

INFO BRIEF

School Travel Data: Innovative Collection Methods and Uses



Pedestrian and Bicycle
Information Center
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Introduction

The following four examples offer insights into the diversity of ways that school travel data are being collected and used. These stories offer low cost and higher investment strategies for agencies of all sizes to consider adopting, while also reflecting the value of understanding school travel patterns.



Multi-agency investment to understand mode choice for school travel

Washington State Department of Transportation

The State of Washington uses a statewide telephone survey to produce representative estimates of how students in kindergarten through eighth grade travel to and from school and to learn about the barriers to walking, biking, and riding the school bus. The survey is funded by the State Legislature and through partnerships between the Washington State Department of Transportation (WSDOT), Department of Health, and Office of the Superintendent for Public Instruction. These agencies are interested in improving student health and wellness and use the survey results to inform decisions related to school transportation.

The first survey was conducted in 2014 and it was repeated in 2016 with a bigger sample size. After a recruiting period, 330 schools were invited to participate in the 2016 survey. The sample included 180 schools that had received WSDOT funding for infrastructure improvements from 2006-2014 and 250 schools that were randomly selected proportional to size for a more accurate representation of the student population across the state.

The survey modifies language from the National Center for Safe Routes to School's parent survey

with additional language from the U.S Department of Transportation's National Household Travel Survey. In 2016, more than 11,000 families from 242 schools completed the survey. Overall, 17% of students walked and 1.4% biked. The survey also asks about other modes like school bus, public transit, and private vehicle transportation. Walking was the most common means of transportation to school for students who live within one mile of school and a greater percentage of students from lower income schools than from higher income schools reported walking home from school. The 2016 estimates for walking and biking are higher than the 2014 estimates, but the 2016 sample size was bigger and more representative of the State's population. The survey results also report differences across age, gender, and school characteristics.

Washington State agencies will have a third year of statewide school travel mode share estimates once the 2019 survey data have been analyzed. In addition to sharing findings with the State Legislature, WSDOT plans to use the findings in its new active transportation plan to examine gaps in the network and prioritize projects. WSDOT is also working with university research partners to combine the phone survey data with land use data and crash data to create a framework for evaluating walkability near schools.

Low-tech estimates of walking and biking to school

Georgia Department of Transportation

The State of Georgia funds a SRTS Resource Center and five regional coordinators who provide technical assistance and encouragement to schools across the state. Each year in the fall, the regional coordinators reach out to nearly 500 schools to obtain mode split data about how students are departing from school on a typical day. Formerly, the regional coordinators distributed student travel tally forms to collect these data, but now the coordinators rely on informal phone calls to collect estimates of how many students walk, bike, carpool, or take the school bus and the total number of students at each school. One challenge to obtaining accurate estimates is differences in the way that schools categorize students as “walkers” when those students participate in park and walks or daycare pick-up/drop-off services. Coordinators can reach out to about 20-30 schools during a two-hour block of time and all data are entered into a customer relationship management database. During each data collection period, the Resource Center usually gets mode share information from about one-quarter of all schools in Georgia.

Like some other State-level or regional SRTS programs, the Georgia SRTS Resource Center works closely with a subset of schools each year. This partnership with about 20 schools includes using the student travel tally forms to collect more detailed mode share information, using a modified version of the parent survey (which is sometimes completed by students instead of parents), and using those data to inform a Road Safety Audit (RSA) process. The Georgia Department of Transportation takes the recommendations from the RSAs and groups them into projects that then compete with projects from other RSAs for Safety Office funds.



Re-collecting data to evaluate long-term program impact

Florida Department of Transportation

The Florida Department of Transportation (FDOT) uses student travel tally data to evaluate the impact of funded infrastructure projects. The “after” period student travel tallies are typically collected three to six months after the project is completed, but since 2018 marked the 10-year anniversary of Florida’s statewide SRTS program, FDOT is revisiting many of the 282 infrastructure projects completed between 2007 and 2018. For many of these projects, that means coming back five or ten years later and asking the school to collect student travel tally data so FDOT can determine whether walking and bicycling rates have changed. Simultaneously, FDOT will analyze pedestrian and bicycle crash data from before and after each project. For instances when tally data do not show an increase in active travel to school, FDOT is asking schools to collect parent surveys so that FDOT can examine the qualitative data for ways that travel to school has changed. FDOT is also hoping to learn about the relationship between SRTS infrastructure projects and SRTS education programs by comparing schools that received infrastructure projects with those that received infrastructure projects and education programs.

Qualitative data from parent surveys informs project delivery

East Central Wisconsin Regional Planning Commission

The East Central Wisconsin Regional Planning Commission (ECWRPC) tracks a variety of output measures to conduct an annual strategic evaluation of its regional Safe Routes to School (SRTS) program and supports schools in collecting qualitative and quantitative data to inform local SRTS action plans. ECWRPC serves an eight-county region that covers 33 school districts in urban, rural, and tribal communities and has taken a regional approach to SRTS for nearly a decade. With support from ECWRPC staff, participating schools draft SRTS action plans that are informed by parent surveys, student travel tallies, and bike/walk audits. Each year, ECWRPC helps schools create their action plans and revisits existing plans at other schools on a roughly five-year rotating schedule.

For new and updated SRTS action plans, ECWRPC helps assemble a local task force that includes County Highway Committees (the equivalent of a public works department) or public works departments along with representatives from the school, school district, and other relevant agencies including staff from local municipalities. The data collected during the action planning efforts has been used to augment or identify infrastructure projects for local agency capital improvement programs. For example, using parent surveys at a school that is updating its SRTS action plan can help identify safety concerns with a corridor that may have high vehicle speeds and limited opportunities for people walking and bicycling to cross the road. These comments are then used to demonstrate constituent support for roadway improvements that would improve conditions for walking and bicycling.

In one local example, there is a roadway section that crossed two counties and the County Highway Commissioner serving on the school's task force mentioned that this road would likely be resurfaced soon. Resurfacing is often an opportunity

to reallocate roadway space by adjusting the way that travel lanes are marked (often narrowing and/or reducing lanes and creating space for a shoulder or bike lane). The county to the north was already planning a lane reconfiguration (road diet) to a three-lane cross-section, but this concept would have been new for the county to the south, which is 90% rural. Additionally, the southern county had selected this road for resurfacing during the year of the action planning effort, but funds were delayed into the next year for their local capital improvement program. "Sometimes the timing of projects is right," said ECWRPC Principal Planner and Safe Routes to School Coordinator, Melissa Kraemer Badtke. The resurfacing project delay meant there was time for the school district and the local municipality to demonstrate their support for lane reconfiguration. The Highway Committees in both counties have now voted to approve the three-lane cross-section, which will include narrower travel lanes and space for a shoulder. The counties are also hiring a consultant to evaluate the corridor for a trail and/or sidewalk.

The action planning efforts facilitated by ECWRPC help communities identify infrastructure projects, but the data collected during these audits are especially useful for agencies that do not already have inventory infrastructure data. Task forces use tablets out in the field and collect data using the ESRI Collector Application to document the presence/absence or facilities and their condition. Since the East Central Region includes many rural schools where walking and bicycling may never be feasible, ECWRPC also tracks and reports lots of output measures for a variety of education and encouragement programs, including Walk/Bike to School Day, Winter Walk Month, educational campaigns, and school recognitions.



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Since its inception in 1999, the Pedestrian and Bicycle Information Center's (<http://www.pedbikeinfo.org>) mission has been to improve the quality of life in communities through the increase of safe walking and bicycling as a viable means of transportation and physical activity. The Pedestrian and Bicycle Information Center is maintained by the University of North Carolina Highway Safety Research Center with funding from the U.S. Department of Transportation Federal Highway Administration and the National Highway Traffic Safety Administration.



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