**The 2024 Outlook for North American Suburban Rail Services**

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The North American commuter rail industry experienced booming growth in the 40 years between 1980 and 2020. The suburb-to-city railroads were riding the crest of wave created by a variety of forces. Downtown office employment growth, suburbanization, highway congestion and rising fuel prices during this era combined to amplify the pre-existing market for 10-to-40-mile rail journeys (generally under one hour in duration) linking suburban workers with burgeoning employment in downtown office towers. Between 1986 and 2016 total ridership on all US commuter railroads rose by 67%[1].

Downtown office work paid well with good benefits including subsidized transit fares (and parking). As the suburbanites flocked to the growing city each day, they overwhelmed the radial highways linking suburban workers with their urban offices. The fees for downtown parking predictably rose. Demand for suburban passenger rail services (aka commuter rail) grew since the rail services were insulated from highway congestion and allowed suburban workers to inexpensively store their automobiles at or near their homes. Travelers and transportation officials soon realized that a suburban rail service focused on a downtown terminal was generally faster than driving and cheaper than parking for work trips to rapidly growing central business districts. The growing prosperity of suburban rail services was inextricably tied to the rising skylines in American downtowns.

The suburban rail services relied on underutilized rail assets freed up as manufacturing and industrial activities left the urban cores in the post-war era. Compared to other fixed guideway transit service options, the suburban rail services were relatively cheap to implement. They could also cover a large fraction of their operating costs as long as their fares undercut the out-of-pocket expense for driving and parking. Ridership on existing suburban railways grew by more than 50%. More than a dozen urban areas added suburban rail service to the mix of transit services offered to compete with the automobile. Commuter rail sustained growth in downtown employment and contributed to environmental and energy conservation goals. Overtime, the new and improved railway services also exacerbated suburban sprawl allowing workers to live farther and farther from their downtown jobs.

During this period, the suburban railways focused on their core mission of moving thousands of workers to and from their downtown jobs. Their services and production functions were optimized to fill this need for “mass transit”. All other markets were of secondary (or tertiary) importance. Fares were set to discourage travel between suburban stations because such trips sucked up seats and slowed service delivery for downtown riders. Reverse, midday and evening services that had been offered on the legacy suburban services in the largest cities were maintained and perhaps even expanded. But the new services largely focused on the downtown commuter market.

Suddenly in the spring of 2020 the bottom fell out of the downtown employment market. The population’s mobility was restricted to halt the spread of a deadly virus. During this time, it was

[1] David O. Nelson and Katherine K. O’Neil, “US Commuter Rail Renaissance: A 30-Year Progress Report,” Transportation Research Record, Transportation Research Board, Volume 2673, Issue 12, August 21, 2019.

discovered that with a few tweaks, existing communication technologies could be leveraged to substitute for travel to offices. “Work-from-home” and “hybrid-work” became new paradigms for white collar employment. These technological and organizationa; innovations have proven so successful that they persist, with widespread acceptance, long after the public health emergency has ameliorated.

In 2018, 5% of US workers worked at home in 2018. That number had grown to 15% by 2022[2]. Overall transit commuting ridership (all modes) reduced by roughly 40%. Among the transit modes, the suburban rail services catering to downtown office workers have been most severely affected. **Overall commuter rail ridership in 2024 is down by 33% and passenger revenues are down by more than 50%[3].** Nationally the vacancy rate for downtown office space has risen by almost 80% since 2016[4].

Whereas the modern suburban rail services had been covering 50% of their operating costs with fare revenues in 2019, they are now covering only 22% of their costs from the passenger revenues in 2024. Table 1 compares US industry totals from 2022 with 2019. At an aggregate level roughly 30 months after the onset of the public health crisis and the work-from-home movement, ridership and revenue have been halved and expenses increased by 12%. The fare box recovery ratio plummeted by 55%! However, the overall pattern of how riders used the national network was little changed. Average trip length was down by 10%. Revenue per boarding and per passenger mile were little changed. It will be interesting to see how the ridership, revenue and expense patterns change and evolve as the national industry comes to grip with this dramatic decline in its largest market.

**Table 1: US National Commuter Rail Industry Financial and Ridership Comparison 2019 vs 2022**

| Performance Metric | 2019 | 2022 | Change |
|---|---|---|---|
| **Fare Revenue** | $3,247,507,154 | $1,616,564,078 | -50% |
| **Operating Expense** | $6,470,423,536 | $7,235,103,163 | 12% |
| **Fare Revenue / Operating Expense** | 50% | 22% | -55% |
| **Passenger Boardings** | 503,887,308 | 263,555,447 | -48% |
| **Passenger Miles** | 2,525,212,878 | 5,924,296,448 | -53% |
| **Average Passenger Trip Mileage** | 24.9 | 22.5 | -10% |
| **Revenue per Boarding** | $6.44 | $6.13 | -5% |
| **Revenue per Passenger Mile** | $0.26 | $0.27 | 5% |

Source: FTA National Transit Database 2019 and 2022.

To remain relevant, these suburban rail services will need to find new markets and stimulate revenues. They will also need to adjust their cost profiles. The days of running a few highly patronized trains each day that would earn enough revenue to carry the entire network of services seems to have passed.

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[2] TCRP J-11 Task 45, Future of Commuter Rail in North America, Interim Report, July 5, 2024 Page 10 citing the American Community Survey

[3] Ibid.

[4] https://www.statista.com/statistics/1349938/office-vacancy-rate-usa/

It's possible that the downtown office employment market may never recover to 2019 levels. To maintain their operations and leverage the public's tremendous sunk investment in track, stations and rolling stock, the suburban railways will need to find new markets to exploit.

But
- These new markets will likely require more frequent and faster service. The suburban trains will be competing with the automobile along highway segments and at times of day where and when the roads are not as congested.
- The new markets will likely be more fare sensitive than the downtown office market since many will offer free or inexpensive parking.

To offer more service with lower fares, the suburban railroads will need to reduce their costs. Potential areas for efficiency, that have been demonstrated elsewhere in the world, include
- **New service patterns, more evenly distributed over the travel day** – to provide a more temporally balanced service and the reduce the peak requirements for crews and rolling stock.
- **Train crew reduction** – to reduce operating costs
    - new fare collection systems – to reduce train crewing requirements in addition to improving revenue capture
    - level passenger boarding – to reduce need for crew to manage the boarding process at each open door and to reduce delays
- **Shorter, more energy efficient trains** – to reduce fleet size and energy expenditures
- **Innovations in rolling stock and infrastructure maintenance** – to lengthen maintenance cycles and reduce staffing.

Prior to the fall of the downtown office market, the impetus for these innovations at North American commuter railroads had been blunted by very strong performance in the downtown market. With that market diminishing, the onus for innovation and efficiency will increase.

Federal funding provided during the peak of the public health crisis has largely shielded the industry from the fiscal realities of declining revenues and escalating costs. But the reserves of federal funds will soon be depleted[5]. It will be fascinating to see how the nation's 22 suburban railroads reinvent themselves to competitively enter new markets and adjust their scopes of service to respond to new fiscal and market realities.

[5] *Some agencies faced revenue shortfalls starting in Fiscal Year 2023, while other (mostly small) agencies have funding available for operations until at least FY2028.* TCRP J-11 Task 45, Future of Commuter Rail in North America, Interim Report, July 5, 2024 Page 23.