FRIENDS OF **SMART**

SMART POSITION PAPER

RIDERSHIP RECOVERY

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This Friends of SMART Position Paper addresses means to promote ridership recovery during and following the Covid-19 Pandemic.

Rail transit in North America was facing several longer-term challenges before COVID-19. Ridership had been in decline since 2014; the spigot of federal funding for capital projects and new starts was drying up; new competitors for urban mobility emerged; and mismanagement, delays, and cost overruns in several high-profile construction projects dampened public enthusiasm for further investment. Now, the pandemic has affected the essence of what transit is designed to do, and the consequent economic slowdown leaves transit agencies with large holes in their budgets. Fare revenues have taken a nosedive, and the other state and local revenue sources that typically fund transit rely on economic activity that has dwindled. Conversely, since the crisis has upended so much of what we knew as "normal" life, there is a unique opportunity to do things differently, and better, without facing as much resistance to changing "the way things have always been."

Through the next months, with more people in transit-served areas working from home and many who do venture out feeling safer in automobiles, on foot, or on bikes, ridership will remain well below what it otherwise would have been. On top of that, transit systems will be forced to carry half or less of their intended capacity to promote social distancing. Agencies are also having to budget additional funds and staff time to more thoroughly and frequently clean and disinfect vehicles and passenger facilities and provide protective gear for employees.[1]

It is axiomatic that there's always more that can be done (if we can afford it). We can learn what other transit agencies have done and what more they think can be done. Then we can apply the insights from those studies to SMART generally

[1] Kenton, Malcolm: "Shifting strategies can boost rail transit after Covid-19." Trains September 2020, pp. 40-41

and also consider issues that are unique to SMART, such as the transfer from train to ferry at Larkspur.

SMART has already implemented many of the procedures recommended by the sources referenced in this paper. These include

- Sanitization of air and surfaces
- Social distancing
- Required masks
- Expanded schedule
- Reduced fares

A two-part article on the subject of ridership recovery published in Quarter 4 2020 and Quarter 1 2021 of Steel Wheels magazine provides a good background; they are reproduced here with permission from the publisher.

Public Transportation in a Post-Pandemic World: Part 1

By Doug Kerr, RailPAC VP North

The COVID-19 pandemic has caused major upheaval in all public transportation sectors including rail transit and intercity rail corridors. In California the San Joaquin Corridor ridership is running about 34% of pre-pandemic levels while the Pacific Surfliner is at 17%, and the Capitol Corridor and SMART are running at 13% pre-pandemic levels. These systems are especially hard hit because many employees are working from home and using video conferencing instead of in-person meetings. The question of the day is “What will travel look like post-pandemic?” Only two things are known for sure. Travel patterns will be different and no one knows how different. In this article I present my view of the future based on my extensive work-at-home experience. In the next Steel Wheels issue Steve Roberts, RailPAC President with a career in passenger rail market research and ridership analysis, will present a different perspective in Part 2.

Two separate travel categories are affected by COVID. One is daily commuting from home to office and the other is general business travel where destinations, distances, and durations vary month-to-month.

About half of the country’s workforce in one way or another interacts directly with other people. Examples are healthcare workers, emergency responders, grocery

store workers, and garbage collectors. These employees cannot work from home and are either continuing to use public transportation during the pandemic or will return when (they believe that it is) safe to do so. This is at least a piece of good news for rail transit services which have seen 80- 90% dropoff in ridership. The unknown is the other half of the workforce, those who can work remotely.

Working from home is a concept that was evolving slowly pre-pandemic. COVID accelerated the evolution, demonstrating many jobs are well suited for remote work. According to Statista, the percentage of employees working from home increased from 17% pre-pandemic to 44% currently.

An S&P Global/451 Research remote-work survey showed most employees like the flexibility combined with no lost time commuting and want to continue the concept post-pandemic, at least part time. Will companies allow this? Most corporate decisions are driven by money, and remote working decisions are no exception. Global Workplace Analytics estimates that an employer can save $11,000 per year for every person working remotely at least half the time. The savings come from needing less office space and resultant decrease in rent and utilities.

As an example, Nationwide Insurance is closing five regional offices because employees working from home has been so successful. One hundred employees working remotely could save a company over $1 million, significant enough to gain CEO and CFO attention.

Another reason for corporations to encourage remote working is that hiring from local candidates or candidates willing to relocate is restrictive. The August 2020 Harvard Business Review points out that with remote working a company can hire Silicon Valley tech talent, mechanical engineering talent of Detroit, and New York/London financial talent regardless of company location.

So, where does this take us? Local transit systems should get back to 50% pre-pandemic ridership quickly once the pandemic is behind us. From 50% to 75% will take a little longer as those not wishing to work remotely and those working remotely part-time return to transit use. Ridership beyond 75% will take many years and will occur from population and business growth and not from remote workers returning to daily commuting.

Business travel is likely to take a bigger hit than local commuting. The pandemic

has educated the workforce on what can be accomplished with video conferencing such as Zoom and GoToMeeting. While some negotiations and sales closures are best suited for in-person meetings, many other meetings can be just as productive with video conferencing. As with office commuting, money is the driving factor. Business travel, which has almost been eliminated during the pandemic, is expensive and is often a cost-cutting target. Some business travel will return post-pandemic, possibly at the 50% level, but won't return to pre-pandemic levels for many years. This will have a large effect on corridor services such as the Surfliner, Capitol Corridor and corridors outside California.

Significant changes in travel patterns post-pandemic will be challenges for travel providers who must evolve their services to meet these emerging trends.

Part 2

By Steve Roberts, President Rai/PAC

As was noted by Doug Kerr in Part 1, the Covid-19 pandemic has created a major upheaval in public transportation, with ridership declines of over 80%. Conversely, work at home has exploded , accelerating trends already underway. The percentage of employees working from home using video conferencing increased from 17% pre-pandemic to 44% post-pandemic. Doug shared his view of the future--influenced by his extensive work-at-home experience. In this issue I will give readers my view based on my work in passenger rail market research and ridership analysis.

The question of the day: "What will travel look like post pandemic?" We are seeing some hints as to the future. While ridership is slowly recovering, travel and ridership patterns will be different. Some other facts we know. As Doug noted, about half the country's workforce interacts directly with people--so teleworking is not an option. Also the wholesale transition from the workplace to the home office has essentially maxed out. How much of this shift will be permanent? Will a "hybrid" work pattern, splitting the work week between home and office, become the new normal?

Beyond the shift to teleworking from home, other factors disproportionately impacted public transportation ridership. Free flowing traffic and concerns about the virus spreading more easily on public transit (since disproven) and a dramatic drop in daily trips to schools, tourism, hospitality and business travel all

negatively impacted public transportation ridership. In addition, transit and rail agencies reduced their schedules, creating another inducement for employees to drive to work.

We may be seeing signs of a return to normal. Clearly remote education has seen significant challenges, especially for less advantaged students. Combined with the importance of in-person learning as well as the needs of students everywhere to socialize with their peers, communities are reopening schools with a commensurate increase in commute trips and traffic. With more individuals being vaccinated, tourism and hospitality travel is returning; sporting events, concerts, museum trips, and holiday celebrations--all were a major missing piece of the non-work travel volume during the pandemic. Pre-pandemic, this travel added to the daily flow of commuters and increased congestion.

Impacting the "new normal" is the realization that there are drawbacks to the "Zoom" work-at-home model. It's not all that it was hyped pre-pandemic. There are possible security issues and some employers are adjusting wages downward based on employees local cost-of-living (Glassdoor.com).

And Zoom fatigue is real! One of the issues Tech industry leaders and academicians have noticed is the loss of valuable informal group collaboration, networking, and a fast feedback loop (East Bay Times December 13, 2020, "Does Remote work hurt Valley's tech innovation?"). Tech managers feel that one cannot discount the value of personal relationships and casual conversations for mentoring new employees, career development and team building. The random gatherings of different teams create vital links that foster valuable innovation and collaboration. Not to be overlooked is the value of professional relationships that develop from the side banter of in-office personal interactions. Also there is the subtle psychological advantage of showing up in person telegraphs; the message that you are willing to go the extra mile for the customer, co-workers, or management. Finally, the jockeying for power and recognition happens at the court (the office), whispering in the ear of those who control company resources and parcel out the plum assignments.

So while some employees relish working from home, many others miss the energy of the office environment. Based on a survey by the planning firm Gensler, only 19% of employees like working at home exclusively, while 33%

preferred full-time at the office and 48% wanted a mix of office and home. Some employees even relish commuting time. A December 31, 2020 Washington Post headline noted that months of pandemic teleworking have left some missing their commutes noted employees report that commuting makes for a clear break, mental down time and a boundary between work and home.

With leisure, daily school trips, and some daily commuters returning, (adding to the trips by essential workers) traffic volumes are increasing. Based on traffic counts by the Bay Area Metropolitan Transportation Commission and by the National Capital Region Transportation Planning Board in Washington, D.C., these cities' traffic volume is rebounding to 75-80% of pre-pandemic levels. Current traffic is heavy but still flowing. According to Deborah Dagang, Chief Planning and Programming Officer Santa Clara Valley Transit Authority, growing traffic will induce an increase in transit ridership. This is because the tipping-point at which free flowing traffic volume becomes congested is quite narrow (a 10-15% difference between free-flowing and congested). And traffic congestion drives a shift to rail travel. Amtrak and commuter rail (Caltrain and Metrolink) market research finds that avoiding traffic congestion is the major factor for commuters when choosing to use public transportation over driving. Surveys by ACE and Capitol Corridor found that 85% of riders will return post-pandemic although perhaps not as daily riders.

Where does that leave commuter, intercity rail, and transit? As more of the population becomes vaccinated some current work-at-home employees will return to the office. The consensus is that the percentage still working from home will be much higher than the 17% working from home pre-pandemic. Google and Facebook plan to use a "hybrid" system: some days working at home, other days reporting to the office. This will add to traffic volumes and congestion. While rail travel is increasing, more will be needed to regain 2019 ridership levels. The focus on essential workers with non-traditional shifts and the change to the hybrid office system may be a foundation for this growth.

Recognizing this changed world, commuter rail systems like Caltrain, Metra and MBTA, are reimagining their networks transitioning from commuter to Regional Rail. Schedules are being revamped focusing less on rush hour peaks, to those offering more uniform service throughout the day, into the night, and on weekends, so as to accommodate essential workers who have varying work

schedules. The new schedules would also accommodate flexible (both time and day) hybrid work patterns. Carriers are now offering more flexible multiple trip tickets as opposed to rigid date range tickets (i.e. weekly or monthlies). These revised schedules would also be a better fit for the special event and other leisure travelers, increasing ridership in that market. Interestingly, schedules that offer travel options throughout the day was one of the frequently requested improvements suggested by participants in past market research projects I managed.

How will the travel of hybrid office/homeworkers impact ridership? Office utilization will likely lead companies to incentivize a more spread out travel pattern (not just travel for 9 to 5 office days on Tuesday and Wednesday). If so, the hybrid office may in fact be beneficial for rail systems. Railroad operation and finance managers already know that commuter service restricted to traditional rush hours is inherently inefficient, with track capacity stretched by closely spaced schedules and train sets and crews often assigned to just a single daily round-trip. Uniform service throughout the day allows for optimized track, equipment, and crew utilization. In addition, the once-or-twice per week hybrid riders will likely purchase higher rate 10-ride flex type tickets. This would make the per- trip ticket revenue exceed that of a rider using the highly discounted monthly ticket. The result of these changes could improve financial results over the long-term.

Analysis of intercity ridership on key Amtrak routes (i.e. Capitol Corridor, Empire Service, etc.) over the past several decades showed an early trend for some work-from-home employees relocating away from urban centers. The pandemic has dramatically accelerated this migration. But what was also apparent among these early remote work adopters was that they still needed to travel periodically to the central office--essentially the hybrid office. The greater travel distances and increased traffic congestion from hybrid workers has the potential to generate additional demand on intercity rail services. In addition, these workers would also travel into the city for recreational events. The result is growth in a type of ridership that may partially or fully offset the loss of traditional meeting focused business travel.

To summarize, there is expected to be significant change in commuting and business travel patterns post-pandemic and over the next decade. With this in

mind, agencies must continually seek to revise and improve intercity, commuter rail and transit service to meet these emerging trends. Even the long-distance routes stand to gain some ridership from the growth in work anywhere office structure, but critical to this gain is a high-level of on-time performance and reliable Wi-Fi.

Additional Insights

A 2020 study by Deloitte Development posed several "critical questions for urban mobility leaders." The questions are (italics added):

- *What is the operational impact of new cleaning, sanitation, and physical distancing measures* on our operations?
  - Are there changes to worker and commuter etiquette that need to be established and incentivized?
  - Are there opportunities to partner with other service providers to standardize and apply similar protocols that could build customer confidence while allowing for operational efficiencies and scale?

- As potential scenarios and shifts in commuter travel patterns are defined, *what are the operational implications and opportunities for rethinking* how mobility services are designed and integrated?
  - Are there opportunities to aggressively adopt more dynamic service models while harmonizing services across municipalities within dense urban regions?
  - Are there opportunities to standardize partnerships and fare structures between public transit systems, and potentially private first/last mile operators, to improve the overall agility and efficiency of mobility systems in our urban centres?

- *What new partnerships and tools may be needed* to operate in a more agile, flexible manner to shift services as commuter mobility choices and sentiment evolve?

Discussion and Conclusions

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Continuing with the procedure adopted thus far, next we borrow liberally from Kenton. (Kenton, *loc cit.*)

Cities simply cannot function without robust transit. This will be just as true after the pandemic subsides as it was before. *Transit advocates will have to tell a different story* that de-emphasizes ridership as the key measure of success and focuses less on attracting high-income riders. Instead, the pandemic reveals *how dependent we are on effective transit even if we never set foot on a train or bus, and even if trains or buses carry much less than their capacities*.

In the near term, agencies will need to maintain sufficient levels of service to not discourage riders despite the aforementioned additional expenses and be ready to meet demand as soon as operations can safely resume. At the same time, most agencies will need significant emergency assistance, primarily from the government, to avoid further layoffs, service reductions, cancellations, or indefinite *postponement of improvement and expansion projects*. If this aid fails to come through, a vicious cycle of poorer service turning away more riders, in turn making for poorer service, will result.

Those who would suffer most in this scenario, as is the case with many of the other consequences of this pandemic , include the "essential workers"--such as transit employees--for whom many have gained newfound respect and admiration. As Walker points out in the Canadian Urban Transit Association's blog, our modern society and standard of living have been utterly dependent for a long time on those employed in hospitals, grocery stores, utilities, etc. *We are all therefore transit-dependent* because we rely on these lower-income workers to keep us fed, comfortable, and cared for. *The rail-transit industry needs bold, visionary, and persistent leadership to weather this storm--managers who can address the day-to-day challenges and earn respect and cooperation from the rank and file in all departments and trades while speaking movingly about why transit is vital to cities and regions and must be a key component of local and national recovery strategies.*

Transit Agencies, in cooperation with their employees, labor unions and contractors, also need concrete plans for what kind of service they expect to deliver for the duration of the pandemic, given the level of resources that are, or are expected to be available. Many agencies have responded to the pandemic by cutting frequencies and reducing routes so as to serve fewer passengers with

fewer staff.

Some, however, are running at high frequencies or with longer trains, in part to spread out the ridership among more vehicle space to allow for distancing. This takes advantage of one inherent strength rail transit has in the face of a pandemic: flexibility and scalability. Management must consider all the pros and cons to various modified service patterns, considering what shape demand may take as localities move back and forth through various stages of partial public opening of the economy and society.

Going forward, we are likely to see transit planning shift away from trying to attract more affluent riders towards better serving the working class with more frequent, reliable service with social equity as a primary goal. Transit planning must be undertaken to an even greater extent in concert with decision-making in public health, public safety, housing, urban planning and zoning, employment services, public-space design, and all the other areas that transit affects and is affected by. Users' perceptions of personal safety and comfort--factors that vary greatly by race, sex, class, age, and physical condition--must also be considered to a greater extent.

Recommendations

There is an opportunity in every crisis. The pandemic has opened a door for long-overdue rethinking of many assumptions that have held back progress towards safer, more reliable, and more effective rail transit services.

1. Look for ways to measure the effectiveness of the air purification technologies already implemented on the DMUs. For example, air sampling near the seat headrests.
2. Institute changes *and publicize them.* SMART has already implemented several of the changes recommended in Refs. 8 & 9. But we find that the public is little aware of them.
3. Pay serious attention to the recommendations of Malcolm Kenton, including:

    a. Transit advocates will have to tell a different story, explaining how we are dependent upon effective transit even if we never set foot on a

train or bus, and even if trains or buses carry much less than their capacities.

b. The rail-transit industry needs bold, visionary, and persistent leadership to weather this storm--managers who can address the day-to-day challenges and earn respect and cooperation from the rank and file in all departments and trades while speaking movingly about why transit is vital to cities and regions and must be a key component of local and national recovery strategies.

c. Transit planning must be undertaken to an even greater extent in concert with decision-making in public health, public safety, housing, urban planning and zoning, employment services, public-space design, and all the other areas that transit affects and is affected by.

Bibliography

1. COVID Road To Recovery: How To Get Wary Bay Area Commuters Back On Public Transit. https://sanfrancisco.cbslocal.com/2021/04/27/covid-road-to-recovery-how-to-bring-wary-bay-area-commuters-back-to-public-transit/
2. Policy Hackathon: Can public transit recover from Covid-19? https://www.politico.com/news/2021/05/27/covid-public-transit-hackathon-489983
3. Transportation Recovery Plan: Rebuilding our transportation system for a resilient recovery. https://www.sfmta.com/projects/transportation-recovery-plan
4. How Technology Assists in Public Transit's Ridership Recovery. https://insights.conduent.com/insights-for-government-agencies/how-technology-assists-in-public-transit-s-ridership-recovery
5. Accelerating Public Transit's Recovery with Scenario Planning. https://transloc.com/blog/accelerating-public-transit-recovery-scenario-planning/
6. Shaheen, Susan, & Wong, Stephen. Public Transit and Shared Mobility COVID-19 Recovery: Policy Options and Research Needs. https://escholarship.org/uc/item/9nh6w2gq

7. COVID-19: Urban mobility's routes to recovery Innovation, collaboration needed to move forward amid changing demand. Deloitte Development, 2020. https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/public-sector/ca-urban-mobilitys-routes-to-recovery-en-aoda.pdf
8. Riding Together: Bay Area Healthy Transit Plan. http://www.healthytransitplan.com/ Bay Area Transit Agency, August 2020.
9. Latest testing shows rapid effectiveness of Knorr Brake Company's 3-Stage Air Filtration and Purification System in eliminating viruses from rail vehicles. https://www.masstransitmag.com/rail/vehicles/hvac/press-release/21216449/knorr-brake-corp-latest-testing-shows-rapid-effectiveness-of-knorr-brake-companys-3stage-air-filtration-and-purification-system-in-eliminating-viruses-from-rail-vehicles.
10. Jared Katseff, Shannon Peloquin, and Jules Seeley: "Winning ridership for the next normal." https://www.mckinsey.com/business-functions/operations/our-insights/winning-ridership-for-the-next-normal. McKenzie Business Functions, June 24, 2021.