

MTP2030 Issue Papers: Transit Operations



This paper begins the dialogue for developing an MTP2030 transit element that addresses critical challenges facing transit operations over the next 25 years. Key questions to consider include: How is the share of transit's operating costs coming from public funds to be provided? How can the overall funding pool be expanded or the farebox share increased to allow for more service? And finally, how can the region deal with replacement and rehabilitation needs for transit?

Transit operations in the region encompass a wide array of services, from urban light rail and bus service with frequencies less than 15 minutes, to express commuter buses from suburban cities, to assisted paratransit dial-a-ride service for the disabled, to rural lifeline service running once a day or even once a week. This paper focuses on transit in the region, excluding intercity/interregional rail and bus services.

Cost of Transit Operations

- The 14 transit services in the region cost about \$160 million per year to operate, covering drivers, mechanics, dispatching, fuel, parts, supplies, services, and administration.
- Sacramento RT accounts for about 70% (\$106 million) of the region's operating costs, and carries 80% of the region's 36 million annual transit rides, although smaller suburban operators with lengthy commuter express and rural lifeline routes comprise a larger share of passenger miles traveled.
- For most operators, labor comprises 75-85% of operating cost.

Paying for Transit Operations

- The fundamental challenge for transit service and expansion in this region centers on operating funds.
 - ▶ Sacramento RT operations consume about 90% of all funds currently usable for that purpose, so Sacramento RT's ability to expand operations is effectively capped by operating funding.
 - ▶ Sacramento RT covers about one-third of its operating cost from TDA (Transportation Development Act, a ¼% sales tax), and all urban Sacramento TDA revenues go to transit.
 - ▶ Sacramento RT covers about one-third of its operating cost from Measure A ½% sales tax (currently comprising its own 33% share plus Folsom's), and RT will take 38% of Measure A renewal to sustain that funding stream.
 - ▶ Congress and the Legislature have tried to restrict the use of federal and state funds away from urban transit operations, on the principle that local transit operations should be a local responsibility, although federal funds presently are usable for vehicle preventive maintenance.
 - ▶ Smaller operators typically rely on TDA funds to cover half of operating cost; public works departments that use remaining TDA funds for road maintenance resist transit

expansion that would draw a larger share of TDA funds to cover increased operating cost.

- ▶ Prior to Proposition 13 in 1978, local general funds used to cover more than one-third of many transit operating costs in the big urban areas, but that source has largely dried up in most cities.
- The gradual decline of fare revenues, now less than one-third of operating costs, presents a dilemma: higher fare revenue depends largely on more choice-riders, but service must get significantly better to attract more choice-riders, and better service requires more funding, particularly public funding.
 - ▶ Sacramento RT covers only 19.8% of its operating costs from fares, a number that has been gradually declining for at least a decade; 7-16% is a typical range for smaller operators but some low-cost operators with far suburban commuter express runs get in the 20-30% range.
 - ▶ Fares are often set for public policy reasons, related to the ability of the transit-dependent to pay, rather than to cover the largest possible share of operating cost.
 - ▶ Every bus that Sacramento RT puts in service on average costs about \$300,000 annually, which requires \$240,000 from public funding to supplement fare revenues.
- There are some options for increased funding beyond fares.
 - ▶ While TDA and Measure A revenue's expand with the economy, so do Sacramento RT's operating costs; anything beyond a modest and gradual expansion of service will require new operating funds, with a second "Measure B" sales tax seen as the likeliest source.
 - ▶ Davis Unitrans presents an interesting case: It receives \$1.75 million per year in mandatory UC Davis student fees, which covers 60% of its operating cost, and students get unlimited rides with no fare; this arrangement serves as a prepaid fare by all households in the population, in the manner of a district-wide utility fee.
 - ▶ Pending legislation by State Senator Carole Migden (SB 1020) would provide a county option to increase the Transportation Development Act local sales tax rate for transit to ½%, from the current ¼%, providing a substantial funding increase if passed and activated in any county.

Rehabilitation and Replacement of Transit Equipment

- The region has no funding source dedicated to transit equipment rehabilitation and replacement; at present, these needs, which total nearly \$600 million over the next 25 years, must compete in regular regional funding programs against highway and transit improvements and expansion.
 - ▶ Sacramento RT's light rail fleet, now at 76 vehicles, will need heavy overhaul at least once during the next 25 years, at a cost of \$2 million per vehicle = \$150 million.
 - ▶ The region's fleet of 450 transit buses, with a 12-year service life, will need to be replaced twice over the next 25 years at a cost estimated at \$380,000 per bus = \$340 million.

- ▶ The region's fleet of 250 small shuttle and paratransit coaches, with a 5-year life service, will need to be replaced five times over the next 25 years, at \$80,000 per coach = \$100 million.
- New state clean air rules indicate that many suburban operators will have to convert fleets from diesel fuels to clean fuels in upcoming years, making buses costlier, posing new fueling arrangements, and perhaps requiring earlier retirement of older diesel coaches.
- California – and thus this region – fared poorly when seeking federal bus replacement funds during TEA-21. Congress earmarked the program every year, and California, with 14% of the nation's urban transit service, managed to get only 6% of nationwide funding.
- Sacramento RT has been running with about 15% spare buses in its fleet, versus a national average of 22%, eventually leading to an increased breakdown rate and extra costs to send out backup buses; deferred bus replacement yields the same result.

Transit System Performance

- Except for the transit-dependent, transit serves only a small niche in travel in the region today.
 - ▶ Transit carries 0.8% of daily trips in the region today, including 3% of peak hour commute trips and 20% of commute trips to and from downtown Sacramento.
 - ▶ Current transit service is highly focused on downtown Sacramento - the one area with transit-friendly land use densities - with both light rail lines and 40% of Sacramento RT's bus routes, plus six suburban commuter services going there, yet only 15% of the region's jobs are now located in downtown Sacramento.
 - ▶ Sacramento RT estimates somewhat more than half of its current ridership to be transit-dependent, versus choice-riders, with transit-dependent comprising 75% of off-peak riders. The percentage of transit dependent riders is much higher for the smaller suburban operators.
 - ▶ The transit system's two main kinds of customers – transit-dependent and choice-rider – have different travel patterns and are best served with different route and service structures.
 - ▶ The transit-dependent, those who cannot afford to or cannot drive, tend to be sensitive to transit fares and monthly pass cost. Choice-riders, those with an auto available, tend to be sensitive to the out-of-pocket costs of driving: gasoline, parking, and road tolls.
 - ▶ Automobile economics matters for choice-riders. Auto travel is usually would be more flexible, more convenient, timelier, twice as fast, and more comfortable. Most of those who can afford the average sunk cost of \$8,000 per year to own an auto can afford the marginal cost to drive it. Models indicate behavior begins to shift at about \$3.50-per-gallon gasoline or \$100-per-month parking, as lower income auto owners look for other options.
 - ▶ Travel time matters for choice-riders; commuters tend to value extra travel time at their wage rate. Route transfers add to travel time and uncertainty, yet Sacramento RT's route structure forces about half of its riders to transfer between bus and light rail or between buses.

- ▶ Service frequency also matters for choice-riders. Few choice-riders accept bus intervals longer than 15 minutes, but only 20% of Sacramento RT's routes run that frequently, and in far suburban and rural areas 15 minute service is rare and hourly service the general rule.
- For a Sacramento RT route to cover its operating costs (including fare) the route would have to carry 75 riders per run. RT's best current run carries about that many on a daily average, but its system-wide average is about 15 riders per run.
- The demographics of an aging population, including doubling the population over age 75 within 25 years, poses major challenges for paratransit service, which today costs five times as much per rider as regular service; it becomes important to consider ways to serve with regular service those riders of paratransit that could board a bus by themselves.

Comparisons

- The Blueprint intention to provide more compact development and community activity centers offers hope the conditions for transit service will improve in the future.
 - ▶ Urban density matters. Older and denser eastern cities with transit-friendly land use patterns (Boston, Philadelphia, Cleveland, Baltimore, St. Louis, and New Orleans) operate in the range of \$1.70-\$3.30 cost per rider; newer, more sprawling western cities (Seattle, Dallas, Denver, Portland, San Jose, Sacramento, and Salt Lake City) operate in the range of \$2.60-\$4.60 cost per rider; very dense Los Angeles and Orange County operate at \$2.20-\$2.30 cost per rider.
 - ▶ Sacramento RT lies at the high end of operating cost per hour, at \$110.70, compared to a national average of \$96.90. This is partly because it operates in a mostly low-density suburban environment. Most of the comparative cities above fall in the range of \$85-\$105 per hour, with only San Jose and Dallas noticeably higher at the \$145 per hour range.
- The transit fleet in peak service in Sacramento is relatively small, at 290 buses per million population; most of the comparative cities above fall in the range of 500-750 buses in peak service per million population, and only Dallas at 270 is close to Sacramento.
- Other transit systems, for example Golden Gate Transit, New Jersey, San Diego, and Houston Transits have been notably successful running express service on carpool lanes for a premium fare.