

Highlights from the 2012 Public Transportation Infrastructure Database

APTA's transit agency members are working to repair their systems as well as improve the rider experience at the same time. To that end, agencies are investing in new technologies that tell riders when their bus or train is coming, helping customers reduce wait times. Agencies are installing WiFi in transit stations so transit riders can use their wait time productively, and adding countdown signs so riders know when their ride is on the way. And transit agencies are encouraging ridership and providing for better station access by adding bike racks and lockers at stations. The 2012 edition of the Public Transportation Infrastructure Database details these changes and more.

A total of 137 U.S. and 11 Canadian APTA transit agency members responded to the infrastructure database. These agencies operate a total of 941 bus stations, 2,333 rail stations, and 51 ferry terminals. The U.S. transit agencies in the database have over 344 thousand bus stops and the 11 Canadian agencies have over 45,000.

New Real-Time Technology

The 2012 Transit Infrastructure Database added new information about the information systems transit agencies are using, and whether they are providing real-time arrival information to their customers. 87 U.S. agencies (63.5% of respondents) have some sort of automatic vehicle location system – these systems allow transit agencies to track the locations of their vehicles and are the foundation of systems that provide real-time arrival information to transit passengers. The AVL vendors most commonly used by respondents were ACS/Xerox and Trapeze. Two agencies indicated that they developed an AVL system within their agency.

Agencies also provided information on which vendors they use to provide their real-time information system. Agencies use a wide variety of providers for their customer-facing real time systems. The most popular provider is NextBus; 15 agencies that provided information use their services. A majority of agencies use the customer-facing systems provided by their AVL vendors. On average, agencies receive position updates from their buses' AVL systems every 38 seconds.

Agencies are using a variety of tools to provide transit arrival times to their riders. Fifty-four transit agencies (87% of those with real-time systems) have their real-time information available on their agency website. Forty-two agencies have a system where riders can receive real-time arrival updates via text message. Thirty agencies have an automated phone system riders can call to receive real-time arrival information, and thirty-three agencies have a mobile device app developed by the agency itself. These systems work in concert to make real-

time updates available to as many riders as possible. Front-facing real-time information on agency websites helps customers learn that this information is available and can steer them to other ways they can receive arrival updates.

Some transit agencies are providing tools so that third-party developers can create their own apps using agency real-time arrival information. These application programming interfaces (APIs) let apps request specific pieces of information as dictated by selections within the app. Twelve agencies provide information via the NextBus API, and twelve provide information using GTFS-realtime. Four agencies provide information using the SIRI API, a standard developed by CEN in Europe. Ten agencies use the proprietary API provided by their real-time system vendor.

Some agencies are highlighting apps that third-party developers have made using agency real-time information. Seventeen responding agencies indicated that they have a page on their website dedicated to showing off what the general public has been able to accomplish using transit agency open data.

Station Features

The 2012 edition of the Infrastructure Database included new information about the features of transit stations. Transit riders are becoming more interested in being connected to the internet via mobile devices and laptops at all times. To this end, some agencies are installing WiFi internet connections in their stations. Twenty four agencies have installed WiFi at 43 bus stations across the U.S., 5.7% of the U.S. bus stations included in the report. Three agencies have installed WiFi in a total of 34 rail stations in the U.S.; 1.6% of these stations included in the report are WiFi enabled.

Transit agencies are also taking advantage of their real-time data to provide that information directly to riders at stations and stops. Forty-nine agencies have installed vehicle arrival time displays across a total of 149 bus stations, nearly 20% of bus stations now have this technology. Nineteen agencies have vehicle arrival time displays installed in at least one rail station, covering a total of 757 stations, 35% of those rail stations in the report.

Park & Rides

Another new data point in the 2012 Infrastructure Database is the inclusion of information on park & ride stations and stops. Previously the report included information only on the total number of customer parking spaces at their stations. Responding agencies have park & ride lots at a total of 361 bus stations and 318 bus stops across the U.S. These 679 bus stations and stops have a total of over 210,000 parking spaces between them, an average of 309 spaces per park & ride. 47.9% of bus stations have all-day auto parking for transit riders; less than one tenth of one percent of bus stops do. Houston Metro has the most parking spaces at bus stations and stops, with over 34,000 spaces.

A total of 690 rail stations and 3 rail stops have all-day automobile parking. These rail stations and stops provide over 358,000 parking spaces, an average of 518 spaces per park & ride. MBTA in the Boston area has the largest parking inventory in the survey, with 62,816 spaces at rail stations.

Bike Parking

Responding agencies provide over 12,000 spaces for bikes at bike racks at 297 bus stations, nearly 40% of all bus stations. Included for the first time in the database was information about secure bike parking in either lockers or locked bike rooms. 122 bus stations (4% of bus stations) operated by responding agencies have these secure facilities, with space for 959 bikes between them.

973 rail stations in the U.S. (45.3% of stations) have bike racks, with a total of nearly 20,000 spaces for bikes. Secure facilities are provided at 358 rail stations (16.7%) providing secure space for 3,421 bikes.

Agencies Embracing New Technology

Transit agencies continue to work on their state of good repair projects while investing in these new amenities that improve the experience of transit riders. New technology providing real-time information to transit riders helps reduce wait times for riders. Open data portals are allowing app developers to take advantage of transit agency data to create all sorts of useful tools for riders and the public. WiFi in transit stations helps transit riders get work done while waiting and turns their transit time into productive time.

The APTA Public Transportation Infrastructure Database is published biennially for the benefit of APTA members and the public. Information on APTA member agencies included in the database is provided directly by the agencies. The report may be downloaded from the APTA website at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>.

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The American Public Transportation Association (APTA)

The American Public Transportation Association (APTA) is a nonprofit international association of 1,500 public and private sector organizations, engaged in the areas of bus, paratransit, light rail, commuter rail, subways, waterborne services, and intercity and high-speed passenger rail. This includes: transit systems; planning, design, construction, and finance firms; product and service providers; academic institutions; transit associations and state departments of transportation. APTA is the only association in North America that represents all modes of public transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. More than 90 percent of the people using public transportation in the United States and Canada ride APTA member systems.

APTA Vision Statement

APTA is the leading force in advancing public transportation.