How to Address Underrepresentation in Colorado's Gifted and Talented (GT) Programs

Vanessa Maybruck and Nancy Rodriguez
University of Colorado-Boulder Department of Applied Mathematics

University of Colorado **Boulder**

IQ Biology PhD Program
BioFrontiers Institute
UNIVERSITY OF COLORADO **BOULDER**

Background

- In Colorado, K-12 students are identified for gifted identification per the Exceptional Children's Education Act (ECEA).

ECEA framework for gifted identification:

Referral → Testing → Identification → Communication → Decision → GT Services
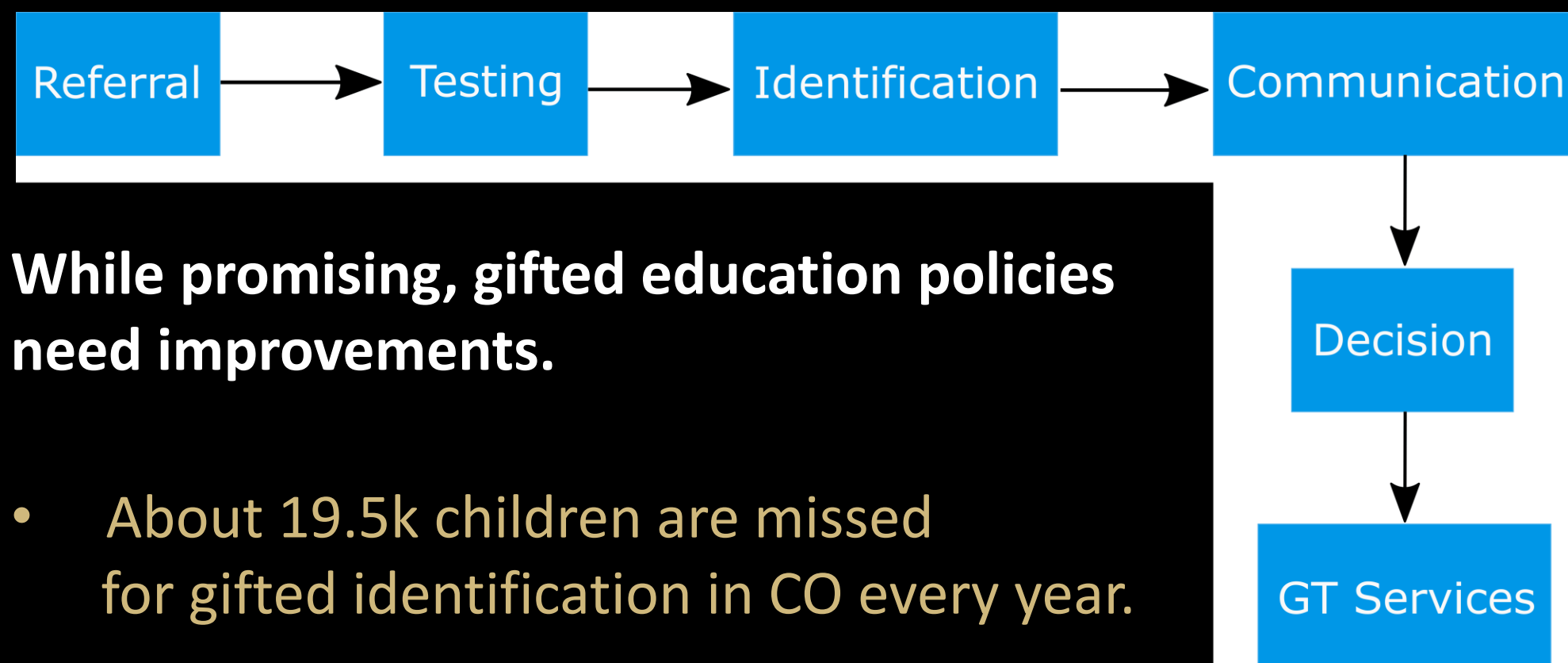
While promising, gifted education policies need improvements.

- About 19.5k children are missed for gifted identification in CO every year.

- In many CO school districts, underserved students are represented in GT at 50% of their representation in the school district.
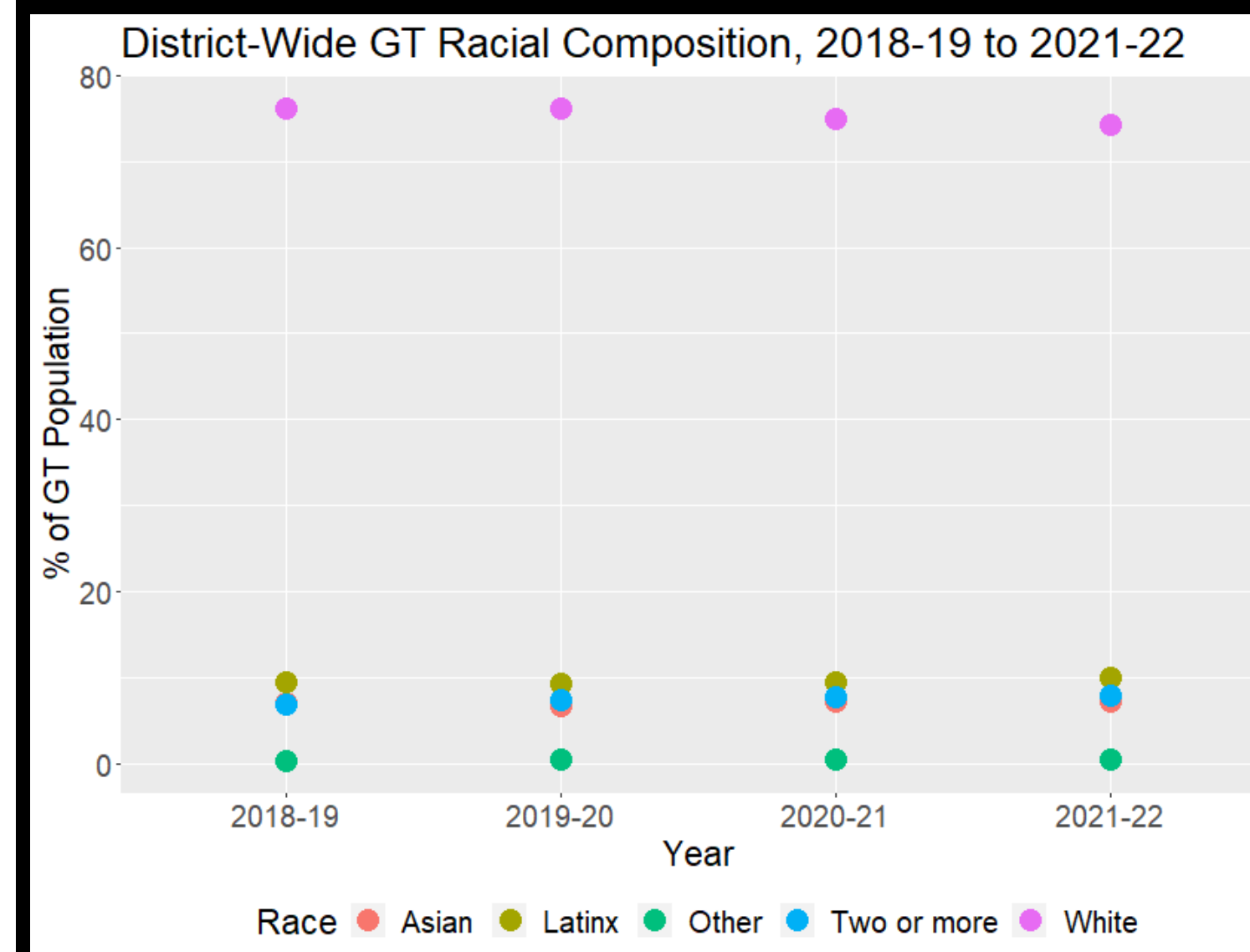
Methods

Data Acquisition:

- We used publicly available data for total and GT enrollment in Boulder Valley School District (BVSD) from 2017-2022.

Model Development:

- We developed a mathematical model for GT identification and enrollment for elementary schoolers in BVSD.

- Our model can make projections for future GT enrollment by race and ethnicity and identify strategies that increase GT representation.

Ref: Gentry et al., System Failure: Access Denied (2019).

Results

District-Wide GT Racial Composition, 2018-19 to 2021-22

White students dominate BVSD's GT program. Due to low numbers, Black, American Indian, and Pacific Islander students are listed as Other.

Representation Index (RI) in BVSD, 2021–22
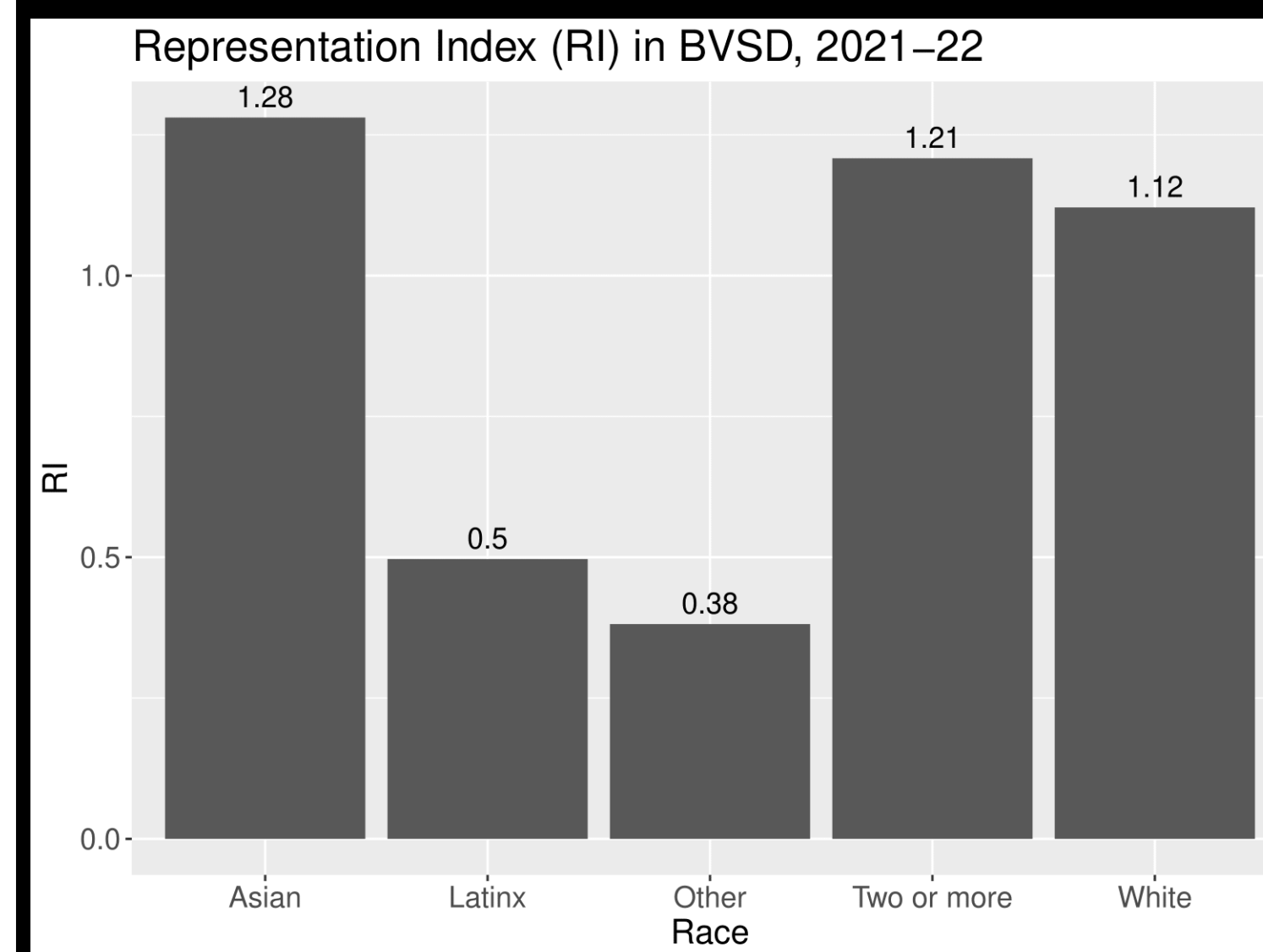
Asian, Two or More Races, & White students are more represented in GT than in the overall school district. Latinx and Other students are under-represented.

Representation Index (RI) in BVSD, 2018-19 to 2021-22
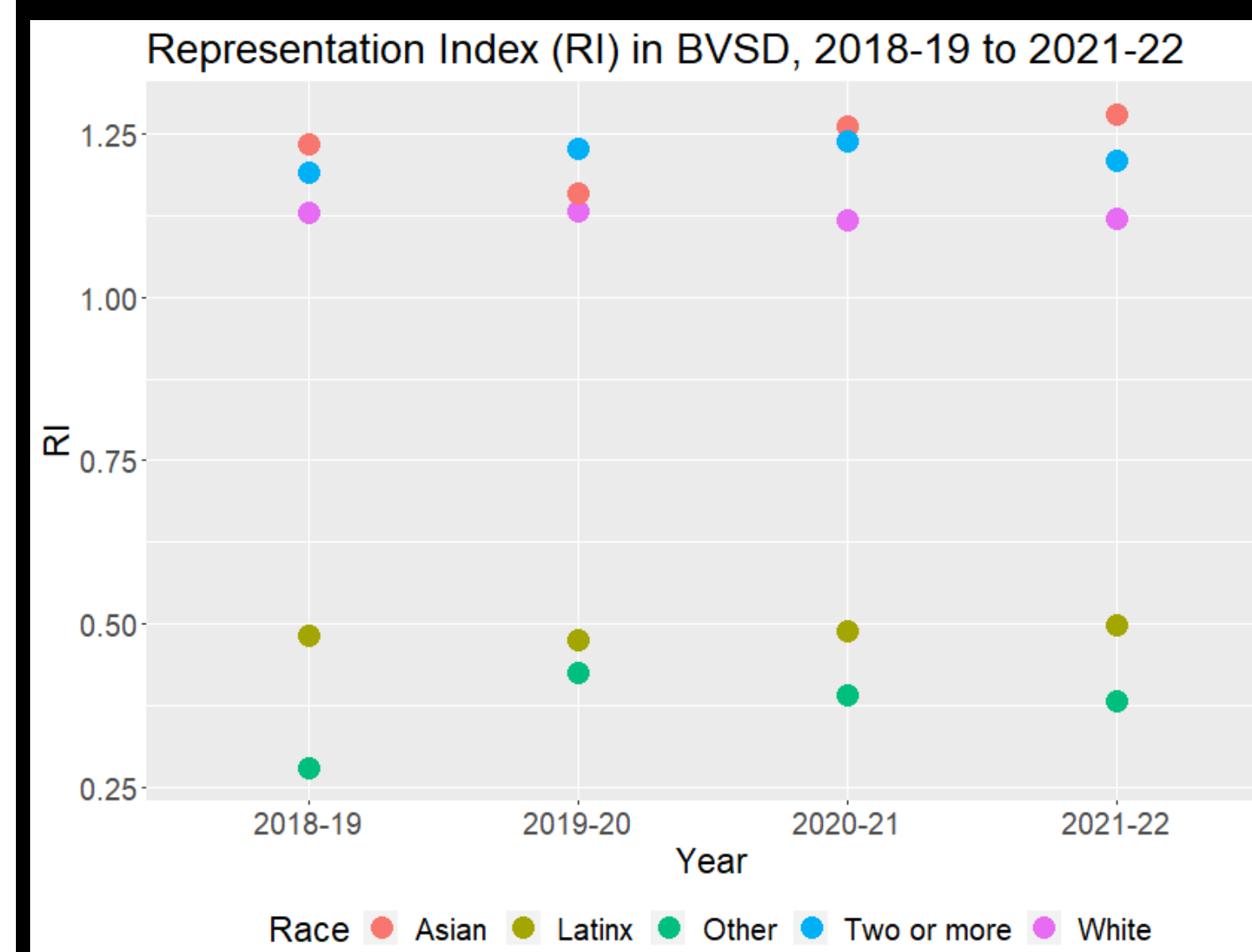
Latinx and Other students are consistently under-represented in BVSD's GT program at 50% or less of their representation in the school district.

Broader Impacts & Future Work

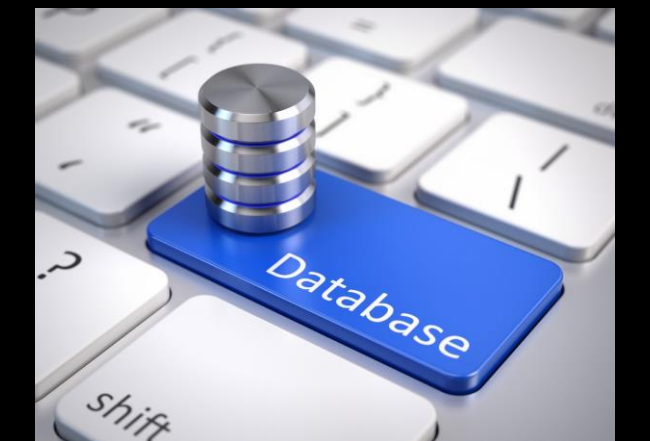**How can this work effect change?**

We will use our model to develop an app to help school districts to:
- measure current GT representation
- predict future GT representation
- identify strategies to increase representation

We will develop a database to:
- record GT data from multiple CO school districts

How can this work inform policy?

- Identify priorities for gifted education funding
- Identify policy changes to increase equity

Ultimately, this work will help to:

- Decrease the number of students missed for gifted identification

- Increase equity of GT programming in Colorado and beyond

Acknowledgements