Statistical Science BS

Statistical Science BS Mission Statement

Mission Statement (Full Description):

The mission of the Bachelor of Science in Statistics program is to provide students with a strong foundation in statistical theory, methods, and applications, empowering them to analyze and interpret data in a wide range of disciplines. Through a rigorous curriculum that integrates mathematical principles, computational tools, and real-world problem-solving, the program aims to develop students' critical thinking, analytical, and communication skills. Our graduates will be equipped to pursue successful careers in academia, industry, government, and research, or to continue their education in advanced statistical or related fields. The program also emphasizes ethical data practices, social responsibility, and the importance of statistics in informed decision-making across diverse sectors of society.

The program offers one section of Stat 2331 in an online format during the summer session. This offering began in summer 2020 in response to the pandemic, when all courses were online. The offering of Stat 2331 remained due to student demand for online courses during the summer sessions.

Commented [SS1]: The program is performing very well overall. It earned **Good** for the Mission Statement and **Good** for the Program Goals (PGs), and **Exemplary** ratings in all remaining categories—**Student Learning Outcomes (SLOs), Measures, Targets, Results/Findings, Action Plan(s), and Status Update on Action(s)**—for a total score of **31 out of 32**.
The **Mission Statement** is still the area with the most room for improvement. It describes the program's technical strengths well, but tightening the purpose, connecting it more clearly to SMU's mission, and stating the student outcomes more directly would strengthen it.
The **Program Goals** are solid overall, which fits their "Good" rating, but they could be sharpened to make them more **operational**—that is, focused on things the program can directly influence. Goals tied to graduate school acceptance or employment are valuable, but they depend on student choices and external factors. Reworking them so they focus on skills, experiences, advising, or program structures would make them easier to measure and easier for faculty to act on.

Does your program offer courses at an off-campus instructional site (not at SMU Dallas campus)?:

No

Does your program offer courses through distance education technology (e.g., asynchronous, synchronous, or both)?:

Yes

During which academic year were students first enrolled in this program?:

Prior to AY2023-2024

Progress:

Complete

Visualization

SLO Step 1A: SLO Number:

1

SLO Step 1C: SLO Statement (Full Description):

When students graduate from BS in Statistics, they will be able to apply statistical methods to real-world problems using appropriate software tools. Students will create appropriate visualizations given characteristics of a data set.

SLO Step 2A: Measure:

This measure is assessed using a course project in Stat 4363, an upper division statistics course on time series analysis. Most of the students in the course are juniors and seniors. The project prompt is as follows: "Students will select a time series dataset and apply the methods learned in the class to address important questions concerning that dataset. The dataset should not be one of the data examples considered and discussed during the course. Graphics and visualizations should be part of the paper and will count in the page count."

The attached rubric is a rubric for the entire project. The visualization piece is the fifth row of the rubric.

Attached Files

4363_Project_Guidelines.pdf

VisualizationRubric.docx

SLO Step 2B: Type of Measure (check all that apply):

Written paper/project

SLO Step 2C: Is Measure direct or indirect?:

Direct

SLO Step 3A: Target for Measure:

75% of students will include visualizations that score a 4 or 5. Stat 4363 is an advanced level course taken mostly by juniors and seniors. At this level, almost all students should be able to produce a visualization that exceeds expectations when give the results of a data analysis.

SLO Step 4A: Was the target met for this Measure?:

Not Met

SLO Step 4B: Results and Findings for this Measure:

5 students of the 20 (25%) in the course submitted visualizations that scored 4 or 5 on the rubric. The median score was 3. Please see the attached spreadsheet for the full data set. Most of the issues related to missing captions and labels, missing necessary plots, irrelevant or misleading plots, and incorrect titles, captions and labels. 2 of the 20 submissions included incorrect plots.

It is not uncommon for students to leave off labels and captions in figures, and the importance of labeling parts of a visualization (both axes, plotting symbols, etc) are stressed at the introductory level. Perhaps students need a refresher at the upper level, or perhaps the mechanics of proper visualization are not stressed across all courses. Some smaller, low stakes assessments where students are asked to label charts and graphs might help them understand the importance of appropriate labels on visualizations. The appropriate type of visualization for different types of data is also stressed at each level of the program.

Attached Files

STAT4363_Assessment_Spring2025.xlsx

SLO Step 4C: Interpretation of Results:

In 2022-23, the last time this PLO was assessed, 25 of 40 students (62.5%) scored a 4 or 5 on this measure. Most of the issues related to missing captions and labels, missing necessary plots, irrelevant or misleading plots, and incorrect titles, captions and labels. Only 3 of the 40 submissions included incorrect plots.

Clearly, the same issues remain. Even worse, several students did not present the correct plot. While faculty emphasize these aspects of creating graphics in almost all of our courses, the emphases seem to fall short when students need to write up a project. Furthermore, the number of students assessed this year was half of what it was in 2022-23, which adds to variability in results.

SLO Step 5A: Use of Results for Seeking Improvement (Action Plan):

While the results of this year's assessment are disappointing compared to two years ago, we will continue with similar measures as were previously implemented. For example, we will take these results and create smaller assignments where students can practice labeling graphs, describing them, and choosing the correct sort of graph, to display data. Perhaps intermittent due dates for the project can help students understand what is expected.

This is only the second time we have evaluated this PLO, and more data is needed before we decide whether our efforts are working.

SLO Step 5B: Type of Action:

Additional emphasis or time on content,Additional activities or assignments

SLO Step 5C: Dialogue Participants (check all that apply):

Faculty

SLO Step 5D: Evidence of Dialogue:

Please see the attached email to the professor in the course as evidence of dialogue.

Attached Files

Assessment for Visualization.pdf

SLO Step 5E: Type of other Improvements (check all that apply):

Other

SLO Step 5F: Other Improvements (Full Description):

Students need a refresher in proper visualization techniques at the upper level. Some smaller, low stakes assessments where students are asked to label charts and graphs might help them understand the importance of appropriate labels on visualizations. The appropriate type of visualization for different types of data is also stressed at each level of the program.

SLO Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

Smaller assignments were suggested in the previous cycle for which this PLO was assessed. More attention needs to be paid to whether and how these changes were implemented.

SLO Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Statistical simulation

SLO Step 1A: SLO Number:

2

SLO Step 1C: SLO Statement (Full Description):

Students will demonstrate ability to code and interpret statistical simulations by the end of the program.

SLO Step 2A: Measure:

This outcome was assessed using an assignment in Stat 4385, a course in nonparametric statistics that is a capstone course for the data science program. It is also an elective course for the statistics major. Students taking this course are typically juniors and seniors.

The assignment involved examining the convergence of the central limit theorem for skewed and symmetric populations. The students had to write code to calculate the the mean and standard deviation from multiple samples, and compare their simulated results to theoretical results. Thus, they had to understand the Central Limit Theorem and how to apply it. The assignment and a rubric are attached.

Attached Files

Stat 4385 Simulation Challenge I.docx

Simulation_Project_Rubric.docx

SLO Step 2B: Type of Measure (check all that apply):

Written paper/project

SLO Step 2C: Is Measure direct or indirect?:

Direct

SLO Step 3A: Target for Measure:

80% of students will turn in exemplary papers by the second try. This PLO was last assessed in AY 2022-23, when 83% (15 of 18) students turned in exemplary papers on the second attempt. The department would like to see if students can maintain this level of performance.

SLO Step 4A: Was the target met for this Measure?:

Met

SLO Step 4B: Results and Findings for this Measure:

21 of 26 students (81%) turned in exemplary papers by the second attempt. Students were given two attempts to meet specifications on this assignment. An "exemplary paper" is defined as a 45 or better out of 50 points.

SLO Step 4C: Interpretation of Results:

These results are comparable to those when this PLO was last assessed in 2022-23 AY, when 83% of students turned in exemplary papers by the second attempt. The assignment was slightly less rigorous this time because students were asked to do only 6 rather than 9 combinations of parameter and distribution settings. We learned from last time that the students felt that the assignment involved too much coding; therefore, we decreased the amount of coding in order to concentrate more on the statistical concept being taught.

SLO Step 5A: Use of Results for Seeking Improvement (Action Plan):

After this assignment, the students have a better understanding of both the Central Limit Theorem and the notion of repeated sampling. Coding is still an issue for some, but we suspect that this is less of a problem now that there is generative AI to help with coding. In the next

iteration of this assignment, we will ask students how they are using generative AI, and concentrate more on the concepts of the CLT and repeated sampling (i.e. assess the introduction and conclusion sections of each paper more thoroughly).

Many students had to repeat the assignment for statistical issues, and many did not understand that different distributions have different theoretical means - or perhaps that the population mean cannot be calculated from a sample. This is an important distinction that should probably be tested again during the course. The professor will be asked to include a question about this concept of the population vs. sample mean on an exam in the next run of the course to determine whether the students have learned this concept.

SLO Step 5B: Type of Action:

Additional emphasis or time on content,Redesign of activities or assignments

SLO Step 5C: Dialogue Participants (check all that apply):

Faculty

SLO Step 5D: Evidence of Dialogue:

The assessment chair has had a conversation with the faculty who teach Stat 4385 to discuss modifications to this assessment. The faculty revised the assignment to focus more on concepts. A draft of the project is attached.

Attached Files

SC1.docx

SLO Step 5E: Type of other Improvements (check all that apply):

Other

SLO Step 5F: Other Improvements (Full Description):

This assessment will focus more on the concepts and the need for repeated sampling (simulation). We will focus less on coding because students will likely be using generative AI to help them with coding. In addition, we will ask students to include links to their generative AI prompts and discussions, and ask students to articulate how they are using generative AI in their report. We suggest changing this PLO slightly to something like "Students will be able to

describe the need and utility for repeated sampling and simulation to explain statistical concepts by the end of the program."

SLO Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

In AY 2023-24, the professor was asked to include a question about this concept of the population vs. sample mean on an exam in the next run of the course to determine whether the students have learned this concept. The professor forgot about this stipulation; therefore, the professor will be asked to include such a question on the final exam, in addition to redesigning the assessment, to determine whether students understand the concept of theoretical vs. sample means in the context of the CLT and simulation.

Attached Files

SC1-Specifications.docx

SLO Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Statistical theory

SLO Step 1A: SLO Number:

3

SLO Step 1C: SLO Statement (Full Description):

Students will demonstrate knowledge of statistical theory by describing the relationship between various kinds of statistical and probabilistic functions, such as cumulative distribution functions and probability density functions, by the end of the program.

SLO Step 2A: Measure:

Students in Stat 4340 were assessed for this SLO. Stat 4340 is a course in calculus-based course in mathematical statistics, and makes extensive use of distribution theory and probability; therefore, it is the appropriate course to assess the students' ability to understand statistical theory. Most of the students in the course are upper division students. The measure is a set of 3 conceptual (multiple choice) and 2 free response (calculus application) questions on the final exam. A rubric is attached.

Attached Files

BSTheoryAssessmentQuestions.pdf

Statistical_Functions_Rubric.docx

SLO Step 2B: Type of Measure (check all that apply):

Objective Quiz or Exam

SLO Step 2C: Is Measure direct or indirect?:

Direct

SLO Step 3A: Target for Measure:

60% of students will score 4 out of 5 on the on the conceptual and free response questions. Last year, 28 students took the final exam. Of the 28, 14 students (50%) met this benchmark. We would like to see whether we can increase that percentage.

SLO Step 4A: Was the target met for this Measure?:

No data collected/reported this cycle (provided explanation in Step 4B)

SLO Step 4B: Results and Findings for this Measure:

This PLO will be assessed again in AY 2025-26.

SLO Step 4C: Interpretation of Results:

We have previously identified issues with students' understanding of calculus as the main problem in student understanding of the relationship between the CDF and PDF. In the next

cycle, we will continue to monitor students' ability to integrate and differentiate functions, as this is an important part of the relationship between the CDF and PDF.

SLO Step 5A: Use of Results for Seeking Improvement (Action Plan):

We have previously identified issues with students' understanding of calculus as the main problem in student understanding of the relationship between the CDF and PDF. In the next cycle, we will continue to monitor students' ability to integrate and differentiate functions, as this is an important part of the relationship between the CDF and PDF.

SLO Step 5B: Type of Action:

Additional emphasis or time on content

SLO Step 5C: Dialogue Participants (check all that apply):

Other

SLO Step 5D: Evidence of Dialogue:

There is no dialogue at this time because this PLO was not assessed during this cycle. It will be assessed again in AY 2025-26.

SLO Step 5E: Type of other Improvements (check all that apply):

Other

SLO Step 5F: Other Improvements (Full Description):

We have previously identified issues with students' understanding of calculus as the main problem in student understanding of the relationship between the CDF and PDF. In the next cycle, we will continue to monitor students' ability to integrate and differentiate functions, as this is an important part of the relationship between the CDF and PDF.

SLO Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

We have previously identified issues with students' understanding of calculus as the main problem in student understanding of the relationship between the CDF and PDF. In the next cycle, we will continue to monitor students' ability to integrate and differentiate functions, as this is an important part of the relationship between the CDF and PDF.

This PLO was not assessed in AY 2024-25.

SLO Step 6B: Status Update on Previously Identified Action Plan(s):

Not applicable for this cycle (explain in Step 6A)

Progress:

Complete

Writing in the major

SLO Step 1A: SLO Number:

4

SLO Step 1C: SLO Statement (Full Description):

Students will be able to accurately and clearly interpret statistical intervals (e.g., confidence intervals, prediction intervals) in context and communicate their meaning to technical and non-technical audiences.

While interpreting a confidence interval is often introduced at the course level, we intentionally include it as a program-level learning outcome because accurate interpretation requires synthesis of statistical theory, conceptual understanding of inference, and contextual reasoning. Research consistently shows that even students who have completed multiple statistics courses often misunderstand confidence intervals, which suggests that mastery requires repeated exposure and higher-order thinking developed throughout a full program of study. Moreover, the ability to interpret and explain a confidence interval reflects broader statistical literacy, integrating ideas of sampling variability, uncertainty, and evidence-based reasoning. This competency is especially critical in applied settings, where our graduates must communicate findings to both technical and non-technical audiences. Students will be able to accurately and clearly interpret statistical intervals (e.g., confidence intervals, prediction intervals) in context and communicate their meaning to technical and non-technical audiences.

By the end of the program, students should not only be able to compute confidence intervals but also clearly and accurately articulate what those intervals mean in context. Interpretation and calculation of confidence intervals is something that is reinforced and examined in multiple upper-division courses and often demonstrated in capstone projects or presentations. For these reasons, we believe this outcome is not only appropriate for program-level assessment but also essential to it.

SLO Step 2A: Measure:

This measure was assessed using a set of questions on the final exam for Stat 3300: Applied Statistics: Regression. This is a junior-level course that is required for the major. It is the appropriate course to measure writing in the major because all students take it, and the course concentrates on valid creation and succinct interpretation of results from statistical software. In addition, the course introduces advanced statistical methods, such as logistic regression. We chose to measure student's interpretation of a confidence interval because confidence intervals are used in almost all statistical methods in some form, regardless of the associated parameter. In addition, the interpretation of confidence intervals is tricky and must be done in the context of the problem at hand. As a result, students must have a command of not only the concept of the confidence interval, but also of the context of the problem.

Students were asked to interpret a confidence interval for the mean difference between two samples. The instructions for the question indicated how to give a complete answer, with point values assigned to different aspects of the desired written response. The text of the question and a rubric are attached.

Attached Files

25.Spr STAT 3300, PLO assessment rubric.docx

25.Spr STAT 3300, PLO Assessment Question.pdf

SLO Step 2B: Type of Measure (check all that apply):

Objective Quiz or Exam

SLO Step 2C: Is Measure direct or indirect?:

Direct

SLO Step 3A: Target for Measure:

During AY 2022-23, only 27% of students scored greater than 8 points out of 10 on this measure. We hope to increase that percentage to 30% of students scoring 8, 9, or 10 out of 10 points on this final exam question.

SLO Step 4A: Was the target met for this Measure?:

Met

SLO Step 4B: Results and Findings for this Measure:

For this cycle, 73% of students scored greater than or equal to 8 out of 10 on the assessment question. Associated analyses are attached.

Attached Files

25.Spr STAT 3300, PLO Assessment.xlsx

SLO Step 4C: Interpretation of Results:

Given the disappointing results in AY 2022-23, which was the last time this PLO was assessed (only 27% met the threshold), we were too modest in our target. In AY 2022-23, the target was 80% to score 8 or better on the assessment. However, this assessment was easier, because we asked about a confidence interval for the difference between two means rather than a confidence interval for the odds ratio from a logistic regression. We surmise that most of the improvement is related to simplification of the problem. Even so, we are still not at the 80% threshold that was our target two cycles ago.

SLO Step 5A: Use of Results for Seeking Improvement (Action Plan):

Previous results showed most students had difficulty with the meaning of the statistic itself (the odds ratio) and the interpretation in context. We decided this time to assess this SLO using a confidence interval for a population mean, which is something that students have seen from their first statistics course rather than asking students to interpret a more difficult parameter.

This time, the students did not have to calculate the interval. Rather, they were asked to interpret one given to them. We modified the assignment in this fashion because we wanted to remove the cognitive burden of the calculation. In addition, the statistical parameter being tested was familiar. In the next cycle, we will ask two questions - one about the confidence interval for a

simple parameter that the students have seen many times before, and one about a parameter that students have only just learned (such as an odds ratio from a logistic regression) to determine how the newness and difficulty of the concept affects the results.

SLO Step 5B: Type of Action:

Additional activities or assignments

SLO Step 5C: Dialogue Participants (check all that apply):

Faculty

SLO Step 5D: Evidence of Dialogue:

An email to the faculty member who conducted the assessment is attached.

Attached Files

Assessment of WIM.pdf

SLO Step 5E: Type of other Improvements (check all that apply):

Other

SLO Step 5F: Other Improvements (Full Description):

We will increase the threshold back to 80% due to the success the students had with a simpler question this AY.

SLO Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

We simplified the assessment to reduce student cognitive load and determine whether the difficulty of the statistical concept played a role in the poor assessment results from AY 2022-23. It seems that the difficulty of the concept of an odds ratio was partially responsible for the poor performance in interpreting a confidence interval. However, the simple question was not asked of the same students as the difficult question was asked.

We have not yet implemented an assessment where we ask two questions, one for a difficult statistical concept and another for a simple concept. This is the goal for the next time we assess this PLO in AY 2026-27.

SLO Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete

Plans after receiving BS

PG Step 1A: PG Number:

1

PG Step 1C: PG Statement (Full Description):

Thirty percent of students will continue to graduate study in statistics, data science, or a related field. This goal exceeds the national average, typically 15-20%, reflecting our program's commitment to supporting the increasing demand for advanced quantitative skills in government, industry, and academia. It also aligns with national workforce projections and enhances our program's reputation by positioning our graduates for leadership roles in statistics, data science, biostatistics, and other interdisciplinary domains.

PG Step 2A: Measure:

The Office of Institutional Planning and Effectiveness at SMU collects information on future plans from students across the university. This information is found here https://www.smu.edu/provost/assessment/career/dashboard-new for the 2023-24 academic year. We will use this information, ensuring that our data aligns with those that the university is gathering and is comparable from year to year.

PG Step 2B: Is Measure direct or indirect?:

Direct

Commented [SS2]: A. Summary Assessment
The Program Goal clearly expresses a desirable graduate outcome—continuation to graduate study—and provides context by comparing expectations to national averages. However, the PG is **not operational**, meaning it relies on post-graduation decisions that the program **cannot directly control**. This makes the goal difficult to measure consistently and difficult for faculty to use for improvement planning. It is also framed as both a **numerical target** and a **goal**, which should be separated (PG ≠ target). Overall, the intent is strong, but the goal needs reformulation so it reflects what the **program can deliver** rather than what students ultimately choose.
B. Suggestions for Improvement
To align with rubric standards for **Clarity, Measurability, Alignment, and Integration**, consider:
1. Make the PG Operational
- Focus on what the program *does* (e.g., preparing students with advanced skills, offering structured research experiences, providing mentorship for graduate applications).
  - Avoid setting the PG around decisions students make after leaving the program.

2. Separate the Goal from the Target
  - The PG should be a qualitative statement of what the program aims to achieve.
- The **30% figure** belongs in the **Targets** section, not in the PG itself.

3. Emphasize Control and Influence
  - Reframe the PG around preparing students for graduate study, not guaranteeing enrollment.

4. Maintain Alignment
  - Keep the connection to national workforce needs and the program's disciplinary strengths, but phrase it in terms of program intent.

Experience-Based and Measurable Through Program Records
"The program will provide students with structured opportunities—such as independent research, advanced electives, and faculty mentoring—that support readiness for graduate study in quantitative fields."
Why this works:
The department can track the number of students completing research experiences, advanced coursework, or mentoring milestones.
Advising/Preparation-Based and Measurable
"The program will support students' preparation for graduate study by offering advising, application workshops, and faculty mentoring that increase students' readiness for advanced quantitative programs."
Why this works:
The department can measure participation rates, workshop delivery, and advising engagement.

PG Step 3A: Target for Measure:

The Department has set a goal for 30% of Bachelor of Science in Statistics graduates to pursue an advanced degree (master's, doctoral, or relevant professional degree) in statistics, data science, or a related field within one year of graduation from SMU.

PG Step 4A: Was the target met for this Measure?:

Not Met

PG Step 4B: Results and Findings for this Measure:

42 students graduated with a bachelor science in statistical science, 12 of which reported going on to pursue an advanced degree (28%). Four students did not respond to the survey.

PG Step 4C: Interpretation of Results:

In academic year 2023–2024, 28% of Statistical Science BS graduates (12 of 42 students) reported pursuing an advanced degree, a large increase from the 14.7% rate reported for the 2022–2023 cohort (5 of 34 students). This upward trend is encouraging and suggests increasing student interest and preparedness for graduate study. It also places the program within striking distance of the newly established 30% target, and well above national averages of 15–20%.

Our program has benefited from interest in statistics and data science in general, and in the explosion of data requiring expertise in this area for analysis and interpretation. We are working toward aligning our curriculum and advising to further increase graduate readiness.

We note that 4 students (roughly 10%) did not respond to the survey, leaving room for uncertainty in the outcome rate. Additionally, while this year's result is promising, the program needs multi-year data to determine whether this increase is part of a sustained trend or a one-year fluctuation.

PG Step 5A: Use of Results for Seeking Improvement (Action Plan):

Through advising, undergraduate research, and coursework that builds strong theoretical and applied foundations, we aim to prepare and inspire students to continue their education beyond the bachelor's degree.

A continuing challenge is that our department faculty numbers are low, which stretches current faculty in the areas of mentoring and advising. Many students desire undergraduate research opportunities, and our faculty want to help, but find themselves with a lack of bandwidth to do so. Adding to this is a departmental culture focused on graduate research, which means that faculty are rewarded for producing PhD students, but not for working with undergraduates. SMU as a whole is dedicated to undergraduate research, and the administration supports this effort. However (1) the message is not filtering down to departments traditionally focused on PhD programs and (2) there is a lack of financial support for faculty in undergraduate research. The university could support faculty engaged in undergraduate research by allowing a course off load for every X number of undergraduate mentees, for example. However, reducing course loads could add to the already difficult task of staffing current courses for an increasing number of undergraduates.

Faculty could receive summer stipends for working with undergraduates during the summer. Currently, students receive stipends but faculty are not allowed to take a stipend through several university programs.

PG Step 5B: Dialogue Participants (check all that apply):

Faculty

PG Step 5C: Evidence of Dialogue:

Results of this assessment will be shared with the SDS faculty at the first department meeting in the fall of 2025.

PG Step 5D: Type of other Improvements (check all that apply):

Other

PG Step 5E: Other Improvements (Full Description):

Several intentional program changes were implemented to support this outcome:

- Curricular enhancements such as increased use of applied statistical software and research design components aimed at preparing students for graduate-level work.

- Expanded advising, including more structured conversations about graduate programs and careers requiring advanced degrees.
- Outreach efforts, such as alumni panels, hackathons (DataFest), and dedicated class time to market graduate programs in statistics and data science.

These changes were prompted by:

- Annual program review discussions noting a relatively low proportion of students pursuing graduate study.
- Student feedback expressing uncertainty about graduate school options and application processes. In particular, many students did not know that PhD programs typically grant students stipends and waive their tuition.
- Alignment with department goals to position graduates for long-term career growth in statistics, data science, and quantitative research fields.

We would further like to implement a senior capstone experience and give undergraduate students the ability to attend conferences, but like departmental resources (faculty and money) to do so.

PG Step 6A: Status Update on Action(s) Identified in the Previous Assessment Cycle (Full Description):

For the 2022–2023 cohort 14.7% reported (5 of 34 students) seeking advanced degrees. This upward trend is encouraging and suggests increasing student interest and preparedness for graduate study. While this year's result (28%) is promising, the program needs multi-year data to determine whether this increase is part of a sustained trend or a one-year fluctuation.

PG Step 6B: Status Update on Previously Identified Action Plan(s):

In progress

Progress:

Complete