

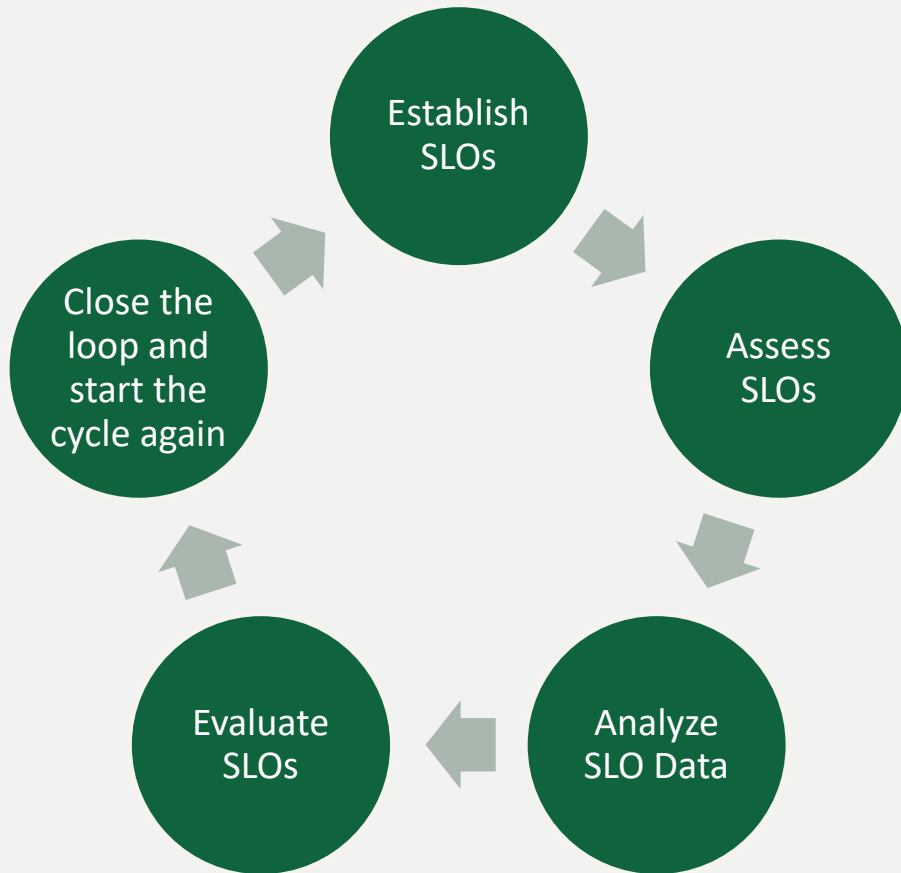
# Disaggregating SLOs

How to use SLO reports in  
Program Review

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SPRING 2020



# Assessing SLOs



# What's the point?

- Accreditation Standards
- Program Review
- Improve the quality of:
  - the SLO assessment process
  - our teaching and courses
  - Success rates, especially for underrepresented populations
- Meaningful reflection







# Accreditation Standards

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## STANDARD I.B.5. (INSTITUTIONAL EFFECTIVENESS)

“The institution assesses accomplishment of its mission through program review and evaluation of goals and objectives, student learning outcomes, and student achievement. Quantitative and qualitative data are *disaggregated* for analysis by program type and mode of delivery.”



# Accreditation Standards

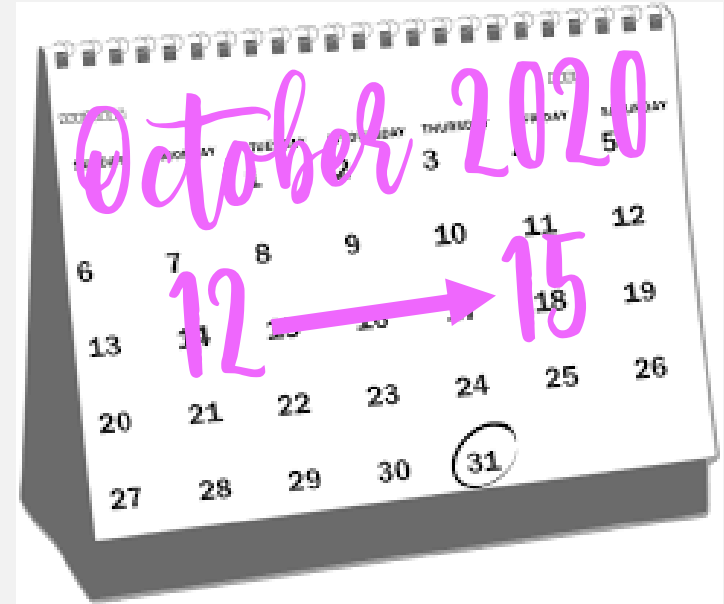
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## STANDARD I.B.6. (INSTITUTIONAL EFFECTIVENESS)

“The institution *disaggregates* and *analyzes* learning outcomes and achievement for subpopulations of students. When the institution identifies performance gaps, it implements strategies, which may include allocation or reallocation of human, fiscal and other resources, to mitigate those gaps and evaluates the efficacy of those strategies.”

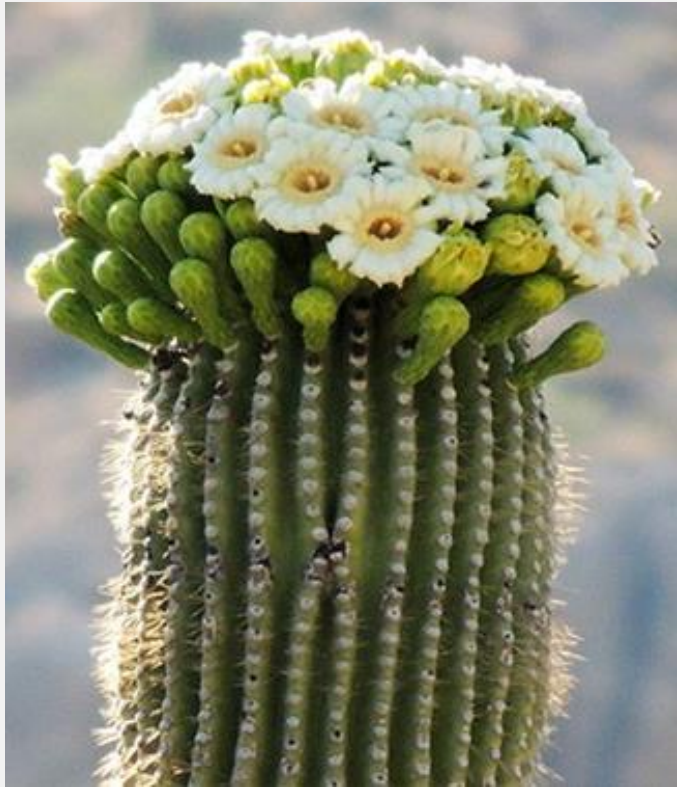
# Accreditation Visit

- Our visit from ACCJC is next semester!
  - October 12 – 15



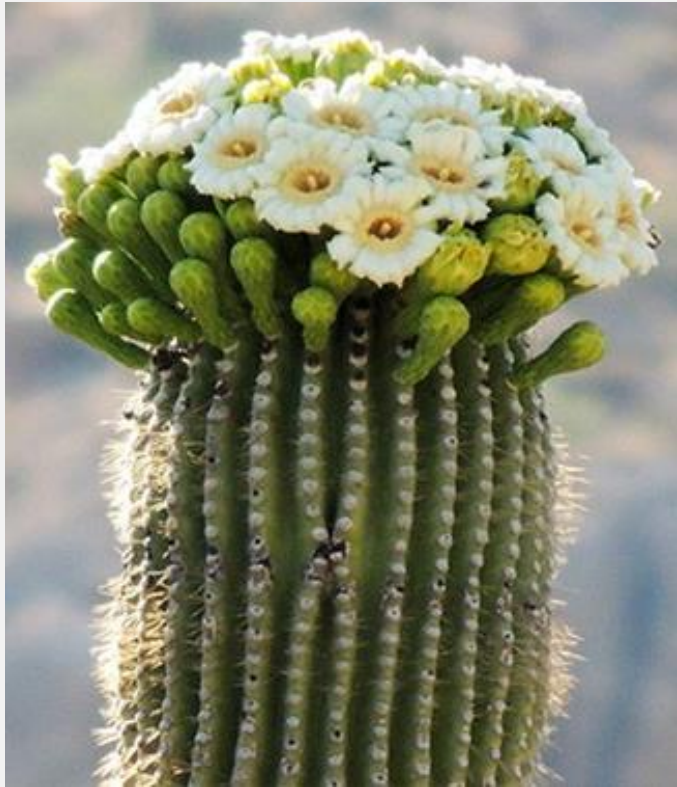


# ASCCC Resolution



- There was a resolution expressing concern over how to meet the Standard relating to disaggregation of data.
  - How do we make it meaningful?
- ASCCC will “facilitate a conversation in the field...regarding the disaggregation of learning outcomes data, the extent to which such disaggregation is feasible to yield meaningful data and the means by which colleges can meet or exceed the requirements of accreditation Standard I.B.6”

# ASCCC Recommendation



- Recommendation 2: “In order to meet the standards, the team strongly recommends the College systematically utilize student learning outcome assessment results to improve the achievement of stated student learning outcomes, and to inform integrated planning decisions, including resource allocation and improvements across the college.”



# What do we need to do?

“Colleges are required to analyze SLO data for disproportionate impact among subpopulations and make program changes according to the results.”



# We should assess because:

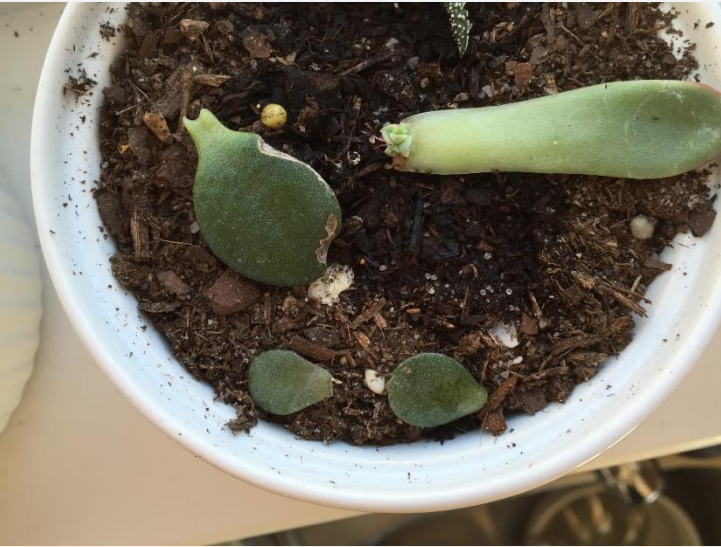
- Aggregated data leaves struggling subpopulations unrecognized and on their own in terms of improving success rates.
- Disaggregation informs and provides data support for changes in how programs are implemented in order to support all students.



# It's okay to have concerns

Common apprehensions for disaggregating SLO data:

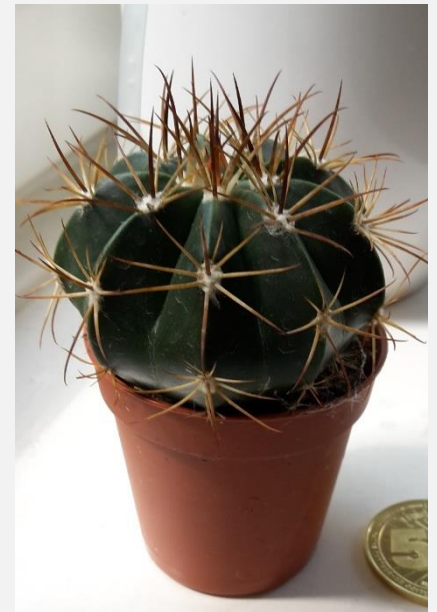
- Student privacy
- Infrequently or rarely offered courses
  - Leading to student identification
  - Small sample sizes
- Collecting campus data
- Workload





# How can we address those concerns?

- Student privacy: develop precise data reporting practices that are collegially agreed upon by faculty, admin, and researchers (and FERPA).
- Begin disaggregation data conversations slowly and in measured steps.
  - Pick one course in a program, perhaps the one with the most sections.
  - Review less controversial data attributes:
    - Day vs. evening
    - Online vs. face-to-face
    - 18-week vs. short-term
    - Learning communities
    - Dual enrollment or concurrent enrollment
    - Level of course
    - Non-credit vs. credit





# Accreditation Standards

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## STANDARD 1.C.3. (INSTITUTIONAL INTEGRITY)

“The institution uses *documented assessment* of student learning and *evaluation* of student achievement to communicate matters of academic quality to appropriate constituencies, including current and prospective students and the public. (ER 19).”

# Now what?

- Outcomes and their disaggregation are here to stay.
- As a college we should start thinking about how we want to look at disaggregation.
  - How much data do we need to make a meaningful conclusion?
    - Do we have to disaggregate data for every section of every course? Could we use a smaller sampling?
  - What's the impact on academic freedom?
  - What about student privacy?
  - How will faculty be protected?
  - Can disaggregated data really lead to improving student learning?



# How to use Outcomes assessment

- Treat it as research to improve teaching strategies and program/course curriculum alignment.
- Colleges are defining subpopulations of interest in ways that provide locally meaningful data in the absence of explicit commission directive.
  - Ensure SLO disaggregation provides locally useful data for program improvement.
- Begin conversations with Research and IT to develop infrastructure for demographic-focused, data disaggregation.
- Align assessment data with funding sources like Equity.

# How to access your Outcomes

1. Log onto the SLO Cloud
2. Select "Exports"
3. Determine the parameters of the data you want to export
4. Export the data

## Exports

Year 2019 - 2020

Period Fall

Division Mathematics, Business & Computer Technology

Dept MATH

Filter All submissions

Format Comma Separated Values/CSV (.csv)

Encoding ANSI

No Error Checks  Debug  Skip problem records

Export

# Exported Data

The screenshot shows a Microsoft Excel spreadsheet with the following data columns:

| ID    | when             | term   | subject | division | course   | section  | faculty    | assessment          | reflection | program   | ligoes   | core comp | statement | met | target                                                                                                                     | assessed                                                                                                                   | statement |
|-------|------------------|--------|---------|----------|----------|----------|------------|---------------------|------------|-----------|----------|-----------|-----------|-----|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------|
| 14675 | 10/10/2019 16:39 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40788     | 15  | 19                                                                                                                         | Students will demonstrate the ability to solve real-world problems employing exponential and logarithmic models.           |           |
| 14675 | 10/10/2019 16:39 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40789     | 11  | 19                                                                                                                         | Students will demonstrate the ability to analyze basic functions.                                                          |           |
| 14675 | 10/10/2019 16:39 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40790     | 11  | 19                                                                                                                         | Students will demonstrate the ability to solve systems of nonlinear equations and inequalities.                            |           |
| 14675 | 10/10/2019 16:39 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40791     | 9   | 19                                                                                                                         | Students will demonstrate the ability to analyze equations and graphs of conics.                                           |           |
| 14676 | 10/10/2019 16:41 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40792     | 15  | 19                                                                                                                         | Students will demonstrate the ability to solve real-world problems employing exponential and logarithmic models.           |           |
| 14676 | 10/10/2019 16:41 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40793     | 11  | 19                                                                                                                         | Students will demonstrate the ability to analyze basic functions.                                                          |           |
| 14676 | 10/10/2019 16:41 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40794     | 11  | 19                                                                                                                         | Students will demonstrate the ability to solve systems of nonlinear equations and inequalities.                            |           |
| 14676 | 10/10/2019 16:41 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Stude           | We might   | N/A       | Not Used | N/A       | 40795     | 9   | 19                                                                                                                         | Students will demonstrate the ability to analyze equations and graphs of conics.                                           |           |
| 22472 | 12/10/2019 15:08 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63533     | 13  | 13                                                                                                                         | Students will demonstrate the ability to describe and summarize data of samples and populations.                           |           |
| 22472 | 12/10/2019 15:08 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63534     | 0   | 6                                                                                                                          | Students will demonstrate the ability to correctly apply the addition or multiplication rules of a probability experiment. |           |
| 22472 | 12/10/2019 15:08 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63535     | 0   | 7                                                                                                                          | Students will demonstrate the ability to correctly evaluate probability from a binomial or normal distribution.            |           |
| 22472 | 12/10/2019 15:08 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63536     | 0   | 7                                                                                                                          | Students will demonstrate the ability to correctly define and conduct a hypothesis test.                                   |           |
| 22473 | 12/10/2019 15:09 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63537     | 13  | 13                                                                                                                         | Students will demonstrate the ability to describe and summarize data of samples and populations.                           |           |
| 22473 | 12/10/2019 15:09 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63538     | 0   | 6                                                                                                                          | Students will demonstrate the ability to correctly apply the addition or multiplication rules of a probability experiment. |           |
| 22473 | 12/10/2019 15:09 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63539     | 0   | 7                                                                                                                          | Students will demonstrate the ability to correctly evaluate probability from a binomial or normal distribution.            |           |
| 22473 | 12/10/2019 15:09 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | My         | Psycholog | Not Used | N/A       | 63540     | 0   | 7                                                                                                                          | Students will demonstrate the ability to correctly define and conduct a hypothesis test.                                   |           |
| 22474 | 12/10/2019 18:23 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63541     | 11        | 13  | Students will demonstrate the ability to solve real-world problems employing exponential and logarithmic models.           |                                                                                                                            |           |
| 22474 | 12/10/2019 18:23 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63542     | 8         | 13  | Students will demonstrate the ability to analyze basic functions.                                                          |                                                                                                                            |           |
| 22474 | 12/10/2019 18:23 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63543     | 10        | 13  | Students will demonstrate the ability to solve systems of nonlinear equations and inequalities.                            |                                                                                                                            |           |
| 22474 | 12/10/2019 18:23 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63544     | 12        | 13  | Students will demonstrate the ability to analyze equations and graphs of conics.                                           |                                                                                                                            |           |
| 22498 | 12/13/2019 13:08 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63625     | 4         | 17  | Students will demonstrate the ability to solve real-world problems employing exponential and logarithmic models.           |                                                                                                                            |           |
| 22498 | 12/13/2019 13:08 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63626     | 7         | 17  | Students will demonstrate the ability to analyze basic functions.                                                          |                                                                                                                            |           |
| 22498 | 12/13/2019 13:08 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63627     | 7         | 17  | Students will demonstrate the ability to solve systems of nonlinear equations and inequalities.                            |                                                                                                                            |           |
| 22498 | 12/13/2019 13:08 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63628     | 6         | 17  | Students will demonstrate computational skills with sequences and series.                                                  |                                                                                                                            |           |
| 22498 | 12/13/2019 13:08 | 2019FA | MATH    | VMTH     | MATH-102 | MATH-102 | [Redacted] | The Student Learnin | N/A        | Not Used  | N/A      | 63629     | 8         | 17  | Students will demonstrate the ability to analyze equations and graphs of conics.                                           |                                                                                                                            |           |
| 22499 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63630     | 16        | 19  | Students will demonstrate the ability to describe and summarize data of samples and populations.                           |                                                                                                                            |           |
| 22499 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63631     | 5         | 19  | Students will demonstrate the ability to correctly apply the addition or multiplication rules of a probability experiment. |                                                                                                                            |           |
| 22499 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63632     | 11        | 19  | Students will demonstrate the ability to correctly evaluate probability from a binomial or normal distribution.            |                                                                                                                            |           |
| 22499 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63633     | 7         | 19  | Students will demonstrate the ability to correctly define and conduct a hypothesis test.                                   |                                                                                                                            |           |
| 22500 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63634     | 16        | 19  | Students will demonstrate the ability to describe and summarize data of samples and populations.                           |                                                                                                                            |           |
| 22500 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63635     | 5         | 19  | Students will demonstrate the ability to correctly apply the addition or multiplication rules of a probability experiment. |                                                                                                                            |           |
| 22500 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63636     | 11        | 19  | Students will demonstrate the ability to correctly evaluate probability from a binomial or normal distribution.            |                                                                                                                            |           |
| 22500 | 12/13/2019 13:16 | 2019FA | MATH    | VMTH     | MATH-10E | MATH-10E | [Redacted] | The                 | Psycholog  | Not Used  | N/A      | 63637     | 7         | 19  | Students will demonstrate the ability to correctly define and conduct a hypothesis test.                                   |                                                                                                                            |           |
| 22538 | 12/15/2019 17:22 | 2019FA | MATH    | VMTH     | MATH-095 | MATH-095 | [Redacted] | The                 | N/A        | Not Used  | N/A      | 63736     | 9         | 23  | Students will demonstrate the ability to solve real-world problems involving quadratic equations.                          |                                                                                                                            |           |
| 22538 | 12/15/2019 17:22 | 2019FA | MATH    | VMTH     | MATH-095 | MATH-095 | [Redacted] | The                 | N/A        | Not Used  | N/A      | 63737     | 23        | 23  | Students will demonstrate the ability to simplify radical expressions and solve equations containing radicals.             |                                                                                                                            |           |
| 22538 | 12/15/2019 17:22 | 2019FA | MATH    | VMTH     | MATH-095 | MATH-095 | [Redacted] | The                 | N/A        | Not Used  | N/A      | 63738     | 20        | 23  | Students will demonstrate the ability to solve systems of linear equations and inequalities.                               |                                                                                                                            |           |
| 22538 | 12/15/2019 17:22 | 2019FA | MATH    | VMTH     | MATH-095 | MATH-095 | [Redacted] | The                 | N/A        | Not Used  | N/A      | 63739     | 13        | 23  | Students will demonstrate mastery of function concepts and operations.                                                     |                                                                                                                            |           |





*Determine how you want to  
examine your data.*