With Mobility and Transit, the Answer Isn’t Always Mass

Veronica Siranosian AICP, LEED GA (AECOM Transportation and Land Use Planning Manager), Photos © John Livzey, 2015

In America, we love big solutions, particularly when dealing with mobility. From bigger airports to more highway lanes to expanded port complexes, bigger is better. But not every problem can be addressed by a big solution alone. Sometimes, solutions can be smaller, more individual. They can even augment larger solutions already in place.

Integrated mobility hubs (small-scale transit centers that combine bike share, car share, shuttle service, and/or ride share with larger transit systems, either physically or through technology), vehicle and bicycle sharing programs, and innovative ride planning technologies that connect modes serve as perfect examples. Elected officials and public agencies should consider how expanding multimodal choices through these types of projects can enhance their current transportation systems and serve diverse riders' needs with relatively reasonable investment.

Transportation patterns are rapidly changing. According to the U.S. Public Interest Research Group (PIRG), Americans are driving much less than they used to. One demographic group, Millennials, has become particular car avoidant. “Between 2001 and 2009, the average number of miles driven by 16- to 34-year-olds dropped by 23 percent, as a result of young people taking fewer trips, shorter trips, and a larger share of trips by modes other than driving." Young people today are using transit and active transportation more and driving less. Consequently, cities and transit agencies are reassessing their transportation networks to better serve the needs of this younger generation.

Millennials, however, are not the only demographic group that could be served by expanding and integrating multimodal transportation choices. Many low-income populations are transit dependent and they sometimes find that existing mass transit services fall short of their needs. In that regard, one Federal Transportation Administration (FTA) program, the Job Access and Reverse Commute Program (JARC), seeks to “address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment." The program recognizes that new entry level jobs in suburban areas are difficult to access from inner city, urban, or rural areas, that entry-level job schedules may be outside of times served by conventional transit, and that many trips are complex

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and include multiple destinations. Integrated mobility hubs and other on-demand, multimodal services can provide the missing link necessary to extend transit's reach, making it more effective and comprehensive for all, especially low-income populations.

So, what exactly are integrated mobility hubs and how do they work? The Los Angeles Metropolitan Transportation Authority (Metro) defines integrated mobility hubs as "a suite of services that offers first- and last-mile multimodal solutions linking individuals from transit to employment centers and other activities." In addition to being physically collocated, these services are intended to be integrated via a unified payment system and/or mobile app. The suite of services can include, but is not limited to bikes, car sharing, electric vehicles, real-time ridesharing and bike sharing, bike parking, and small bus service. These hubs intersect transit at key points and help riders reach individual or shared destinations that were previously unreachable.

At the request of the Los Angeles Department of Transportation, Metro commissioned a study for integrated mobility hubs called the Los Angeles-Long Beach Integrated Mobility Hubs Project. Funded by the FTA's JARC program, the study focused on improving the accessibility of persons of low-income to job and job-related opportunities through the implementation of regional and satellite mobility hubs in Downtown Los Angeles, Hollywood, and Long Beach. Traditionally, transit and public agency studies focus on fixed route, fixed schedule transit service. With this project, however, the study moved beyond fixed-route points to areas not necessarily served by rail and bus transit. And the findings were fascinating.

Based on surveys conducted for the project and market research, most lower-income people had access to smartphones and used them for trip planning, a key element for integrated mobility hub services. Unlike Millennials who often chose bikes or bike sharing, low-income individuals surveyed for the project preferred car share or rideshare programs. Survey participants identified that they had a need for flexible, on-demand services like car share and ride share, for example to make trips with multiple stops, get to and from jobs at off-peak hours, or travel with family members. In its conclusion, the study identified optimal locations for mobility hubs, including bike share stations, that would complement existing transit. Metro plans to use the study to issue Requests for Proposals to install the hubs.

Another study, funded by the Southern California Association of Governments Sustainability Planning Grant Program—the Crenshaw Station Area Active Transportation Plan, Local and Electric Use Vehicle Strategies, and Overlay Zone—looked to improve first/last mile connectivity to the Metro Green Line Crenshaw Station in the City of Hawthorne. Though the study focused more on traditional bike and pedestrian access planning, the City of Hawthorne also wanted to explore the use of shared vehicles for local trips.

The study team created a shared neighborhood electric vehicle plan informed by a pilot program implemented by the South Bay Council of Governments. The study identified streets that could accommodate neighborhood electric vehicles—similar to golf carts that travel at top speeds of between 20 to 25 mph. The findings suggested cost-effective ways for implementation focused on physical infrastructure investments to strengthen station access. On selected streets, the team found that simply widening existing or planned bike lanes provided necessary space to accommodate the electric vehicles. The study also identified potential funding sources. One potential funder, the Air Quality Management

District (AQMD), provided a grant for the South Bay implementation. AQMD's involvement speaks to another compelling reason for integrated mobility hubs.

In addition to demographics, attitudes have shifted. Today, agencies and individuals are concerned about the environment. As a result, government and organizations like the AQMD provide grants for multi-modal projects such as mobility hubs because bikes, ridesharing, and other shared-use schemes can reduce greenhouse gas emissions. As they see it, these types of projects take cars off the streets for short, long, and multiple trips; they provide a transit-based solution replacing cars. And this belief is backed by preliminary research.

Zipcar, the private sector ridesharing service, found that, “Each and every Zipcar takes 15 personally-owned vehicles off the road . . . After joining Zipcar, 90% of our members drove 5,500 miles or less per year. That adds up to more than 32 million gallons of crude oil left in the ground—or 219 gallons saved per Zipster.” What’s true for car sharing is certainly true for bikes and bike sharing in terms of taking cars off the road.

So, how should public agencies proceed? For any transit entity, it’s always about allocating resources to best meet transit needs. Big projects that serve the masses often take precedence. That’s understandable. But the decision process need not be binary. Investments in mobility hubs, bike or car share, or trip planning apps won’t replace big-ticket investments, but they can support them and extend their effectiveness by filling gaps in and expanding access to existing services.

First/last mile solutions and expanded transportation choices provided through projects like mobility hubs, shared bike or vehicle programs, and new technologies can help strengthen transit systems and create a positive feedback loop in growing ridership. The single most important aspect of designing a successful solution is to understand the needs of people that will use such services. In order to make investments in these systems most effective, find out what your target users want and need from extended transit. It can be different for each population. For many Millennials, it may be just about hopping on a bike. Many lower income individuals and families may have different concerns. Agencies considering such projects must understand the needs of the demographic populations they serve and design from there.

In addition, don’t be afraid to implement a pilot program. The investment can be minimal and there is funding available from both the public and private sectors to mitigate costs. Lastly, make implementation of new mobility services easy by removing any regulatory barriers that prohibit the implementation of the services provided by mobility hubs, bike share, and car share.

Big transit solutions tend to receive a lot of attention and effort in America. But that does not mean that smaller solutions have no place in our transportation network. Integrated mobility hubs, car and bike share, and technologies that link services provide a cost-effective way for transit agencies to extend their networks to serve many riders they traditionally fail to capture. Investments in seamless connections between new and existing modes will enable a stronger transit system, and expanding multimodal transportation choices helps everyone.

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Photos of electric cars charging in Paris courtesy of Veronica Siranosian.

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