# Measuring Servingness: Equity-minded data analysis of outcomes and experiences

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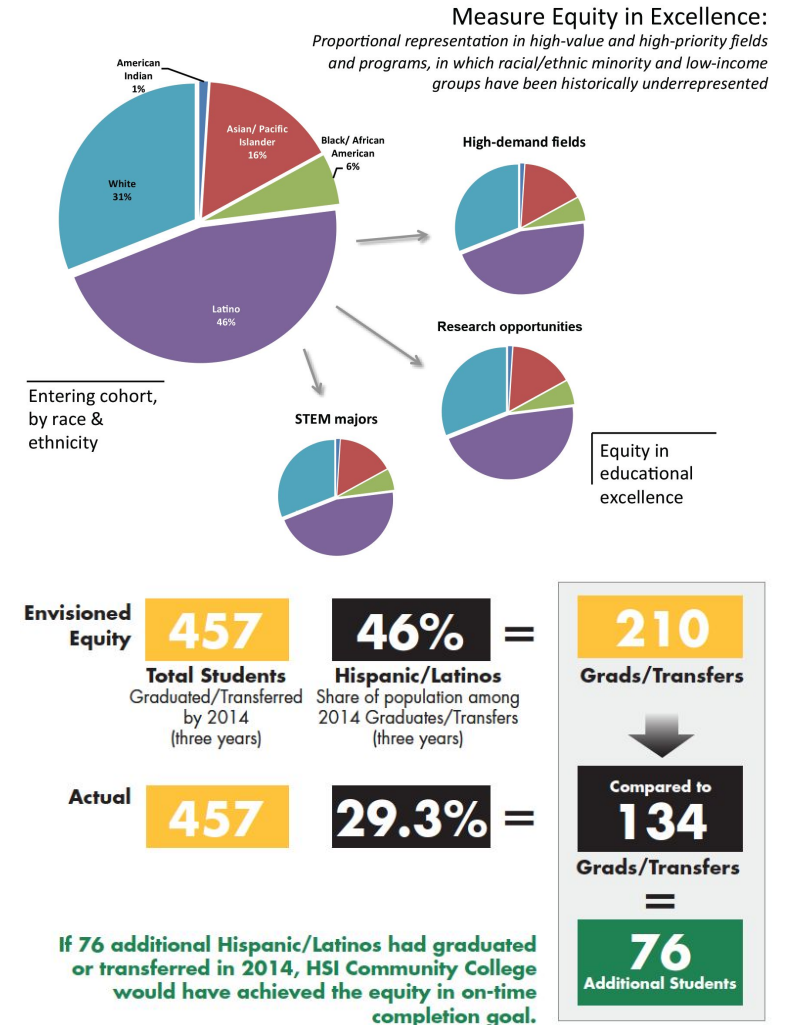
HSI Team - UC Santa Cruz

# Outline

- Conceptual Overview: Practitioner Inquiry as a Driver of Change Model (Dowd & Bensimon, 2015)


- Using data to identify racial equity challenges at UCSC;

# UCSC as a Hispanic-Serving Institution

- HSI status can be a pathway to racial equity at all levels: campus, departments, courses, and climate

- Embrace changing demographics while *rejecting deficit perspectives*

- Confront equity challenges by setting a vision and benchmarking achievement patterns

- Sustained inquiry to *disrupt institutional intra-racial stratification*

- Setting a Campus Vision/Starting Point:

  UC Santa Cruz will graduate high-achieving Latinx and all students and conduct ongoing inquiry to support equity goals and contribute to the academic pipeline across disciplines - 80% graduation rate at or above 3.0 GPA
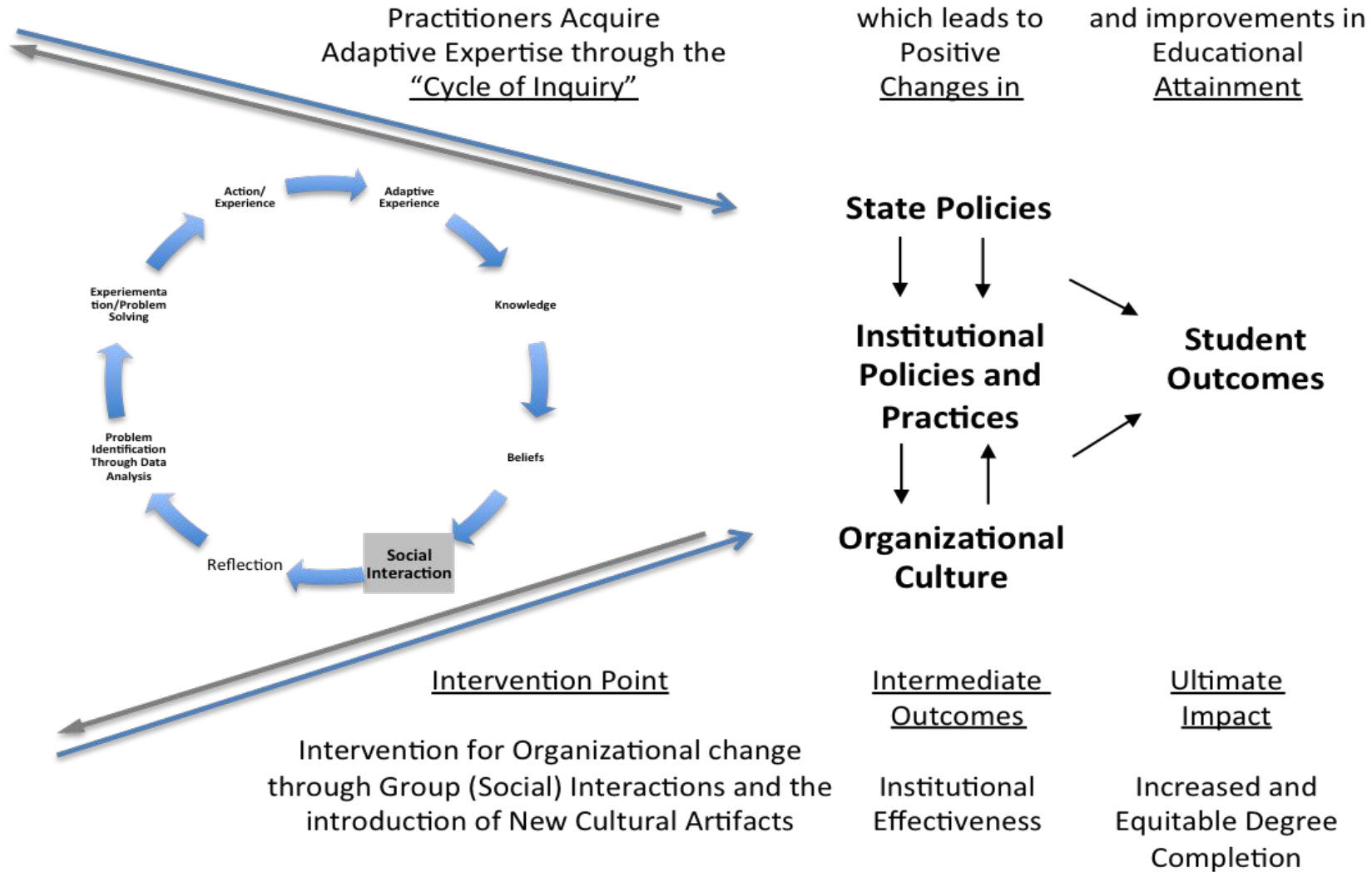


Measure Equity in Excellence:
*Proportional representation in high-value and high-priority fields and programs, in which racial/ethnic minority and low-income groups have been historically underrepresented*

American Indian 1%
Asian/ Pacific Islander 16%
Black/ African American 6%
White 31%
Latino 46%

High-demand fields

Research opportunities

Entering cohort, by race & ethnicity

STEM majors

Equity in educational excellence

**Envisioned Equity**  457 Total Students Graduated/Transferred by 2014 (three years)  46% Hispanic/Latinos Share of population among 2014 Graduates/Transfers (three years) = 210 Grads/Transfers

**Actual** 457  29.3% = Compared to 134 Grads/Transfers = 76 Additional Students

If 76 additional Hispanic/Latinos had graduated or transferred in 2014, HSI Community College would have achieved the equity in on-time completion goal.

Source: *Equity Scorecard,* Center for Urban Education - University of Southern California

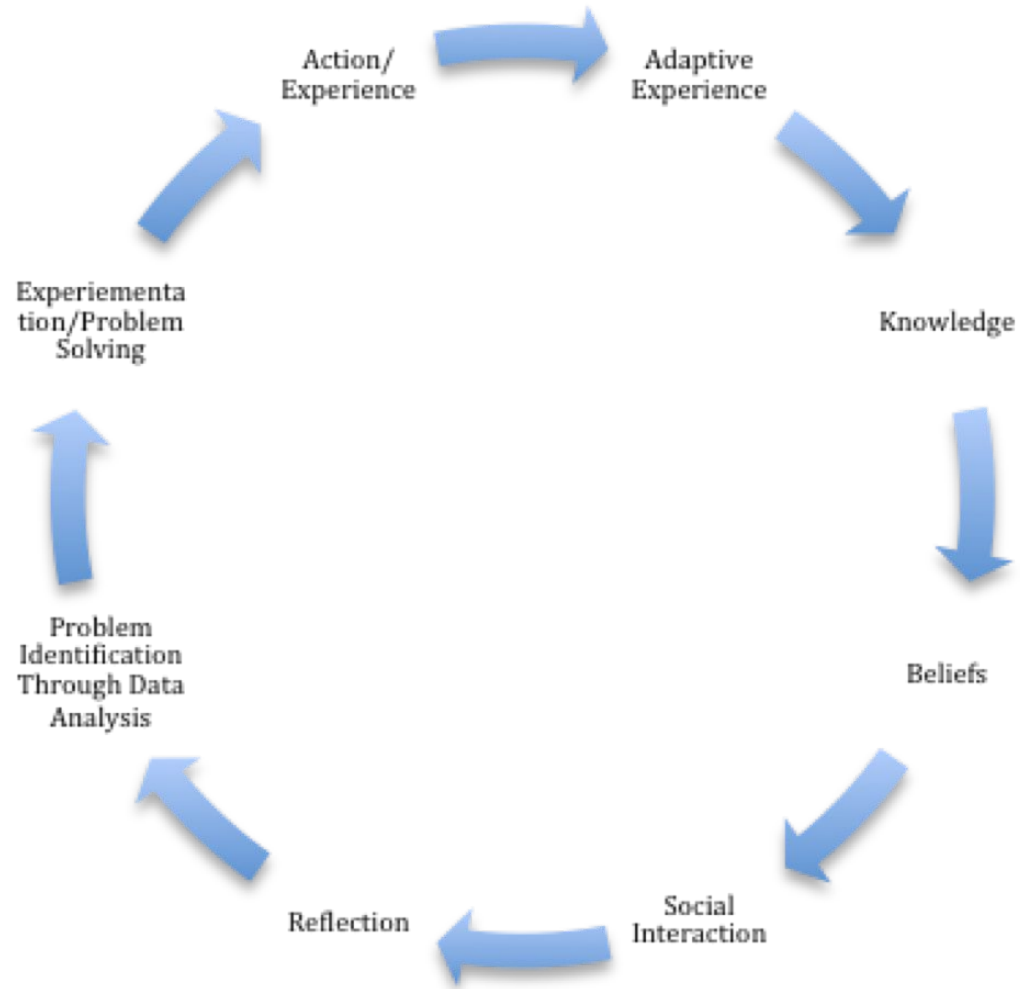HSI INITIATIVES  UC SANTA CRUZ HISPANIC-SERVING INSTITUTION

# Practitioner Inquiry as a Driver of Change

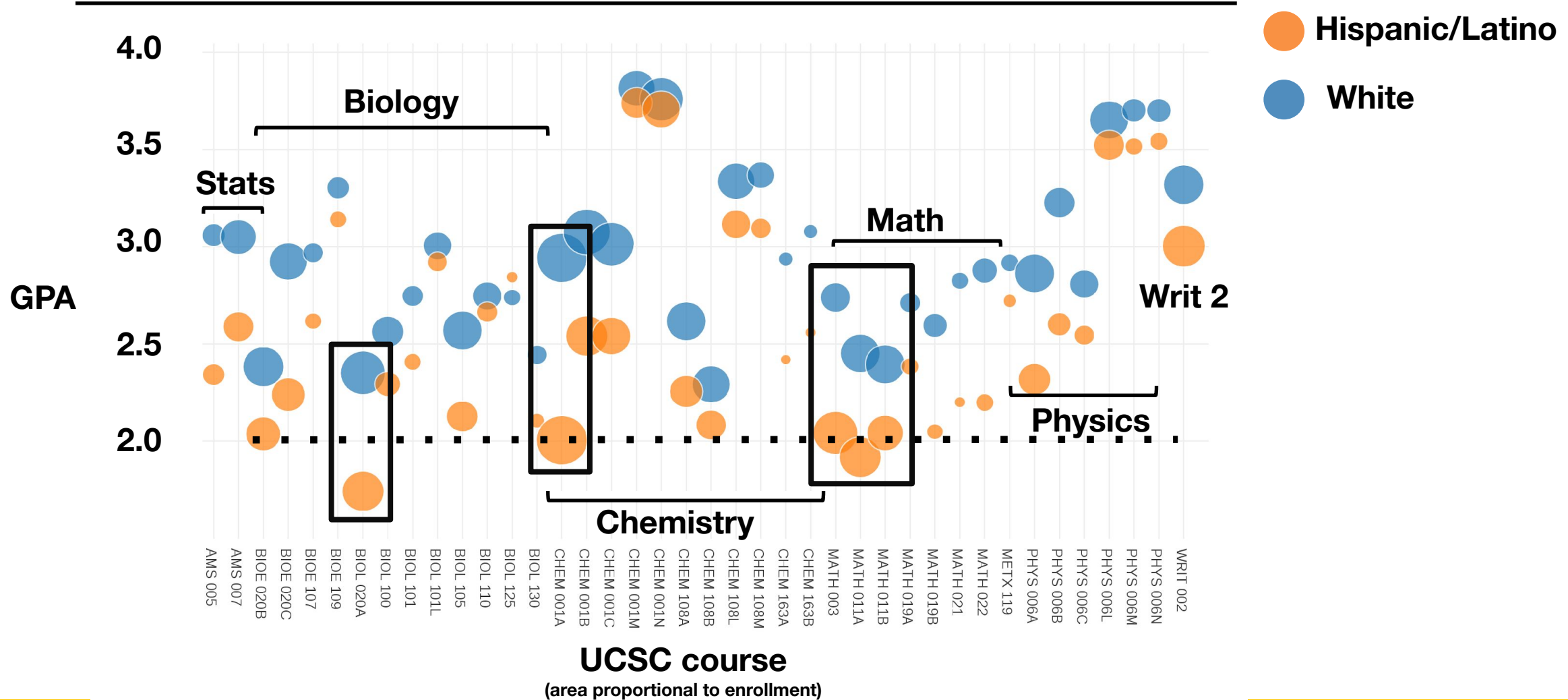Engaging the "Race Question" Accountability and Equity in U.S. Higher Education (Dowd & Bensimon, 2015)
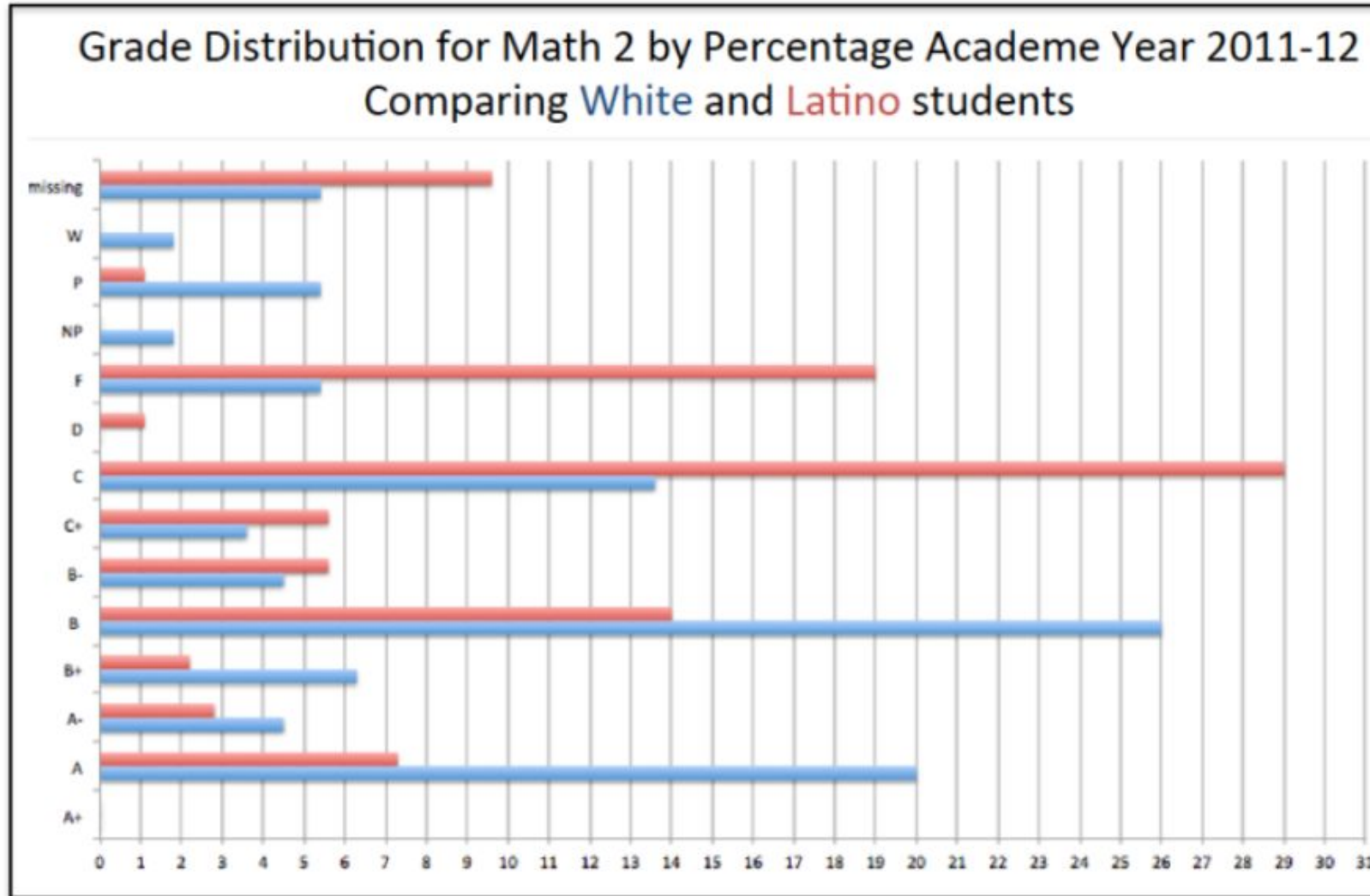
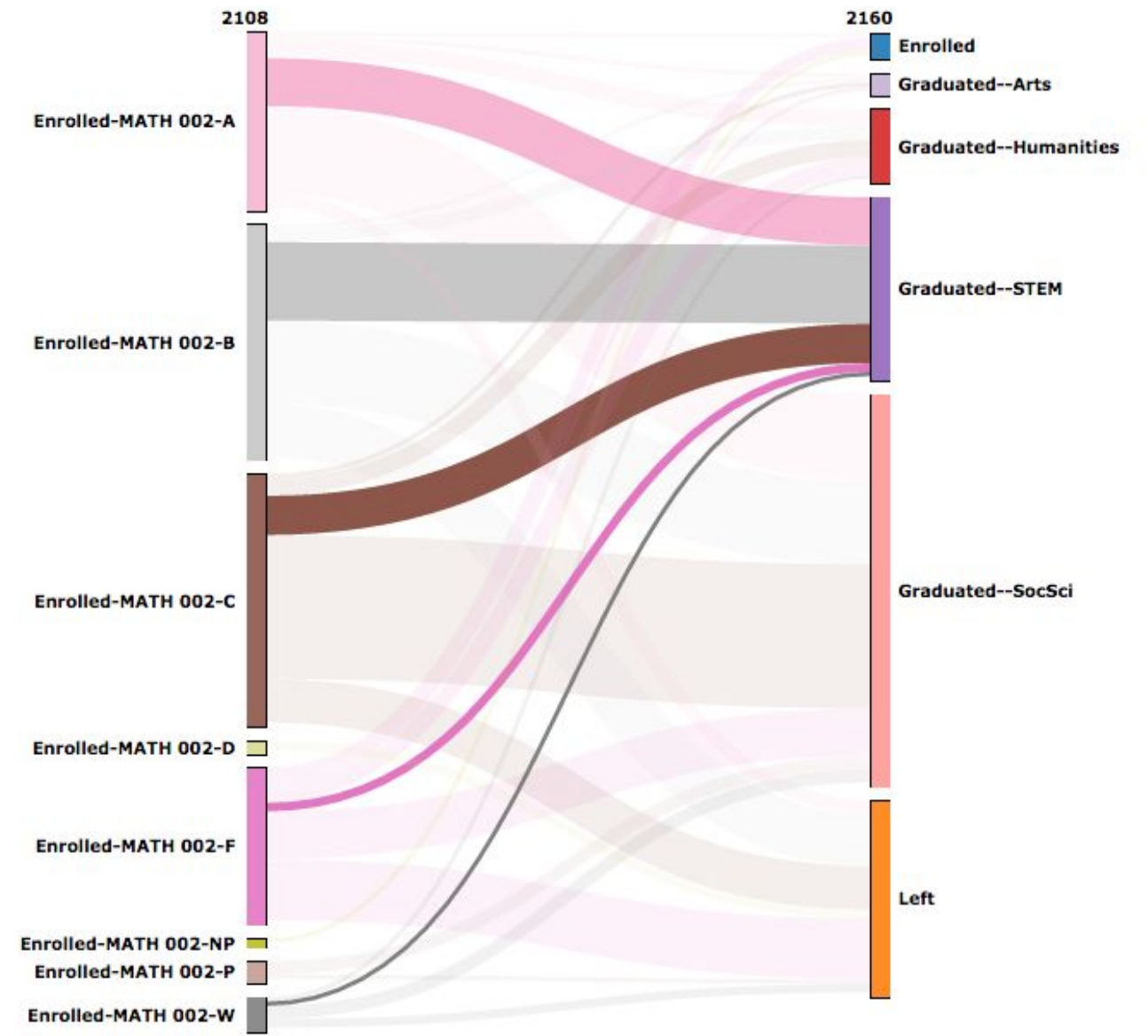# Practitioner Inquiry Cycle
## (Dowd & Bensimon, 2015)

# Identifying an Equity Issue



Grade Distribution for Math 2 by Percentage Academe Year 2011-12
Comparing White and Latino students

Ribbon Diagram:
Math 2 Fall 2010
Graduation by Winter
2016

# TRADITIONAL VS. COLLABORATIVE MATH 2

| Component | Traditional | Collaborative |
|---|---|---|
| Lecture | Lecture based | Active<br>Student Centered<br>Integrate academic language and literacy components |
| Section | Teaching focuses, acquisition teaching causes learning<br><br>Once a week<br>TA assigned right before quarter | Student Focused<br>Purposeful alignment with lecture<br>Twice a week<br>TA assigned in summer prioritize: training and high experience |
| Advising Behavioral Intervention | None | Advising integrated into the support team, early alerts, proactive, building relationships |

# Collaborative Math 2 Results by Race White & Latinx



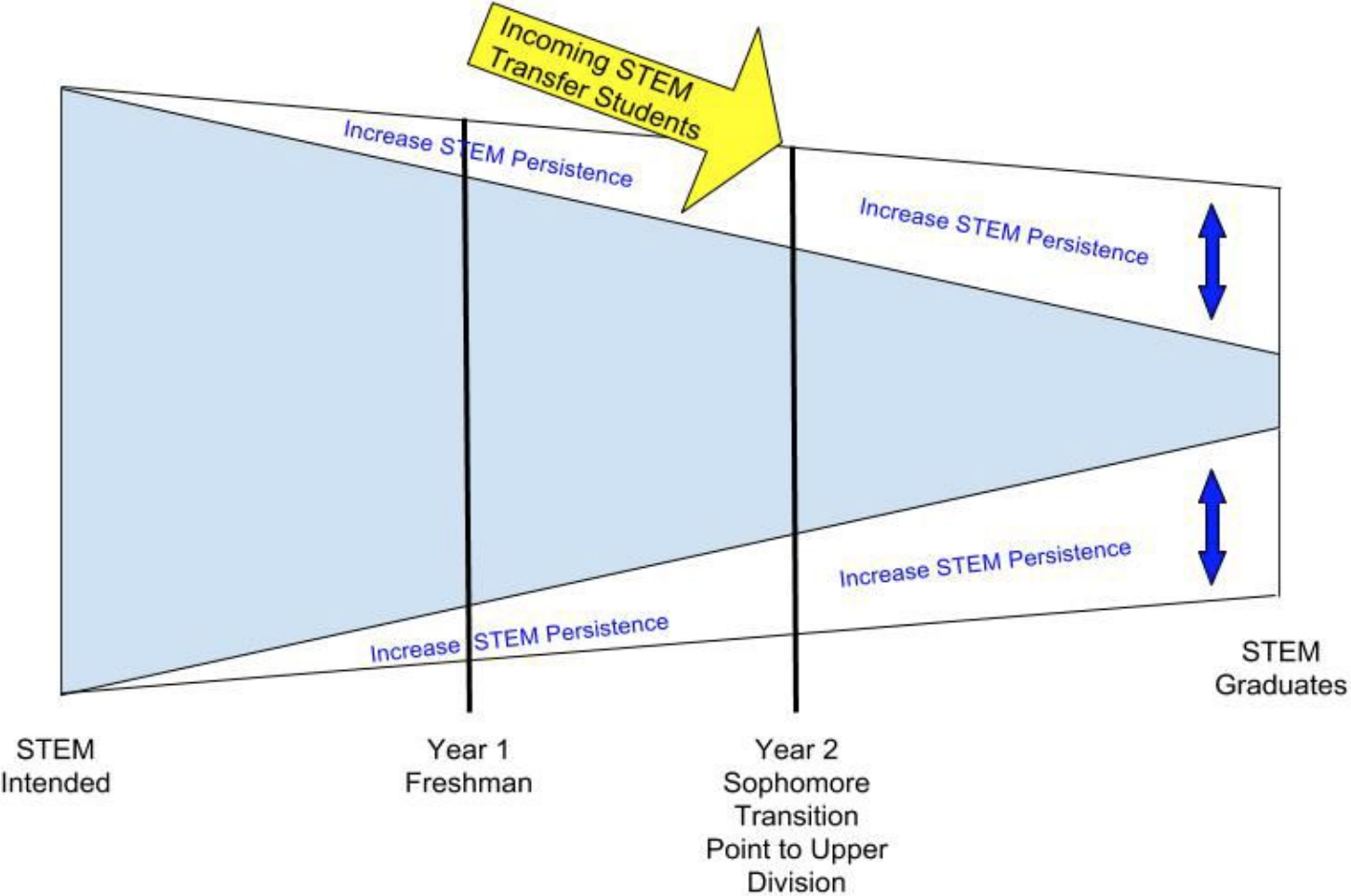Math 2 Achievement in Nandini's Fall 2010-Fall 2017 Courses
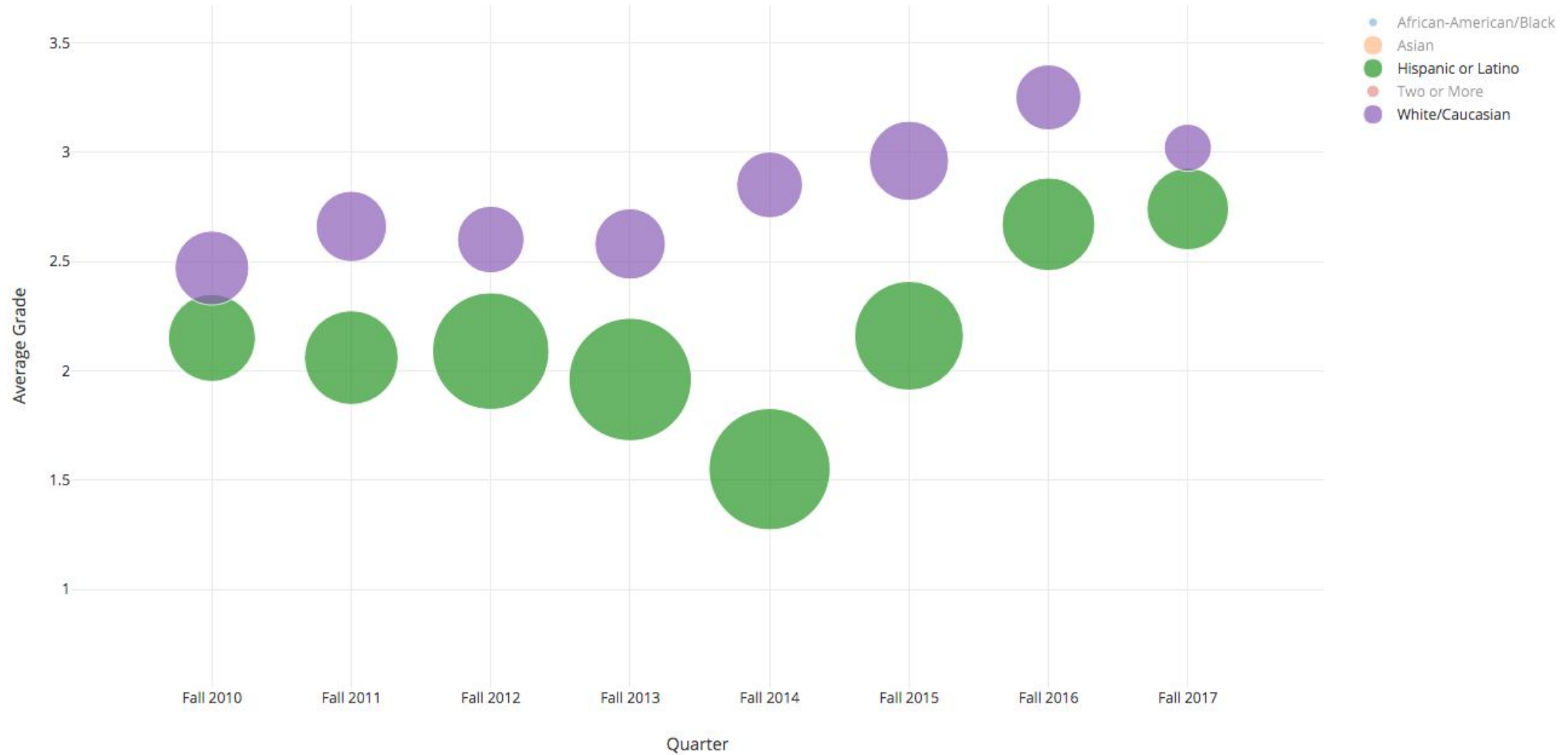
# 2018 UCUES Report: Selected Findings

- I could not get into the first choice for my major ([UCUES 2018](#)): White 6%; Latinx 13%;

- Participated in an honors program ([UCUES 2018](#)): yes 17% White; 11% Latinx

- Conducted own research without the guidance of a faculty ([UCUES 2018](#)):Yes 23% White, 14% Latinx

- Latinx students were more likely to seek academic help from an instructor or tutor: Sought academic help from an Instructor or tutor when needed rated as agree or strongly agree 5 point scale ([UCUES 2018](#)): 23% White, 33% Latinx

- Students of my race/ethnicity are respected on this campus, rated as agree or strongly agree 5 point scale ([UCUES 2018](#)): 73% White, 43% Latinx

# UCSC HSI STEM: Supporting Low-Income and Latino Students STEM Persistence by Interrupting Patterns of Attrition

Incoming STEM Transfer Students

Increase STEM Persistence

Increase STEM Persistence

Increase STEM Persistence

Increase STEM Persistence

STEM Intended

Year 1 Freshman

Year 2 Sophomore Transition Point to Upper Division

STEM Graduates

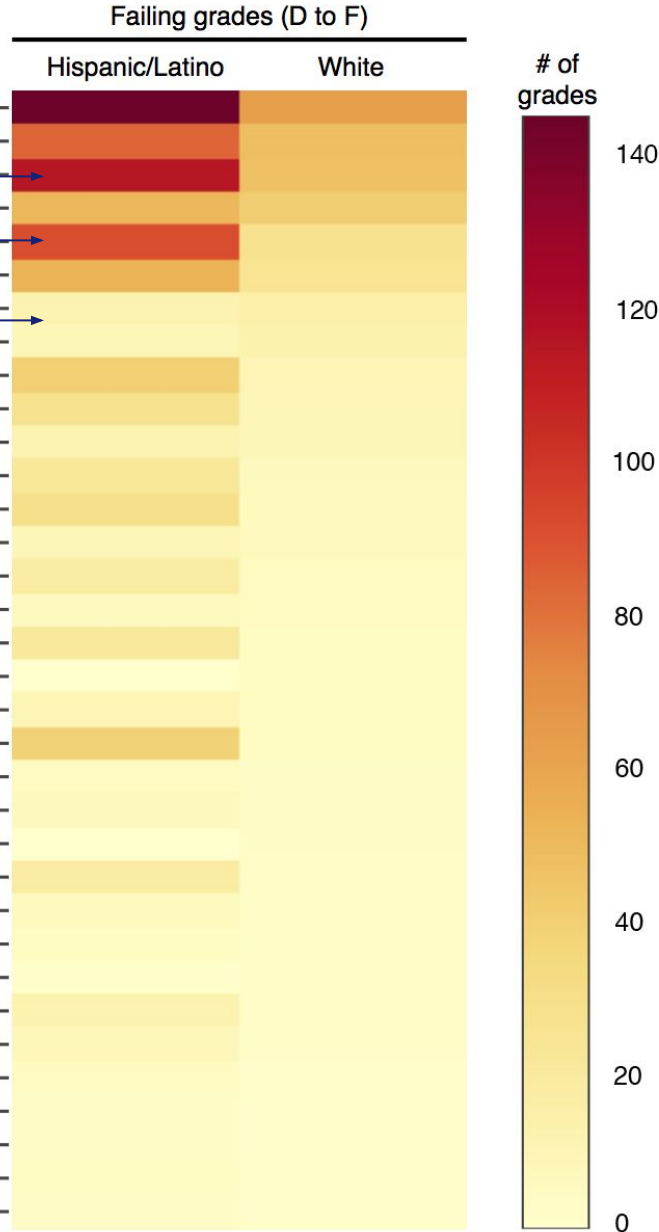HSI INITIATIVES

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Fall 2012 Cohort Declaration vs. Did Not Qualify
Molecular and Cellular Biology Majors
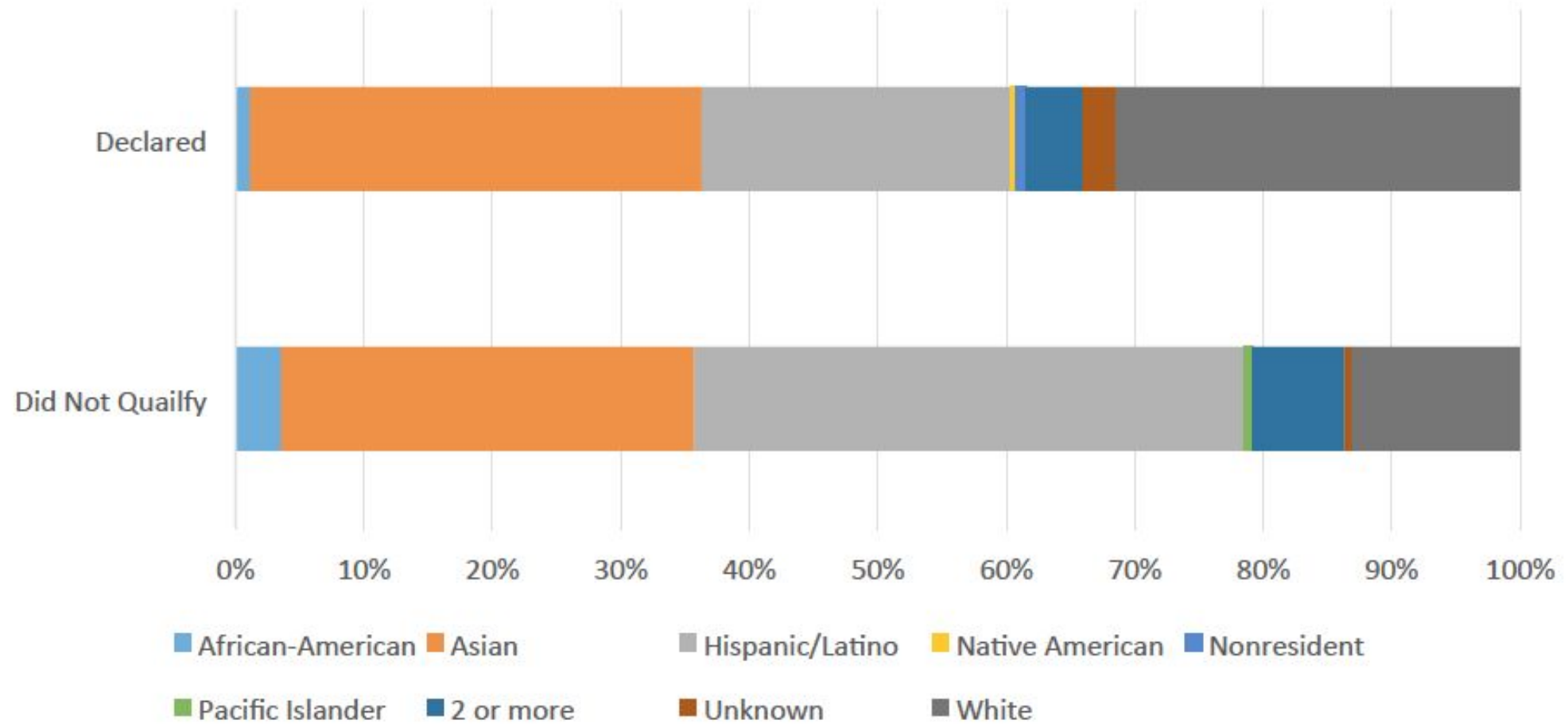
# Which Courses have high no-pass rates for students?



Chem 1A

Bio 20A

Math 3

A few courses have a large number
of failing grades for Latinx students

# Retention Rates for White & Latinx students at UCSC

| Cohort | First Year Retention | | |
| --- | --- | --- | --- |
| | White | Latinx | Diff. |
| 2005 | 88.9 | 88.2 | -0.7 |
| 2006 | 89.6 | 88 | -1.6 |
| 2007 | 87.6 | 87.7 | 0.1 |
| 2008 | 88.6 | 87.4 | -1.2 |
| 2009 | 89.1 | 88.5 | -0.6 |
| 2010 | 90.6 | 88.7 | -1.9 |
| 2011 | 90.8 | 88.6 | -2.2 |
| 2012 | 87.9 | 87.7 | -0.2 |
| 2013 | 87.5 | 88.1 | 0.6 |
| 2014 | 88.2 | 86.9 | -1.3 |
| 2015 | 88.7 | 88.3 | -0.4 |
| 2016 | 89 | 88.9 | -0.1 |
| 2017 | 86.1 | 85.3 | -0.8 |

| Cohort | Second Year Retention | | |
| --- | --- | --- | --- |
| | White | Latinx | Diff. |
| 2005 | 79.5 | 80 | 0.5 |
| 2006 | 78 | 79.1 | 1.1 |
| 2007 | 77.7 | 74.6 | -3.1 |
| 2008 | 81.4 | 77.7 | -3.7 |
| 2009 | 80.2 | 80.3 | 0.1 |
| 2010 | 82.5 | 80.2 | -2.3 |
| 2011 | 83.4 | 80.8 | -2.6 |
| 2012 | 80.2 | 77.8 | -2.4 |
| 2013 | 81.8 | 82 | 0.2 |
| 2014 | 79.3 | 77.6 | -1.7 |
| 2015 | 79.9 | 79.8 | -0.1 |
| 2016 | 79.7 | 80.9 | 1.2 |

# Grad Rates for White & Latinx students at UCSC

| Cohort | Four-Year Grad Rate | | |
|--------|-------|--------|-------|
|        | White | Latinx | Diff. |
| 2005   | 53.5  | 43.1   | -10.4 |
| 2006   | 54.7  | 39.8   | -14.9 |
| 2007   | 54.2  | 41.3   | -12.9 |
| 2008   | 58.8  | 42.5   | -16.3 |
| 2009   | 59.5  | 45.8   | -13.7 |
| 2010   | 58    | 39.2   | -18.8 |
| 2011   | 58.9  | 42.3   | -16.6 |
| 2012   | 56.4  | 38.9   | -17.5 |
| 2013   | 57    | 46.1   | -10.9 |
| 2014   | 60.2  | 44.5   | -15.7 |

| Cohort | Six-Year Grad Rate | | |
|--------|-------|--------|-------|
|        | White | Latinx | Diff. |
| 2005   | 75    | 71.2   | -3.8  |
| 2006   | 74    | 69.2   | -4.8  |
| 2007   | 73.2  | 76     | 2.8   |
| 2008   | 78.5  | 70.8   | -7.7  |
| 2009   | 77.7  | 75     | -2.7  |
| 2010   | 79.2  | 73.9   | -5.3  |
| 2011   | 79.4  | 73.7   | -5.7  |
| 2012   | 76.8  | 69.9   | -6.9  |

HSI INITIATIVES

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# Breaking Out the Data to Inform Practice

| Cohort | Six-Year Grad Rate | | | Base | Diff. No. |
|--------|-------|--------|------|------|-----------|
| | White | Latinx | Diff. | | |
| 2005 | 75 | 71.2 | -3.8 | 441 | -17 |
| 2006 | 74 | 69.2 | -4.8 | 575 | -28 |
| 2007 | 73.2 | 76 | 2.8 | 642 | 18 |
| 2008 | 78.5 | 70.8 | -7.7 | 732 | -56 |
| 2009 | 77.7 | 75 | -2.7 | 671 | -18 |
| 2010 | 79.2 | 73.9 | -5.3 | 844 | -45 |
| 2011 | 79.4 | 73.7 | -5.7 | 1065 | -61 |
| 2012 | 76.8 | 69.9 | -6.9 | 1313 | -91 |
| 2013 | | | | 1140 | |
| 2014 | | | | 1255 | |
| 2015 | | | | 959 | |
| 2016 | | | | 1080 | |
| 2017 | | | | 1069 | |