EQUITY-MINDED INQUIRY SERIES

Data Tools
ACKNOWLEDGMENTS
The inquiry tools presented in this guide are the product of the staff who worked at the Center for Urban Education (CUE) from 1999 to 2018. The tools evolved over time, in response to what CUE staff learned from using the tools at campuses across the country, as well as from research on race, racism, and racial equity. Presented here is a collection of CUE’s most impactful tools, organized and edited by Cheryl D. Ching, PhD., who served as a research assistant at CUE from 2012 to 2017 and as a post-doctoral scholar from 2017 to 2018.

HOW TO CITE

ADDITIONAL TOOLS
For additional inquiry tools, please contact cue.media.communications@gmail.com.

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INTRODUCTION: THE PROMISE OF DATA FOR RACIAL EQUITY

Colleges and universities are awash in data of various forms: student access, participation, and completion data such as those reported to the Integrated Postsecondary Education Data System (IPEDS), and student survey data such as those collected by the Higher Education Research Institute (HERI). Often these data are gathered, analyzed, and presented in static reports such as the annually released Digest of Education Statistics and The American Freshman; unclear is whether and how these data are used to improve practice in ways that advance success for students generally, and racially minoritized students in particular (Harris & Bensimon, 2007).

This guide outlines how data—specifically, student outcomes data—can be an effective tool for addressing racial equity. It makes the case for why racial equity requires student outcomes data to be disaggregated by race and ethnicity. It presents tools and strategies that are designed to assist practitioners in identifying racial equity gaps and taking equity-minded action to (a) close those gaps and (b) create more equitable campus environments for racially minoritized students.

WHY DISAGGREGATE DATA BY RACE AND ETHNICITY?
At CUE we see student outcomes data as a tool for addressing racial equity. To be an effective tool, student outcomes data must disaggregated by race and ethnicity. Disaggregated data are critical for revealing inequities in outcomes or equity gaps; in contrast, aggregated data such as average course success rates mask equity gaps.

Furthermore, data disaggregated by race and ethnicity are needed to realize the accountability and critical dimensions of racial equity. As outlined in Figure 1:

- The accountability dimension of racial equity seeks parity in educational outcomes and experiences for historically marginalized groups—in particular, racially minoritized students. Data
disaggregated by race and ethnicity establishes accountability for racial equity by alerting practitioners to where equity gaps exist, offering a sense of their magnitude, and providing a baseline from which progress (or lack thereof) toward racial equity can be measured.

- The **critical** dimension requires practitioner awareness of how racism and sexism are institutionalized in the norms, routines, rules, and culture of higher education. In CUE’s work we say that practitioners need to develop equity-minded competence, which entails being:
  
  - Critically race conscious;
  - Aware that practitioner beliefs, assumptions, knowledge, and approaches are racialized and can have racial consequences, typically to the disadvantage of racially minoritized students;
  - Aware that norms, policies, and practices that are taken for granted in higher education can perpetuate racial hierarchies and inequalities, even in the absence of explicit racism; and
  - Willing to reflect on racialized outcomes and exercise agency to produce racial equity.
In practice, equity-minded competence manifests in the following ways:

<table>
<thead>
<tr>
<th>EQUITY-MINDED COMPETENCE</th>
<th>LACK OF EQUITY-MINDED COMPETENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware of their racial identity</td>
<td>Claims to not see race</td>
</tr>
<tr>
<td>Uses quantitative and qualitative data to identify racialized patterns of practice and outcomes</td>
<td>Does not see value in using data disaggregated by race/ethnicity to better understand the experience of racially minoritized students</td>
</tr>
<tr>
<td>Reflects on racial consequences of taken-for-granted practices</td>
<td>Resists noticing racialized consequences or rationalizes them as being something else</td>
</tr>
<tr>
<td>Exercises agency to produce racial equity</td>
<td>Does not view racial equity as a personal responsibility</td>
</tr>
<tr>
<td>Views the campus as a racialized space and actively self-monitors interactions with racially minoritized students</td>
<td>Views the classroom as a utilitarian physical space</td>
</tr>
</tbody>
</table>

A key aspect of equity-minded competence is using disaggregated data to identify racialized outcome patterns. Indeed, by shining a light on equity gaps, data disaggregated by race and ethnicity set the stage for critical inquiry into campus and practitioner-level policies and practices that may be contributing to racial inequities in outcomes.

Specifically, as summarized in the table below, disaggregated data can spark critical awareness of racialized outcomes and patterns, catalyze deep reflection about taken-for-granted assumptions, and establish racial equity as an ongoing process of organizational learning and change.
### HOW CAN DISAGGREGATED DATA HELP REALIZE THE ACCOUNTABILITY AND CRITICAL DIMENSIONS OF RACIAL EQUITY?

<table>
<thead>
<tr>
<th>Transform Equity From an Ambiguous Concept to a Measurable Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Helps practitioners develop a concrete sense of the “state of equity” at their institutions</td>
</tr>
<tr>
<td>• Establishes equity as a short-, medium-, and long-term goal toward which practitioners and institutions should work</td>
</tr>
<tr>
<td>• Helps practitioners determine whether or not their departments, programs, and institutions have achieved equity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiate New Ideas and Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>• New discoveries about student patterns</td>
</tr>
<tr>
<td>• Fresh perspectives on data examined previously</td>
</tr>
<tr>
<td>• More nuanced understanding of student experience</td>
</tr>
<tr>
<td>• Ability to ask new questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prompt Critical Thinking About Taken-For-Granted Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Question and challenge long-accepted “facts” about student ability/capacity and efficacy of individual- and institutional-level practices (i.e., how things are done) to advance student success</td>
</tr>
<tr>
<td>• Approach existing knowledge as hypotheses to be tested</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frame Racial Equity As an Ongoing Process of Learning and Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Learning about racial inequities in outcomes is a primary goal</td>
</tr>
<tr>
<td>• Create space for deep reflection on what the data show</td>
</tr>
<tr>
<td>• Helps establish comfortable environment for confronting uncomfortable questions and issues</td>
</tr>
<tr>
<td>• Helps identifies areas for improvement</td>
</tr>
</tbody>
</table>


### MAKING DATA “DRIVE”: STRATEGIES AND TOOLS FOR RACIAL EQUITY

So far we’ve described the potential of disaggregated data to help achieve racial equity. At CUE, however, we’ve found that data are necessary but insufficient to make the accountability and critical dimensions of equity a fact of how institutions of higher education operate. As Alicia Dowd (2005) observes, “Data don’t drive.” To harness the potential of disaggregated data for racial equity, concrete strategies are needed. We have developed five such strategies for working with data.
DATA STRATEGIES AND TOOLS FOR RACIAL EQUITY

**STRATEGY 1: Diagnosing Inequities**
Given the organizational complexity of colleges and universities, and the copious amounts of data already being collected, CUE encourages focused attention on areas for which institutions are held accountable by policymakers and the public: access, retention, completion, and excellence/quality. Next, identify “Vital Signs” indicators for each area—outcomes data that can be collected and offer insights into the “health” of an institution with respect to racial equity. Put another way, Vital Signs provide a snapshot of the “state of equity” at a campus. Vital Signs indicators can be developed at each level of an institution, including campus, division, department, program, course, and practitioner.

**STRATEGY 2: Data Close to Practice**
Even after limiting data collection to the Vital Signs, data paralysis may ensue and questions about how data are relevant to changing policies and practices could emerge. For this reason, CUE encourages practitioners to collect—on their own or with the help of institutional research on their campus—data that more closely align with the work they do on a daily basis.

**STRATEGY 3: Equity-minded Data Analysis**
Data are powerful for their ability to reveal whether and where equity gaps exist. Once gaps are identified, CUE guides practitioners through a process of analyzing and making sense of those gaps from an equity-minded lens. Equity-minded data analysis and sense-making means: (a) noticing equity gaps by race and ethnicity; (b) understanding equity gaps as a dysfunction of policies and practices; (c) attributing equity gaps to policies and/or practices that may not be working for racially minoritized students; and (d) questioning underlying assumptions and biases.

**STRATEGY 4: Translating Equity Gaps into Numbers of Students**
The final aspect of equity-minded data analysis is to take action to eliminate equity gaps. How does this happen? At CUE we’ve found that translating equity gaps—which may seem too abstract or too large—into the number of students is a compelling motivator for practitioners to undertake the critical transformation to achieve equity.

**STRATEGY 5: Setting Equity Goals**
Having short-, medium-, and long-term equity goals toward which to work helps practitioners stay on track with achieving equity. Equity goals can be in the form of numbers of students to affect, equity gaps to close, and practices to change.
GUIDE CONTENTS

THE DATA TOOLS
The five strategies are put to work in the data tools featured in this guide. In each tool you’ll find concepts and techniques that help make equity actionable through by using data disaggregated by race and ethnicity. In addition, there are worksheets that offer guidance on how to apply the concepts and techniques with your own data.

1. Identifying Vital Signs PAGE 9
2. Measuring Racial Equity PAGE 17
3. Making Sense of Racial Equity Gaps PAGE 35
4. Setting Racial Equity Goals PAGE 52

REFERENCES AND ADDITIONAL RESOURCES PAGE 59
TOOL: IDENTIFYING VITAL SIGNS

WHAT ARE VITAL SIGNS?
A starting point for addressing the two dimensions of racial equity, Vital Signs are student outcomes data that are disaggregated by race and ethnicity.

Vital Signs address the accountability dimension by focusing attention on indicators such as basic-skills course enrollments, course success, migration through a curriculum sequence, accomplishment of a certificate or degree, transfer, etc. These data provide a snapshot of institutional performance in terms of racial equity.

Vital Signs also have the potential to address the critical dimension. In pinpointing areas of racial inequities, Vital Signs serve as a call for further exploration, deeper questions, and more fine-grained measures of educational outcomes.

Vital Signs are a place practitioners can begin the process of inquiring into the causes of racial inequity and the campus conditions that allow inequity to persist. Starting with disaggregated data gives practitioners the opportunity to develop new awareness and/or recognize the extent of the racial inequity problem at an institution. In revealing patterns of unequal outcomes by race and ethnicity, Vital Signs can guard against assertions that racial inequities are not an issue or that the inequities are not that bad. Finally, Vital Signs can help ensure decisions are made and priorities set based on data, not assumptions.

VITAL SIGNS PERSPECTIVES AND INDICATORS
We encourage campuses to identify which Vital Signs they will collect to determine the “state of racial equity” on their campuses. To start off, we recommend campuses select Vital Signs that touch on the following perspectives of institutional performance (see the table on the next page).

To the extent possible, Vital Signs should be tied to goals and objectives at the institutional, division/school, department, and practitioner levels. Doing so helps ensure that the data collected and disaggregated by race
EXAMPLES

INSTITUTIONAL LEVEL
Goal: In the strategic plan of a four-year university, increasing the number of transfer students from community colleges in the area by 10 percent is stated as a five-year goal.

Vital Signs: New transfer students from two-year institutions, disaggregated by sending institution and by race/ethnicity.

SCHOOL-LEVEL
Goal: The dean of arts and sciences has set yearly goals for increasing the number of Black, Latinx, and Pacific Islander students served by the school’s STEM departments.

Vital Signs: Enrollment in introductory STEM courses and composition of STEM majors and minors, all disaggregated by race and ethnicity, and by gender.

DEPARTMENT-LEVEL
Goal: In line with the university’s goal of increasing the number of transfer students from nearby community colleges, a department chair set the goal of increasing the number of potential transfer students who attend the department’s outreach events.

Vital Signs: Outreach events by community college site and minority-serving institution status; student participation in events, disaggregated by race and ethnicity.

PRACTITIONER LEVEL
Goal: In line with the dean’s call to increase Black, Latinx, and Pacific Islander participation in STEM, a math instructor has set the goal of improving the success rates of these students in her college algebra course from 50 to 65 percent—the average course success rate in her department—over the next three years.

Vital Signs: First- and census-day course enrollment, mid-term and final exam scores, and final grades, all disaggregated by race and ethnicity.
<table>
<thead>
<tr>
<th>PERSPECTIVES</th>
<th>ACCESS</th>
<th>RETENTION</th>
<th>COMPLETION</th>
<th>EXCELLENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAMPLE INSTITUTIONAL POLICIES AND PRACTICES</td>
<td>Recruitment, admissions, matriculation, transfer (for four-years), financial aid, assessment &amp; placement</td>
<td>Course sequence, course withdrawals, year-to-year retention, support programs &amp; services</td>
<td>Degree attainment, “high-demand” majors (e.g., STEM), transfer (for two-years), course completion</td>
<td>Academic honors, high-impact practices (e.g., study abroad, honors programs, undergraduate research programs)</td>
</tr>
<tr>
<td>SAMPLE INDICATORS</td>
<td>Total student enrollment</td>
<td>Year-to-year persistence</td>
<td>BA degree attainment w/in 100% &amp; 150% target time</td>
<td>Composition of Dean’s List &amp; Latin honors</td>
</tr>
<tr>
<td></td>
<td>Service-area demographic (18- to 24-years-olds)</td>
<td>Credit accumulation in first year</td>
<td>AA degree attainment and/or transfer w/in 100% &amp; 150% target time</td>
<td>GPA</td>
</tr>
<tr>
<td></td>
<td>Admissions pipeline: applications, acceptances, enrollments</td>
<td>Pass rates in “gateway” &amp; developmental education courses</td>
<td>STEM degree attainment</td>
<td>Participation in high-impact practices</td>
</tr>
<tr>
<td></td>
<td>Early decision &amp; action admissions</td>
<td>Progression from developmental education to college-level courses</td>
<td>Overall course completion</td>
<td>Transfer to flagship public or elite private institution</td>
</tr>
<tr>
<td></td>
<td>Distribution of financial aid: scholarships, grants, &amp; loans, work study</td>
<td>Course drops, withdrawals, incompletes</td>
<td>Completion of general education and major requirements</td>
<td>Admission to medical school, law school, PhD programs, competitive master’s programs</td>
</tr>
<tr>
<td></td>
<td>New first-time transfer students from two-year institutions</td>
<td>College drop rate</td>
<td>High-demand majors</td>
<td>Attainment of degrees that lead to careers in high demand</td>
</tr>
<tr>
<td></td>
<td>Placement in developmental &amp; college-level English and math</td>
<td>Use of academic support and tutoring centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participation in compensatory programs (EOPS, HEOP, etc.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TYPES OF VITAL SIGNS DATA
As illustrated by the sample indicators included in the table above, many Vital Signs entail collecting single points of data—what we call “snapshot data.” Snapshot data are cross-sectional data that serve as an initial anchor or baseline for a particular indicator.

Snapshot data are limited, however. If practitioners want to know if that data point is an anomaly or indicative of a more general pattern, we turn to “trend data,” which can most easily be understood as a collection of snapshot data over time. Trend data allow practitioners to better contextualize what snapshot data may suggest.
If practitioners seek more information on how a policy or routine impacts racially minoritized students, we use “cohort migration data,” which chart the progress of a group of students through policy- or practice-related milestones. Milestones are developed by practitioners, based on their knowledge of the policy or practice.
FIGURE 4. EXAMPLE: COHORT MIGRATION DATA FOR ACCESS PERSPECTIVE, ADMISSIONS PIPELINE

<table>
<thead>
<tr>
<th>Students who started applications to Apple College in 2014</th>
<th>Milestone 1: Students who submitted applications</th>
<th>Milestone 2: Students who received admission</th>
<th>Milestone 3: Students who registered and enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students 6,674</td>
<td>5,833</td>
<td>3,102</td>
<td>2,213</td>
</tr>
<tr>
<td>African American/Black 989</td>
<td>782</td>
<td>232</td>
<td>168</td>
</tr>
<tr>
<td>Asian 1,674</td>
<td>1,589</td>
<td>949</td>
<td>677</td>
</tr>
<tr>
<td>Latinx 1,289</td>
<td>999</td>
<td>454</td>
<td>310</td>
</tr>
<tr>
<td>Native American 132</td>
<td>110</td>
<td>65</td>
<td>55</td>
</tr>
<tr>
<td>White 2,256</td>
<td>2,076</td>
<td>1,345</td>
<td>990</td>
</tr>
<tr>
<td>Pacific Islander 334</td>
<td>277</td>
<td>157</td>
<td>123</td>
</tr>
</tbody>
</table>
This worksheet can be used to identify relevant Vital Signs data tied to a particular goal and policy or practice of interest.

On the next page:

1. Identify the goal you aim to impact.

2. Identify the policy or practice related to the goal.

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>TYPE OF DATA</th>
<th>WHO</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSFER TO UCLA</td>
<td>TREND DATA, LAST 10 YEARS</td>
<td>INSTITUTIONAL RESEARCHER</td>
<td>MARCH 15</td>
</tr>
</tbody>
</table>

3. Identify the indicator and Vital Signs data related to the goal and/or policy or practice. Note the type of data to be collected (snapshot, trend, cohort migration).

   For TREND data, note the time period for the data you need.

   For COHORT MIGRATION data, note the milestones for which you need to collect data.

4. Identify who you will need to consult to collect the data and by when the data should be collected.
<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>TYPE OF DATA</th>
<th>WHO</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
TOOL: MEASURING RACIAL EQUITY

Gathering Vital Signs data disaggregated by race and ethnicity is the first step toward measuring the “state of equity” in the perspectives of institutional performance (i.e., access, retention, completion, and excellence) and at different levels of the college (e.g., campus, division/school, department/program, course, practitioner). CUE has developed two measurement methods: (1) The Equity Index and (2) The Percentage Point Gap.

EQUITY INDEX

A proportionality measure, the Equity Index (EI) is a ratio of two percentages or shares: the numerator is the percentage or share of a disaggregated subgroup among all students with the outcome of interest; the denominator is the percentage or share of the disaggregated subgroup among students in the reference group (Bensimon, Hao, & Bustillos, 2006).

The EI is useful for measuring representational equity, which is the proportional participation of a disaggregated subgroup in all perspectives of institutional performance at campus, division, department, and course levels. The EI is expressed in the following formula:

\[
\text{Equity Index of Disaggregated Subgroup for the Outcome of Interest} = \frac{\text{Disaggregated Subgroup with the Outcome}}{\text{All Students with the Outcome}} / \frac{\text{Disaggregated Subgroup in the Reference Group}}{\text{All Students in the Reference Group}}
\]

Technically, an EI at or above 1.0 means the disaggregated subgroup is experiencing equity, while an EI below 1.0 means the disaggregated subgroup is experiencing inequity. However, institutions can choose to set the cut-point for equity at a value less than 1.0; we recommend that the cut-point should be set no lower than 0.85.
EXAMPLE: EQUITY INDEX OF BLACK FRESHMAN ENROLLMENT IN THE UNIVERSITY OF CALIFORNIA

Equity Index of Fall 2013 Black Freshman Enrollment at the University of California

\[
\text{Equity Index of Fall 2013 Black Freshman Enrollment at the University of California} = \frac{\text{Fall 2013 Black Freshman Enrollment Headcount} / \text{Fall 2013 All Freshman Enrollment Headcount}}{\text{Black 2013 HS Graduates in California} / \text{All 2013 HS Graduates in California}}
\]

\[
= \frac{6,934 / 188,008}{28,335 / 455,854} = \frac{0.037}{0.062} = 0.60
\]

With an equity index score of 0.60, Black students experience enrollment inequity at the University of California.

Data Source: Enrollment data for the University of California was obtained from University of California Office of the President (https://www.universityofcalifornia.edu/infocenter); high school graduate data was obtained from Western Interstate Commission for Higher Education’s report, Knocking at the College Door: Projections of High School Graduates December 2016.
The purpose of this worksheet is to practice using the Equity Index (EI). Below are Vital Signs data for INSTRUCTOR A. The succeeding pages of this worksheet walk you through the calculation process.

### Course Enrollment and Success Data: Instructor A

<table>
<thead>
<tr>
<th>Instructor data overall since Fall 2013</th>
<th>College data overall since Fall 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention 339</td>
<td>Retention 245,434</td>
</tr>
<tr>
<td>Success 265</td>
<td>Success 196,105</td>
</tr>
<tr>
<td>Retention % 81%</td>
<td>Retention % 84%</td>
</tr>
<tr>
<td>Success % 63%</td>
<td>Success % 66%</td>
</tr>
</tbody>
</table>

### Data for entire department since Fall 2013, disaggregated

**Ag & Environmental Sciences**

<table>
<thead>
<tr>
<th>Ag Economics</th>
<th>Enrolled at Census</th>
<th>Retention</th>
<th>Retention %</th>
<th>Success</th>
<th>Success %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>24</td>
<td>18</td>
<td>75%</td>
<td>16</td>
<td>67%</td>
</tr>
<tr>
<td>Black</td>
<td>7</td>
<td>3</td>
<td>43%</td>
<td>2</td>
<td>29%</td>
</tr>
<tr>
<td>Filipino</td>
<td>4</td>
<td>4</td>
<td>100%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Latinx</td>
<td>359</td>
<td>325</td>
<td>91%</td>
<td>262</td>
<td>73%</td>
</tr>
<tr>
<td>Native American</td>
<td>9</td>
<td>8</td>
<td>89%</td>
<td>6</td>
<td>67%</td>
</tr>
<tr>
<td>Two or More</td>
<td>48</td>
<td>45</td>
<td>94%</td>
<td>41</td>
<td>85%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>59</td>
<td>57</td>
<td>97%</td>
<td>55</td>
<td>93%</td>
</tr>
<tr>
<td>White</td>
<td>899</td>
<td>804</td>
<td>89%</td>
<td>683</td>
<td>76%</td>
</tr>
<tr>
<td>Department Totals</td>
<td>1409</td>
<td>1264</td>
<td>90%</td>
<td>1066</td>
<td>76%</td>
</tr>
</tbody>
</table>

### Data for instructor by course, all sections since Fall 2013, disaggregated

**Elements of Ag Economics 2013-2016, Instructor A**

<table>
<thead>
<tr>
<th>Ag Economics</th>
<th>Enrolled at Census</th>
<th>Retention</th>
<th>Retention %</th>
<th>Success</th>
<th>Success %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Black</td>
<td>3</td>
<td>2</td>
<td>67%</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Filipino</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Latinx</td>
<td>14</td>
<td>11</td>
<td>79%</td>
<td>6</td>
<td>43%</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Two or More</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>White</td>
<td>41</td>
<td>33</td>
<td>80%</td>
<td>26</td>
<td>63%</td>
</tr>
<tr>
<td>Overall</td>
<td>63</td>
<td>50</td>
<td>79%</td>
<td>36</td>
<td>57%</td>
</tr>
</tbody>
</table>
Let’s begin by becoming familiar with INSTRUCTOR A’s course-level data (ORANGE).

<table>
<thead>
<tr>
<th>Question</th>
<th>Details</th>
</tr>
</thead>
</table>
| A. Look at the size of **course enrollments** by racial/ethnic group. Which group(s) have the largest number of enrollments? The smallest? Which fall somewhere in between? | Largest:  
Smallest:  
In between: |
| B. Look at the **course success rates** by racial/ethnic group. Which group had the highest course success rate? The lowest? Which fall somewhere in between? | Highest:  
Lowest:  
In between: |
| C. What is the **course success rate** for all students?                  |        |
| D. Look at the **course retention rate** by racial/ethnic group. What does this data add to the “course success” story? |        |
| E. What other **observations** do you have?                              |        |
Now let’s become familiar with the department-level data **(BLUE)**.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Look at the size of <strong>course enrollments</strong> by racial/ethnic group. Which group(s) have the largest number of enrollments? The smallest? Which fall somewhere in between?</td>
</tr>
<tr>
<td></td>
<td>Largest:</td>
</tr>
<tr>
<td></td>
<td>Smallest:</td>
</tr>
<tr>
<td></td>
<td>In between:</td>
</tr>
<tr>
<td>B.</td>
<td>Look at the <strong>course success rates</strong> by racial/ethnic group. Which group had the highest course success rate? The lowest? Which fall somewhere in between?</td>
</tr>
<tr>
<td></td>
<td>Highest:</td>
</tr>
<tr>
<td></td>
<td>Lowest:</td>
</tr>
<tr>
<td></td>
<td>In between:</td>
</tr>
<tr>
<td>C.</td>
<td>What is the <strong>course success rate</strong> for all students?</td>
</tr>
<tr>
<td>D.</td>
<td>Look at the <strong>course retention rate</strong> by racial/ethnic group. What does this data add to the “course success” story?</td>
</tr>
<tr>
<td>E.</td>
<td>What other <strong>observations</strong> do you have?</td>
</tr>
</tbody>
</table>
Let's calculate an Equity Index.

EXAMPLE: Equity Index for Black Student Retention in Instructor A’s Course

\[
\text{Equity Index of Black student retention in Instructor A’s Course} = \frac{\text{Black students who stayed in Instructor A’s course}}{\text{All students who stayed in Instructor A’s course}} \div \frac{\text{Black students who enrolled in Instructor A’s course}}{\text{All students who enrolled in Instructor A’s course}}
\]

\[
= \frac{2}{50} \div \frac{3}{63} = \frac{0.04}{0.05} = 0.80
\]

With an equity index score of 0.80, Black students experience retention inequity in Instructor A’s course.
YOUR TURN: Calculate the Equity Index for Latinx Student Success in the department, using the formula below.

Equity Index for Latinx success in Instructor A’s course = \frac{\text{Latinx students who completed Instructor A’s course}}{\text{All students who completed Instructor A’s course}} = \frac{\text{Latinx students who enrolled in Instructor A’s course}}{\text{All Students who enrolled in Instructor A’s course}}

With an equity index score of __________, Latinx students experience course success ______________ in the college’s Ag Economics course.
Consider: How would you use the Equity Index:

At your own campus?

For your own practice?

Think about the Vital Signs indicators you identified in the IDENTIFYING VITAL SIGNS worksheet. Of those, which would you use the Equity Index with?
SUMMARY: EQUITY INDEX BENEFITS AND LIMITATIONS

The benefits of the EI are several:

1. **Easy to interpret:** By quantifying equity into a ratio measure with scores at or above 1.0 indicating equity and scores below 1.0 indicating inequity, the EI is easy to interpret.

2. **Standardized score:** The EI is a standardized score that facilitates ease of comparison across disaggregated subgroups. Moreover, the EI can be made into an outcome-, subgroup-, and year-specific score.

3. **Useful for institutional benchmarking:** The EI offers a clear metric for institutions to base their progress toward meeting institutional performance standards.

At the same time, the EI has some limitations that should be kept in mind:

1. **Can produce false-positives:** As a ratio measure, the EI is sensitive to shifts in the numerator and denominator. In the case where the numerator is decreasing at a slower pace than the denominator, the EI will increase; however, this is not a sign of real progress.

2. **Does not easily bring data close to practice:** While the EI indicates whether or not a disaggregated subgroup is or is not at equity for an outcome of interest, the EI score offers little guidance in terms of how many students practitioners will need to affect to achieve equity.

The Percentage Point Gap, the alternative method for measuring equity, addresses the EI’s second limitation.
PERCENTAGE POINT GAP

The Percentage Point Gap (PPG) method compares the outcome attainment rate for a disaggregated subgroup with the outcome attainment rate for a reference group. The PPG method is useful for measuring outcome equity, which is parity in educational outcomes across all perspectives of institutional performance, as well as all campus levels. PPGs are calculated using the following equation:

\[
\text{Percentage Point Gap (PPG)} = \text{Outcome Attainment Rate for Disaggregated Subgroup} - \text{Outcome Attainment Rate for Reference Group (RG)}
\]

The resulting “percentage point gap” will have a +/- designation that signals whether the disaggregated subgroup is experiencing the outcome at a rate that is higher (+) or lower (-) than the rate for all students. Typically, the reference group (RG) is the highest-performing group (HPG) or all students. The reference group rate is subtracted from the disaggregated subgroup to avoid outcomes in which positive values represent a gap and negative values represent greater success.

According to this method, a minus-3 PPG or greater is evidence of outcome inequity. That said, institutions can decide to set the point for equity or inequity at a higher or lower PPG value. This decision should be made in consultation with constituents across the campus.
EXAMPLE: PPG OF BLACK STUDENT ENROLLMENT RATE AT THE UNIVERSITY OF CALIFORNIA

PPG of Fall 2013 Black Freshman Enrollment at the University of California = \text{Black Freshman Enrollment Rate} - \text{Asian American Freshman Enrollment Rate}

= 56\% - 66\% = -10

With a gap of 10 percentage points relative to Asian American students, Black students experience enrollment inequity at the University of California.

Data Source: Enrollment data for the University of California was obtained from University of California Office of the President (https://www.universityofcalifornia.edu/infocenter)
With the percentage point gap in hand, the number of students needed to achieve equity can be calculated. For this calculation it’s important to round up, because there’s no such thing as a fraction of a student. There are three steps:

1. Write the name of the student group experiencing an equity gap (A). Then note the group’s PPG (B).

2. Translate the PPG into a decimal (C). Then write the number of students in the student group (D).

3. Multiply the decimal form of the PPG by the number of students in the student group, to determine the number of students needed to achieve equity (E).

Using the PPG for Fall 2013 enrollment at the University of California for Black students as calculated above:

<table>
<thead>
<tr>
<th>Equity gap</th>
<th>Student group</th>
<th>PPG compared to RG, expressed as %</th>
<th>% expressed as decimal (25% → 0.25)</th>
<th>Multiply # of students in group</th>
<th># of students needed to close equity gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest gap</td>
<td>Black students</td>
<td>-10%</td>
<td>0.10</td>
<td>X</td>
<td>1,413</td>
</tr>
</tbody>
</table>

If the University of California enrolled an additional 142 Black students in Fall 2013, there would be no equity gap with Asian American students, who had the highest rate of enrollment.
The purpose of this worksheet is to practice using the Percentage Point Gap (PPG). On this page, we again present Vital Signs data for INSTRUCTOR A. The succeeding pages of this worksheet walk you through the calculation process.

**Course Enrollment and Success Data: Instructor A**

<table>
<thead>
<tr>
<th>Instructor data overall since Fall 2013</th>
<th>College data overall since Fall 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retention 339</td>
<td>Success 265</td>
</tr>
<tr>
<td>Retention % 81%</td>
<td>Success % 63%</td>
</tr>
</tbody>
</table>

**Data for entire department since Fall 2013, disaggregated**

<table>
<thead>
<tr>
<th>Ag &amp; Environmental Sciences</th>
<th>Enrolled at Census</th>
<th>Retention</th>
<th>Retention %</th>
<th>Success</th>
<th>Success %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Economics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>24</td>
<td>18</td>
<td>75%</td>
<td>16</td>
<td>67%</td>
</tr>
<tr>
<td>Black</td>
<td>7</td>
<td>3</td>
<td>43%</td>
<td>2</td>
<td>29%</td>
</tr>
<tr>
<td>Filipino</td>
<td>4</td>
<td>4</td>
<td>100%</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Latinx</td>
<td>359</td>
<td>325</td>
<td>91%</td>
<td>262</td>
<td>73%</td>
</tr>
<tr>
<td>Native American</td>
<td>9</td>
<td>8</td>
<td>89%</td>
<td>6</td>
<td>67%</td>
</tr>
<tr>
<td>Two or More</td>
<td>48</td>
<td>45</td>
<td>94%</td>
<td>41</td>
<td>85%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>59</td>
<td>57</td>
<td>97%</td>
<td>55</td>
<td>93%</td>
</tr>
<tr>
<td>White</td>
<td>899</td>
<td>804</td>
<td>89%</td>
<td>683</td>
<td>76%</td>
</tr>
<tr>
<td>Department Totals</td>
<td>1409</td>
<td>1264</td>
<td>90%</td>
<td>1066</td>
<td>76%</td>
</tr>
</tbody>
</table>

**Data for Instructor by Course, all sections since Fall 2013, disaggregated**

<table>
<thead>
<tr>
<th>Elements of Ag Economics 2013-2016, Instructor A</th>
<th>Enrolled at Census</th>
<th>Retention</th>
<th>Retention %</th>
<th>Success</th>
<th>Success %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Black</td>
<td>3</td>
<td>2</td>
<td>67%</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Filipino</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Latinx</td>
<td>14</td>
<td>11</td>
<td>79%</td>
<td>6</td>
<td>43%</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Two or More</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Undeclared</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>White</td>
<td>41</td>
<td>33</td>
<td>80%</td>
<td>26</td>
<td>63%</td>
</tr>
<tr>
<td>Overall</td>
<td>63</td>
<td>50</td>
<td>79%</td>
<td>36</td>
<td>57%</td>
</tr>
</tbody>
</table>
Since you’re already familiar with the course- and department-level data for Instructor A’s course, let’s jump right to calculating a Percentage Point Gap and the number of additional students needed to achieve equity in outcomes.

EXAMPLE: Equity Index for Black Student Retention in Instructor A’s Course

PPG of Black student retention in Instructor A’s course = Black retention rate - All student retention rate (AVG)

= 43% - 90% = -47

With a gap of 47 percentage points, Black students experience retention inequity in Instructor A’s course.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity gap</td>
<td>Student group</td>
<td>PPG compared to RG, expressed as %</td>
<td>% expressed as decimal (25% → 0.25)</td>
<td>Multiply # of students in group</td>
</tr>
<tr>
<td>Gap with avg.</td>
<td>Black students</td>
<td>-47%</td>
<td>0.47</td>
<td>X</td>
</tr>
</tbody>
</table>

To close this 47 PPG, Instructor A needs to retain an additional 4 Black students.
**YOUR TURN:** Calculate the PPG for Latinx student success in Instructor A’s course, using the formula below and setting the RG to all students.

\[
\text{PPG of Latinx success in Instructor A’s course} = \text{Latinx success rate} - \text{All student success rate (AVG)}
\]

\[
= \quad - \quad =
\]

With a gap of __________ percentage points, Latinx students experience course success __________ in Instructor A’s course.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity gap</strong></td>
<td><strong>Student group</strong></td>
<td><strong>PPG compared to RG, expressed as %</strong></td>
<td><strong>% expressed as decimal (25% \rightarrow 0.25)</strong></td>
<td><strong>Multiply</strong></td>
</tr>
<tr>
<td><strong>Gap with avg.</strong></td>
<td>Latinx students</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To close this __________ PPG, Instructor A needs to help an additional __________ Latinx students successfully pass the course.
Consider: How would you use the Percentage Point Gap:

At your own campus?

For your own practice?

Think about the Vital Signs indicators you identified in the IDENTIFYING VITAL SIGNS worksheet. Of those, which would you use the PPG for?
SUMMARY: PERCENTAGE POINT GAP BENEFITS AND LIMITATIONS

As with the EI, there are several benefits to using the PPG to measure equity:

1. **Easy to interpret:** By calculating the percentage point difference between the outcomes of one group of students versus another group of students, the PPG produces a measure of (in)equity that is easy to interpret.

2. **Allows for sense-making about equity gaps in terms of students “lost,” and brings data close to practice:** Unlike the EI, the PPG allows for easy conversion of the equity gap to the number of students “lost” relative to the designated reference group. Using the number of students to describe the equity gap brings data close to practice and helps practitioners understand the magnitude of that gap in ways the EI does not.

3. **Easy to use for goal-setting:** The number of students “lost” is an intuitive way to understand how many additional students are needed to close an equity gap. As such, practitioners can set goals in terms of numbers of students they need to affect in order to reach equity for a particular outcome.

Likewise, the PPG has some limitations that should be kept in mind:

1. **Sensitive to reference group:** As a comparative measure, the PPG for a disaggregated subgroup will differ depending on which reference group (RG) is chosen. Consider completion data (defined as degree attainment and transfer) on California Community College students:
2. **Magnitude of equity gaps can differ**: Especially in cases where the reference group used is all students and the average outcome attainment rate is low, equity gaps can be hidden or minimized. In such cases, practitioners should consider whether it is “good enough” to set all students as the reference group, or whether the highest-performing group is a more appropriate comparison. In the case of equity gaps in completion for Black, Filipino, Latinx, Native American, and Pacific Islander students in the California Community Colleges, does it make sense to set the reference group as all students, or as Asian Americans, the highest-performing group?
TOOL: MAKING SENSE OF RACIAL EQUITY GAPS

FROM A CULTURE OF EVIDENCE TO A CULTURE OF INQUIRY

Institutions are accustomed to compiling data for accreditation studies, state reports, and federal funding. The resulting data warehouse is typical of a “culture of evidence” in which institutional researchers collect and analyze data, and then translate their analysis into reports, often for assessment and evaluation purposes. In a culture of evidence, faculty and staff are removed from the raw data and only see what’s been processed into reports and disseminated to the greater campus and other regulatory bodies. A shortcoming of a “culture of evidence” is that it places too much trust in the idea that data will speak on its own.

In a “culture of inquiry,” faculty and staff have access to data that help them see the equity gaps experienced by students from racially minoritized groups. Once gaps are identified, practitioners consider the policies and practices that may be contributing to these inequities and generate inquiry questions, answers to which can lead to meaningful findings and changes that are specific to an institution’s needs. A value of a “culture of inquiry” is that data are made meaningful for the purpose of achieving racial equity.

CULTURE OF EVIDENCE

- Data are for external accountability (e.g., reporting, accreditation)
- Data are in the hands of institutional researchers
- Data are objective and speak for themselves

CULTURE OF INQUIRY

- Data are for institutional accountability and racial equity
- Data are in the hands of all practitioners
- Data are part of a process of critical inquiry, reflection, and change
EQUITY-MINDED VS. DEFICIT-MINDED DATA ANALYSIS

A key aspect of a culture of inquiry is analyzing data disaggregated by race and ethnicity from an equity-minded lens. Equity-minded data analysis entails:

- Noticing racial inequities;
- Acknowledging that practices may not be working;
- Understanding inequity as a dysfunction of structures, policy, and practices;
- Questioning assumptions, and recognizing stereotypes and implicit biases; and
- Taking action to eliminate inequity.

In a culture of evidence, it’s assumed that data are “objective” and are able to drive change without human intervention. In a culture of inquiry where equity-mindedness is the analytic frame, data require contextualization and sense-making. For example, in the face of data showing that white students have higher success rates than students from all other racial/ethnic groups, equity-minded data analysis prompts the instructor to notice the equity gap and ask:

“What is it about my course content and assignments, class policies, communication style, etc., that better supports white students’ enrollment, retention, and success?”

Embedded in a question like this is an awareness that inequity may be a dysfunction of the instructor’s practice, that the practice may not be working for all students equally well, and that assumptions should be examined. Moreover, this question positions the instructor to make changes in practice that could eliminate the equity gap.

A note on language: It’s important that we use language that points us in the direction of institutional change. For instance, “students experienced a % course completion rate,” as opposed to “students achieved or earned a % course completion rate.” By saying experienced we leave the door open to
a number of conditions that may be playing a role in patterns of student success by race and ethnicity.

Often, data that reveal racial inequities result in hunches that are deficit-minded in nature, and that effectively blame students for outcomes they have failed to achieve. Equity-minded data analysis is in part an exercise in reframing how we typically “read” data. Part of this reframing, is posing questions rather than following hunches.

**Example:** To contrast deficit-minded and equity-minded data analysis, let’s return to Apple College’s cohort migration data of the admissions pipeline from page 14, and focus on “Milestone 1: Students who completed the application.” The table below presents these data, along with the Percentage Point Gap calculations using “all students” as the reference group. The succeeding two tables describe the characteristics of deficit-minded hunches and equity-minded questions and offer examples of each characteristic.

<table>
<thead>
<tr>
<th>Student group</th>
<th>Students who started an application to Apple College</th>
<th>Milestone 1: Students who completed the application</th>
<th>Percentage</th>
<th>Percentage Point Gap (Ref group: all students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students</td>
<td>6,674</td>
<td>5,833</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>1,674</td>
<td>1,589</td>
<td>95%</td>
<td>+8</td>
</tr>
<tr>
<td>Black</td>
<td>782</td>
<td>989</td>
<td>79%</td>
<td>-8</td>
</tr>
<tr>
<td>Latinx</td>
<td>1,289</td>
<td>999</td>
<td>78%</td>
<td>-9</td>
</tr>
<tr>
<td>Native American</td>
<td>132</td>
<td>110</td>
<td>83%</td>
<td>-4</td>
</tr>
<tr>
<td>White</td>
<td>2,256</td>
<td>2,076</td>
<td>92%</td>
<td>+5</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>334</td>
<td>277</td>
<td>83%</td>
<td>-4</td>
</tr>
</tbody>
</table>
### Deficit-Minded Hunches of Why Racially Minoritized Students Do Not Complete Apple College’s Admissions Application

<table>
<thead>
<tr>
<th>Focus on Student Behavior</th>
<th>• “I’ve been involved with admissions for five years now, and we see these gaps year after year. My guess is that when Black, Latinx, Native American, and Pacific Islander students see the average GPA and SAT scores of incoming Apple College first-years, they realize they cannot compete and move on to other, less competitive schools.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasize That Students Are Not College-Ready</td>
<td>• “I’ve talked to teachers at my daughter’s school, and their observation is that Black and Pacific Islander students are rarely in AP and honors classes. If they’re not taking those courses, I just don’t think they’re ready for our curriculum at Apple.”</td>
</tr>
<tr>
<td>Fixate on Students’ Socioeconomic Backgrounds</td>
<td>• “A friend of mine sits on the local school board, and she has told me on several occasions that Black and Latinx students attend schools that have the lowest level of resources—such that some don’t have dedicated college guidance centers. It’s no surprise they don’t complete applications.”</td>
</tr>
<tr>
<td>Rely on Stereotypes</td>
<td>• “I’ve heard over and over again that Latinx families value community but not education. Looking at their gap of 9 percentage points, I think there is truth to that stereotype.”</td>
</tr>
<tr>
<td>Concentrate on Fixing What Students Lack</td>
<td>• “It’s crazy that year after year, we see racial/ethnic gaps in applications completed. We need to think seriously about creating a program that helps students complete applications for Apple College and other highly selective institutions.”</td>
</tr>
<tr>
<td>EQUITY-MINDED QUESTIONS ABOUT APPLE COLLEGE’S ADMISSIONS NORMS, POLICIES, AND PRACTICES</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>CLARIFY AND UNPACK PROCESSES AND STRUCTURES</td>
<td>• What are the different application components that prospective applicants must submit?</td>
</tr>
<tr>
<td>DATA THAT’S CLOSE(R) TO PRACTICE</td>
<td>• What application components are Black, Latinx, Native American, and Pacific Islander students missing?</td>
</tr>
<tr>
<td>IDENTIFY INSTITUTIONAL ACTORS AND THEIR ROLES</td>
<td>• Do faculty and/or staff reach out to students when application components are missing?</td>
</tr>
<tr>
<td>UNDERSTAND EXISTING DATA PRACTICES</td>
<td>• Do the faculty and/or staff involved in the admission process regularly see data on application completion by race and ethnicity?</td>
</tr>
<tr>
<td>UNDERSTAND WHY SOME STUDENT GROUPS ARE BETTER SERVED BY A POLICY, PRACTICE, OR STRUCTURE</td>
<td>• What institutional factors might contribute to Asian American and white students having a high application completion rate?</td>
</tr>
<tr>
<td>UNPACK INSTITUTIONAL VALUES AND BELIEFS</td>
<td>• Admissions criteria reflect an institution’s values. What are Apple College’s admission criteria for selecting who is admitted? What weight is each criterion given when making the final admission decision?</td>
</tr>
</tbody>
</table>
As these examples suggest, deficit-minded hunches are often based on lay theories generated from anecdotal evidence. They carry weight because they generally reflect and reinforce what practitioners see from the world around them. However, deficit-minded hunches either (a) leave little room for changes that are within practitioners’ locus of control, or (b) result in actions that entail making racially minoritized students more like “successful” (white and Asian) students who have the know-how and skills to “make it” in college. While the latter may be construed as equity-minded in that it can be seen as taking action to eliminate racial inequity, it does not demonstrate the critical dimension of equity, which requires practitioners to consider how Apple College’s norms, policies, and practices around the routine of admission are implicated in the equity gaps documented in the data.

Unlike deficit-minded hunches, equity-minded questions get at both the accountability and critical dimensions of equity. They position actions toward eliminating racial inequity (i.e., realizing the accountability dimension) by investigating the root institutional causes of equity gaps that can then inform race-conscious change strategies (i.e., realizing the critical dimension).

FROM EQUITY-MINDED DATA ANALYSIS TO CRITICAL INQUIRY
Having identified equity gaps experienced by racially minoritized students and developed equity-minded questions about those gaps, the next step is to conduct what CUE calls “critical inquiry.” Critical inquiry is based on the principles of participatory action research (PAR), a research methodology that emphasizes (a) investigating local problems within context; (b) practitioners participating in the research process; and (c) using research to bring about change at the individual and organizational level (Malcom-Piqueux, 2016).

CUE has developed a suite of tools to structure the critical inquiry process, and help practitioners:
• Build stronger awareness of how taken-for-granted campus norms, rules, and ways of doing things often work to the benefit of white students and to the disadvantage of racially minoritized students;

• Better understand how specific policies and practices contribute to the persistence of unequal outcomes for racially minoritized students;

• Develop deeper knowledge of how to develop context-specific solutions to inequities on their campuses; and

• Cultivate routine self-reflection and questioning of their role in producing or mitigating inequities

On page 42, we offer a brief introduction to the main inquiry tools, in order to build the connection between data analysis and the inquiry process. Please see the other guides in CUE’s Equity-Minded Inquiry Series for more information.
EQUITY-MINDED INQUIRY TOOLS

DOCUMENT REVIEW can be used on any college document, from policy-related materials (e.g., student handbook) to forms (e.g., admission, financial aid forms), communication vehicles (e.g., newsletters, presentations), campus statements (e.g., mission, values statements), and hiring materials (e.g., job announcements)—the list goes on. This tool that helps practitioners review their documents and reflect on the extent to which the policies, practices, and approaches reflected in the document address equity. Reflecting on your documents gives you a window into how your campus is addressing racial equity now, and provides information that can generate a dialogue about how your campus might improve.

SYLLABUS REVIEW is a type of document review that is specific to course syllabi. It’s an inquiry tool that facilitates faculty reflection on teaching approaches and practices, especially how they affect Black, Latinx, Native American, Pacific Islander, and other racially/ethnically minoritized students; self-assessment of these teaching approaches and practices from a racial/ethnic equity lens; and thinking about practice changes that can lead to more equitable teaching approaches and practices.

WEB SCAN is similar to document and syllabi review, but focuses on the college website or specific webpages. This inquiry tool not only asks practitioners to review how the content of the website reflects taken-for-granted attitudes, assumptions, expectations, and norms; it also cultivates a sense of learning for racially minoritized students in particular, and communicates who is welcome and included in the campus community.

OBSERVATIONS inquiry includes three types of tools that ask practitioners to experience their campus from different perspectives.

- The “descriptive observation” tool directs practitioners to see how students access and use campus programs, services, and spaces. With this tool, “strangefying” that which is familiar and routine (e.g., the admissions, financial aid, or assessment and placement process) is important to seeing whether and how these programs, services, and spaces produce intended outcomes for racially miniritized students (Gutiérrez & Vossoughi, 2010, p. 104).
- The “participant observation” tool instructs practitioners on how to “walk in students’ shoes” and experience campus programs, services, and spaces as if they are a student.
- The “peer observation” tool is for faculty who need to better understand the dynamics of their classroom. It requires the participation of at least two faculty members who observe each other’s classroom for engagement, instructor communication, and implementation of classroom policies and rules.
The purpose of this worksheet is to practice doing equity-minded data analysis using your own data. For this exercise, we’ll use the Percentage Point Gap (PPG) method to calculate equity gaps.

Collect the data you want to use. We recommend you use data close to your practice. For example:

- If you’re an instructor, consider using course success rates for a course that you’re keen to examine to more depth.
- If you’re a department chair, you can look at course success rates across all the instructors who teach that course.
- If you’re a dean, you can look at student enrollment rates in gateway courses.

What data have you chosen?

Why have you chosen these data?
Use the PPG on your data to determine which groups of racially minoritized students are experiencing inequity for your outcome of interest. Do the calculations for two reference groups: all students, and the highest-performing group.

PPG Using ALL STUDENTS as the Reference Group

(A) Write the number of students for each racial/ethnic group.
(B) Note the number of students in each group who successfully attained the outcome of interest.
(C) Unless provided in your data, divide (B) by (A) to get the student group outcome attainment rate.
(D) Unless provided in your data, calculate the outcome attainment rate for all students. Write that percentage in each row of (D).
(E) Subtract (D) from (C) to get the PPG.

<table>
<thead>
<tr>
<th>Student groups</th>
<th>A # of students in cohort</th>
<th>B # of students who attained the outcome</th>
<th>C Student grp outcome attainment rate (%)</th>
<th>D All student outcome attainment rate (%)</th>
<th>E PPG with +/- added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
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<tr>
<td>Black</td>
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<td>Filipino</td>
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<td>Latinx</td>
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<tr>
<td>Native American</td>
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<tr>
<td>Pacific Islander</td>
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<tr>
<td>Two or More</td>
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</tr>
<tr>
<td>White</td>
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<tr>
<td>All Students</td>
<td></td>
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</tr>
</tbody>
</table>
PPG Using HIGHEST-PERFORMING GROUP (HPG) as the Reference Group

(A) Write the number of students for each racial/ethnic group.
(B) Note the number of students in each group who successfully attained the outcome of interest.
(C) Unless provided in your data, divide (B) by (A) to get the student group outcome attainment rate.
(D) Write the outcome attainment rate for the highest-performing group in each row of (D).
(E) Subtract (D) from (C) to get the PPG.

<table>
<thead>
<tr>
<th>Student groups</th>
<th>A # of students in cohort</th>
<th>B # of students who attained the outcome</th>
<th>C Student grp outcome attainment rate (%)</th>
<th>D HPG outcome attainment rate (%)</th>
<th>E PPG with +/- added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td></td>
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<tr>
<td>Black</td>
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<td>Filipino</td>
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<td>Latinx</td>
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<tr>
<td>Native American</td>
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<td>Pacific Islander</td>
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<tr>
<td>Two or More</td>
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<tr>
<td>White</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>All Students</td>
<td></td>
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</tbody>
</table>
Compare the PPG calculations for the two reference groups.

<table>
<thead>
<tr>
<th>Reference Group</th>
<th>PPG if RG is all students</th>
<th>PPG if RG is highest-performing group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
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<tr>
<td>Filipino</td>
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<tr>
<td>Latinx</td>
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<tr>
<td>Native American</td>
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<tr>
<td>Pacific Islander</td>
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<tr>
<td>Two or More</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
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</tbody>
</table>

Looking at the two sets of PPG calculations, which reference group will you use? Why?
Let’s calculate the number of additional students needed to achieve equity in outcomes. Here we’ll focus on racially minoritized students (Blacks, Filipinos, Latinx, Native Americans, and Pacific Islanders).

(A) Write the names of the racially minoritized student groups, beginning with the group that is experiencing the largest equity gap.

(B) Note in the blank space provided in the header row whether the reference group is all students (AVG) or the highest-performing group (HPG). Transfer the corresponding information from the table step 3.

(C) Convert the PPG in (B) to decimals.

(D) Note the number of students in each group. This information can be obtained from the tables you completed in step 2, column (A).

(E) Multiply (C) and (D) to determine the additional number of students needed to close the equity gap.

<table>
<thead>
<tr>
<th>Equity gap</th>
<th>Student group</th>
<th>PPG in comparison to ________, expressed as %</th>
<th>% expressed as decimal (25% → 0.25)</th>
<th>Multiply</th>
<th># of students in group</th>
<th>=</th>
<th># of students needed to close equity gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest Gap</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second-largest Gap</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third-largest Gap</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>=</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Now that all the calculations are complete, let’s brainstorm what might be contributing to the equity gaps. For this exercise, focus on one equity. We recommend focusing on the racially minoritized student group that is experiencing the largest equity gap.

Write questions that would help you better understand how policies and practices in your classroom, department, division, campus, etc., may be a factor in this gap. (See Appendix B.)

Write your focal equity gap.

Write your hunches for why this equity gap exists.

Note the practitioners, policies, programs, and practices that may have a connection to the focal equity gap.
Having catalogued the practitioners, policies, and practices that may have some connection with the equity gap, and with your equity-minded hunches and questions in hand, let’s plan your next steps for critical inquiry.

Additional data questions: What else do you need to know or clarify? (See Appendix B.)

Consider each practitioner, policy, program, and practice you wrote down in the gray circle. Select one practitioner you’d like to speak with about the equity gap, and one policy, one program, and one practice you’d like to conduct further inquiry into. Also, review the equity-minded questions you wrote and select one you’d like to explore further. These will constitute the “focal effort” for the equity gaps you seek to close.

- PRACTITIONER:

- POLICY:

- PROGRAM:

- PRACTICE:

- EQUITY-MINDED QUESTION:
With your focal effort in mind, review the guides for document review, syllabi review, webscan, and observations. Consider which you would use to better understand the racial equity gap you identified. In the table below, note which critical inquiry tools you’ll utilize (A), why (B), and when you’ll do the inquiry (C).

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHICH inquiry tool will you use?</td>
<td>WHY do you intend to use this tool?</td>
<td>WHEN will you do the inquiry by?</td>
</tr>
</tbody>
</table>
DEFINING EQUITY GOALS

The overarching goal of racial equity work is to institutionalize the accountability and critical dimensions of equity as an organizational “logic” that guides and shapes how practitioners think and act. As noted at the beginning of this guide:

- The **ACCOUNTABILITY** dimension of racial equity seeks parity in educational outcomes and experiences for historically marginalized groups—in particular, racially minoritized students.

- The **CRITICAL** dimension requires practitioner awareness of how racism and sexism are institutionalized in the norms, routines, rules, and culture of higher education.

Embedding the accountability and critical dimensions of equity into organizational and practitioner routines is an abstract goal. What specific actions would advance this goal? What resources are needed to facilitate its achievement? How would progress toward it be measured?

Such an abstract goal needs to be broken down into more manageable pieces toward which actions, resources, and measurement criteria can be directed. To start, we can break down the accountability dimension into a series of numeric goals, and the critical dimension into a series of process goals.
Numeric and process equity goals should be:

- **EVIDENCE-BASED:** Numeric goals should be based on an equity-minded analysis of Vital Signs data, and process goals should be informed by critical inquiry findings.

- **SPECIFIC:** Goals should be set for each racially minoritized group experiencing an equity gap (i.e., separate goals for Black, Latinx, Native American, and Pacific Islander students). The time period by which the goal will be achieved should also be stated (e.g., one, three, five years).

- **AMBITIOUS:** Goals should be bold, such that they inspire practitioners to act in ways that lead to eliminating equity gaps and developing equity-mindedness.

- **MEASURABLE:** Goals should assessable, and the methods used to measure them should be clearly specified.

- **MONITORED:** Goals, and progress toward their achievement, should be continually reviewed by relevant administrators, faculty, and staff. If necessary, goals should be adjusted in light of new data and inquiry findings.
An annual review of student participation in undergraduate research at Downtown College showed an equity gap of 8.2 percentage points for Black students, relative to white students, the highest-performing group.

Over the next three years, the school will increase the participation of Black students in its undergraduate research program by at least 10 students per year. An increase of 10 students represents parity with their 8.2% share of the college’s total undergraduate enrollment. Our equity gap in Black student participation in undergraduate research will be closed by Fall 2020.

The provost and deans of each school will review progress toward closing the equity gap each year.

Inquiry findings showed that Downtown College’s faculty think Black students are not interested in research, which contradicts student survey results showing that Black students intend to pursue graduate work in a variety of disciplines.

Based on these findings, the provost will establish a professional development program focused on building faculty capacity to mentor Black students in research settings.

At least a quarter of Downtown College’s faculty advisors are expected to participate in the program’s first year. Over the next three years, all faculty with undergraduate research programs will participate.

The provost will oversee the development and implementation of the program.
1. Identify an equity gap for which you’d like to set numeric equity goals. To begin, return to the worksheet on CONDUCTING EQUITY-MINDED DATA ANALYSIS & INQUIRY (step 4) and populate the columns (A) (B) and (C) (for reference).

Then carefully consider the percentage point gaps (PPGs) for each student groups and the additional number of students needed to close those gaps. Can the chosen gap be closed over a one-year period? Two? Three?

(D) Write your goal for closing each equity gap in percentage points.
(E) Write the year by which you expect to close each gap.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student group</td>
<td>Percentage Point Gap</td>
<td>Additional # of students</td>
<td>Goal in percentage points</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>needed to close equity gap</td>
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<tr>
<td></td>
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<td></td>
<td>Goal in percentage points</td>
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<td></td>
<td></td>
<td></td>
<td>Goal year</td>
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</tbody>
</table>
Now that you’ve set numeric goals, let’s set your process goals. Review the critical inquiries (e.g., observations, syllabus review, webscan, document review) you’ve conducted, and write down the two or three main findings from each.

<table>
<thead>
<tr>
<th>Inquiry</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
Based on your inquiry findings, what process goals will you set for each student group experiencing equity gaps? In the first column of the table below, write the name of the student group, the numeric goal you set, and the year by which that goal should be met. In the second column, write down the process goals for each group.

<table>
<thead>
<tr>
<th>Student group numeric goal/goal year</th>
<th>Process goals</th>
</tr>
</thead>
</table>
Finally, consider how you’ll monitor progress toward achieving the equity goals, as well as whether there are practitioners on campus who should be aware of the goals you’ve set.

What is your plan for monitoring the equity goals you’ve set?

Who needs to be aware of and understand the goals you’ve set, if anyone?
REFERENCES AND ADDITIONAL RESOURCES


