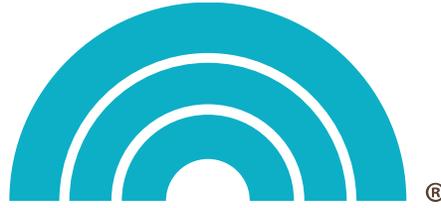


Safe Streets for Everyone? Implications of School and Municipal Policies on Safe Routes to School Implementation

Webinar
September 14, 2023

Speakers: Leigh Ann Ganzar, DrPH, MPH, Sarah Bentley, MPH
Moderator: Deanna Hoelscher, PhD





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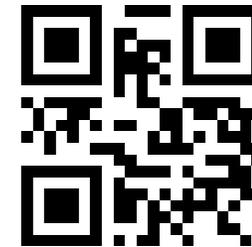
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Today's webinar



- 1. Background on active commuting to school**
- 2. Walking and Biking to School Policies and Active Commuting to School in Children**
- 3. Incorporating Equity into Active Commuting to School Infrastructure Projects: A Case Study on Municipal Policies**

Funding:

This research was funded by the Eunice Kennedy Shriver National Institute of Child Health & Human Development, grant number R01 HD097669, and support was provided by the Michael and Susan Dell Foundation through the Michael & Susan Dell Center for Healthy Living

Speakers



Leigh Ann Ganzar, DrPH, MPH

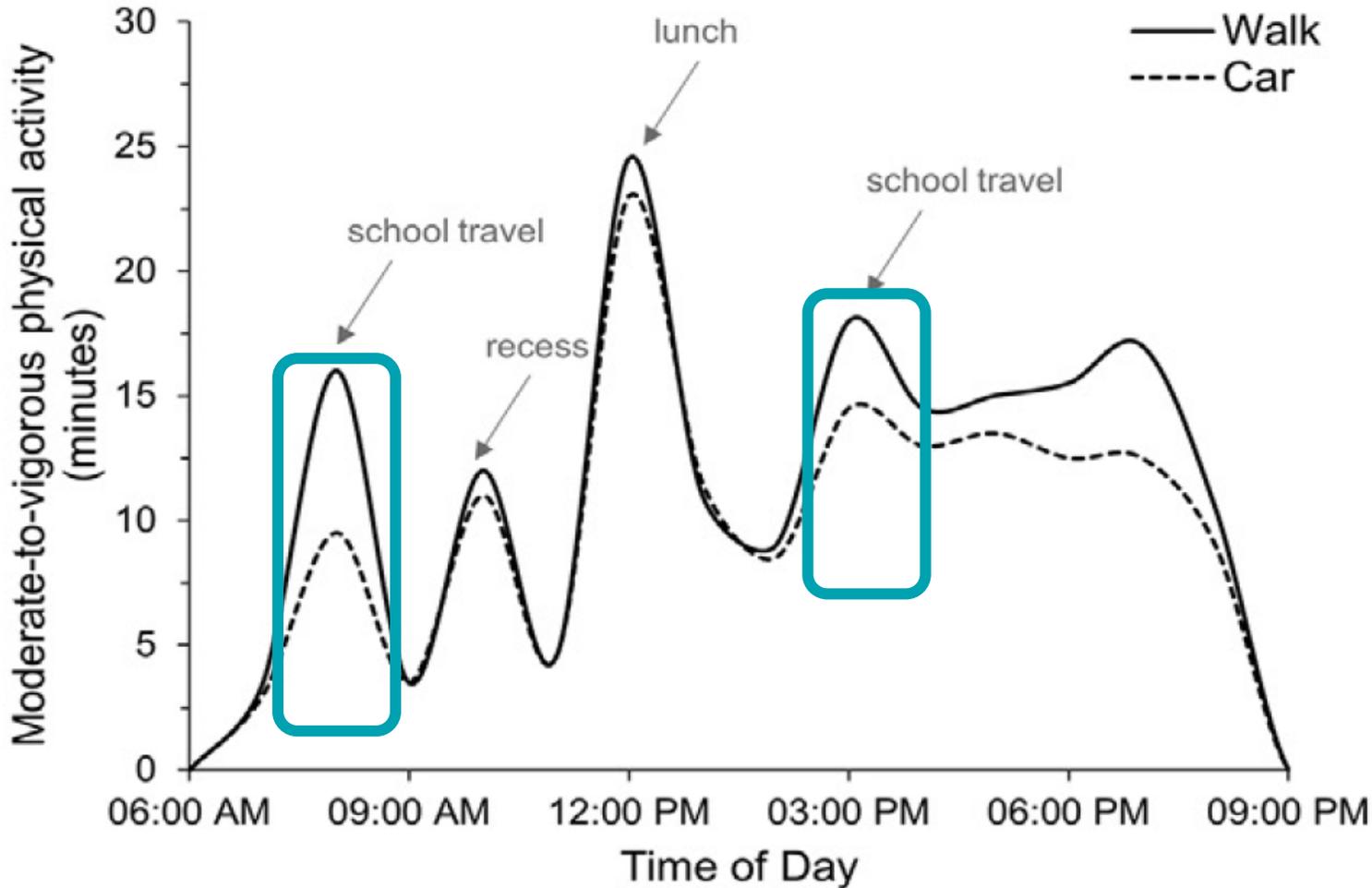


Sarah S. Bentley, MPH

Background



Importance of active school travel

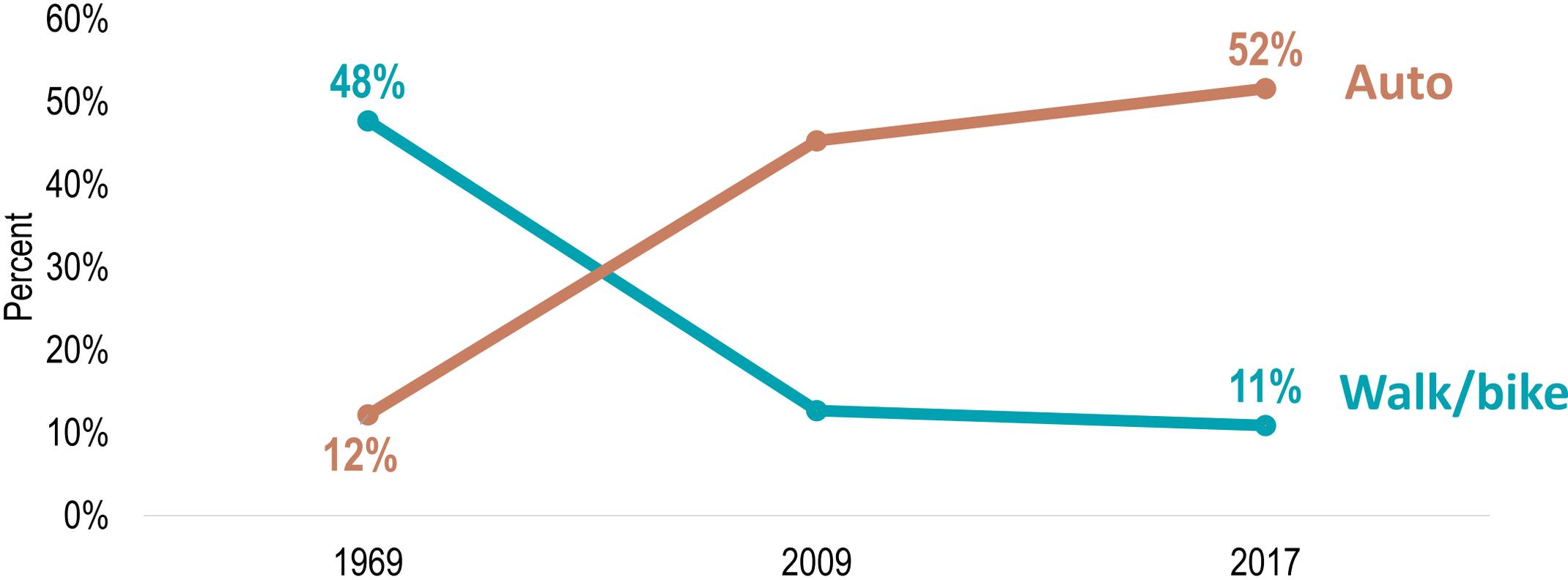


Active school travel may contribute up to **48%** of the physical activity recommendations in young people on school days.

Status of active commuting to school in US



Travel Mode to/from School in Elementary Schools in the US



STREETS Study Overview



CITY OF AUSTIN
austin
MOTION
2016 MOBILITY BOND



PUBLIC WORKS
SAFE ROUTES
TO SCHOOL



STREETS
SAFE TRAVEL ENVIRONMENT EVALUATION IN TEXAS SCHOOLS



Assessing
population level
changes in active
commuting to
school

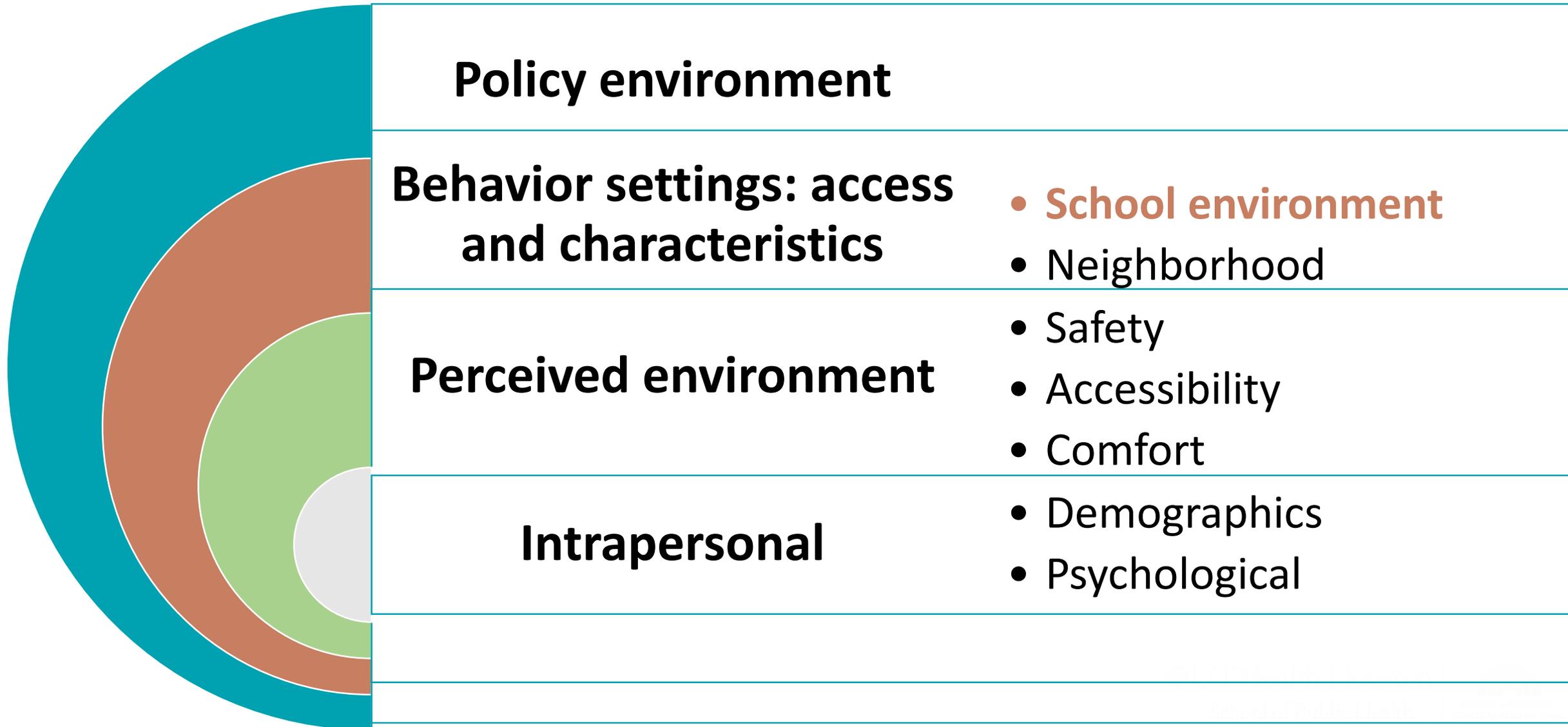


Assessing changes
in child physical
activity

Walking and Biking to School Policies and Active Commuting to School in Children



Root causes of active travel behavior



Study purpose

1. To examine the association between **school policies** and practices for active commuting and **student travel behavior**.
2. To assess whether the association between school policies and active commuting **varies by classroom grade**.





Data source: Baseline data from STREETS study (2018-2019)



Sample: Elementary schools in serial cross-sectional study



Measures: School policy survey and classroom active commuting to school tally



School policies assessed by school staff survey

Aggregate school policy score:

Curriculum for walking/biking to school

Crossing guard programs

Signage in the school

Existence of school-wide SRTS policy

Walk/Bike to School Day initiatives

Walking School Bus

Other, e.g. pick up and drop off policies



Active commuting to/from school assessed by tally

Classroom tally using hand raising method for travel mode

Walk

Bicycle

Private car

School bus

Public transit

Other

All 3rd, 4th, and 5th grade classrooms in each school





Control variables

School level economic disadvantage
School racial and ethnic distribution
Neighborhood connectivity

Analysis

Multilevel linear regression models (unadjusted and adjusted)
Interaction model to assess differences by grade

School characteristics

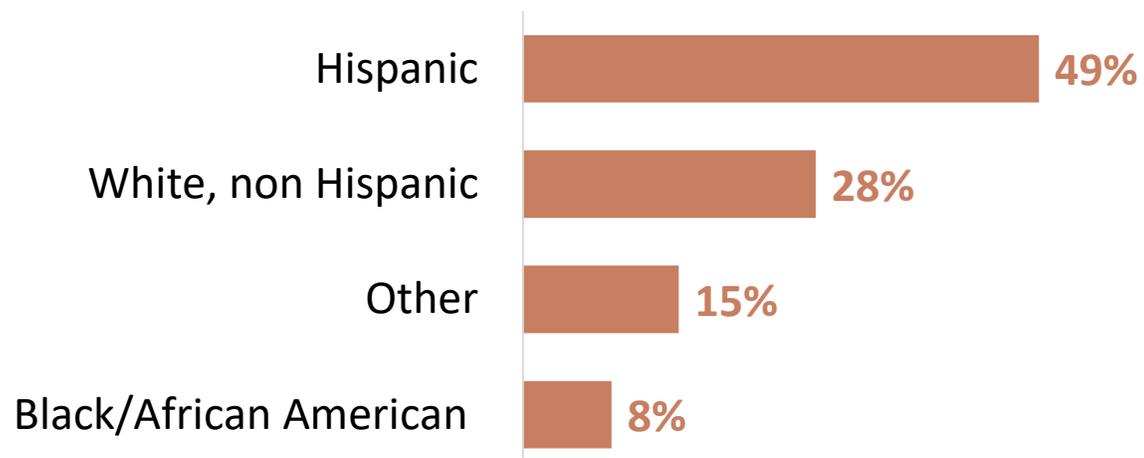


77 elementary schools with tally data and policy surveys at baseline

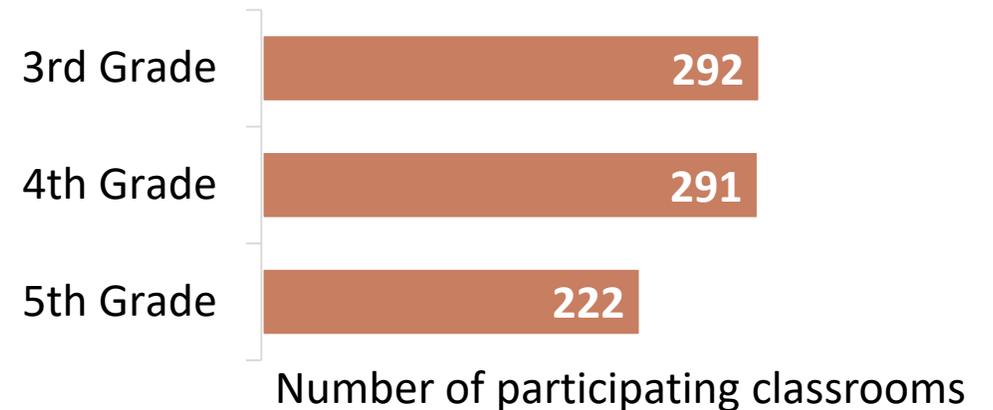
16,379 participating students

46.4% of students eligible for free/reduced lunch

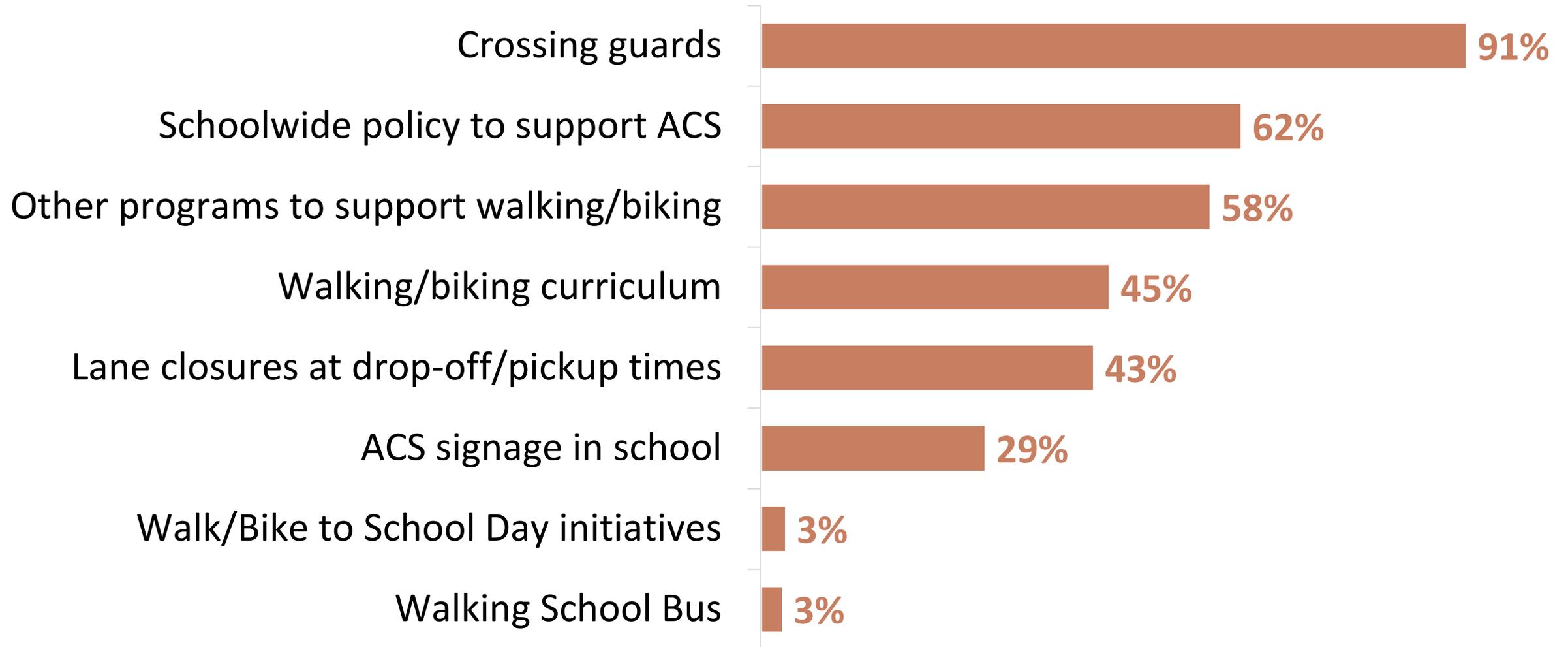
14.5% of trips to and from school made by walking or biking



Average percent racial and ethnic distribution of schools



Presence of policies in schools

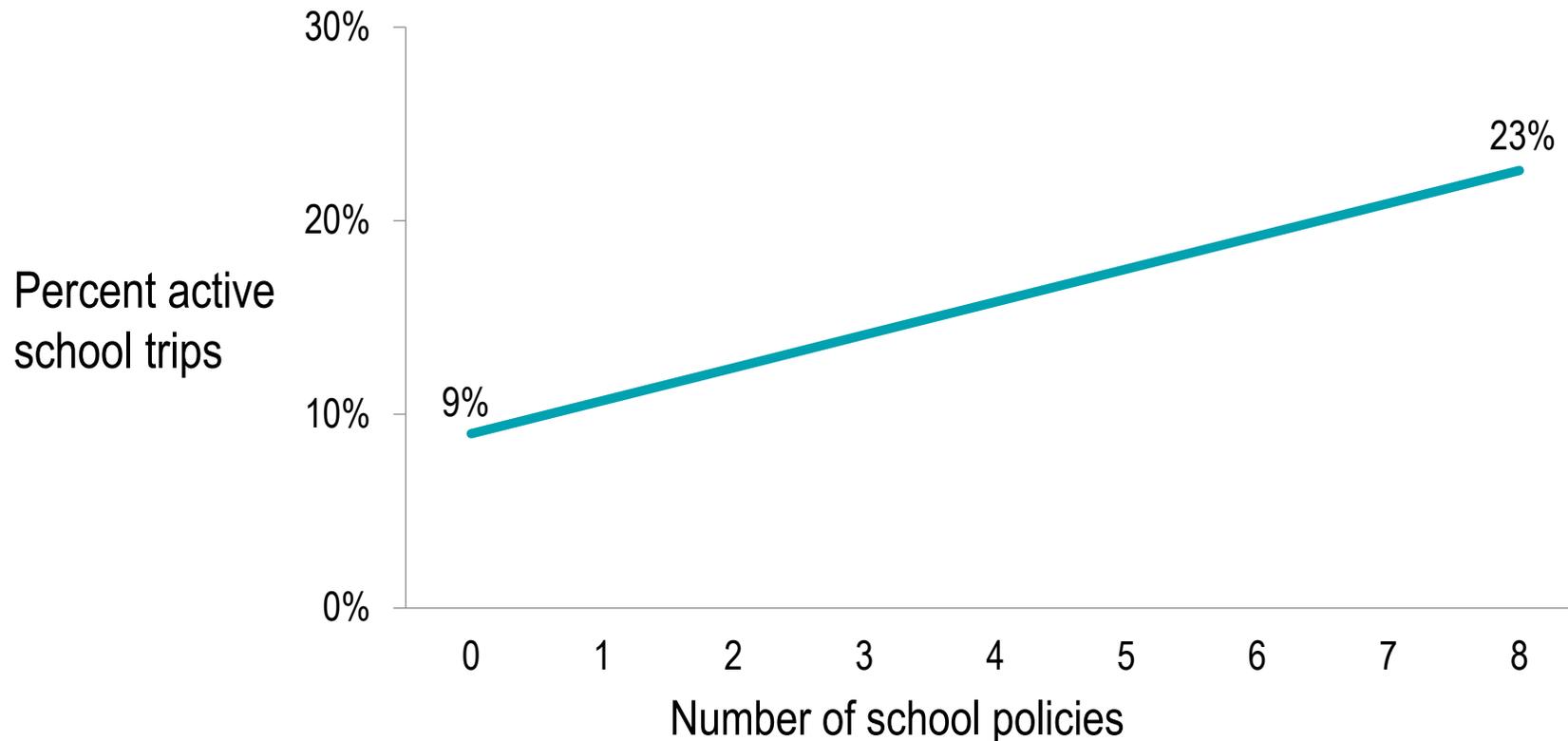


Prevalence of policies

Key findings



Schools with higher numbers of policies had significantly higher percentages of students using active travel modes

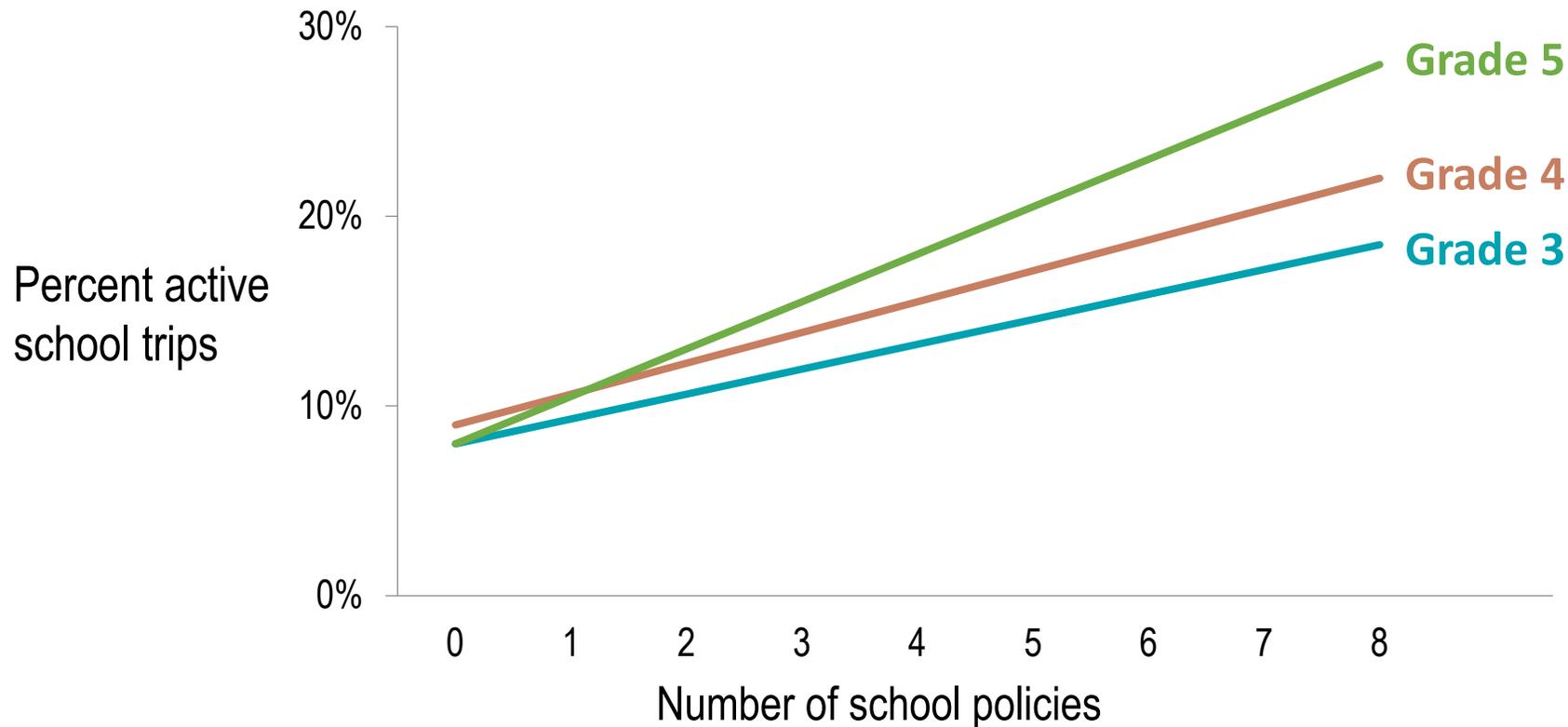


For each additional policy, the predicted percentage of trips made by active travel modes was **1.46% higher.**

Key findings



There was a difference in association by grade and school policies had a stronger association with active commuting in **grade 5 classrooms.**



Conclusion & Implications



Highlights importance of school policy environment to increasing ACS in elementary students.

“More is better”

Older students may be more influenced by school policies than younger students.

Independent mobility, parental safety concerns

Limitations

Predominantly one school district

Limited in determining the length of time these policies and practices have been in place

Implementation of policies

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Bill Kohl, PhD

Deanna Hoelscher, PhD, RDN, Principal Investigator

**Full article link in Journal of
Physical Activity and Health:**



Incorporating Equity into
Active Commuting to School
Infrastructure Projects:
A Case Study on Municipal Policies



Background



Austin, Texas – \$27.5M for Safe Routes to School (SRTS) infrastructure projects – split equally among council districts.



Evidence for the effects of infrastructure changes on active transportation in children – more physical activity



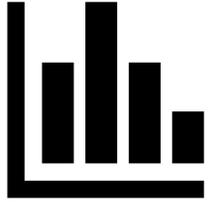
Need for assessing equity impacts of SRTS and infrastructure projects for walking and biking

K. Manaugh, M.G. Badami, A.M. El-Geneidy. Integrating social equity into urban transportation planning: a critical evaluation of equity objectives and measures in transportation plans in North America. *Transp. Policy*, 37 (2015).

A.N. Buttazzoni, E.S. Van Kesteren, T.I. Shah, J.A. Gilliland. Active school travel intervention methodologies in north america: a systematic review. *Am. J. Prev. Med.*, 55 (2018).

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Study Aims



To describe the City of Austin Safe Routes to School project prioritization process.



To describe community equity measures of identified SRTS infrastructure projects by council fund distribution.



To provide community perspectives on barriers and facilitators for implementation

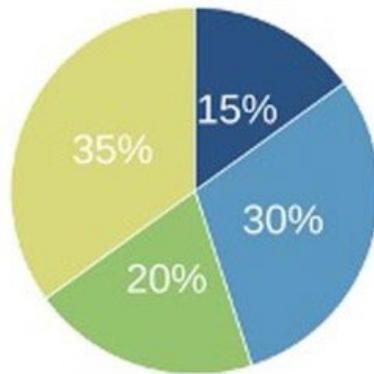


Data source: City of Austin reports combined with school-level demographic data to determine equity of need distribution



Measures: Interviews were conducted with community partners

Austin SRTS Infrastructure Plan



Benefit Score Factor

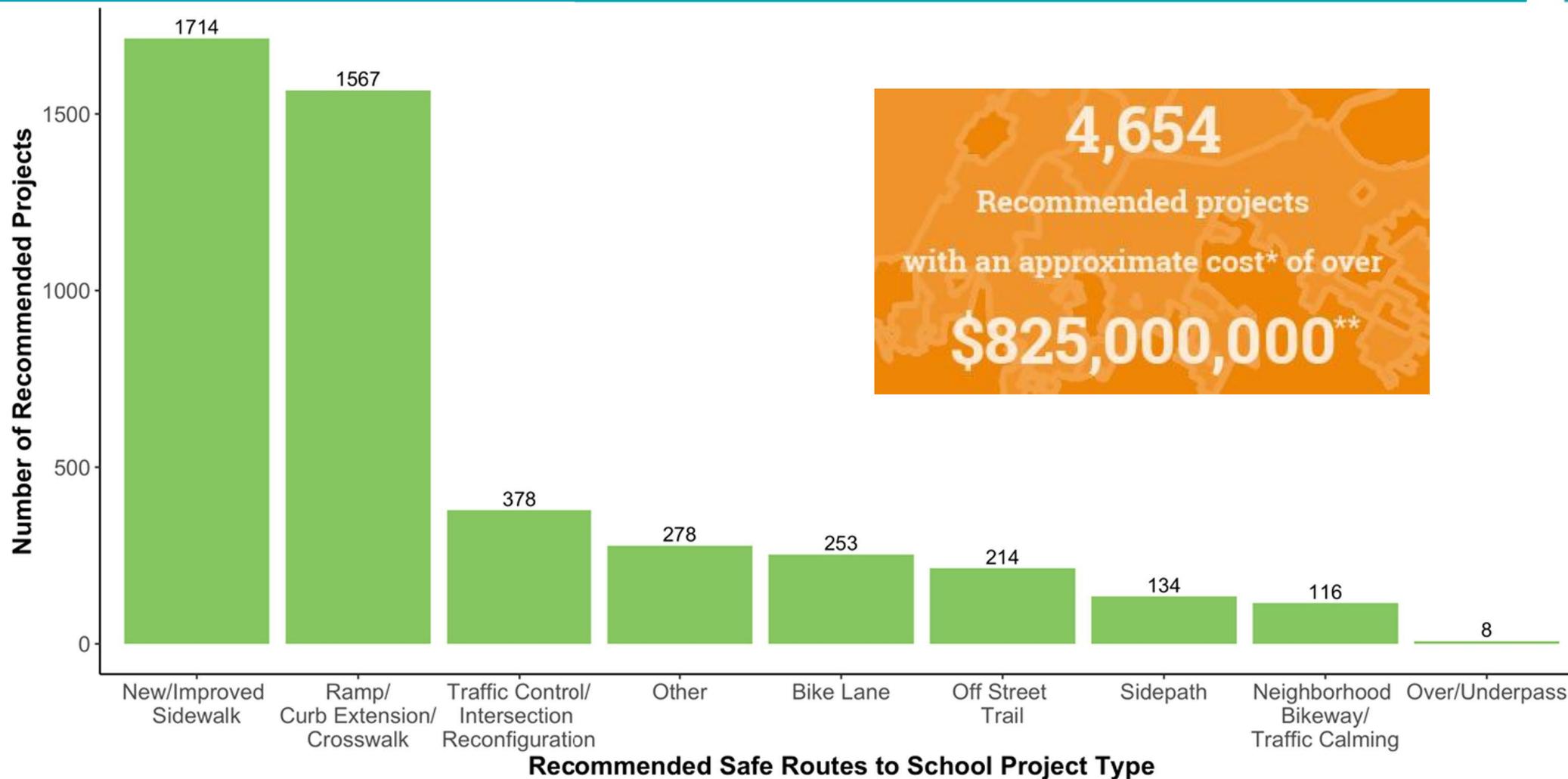
-  Demand - Schools within ¼ miles, students served
-  Equity - Free and reduced lunch rate, poverty rate
-  Safety - Crash data, street type, engineering judgment
-  Stakeholders - In-person and online engagement

Prioritization Process

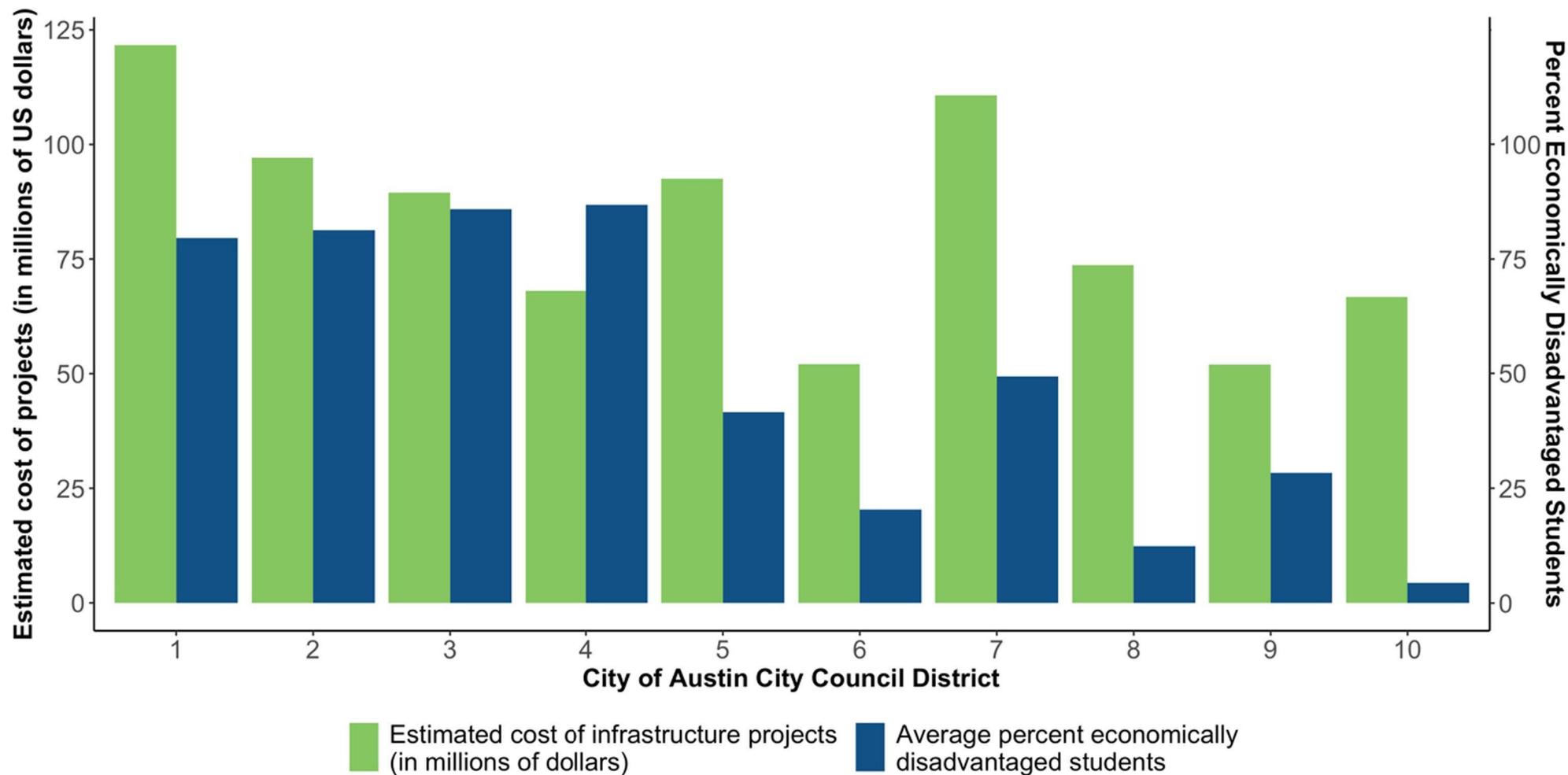


Project ID	Project w/in 1/2 mi (ped) or 2 mi (bike) and attendance boundary of:	Location	Issue	Recommendation + = parking removal required ~ = private property acquisition required	Overall Benefit Category	Estimated Cost:Benefit Category
1G - 002	GARCIA, BARBARA JORDAN, BERTHA SADLER MEANS	CRYSTALBROOK DR	Excessive vehicle speeds, No bike facility, Wide ROW	Add speed cushions - CRYSTALBROOK DR from LOYOLA LN to SILVERBROOK LOOP, Protected Bike Lane - CRYSTALBROOK DR from LOYOLA LN to SILVERBROOK LOOP ~	1 - Very High	1 - Very High
1G - 004	BARBARA JORDAN, GARCIA, BERTHA SADLER MEANS	CRYSTALBROOK DR	Excessive vehicle speeds, No bike facility, Wide ROW	Add chicanes - CRYSTALBROOK DR from SILVERBROOK LOOP to PECAN BROOK DR, Protected Bike Lane - CRYSTALBROOK DR from SILVERBROOK LOOP to PECAN BROOK DR ~	1 - Very High	3 - Medium
1G - 005*	BARBARA JORDAN, GARCIA, BERTHA SADLER MEANS	PECAN BROOK DR	Desired bike route, No bike facility	Protected Bike Lane - PECAN BROOK DR from SPRINGDALE RD to CRYSTALBROOK DR ~	1 - Very High	3 - Medium
1G - 006	OAK MEADOWS, GARCIA, OVERTON, BARBARA JORDAN, BERTHA SADLER MEANS	LOYOLA LN	Desired bike route, Excessive vehicle speeds	Add Dynamic Speed Display Device - LOYOLA LN from CRYSTALBROOK DR to SANDSHOF DR, Protected Bike Lane - LOYOLA LN from WENTWORTH DR to MILLRACE DR	1 - Very High	5 - Very Low
1G - 007*	BARBARA JORDAN, GARCIA	JOHNNY MORRIS RD	Desired bike route, No bike facility	Sidepath - JOHNNY MORRIS RD from FM 969 RD to Manor EXPRY ~	1 - Very High	5 - Very Low

City of Austin infrastructure projects



City of Austin infrastructure projects



Qualitative Interviews

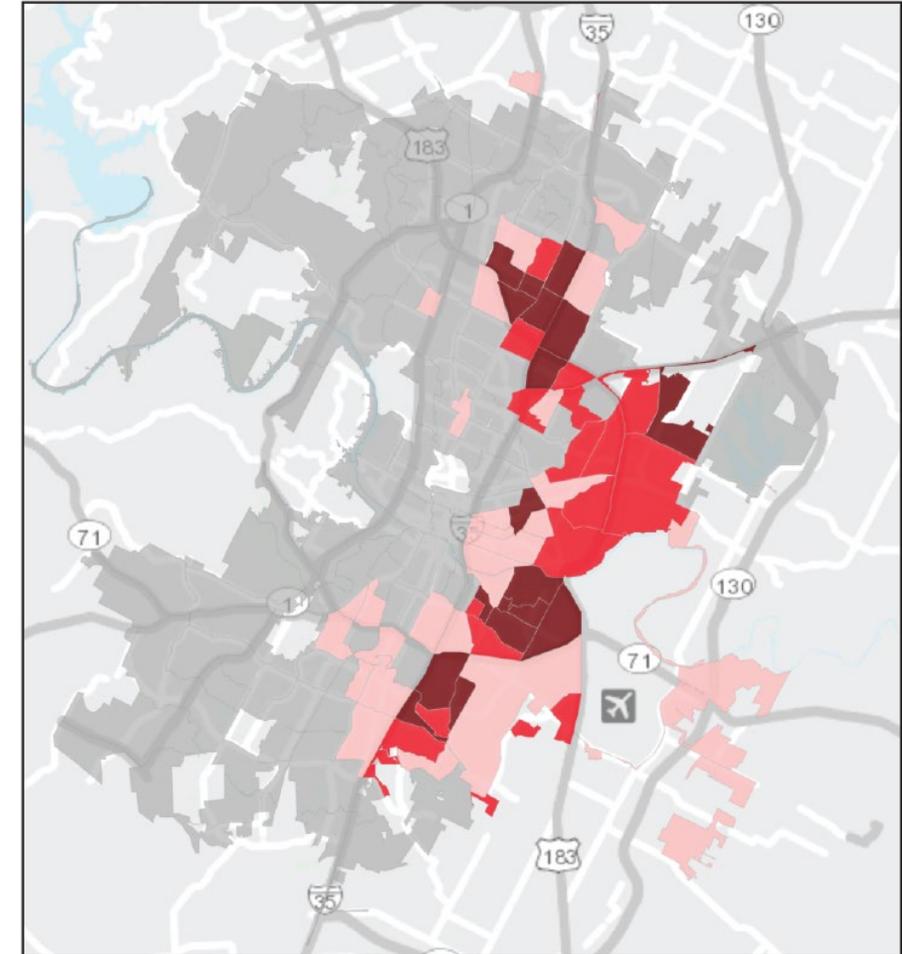


“If you just look at the number of schools in different districts one has five another”

“Are you achieving the goals of safe routes by spending money on something that didn't really need to happen?”

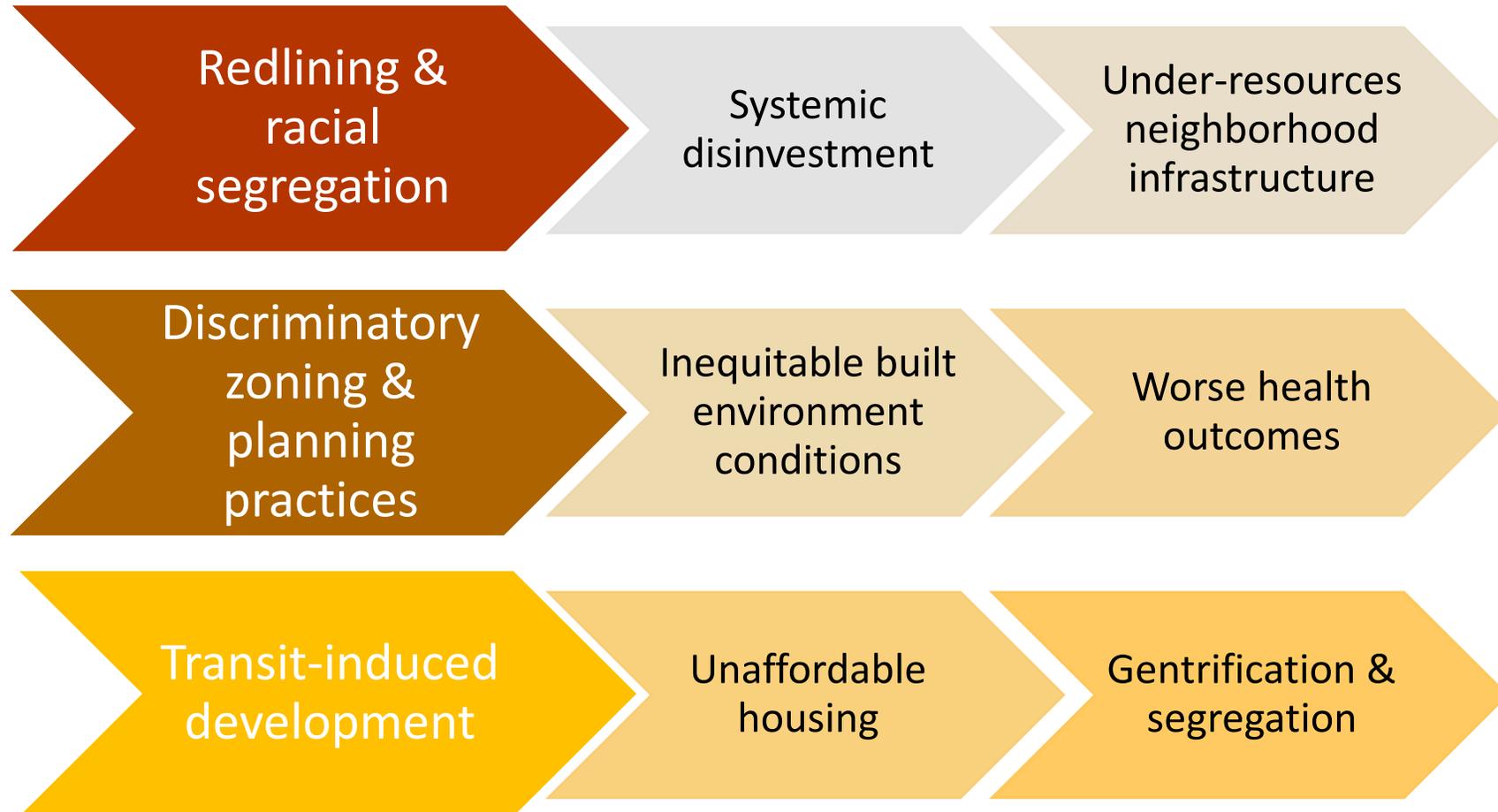
“At some schools were looking at putting in protected bike lanes and others we're like, ‘Can we just get some sidewalks leading up to the school?’”

Discussion



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Implications for practice and policy



MOVING TOWARDS EQUITY

- 2020 Mobility Bond \$20M for high and very high priority SRTS projects
- Equitable Transit-Oriented Development Policy Plan
- IIJA - 7x more TAP funding in Texas than before
- Reconnecting Communities & Neighborhoods - Neighborhood Access and Equity (NAE) Program



CALL TO ACTION

- Emphasize spatial and social equity principles
- More financial and infrastructural support in lower-income communities
- Engage underrepresented communities
- Need systematic approach to address equity
- Increase diversity in leadership roles

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M. Solis. Racial equity in planning organizations. *J. Am. Plann. Associat.*, 86 (2020), pp. 297-303

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Incorporating equity into active commuting to school infrastructure projects: A case study

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[Alia Anderson](#)^c , [Amir Emamian](#)^d , [Deanna M. Hoelscher](#)^a 



- City of Austin SRTS department and study participants
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Conclusions

Increasing active commuting to school in children requires research and evaluation of **policy and environmental strategies at multiple levels.**

Continued efforts around **equity and transportation justice** are needed to ensure access to safe and healthy environments for all to actively commute to school.

Thank you!

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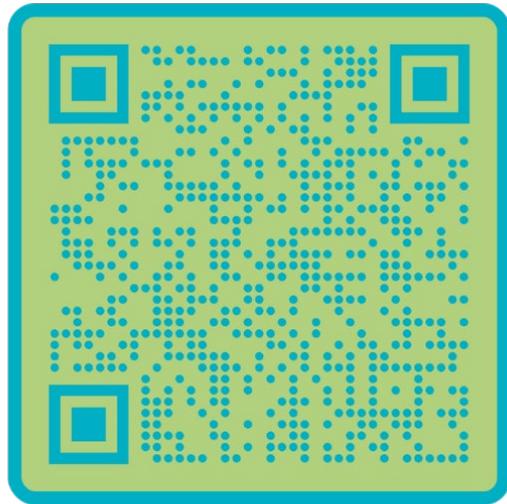


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