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Writing Fellows: Impact Analysis Fall 2015 to Spring 2019

Amanda M. Hagman
Utah State University, amanda.hagman@usu.edu

Julie Foust
Utah State University, Julie.Foust@usu.edu

Erik Dickamore
Utah State University, Erik.dickamore@usu.edu

Hayden Hoopes
Utah State University, Hayden.Hoopes@usu.edu

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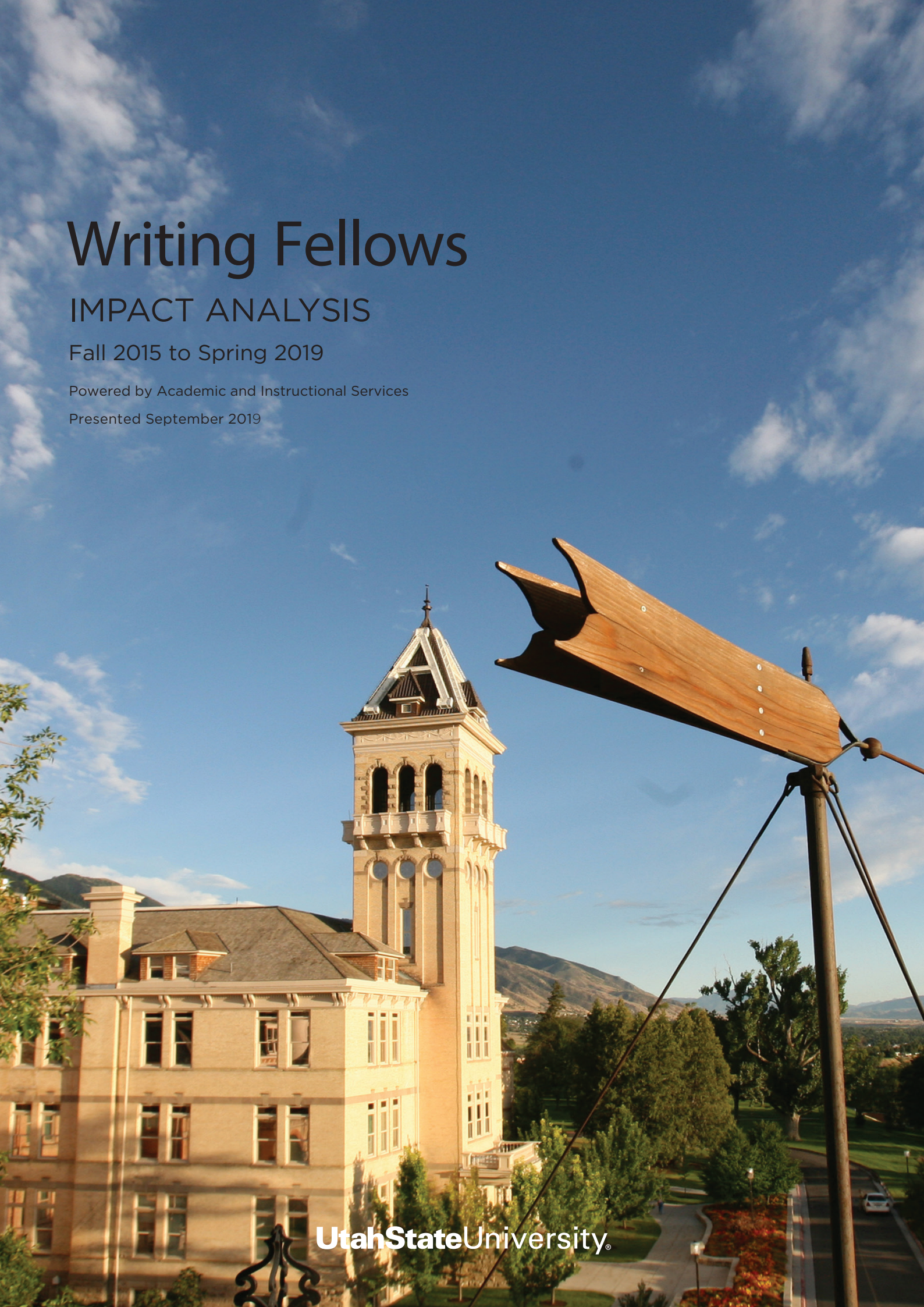
Writing Fellows

IMPACT ANALYSIS

Fall 2015 to Spring 2019

Powered by Academic and Instructional Services

Presented September 2019



Do students who have at least 1 course with a writing fellow experience a change in persistence?

Amanda Hagman
Data Scientist
Center for Student Analytics

Julie Foust
Program Manager
Writing Fellows

Erik Dickamore
Undergraduate Researcher
Center for Student Analytics

Hayden Hoopes
Undergraduate Researcher
Center for Student Analytics

SUMMARY STATISTICS

Overall Change in Persistence:	1.20% (0.24% to 2.16%)
Overall Change in Students (per year):	17 (3 to 30) Students
Analysis Terms:	Fa15, Sp16, Fa16, Sp17, Fa17, Sp18, Fa18
Students Available for Analysis:	5,766 Students
Percent of Students Participating:	4.1%
Students Matched for Analysis:	5,686 Students
Percent of Students Matched for Analysis	98.6%

THE RELATIONSHIP BETWEEN WRITING FELLOWS PROGRAM & PERSISTENCE

The Writing Fellows program strategically places high performing writing mentors in cours-es with rigorous writing requirements. Writing Fellows work with each student in a course by reviewing their writing and offering mentoring to improve their written communication skills. Persistence is a secondary objective of the Writing Fellow program. As such, an impact evaluation on persistence should only be used as part of an evaluation of the influence of the Writing Fellows program on student wellbeing.

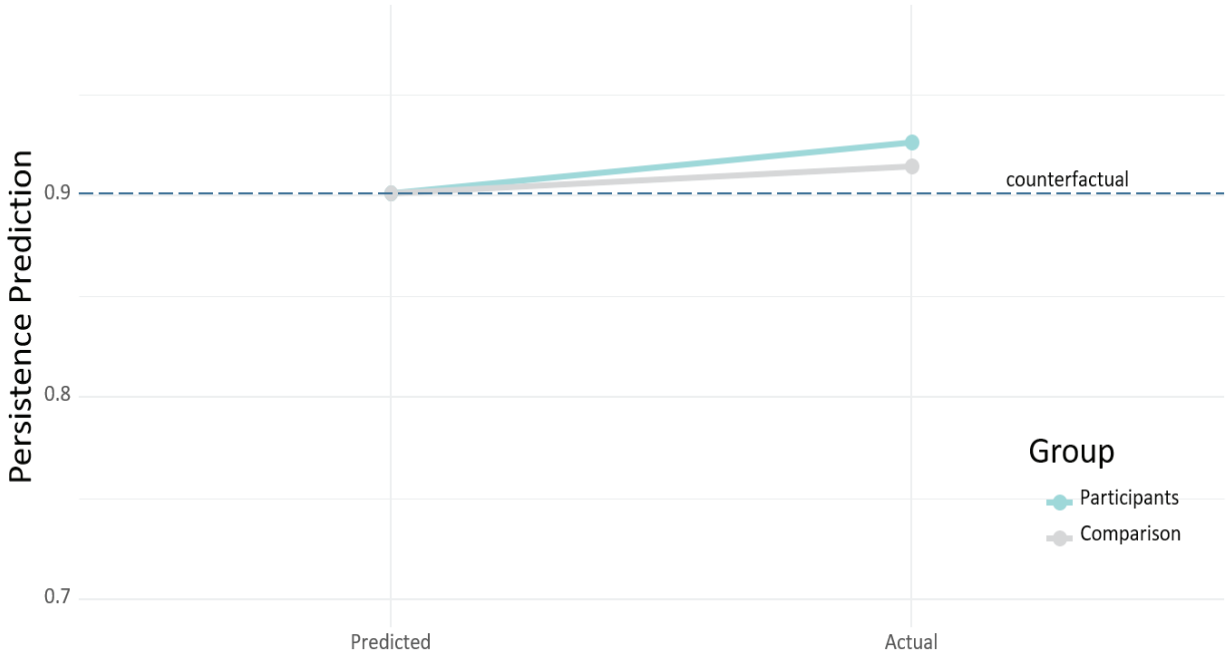


FIGURE 1
Participant and comparison students began with highly similar persistence predictions. Actual persistence was significantly different between groups.

Writing Fellows in the Classroom

STUDENT IMPACT

Students who had a Writing Fellow in at least one of their courses experienced a significant increase in their persistence to the next term. The estimated increase in persistence is equivalent to retaining 17 (CI: 3 to 30) students who were otherwise not expected to persist. This represents an estimated $77,251.57 (CI: $13,632.63 to $136,326.30) in retained tuition per year, assuming an average tuition of $4,544.21.

PARTICIPANT DEMOGRAPHICS

Matching procedures for this analysis resulted in the inclusion of 98.6% of available participants. Students were 41.73% male, 91.24% Caucasian, and 51.99% first-time college students. Students were 99.49% undergraduate.

PARTICIPANT

Non-degree seeking students were excluded from the analysis. Participating students had at least 1 class that was supported by a Writing Fellow. Most students only had 1 course that was supported by a Writing Fellow during a semester (5,468 students). A small group had a Writing Fellow for 2 courses (326 students) or 3 courses (8 students) in the same semester.

Comparison students were degree seeking students at the Logan and Statewide USU campuses. These students did not have any courses supported by a Writing Fellow.

DIFFERENCES BETWEEN PARTICIPANTS AND GENERAL USU POPULATION

The proportion of males and females was not different between the sample of students and USU general population.

The proportion of Caucasian students in classes with Writing Fellow support was not different from the general USU population.

Student Subgroup Impact

TABLE 1:

Student Subgroups Experiencing a Significant Change From Participating

N	Student Group	Participant Persistence	Comparison Persistence	Difference	CI	Change in People/ Year
5,686	Overall	92.62%	91.43%	1.20%	0.96%	17
5,657	Undergraduate Students	92.78%	91.57%	1.21%	0.96%	17
5,495	Not Hispanic or Latino	92.61%	91.44%	1.11%	0.97%	15
5,188	White or Caucasian	92.93%	91.57%	1.37%	0.99%	18
5,059	Full-time Courses	93.83%	92.73%	1.13%	0.95%	14
4,325	Non-STEM Major	92.48%	91.05%	1.22%	1.14%	13
3,679	All On-Ground Status	92.46%	91.21%	1.26%	1.19%	12
3,309	Female Students	93.18%	91.29%	1.29%	1.27%	11
1,376	Transfer Students	93.28%	91.78%	2.08%	2.08%	7

*Subgroups with fewer than 250 students are considered too small for reliable analysis

Student Subgroup Findings

MOST IMPACTED

Illume Impact provides an analysis that looks at various student groups to identify how the program influenced different populations of students. Please note that the student groups are not mutually exclusive. Table 1 shows all student groups who experienced a significant change from living on-campus. Appendix A lists all subgroups with non-significant findings.

In general, having a class supported by a Writing Fellow was associated with an increase in persistence. This increase was significant within the follow subgroups:

- Undergraduates
- Student Type
- Race & Ethnicity
- Time Status
- Major Type
- Course Modality
- Student Gender

Undergraduate Students: Undergraduate students experienced a significant increase in persistence to the next semester. This gain was expected because undergraduate students are the target of the Writing Fellows program. In fact, 99% of the students in classes with Writing Fellows were undergraduates and all Writing Fellows were assigned to undergraduate courses.

Undergraduate Type: Transfer students experienced a significant increase in persistence from taking at least one course that was supported by a Writing Fellow. First-time in college and readmitted students did not experience a change in persistence from being in a class with a Writing Fellow.

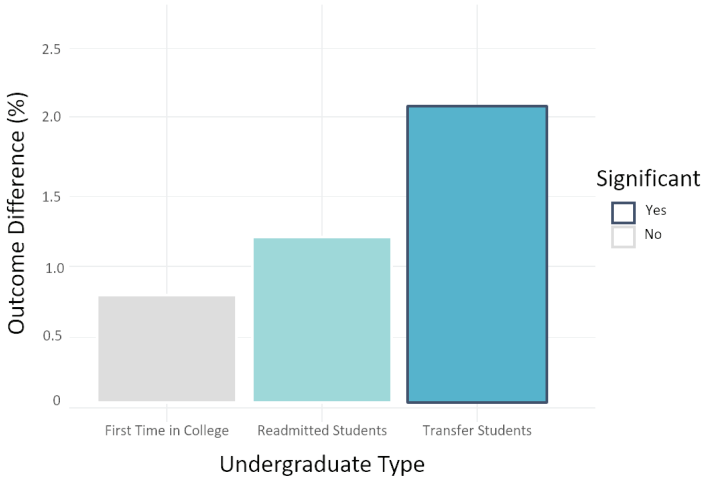


FIGURE 2

Change in persistence by undergraduate type.

Race & Ethnicity: USU has a high population of White or Caucasian and non-Hispanic or Latino students. For this reason, Impact analyses can often detect change in persistence for these groups; however, students of other races or ethnicities rarely have enough student representation to detect a significant change. With this in mind, the analysis found a significant increase in persistence for Caucasian and non-Hispanic/Latino students. There were too few students from other racial or ethnic identities to make an accurate conclusion about the impact of Writing Fellows for students with a diverse heritage.

Time Status: Students who were full-time students experienced a significant increase in persistence from being in a course with a Writing Fellow. There was no impact on students who took classes part-time.

Major Type: Non-STEM majors experienced and significant increase in persistence from taking a class with Writing Fellow support. STEM students did not experience a change in persistence.

Course Modality: Students taking all on-ground courses experienced an increase in persistence. Students with a blended (some courses on ground, some online, some broad-cast) course schedule did not experience a change in persistence. There were not enough online students to make an accurate estimation.

Student Gender: Females, but not males, experienced a significant change in persistence from being in a class with a Writing Fellow.

IMPACT BY TERM

The impact of having a Writing Fellow in the class room varied by term. Spring 2019 experienced a significant increase in persistence and Spring 2016 experienced a near significant increase in persistence. Most terms show a positive trend with the exception of Fall 2016 which had a near zero impact on persistence from having a Writing Fellow in the classroom.

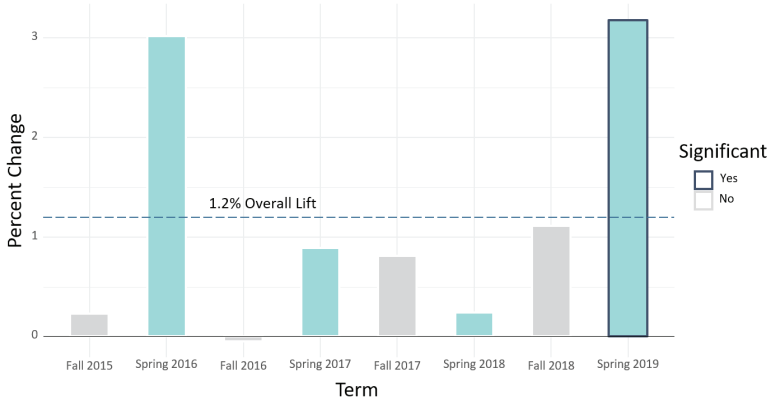


FIGURE 3

Change in persistence by term.

Does being a Writing Fellow influence student persistence?

SUMMARY STATISTICS

Overall Change in Persistence:	-0.1% (-2.2% to 2.0%)
Overall Change in Students (per year):	NA
Analysis Terms:	Fa15, Sp16, Fa16, Sp17, Fa17, Sp18, Fa18, Sp19
Students Available for Analysis:	866 Students
Percent of Students Participating:	48.4%
Students Matched for Analysis:	418 Students
Percent of Students Matched for Analysis	99.5%

Writing Fellows as Student Employees

STUDENT IMPACT

Students who were Writing Fellows did not experience a significant change in their persistence to the next term (-0.1%, CI: -2.2% to 2.0%). Not surprisingly, students who were eligible to become writing fellows had higher than average persistence predictions. The group as a whole had an average predicted persistence of 94.8%. This is 5.8 percentage points higher than the USU average persistence prediction.

Although there was little room to grow in terms of persistence among the Writing Fellows, this group of students did increase in their overall persistence score from 94.8% to 97.2%. The change was not significantly different compared to the other nominated candidates, who also increased in persistence from 94.8% to 97.3%. Because both groups increased in their persistence, the change in persistence for Writing Fellows cannot be attributed to the program.

PARTICIPANT DEMOGRAPHICS

Matching procedures for this analysis resulted in the inclusion of 99.5% of available participants. Students were 21.29% male, 97.61% Caucasian, and 56.7% first-time college students. Students were 98.6% undergraduate.

NOTE: There were significantly more female students awarded Writing Fellowships than would be expected from the USU general population. There were significantly more Caucasian students who receive Writing Fellowships than would be expected from the USU general population.

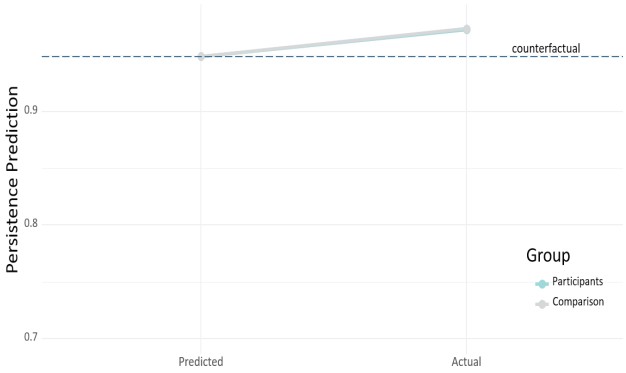


FIGURE 4

Participant and comparison students began with highly similar persistence predictions. Actual persistence was not significantly different between groups.

Student & Faculty Experience with Writing Fellows

SUMMARY STATISTICS

Faculty Feedback Quantity 2018/2019:	9
Writing Fellow Feedback Quantity 2014 to 2019:	9
Student Feedback Quantity 2018/2019:	291
Average Student Rating (1 to 10):	9 (range 4 to 10)

IMPACT ON FACULTY

During the past academic year, several faculty members provided feedback regarding the influence of Writing Fellows in their classroom. This information was collected through informal evaluation. All faculty who provided feedback indicated that student writing improved after receiving support from Writing Fellows. Several cited that grading was easier and more enjoyable. One faculty member said that having a Writing Fellow "makes my job much more pleasurable when I grade". This sentiment was shared by 4 additional professors. Another faculty member shared that the improved writing also facilitated policy debates in the classroom. The guidance from the Writing Fellows helped students ask more focused questions and think more critically.

> "I see improved papers over last semester with the same assignment."

> "Papers are at least one grade level higher...than they would be without the Writing Fellows."

IMPACT ON WRITING FELLOWS

The Writing Fellow program was also designed to influence the Writing Fellows. These students were high performing students who were selected through nomination and interviewing. In fact, these students had an average predicted persistence rate of 95%, which is well above the USU average predicted persistence rate of 88%. Writing Fellows benefitted through training, interactions with faculty, opportunities to mentor, and time to build their professional capacities.

There has not been an evaluation of the impact of being a Writing Fellow for these students; however, some students have provided feedback of their experience as a Writing Fellow. Several students have gone on to graduate school and others on to careers where these skills are directly applicable. All reports from Writing Fellows were positive.

IMPACT ON STUDENTS

A formative evaluation of the Writing Fellows programs solicited feedback from students in courses supported by Writing Fellows. Nearly 300 students provided feedback in the last academic year. On a scale from 1 to 10, the average ranking was a 9, this indicated very positive interactions between students and Writing Fellows. Across the 51 Writing Fellows, the lowest average individual rating was a 7.0. The majority of Writing Fellows (84%) received an individual rating of 8.0 or higher. In addition to Writing Fellow ratings, students provided feedback on how interactions could be improved. This data is used to shape trainings for the Writing Fellows.

NOTE: The results displayed on this page are from informal or formative evaluations. The results reflect the experiences of those who chose to share, and may reflect the experiences of those who did not.

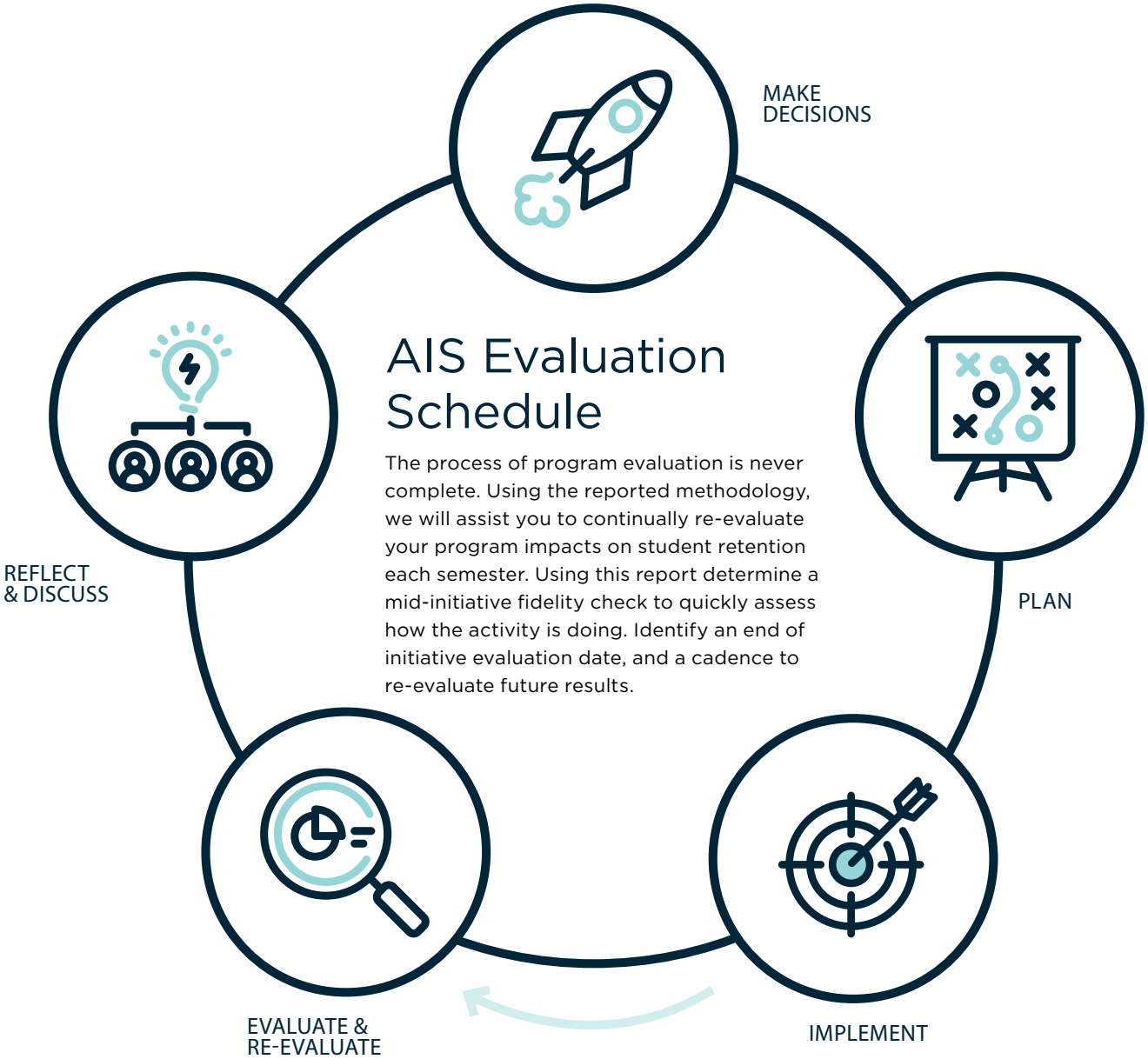
A better understanding of the impact of the Writing Fellows program on faculty and students could be obtained if the collection and analysis process were formalized in an evaluation plan.

SUGGESTION: Collect professor, student, and Writing Fellow feedback semesterly. Establish an analysis cadence to explore findings from feedback at least annually. Plan on exploring the findings from the collection and analysis of data annually to optimize programming towards student wellbeing.

Evaluation Schedule

Next Review Date: _____

Midterm Accreditation Check: _____



EVALUATE & RE-EVALUATE

Get the data to AIS and we can run an evaluation on persistence. For goals that don't include persistence AIS can assist you in finding resources to measure your improvement.

REFLECT & DISCUSS

Consider the report and the evaluators insights to produce discussion within your department.

MAKE DECISIONS

Formulate possible actions to improve your program. Select actions that align with your program goals.

PLAN

Make concrete plans to apply your decisions. Determine the who, where, and when of your actions.

IMPLEMENT

Put your plans into actions. Remember to periodically check the progress of your plans as they are being implemented.

Appendix A

STUDENT SUBGROUPS THAT DO NOT EXPERIENCE A SIGNIFICANT CHANGE IN PERSISTENCE

N	Student Group	Participant Persistence	Comparison Persistence	Difference	CI	p-value
3,652	4+ Terms Completed	93.85%	93.63%	0.70%	1.10%	0.21
2,956	First Time in College	92.97%	91.79%	0.76%	1.27%	0.24
2,499	Top Persistence Prediction Quartile (75th - 100th Percentiles)	96.46%	96.01%	0.44%	1.05%	0.41
2,373	Male Students	91.83%	91.59%	1.14%	1.47%	0.13
1,959	Mixed or Blended Status	93.41%	92.10%	1.32%	1.59%	0.4
1,780	1-3 Terms Completed	90.65%	88.35%	1.69%	1.88%	0.08
1,752	Third Persistence Prediction Quartile (50th - 74th Percentiles)	94.41%	93.06%	1.35%	1.60%	0.1
1,333	STEM Major	93.66%	92.74%	1.23%	1.77%	0.17
1,297	Readmitted Students	91.84%	91.23%	1.29%	2.05%	0.55
1,077	Second Persistence Prediction Quartile (25th - 49th Percentiles)	87.92%	85.44%	2.52%	2.85%	0.08
615	Part-time Courses	82.89%	81.62%	1.67%	4.09%	0.42
339	Bottom Persistence Prediction Quartile (1st - 24th Percentiles)	69.74%	67.97%	1.78%	6.83%	0.61
242	0 Terms Completed	88.37%	85.08%	3.25%	5.56%	0.25
186	Hispanic or Latino	93.06%	90.95%	4.06%	5.33%	0.14
143	Unknown Racial Heritage	88.64%	89.97%	-0.93%	6.99%	0.79
139	Two or More Racial Heritages	91.79%	92.02%	0.17%	5.97%	0.96
102	Asian or Asian American	95.68%	94.20%	2.28%	6.43%	0.48
50	Black or African American	80.74%	89.01%	-6.20%	13.67%	0.37
43	American Indian/Alaskan Native	83.01%	81.32%	-2.10%	13.45%	0.76
38	All Online Status	67.19%	77.93%	-10.71%	19.87%	0.29
18	Graduate Students	43.81%	46.49%	-2.33%	29.58%	0.87
10	Pacific Islander	75.69%	91.13%	-12.40%	26.85%	0.34
5	High School Dual Enrollment	100.00%	75.98%	13.42%	18.34%	0.14
3	Unknown Undergraduate Type	68.75%	81.92%	1.72%	46.85%	0.93

CI = Confidence Interval want this to be smaller than Difference Score

p-value = < 0.05 is significant

*Cells with fewer than 250 students are too small for a reliable analysis

Appendix B

ANALYTIC DETAILES

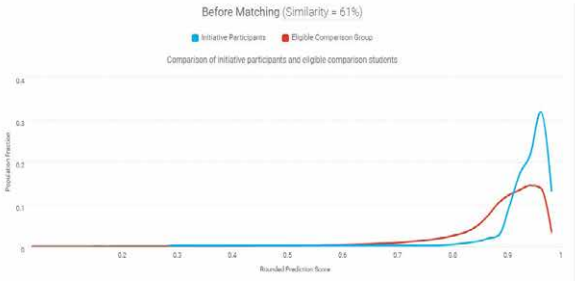
Impact analyses compare students who participate in University initiatives to similar students who do not, aka comparison students. Possible comparison students are included in the analysis through predictive-propensity score matching (PPSM). This process has four steps.

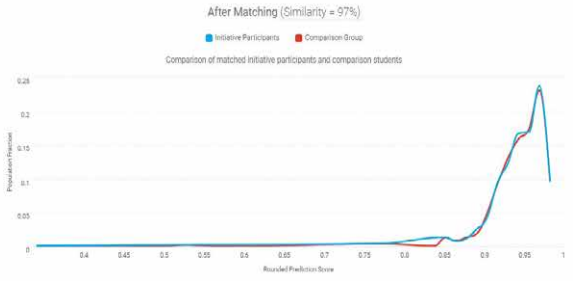
1. Students are categorized by demographic and educational characteristics (specifically the student subgroups seen in Table 1 and Appendix A; remember students can be in more than one category)
2. Participating and comparison students are given a score for their likelihood to participate in a University initiative.
3. Participating and comparison students are given a score based on their predicted persistence to the next semester.
4. Participating and comparison students who have a close match from steps 2 and 3 are selected for analysis.

After matching, the analysis considers the difference between the two groups actual persistence scores from the following semester. This difference is reported in a lift or a drop in persistence to the next term.

STATEMENT OF INTENT

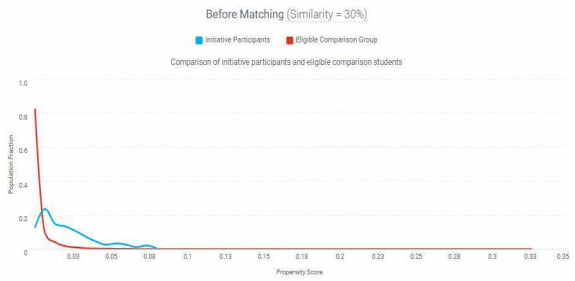
Student persistence is a primary objective of Residence Life. Students living on-campus benefit from close proximity to class, activities, and University supports. Each community has well-trained resident assistants to facilitate student experience with Residence Life and the University. The ease of living and connection to campus are intended to influence student persistence towards graduation.

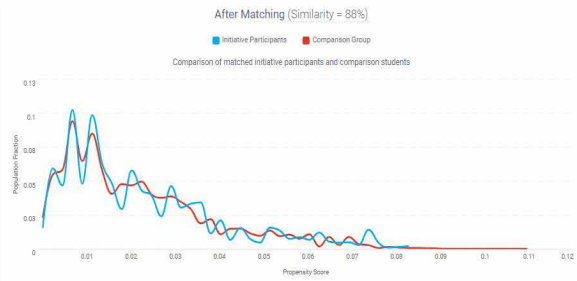




PREDICTED PERSISTENCE: PARTICIPATING & COMPARISON STUDENTS

Participating and comparison students receive scores based on their predicted persistence to the next semester. This score is based on historic data from Utah State University Students





PROPENSITY TO PARTICIPATE BTW PARTICIPATING & COMPARISON STUDENTS

Participating and comparison students receive scores based on their likelihood to participate in the initiative.

Appendix C

STUDENT SUBGROUP DEFINITIONS

Student Subgroup	Definition
0 Terms Completed	Students with 0 terms in their collegiate career completed; incoming freshmen
1 - 3 Terms Completed	Students who have completed 1 to 3 terms in their collegiate career
4+ Terms Completed	Students with 4 or more terms in their collegiate career completed
All On-Campus	Students attending all courses face-to-face
Online or Broadcast	Students attending all courses online or via broadcast
Mixed or Blended Course Modality	Students attending both face-to-face and online or broadcast courses
Full-time Students	Undergraduate students enrolled in 12 or more credits; Graduate students enrolled in 9 or more credits
Part-time Students	Undergraduate students enrolled in less than 12 credits; Graduate students enrolled in less than 9 credits
First Time in College	Students who enter USU as new freshmen, who have maintained continuous enrollment or records of absences (i.e. LOA)
Transfer Students	Students who attended another university prior to attending USU
Readmitted Students	Students who attended USU, left for a time (without filing a LOA), and return after re-applying to USU
Unknown Undergraduate Type	Students with an unknown admitted type
High School Dual Enrollment	High school students simultaneously taking high school and college courses
STEM	Students with a primary major that in science, technology, engineering, or mathematics
Non-STEM	Students with a primary major that is not in science, technology, engineering, or mathematics
Top Persistence Prediction Quartile	The total USU student population is divided so that 25% of students fall in each quartile. The bottom quartile contains students with the lowest predicted persistence (75th – 100th percentile)
Third Persistence Prediction Quartile	The total USU student population is divided so that 25% of students fall in each quartile. The bottom quartile contains students with the lowest predicted persistence (50th – 74th percentiles)
Second Persistence Quartile	The total USU student population is divided so that 25% of students fall in each quartile. The bottom quartile contains students with the lowest predicted persistence (25th – 49th percentiles)
Bottom Persistence Quartile	The total USU student population is divided so that 25% of students fall in each quartile. The bottom quartile contains students with the lowest predicted persistence (1st – 24th percentile students)
Female	Students identifying as female
Male	Students identifying as male

Appendix C [continued]

STUDENT SUBGROUP DEFINITIONS

Student Subgroup	Definition
Non-Hispanic or Latino	Students who do not identify as Hispanic or Latino
Hispanic or Latino	Students who identify as Hispanic or Latino
Race: Two or More	Students who identify with two or more races
Race: Unknown	Students who did not provided race information
Race: Asian	Students who identify as Asian
Race: Black or African American	Students who identify as African American
Race: Pacific Islander	Students who identify as a Pacific Islander
Race: American Indian/ Alaskan Native	Students who identify as American Indian or Alaska Native
Race: White or Caucasian	Students who identify as White or Caucasian

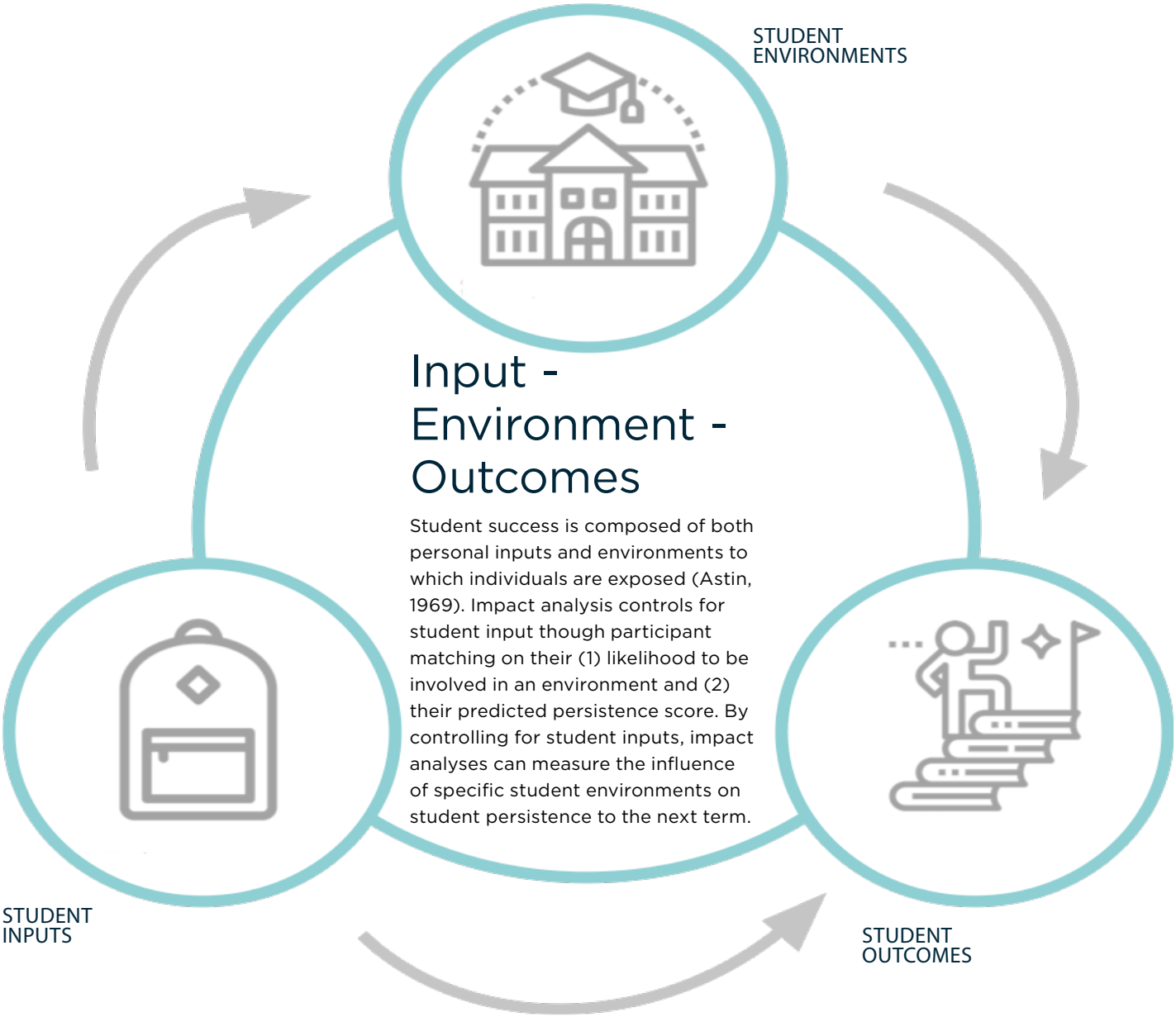
Appendix D

Retained tuition is calculated by multiplying retained students by the USU average tuition. Average tuition is calculated in current dollars (2018/2019). Average tuition may vary depending on the population of students utilized in the analysis. The table below provides the average tuition across different USU student populations. The highlighted cell represents the multiplier used in this analysis.

RETAINED TUITION MULTIPLIER CALCULATION

Student Groups	Net Tuition	Number of Students	Average Annual Tuition & Fees
All USU Students	$148,864,384	33,070	$4,501.49
Undergraduates	$131,932,035	29,033	$4,544.21
Graduates	$16,932,349	4,037	$4,194.29
Logan Campus Students	$119,051,003	25,106	$4,741.93
Undergraduates	$107,711,149	22,659	$4,753.57
Graduates	$11,339,854	2,447	$4,634.19
STATE-WIDE CAMPUS STUDENTS	$25,941,419	7,964	$3,257.34
Undergraduates	$20,303,215	3,864	$5,254.46
Graduates	$5,638,204	1,590	$3,546.04
USU-E Price & Blanding Students	$3,871,962	2,560	$1,512.49

Impact Analysis



STUDENT INPUTS

Students bring different varieties and combinations of strengths to their university experience. Their inputs influence student life and success, but do not determine it.

STUDENT ENVIRONMENTS

The University provides a diverse array of co-curricular activities to enhance the student experience at USU. Students selectively participate to varying degrees in activities. Student environments influence student life and success, but do not determine it.

STUDENT OUTCOMES

While student success can be defined in multiple ways, a good indicator of student success is persistence to the next term. It means that students are continuing on a path towards graduation.

IMPACT ANALYSIS

An impact analysis can effectively measure the influence of a co-curricular activity on student persistence by accounting for student inputs by matching participants with similar students who chose not to participate.