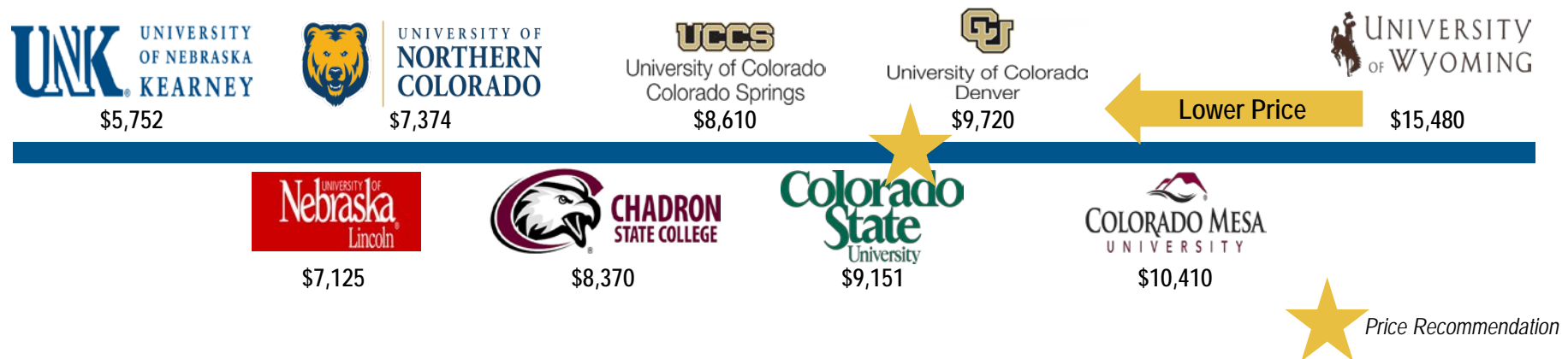
The suggested growth target will require a holistic and targeted growth plan to achieve the desired scale over the next 5-10 years.

OUT-OF-STATE UG TUITION RECOMMENDATION

RECOMMENDATIONS: THE PATH FORWARD

Given the findings of the student survey and price elasticity efforts, Huron recommends setting a **non-resident tuition price at \$9,500** to increase demand by offering a competitive price with in-state options for these students.

- + The average **net price** of current non-resident undergraduate students is approximately \$10,600.
- + Reducing the out-of-state sticker price to increase demand while continuing to provide limited \$1,000 scholarships to top-tier students will likely increase overall net-tuition revenue for the out-of-state population.
- + With limited students available in Wyoming and the neighboring states, Wyoming should offer this suggested price to **all** non-resident students to help increase demand and support growth objectives.



While lowering the non-resident price will increase likely demand for prospective students, price alone will not be sufficient to attract enrollments, and UW will need to augment recruiting efforts to compete with local options.

Note: Tuition prices were gathered from university websites in December 2017, price comparison is for each student paying in-state price against Wyoming out-of-state

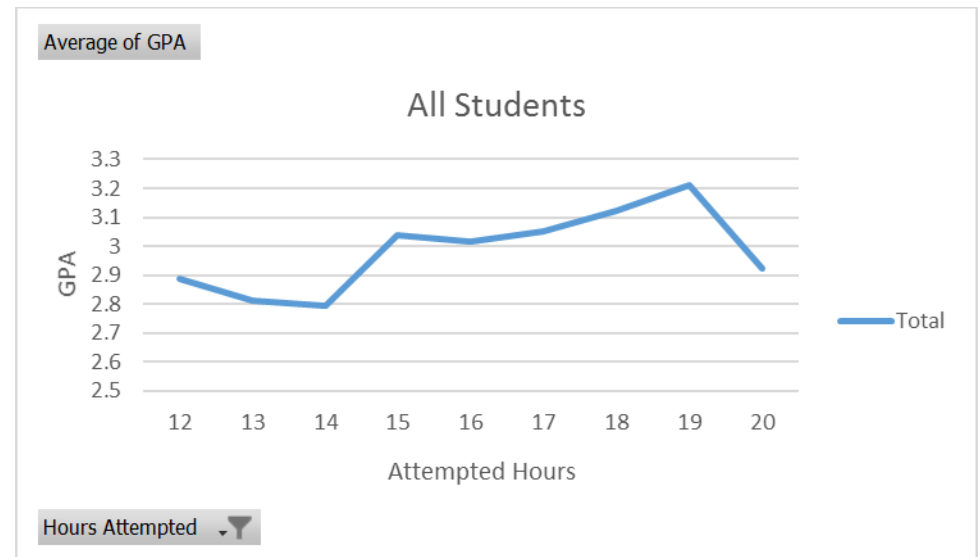
UG BLOCK TUITION RECOMMENDATION

RECOMMENDATIONS: THE PATH FORWARD

Given the findings of the institutional capacity and pricing project, the University has an opportunity to consider shifting its pricing model to block tuition -- a single pricing model that allows students to take 12-18 courses for the same price.

+ Benefits:

- Improved time to graduation; on average, students take 14.48 credits per term
- Students who take more credits per term typically achieve a higher GPA
- Allows students to explore courses and interests outside of major
- Provides predictable revenue projections to support institutional financial planning
- Allows students and families to better plan financially for their educational investment



Provides the University a one-time opportunity to create additional pricing benefits for students while creating more predictable financial planning for the institution.

Note: Tuition prices were gathered from university websites in December 2017, price comparison is for each student paying in-state price against Wyoming out-of-state

ACADEMIC MANAGEMENT RECOMMENDATIONS

RECOMMENDATIONS: THE PATH FORWARD

Wyoming's ability to grow its undergraduate student body without extensive investments in faculty will require enhanced management of the academic enterprise and registrar functions to more effectively utilize the faculty resources on campus.

Priority Improvements to Academic Management:

- + Increase **adherence to the block schedule**, limiting ability for faculty members and departments to schedule courses that conflict with the pre-determined schedule times
- + **Reorganize and optimize the registrar function**, including bringing in central scheduling to the registrar
- + Identify opportunities to **grow the inventory of centrally pooled classrooms** to assist in scheduling optimization
- + **Reevaluate historical section size caps** to ensure that course caps accurately reflect pedagogical course maximums and better align with instructional preferences
- + Create better **policies and practices to monitor faculty load** and deployment strategies
- + Continuously **monitor programs / courses with low enrollment**, ensuring mission fit and alignment with the university

Enhanced management of the academic enterprise can significantly increase the number of student touchpoints without significant investments to support growth.

ONLINE PRICING RECOMMENDATIONS

RECOMMENDATIONS: THE PATH FORWARD

Based on our analysis, the University of Wyoming should implement the following changes to its online program pricing structure for out-of-state students to increase demand for program enrollments:

- + **Maintain current pricing structure for in-state tuition for online programs:**
 - Begin gradual increases to online in-state undergraduate courses over the next 5-years to increase price to approximately \$200 per hour. Explore capping the number of credit hours campus-based undergraduate students can take online to accommodate space for fully-online degree seekers.
 - Consider raising the online course fee from \$25 to \$50 per credit hour for in-state students to recover additional costs for online education delivery.
- + **Reduce undergraduate, graduate, and graduate certificate out-of-state tuition to be competitive with the Regional Peer Average:**
 - Undergraduate (Out-of-State): **Reduction** from \$541 to \$319
 - Graduate (Out-of-State): **Reduction** from \$775 to \$325
 - Certificates (Out-of-State): **Reduction** from \$775 to \$420
- + **Retain current pricing for niche programs** (e.g. Executive MBA, Undergraduate Nursing Degree) as these programs are currently priced more closely to peer averages and appear to have sufficient enrollments for available capacity.



APPENDIX

APPENDIX CONTENTS

A

Institutional Capacity & Growth Potential

B

Recommendations: Path Forward

A



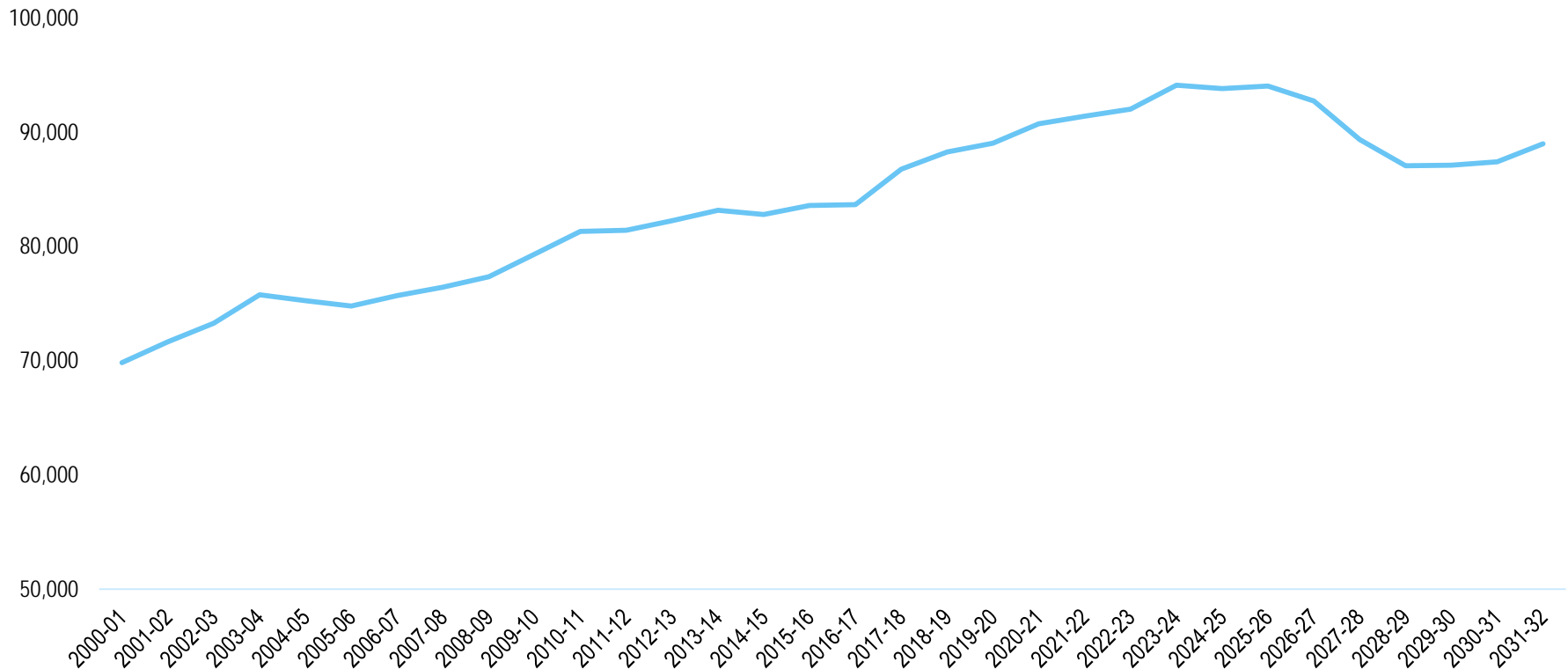
APPENDIX A : INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

DECLINING REGIONAL GRADUATE POPULATION

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

While the past 10 years (2007-2017) represented growth of nearly 10,000 potential college-going students (1.42% CAGR), the next ten years (2017-2027) have limited growth with only 2,500 more students from WY, CO, and NE (.33% CAGR).

Total High School Graduates (WY, CO, and NE)



Declining growth in college going students in the region will only exacerbate enrollment competitive pressures for Wyoming as it competes for top talent within the neighboring states and at home.

ETHNICITY OF PUBLIC HS GRADUATES

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

While the growth of high school graduates is limited over the next ten years, each state has varying degrees to which ethnic populations will be growing and shrinking.

Projected Percentage Change in Public High School Graduates (2017-18 to 2027-28)						
	<u>White (NH)</u>	<u>Hispanic</u>	<u>Black (NH)</u>	<u>Asian / Pacific Islander</u>	<u>American Indian/Alaska Native</u>	<u>Projected Change in Public HS Grads</u>
Wyoming	10.1%	34.5%	31.2%	16.9%	22.6%	787
Colorado	2.5%	2.8%	1.1%	3.7%	-24.0%	1,303
Nebraska	-1.9%	26.5%	-0.2%	48.4%	-18.9%	879
Arizona	-8.1%	-12.2%	6.9%	12.8%	-10.8%	-5,790
California	-13.3%	-3.6%	-14.8%	-8.3%	-20.2%	-29,591
Texas	-4.8%	8.9%	5.8%	37.6%	-1.2%	15,811
Total	-21,905	5,394	-779	1,662	-916	-16,602

Over 55% of the forecasted growth within Wyoming, Colorado, and Nebraska is driven by Hispanic students, illustrating the importance of ensuring that enrollment strategies are aligned with this segment of the population.

EDUCATIONAL INTERESTS FOR GRADUATES

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

Based on the latest available ACT Profile Report, 70% of prospective students from Wyoming, Colorado, and Nebraska are interested in seven of the majors listed below (and highlighted in green)¹.

Planned Educational Majors for ACT Students (WY, CO, and NE) ²		
Major	2016 Total	2016 % of Total
Agriculture & Natural Resources Conservation	1,350	2%
Architecture	844	1%
Area, Ethnic, & Multidisciplinary Studies	88	0%
Arts: Visual & Performing	4,624	8%
Business	6,009	10%
Communications	1,033	2%
Community, Family, & Personal Services	1,883	3%
Computer Science & Mathematics	2,038	3%
Education	3,560	6%
Engineering	5,574	9%
Engineering Technology & Drafting	859	1%
English & Foreign Languages	882	1%
Health Administration & Assisting	1,307	2%
Health Sciences & Technologies	10,915	18%
Philosophy, Religion, & Theology	367	1%
Repair, Production, & Construction	1,435	2%
Sciences: Biological & Physical	4,484	8%
Social Sciences and Law	6,832	11%
No Response / Undecided	5,507	9%

The University of Wyoming is well positioned to offer majors and academic programs that meet the most desired educational goals of college going students from Colorado, Nebraska, and Wyoming.

Source: ACT

¹ No Response/ undecided is excluded from the majors.

² Represents students who intend to enroll in a four-year institution

COLLEGE READINESS OF HS GRADUATES

INSTITUTIONAL CAPACITY & GROWTH POTENTIAL

ACT provides information on the level of college readiness as measured by prospective college going students taking the examination and each of the key feeder states for the University of Wyoming has varying levels of college readiness.

+ When examining the college readiness in all four areas:

- Nebraska exceeds the national average by 2%
- Colorado misses the national average by 1%, however the number of students taking the test rose by 2%
- Although Wyoming falls short of the national average by 6% and has seen a year to year decrease in preparedness, the decrease was roughly 100 or fewer students in each category

College Readiness				
	Nebraska	Colorado	Wyoming	National
English	68%	61%	58%	61%
Reading	48%	42%	38%	44%
Mathematics	43%	39%	33%	41%
Sciences	40%	36%	31%	36%
All Four	28%	25%	20%	26%

Wyoming's current out-of-state population is driven by Colorado students which track with national preparedness standards; however, growth in Nebraska would likely find additional students exceeding admissions standards.

B

APPENDIX B: RECOMMENDATIONS: THE PATH FORWARD

REGISTRAR AND SCHEDULING OPTIMIZATION

RECOMMENDATIONS: THE PATH FORWARD

The Registrar's and Scheduling Office should combine to a more contemporary role of optimizing processes and systems, making data and reports available for the student success, enrollment, and related initiatives.

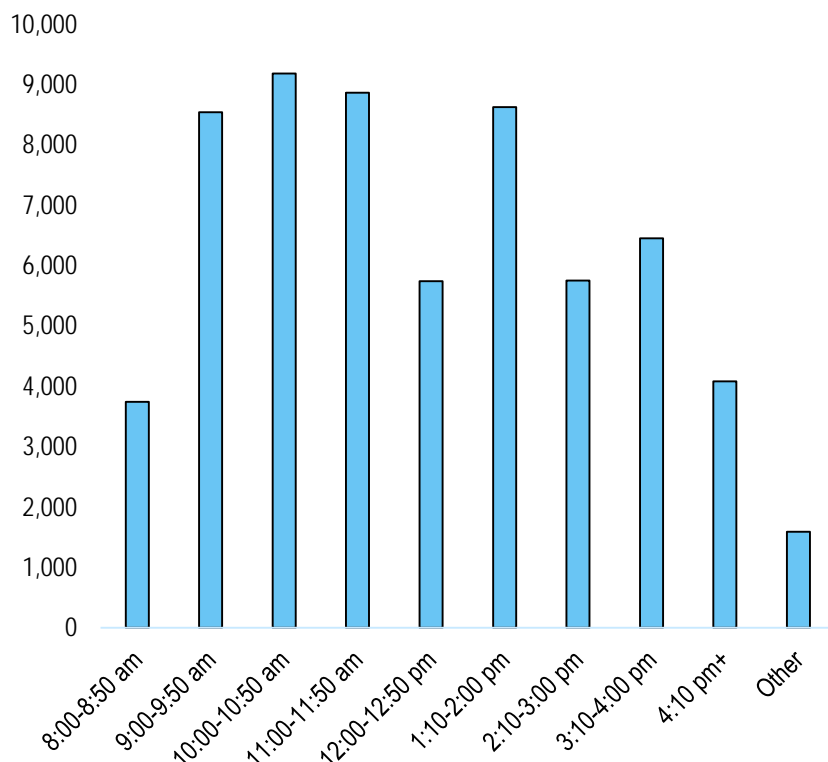
Key Challenges	Recommendations
Seat Utilization	University-wide utilization of 59.7% of available seat suggests opportunities to increase section utilization and potentially increase available sections offered without changing total faculty effort. Seat utilization of 75-80% is considered achievable without being burdensome, but requires attention by central and departmental schedulers to achieve.
Classroom Utilization	Implementing policy to conform more course offerings to the "block schedule" would increase classroom utilization and also increase student choice, reducing student challenges with building a schedule. Incentive opportunities or mandates for schools and programs to spread their offerings throughout the day and week could help achieve higher utilization rates.
System Adoption	Banner and Degree Works are not fully implemented nor are deployed tools fully adopted. The tools, if fully leveraged, can allow existing central and program/school staff to be more efficient and students more self-sufficient. An inventory of opportunities should be developed, a roadmap for their deployment devised, and a champion for their implementation designated.
Advising Support	Strong coordination among admissions, transfer services, academic units and the Registrar's Office is essential when considering factors such as, transfer credit reviews, test placements, satisfactory academic progress, and at-risk factors to enrollment goals and student success. Policy, process, system and staffing bottlenecks need to be identified and solutions implemented to ensure overall success.
Student Analytics/Reporting	Academic units and central offices need improved management, operational and forecasting analytics to better deploy resources. The campus needs a champion to lead the development and deployment of the tools and data across the institution to facilitate data-driven decision making and to ease the manual data burden that the university currently faces.

ENHANCED ACADEMIC MANAGEMENT

RECOMMENDATIONS: THE PATH FORWARD

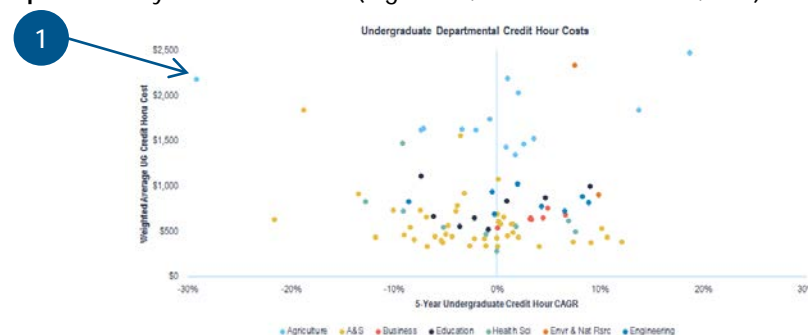
Enhanced academic management is the result of augmented section management, both in regards to size and utilization, and identifying potential remedies to lower the cost per student in the higher cost areas.

2016-17 UG Seats Offered By Time (M/W/F Block)¹



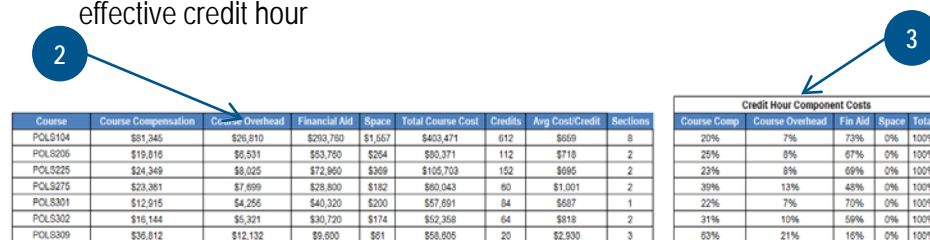
Program Costing Action Plan

Step 1: Identify area of interest (high cost, enrollment decline, etc.)



Step 2: Determine which courses and/or degree requirements are significant cost drivers

Step 3: Assess what opportunities, if any, exist to create more cost effective credit hour



The first step to improving the economics of the academic enterprise is identifying specific areas within the current cost structure that can be changed, followed by determining the level to which cost components can or cannot be altered.

IMPROVED DATA STEWARDSHIP

RECOMMENDATIONS: THE PATH FORWARD

Data challenges and limitations existing throughout the project, while in the process of being addressed by the university, limit the ability of institutional leaders to make data informed decisions in managing the academic enterprise.

Enhanced data stewardship will better support the following activities:

- + Assessing the financial impact of curriculum changes
- + Monitoring seat utilization (identifying low and over utilized courses)
- + Reviewing undergraduate programs with low enrollment
- + Managing academic unit and departmental loads to alignment with institutional policies
- + Standardizing and increasing validity in reporting of non-instructional activity
- + Creating consistency and clarity in supplemental pay
- + Balancing faculty vs. non-faculty instruction
- + Improvement of space, instructional and non-instructional, utilization

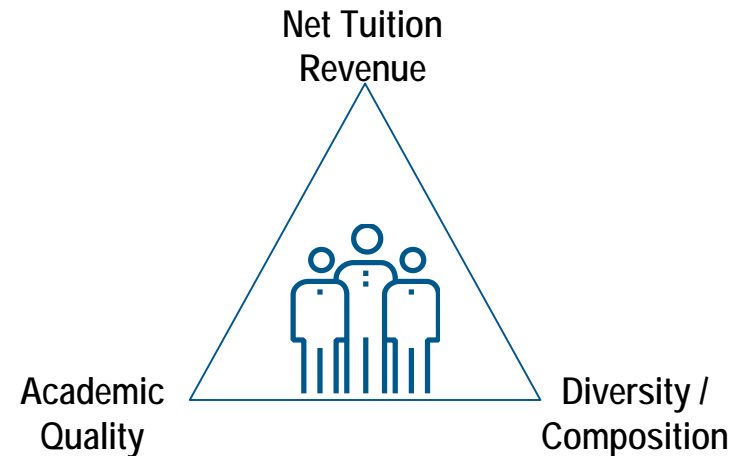
Huron suggests a refresh of data analyses contained in the three reports provided two to three (2-3) years after the system implementations and integrations have been completed.

BALANCING TRADEOFFS WITH ENROLLMENT

RECOMMENDATIONS: THE PATH FORWARD

When considering changes to undergraduate enrollment, UW will need to continue to balance tradeoffs between competing goals of net tuition revenue, increased diversity / composition, and academic quality.

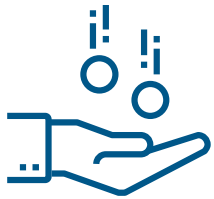
- + UW's leadership seeks to grow net tuition revenue (NTR) and headcount to support future strategic initiatives.
- + The competing priorities of academic quality, diversity, and net tuition revenue limit Wyoming's ability to tackle growth strategies that benefit each of them, the institution will have to decide what is relatively more important in order to gain alignment
- + While increased academic quality is desired by UW's deans and senior academic leaders, academic quality (as defined by standardized test scores) needs to be sustained (at a minimum) in UW's future enrollment strategy.
- + As UW grows, the university should consider limiting the number of enrolling students who fall below stated minimum ACT/GPA standards



CONTEXT FOR GROWTH: NATIONAL TRENDS

RECOMMENDATIONS: THE PATH FORWARD

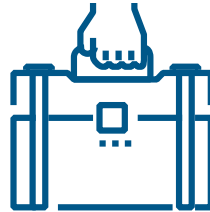
Leaders at the University of Wyoming must consider changes to undergraduate enrollment in the context of the national environment.



Public funding for higher education has decreased on average by 23% per student since 2008.



The number of students graduating high school has decreased and national demographics continue to shift away from the historic norms.



Students and families increasingly hold institutions accountable for student success, career-related outcomes, and engaging student experiences.



The cost to keep the doors open at universities continues to increase.



Students enter universities with growing support needs from both an academic, social, and wellness perspective.

ENROLLMENT GROWTH LEVERS

RECOMMENDATIONS: THE PATH FORWARD

The capacity valuation model focused exclusively on incoming out-of-state first-time, full-time freshmen but enrollment growth can come from a variety of sources.

Levers	Description
Increase First-Time Full-Time (FTFT) Freshmen Enrollment	Expanding the overall enrollment of the incoming class would increase revenue while providing UW with more flexibility in terms of class composition.
Adjust In-State and Out-of-State Mix	Striking the optimal balance between in-state and out-of-state undergraduates may produce gains in net tuition revenue and additional geographic diversity. UW may also consider adjustments to its international student population.
Redistribute Aid	A reduction in UW's discount rate for target segments could increase NTR or allow UW to increase aid to desired student segments.
Increase Number of Transfer Students	Developing a strategy for increasing the number and share of transfer students could help to offset attrition.
Increase Retention	Increased retention remains a priority for UW and would lead to a corresponding increase in revenue.

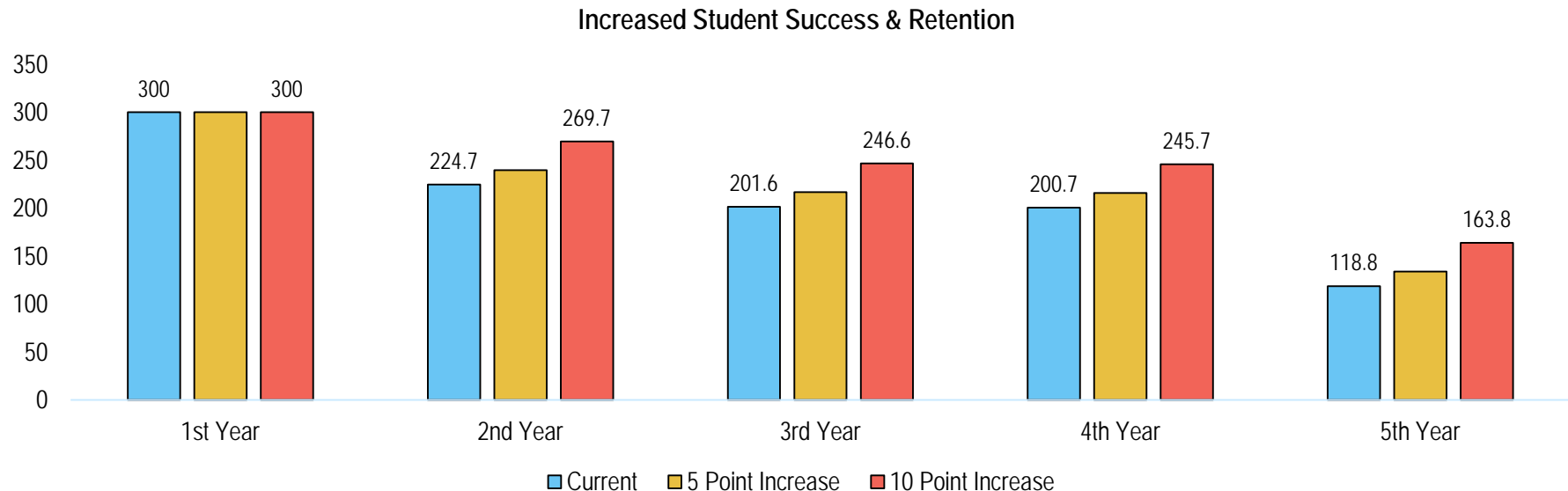
Additional student headcount from avenues outside of the Colorado and Nebraska student pipeline can be used as a parallel to understanding potential revenue and expense impacts with planned university growth.

STUDENT SUCCESS & RETENTION

RECOMMENDATIONS: THE PATH FORWARD

Increased competition and shrinking college bound populations makes recruiting new students a difficult task; however, increasing Wyoming's current retention would increase current headcount and have a positive impact on rankings

- + Over the ten-year modeled period, increasing retention by 5 percentage points would net an additional 232 students and an increase of 10 percentage points would net an additional 697 students¹
- + Opportunities to increase retention efforts include advanced analytical software to help track at risk students, additional high-touch programs to increase engagement, and others as personally crafted to Wyoming students



Investments in increased retention efforts could lead to significant growth in headcount (232 and 697, depending on increase) as well as increased revenue net of expenses (\$2.5MM @ 5 point increase; \$7.6MM @ 10 point increase)



THANK YOU