



Addressing Equity through Action Research

TUESDAY JULY 27TH, 2021

PART 1

Check In



- **All:** Share in chat
- **Some:** Consider sharing out
- First Name/Last Name/School System
 1. What are 3 values you associate with equity
 2. How are these values reflected in your actions
 3. Can you describe a time when you could see your values reflected in your actions?



Agenda

By the end of this meeting, the following outcomes will have been met.

- Explore data and identify equity gaps in participation and completion
- Identify 1 school/program on which to focus recruitment/retention efforts
- Share research related to root causes for nontraditional career exploration
- Draft a hypothesis for why equity gaps are occurring



Homework

- Review PQI & MDCTE
- Complete Organize; Explore Phase
 - Send One Drive
 - Baseline Data/SMART Goal in advance (Consider Perkins Plan)

Wednesday July 27th, 2021

8:15 – 10:40 a.m.

Topic	Person Responsible	Time Frame
Part 1: Organize & Explore		
Check-In: Introduction and Values	All	8:15 – 8:25 a.m.
Purpose and Overview for Bringing NAPE to BCPS	Douglas Handy and Michael Grubbs	8:25 a.m. – 8:35 a.m.
Core Values Strategies for Special Populations Success Discussion	Douglas Handy	8:35 – 8:50 a.m.
Program Orientation and PIPE Overview	Michael Grubbs/Douglas Handy	8:50 a.m. – 9:00 a.m.
Data: Identify Equity Gaps in Participation and Completion	Michael Grubbs and Douglas Handy	9:00 a.m. – 9:15 a.m.
Explore: Investigate Data and Solidify SMART Goal	All Attendees	9:15 a.m. – 9:45 a.m.
Check In: Summarize Insights of Data	All Attendees	9:45 a.m. – 10:00 a.m.
Consider Reasons for Underrepresentation	All	10:00 a.m. – 10:20 a.m.
Share Out: Draft Hypothesis		10:20 a.m. – 10:35 a.m.
Next Steps	All	10:35 -10:40 a.m.



Protocol



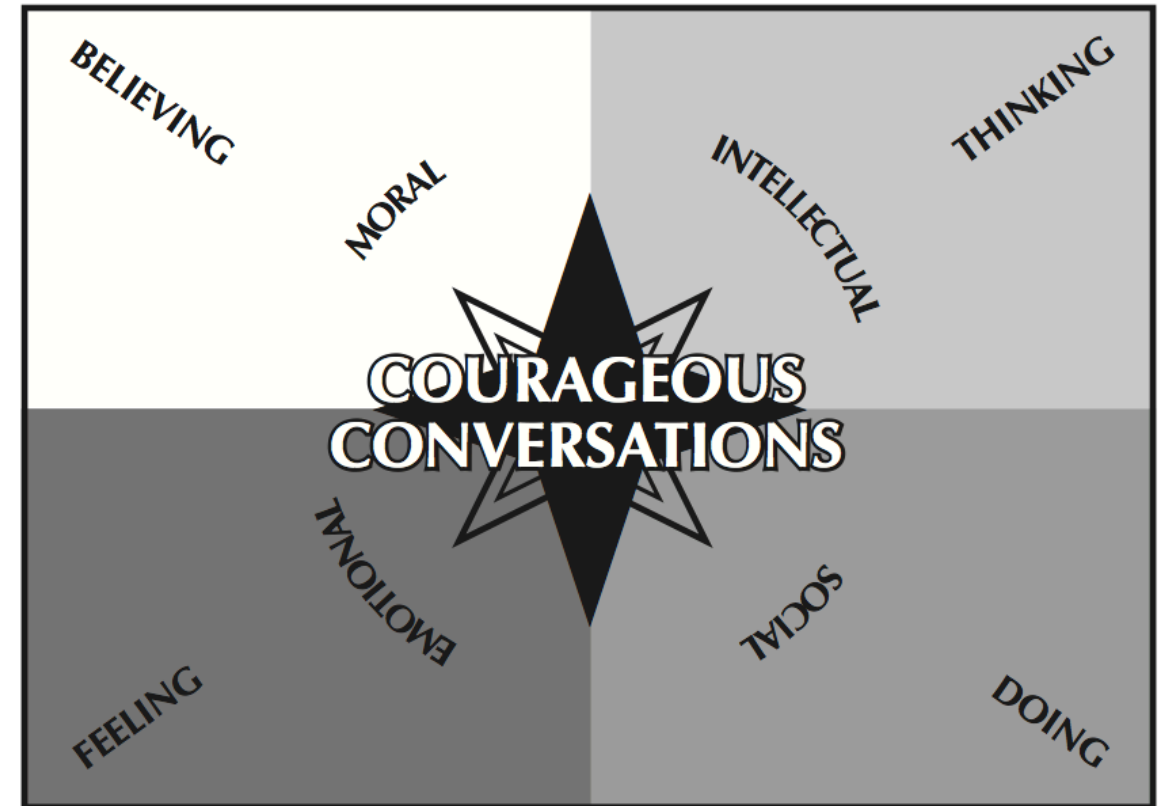
COURAGEOUS CONVERSATION

FOUR AGREEMENTS

1. Stay Engaged
2. Experience Discomfort
3. Speak Your Truth
4. Expect/Accept Non-Closure

SIX CONDITIONS

1. Focus on Personal, Local, and Immediate
2. Isolate Race
3. Normalize Social Construction and Multiple Perspectives
4. Monitor Agreements and Conditions and Establish Parameters
5. Use a "Working Definition" for Race
6. Examine the Presence and Role of "Whiteness"



Purpose and Overview: Bringing NAPE to BCPS

Timeline	2017-2018: Cohort #1 (NAPE)	In-Person, during the school day
		Hybrid of apply/recommendations
	2018-2019: Cohort #2 (NAPE)	School/Team approach
		3 schools prioritized
	2019-2020: Cohort #3 (CTE)	Teams approach continued
		Open to participate
		Evenings
Additional Groups		ESOL/World Languages
		BCPS Academics Offices

Examples and Success

The P-TECH school-within-a-school at Dundalk High School focused on increasing female students, particularly of color, enrollment:

- female student enrollment from 31.7% (19/60) to 40% (24/60)
- female student of color enrollment from 10.5% (2/19) to 20.8% (5/24)
- Female student applicants (an important statistic because magnet schools go to lottery if they exceed capacity) from 40% to 43%

Patapsco High School focused on reducing over-representation of students with IEPs in Advanced Tech by focusing on ensuring that students were enrolled in a pathway in 9th grade:

- 9th graders enrolled in Foundations of Engineering increased from 20% to 48% to allow for advanced career preparation throughout HS experience

Milford Mill Academy focused on increasing female student enrollment in Construction Management:

- female student enrollment increased from 2 students to 9 students

Core Values

Review Strategies for Special Populations Success

Introduce the PIPE Process as a model for systemic improvement

Analyze existing data

Identify equity gaps in participation and completion of student groups

Program Orientation and PIPE Overview

WHY	Based on a review Data 1. NAPE Special Populations 2. Participation & Completion Data
WHAT	Discuss PIPE process
HOW	Apply the PIPE process

Program Orientation and PIPE Overview

What is NAPE?

What is Equity?

What is PIPE?

Program Details and One Drive
Access?

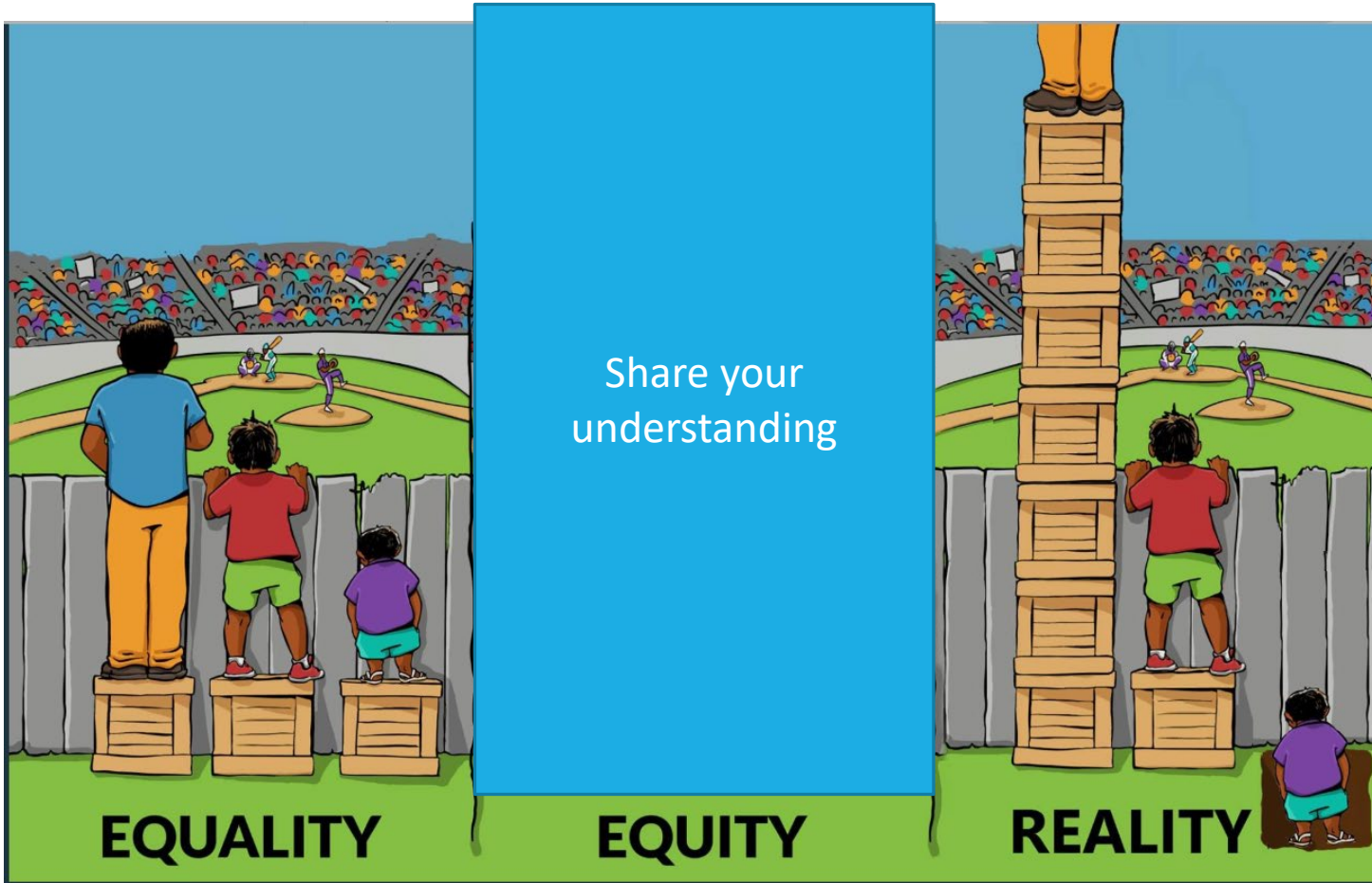
National Alliance for Partnerships in Equity (NAPE)

NAPE Mission: Build **educators' capacity** to implement **effective** solutions for **increasing** student **access, educational equity,** and **workforce diversity**

Equity

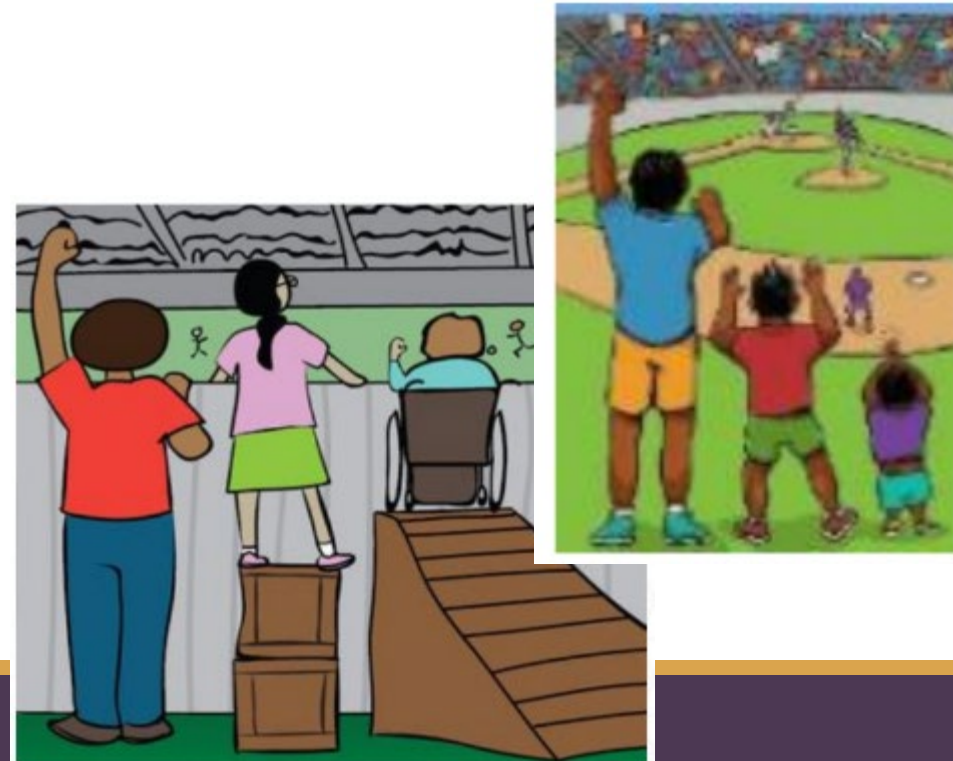
Access

Diversity

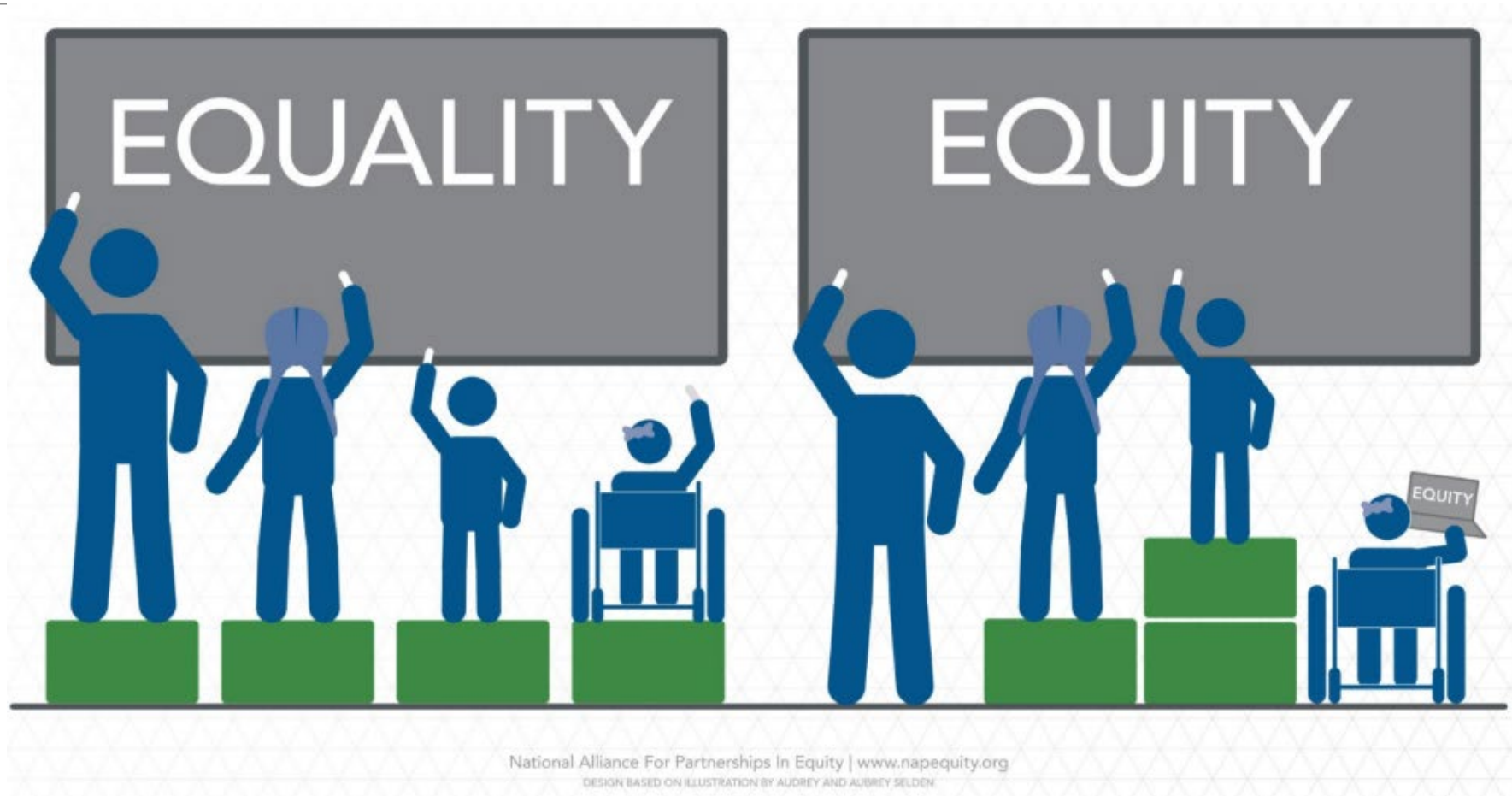


What reflects your understanding of equity?

What are examples in CTE?



Equity is when every student has what they need to succeed.





Program Improvement
Process for Equity™

N A P E
National Alliance for
Partnerships in Equity

National Alliance for Partnerships in Equity | 91 Newport Pike, Suite 302 | Gap, PA 17527 | 717.407.5118 | nape@napequity.org
www.napequity.org | NAPEquity | @NAPEquity | NAPEquityTV

Program Improvement Process for Equity (PIPE)

The goal of PIPE is to increase the **participation, persistence, and program completion** of diverse students in career preparation programs.



Session 1 (8 hours reduced to 4)

- Orientation
- Explore

Session 2 (8 hours reduced to 4)

- Discover/Root Cause Analyses
- Action Research Planning and Next Steps

Session 3 (8 hours reduced to 4)

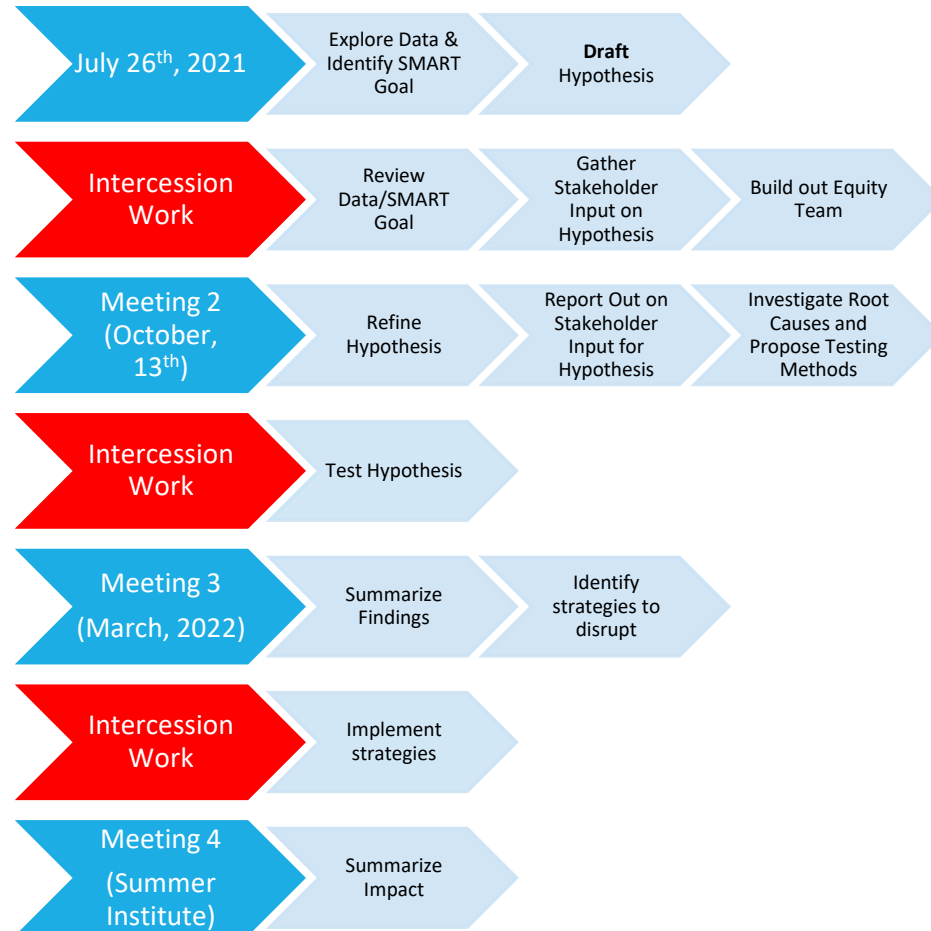
- Select & Act

Session 4 (8 hours reduced to 4)

- Showcase

PIPE
Timeline

Summary of Our Process



What is the problem?

Why do we **believe** this is this happening?

What can we do about it?

Did it work?

DO NOT SOLVE!



Organize

Access Site

List Institution

Academic Year

Team Coordinator

Team Members



EXPLORE

Analyze the data and explore differences

Identify participation and completion gaps



Team Setup

- BEFORE WE JUMP INTO THE EXPLORE PHASE/DATA REVIEW:
 - **FORM A TEAM:** INDIVIDUALLY OR AS A SCHOOL SYSTEM
 - CONSIDER ADDITIONAL TEAM MEMBERS (SCHOOL COUNSELORS; TEACHERS)
 - ACCESS ONE DRIVE: https://bcpscloud-my.sharepoint.com/:f/g/personal/mgrubbs_bcps_org/Euq102KuzRRLoWO8xV4GhLcBhmKGLAjj4OwrlzKBHYptjg?e=glDqXq
 - CREATE A FOLDER FOR YOUR TEAM/SYSTEM
 - **COPY** THE FOLDER: PIPE PLANS AND RENAME TO YOUR SCHOOL SYSTEM

My files > Equity - MCTA

📁 Name ▾

📁 PIPE Plans

📁 Training Resources

PIPE

Program Improvement Process for Equity™



Implementation Plan and Report

Institution:

Academic Year:

Team Coordinator:

Team Members:

Explore Results

This class/program will be the focus to close participation or achievement gaps and the goal to close those gaps

Program

Underrepresented student group

Baseline data (e.g., 3/35 (8.6%) female students in Engineering Technology)

PIPE Template

Implement solutions

Document performance results

CENTRAL OFFICE

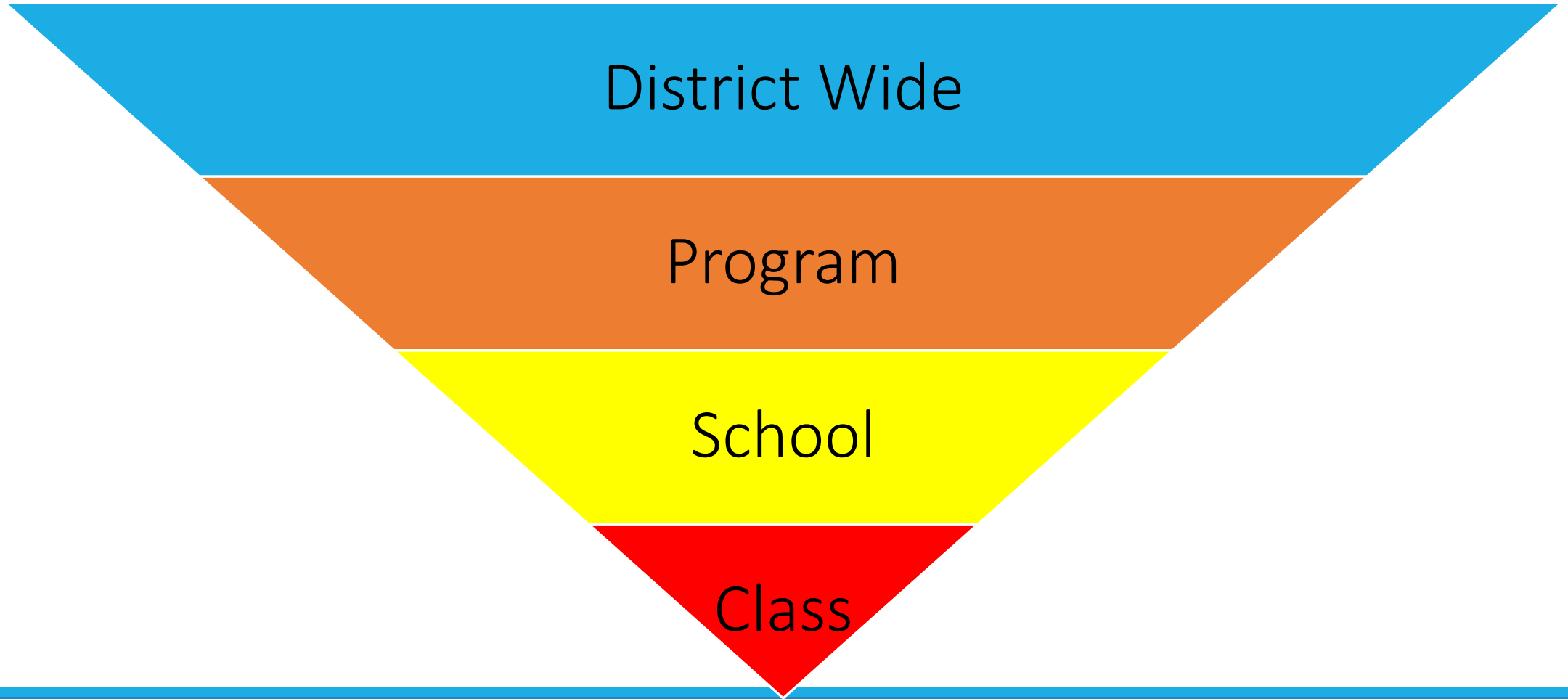
upgraded BCPS INFORM.



Data



Data

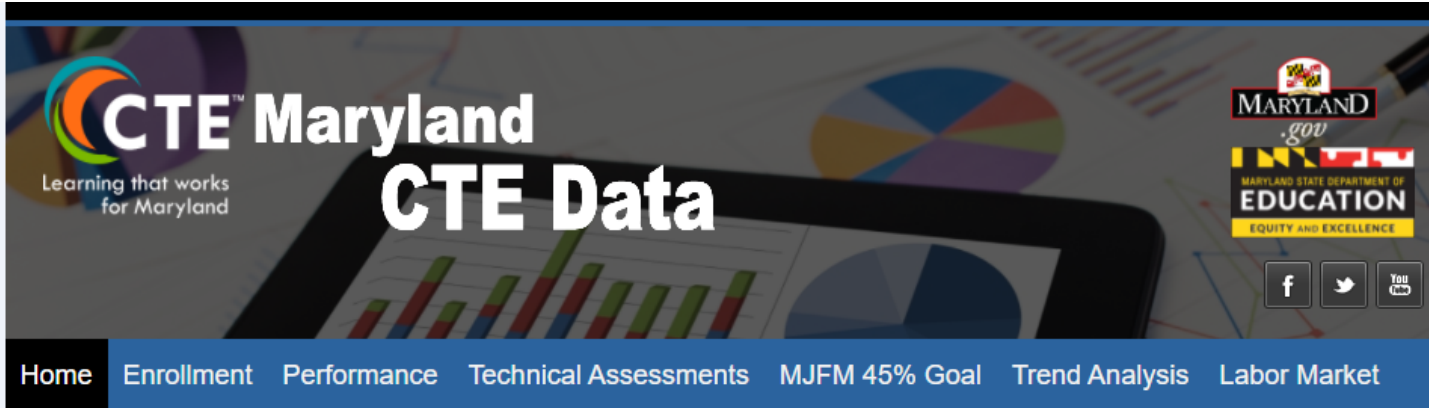


BCPS Example

Sheet Name	School Year	Name of School	Level	Native American	Asian	Black	Hawaiian	White	Hispanic	Multi Racial	All Race Categories	Disabled	Economically Disadvantaged	Limited English Proficient
All Students	2018-2019	School A	Both Genders	4	58	348	2	423	56	42	933	103	173	0
All Students	2018-2019	School A	Male	1	17	82	1	135	22	13	271	40	46	0
All Students	2018-2019	School A	Female	3	41	266	1	288	34	29	662	63	127	0
All Students	2018-2019	School B	Both Genders	1	1	50	0	5	4	3	64	32	47	2
All Students	2018-2019	School B	Male	0	1	30	0	5	3	1	40	21	27	2
All Students	2018-2019	School B	Female	1	0	20	0	0	1	2	24	11	20	0

Sheet Name	School Year	Name of School	Program	Level	Native American	Asian	Black	Hawaiian	White	Hispanic	Multi Racial	All Race Categories	Disabled	Economically Disadvantaged	Limited English Proficient
Participation	2018-2019	School A	Overall	Both Genders	1	25	112	2	149	28	16	333	53	74	0
Participation	2018-2019	School A	Overall	Male	1	15	41	1	90	14	8	170	35	32	0
Participation	2018-2019	School A	Overall	Female	0	10	71	1	59	14	8	163	18	42	0
Participation	2018-2019	School A	Careers in Cosmetology - 120450	Both Genders	0	2	31	0	10	3	2	48	6	18	0
Participation	2018-2019	School A	Careers in Cosmetology - 120450	Male	0	1	0	0	0	0	0	1	0	0	0
Participation	2018-2019	School A	Careers in Cosmetology - 120450	Female	0	1	31	0	10	3	2	47	6	18	0

Sheet Name	School Year	Name of School	Program	Level	Native American	Asian	Black	Hawaiian	White	Hispanic	Multi Racial	All Race Categories	Disabled	Economically Disadvantaged
Completion	2017-2018	School A	Overall	Both Genders	0	4	38	1	67	3	5	118	21	23
Completion	2017-2018	School A	Overall	Male	0	2	22	0	36	2	1	63	12	9
Completion	2017-2018	School A	Overall	Female	0	2	16	1	31	1	4	55	9	14
Completion	2017-2018	School A	Career Research and Development - 860000	Both Genders	0	1	21	0	17	1	2	42	9	11
Completion	2017-2018	School A	Career Research and Development - 860000	Male	0	1	12	0	11	0	0	24	7	6
Completion	2017-2018	School A	Career Research and Development - 860000	Female	0	0	9	0	6	1	2	18	2	5



Data to Consider

Don't start from scratch!

Consider your Perkins Local Application

Data Resources

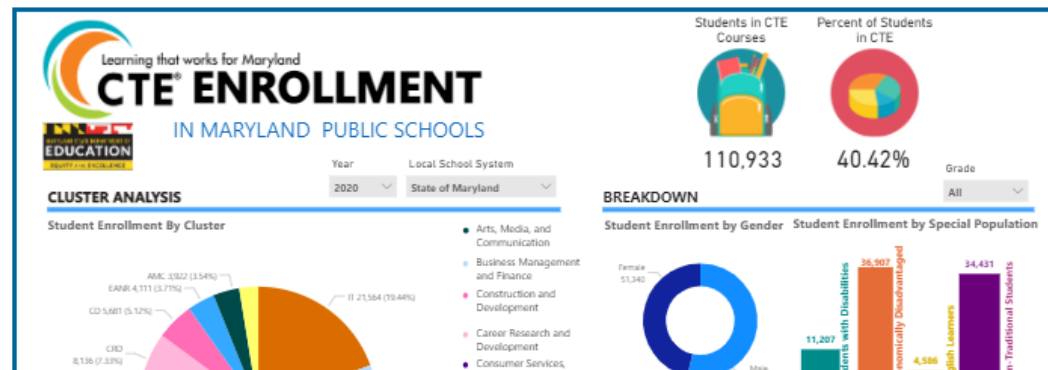
- [Approved CTE Programs in Maryland](#)
- [Non-Traditional Program List](#)
- [CTE Data Reporting Guidance Manuals and Webinars *NEW 2021 Secondary Data Manual now available](#)
- [CTE Data Dashboards Guidance and Webinars](#)

CTE Resources

- [Maryland CTE Programs of Study](#)
- [CTE Accountability and Improvement](#)
- [CTE Comprehensive Local Needs](#)

Career and Technical Education (CTE) Enrollment in Maryland Public Schools and Community Colleges

CTE Enrollment Dashboards for Maryland Public Schools and Community Colleges disaggregate secondary and postsecondary CTE student data by career cluster, gender, race, and special population group. The CTE Enrollment in Maryland Public School Dashboard provides an analysis of CTE courses taken by students. The CTE Enrollment in Maryland Community Colleges Dashboard provides an analysis of CTE programs taken by students. These dashboards establish a foundation for school systems and community colleges to make data-informed decisions that drive continuous improvement in CTE.



District ↔ School

School Data

RACE	Total %	Total Number
AM		
AS		
BL		
HI		
MU		
PI		
WH		
Total		
GENDER	Total %	Total Number
Female		
Male		
Total		
ELL		

How does participation, achievement, completion of my respective area compare?

RACE	Total %	Total Number
AM		
AS		
BL		
HI		
MU		
PI		
WH		
Total		
GENDER	Total %	Total Number
Female		
Male		
Total		
ELL		

Activity: Data Comparison

- Suggestions
 - Examine at granular level
 - Compare against school/district population

Data: Identify Equity Gaps in Participation and Completion

Purpose/Objective:

- Identify 1-3 priorities (programs/student groups) on which to focus your recruitment/retention/achievement efforts

Instructions

1. Use the **MD CTE Data** dashboard (MDCTEDATA.org)
2. Disaggregate by student groups.
3. Identify equity gaps in participation and completion
 1. Do the baseline math for institution: % by race, % by gender, % with IEPs, % econ disadvantaged.
4. Capture observations on flip chart/Data Comparison document
5. Analysis: Select 1-3 programs then look at Gender, Race/Ethnicity, Disability, Econ Disadvantaged. First Participation, then Completion
6. Identify at least one school/program to focus your efforts

Participation Gaps

Gender | Race | Spec.

Completion Gaps

Gender | Race | Spec.

Achievement Gaps

Gender | Race | Spec.

Reasons for Underrepresentation

Brainstorm: Why do you think students are under, or over, represented in your identified programs(s)?
Discuss: What do you notice? Wonder? What might be missing?

Work-
Independently:
30 minutes

Organize

As a team, we will work together to improve equity, access, and diversity.

Content Office	Career and Technical Education
Academic Year	2019-2020
Team Coordinator	Michael Grubbs
Team Members	Robin Bowden, Kara Lynch, MiVida Parham, Alicia Fales, Ruth Akers, Val Brennan, Amanda Lattimore, Michael Bennett

Explore

This course, class, or program will be the focus of our efforts to close participation or achievement gaps.

School/Course* (<i>*if applicable</i>).	Sollers Point Technical HS
Under/Overrepresented student group	Special Populations
Baseline data (<i>e.g., 3/35 or 8.6% female students in Engineering Technology</i>)	5% or 19 special education students in Career and Technical Education programs of study.
SMART Goal (<i>e.g., increase female student enrollment in Electronic Engineering Technology 1 from the current 8.6% to 15.0% by the next year</i>)	Increase special education enrollment in Career and Technical Education from the current 5% to 10% by next school year.

Explore:
Summarize
Insights & Next
Steps



Discuss: what did you notice?
Wonder?



What other data might be relevant?



What student
group/school/program/teacher are
you beginning to focus on? Why?

Preview: Reasons for Underrepresentation

Cohort #1: Project Lead The Way (PLTW) had the same challenge at 2 different schools (Southeast Baltimore vs Southwest Baltimore) Both programs had lack of females, specifically black females entering the program. Although the data was comparable; the hypothesis (proposed) was the same; the results/findings were different (resulting in different strategies).

Hypothesis: Females of color do not complete the PLTW Engineering program because they perceive the subsequent course work as too challenging.

School A: Accepted: Students were choosing to not complete PLTW engineering as a result of perceived challenges in coursework.

School B: Rejected: Students were not choosing the program as a result of continuing with a teacher.

Draft a Hypothesis

Take minutes to create a draft hypothesis in your PIPE template

Trust your belief

Write in singular/plural first person:

- I believe that
- We believe that

Identify race, gender, special populations

Identify the reason it is occurring

	Hypothesis <i>(Why is this happening?)</i>
1	We believe that black female students do not participate in Project Lead the Way Engineering because their friends do not express interest.
2	We believe that white males do not participate in Cosmetology because their parents have influenced their decision.

Share Out Draft Hypothesis



Why is this happening?



Who is being impacted?



What additional stakeholders may I need to join my team?



Thank You!

Questions and Next Steps

Doug/Mike will schedule a time to review your PIPE plan

Consider additional team members (1-4)

Gather input on your hypothesis

“Never doubt that a small group of thoughtful
committed people can change the world.
Indeed, it is the only thing that ever has.”

Margaret Mead





Part 2

Thursday October 28th, 2021

Goals for Part # 2

- Apply the PIPE Process as a model for institutional improvement
- Review research related to root causes of equity gaps in participation and completion of student groups
- Identify possible root causes of your selected program's gaps
- Plan to collect additional information between now and meeting #3
- Consider how this work relates to your content area needs/how to scale up

Agenda

Part 2: Discover		
Check In Review Part 1	Michael Grubbs/Douglas Handy	1:00 – 1:15 p.m.
Commit to Explore Phase	All	1:15 p.m. – 1:45 p.m.
Introduce Discover Phase	Michael Grubbs	1:45 p.m. – 2:00 p.m.
Examine/Search Root Causes	All	2:00 p.m. – 2:30 p.m.
Prioritize Root Causes, Hypotheses (Fishbone)	All	2:30-3:00 p.m.
Report Out (Virtual Gallery Walk)	All	3:00 p.m. – 3:15 p.m.
Team Break Out: <ul style="list-style-type: none">Finalize PIPE DocumentationConfirm Testing for Hypothesis	All	3:15 – 3:30 p.m.
Wrap-Up, Next Steps, and Evaluation <ul style="list-style-type: none">Identify Meeting Dates/Times	All	3:30 p.m.

Commit to Explore Phase Work- Independently: 30 minutes

Organize

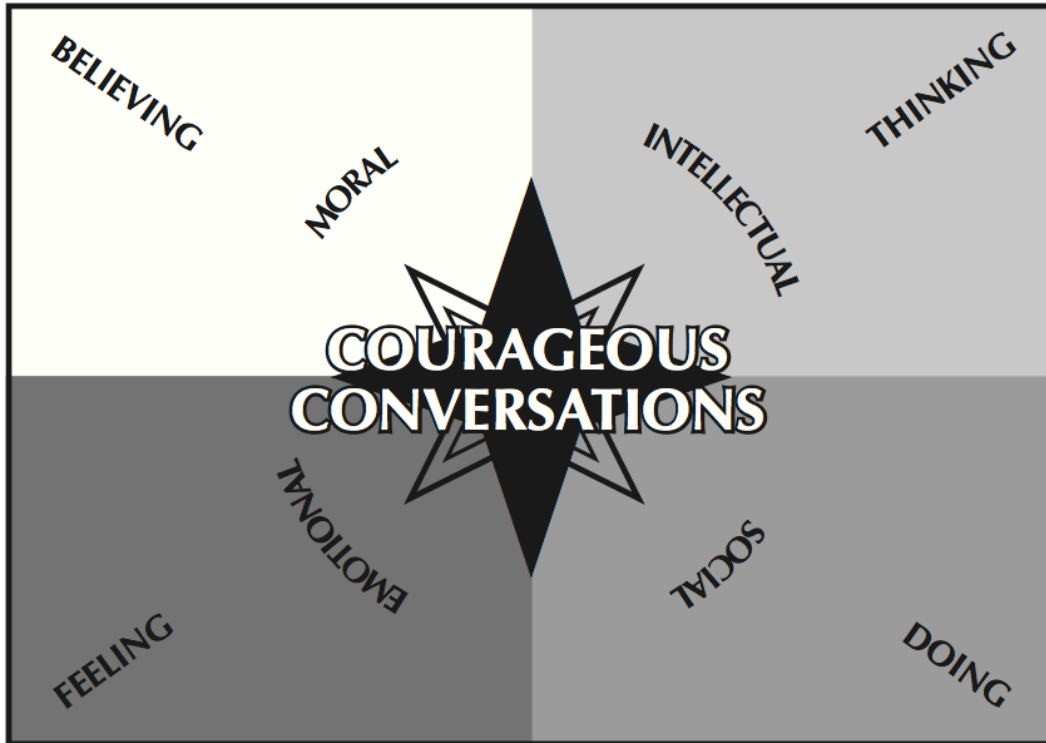
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Program Improvement Process for Equity

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Session 1

- Orientation
- Explore

Session 2

- Discover/Root Cause Analyses
- Action Research Planning and Next Steps

Session 3

- Select & Act in March 2022?

Session 4

- Showcase in July, 2022

PIPE
Timeline



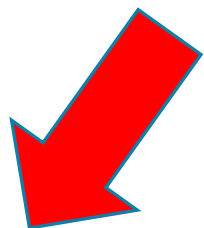
DISCOVER

Review research on Root Causes

Develop a hypothesis

Test Hypotheses with action research

Validate the Root Causes of the gaps



Record on your
PIPE plan!

Discover

Considering the program and gap chosen as our focus, and the research on root causes and barriers that underrepresented students experience, we believe the following hypotheses to be true. Through collecting additional information, we will test these hypotheses.

	Hypothesis	Test (Additional information)	Results
1			
2			

What you'll do

Understand Research

- What do you expect to see?

Identify Root Causes

- How do you develop hypotheses about gaps?

Prioritize and Plan

- What strategies are your using?

Why search for root causes?

- Keep us from fixating on a prescribed strategy for all student groups/schools**
 - What causes or permits the student group gaps?
 - What are the direct causes within your control?

Summary of the Research

**Education – Calvert, Washington,
Worcester, Montgomery, Kent**

**Career Information - Charles,
Baltimore City, Talbot, Anne
Arundel**

**Family – Howard, Wicomico,
Allegany, Queen Anne's**

**Internal/Individual – Frederick,
Somerset, Garrett, Cecil**

**Societal Issues – Carroll, Caroline,
Prince George's, Harford**



Nontraditional Career Preparation
ROOT CAUSES & STRATEGIES



National Alliance for Partnerships in Equity | 91 Newport Pike, Suite 302 | Gap, PA 17527 | 717.407.5118 | nape@napequity.org

www.napequity.org www.facebook.com/napequity www.youtube.com/NAPEquityTV

Root Cause Examples

Internal/Individual

Stereotype Threat

- Achievement is positively influenced by the reduction in stereotype threat.

Societal Issues

Role Models/Mentoring

- A mentoring relationship with a role model of the same gender/race, especially one who blends career and non-career activities well, is a significant factor in a student's decision to pursue a nontraditional career.

Education

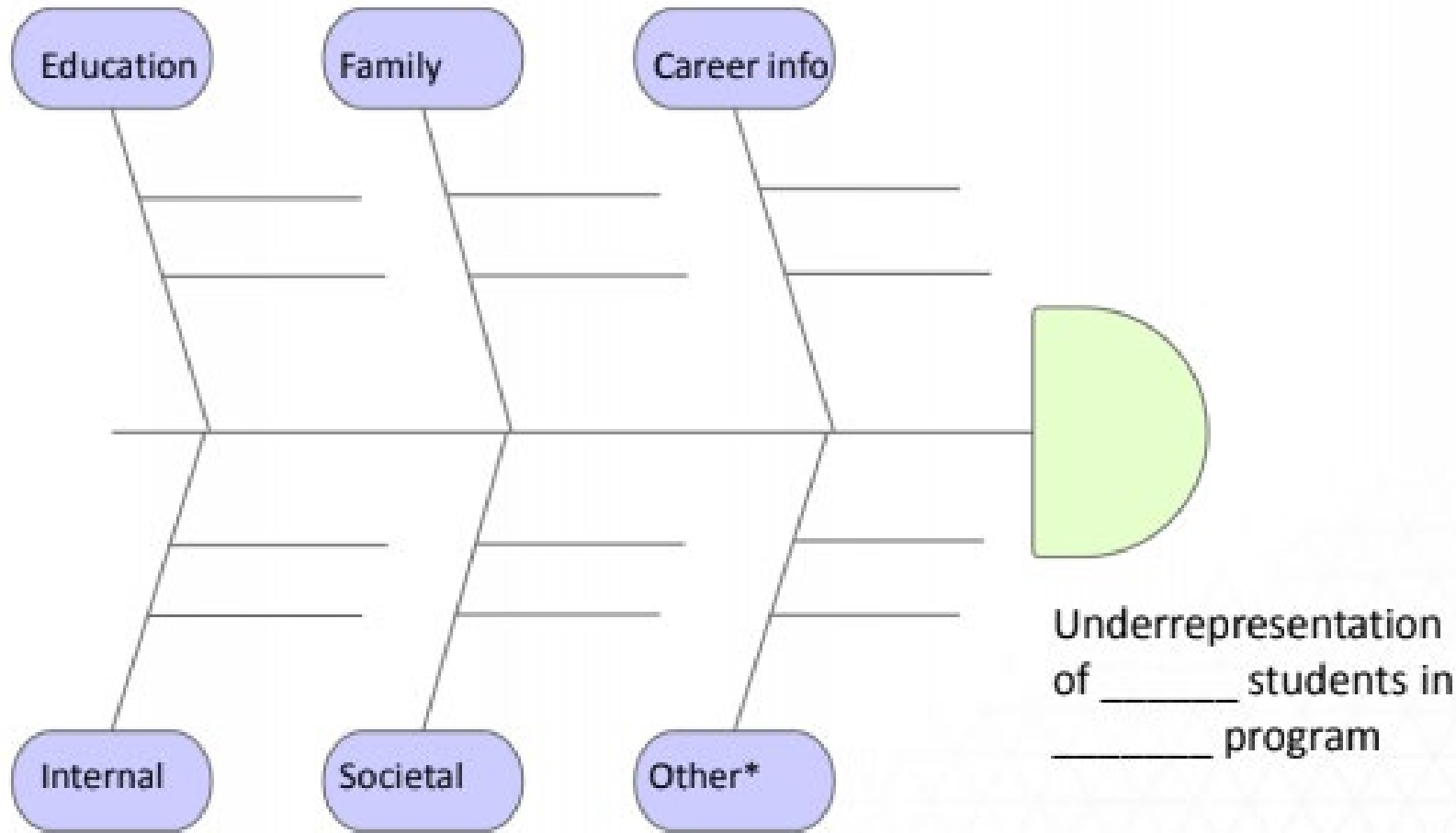
School/Classroom Climate

- Students who experience a school climate that is supportive of nontraditional occupations and gender equity are more likely to participate in nontraditional occupations.

Education

Curriculum

- The way in which curriculum is organized, sequenced, and prioritized may carry gender bias and prevent participation or completion of coursework leading to nontraditional careers. Essential elements of a bias-free curriculum include: relevancy, gender-inclusive images and text, and hands-on instructional practice.



Fishbone Diagramming: Root Causes

1. For each school/program area your group identified, draw a fishbone on chart paper.
2. Use your initial brainstorming list(s) plus additional discussion to fill out the fishbone.
3. Add notes/comments that may help your team prioritize.

Discover

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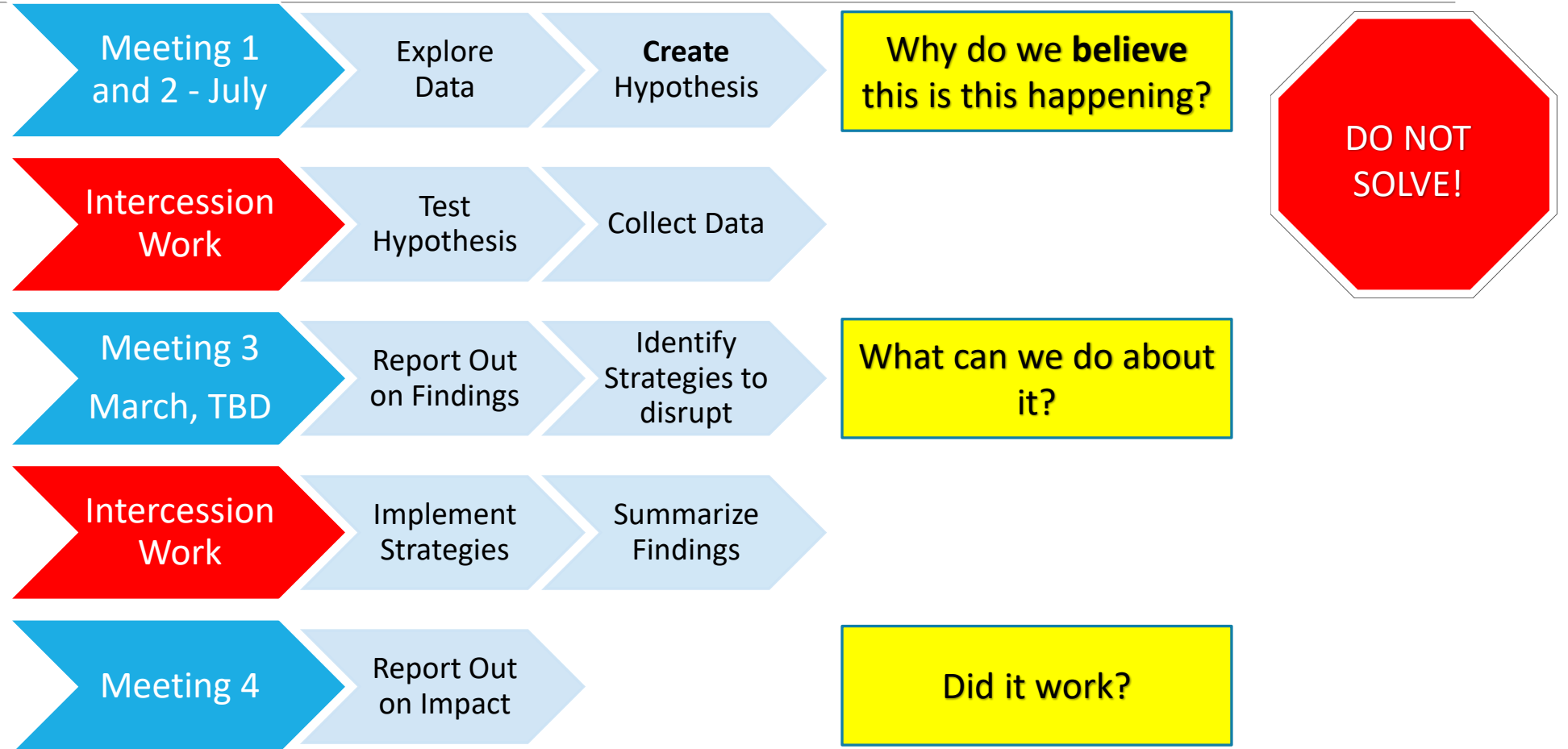
	Hypothesis <i>(Why is this happening?)</i>	Test <i>(How will you test your hypothesis?)</i>	Results
1	We believe that black female students do not participate in Project Lead the Way Engineering because their friends do not express interest.	1. Create a 10-question survey with items related to friends/peers participation in the program. Deploy to 50 students, those who have and have not taken PLTW	<i>To Be Completed....</i> 95% of black female students confirmed that they do not pursue PLTW Engineering because their friends did not take the class.
2	We believe that white males do not participate in Cosmetology because their parents have influenced their decision.	2. Conduct a focus group with 10 students. Create a semi-structured interview asking them why they chose or did not choose Cosmetology.	<i>To Be Completed....</i> 10% of white males responded their parents influenced their decision. 90% responded peers impacted their choice.

Example

Data Collection Examples

- Interviews
- Semi-structured interviews
- Questionnaires and surveys
- Focus groups

Summary of Our Process





Wrap Up and Questions

- What worked?
- What questions do you need clarified?
- Who do you plan to engage?
- What didn't work? What needs to be adjusted?
- Anything else?
- Next meeting? Check in – for technical call?

Technical Assistance Check In

