



PROGRESS REPORT

YEAR 5 | 2022-2023

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Acknowledgements

We want to thank all the participants, schools, and districts for working with us on this project. We are grateful for your continued collaboration on this research project.

Study overview

The STREETS Study (Safe TRavel Environment Evaluation in Texas Schools) is a five-year (2018 – 2023) natural experiment that is evaluating the City of Austin Safe Routes to School (SRTS) program. In 2016, the City of Austin approved \$27.5 million in Mobility Bond Funds for Safe Routes to School infrastructure projects, including protected bike lanes, pedestrian islands, shared-use paths, and pedestrian hybrid beacons. The UTHealth School of Public Health is evaluating these transformative infrastructure changes. The evaluation includes a comparison study with schools outside the city of Austin.



Year 5 Progress

Progress was made on many of the STREETS grant activities outlined for Year 5.

Active Commuting to School | Cross-sectional study

Out of the 70 schools in the study 48 schools (83%) completed the active commuting to school tallies this year. We collected 551 tallies in the fall and 524 tallies in the spring. The policy survey was completed by 43 schools (61%).

Physical Activity in Children | Cohort study

In Year 5, we measured 64 cohort students from 5 schools. All of these participants were 4th grade students from 5 schools completing the second measurement period. Wave 2 (interim) MAPS environmental audits for these 5 schools were also completed.

Qualitative Interviews

Eight (8) school administrator and teacher interviews were completed during the summer of 2022. The research questions generated responses in the topic areas of: 1) School challenges, 2) Safe routes to school programming, 3) Barriers and facilitators to active commuting to school, 4) Active commuting to school program or policy expectations, and 5) Effects of the 2016 Mobility Bond and COVID-19 pandemic. A report was developed that will be used to inform further analyses and publications.

Presentations and Publications

- Presented:
 - Zhang Y, Burford K, Weng O, Ganzar LA, Hoelscher DM, Salvo D. Examining the availability and equitable distribution of recreational assets for physical activity across school neighborhoods in Central Texas. Oral presentation at the dPAD Symposium, September 2022. Houston, Texas.

- Ganzar LA, Salvo D, Burford K, Kohl HW III, Hoelscher DM. Longitudinal changes in objectively-measured physical activity and sedentary time among school-age children in Central Texas, US during the COVID-19 pandemic. Oral presentation at the dPAD Symposium, September 2022. Houston, TX.
- Ganzar LA, Salvo D, Burford K, Kohl HW III, Hoelscher DM. Longitudinal changes in objectively-measured physical activity and sedentary time among school-age children in Central Texas, US during the COVID-19 pandemic. Oral presentation at Texas School Health Advisory Committee meeting, September 2022. Austin, TX.
- Ganzar LA, Salvo D, Burford K, Kohl HW III, Hoelscher DM. Longitudinal changes in objectively-measured physical activity and sedentary time among school-age children in Central Texas, US during the COVID-19 pandemic. Oral presentation at 2022 International Society of Behavioral Nutrition and Physical Activity, October 2022. Phoenix, AZ.
- Weng O, Burford K, Zhang Y, Ganzar LA, Hoelscher DM, Salvo D. Exploring food environment inequalities across public elementary school neighborhoods in Austin, Texas. Oral presentation at the American Public Health Association Conference, October 2022. Bethesda, MD.
- Burford K, Zhang Y, Weng O, Ganzar LA, Hoelscher DM, Salvo D. Inequities in active travel infrastructure coverage across school neighborhoods in Central Texas. Presented at Active Living Research Conference, March 2023. Bethesda, MD.
- Ganzar LA, Bentley SS, Salvo D, Durand CP, Anderson A, Emamian A, Hoelscher DM. Incorporating equity into active commuting to school infrastructure projects: A case study. Presented at Active Living Research Conference, March 2023. Bethesda, MD.
- Zhang Y, Burford K, Weng O, Ganzar LA, Hoelscher DM, Salvo D. Examining the availability and equitable distribution of recreational assets for physical activity across school neighborhoods in Central Texas. Poster presentation at Active Living Research Conference, March 2023. Bethesda, MD.
- Ganzar LA, Bentley SS, Salvo D, Durand CP, Anderson A, Emamian A, Hoelscher DM. Incorporating equity into active commuting to school infrastructure projects: A case study. Presented at Society for Public Health Education Conference, March 2023. Atlanta, GA.
- Published:
 - Burford K, Ganzar LA, Lanza K, Kohl HW, Hoelscher DM. School-level economic disparities in police-reported crimes and active commuting to school. International journal of environmental research and public health. 2021;18(20):10885. <u>https://pubmed.ncbi.nlm.nih.gov/34682631/</u>
 - Hoelscher, D.M.; Ganzar, L.A.; Salvo, D.; Kohl, H.W., III; Pérez, A.; Brown, H.S.; Bentley, S.S.; Dooley, E.E.; Emamian, A.; Durand, C.P. Effects of large-scale municipal Safe Routes to School infrastructure on student active travel and physical activity: design, methods and baseline data of the Safe Travel Environment Evaluation in Texas Schools (STREETS) natural experiment. Int. J. Environ. Res. Public Health 2022, 19, 1810. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8834930/
 - Ganzar LA, Salvo D, Burford K, Zhang Y, Kohl HW, Hoelscher DM. Longitudinal changes in objectively-measured physical activity and sedentary time among school-age children in Central Texas, US during the COVID-19 pandemic. International Journal of Behavioral Nutrition and Physical Activity. 2022 Dec;19(1):1-1. PMCID: PMC9117593 <u>https://pubmed.ncbi.nlm.nih.gov/35590329/</u>

- Ganzar LA, Bentley SS, Salvo D, Durand CP, Anderson A, Emamian A, Hoelscher DM. Incorporating equity into active commuting to school infrastructure projects: A case study. Transportation Research Part D: Transport and Environment. 2022 Nov 1;112:103493. <u>https://www.sciencedirect.com/science/article/pii/S1361920922003194</u>
- Ganzar LA, Burford K, Zhang Y, Gressett A, Kohl HW, & Hoelscher DM. (2023). Association of Walking and Biking to School Policies and Active Commuting to School in Children. Journal of Physical Activity and Health. <u>https://doi.org/10.1123/jpah.2022-0376</u>.
- Manuscripts in process:
 - Salvo D, Ganzar LA, Burford K, Zhang Y, Hoelscher DM. Macro- and micro-level built environment factors around STREETS schools.
 - Salvo D, Ganzar LA, Hoelscher DM. GIS neighborhood built environment factors and baseline ACS.
 - Ganzar LA, Burford K, Hoelscher DM. Reliability and validation of MAPS-SRTS.
 - Perez A, Burford K, Zhang Y, Lanza K, Hoelscher DM. Association between Weather and Active Travel to School among elementary-age children: A cross-sectional analysis.
 - Lanza K, Perez A, Burford K, Zhang Y, Hoelscher DM. Weather as a modifying factor of the impact of a SRTS infrastructure intervention on active commuting to school and physical activity among elementary age children.
 - Hoelscher DM, Ganzar LA, Bentley SS, Adams B, Ingersoll C. COVID physical activity changes among children and their caretakers: a mixed methods study
 - Burford K. Associations between objective traffic-related safety and ACS.
 - Burford K. Sociodemographic disparities in the associations between objective trafficrelated safety and ACS.

Challenges and Changes

Due to a year of missed measures during the pandemic (school year 2020-2021), our study is one year behind. We have been approved for a one year no-cost extension with NIH and plan to continue one final year of data collection this upcoming school year 2023-2024.



2023-2024 Goals

During the next school year we plan to conduct Wave 3 (fall 2023) and 4 (final-spring 2024) data collection with the 5th grade cohort students (Austin ISD and Round Rock ISD only). Additionally, we will complete the two final waves (once per semester) of the cross-sectional ACS tallies and one final school policy survey (in all participating school districts).

We will also complete analyses of data from previous years, including: (1) active commuting to school tally data, (2) MAPS data, (3) child physical activity (accelerometer/GPS) data, (4) National Oceanic and Atmospheric Administration (NOAA) weather data, and (5) cost-analyses.

Currently, several manuscripts are in process (see above), and we plan to publish these manuscripts, as well as present study results at scientific meetings, conferences, and via the Michael & Susan Dell Center for Healthy Living webinar series. We also plan to provide the school districts and individual participating schools with a report of their school-level active commuting to school tally data.