



GWC Data Coaching: The Fundamentals

October 11, 2024

Today's Plan

01

Technical Training

03

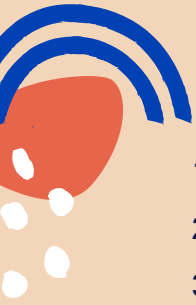
The Whys Strategy

02

Fundamental Concepts

04

DEEP Example



Community Agreements

1. Transparency
2. Being supportive of one another, being willing to learn from others
3. Not taking comments personal, not a personal attack
4. Maintain objectivity
5. Showing up, being present, be willing to do the work
6. Curiosity – keep an open mind and perspective
7. Have equity be at the forefront on the work
8. Maintaining openness for different perspectives and understanding





General Themes from September Training Feedback

01

What Went Well?

- Demo of dashboard
- Great equity background and working with real data
- Loved group sharing
- Small group and breakout conversations
- Slide and tech share, very useful to have the materials
- General overview and purpose/goal of the program make sense to me.
- Types of data collected
- Small group interactions
- Sharing without fear

02

What Could Be Improved?

- Location
- Time management, data dashboards felt a bit rushed
- Hands on data analysis
- The pace – lots of material
- More upfront practice with data retrieval
- Clarity in group project goals for effective time use
- More time to understand the data

03

Anything Else You Wish the Training Discussed?

- Types of research
- AI and data
- Examples of how data projects can be used to improve departments





Warm Up - Equity Metrics and Program Review Data Dashboard

With your group, open up the GWC Data Dashboard. Take a few minutes to explore the dashboard and look at the metrics, filters, etc. Which equity metric(s) relate to the following areas/groups?

1. Enrollment Services
2. Outreach (e.g., Campus life, Adult Education, CTE)
3. Transfer Center
4. Instruction overall
5. Mathematics & Engineering Department
6. English Department
7. Student Services overall
8. Student Services Programs (e.g., DSPS, EOPS, VRC)

[Equity Metrics Dashboard](#)
[Instruction Program Review Dashboard](#)






01

Technical Training

What do these terms mean
in the context of
education?



GWC Data Coaching: Identifying Equity Gaps



Table Of Contents

- Identifying Equity Gaps (PPG-1 Methodology)
- Group Activity



Identifying Equity Gaps:

Primary Group Disaggregations

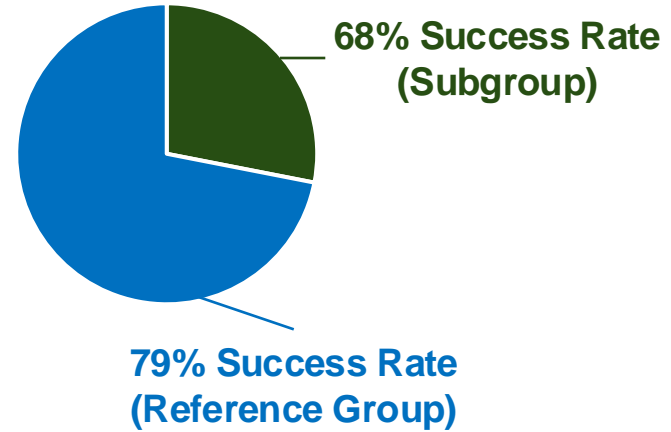


Equity Gaps

All Students



Subgroups



Percentage Point Gap Minus One (PPG-1) Methodology

$$\text{PPG-1} = \frac{\text{Subgroup Success Rate for Subgroup}}{\text{Reference Group Success Rate for Reference Group}} - (\text{minus})$$

Equity gaps are calculated in the PPG – 1 methodology by subtracting the performance of all students (excluding the subgroup), from the performance of the subgroup.

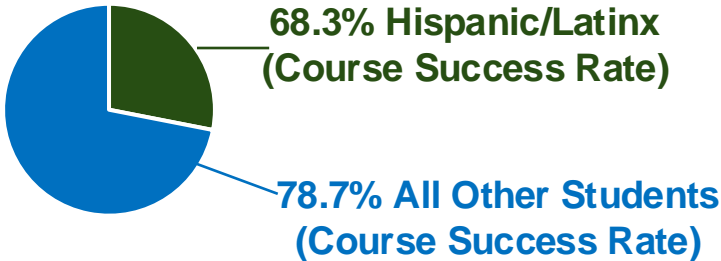


PPG-1 Calculation for Primary Subgroups

All Students



Primary Subgroup



PPG-1 = (Subgroup) - (minus) (Reference Group) =

Note: Example of PPG-1 calculation using primary disaggregation of Race/Ethnicity.

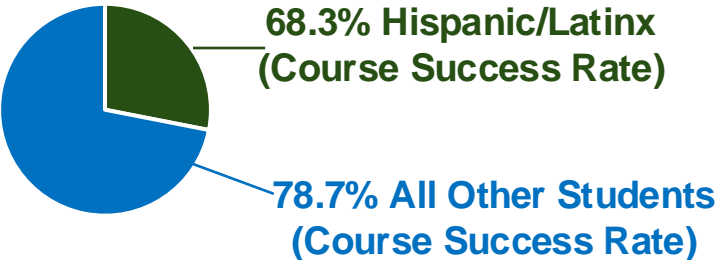


PPG-1 Calculation for Primary Subgroups

All Students



Primary Subgroup



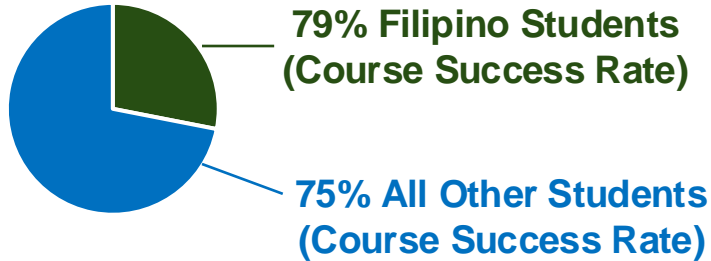
$$\text{PPG-1} = \begin{array}{c} 68.3\% \\ \text{Hispanic/Latinx} \\ \text{(Subgroup)} \end{array} \begin{array}{c} - \\ \text{(minus)} \end{array} \begin{array}{c} 78.7\% \\ \text{All Other Students} \\ \text{(Reference Group)} \end{array} = -10.4\%$$

Note: Example of PPG-1 calculation using primary disaggregation of Race/Ethnicity.



Example: PPG-1 Calculation for Primary Subgroups

Primary Subgroup



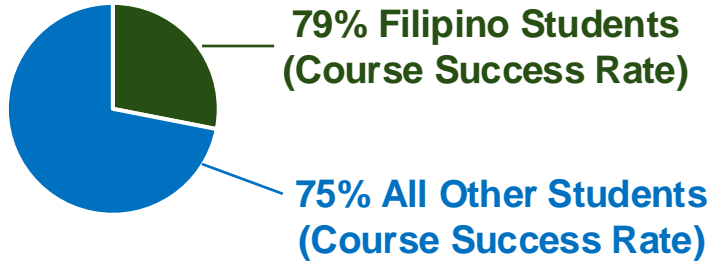
$$\text{PPG-1} = \frac{\text{(Subgroup)} - \text{(Reference Group)}}{\text{(Reference Group)}} = \%$$

Note: Example of PPG-1 calculation using primary disaggregation of Race/Ethnicity.



Example: PPG-1 Calculation for Primary Subgroups

Primary Subgroup



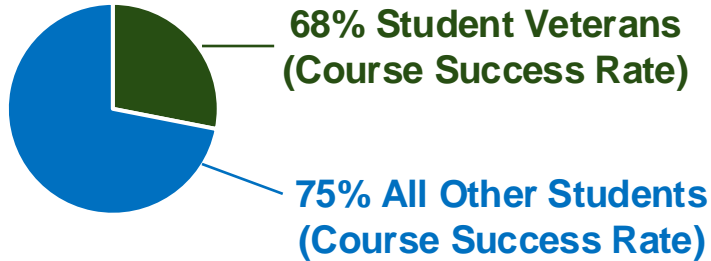
$$\text{PPG-1} = \begin{array}{c} \text{79\% Filipino} \\ \text{Students} \\ \text{(Subgroup)} \end{array} - \begin{array}{c} \text{(minus)} \end{array} \begin{array}{c} \text{75\%} \\ \text{All Other Students} \\ \text{(Reference Group)} \end{array} = 4\%$$

Note: Example of PPG-1 calculation using primary disaggregation of Race/Ethnicity.



Example: PPG-1 Calculation for Primary Subgroups

Primary Subgroup



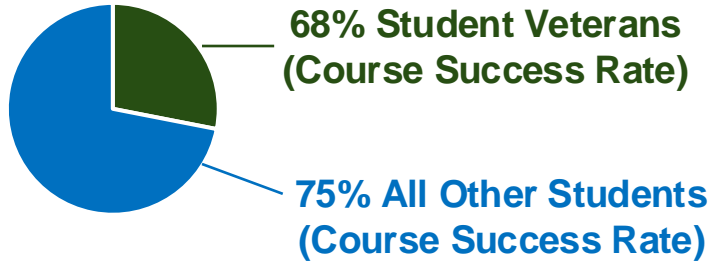
$$\text{PPG-1} = \frac{\text{(Subgroup)} - \text{(Reference Group)}}{\text{(Reference Group)}} = \%$$

Note: Example of PPG-1 calculation using primary disaggregation of special population.



Example: PPG-1 Calculation for Primary Subgroups

Primary Subgroup



$$\text{PPG-1} = \begin{array}{c} \text{68\% Student} \\ \text{Veterans} \\ \text{(Subgroup)} \end{array} - \begin{array}{c} \text{(minus)} \end{array} \begin{array}{c} \text{75\%} \\ \text{All Other Students} \\ \text{(Reference Group)} \end{array} = -7.8 \%$$

Note: Example of PPG-1 calculation using primary disaggregation of special population.



Large Group Check-in



Disproportionate Impact & Margin of Error



Disproportionate Impact (DI)

- DI occurs when a subset of students have observably different outcomes when compared to other students.
 - State methodology uses Margin of Error (MOE) to validate.



Margin of Error Formula

$$E = Z_{\alpha/2} \sqrt{\frac{\hat{p}\hat{q}}{n}}$$

p = subgroup success rate

q = 1 - p

n = sample size

95% Confidence Interval (Z=1.96)



Margin of Error (MOE) Test

$$PPG-1 \leq -E\%$$

If PPG-1 is lower or equal
to - MOE.



Subgroup is
disproportionally
impacted.

$$-E\% < PPG-1 < E\%$$

If PPG-1 is more than
- MOE but less than MOE.



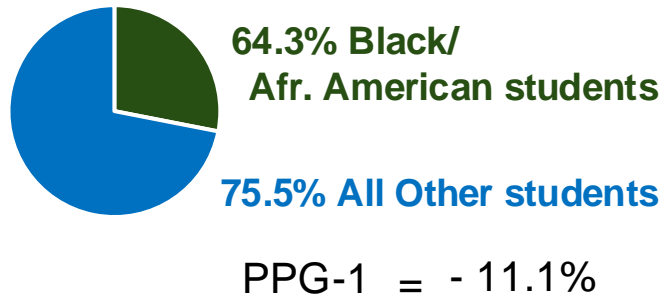
Subgroup is NOT
disproportionally
impacted.



Determining DI Status

First, we need to calculate PPG-1 and the margin of error.

Course Success Rate PPG-1:



Margin of Error:

$$E = Z_{\alpha/2} \sqrt{\frac{\hat{p}\hat{q}}{n}}$$

$$E = 2.6\%$$

$$\text{Negative } E = - 2.6\%$$

Determining DI Status

Then we identify the relationship between PPG-1 and -E (negative margin of error)

$$\begin{array}{c} -11.1\% \\ (\text{PPG} - 1) \end{array} \leq \begin{array}{c} -2.6\% \\ (-E) \end{array}$$

→ $PPG-1 \leq -E\%$



Black/African American
students are
disproportionally
impacted in course
success rates



Large Group Check-in



Persistence



Persistence Equity Gaps Table

2020-21 Academic Year

Subgroup	Unduplicated Headcount	Retained (Success)	Subgroup Avg.	Reference Group Avg.	PPG-1	MOE	DI
Asian (All)	498	383	76.9%	67.9%	9.0%	3.7%	No
Black/Afr. American (All)	48	31	64.6%	69.9%	-5.3%	13.5%	No
Foster Youth (All)	11	4	36.4%	70.0%	-33.6%	28.4%	Yes



Group Activity



Group Share Out





02

Fundamental Concepts

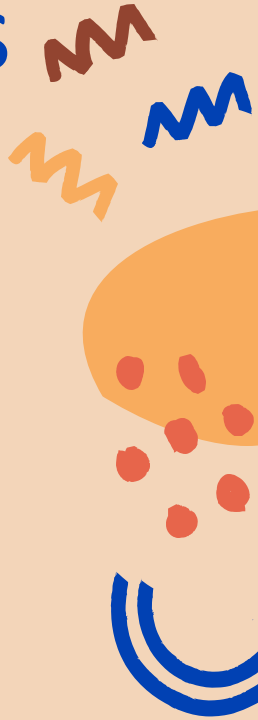


Fundamental Equity Concepts

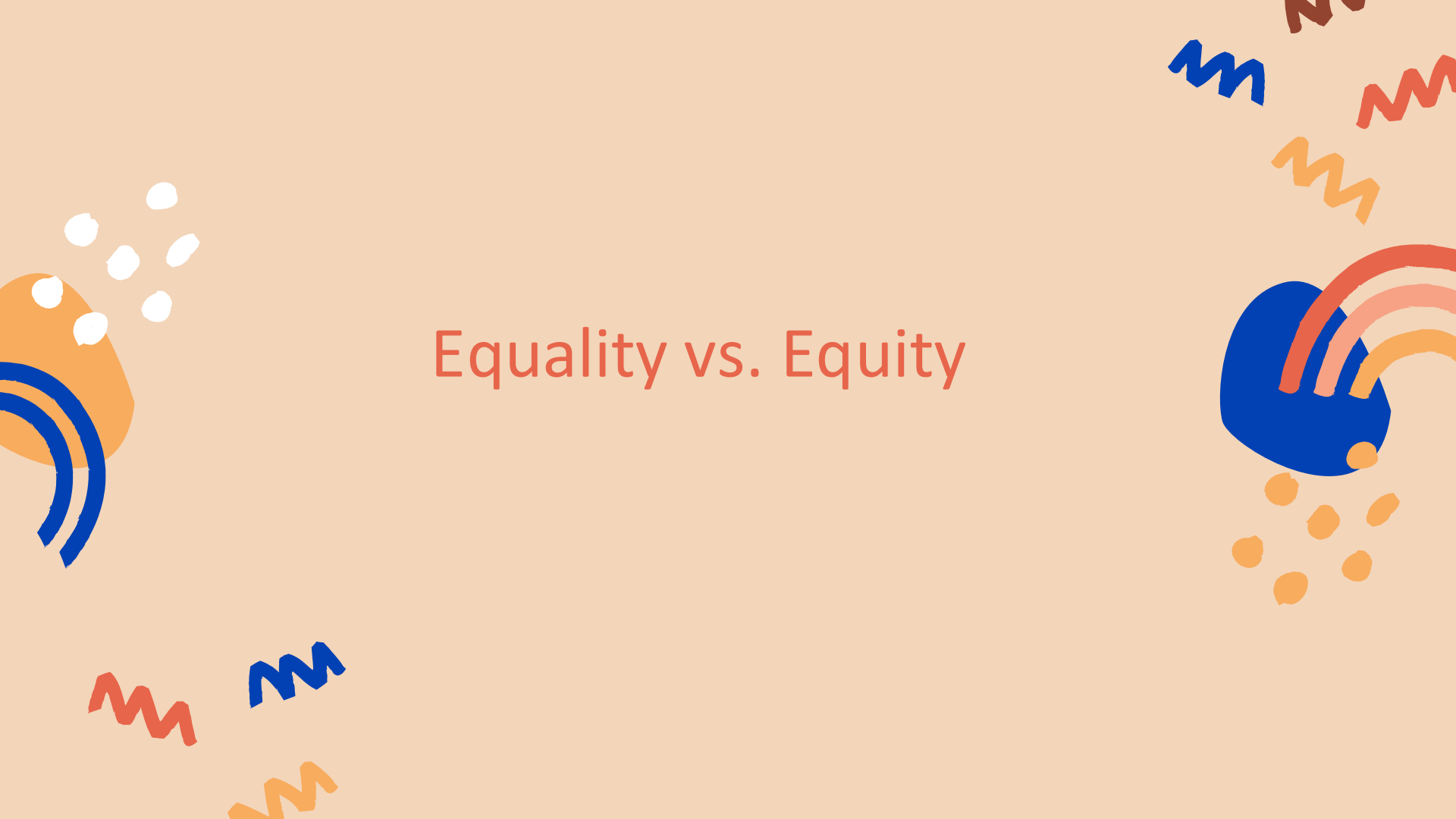
Equity vs. Equality

From Data Paradigm
to Inquiry Paradigm

The Whys



Equality vs. Equity



Equality

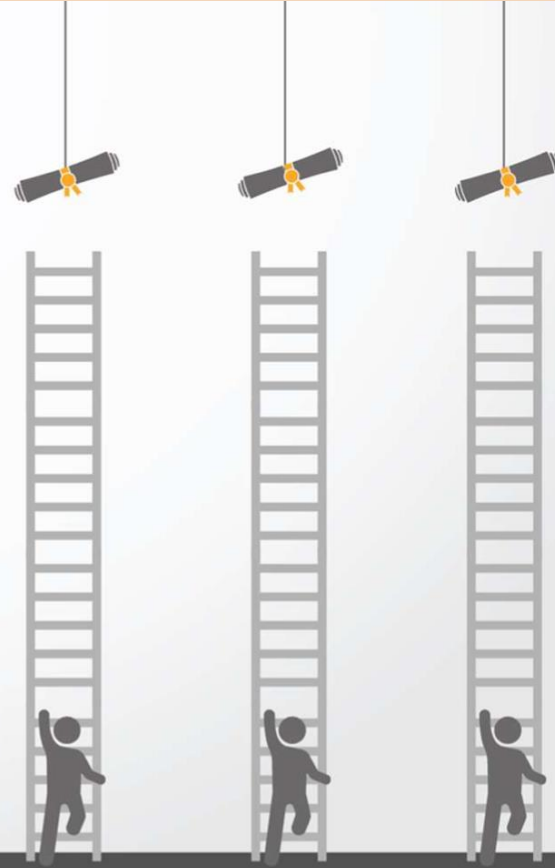
EQUALITY
imagines an
equal world.

*"I care about all
students equally"*



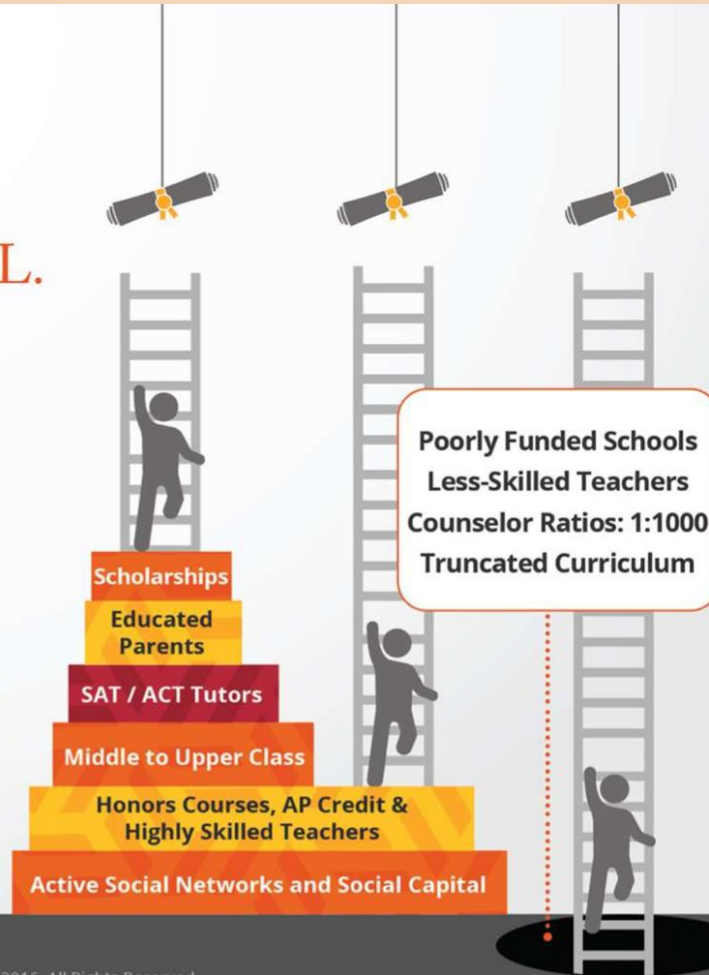
CENTER *for* URBAN
EDUCATION

Center for Urban Education. © Copyright 2016. All Rights Reserved.



Equity

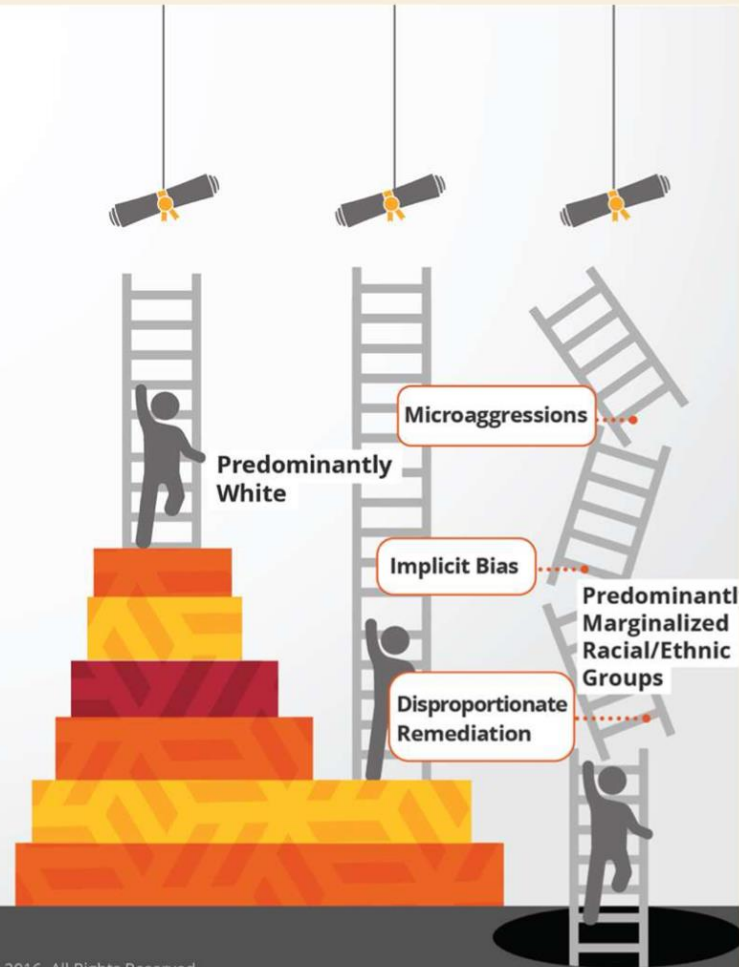
But the world
ISN'T EQUAL.



Equity

And it has
**BIAS AND
SYSTEMIC
RACISM.**


CENTER *for* URBAN
EDUCATION



Equity

Within this same picture, a
DIVERSITY
lens focuses only
on bringing more
students into an
unequal pathway.



Center for Urban Education. © Copyright 2016. All Rights Reserved.



Equity


In contrast, **EQUITY** redirects resources to the pathways with greatest need to fix barriers and intentionally provide support.







The Inquiry Paradigm

Are we asking the right
questions about the
data?






“If I had an hour to solve a problem, I’d spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”

—Albert Einstein

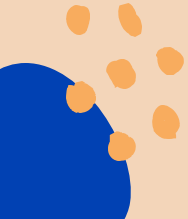


Paris Olympics: 2024 Medal Count

Order	NOCs				
1	 United States of America	40	44	42	126
2	 People's Republic of China	40	27	24	91
3	 Japan	20	12	13	45
4	 Australia	18	19	16	53
5	 France	16	26	22	64
6	 Netherlands	15	7	12	34
7	 Great Britain	14	22	29	65
8	 Republic of Korea	13	9	10	32



The metric “total golds” or “total medals” do not give us a roadmap of how to move up on the list and increase our medal count.



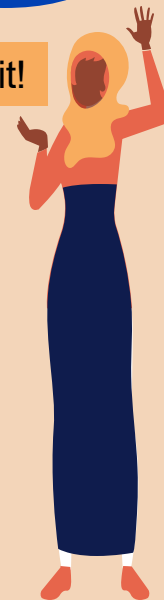
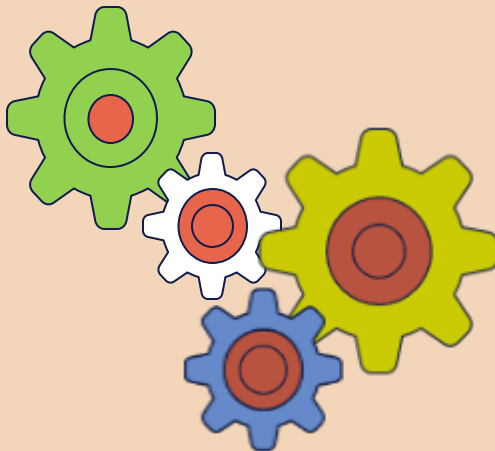
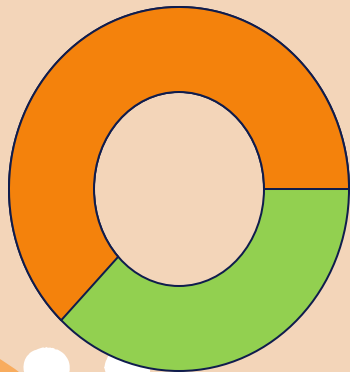
A GWC Data Story...

AB 705
Course
Success
Rate

Analysis

Quick
"solutions"

We've got it!



Large Group Discussion

- Does this story resonate with you?
- Have you experienced something similar?
- What further information would be helpful in that scenario?



Equity Inquiry Process/Paradigm

Evaluate

Assess impact of implemented solutions; was progress made on an outcome or metric?

04

01

Identify Issue

Analyze data; what gap or challenge are you trying to address for which students?

Act/Launch

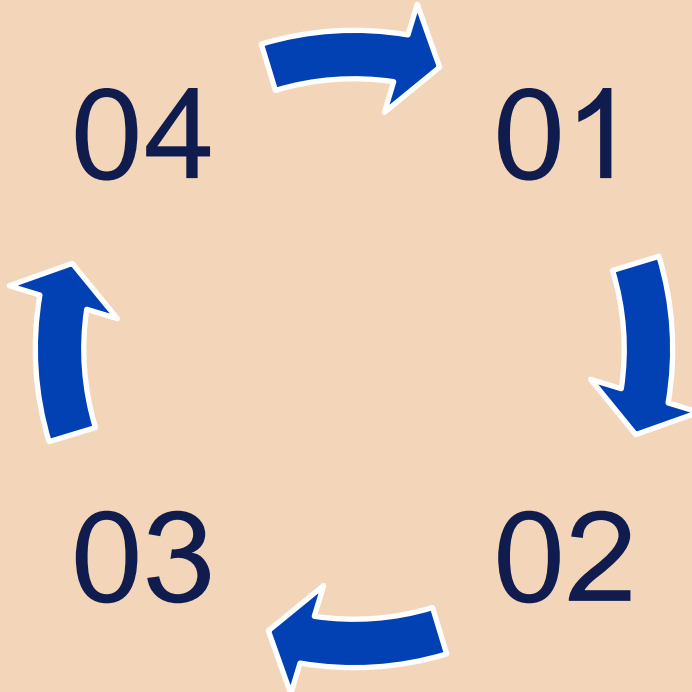
Develop data-informed solutions and implement for purposeful change

03

02

Gather Data

Formulate questions and gather additional data to understand the issue or diagnose root causes of gap





Leading and Lagging Indicators

“The terms **leading** and **lagging indicators** come from the fields of business and economics, which have long used them to predict economic trends. According to Investopedia, ‘An indicator is anything that can be used to predict future financial or economic trends.’ We can substitute student success or educational outcomes for what is being predicted.” – Phillips & Horowitz, p. 72

Leading Indicators: Directly actionable, monitored for a student, group of students, or cohort. Ex: attendance, course pass rates, course grades, term to term persistence.

Lagging Indicators: The BIG goals, typical accountability measures. Affected by leading indicators. Ex: degree and certificate attainment, transfer rates



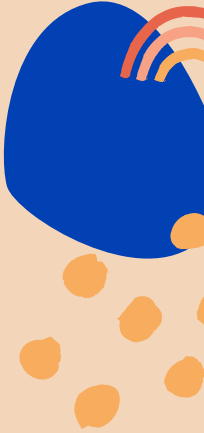
Leading and Lagging Indicators AB 705 Example



Data: AB 705 Course Data

Leading Indicators: Course attendance, drop rates, tutoring attendance, grades in courses

Lagging Indicators: Successful completion of transfer level English and math within the first year.



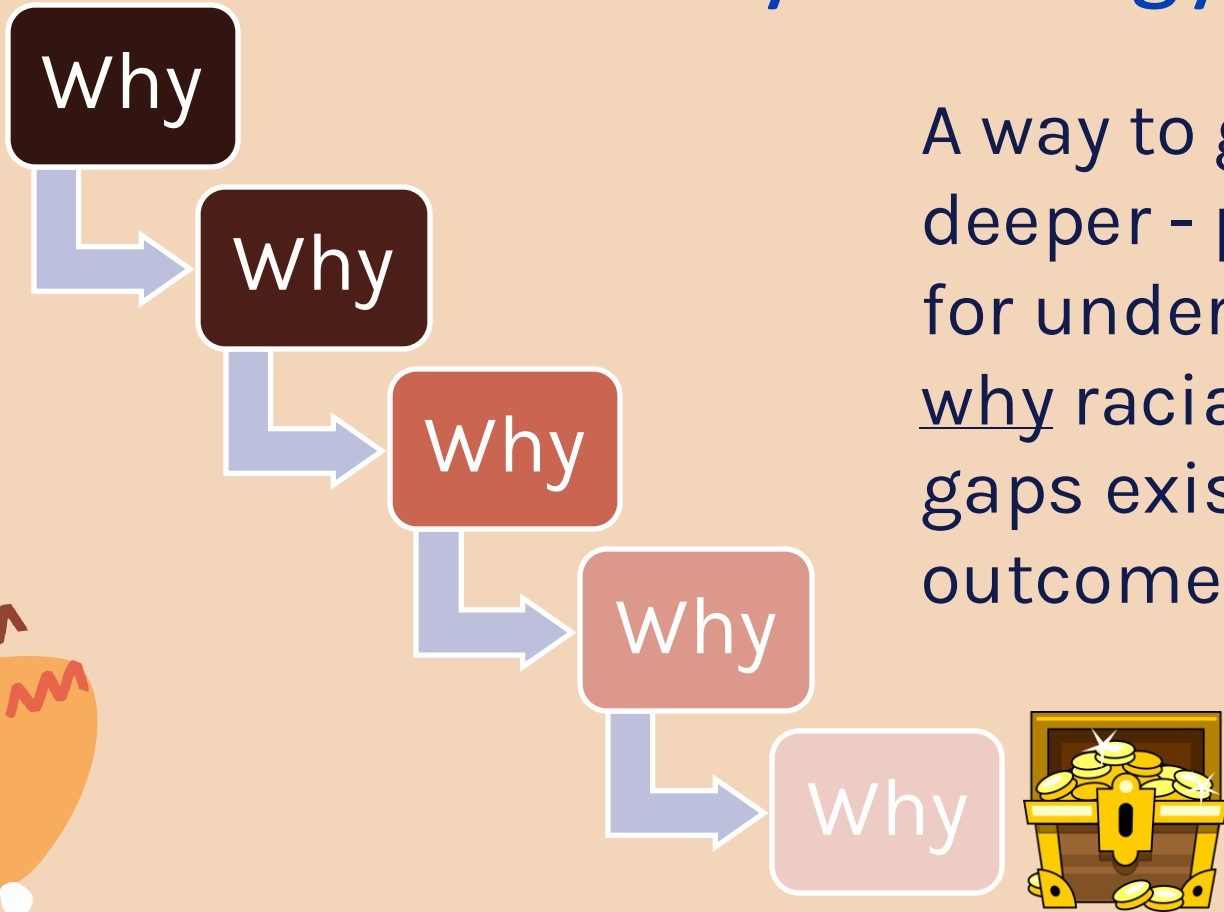
Inquiry Strategy: The Whys

A process for
understanding why racial
equity gaps exist



The Whys Strategy

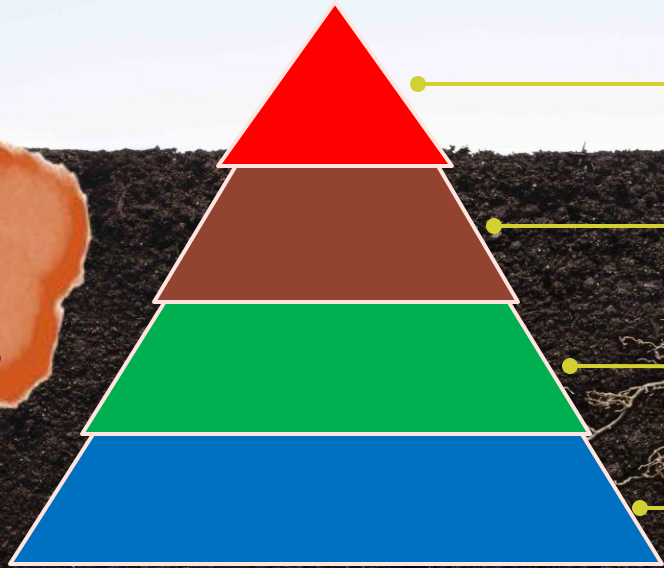
A way to go deeper - process for understanding why racial equity gaps exists for an outcome.



The problem needing to be addressed:

The lawn was not mowed

And why is that happening?



The motor isn't running

The motor was run without oil

The engine has a leak, and the oil ran out

I did not check the oil level each time I used the motor

The problem needing to be addressed:

GWC is producing gaps for Black students in terms of Vision Completion Goal

And why is that happening?



Students feel directionless or unmotivated to continue studies

They aren't clear on field of study

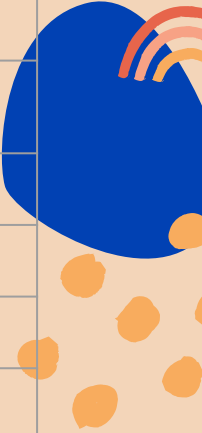
Black students are less likely to hear about career opportunities in class

GWC culture is such that faculty don't feel responsible for (inclusive) career advising

Large Group Example: The Whys

Latinx students complete transfer level English at lower rates than other racial/ethnic groups.

Why?	Latinx students are not passing English 100 or 100s on their first attempt
Why?	
Why?	
Why?	
Why?	
Leading Indicators	
Lagging Indicators	





04

Data Exploration for Equitable Programs Example

Small Group Discussion

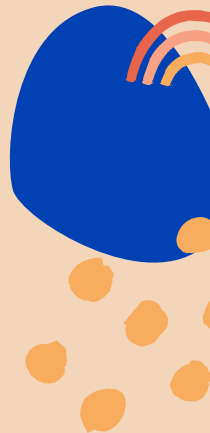
After an initial review of a Sample DEEP Project, please discuss the below questions in your small group:

- What are your initial reactions to this project?
- What do you notice?
- When you think about your department, do you have an initial thoughts about any opportunities and/or DI gaps you experience?
- Any other thoughts?

We will share out!



Exit Ticket



The background is a solid light orange color. It is decorated with several stylized elements: a rainbow on the left with an orange semi-circle and blue wavy lines; a rainbow on the right with a blue semi-circle and orange, pink, and yellow wavy lines; and several small white and orange dots scattered around. In the center, there is a large white oval containing the text "Thank You!".

Thank You!

Next Training: October 27th 10 am – 12 pm

In person

Math Science 155