



Regional Mobility Dialogue Series Results and Summaries

Transit and Rail- Are They The Answer?

September 11, 2018

Leonard Transportation Center, CSUSB

Introduction

Over the last quarter century, Southern California has invested heavily in public transportation, yet over the last ten years, transit ridership has declined significantly, and society shows no signs of giving up their reliance on automobiles as their primary mode of transportation. Automobile ownership and traffic congestion continue to increase, and growth is increasingly focused in areas not well served by transit. What role will transit and rail play in the future of mobility in the Inland Empire? How will emerging mobility trends such as on-demand ride services, shared vehicle ownership and autonomous and connected vehicles impact transit? Can transit systems adapt and reclaim ridership, and will it matter?

This dialogue session looked at the role transit and rail played in the past and what role they may have in the future. Our experts examined pressing questions such as how can transit be integrated into the mobility models of the future? How can people be incentivized to "choose transit?" What about the first and the last mile issues? Will transit and rail even be relevant in the future of mobility in our region?

For session number five we had four guest speakers discussing the changing dynamics of transit and rail:

- **Hannah King**, Graduate Transportation Researcher, UCLA
- **Carrie Schindler**, Director of Transit and Rail Programs, San Bernardino County Transportation Authority
- **Erin Rogers**, Deputy General Manager, Omnitrans
- **Elliot Greenberger**, Market Manager Southern California, Lyft

Opening Statements

This was the fifth of six dialogues in 2018, and we had an excellent panel of four presenters. The purpose of these dialogues is to begin a community conversation about the future of mobility, and so far, they have done just that. "As transportation professionals we spend a lot of time talking to each other and tend to hear the same stories over and over, so what is really exciting for us to be partnering with the Leonard Transportation Center is that from the very beginning our goal was take this conversation outside of the realm of transportation professionals and get it out into the community," said Kary Witt, National Toll Market Practice Leader, HNTB.

Hannah King began the discussion with an overview of a study on public transit ridership conducted by the UCLA Institute of Transportation Studies. The report, "Falling Transit Ridership: California and Southern California (2018)", analyzed the state of transit ridership in the six county SCAG region – San Bernardino, Riverside, Los Angeles, Orange, and Ventura counties. The study starts off with an understanding of who is using transit and how transit patronage has changed over the past 15 years. "What we learned is that people without driver's licenses use transit a lot more than those who do have driver licenses," stated King. The study also showed that African Americans, recent immigrants, and individuals who live in homes without cars tend to use transit more.

Patronage: Up since 2000, down since 2007, down a lot since 2014



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Next, the research team looked at the data from the National Transit Database. As seen in the Patronage graphic, transit ridership is down at the national (grey line), state (yellow line), and SCAG region (blue line) levels. As of 2016, after some growth early in the new century, transit patronage in the SCAG region is only about 5% of what it was about in 2000. “It is still trending downward. If you look at trips per resident you see a similar story. What we see is that trips per resident in the SCAG region peaked

at 43 per resident in 2007 and declined to 36 trips per resident in 2016,” said King. From 2000 to 2015, transit trips per resident were higher in the SCAG region than California or the U.S. as a whole, despite what some people may think about transit availability in the SCAG region.

When looking at transit service quality, the report looked at both time and distance of transit service offered. Transit vehicle revenue hours grew faster in the SCAG region than in California and the U.S. as a whole. Essentially, availability of transit service is not the cause of falling transit ridership, rather it is falling ridership in relation to service expansion that is leading to decreased transit productivity. When looking at transit fares, researchers looked at fares per passenger miles traveled. They found that transit fares actually decreased on a per mile basis by about 2 cents from 2002 to about 2016.

Next, Hannah discussed how Transportation Network Companies (TNC’s) have exploded onto the mobility scene within the past several years. TNC’s provide an additional alternative to transit for those who do not have access to a vehicle, potentially adding to a decline in ridership. “Because TNC’s are so new and because there is not a lot of publicly available data, at the current moment it is an open question. What we do know is that transit ridership has been down since 2007 and TNC’s have only been a thing since 2012,” stated King. Another factor taken into consideration is demographic change. In the areas that the study looked at, neighborhoods have changed in ways that researchers expect would lead to a decrease in transit ridership. Lastly, researchers looked at vehicle ownership over the past 15 to 16 years and found that it has substantially increased. “In the 1990’s the SCAG region added about 1.8 million people and 456,000 cars. Which comes out to be about 0.25 vehicles per new resident. From 2000-2015 the region added about 2.3 million people and 2.1 million cars, which comes out to around 0.95 vehicles per new resident,” said King. Increased per-capita vehicle ownership contributes to the declining transit ridership more than the other factors the study looked at.

TNCs have likely played a contributing, but not leading, role

- Lyft and Uber are growing
 - Could both add and subtract transit riders
 - Detailed use data not publicly available
- Significant TNC use since 2012
 - Per capita transit use down since 2007

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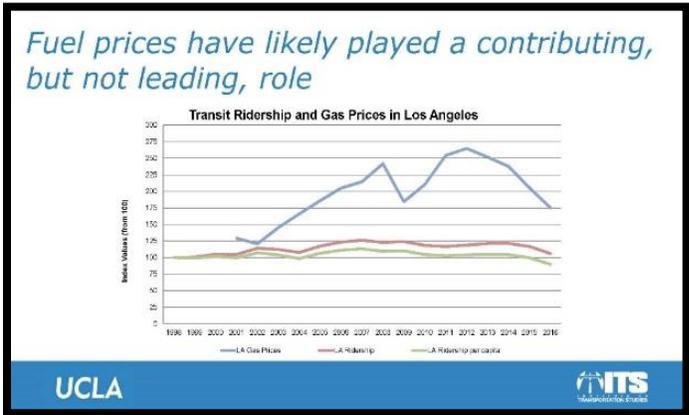
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So, why is transit use declining? “Essentially what we're seeing is there are just fewer numbers of people who are what we call transit dependents; faithful transit riders,” explained King. In order to overcome this challenge, the UCLA research team suggests that transit companies work to broaden the base of occasional transit users. According to the findings, in the Southern California region, we have lost 72 million riders annually from 2012 to 2016. “That's a lot but there are 18 million people in the region, and we know that 72 percent of those 18 million, so about 14 and a half million never, or almost never, ride transit. If we can get one out of every four of these people to replace a driving trip with a transit trip, once every two weeks, that's 96 million annual passengers every year, which would more than compensate for this declining ridership,” said King.

Conclusions

- The regional pool of transit users is changing
 - Fewer heavy-use “transit dependents” over time
 - More “choice riders” with access to cars
 - This situation is unlikely to reverse anytime soon
- Some trends are more variable
 - Fuel prices likely to rise again at some point

UCLA

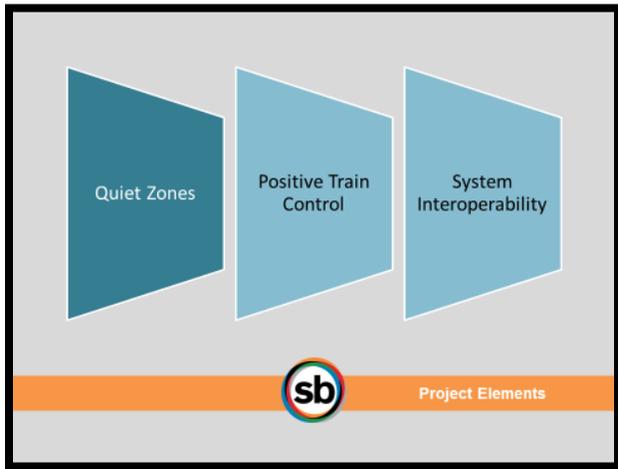


The reasons for declining ridership were examined using six leading factors, divided into two categories: the factors that transit operators can control and factors that transit operators cannot control. “For factors that transit operators can control, we look at quality and quantity of transit service, as well as transit fares. In the category of factors that transit operators cannot control, we look at fuel prices, transportation network companies (TNC’s) such as Lyft and Uber, neighborhood change and migration, and finally rising

vehicle ownership,” explained King. Overall what the study found was that the elements that were outside of transit operators control, are the ones that are driving down transit ridership, in particular, rising vehicle ownership.

Moving the discussion forward, Carrie Schindler, Director of Transit and Rail Programs, San Bernardino County Transportation Authority (SBCTA), provided an overview of operations and the and current funding situation of the Redlands rail project. The Redlands passenger rail is a nine-mile transit corridor between Redlands and San Bernardino. The line is being constructed by SBCTA on the partially abandoned freight rail right-of-way. “The property, the actual freight corridor, was bought in 1992 as part of the larger Metrolink system and it was always envisioned that Metrolink would go all the way to Redlands,” said Schindler. This project is being funded in part by the county sales tax measure. There will be five stations as part of the line: San Bernardino Transit Center, Tippecanoe Avenue, New York Street (completely funded by ESRI), downtown Redlands Station, and Redlands University Station. “We will be crossing 26 roadways as we go to build this project. We are doing infrastructure improvements at all of them, tearing out all the track, rebuilding it all, putting in new signals, pedestrian gates and a lot of infrastructure,” said Schindler. One of the biggest challenges faced by this project is managing the reconstruction of the grade

crossings for major arterials at Waterman Ave. and Alabama St. Currently, Metrolink does not operate with quiet zones in San Bernardino.



SBCTA is working to build the necessary infrastructure to implement quiet zones. They will also be implementing positive train control, to maintain a high level of safety and reliability. “Omnitrans will be running the smaller diesel units 25 round trips a day. And then we’re going to overlay that with the Metrolink locomotive coach that picks folks up in downtown Redlands and takes them on a one seat ride into LA,” said Carrie. By using this model, they hope to make our current system more efficient and stretch the limited funding a bit further. “We choose to project out to 2040 to see what funding is available to support the existing operators;

Omnitrans and Metrolink,” explained Schindler. It is SBCTA’s goal to provide a platform for long-term funding sustainability and then pass those funds onto operators.

Funding is being provided in part by the Transit Development Act, which has two sources. First is from the state sales tax that is returned to the source county based on population. Also, there is the local transportation fund with the primary source to fund operations aside from fare revenues. There are very limited sources beyond these.

Erin Rogers, Deputy General Manager at Omnitrans, discussed declining ridership and funding constraints for local public transit. Omnitrans is the operator for the San Bernardino Valley, and its mission statement is, “We’re going to provide a comprehensive public mass transportation service which maximizes customer use, comfort, safety, while efficiently using financial and other resources in an environmentally sensitive manner,” said Rogers. Omnitrans is governed by a joint powers authority and is currently in the process of drafting legislation to change their governance to a transit district. It has approximately 695 employees, 220 contracted employees, and serves 15 cities in the San Bernardino Valley. They provide twenty-six local fixed routes, three freeway express routes, one bus rapid transit line and five community shuttles. “We make intercounty connections on to Los Angeles, Riverside, we also make connections in Montclair and right here at our San Bernardino Transit Center, there’s intercounty connections,” stated Rogers.

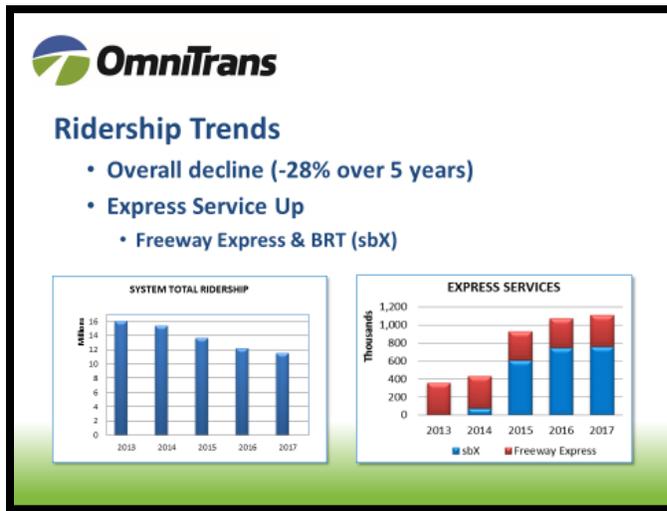
Omnitrans

Public Transit in the San Bernardino Valley

- 15 Cities and County areas
- 11 million annual passenger trips
- 178 Natural Gas buses
- 695 Employees, 220 Contracted Employees
- Transit Service:
 - Local and freeway express routes
 - sbX bus rapid transit service
 - Access ADA service

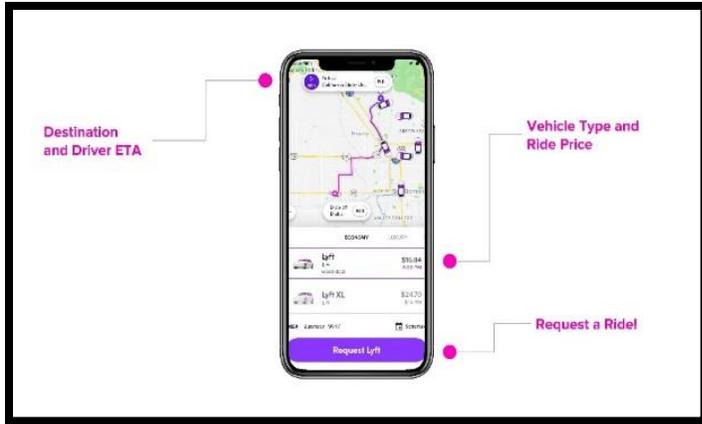
Adding to what Hannah King discussed in terms of ridership, Omnitrans riders are young, balanced in terms of gender, very ethnically diverse and low income. “I’m going to talk a little bit about our Go Smart program. We have 38% students and one of the things that we’re doing in cooperation with the local

schools is to fully subsidize transit trips for local students, and as mentioned by Hannah, this also is her experience as a student taking transit, and I do think that is one of the things that we're doing that's a positive," said Rogers. Omnitrans ridership has declined approximately 28 percent since 2013. According to Rogers, each year Omnitrans develops an annual management plan for the year and includes all the projects they are going to work on and gets the approval of their board of directors. In their plan for this year they outlined five strategic initiatives and are addressing and adapting to the changing needs of the customers, in terms of financial stability and operating cost efficiencies.



“Service expansion and funding growth is the next initiative. The projects that fall into this category have a lot to do with preparing the agency for the start of the Arrow service, analyzing what connections we'll need to the stations and then of course looking for additional funding opportunities,” explained Rogers. In terms of technology there are some challenges. In the very near future operators will have to transition to completely electric buses, and from a financial standpoint that is a problem, as well from an infrastructure and real estate standpoint.

Safety and security is another main focus, which is based on the public perception of the system, and it is Omnitrans job to do everything they can to keep their current customers safe and secure on their vehicles and at the facilities. Another initiative is workforce stability. According to Rogers, 80 percent of their senior leadership team will retire within the next five years. That is a staggering number of imminent retirements and they are now working with an executive recruiter to hire an Operations Director, a Safety Director, and a Procurement Director. In addition, Omnitrans has a shortage of bus operators, they need to employ 430 bus operators to operate their service and this is an everyday struggle. “You know I look at our bus book and our printed bus schedules as the promise we make to our customer that that bus is going to come and if we don't have the staff, you know that hinders our ability to provide our customers with good service, and that is a big problem for us,” said Rogers. Lastly, Omnitrans is preparing their organization to operate the Arrow service, they have hired on a rail director and will be hiring a contractor to do the operations and maintenance.



Elliot Greenberger, Marketing Manager for Southern California Lyft, was the final speaker for our Transit and Rail Dialogue Session. “People use us to go to the club, they use us also to commute, to run errands, to get to and from doctor's appointments – so really a wide range of uses to get around town,” said Greenberger. Lyft was founded in 2012 with the mission of improving people’s lives with the world’s best transportation. Overall, Lyft’s goal is to connect communities with safe, reliable, and

affordable transportation, no matter what the mode may be. In the future, when you open the Lyft app, instead of just requesting a car, there will be several other mode options based on the customer’s preference at that moment, including cost. “As of last week, we launched our first Lyft scooter program in Denver and in the coming weeks we're going to be launching here in Southern California in Santa Monica,” said Greenberger. The Lyft app would direct you to a nearby scooter, which can take you to a nearby train, hop on the train, and on to the final destination. “So in this particular case that we see here, rail is the answer or this part of the answer, but in other cases we may recommend a different type of travel mode based on where you are, where you need to go, and what your particular preferences are,” added Greenberger.

One of the main beliefs for Lyft is that civic partnerships are key to success. Currently, Lyft has more than 25 active transit partnerships all over the country. “Hannah’s research I think pointed out there may be relationships where TNC's are driving down transit, but in many cases they have a lot more in common. Research has shown that people who use ride-sharing, drive less, use transit more and are less likely to own a car. Ultimately that's part of our mission – to reduce the need for car ownership, which I think is probably a little bit of a theme for today.” A lot of the transit agencies see Lyft as a potential partner to lower their costs and serve their passengers in way that is convenient for them. Greenberger went on to discuss a project Lyft had done called, Go Monrovia. In March 2018, the main public transportation mode in Monrovia was a dial-a-ride shuttle bus that costs about a million dollars per year to serve fewer than approximately 100 trips per day. What was happening was customers were replacing those trips by subsidizing both rideshare rides with Lyft and bike share rides with another company. “The result is that where the previous program would’ve served 30,000 people a year, what we're seeing is that through our program with that we're now serving 30,000 rides a month,” said Greenberger. Partnering ultimately offers the best solution.



There are specific use cases, like Monrovia, where rideshare can play a role in not only reducing costs, but also having better service levels. Lyft also partnered with the city of San Clemente and the Orange County Transportation Authority. Orange County and San Clemente have two fixed bus routes that they were

eliminating, and they wanted the public to have an alternative option. They partnered with Lyft and offered subsidized rides for any connection between those two stops. This has not only helped reduce costs for Orange County and San Clemente, but also it has been a better experience for customers, because they do not have to ride the whole grid in order to get to where they are going. Greenberger concluded by saying that “multimodal is really the future here. And I think the other thing that I want to stress is that technology for us is not a silver bullet, so we rely on these community partnerships, you rely on government partnerships to really shape the neighborhoods to what we want to see for them and we understand that Lyft is just one single part of that.”

Moving the Dialogue Forward: Ideas from the Participants

After the presentations, Dialogue attendees discussed the ideas presented and worked together in groups to discuss solutions to move the discussion forward. The top three ideas from each table have been categorized and summarized below.

Transportation Network Companies and transit collaboration. There were a number of participant intrigued by the idea of TNC’s and transit companies working together to benefit both sides.

- Would be great to see TNC partnerships in both large and small cities.
- If transit operators offload less productive routes to TNC’s, we would need back-up plan if TNC’s decide to pull out.
- Research additional opportunities to use partnerships between transit operators and TNC’s to make the best use of existing transit funds.
- SBCTA and Omnitrans should collaborate with TNC’s.
- When thinking about collaboration with TNC’s, take into consideration how people without smart phones (they do exist) would access rides.
- TNC’s and equity. TNC’s can be used to provide mobility to elderly and disabled populations that can’t use transit, and the ability to serve late-night trips safely will increase women’s ability to travel safely at night.
- How can TNC’s be used to provide 1st/last mile connectivity to transit stations?

Multimodal, seamless apps. Many of the participants believed we need to create a multimodal transportation hub with all modes of transportation available to public.

- Mobility as a service, integrate all modes and options into user friendly app to help decision making.
- Regional interoperability with a mobile app.
- Flexibility of all apps connected to one hub.
- Apps that are multimodal and seamless, transit app, google transit, are already around, but data specifications are needed so they can promote multimodal trips.

Expanding Dialogue Series to the desert. There were a couple participants who mentioned expanding the series beyond the Inland Empire.

- Incorporate traveling and transit issues in the high desert.

- Think about expanding the SBX to the high desert.

The Leonard Transportation Center (LTC) at California State University San Bernardino (CSUSB), presented a bi-monthly dialogue series on topics relevant to the future of transportation in the Inland Empire. The series, which was open to the public, was sponsored by HNTB Corporation and was held every other month starting in February 2018.

Dialogue topics ranged from understanding the current mobility dilemma and its causes to potential solutions like congestion pricing, transit; emerging technologies such as autonomous and connected vehicles and new ways of funding transportation infrastructure. Attendees had the opportunity to hear from transportation experts and engage in vigorous discussion about the transportation challenges facing the Inland Empire.

About Leonard Transportation Center

The Leonard Transportation Center (LTC) at California State University, San Bernardino opened in 2006 with a focus on regional transportation needs. The vision of Bill and Barbara Leonard was to create a center that focuses on the unique transportation opportunities and challenges the Inland Empire faces. Today, the LTC is working to expand its research and student engagement programs. Focal points include transportation management and governance issues, development of new technologies, and transnational studies. Their vision is to work collaboratively to seek solutions to assist residents, businesses, government and nonprofit agencies, and international partners to work together on improving sustainability and quality of life in the Inland Empire. For more information, visit www.csusb.edu/ltc.

About HNTB

HNTB Corporation is an employee-owned infrastructure solutions firm serving public and private owners and contractors. HNTB's work in California dates back to its founding in 1914. Today, HNTB continues to grow in size and service offerings to clients in California from seven office locations, currently employing more than 350 full-time professionals. With more than a century of service, HNTB understands the life cycle of infrastructure and addresses clients' most complex technical, financial and operational challenges. Professionals nationwide deliver a full range of infrastructure-related services, including award-winning planning, design, program management and construction management. For more information, visit www.hntb.com