Institutional Assessment of General Education to Strengthen Student Equity Initiatives

January 2019

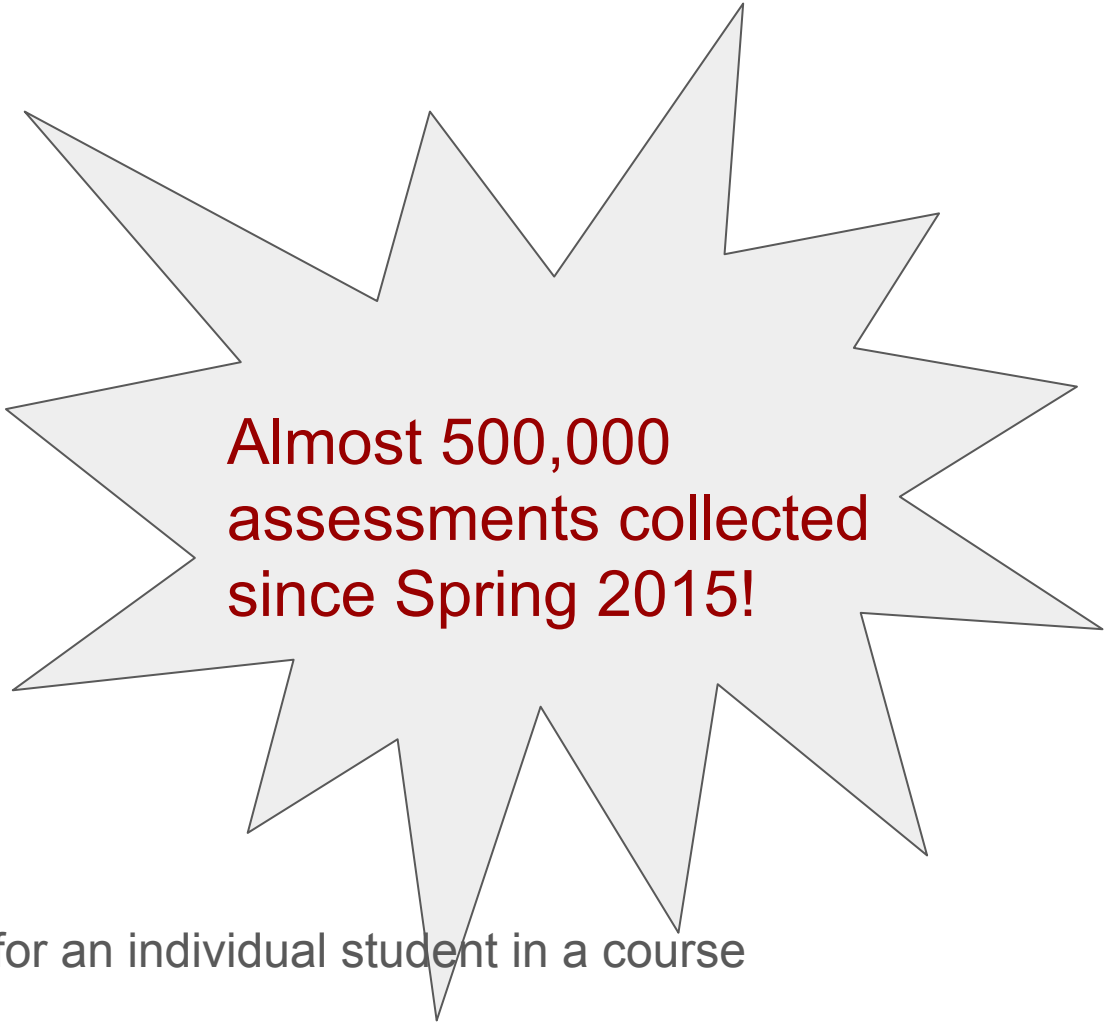
We’ve come a long way, baby….

- CCSF collects disaggregated student learning outcome data:
  - every course
  - every student
  - every semester
- We’ve been collecting this data routinely since Spring 2015
- Reporting is a college expectation, with 90-95% of course sections reported in any given semester

Data Summary

An average semester (numbers are approximate):

- 3400 CRNs (classes)
- 1180 Instructors
- 58,000 assessments
- 50 assessments per instructor



- an assessment = one SLO for an individual student in a course


Look at all of this data! Tons of it!
Yes, but what does it all mean? Too much of a good thing isn't always a good thing. Data without meaning... is just data.
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The language of assessment

“Closing the loop” - Codify the use of assessment data to inform improvements in pedagogy and the institution

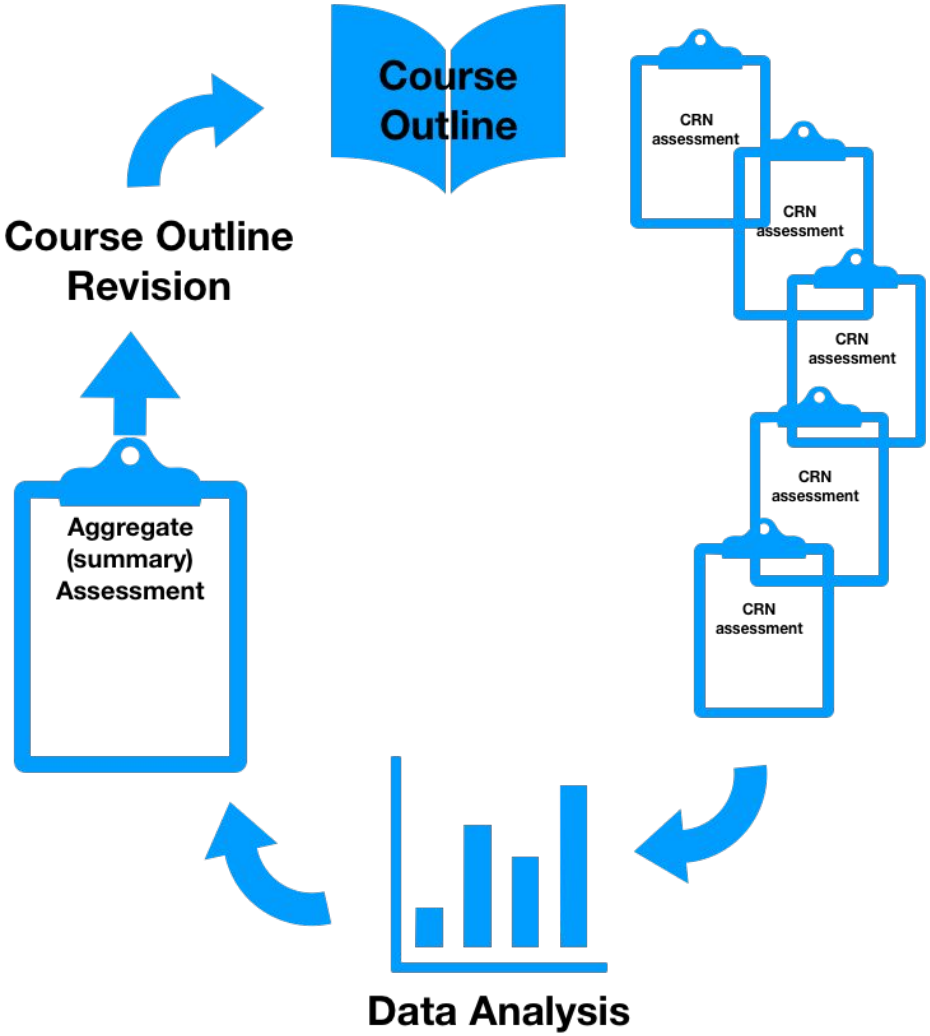
“Making it meaningful” - Support institutional goals such as equity initiatives by providing insight as to how to support diverse student populations *both* in the classroom and as an institution

Making the use of assessment data systematic

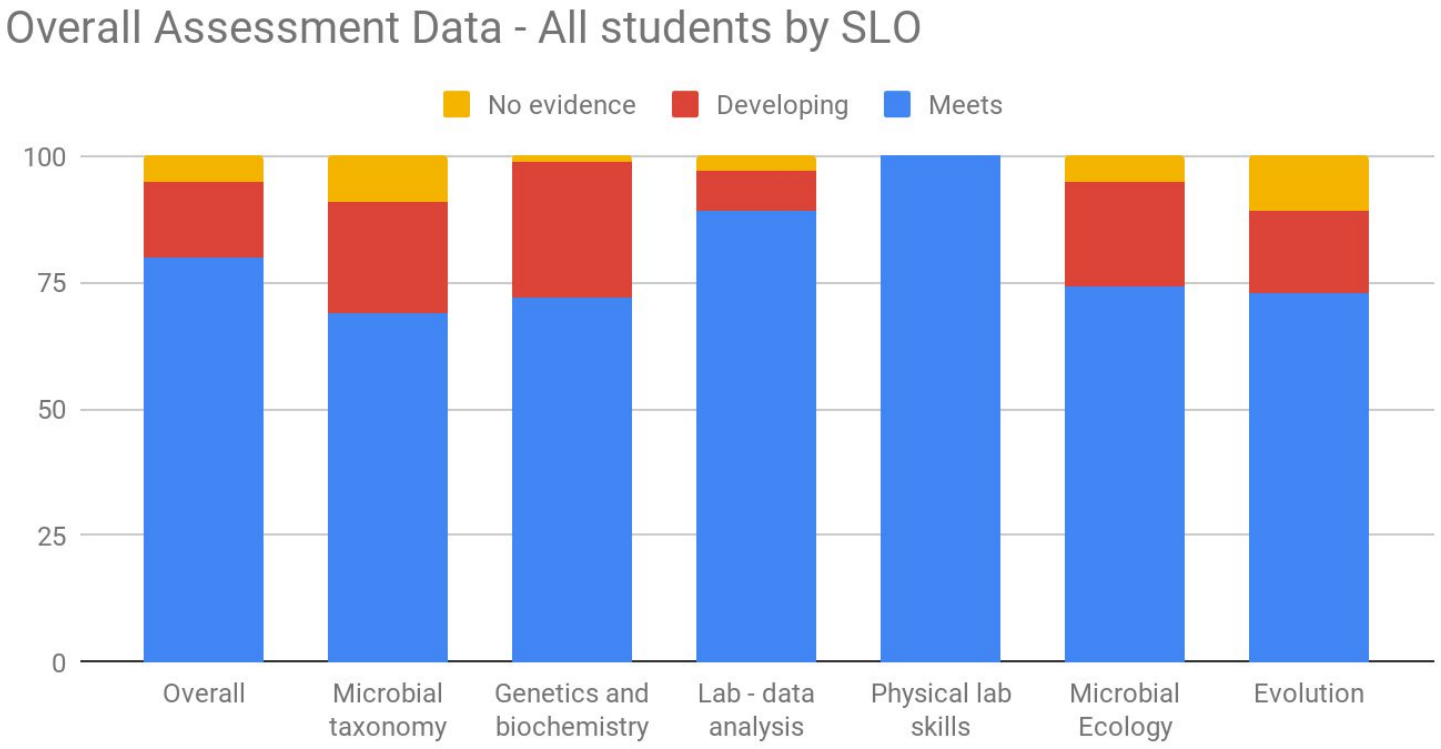
Closing the Loop - Courses/Programs

At the course/program level, assessment is systematically incorporated into outline revisions.

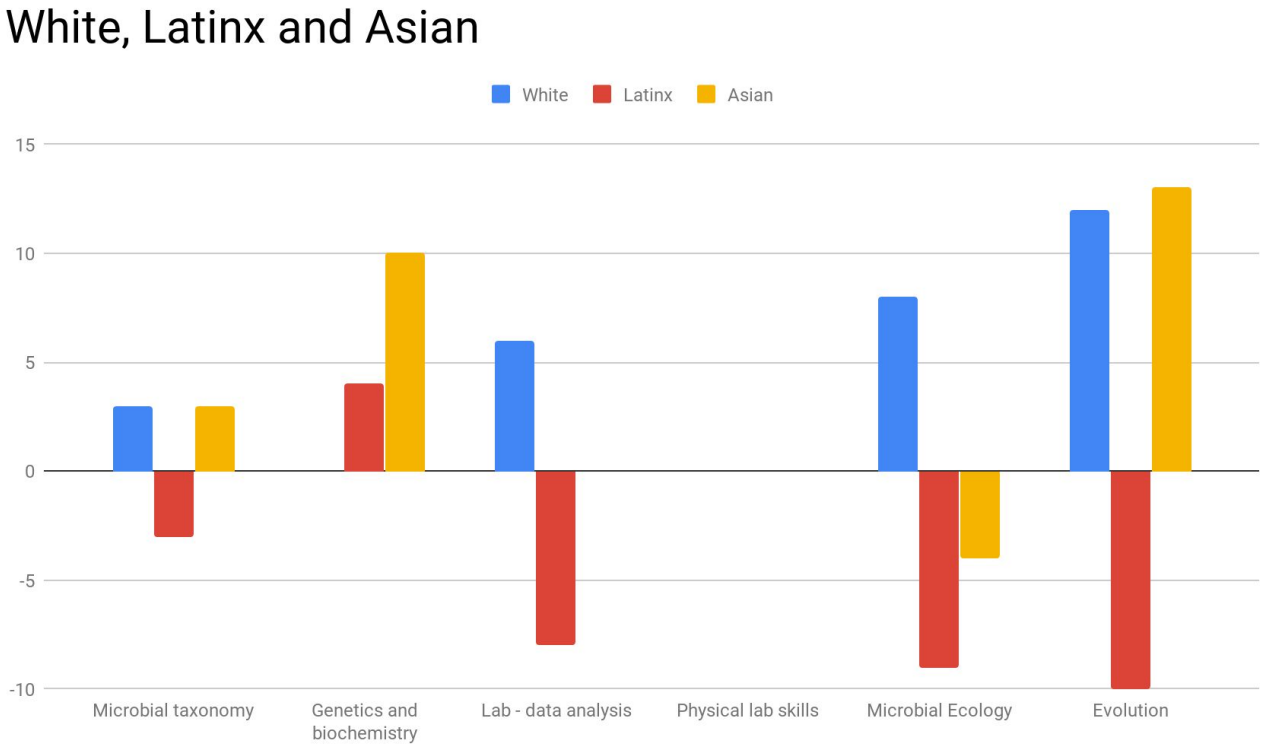
All curriculum must be reviewed at least every six years. CRN assessments are evaluated in total and used to inform changes to course outlines.



Example: Microbiology (2015-2016, 1474 assessments)



“Meets SLO” Gap Analysis of Largest Groups in Micro (ethnicity)



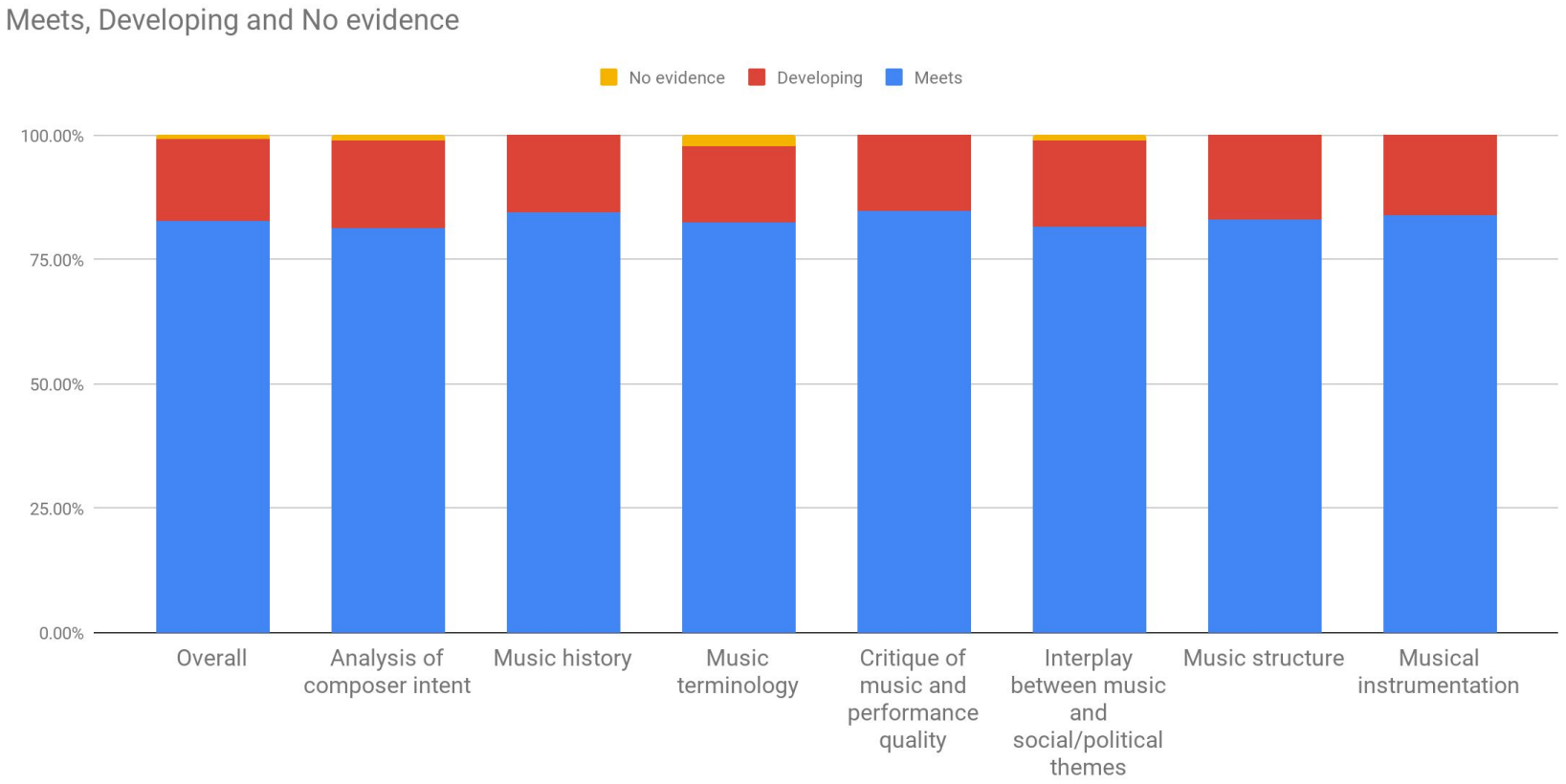
What might an Aggregate Assessment Address?

Lack of differentiation between the development of laboratory skills… (rewrite SLO, review assessment methodologies) - address in course outline

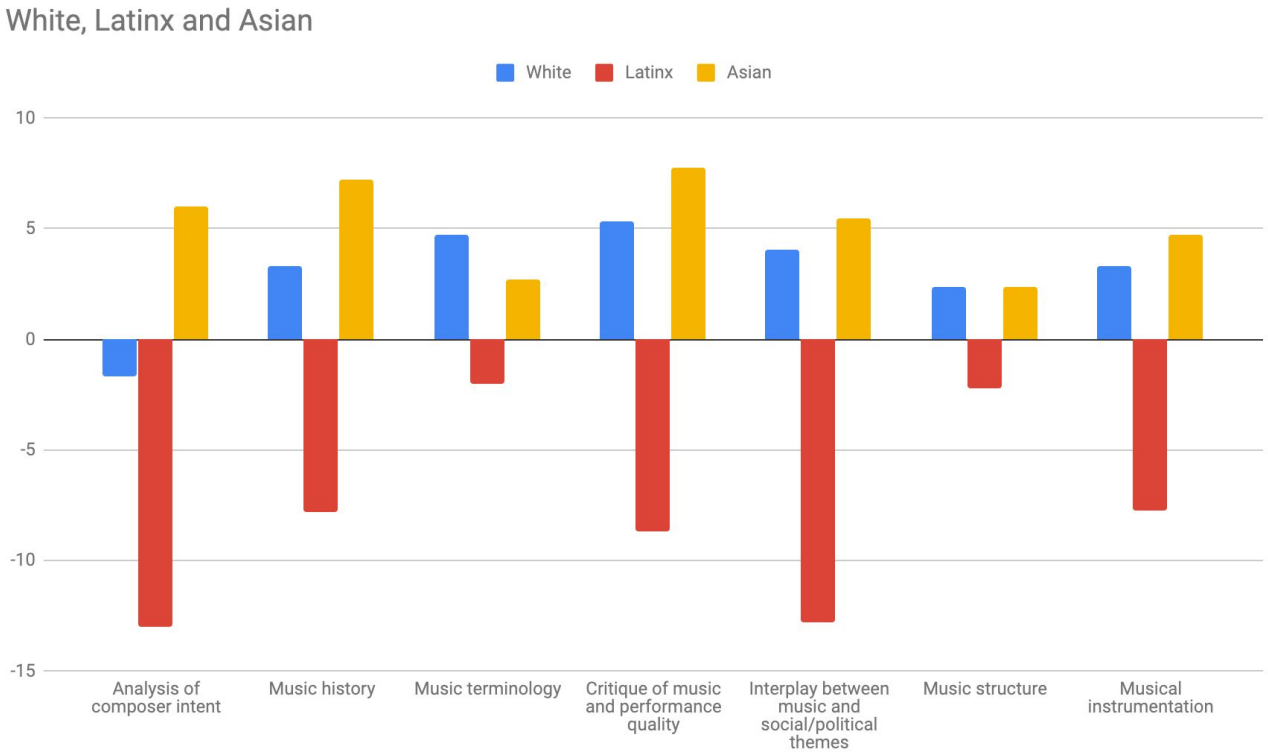
Students struggle generally with the difficult concepts around genetics and cellular biochemistry - review course content, assignments - address in course outline

Overall SLO gap for Latinx students is similar to college-wide achievement data. We serve hundreds of Latinx students hoping to become nurses, how do we support them better? - address with college equity committee, cohort support, tutors, faculty advisor, etc.

Example: Music Appreciation (2015-2016, 1747 assessments)



“Meets SLO” Gap Analysis of Largest Groups in Music 27A (ethnicity)



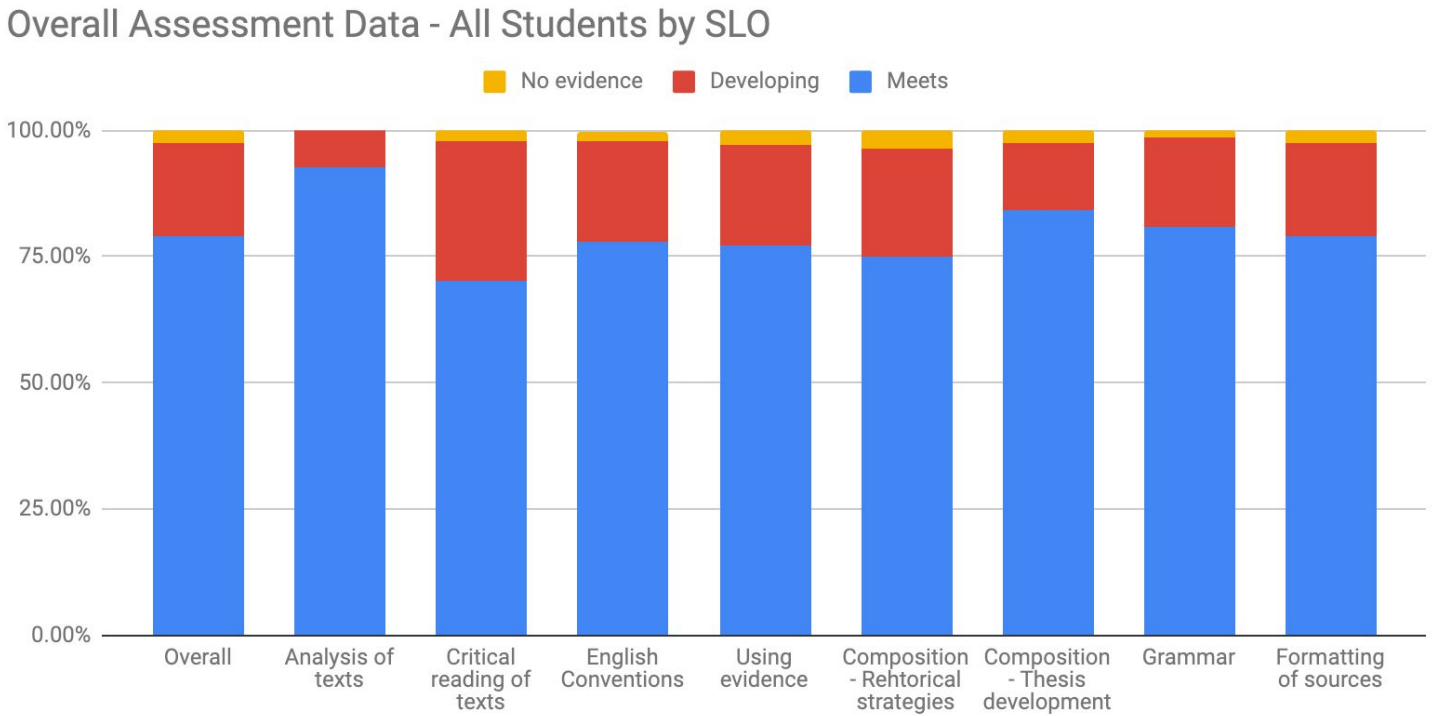
What might an Aggregate Assessment Address?

The assessments appear balanced - no one topic seems to challenge students more than others.

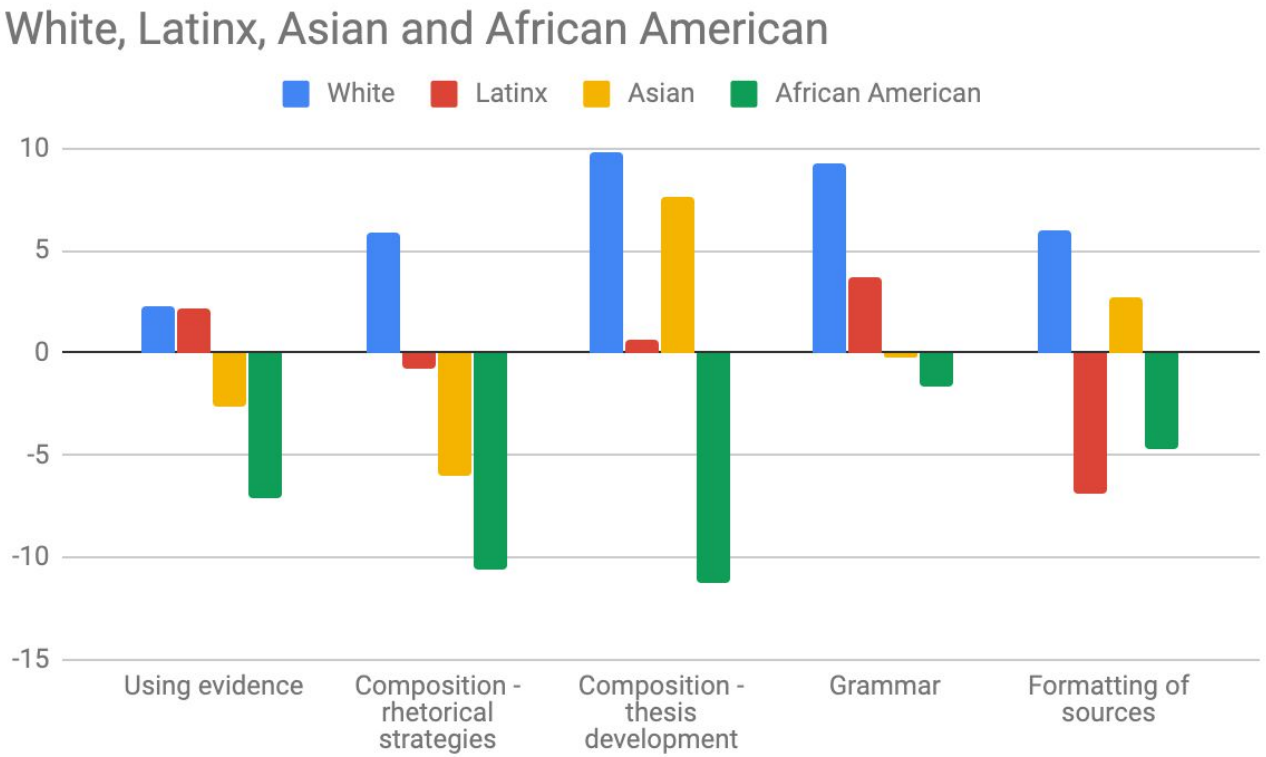
However, the gaps for Latinx students are similar to college-wide achievement data, AND are more pronounced when assessing critical thinking/analytical skills. How do we support them better? - address with college equity committee, cohort support, tutors, faculty advisor, etc.

Finding new ways of approaching the critical thinking and analytical skills in the classroom may benefit Latinx students particularly, but also benefit all students.

Example: English 1A (2015-2016 - 4,925 assessments)



“Meets SLO” Gap Analysis of Largest Groups in English 1A (ethnicity)



English 1A has been revised….

These data unified the English department to explore often unspoken questions and assumptions about a course very foundational to college study.

Instructors started from scratch to review "What is 1A?" and then rebuilt the course with assessment data and cleaner outcomes in mind.

The data informed changes to the course sequence, and it has helped with the shift to AB 705 and the removal of a developmental sequence. It's all about the outcomes.

How is this used in practice? Comments from F’18

Math 115 - Better coordination between faculty makes for better instruction

Data Summary:

There are several reasons for why the course level assessment for Math 115 is not as illuminating as we might wish. The first is that the course has recently gone under an overhaul of sorts in terms of course content, SLOs, prerequisites, and required assessment tools (we recently added a programming component to meet C-ID requirements). Moreover all of our assessments have been for different SLOs (hence small samples sizes), and different teachers use different textbooks and emphasize different topics. The SLO assessments have been useful for each teacher to focus on issues specific to their teaching they need to work on, but as of yet, we are unclear as to what it tells us about the course as a whole. We look forward to future semesters when the course has become more stable and we have larger sample sizes to consider.

What improvements will you make?

The department 115 instructors need to focus on deciding what the most important topics are for us to focus on, assigning comparable programming projects, and perhaps even using a common textbook.

Aggregate Assessment is Meaningful

ESL 49: It creates a legacy of work that can be used as a reference

It gives Departments and individual instructors an opportunity to present specifics of what is going on in the classrooms, their testing and results, their analysis and future plans for improvement as a result. No doubt it will create a font of resource material for future teachers who will be able to look back clearly at the legacy of work left behind by their predecessors and and apply it to future students' needs and interests towards achieving always greater academic excellence.

HLTH 65: It allows faculty to identify, highlight and refine the most effective assignments

One of the most important highlights in looking at the aggregate SLO data relates to the SLO "Consider principles of youth development, youth empowerment, and compare various youth development models." It is impressive that 100% of students who were assessed in two classes met this SLO, as it is so important for public health and social service providers working with youth to understand youth development principles in order to ensure health equity. A favorite assignment in the course is the final assignment where students have to create their own youth agency. It provides them with an opportunity to combine and implement on paper what they've learned over the semester about youth development and youth empowerment, while focusing on an issue of importance to them. I've had students approach me in later semesters to let me know they are moving forward with developing a youth agency and will be using the template they created in class as a jumping off point.

Pedagogy and Assessment Refinement Occurs

Japanese 2

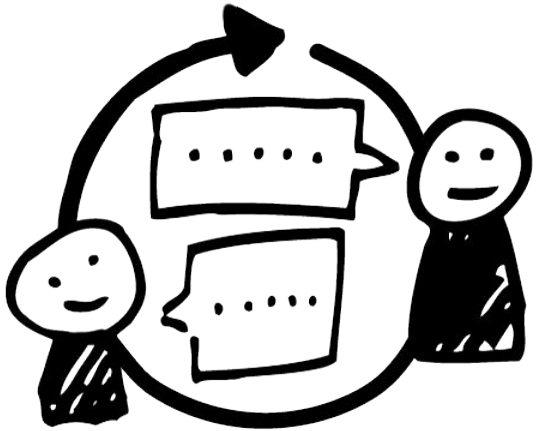
We found that the total number of the students who met SLO for each assessment level for all outcome assessments was relatively low. (74 students, 64%) and could be improved more. While SLO for Kanji and writing paragraphs indicated high success rate, SLO for culture (55%) and Oral communication (67%) showed relatively low success rate. Some instructors mentioned that more structured oral assessments should be conducted. It was also pointed out that the assessment method for culture should be improved since it did not have enough number of questions to measure SLO accurately.

To assess SLO in more comprehensive and consistent manner, our department shares a SLO template now. Thus, we revised SLO accordingly. We revised the course outline in a way that it is more consistent with other courses such as Japanese 1 and 3.

Students in our intermediate classes are generally strong. They are more committed to learn and they often have own goals. During these years, a few students participated in the Japanese Speech Contest sponsored by the Consulate of General of Japan and Japanese American Association of Northern California. Although most of participants of this speech contest are 4-year university students, some of our students were awarded. It tells that both our instructors and students work very hard.

Aggregate Assessment Advantages

- ★ Close the loop for every course and program every time curriculum is updated in a systematic and sustainable way
- ★ Creates a forum for faculty who co-teach a course to reflect on individual and group practices (making it meaningful)
- ★ Creates a clear path for linking student outcome achievement to actual changes to pedagogy (making it meaningful)



Closing the Loop at the Institutional Level

This is the more challenging goal!

Methodology needs to meet accreditation standards (systematic and informs change - close the loop)

Methodology needs to support and inform key institutional goals (making it meaningful)

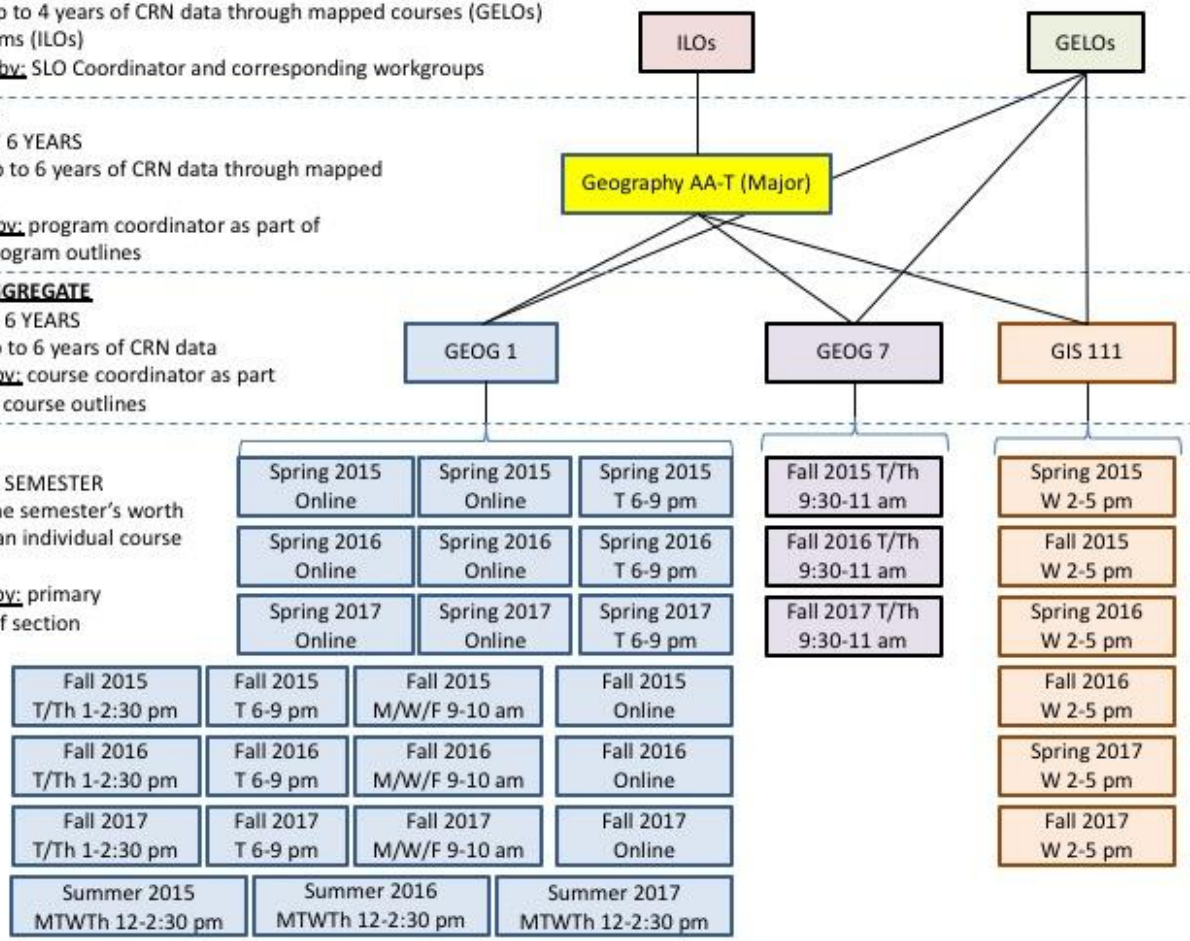
Methodology needs to engage the broad college community in decision making (making it meaningful)

ILOs and GELOs
Due: EVERY 4 to 6 YEARS
Reviews: up to 4 years of CRN data through mapped courses (GELOs) and programs (ILOs)
Submitted by: SLO Coordinator and corresponding workgroups

PROGRAM
Due: EVERY 6 YEARS
Reviews: up to 6 years of CRN data through mapped courses
Submitted by: program coordinator as part of updating program outlines

COURSE AGGREGATE
Due: EVERY 6 YEARS
Reviews: up to 6 years of CRN data
Submitted by: course coordinator as part of updating course outlines

CRN
Due: EVERY SEMESTER
Reviews: one semester's worth of data for an individual course section
Submitted by: primary instructor of section



Institutional Learning Outcomes - SLO Dashboard

Institutional Learning Outcomes

	ILO #1 Critical Thinking and Information Competency			ILO#2 Communication			ILO#3 Cultural, Social and Environmental Awareness				ILO#4 Personal and Career Development				
	1A	1B	1C	2A	2B	2C	3A	3B	3C	3D	4A	4B	4C	4D	4E
Proficient	76%	77%	78%	73%	74%	72%	77%	75%	79%	80%	75%	69%	79%	71%	82%
Developing	15%	18%	16%	21%	22%	19%	17%	19%	16%	15%	19%	26%	15%	24%	13%
No Evidence	9%	5%	6%	6%	4%	8%	6%	6%	5%	5%	6%	5%	6%	5%	5%
Number of Assessments	13,612	175,683	162,026	5713	2644	2492	33,929	34,094	9366	18,520	52,371	37,836	26,317	44,199	9,505
Full Report	Assessed F '17 Report S '18			Assessed F'14			Assessed F'15				Assessment F'16				
	Assessed F'13 Report S'14			Report S'15			Report S'16				Final Report S'17				

Note: Every ILO Area has been assessed at least once and we have begun second cycle

General Education Outcomes - SLO Dashboard

	GE Math Requirement	GE Area A: Communication and Analytical Thinking	GE Area B: Written Composition	GE Area C: Natural Sciences	GE Area D: Social and Behavioral Sciences
Proficient	66%	74%	75%	67%	76%
Developing	21%	16%	22%	27%	18%
No Evidence	13%	10%	3%	11%	6%
Number of Assessments	7812	66,206	1368	4564	10,653
Full Report	*Assessed S'17* Report F'17	*Assessed S'18* Report F'18 *Assessed S'14* Report F'14	Assessed S'15 Report S'16	*Assessed S'17* Report F'17 *Assessed S'13* Report F'13	*Assessed S'15* Report F'15
CSU Areas	B4	A1, A3	A2	B1, B2, B3	D
IGETC Areas	2	1B, 1C, 6	1A	5A, 5B, 5C	4

	GE Area E: Humanities	GE Area F: United States History & Government	GE Area G: Health Knowledge & Physical Skills	GE Area H: Ethnic Studies, Women's Studies & LGBT Studies
Proficient	83%	77%	85%	75%
Developing	12%	17%	9%	11%
No Evidence	5%	6%	6%	14%
Number of Assessments	61,309	13,845	13,302	3065
Full Report	*Assessed S'18* Report F'18 *Assessed S'14* Report F'14	Assessed S'16 Report F'16	Assessed S'16 Report S'17	Assessed S'15 Report F'15
CSU Areas	C1, C2	US 1, 2 3	E	n/a
IGETC Areas	3A, 3B	n/a	n/a	n/a

Note: Every GE Area has been assessed at least once and many twice

CCSF GE Area C

College-Wide Aggregate SLO Results for Spring to Fall 2016:

CCSF Meets SLO		CCSF Developing SLO		CCSF No evidence of SLO	
179,459	74.91%	45,932	19.17%	14,188	5.92%

SLO Results for Natural Sciences GE Area C courses from Spring to Fall 2016:

CCSF GE Area C - Natural Sciences (Springl '15 through Spring '16)	Meets SLO	Developing SLO	No evidence of SLO
1. Apply scientific inquiry and investigation of evidence to critically evaluate scientific arguments.	5280 69.17%	1630 21.35%	723 9.47%
2. Communicate scientific ideas and theories effectively.	8185 69.32%	2483 21.03%	1140 9.65%
3. Apply scientific principles, theories, or models to explain the behavior of natural phenomena.	9033 67.82%	2903 21.8%	1383 10.38%
4. Apply scientific knowledge and reasoning to human interaction with the natural world and issues impacting society.	3638 67.99%	1177 22%	538 10.02%

Disaggregation of Physical and Life Sciences (CSU)

CSU Area B1 - Physical Science (Spring '15 - Spring '16)	Meets SLO	Developing SLO	No evidence of SLO
1. Apply scientific inquiry and investigation of evidence to critically evaluate physical science arguments.	1948 68%	664 23%	268 9%
2. Communicate scientific ideas and theories effectively.	1455 59%	672 27%	356 14%
3. Apply scientific principles, theories, or models to explain the behavior of natural physical phenomena.	2544 62%	1069 26%	486 12%
4. Apply physical science knowledge and reasoning to human interaction with the natural world and issues impacting society.	1726 61%	793 28%	318 11%

CSU Area B2 - Life Science (Spring '15 - Spring '16)	Meets SLO	Developing SLO	No evidence of SLO
1. Apply scientific inquiry and investigation of evidence to critically evaluate biological science arguments.	2353 75%	543 17%	227 7%
2. Communicate scientific ideas and theories effectively.	6256 71%	1760 21%	753 9%
3. Apply scientific principles, theories, or models to explain the behavior of natural physical phenomena.	5284 71%	1424 19%	729 10%
4. Apply biological science knowledge and reasoning to human interaction with the natural world and issues impacting society.	1646 72%	434 19%	203 9%

GE Area C vs IGETC and CSU Science Areas

Note tremendous variability between Physical and Biological Sciences outcome achievement despite almost identical SLOs.

SLO Coordinators recommended separating CCSF “Natural Science” SLOs to Physical and Life Science SLOs - this was adopted in 2017 by the Academic Senate (closing the loop).

Moving forward - need to better understand where the differences come from in outcome achievement to improve student learning and success in Physical Science. (making it meaningful).

Alignment of Outcomes in Courses that Articulate

CSU Outcomes

1. Apply scientific inquiry and investigation of evidence to critically evaluate biological science arguments.
2. Communicate scientific ideas and theories effectively.
3. Apply scientific principles, theories, or models to explain the behavior of natural biological phenomena.
4. Apply biological science knowledge and reasoning to human interaction with the natural world and issues impacting society.

CCSF Outcomes*

1. Apply scientific inquiry and investigation of evidence to critically evaluate biological science arguments.
2. Communicate scientific ideas and theories effectively.
3. Apply scientific principles, theories, or models to explain the behavior of natural biological phenomena.
4. Apply biological science knowledge and reasoning to human interaction with the natural world and issues impacting society.

*CSU GELOs revised 2017 to align with CSU/IGETC articulation area

Nutrition Outcomes*

1. Use reliable scientific evidence to critique nutrition-relevant theories and dietary guidelines.
2. Diagram key steps in the digestion, absorption, and metabolism of nutrients for body processes.
3. Use reliable scientific evidence to predict the effects of nutrient imbalances on human health and disease outcomes.
4. Evaluate dietary recommendations at all stages of the human life cycle.
5. Explain how nutrition science impacts health policy.

*Course outline revised S'18 with alignment of outcomes as key element

Assessment Informed QFE Topics

Action Project 1 Goal: Build a sustainable system for addressing findings resulting from institutional assessment of General Education Learning Outcomes (GELOs) and Institutional Learning Outcomes (ILOs).

Pilot focused on two findings:

- Project 1A – Strengthening Counseling and Teaching Faculty Collaboration
- Project 1B – Creating Spaces for Student Success

Assessment Informed QFE Topics -cont'd-

Project 1A – Strengthening Counseling and Teaching Faculty Collaboration:

- Counseling Liaisons
- Starfish Early Alert System
- Embedded counseling
- Professional Development for counselors to receive updates about curriculum and educational programs
- Guided Pathways
- Collaboration between Counseling, English, ESL, and Math departments to close the achievement gaps in basic skills

Assessment Informed QFE Topics -cont'd-

Project 1B – Creating Spaces for Student Success:

- Initial focus on creating areas in the Ocean Campus Library such as the "Collaboratory"
- Will expand to other libraries throughout the District
- Will utilize learnings to inform spaces beyond libraries

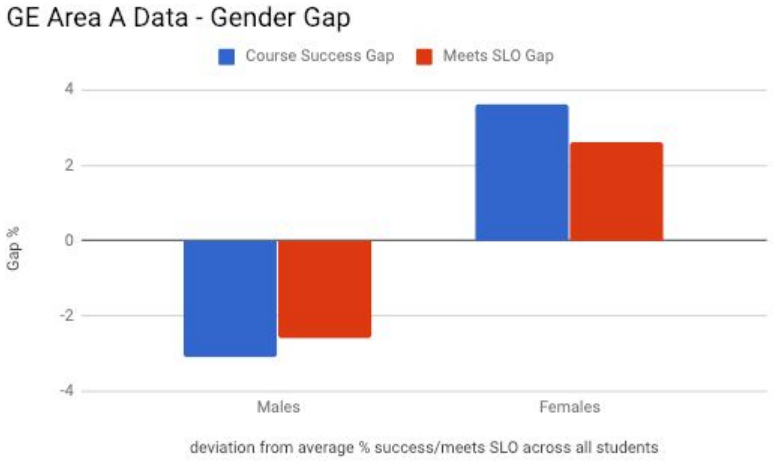
Analysis of Equity Gaps by GE Area

There are many ways to slice! See some visual examples on the following slides.

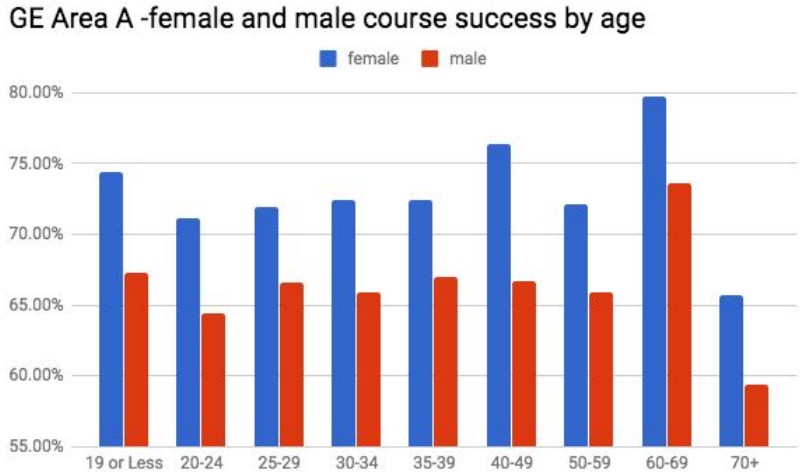
- Sex (gender)
- Sex AND Age
- Sex and Math
- Humanities by Ethnicity
- Latinx students by Humanities Department
- African American students by Humanities Department

Gender Gap in Communication/Analytical Thinking

Overall….

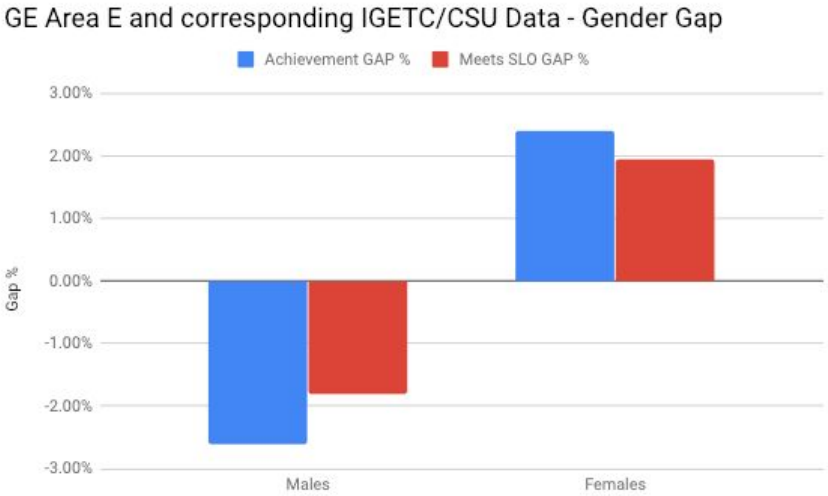


Also sliced by age….

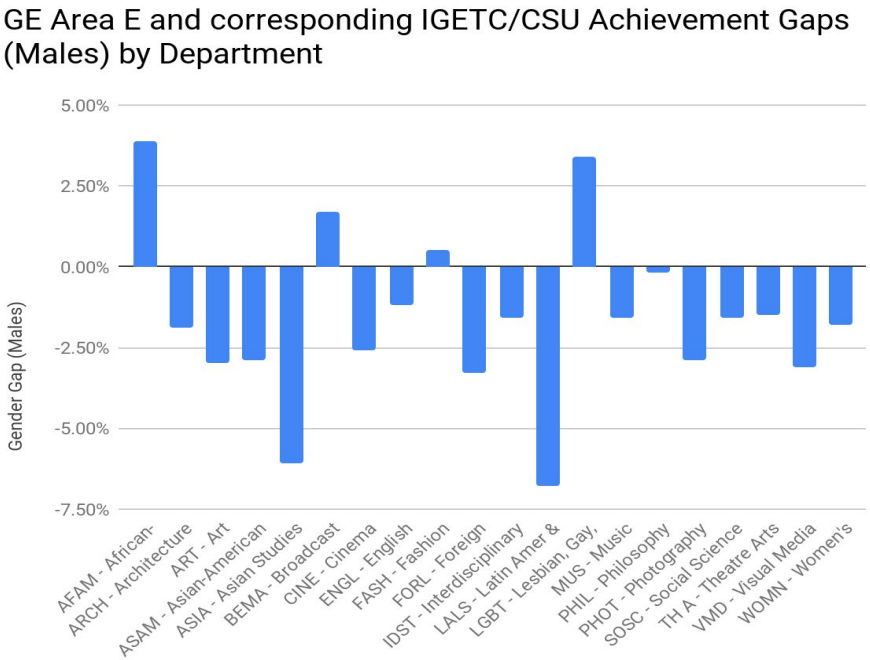


Gender GAP in Humanities

Overall….

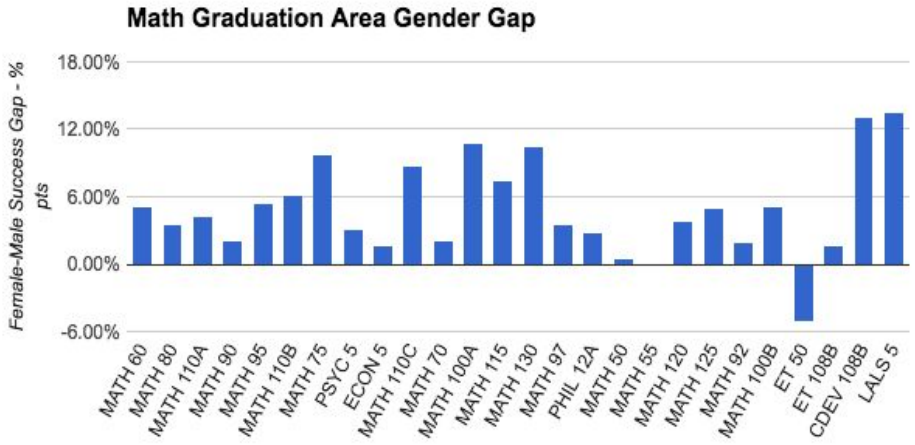


And sliced by Department

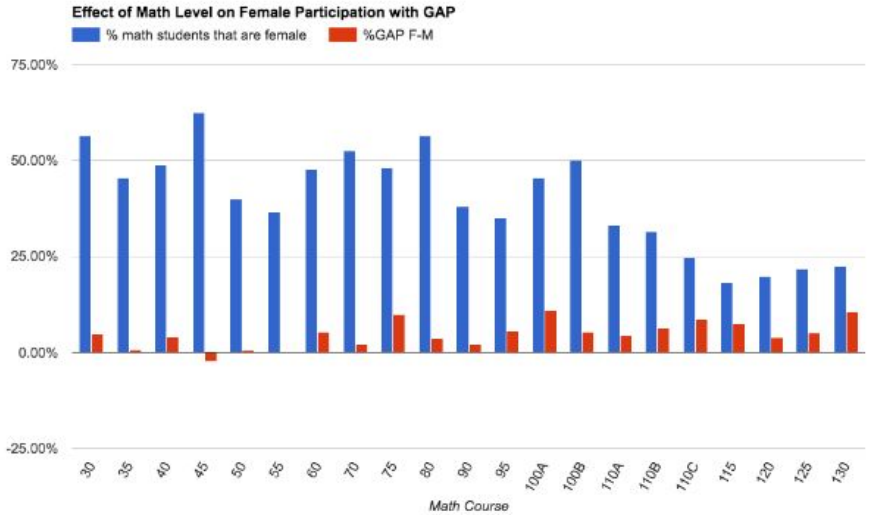


Achievement Gap in Math Courses

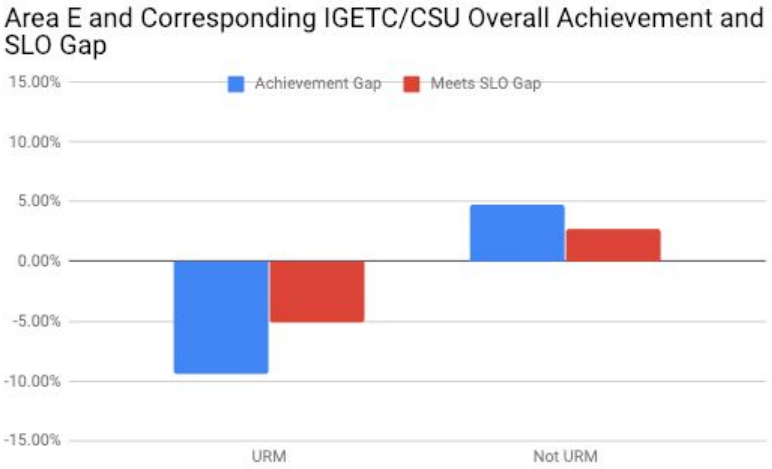
Women outperform men….

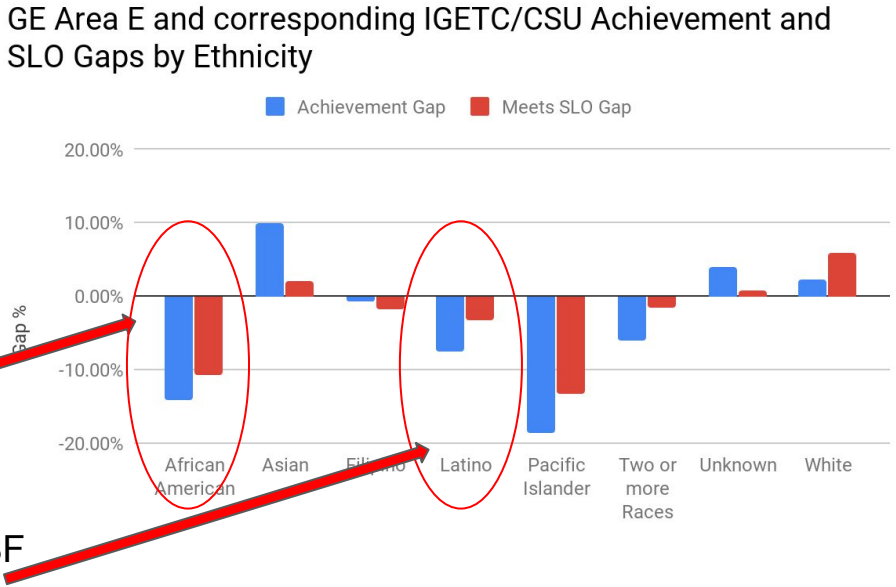


But enroll at far lower rates….



Equity Gaps in GE Area E (Humanities)



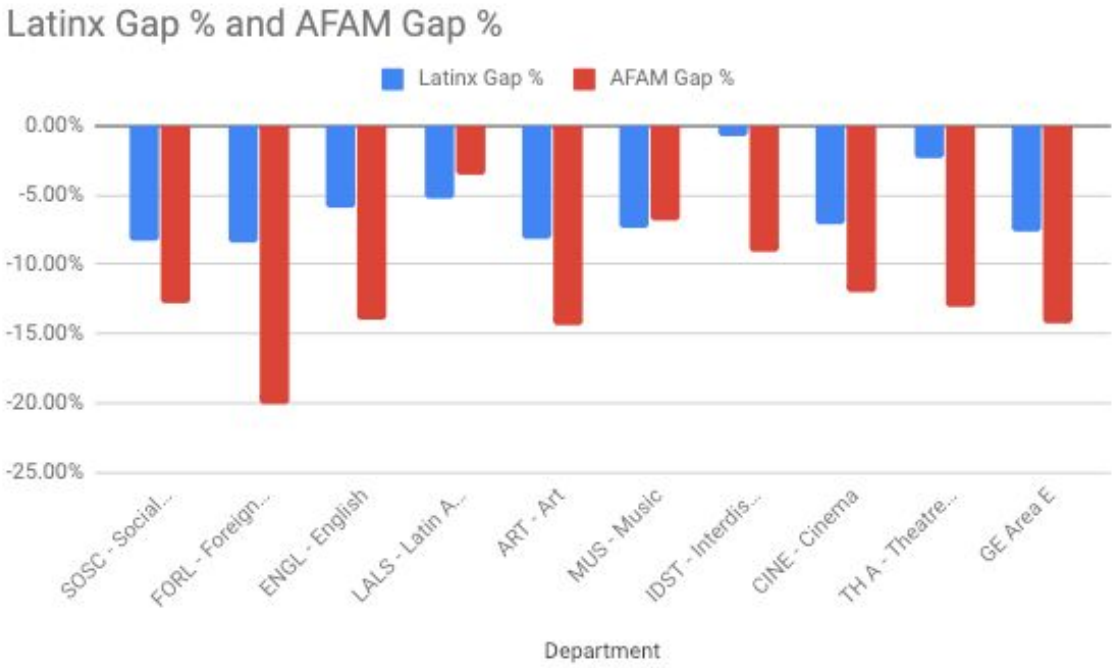


Highly significant gap

Largest URM group at CCSF

Latinx and AFAM Gaps in Humanities by Dept

Note: enrollment for Latinx students is approximately 3x that for AFAM students



GELO Assessment

Each assessment is accompanied by a comprehensive report

Q: Who reads these?

A: Not enough people!

General Education Outcomes

CCSF has three kinds of General Education Outcomes. Follow links below to see full outcome text.

- General Education Local Area SLOs: applied to courses that satisfy particular graduation requirements for the AA/AS degree.
- CSU General Education Transfer Area SLOs: applied to courses that satisfy particular transfer area requirements to California State Universities.
- Intersegmental General Education Transfer Curriculum (IGETC) SLOs: applied to courses that satisfy particular transfer area requirements to University of California or California State Universities.

	GE Math Requirement	GE Area A: Communication and Analytical Thinking	GE Area B: Written Composition	GE Area C: Natural Sciences	GE Area D: Social and Behavioral Sciences
Proficient		66%	75%	65%	76%
Developing		24%	22%	24%	18%
No Evidence		10%	3%	11%	6%
Number of Assessments		4722	1368	4564	10,653
Full Report	*To be assessed Spring 2017*	*Assessed S'14* Report F'14	Assessed S'15 Report S'16	*Assessed S'13* Report F'13 *Reassessment S'17*	*Assessed S'15* Report F'15
CSU Areas	B4	A1, A3		B1, B2, B3	D
IGETC Areas	2	1B, 1C, 6	1A	5A, 5B, 5C	4

	GE Area E: Humanities	GE Area F: United States History & Government	GE Area G: Health Knowledge & Physical Skills	GE Area H: Ethnic Studies, Women's Studies & LGBT Studies
Proficient	83%	77%	85%	75%
Developing	12%	17%	9%	11%
No Evidence	5%	6%	6%	14%
Number of Assessments	2321	13,845	13,302	3065
Full Report	*Assessed S'14* Report F'14	Assessed S'16 Report F'16	Assessed S'16 Report in progress	Assessed S'15 Report F'15
CSU Areas	C1, C2	US 1, 2 3	E	n/a
IGETC Areas	3A, 3B	n/a	n/a	n/a

Where have we “closed the loop” and “made it meaningful”?

- Every course outline update is linked to assessment
  - SLO revisions
    - Better represent what skills faculty are working to help students develop
    - Better alignment with CSU/IGETC courses that they articulate with
  - Improved assessment instruments and strategies
  - Improved course content with a focus on supporting areas where SLOs show growth opportunities, including the closure of equity gaps
- GELOs have been revised
  - Better differentiate between content areas
  - Better represent articulation pathways to CSU/IGETC
- ILOs have been revised to better represent the college mission and values
- Institutional Review of GELO and ILO reports to identify and target key areas for improvement in our Quality Focus Essay

Looking to the future CQI

- Reports are great, but we must continually translate that information into informed decision making. Can we be more effective in how we approach this?
- Data availability and formatting to improve faculty access? Dashboard?
- Synergy with Student Equity Committee?
- Adding the disaggregation of GELOs to our slicer to better use the larger data sets captured by GELO mapping
- Ensure that the data we collect is provided systematically to those moving college-wide initiatives (such as Student Equity and EMP development) and is formatted in ways that is most useful to those making decisions

Additional Information

CurricUNET resources at CCSF:
http://www.ccsf.edu/en/employee-services/office-of-instruction/curricunet.html

ACCJC 2017 Conference Presentation (Nuts and Bolts of CurriCUNET):
https://accjc.org/wp-content/uploads/Disaggregated-SLO-Data.pdf

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