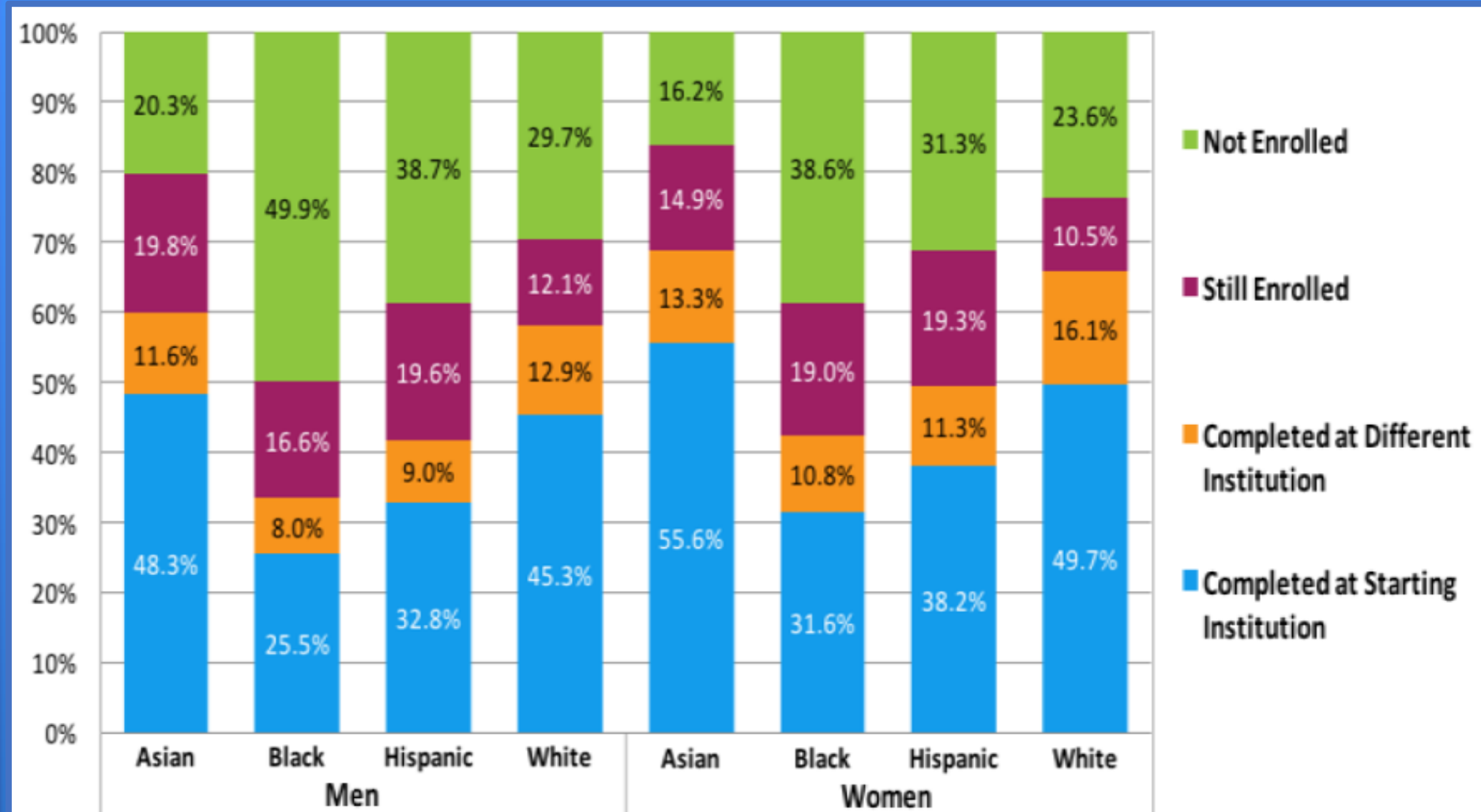# Creating Inclusivity to Improve Retention for Minoritized Students in SESE

Alexa Drew 1st year Geoscience PhD Student

Diversity has increased, inclusion has not
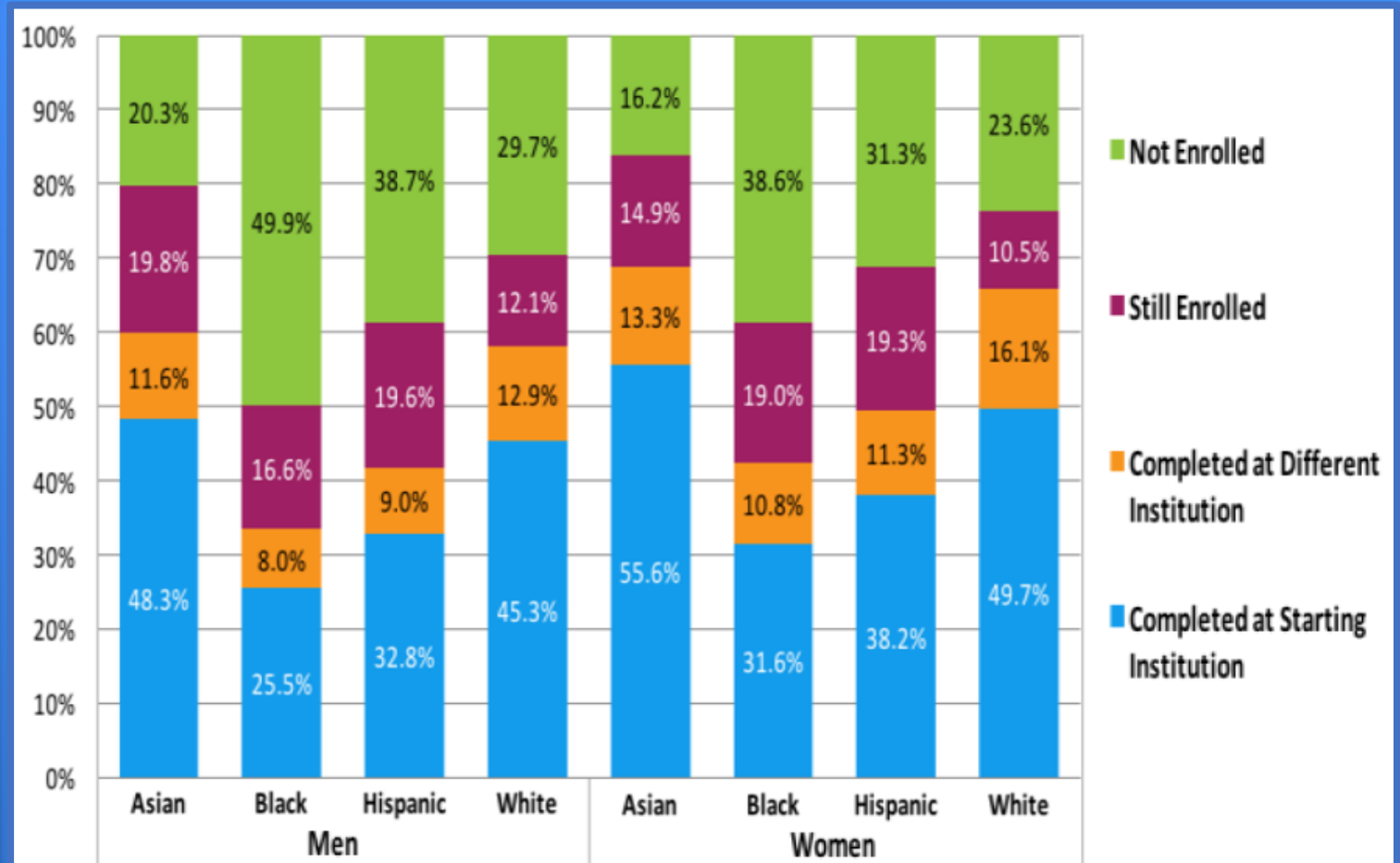
Overall college completion rates based on Race and Gender

Sources: Martinez-Acosta et al. (2018), Killpack (2016), Booker (2020), and Ong (2020)

Diversity has increased, inclusion has not

"*Diversity*"

Overall college completion rates
based on Race & Gender

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We need to move from here to there
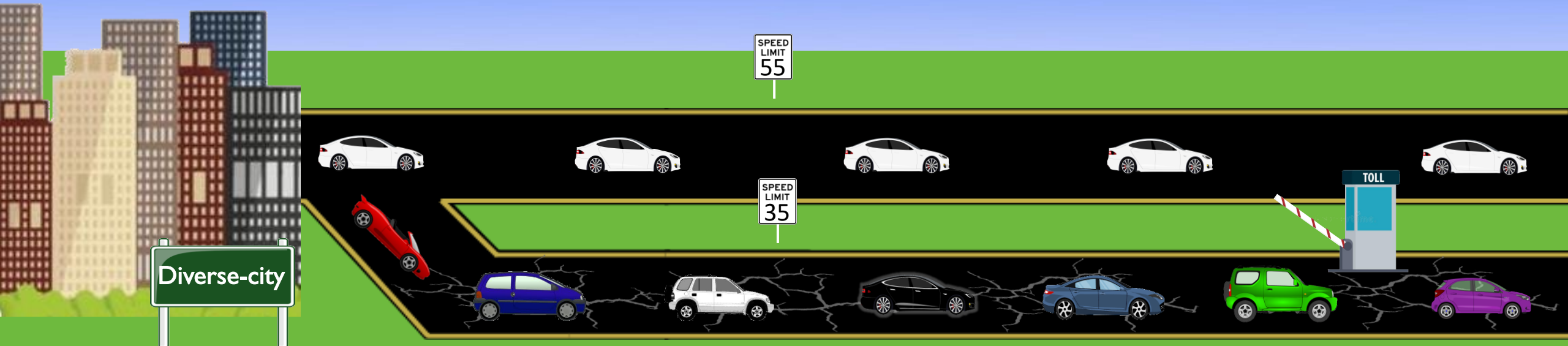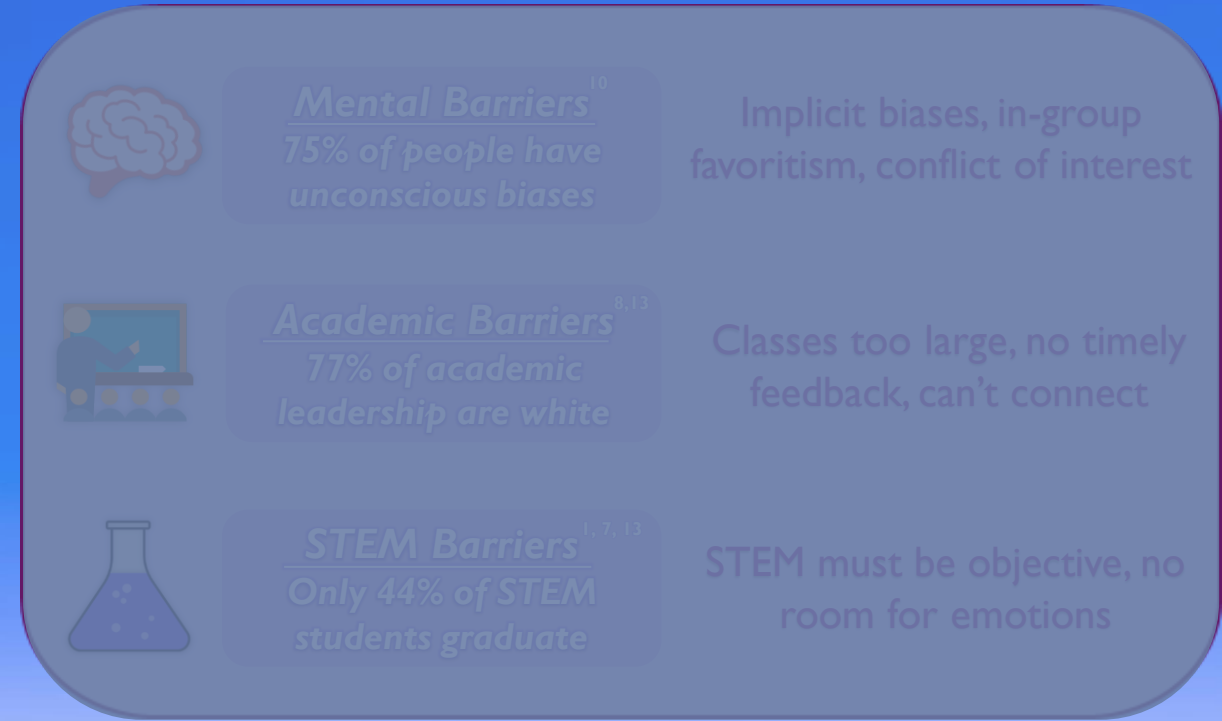

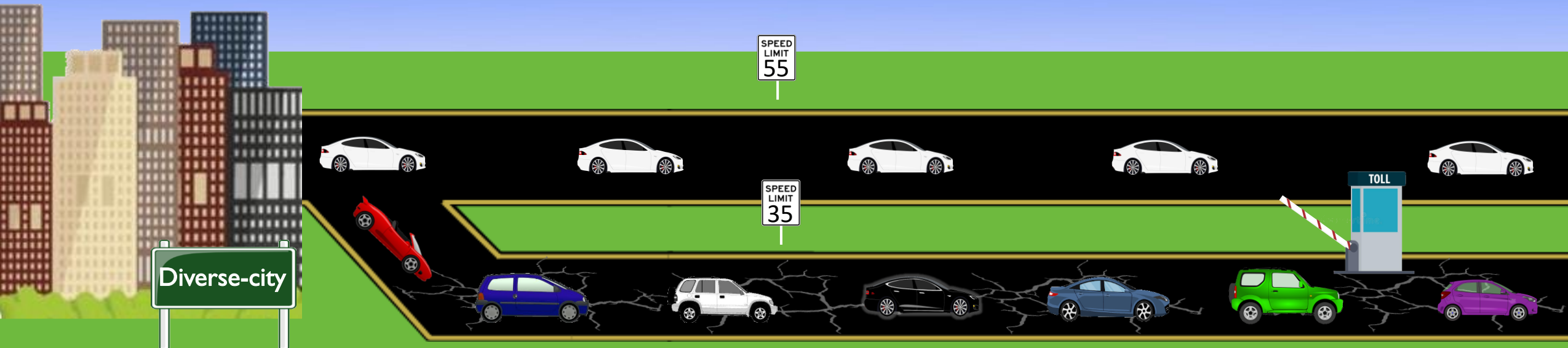## "Diversity"
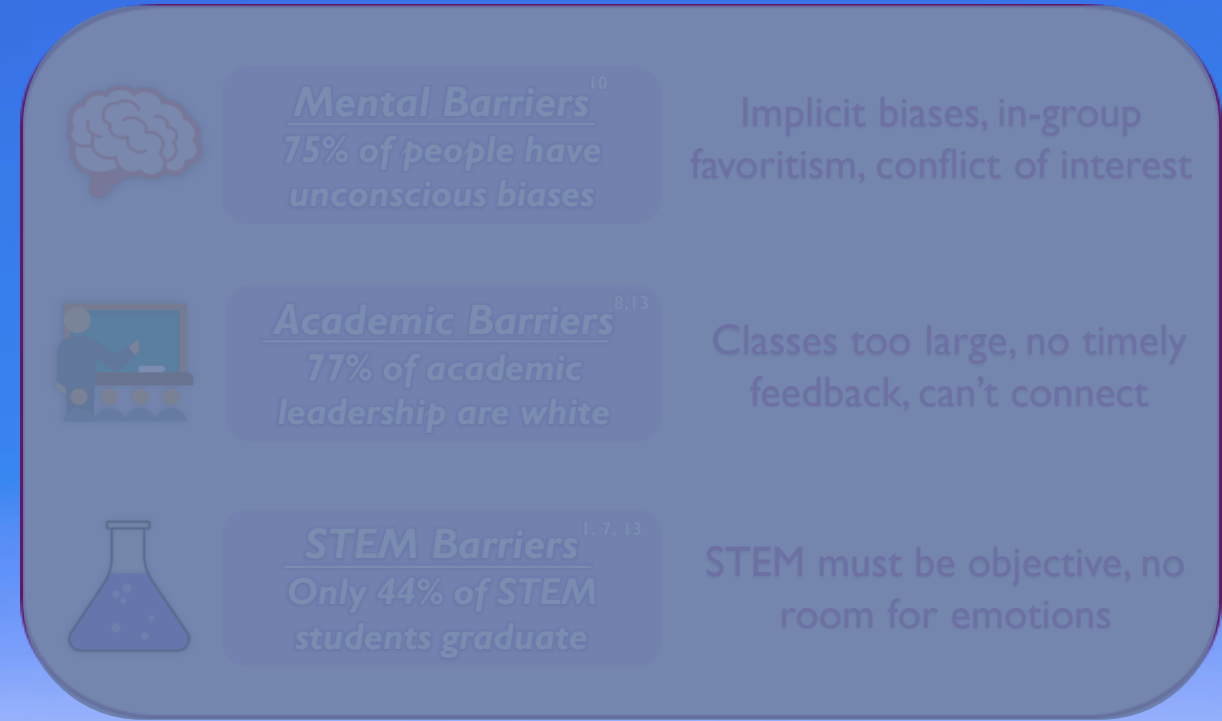**Having a seat at the table; having representation**

Inclusion
Being a part of the dialogue; feeling of belonging

Disconnected definitions and other barriers prevent inclusion

"Diversity is important"
"How do I talk about this?"
"This makes me uncomfortable"
"This doesn't affect me."

"There's no place for me"
"I represent my entire group"
"My needs are second to white people's feelings"
"I don't feel safe"   "I feel like I don't belong"
"No resources for me"   "A real lack of diversity"
"Microaggressions"
"I'm treated as a token"

Dominant Groups [4]
Inclusion is the same as diversity

Minoritized Groups [4, 9]
Inclusion is belonging, safety, and equitable access

Mental Barriers [10]
75% of people have unconscious biases

Implicit biases, in-group favoritism, conflict of interest

Academic Barriers [8,13]
77% of academic leadership are white

Classes too large, no timely feedback, can't connect

STEM Barriers [1,7,13]
Only 44% of STEM students graduate

STEM must be objective, no room for emotions

Diverse-city

SPEED LIMIT 55

SPEED LIMIT 35

TOLL

Disconnected definitions and other barriers prevent inclusion

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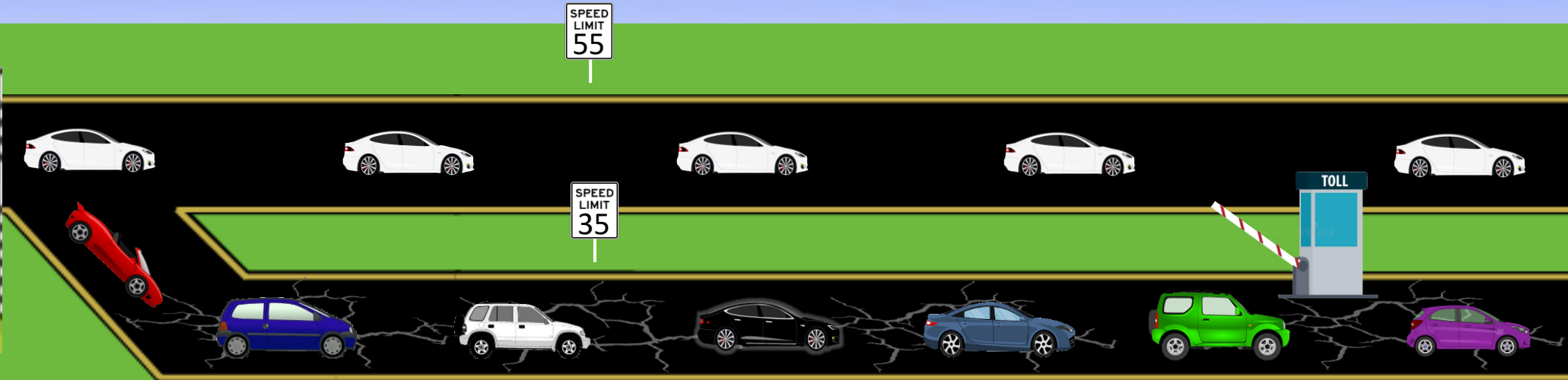Implicit biases, in-group favoritism, conflict of interest

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Diverse-city

Inclusivity is achievable through changes to the system

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Restructure courses"

Restructure courses [11]

Reduce class sizes [3]

UNDER CONSTRUCTION

UNDER CONSTRUCTION

SPEED LIMIT 35

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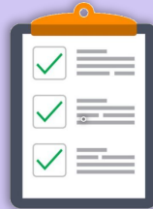
SPEED LIMIT 35

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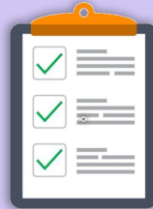
Restructure courses[11]

Create summer programs[8,9]

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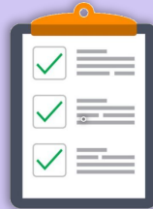
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Inclusion means…

Choose definitions[4, 7]

UNDER CONSTRUCTION

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SPEED LIMIT 35

Inclusivity is achievable through changes to the system

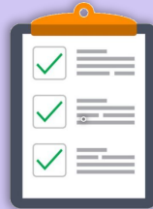**Restructure courses**[11]

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Create summer programs[8, 9]
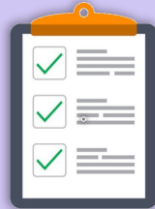
Reduce class sizes[3]

Timely feedback[8]

Inclusion means…

Choose definitions[4, 7]

Provide training[2, 10]

UNDER CONSTRUCTION

UNDER CONSTRUCTION

SPEED LIMIT 35

Measuring inclusivity can aid in achieving its benefits

9 Survey Categories [5, B]

Access
Skills
Learning
Compensation
Opportunities
Balance
Recognition
Respect
Interactions

Self-Efficacy Scale [14]
How confident are you in your STEM skills?

20% 40% 60% 80% 100%

Science Identity Scale [14]
How much do you feel you belong in STEM?

1 2 3 4 5

More publications [16]

Higher GPA's [5]

Increased happiness [15]

Increased confidence [14]

2x likely to graduate with BS
5x likely to pursue higher ed [5]

Better teamwork [17]

30 mi to Inclusiv-city

SPEED LIMIT 55
YOUR SPEED 51

Inclusiv-city
Population: Everyone

Measuring inclusivity can aid in achieving its benefits

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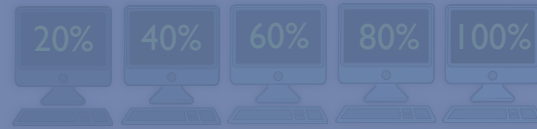YOUR SPEED 51

Inclusiv-city
Population: Everyone

Measuring inclusivity can aid in achieving its benefits

9 Survey Categories [5]

- Access
- Skills
- Learning
- Compensation
- Opportunities
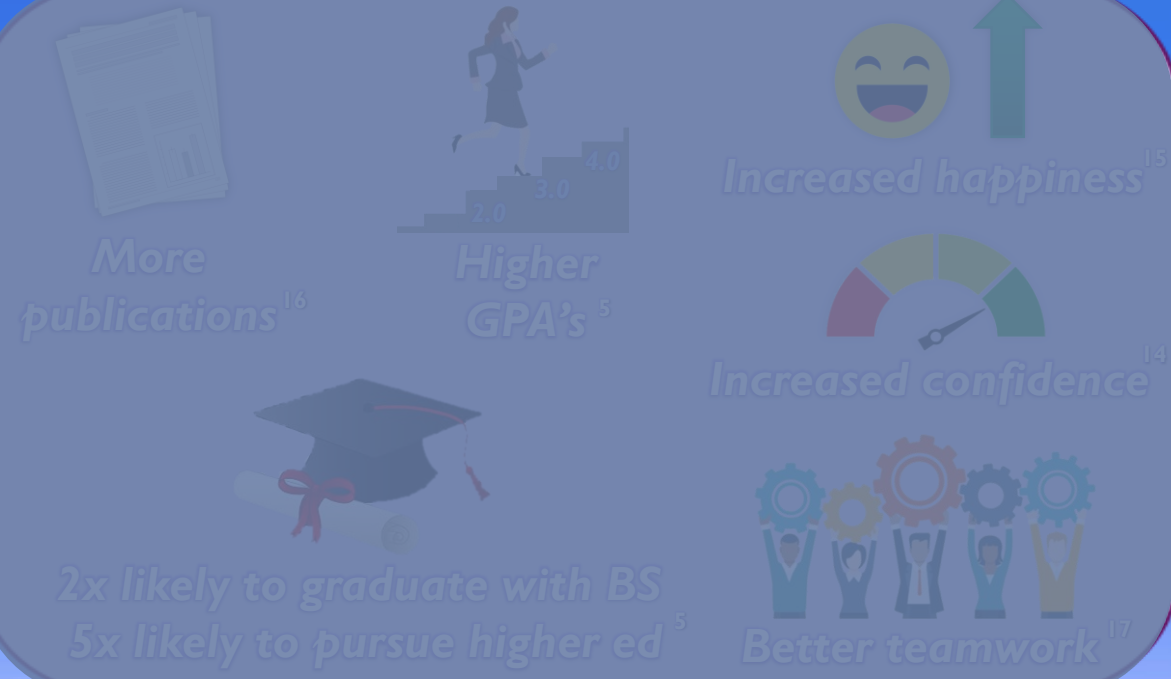- Balance
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2.0 3.0 4.0

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30 mi to Inclusiv-city

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YOUR SPEED 51

Inclusiv-city
Population: Everyone

Questions?

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Please contact ardrew1@asu.edu for survey, scale, and picture citations