



GATHER DATA

Gather and track biking and walking data.

Communities accepting the third Mayors' Challenge Activity focused on initiating or expanding pedestrian and bicycle data programs to better understand walking and bicycling activity levels (i.e. volume), crash location and circumstances, and existing and proposed infrastructure. Such data will enable more informed decision-making and help communities target improvements where the need is the greatest.

From Menlo Park, CA, to Columbia, SC, participating communities began and expanded a variety of programs and projects for collecting more data to assist in planning for non-motorized transportation. This data was used to identify key action items and locations that will most improve safety for pedestrians and cyclists.

The winning communities for Challenge Activity 3 are Los Angeles, CA, and Bellevue, WA. Los Angeles used a data-driven analysis to identify a High Injury Network (HIN) that represents 65 percent of non-motorized deaths and serious injuries, and then developed a scoring system to prioritize intersection improvements along the HIN.

Bellevue, WA, implemented a number of programs to track pedestrian and bicycle data including a 10-year longitudinal assessment of non-motorized collision data, the Ped Bike Implementation Initiative (PBII) and the Bike Rapid Implementation Program (BRIP). Bellevue's efforts

were notable for the comprehensiveness of their data collection efforts and the use of their data for immediate response to identified safety concerns. More information on efforts in Los Angeles and Bellevue is available in the [Award Winner fact sheets](#).

How are communities collecting data?

Communities initiated and expanded bicycle and pedestrian count programs

Communities carried out both temporary and permanent count programs during the Challenge in order to assess cyclist and pedestrian volume on streets as well as off-street trails, and establish baseline counts for these locations. The count programs were used to identify safety concerns for cyclists and pedestrians and potential areas for infrastructure improvement projects, assess impacts of new projects, and update transportation plans. Knowing the volume of use is also essential to correctly understanding crash data. Kaua'i, HI, implemented its first ever count program, involving 20 volunteers to help perform manual "before" counts for an area slated for reconstruction. Orlando, FL, also initiated a count program, installing automated counters that are rotated monthly. Charlotte, NC, increased its number of automated counters from 13 to 21, including two live display "eco-totems" that celebrate pedestrian and cyclist activity. Some of the Mayors' Challenge communities participated (through their MPOs) in the [FHWA Bicycle-Pedestrian Count Technology Pilot Project](#), learning about options for installing automatic counters to collect counts of bicyclists and pedestrians at various locations within each MPO planning area.

Communities developed inventories of bicycle and pedestrian facilities

Mayors' Challenge communities identified locations and created databases of bicycle

and pedestrian facilities, and used the data to determine key areas of concern and prioritize improvement projects. Combined with analysis of safety data, the data help cities identify roadways in greatest need of improvement. South Bend, IN, and the Palm Beach MPO both performed bicycle suitability analyses to identify roads best suited for bicycle travel. The Palm Beach MPO also created a database of all sidewalks in the county to identify unsafe school walking conditions and determine where sidewalks are needed.

Many cities used the results of the bicycle and pedestrian facilities analyses to prioritize projects. For example, Huntington, WV, participated in a statewide LiDAR mobile data collection pilot project to assess the conditions of street signs, traffic signals, storm inlets, tree planters, and sidewalks. Data will be used towards projects such as sidewalk repairs (\$100,000 has been allocated in the city's general fund budget for FY17), improved wayfinding, and analyzing feasibility of key connections.

Communities analyzed safety and crash-related data to identify and mitigate hotspot areas

Communities also analyzed longitudinal safety and crash-related data, specifically in relation to collisions involving bicyclists and pedestrians, and to understand factors such as time and location. A few cities, including Bellevue, Los Angeles, Boston, MA, and New York, NY, used their data analysis as part of Vision Zero initiatives, which involves collecting safety data to better focus on effective actions to eliminate fatalities and serious injuries.

In conjunction with infrastructure inventories, some communities identified areas of particular concern to focus efforts on improving safety infrastructure through focused engineering and law enforcement resources. For example, the Southern California Association of Governments used an environmental justice analysis of safety data to determine the geographic concentration of collisions involving bicyclists and pedestrians. The study found that people in low-income



Orlando count program infographic.

neighborhoods are at higher risk for pedestrian and/or bicycle collisions. The project includes an Environmental Justice Toolbox, which recommends the development or updating of transportation infrastructure with options such as complete streets, sidewalks, and bicycle lanes, to improve safety in these communities.

Communities made use of citizen data to understand mobility preferences

Many communities used citizen feedback to provide a qualitative and nuanced understanding of the numbers from safety data and traffic counts. While the data allowed communities to understand which areas were most amenable and which were least safe for pedestrians and cyclists, comments from citizens provided a clearer picture of conditions at specific locations. This feedback allowed cities to better understand how to improve current facilities to increase pedestrian and bicycle safety and better tell the story of the biking or walking experience.

Online platforms collected citizens' comments across a variety of data areas. Public input maps allowed citizens to identify safety barriers and key

areas for improvement. In developing their bike plan, Chapel Hill, NC, used an interactive map on which people could draw and add comments.

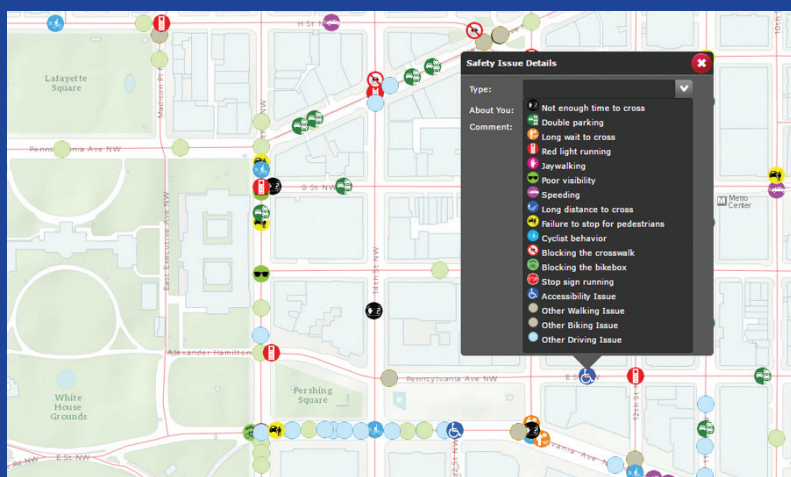
In addition to online comment maps, feedback was given at public meetings, often regarding specific projects and improvements. Columbus, OH, sought feedback beyond typical public meetings by deploying a “Plan Van” mobile outreach unit. Other cities hosted bike rides, opened pop-up protected bike lanes, or held safety demonstrations to raise awareness and garner support and additional feedback.

A few communities completed citizen surveys regarding mobility choices and traffic safety. San Antonio, TX, conducted surveys of over 2,600 residents to understand bicycle riding habits, preferred types of bicycle infrastructure, barriers to riding, and drivers’ and cyclists’ perceptions of each other. Columbus-Phenix City Metropolitan Planning Organization (Georgia) partnered with students from Auburn University to develop a mobile app that will crowd source data from

bicyclists. The user-friendly app allows bicyclists to record their favorite routes, report obstacles, such as potholes and missing bike lanes, as well as tag the locations of the closest bike racks. Using this data, the MPO will assess where the greatest needs are for improvements to infrastructure and facilities. Miami-Dade County, FL, collected feedback on the data collection process itself, asking respondents what data should be collected and how data could be better presented to tell the story to the public.

“Vision Zero was already being discussed, but the Mayor’s Challenge helped energize the team. Information on high visibility enforcement and also on Countermeasures that Work gave us data-backed support for taking actions that we wanted to take.”

– City of Boston in communications with USDOT



Washington, DC, developed a safety map where residents can pinpoint dangerous areas, which are used to supplement official crash data. During the Challenge, the District began publishing open data and sponsored a Vision Zero hackathon to engage residents in safety analysis. Through the hackathon, residents developed apps and analyzed 5 years of crash data.

For more information about the Mayors’ Challenge results and award winners see: www.transportation.gov/mayors-challenge/awards-and-results