

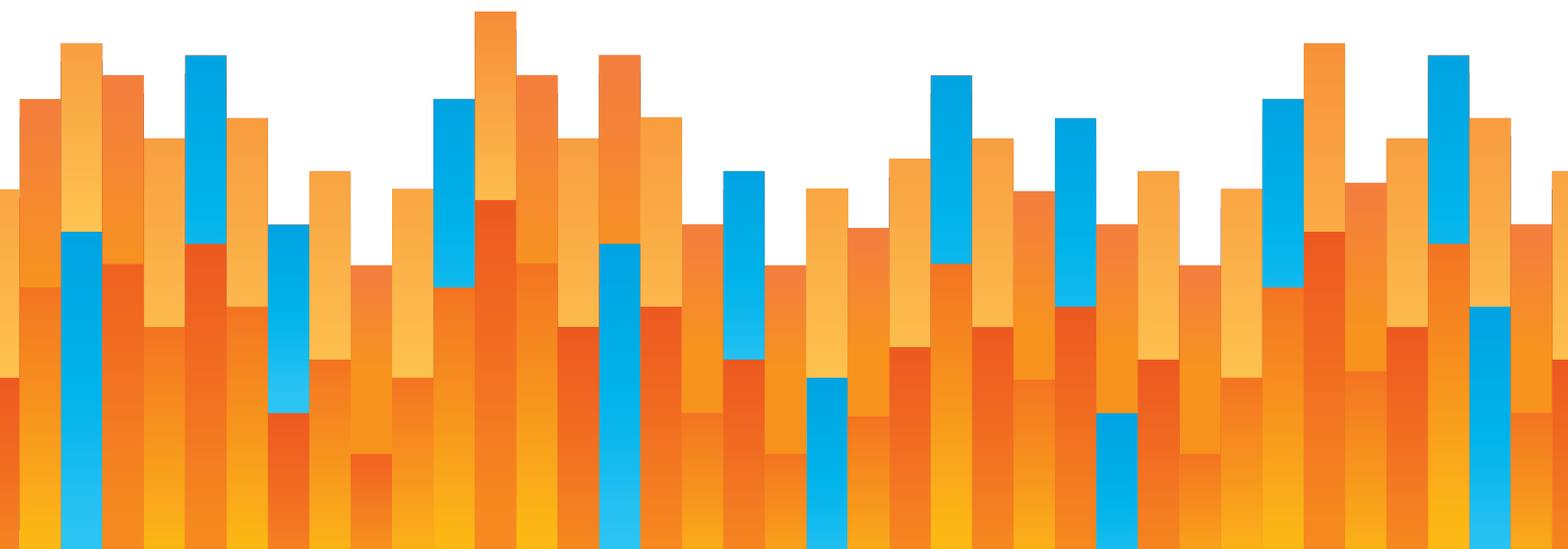


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ADDRESSING THE TRANSIT PRODUCTIVITY CRISIS

by Marc Scribner

February 2025





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EXECUTIVE SUMMARY

Following the onset of the COVID-19 pandemic, public transit systems throughout the United States experienced an unprecedented ridership collapse as people stayed home and avoided crowded public spaces. While most disease mitigation measures have since been abandoned, the impact of the pandemic continues to be felt in a variety of ways, including persistent changes in travel behavior. One consequence has been a muted transit ridership recovery, which stands at approximately three-quarters of the pre-pandemic ridership level in the United States. Depressed transit ridership has been met with unprecedented public subsidies, especially from the federal government. These two trends resulted in a steep decline in transit productivity.

“

...while conditions have substantially worsened in recent years, public transit productivity has trended downward since the end of World War II, largely due to increasing household incomes, growing private automobile ownership, and the dispersal of households and then workplaces into the suburbs.

”

This decline has alarmed policymakers. However, while conditions have substantially worsened in recent years, public transit productivity has trended downward since the end of World War II, largely due to increasing household incomes, growing private automobile ownership, and the dispersal of households and then workplaces into the suburbs.

Falling demand for transit led to a wave of transit company bankruptcies. Congress responded with the Urban Mass Transportation Act of 1964, which provided funding for states and cities to take over bankrupt private transit companies. Initially, the federal transit program only provided capital assistance to transit agencies, although this was soon expanded to direct operating support. Transit productivity worsened considerably during this period of increasing government assistance:

- In the 15 years prior to the Urban Mass Transportation Act of 1964, transit productivity fell an average of 1.4% per year (measured in bus hours/real dollars) across all transit systems and 1.3% for large systems.
- Between 1964 and 1972, productivity declines averaged 2.1% per year for all systems and 3.1% for large systems.
- Between 1975 and 1985, transit productivity declines averaged 3.1% per year for all systems and 3.8% for large systems.

These changes in the type and level of subsidy allowed transportation researchers to reach several conclusions on the interactions between government financial support and transit productivity, including:

- Federal subsidies had three times the negative effect on transit productivity as state and local subsidies;
- Nearly all operating subsidies were absorbed by rapidly growing operating expenses rather than stimulating demand for transit service; and
- Both public ownership of transit systems and increasing subsidies to these systems encouraged wasteful expenditures.

In 1998, Congress responded to these findings by limiting direct operating support to small transit systems in urbanized areas with fewer than 200,000 residents. Unfortunately, changes in subsidy policy did little to address the long-term decline in U.S. transit productivity. Between 1960 and 2019, the inflation-adjusted operating costs more than quintupled while ridership remained flat. In the years immediately preceding the COVID-19 pandemic, the Bureau of Labor Statistics began publishing measures of transit labor

productivity. Between 2013 and 2019, transit labor productivity declined, mostly due to increasing transit agency employment.

Following the onset of the COVID-19 pandemic, public transit ridership collapsed. As of 2023, nationwide ridership had only recovered to approximately 71% of 2019 levels. Much of this ridership decline can be explained by changes in work travel. Transit systems were largely designed to facilitate journeys to and from work in central business districts, and working from home remains two to five times its pre-pandemic share of “commuting”—and four to eight times the share of mass transit commuting—depending on how it is measured.



Following the onset of the COVID-19 pandemic, public transit ridership collapsed. As of 2023, nationwide ridership had only recovered to approximately 71% of 2019 levels.



Depressed ridership led Congress to authorize unprecedented federal subsidies for transit agencies. Supplemental COVID-19 appropriations during FYs 2020 and 2021 provided \$69.5 billion in emergency support for transit agencies, equivalent to nearly five years of pre-pandemic federal transit funding. The Infrastructure Investment and Jobs Act enacted in FY 2022 increased federal transit funding by 67% over the levels previously authorized by the Fixing America’s Surface Transportation (FAST) Act of 2015 in nominal dollars.

This large increase in federal funding allowed transit agencies to continue to provide service close to pre-pandemic levels, with transit service provided between 2019 and 2023 falling by only 10.3% (in vehicle revenue-miles) despite ridership declines of 29.3%. These dynamics had predictable effects on transit labor productivity, with productivity declines almost entirely driven by decreased ridership.

As historical experience with transit subsidies has shown, advancing transit efficiency is not a simple question of additional funding. Making better use of existing resources must be prioritized to avoid counterproductive subsidy policies that merely deepen and prolong transit’s productivity crisis. Two strategies to advance transit productivity show particular promise:

- **Competitive contracting:** Under public-private partnerships, transit agencies can contract out transit service provision to private firms. The agency would serve as the coordinating and oversight entity, developing performance requirements and ensuring private partners adhere to those requirements embedded in their contracts. A 2017 study estimated that contracting out bus service in the United States could reduce operating costs by 30%.
- **Transit vehicle automation:** Urban rail transit is increasingly automated outside the United States. A 2023 study comparing rail lines in the United States and fully automated lines abroad estimated automation could potentially reduce U.S. operating costs by 46%. In addition to rail transit automation, numerous companies are developing automated road vehicles. One rubber-tire automated transit company that is developing two projects in California claims it can reduce operating costs by approximately 80% compared to average costs faced by conventional transit systems.

Unfortunately, both competitive contracting and automation face substantial deployment barriers in the United States. Section 13(c) of the Urban Mass Transportation Act of 1964 established transit worker labor protections. This provision was included to ensure collective bargaining agreements continued to be honored during the period when transit systems and their workforces were transitioning from heavily unionized private ownership to—at the time—sparsely unionized government ownership.

Section 13(c) requires transit agencies that receive federal funding to certify employee “protective arrangements” with the Department of Labor, including:

- The preservation of rights and benefits of employees under existing collective bargaining agreements;
- The continuation of collective bargaining rights;
- The protection of individual employees against a worsening of their positions in relation to their employment;
- Assurances of employment to employees of acquired transit systems;
- Assurances of priority of reemployment of employees whose employment is ended or who are laid off; and
- Paid training or retraining programs.

The result is that transit agencies are greatly constrained in enacting any operational change involving employees. Section 13(c) generally requires transit agencies to either incur substantial upfront costs to pay off affected employees or delay the realization of labor-saving benefits. Transit agencies largely dependent on annual government appropriations face a strong financial disincentive to adopt practices and technologies that would improve service and reduce growing operating subsidies.

Transit employee labor protections included as part of the Urban Mass Transportation Act of 1964 were designed to address the particular circumstances of the time, when just 2% of state and local government employees were authorized to collectively bargain. But this transition period has passed, and all affected employees have long since retired. Further, most states have authorized public-employee collective bargaining since the 1960s, with 63% of state and local employees being authorized to collectively bargain as of 2010.

Section 13(c) exists alongside federal, state, and local labor laws that apply to public-sector workers. Importantly, federal transit labor protections supplement rather than substitute for other general labor protections. As a result, Section 13(c) provides transit workers—and only transit workers—with special protections beyond those enjoyed by other government employees.



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This has two important implications for policymakers. First, eliminating Section 13(c) special transit worker labor protections would merely level the playing field between transit workers and other government employees. All other federal, state, and local labor policies that apply to government employees would continue to apply. Second, repealing Section 13(c) would not automatically usher in transit public-private partnerships or automation. Rather, it would remove an impediment to transit agencies seeking to negotiate more-flexible labor contracts in the future.

This report finds that public transit ridership is unlikely to recover to pre-pandemic levels within the next decade. Depressed farebox revenue and rising operating costs will continue to manifest in transit agency fiscal instability, and policymakers will face growing pressure to authorize additional operating subsidies. This would be a mistake given that past experience shows increasing operating subsidies may simply hasten productivity declines, which would undermine the public benefit case for continued transit service. A wiser approach would be encouraging transit agencies to make better use of existing resources. The first step in this process would be Congress repealing Section 13(c), which presents a formidable barrier to transit agency efficiency reforms.

TABLE OF CONTENTS

PART 1	INTRODUCTION.....	1
PART 2	PRE-PANDEMIC TRANSIT PRODUCTIVITY.....	4
PART 3	PANDEMIC IMPACTS ON TRAVEL BEHAVIOR AND TRANSIT SYSTEMS.....	9
PART 4	STRATEGIES FOR IMPROVING TRANSIT PRODUCTIVITY	13
PART 5	REPEALING SECTION 13(C) OF THE URBAN MASS TRANSPORTATION ACT OF 1964	20
PART 6	CONCLUSION AND RECOMMENDATIONS	26
	ABOUT THE AUTHOR.....	28

PART 1

INTRODUCTION

Public transit ridership in the United States cratered during the COVID-19 pandemic as workers stayed home and people avoided sharing spaces with strangers. By 2023, U.S. transit systems had only recovered approximately 71% of their 2019 riders.¹ Over the same period, public transit operating expenditures have increased significantly. These two divergent trends have translated into plummeting transit productivity and spurred growing concerns about the long-term viability of transit systems nationwide.

But declining public transit productivity is not a new phenomenon. The downward trend began following World War II as household incomes increased, metropolitan areas expanded, and private automobile ownership became ubiquitous. Since the 1960s, transit systems in the United States went from being mostly private enterprises to almost exclusively government-provided operations. Funding to build, operate, and maintain transit is now mostly in the form of government subsidies. Public transit in the United States today exists largely as a mode of last resort for residents who cannot afford private transportation.

¹ Alexis Cook et al., “National Transit Summaries and Trends: 2023 Edition,” Federal Transit Administration, Oct. 2024. 105. https://www.transit.dot.gov/sites/fta.dot.gov/files/2024-10/2023%20National%20Transit%20Summaries%20and%20Trends_1.1.pdf.

Public transit's transformation from an important middle-class urban mode of transportation provided by private firms into a mode of last resort operated as a government social assistance program has accelerated productivity declines. Much of the decline can be attributed to ever-increasing labor costs.

Rising labor costs since the 1960s are not simply due to changing market conditions or the shift of public transit provision from a commercial service model to a social assistance model. Rather, a federal law enacted in 1964 designed to protect transit worker collective bargaining agreements during the transition from private to public provision remains in place. This law, known as Section 13(c), prioritizes the protection of transit labor above all other considerations and prevents the realization of operating efficiencies through competitive contracting and automation.



Despite accounting for two-thirds of transit expenditures, very little public attention has been paid to rising operating costs and their impact on transit service provision in the United States.



In recent years, transportation researchers and prominent political commentators have expressed concern about rising transit infrastructure construction costs in the United States.² The Transit Costs Project at New York University's Marron Institute of Urban Management is dedicated to cataloging and analyzing the sources of ballooning transit capital costs,³ as is the Eno Center for Transportation's Transit Project Delivery Initiative.⁴ But capital costs account for a minority of U.S. transit expenditures. The American Public Transportation Association estimated that of total public transit expenditures of \$75 billion

² Ezra Klein, "What America Needs Is a Liberalism that Builds," *The New York Times*, 29 May 2022. <https://www.nytimes.com/2022/05/29/opinion/biden-liberalism-infrastructure-building.html> (21 Dec. 2024).

³ Eric Goldwyn et al., "Transit Costs Project: Understanding Transit Infrastructure Costs in American Cities," Transit Costs Project, NYU Marron Institute of Urban Management, 11 Feb. 2023. https://transitcosts.com/wp-content/uploads/TCP_Final_Report.pdf (23 Dec. 2024).

⁴ "On the Right Track: Rail Transit Project Delivery Around the World," Eno Center for Transportation, Sept. 2022. <https://projectdelivery.enotrans.org/wp-content/uploads/2022/09/On-the-Right-Track.pdf> (23 Dec. 2024).

in 2021, \$50.6 billion—67%—were spent on operations.⁵ Despite accounting for two-thirds of transit expenditures, very little public attention has been paid to rising operating costs and their impact on transit service provision in the United States. This report focuses on transit operations by examining the worsening transit productivity crisis and recommending reforms to provide service more efficiently.

⁵ “2023 Public Transportation Fact Book,” American Public Transportation Association, March 2024. 25. <https://www.apta.com/wp-content/uploads/APTA-2023-Public-Transportation-Fact-Book.pdf>.

PART 2

PRE-PANDEMIC TRANSIT PRODUCTIVITY

Declining transit productivity is not a new phenomenon. Transit productivity was decreasing prior to enactment of the Urban Mass Transportation Act of 1964, when Congress first authorized federal funding for state and local governments to take over ailing private transit companies.⁶ Initially, federal subsidies focused on capital improvements. At the time, customer fares were able to cover operating costs but not equipment and infrastructure refurbishment and replacement. As a result, transit capital stock was rapidly depreciating. One popular theory held that modernizing transit vehicles and facilities with new capital subsidies would bring customers back to transit.⁷

This theory misdiagnosed the principal causes of transit's structural decline: rising household incomes, increasing private automobile ownership, and the dispersal of urban households and then workplaces into the suburbs. Increasingly, metropolitan area residents were living in suburban homes and commuting to jobs also in the suburbs, travel patterns poorly served by transit.⁸ These changes led to a 60% decline in ridership from 1945 to

⁶ Urban Mass Transportation Act of 1964, Pub. L. 88–365, 78 Stat. 302 (9 July 1964).

⁷ Charles Lave, "It Wasn't Supposed to Turn Out Like This: Federal Subsidies and Declining Transit Productivity," *ACCESS*, No. 5, Fall 1994. 22. <https://www.accessmagazine.org/wp-content/uploads/sites/7/2016/07/access05-04-It-Wasnt-Supposed-to-Turn-Out-Like-This.pdf>.

⁸ Marc Scribner, "The Problematic Equity Case for Mass Transit," Reason Foundation, 7 May 2021. <https://reason.org/commentary/the-problematic-equity-case-for-mass-transit/> (31 Oct. 2024).

1960.⁹ While federal capital subsidies authorized by federal transit law were able to slow the ridership decline, they failed to attract customers back to transit who had already left.

These dynamics led to substantial declines in transit productivity. In the 15 years prior to the Urban Mass Transportation Act of 1964, transit productivity fell an average of 1.4% per year (measured in bus hours/real dollars) across all transit systems and 1.3% for large systems.¹⁰ Between 1964 and 1972, productivity declines averaged 2.1% per year for all systems and 3.1% for large systems.¹¹



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In 1975, the federal government began subsidizing transit operations as well as capital expenditures.¹² State and local transit subsidies were also increasing. Between 1975 and 1985, transit productivity declines averaged 3.1% per year for all systems and 3.8% for large systems.¹³

Transit system size was found to be correlated with the rate of productivity decline. This finding has been attributed to the fact that large systems tended to serve more transit-dependent populations, giving agency management a stronger incentive to prioritize labor peace (through more-generous collective bargaining agreements) over cost containment.¹⁴ As a result, the cumulative decline in transit productivity for large systems between 1964 and 1985 was twice as large as the decline experienced by small systems.¹⁵

⁹ William J. Mallett, “Federal Support of Public Transportation Operating Expenses,” Congressional Research Service, 18 Jan. 2024. 5. <https://crsreports.congress.gov/product/pdf/R/R47900>.

¹⁰ Charles A. Lave, “Federal Subsidies and the Ruinous Decline in Transit Productivity: It Wasn’t Supposed to Turn out Like This,” Institute of Transportation Studies, University of California, Irvine, June 1991. Table 6. <https://escholarship.org/uc/item/7c83c6gc>.

¹¹ Ibid.

¹² National Mass Transportation Act of 1974, Pub. L. 93–503, 88 Stat. 1565 (26 Nov. 1974).

¹³ Lave, “Federal Subsidies and the Ruinous Decline in Transit Productivity.” Table 6.

¹⁴ Ibid. 11–13.

¹⁵ Ibid. Table 7.

By 1980, just five years after Congress expanded federal funding eligibility to operating expenses, operating grants accounted for 30% of total federal transit funding.¹⁶ Lawmakers and transportation researchers expressed growing alarm about rising transit subsidies and their inability to stimulate ridership growth. In the 1980s, empirical research on the efficiency impacts of transit operating subsidies in the United States found:

- Federal subsidies had three times the negative effect on transit productivity as state and local subsidies.¹⁷
- Nearly all operating subsidies were absorbed by rapidly growing operating expenses rather than stimulating demand for transit service.¹⁸
- Both public ownership of transit systems and increasing subsidies to these systems encouraged wasteful expenditures.¹⁹

While a small number of studies arrived at contrary findings, there came to be “a general consensus that subsidies have had a degrading effect on system efficiency and productivity and have increased operating costs,” although the impacts varied by subsidy source and transit system characteristics.²⁰ In 1998, Congress largely eliminated federal operating subsidies for transit agencies serving urbanized areas with populations of 200,000 residents or more (although maintenance was recategorized as a capital expense).²¹

Unfortunately, changes in subsidy policy did little to address the long-term decline in U.S. transit productivity. As Figure 1 from the Congressional Research Service shows, from 1960 to 2019, the inflation-adjusted operating costs more than quintupled while ridership largely remained flat.

¹⁶ Mallett, “Federal Support of Public Transportation Operating Expenses.” 5.

¹⁷ John Pucher et al., “Impacts of Subsidies on the Costs of Urban Public Transport,” *Journal of Transport Economics and Policy*, Vol. 17, No. 2, May 1983. 155–176.

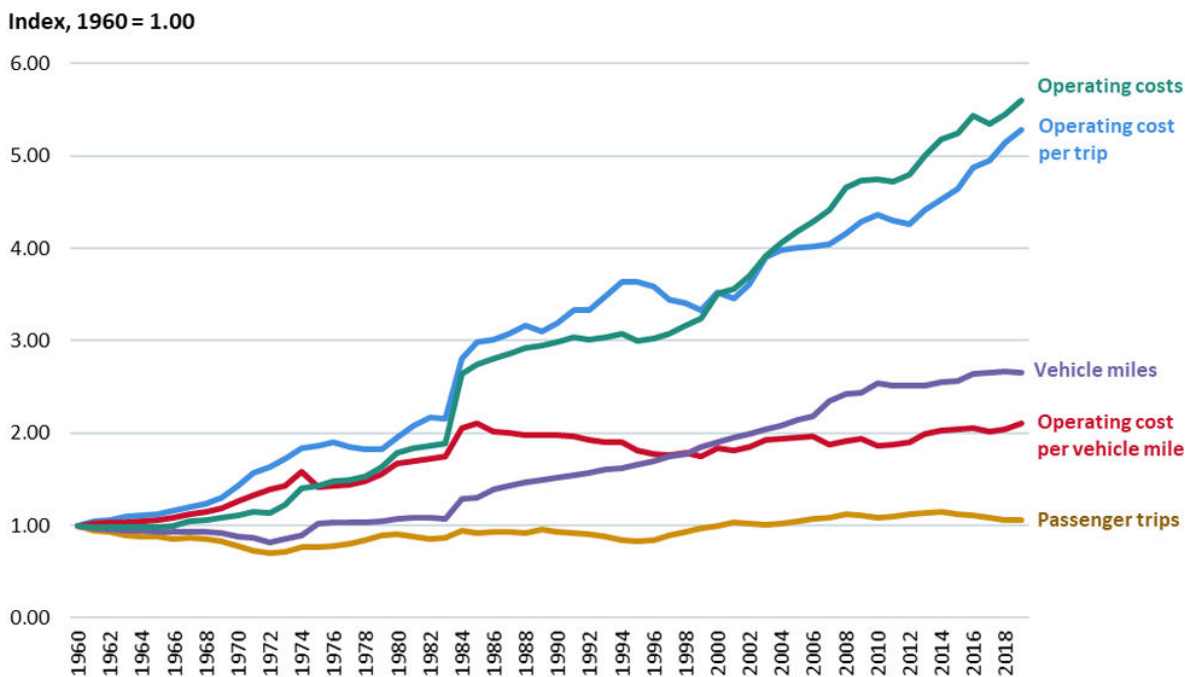
¹⁸ Don H. Pickrell, “Rising Deficits and the Uses of Transit Subsidies in the United States,” *Journal of Transport Economics and Policy*, Vol. 19, No. 3, Sep. 1985. 281–298.

¹⁹ John Pucher and Anders Markstedt, “Consequences of public ownership and subsidies for mass transit: Evidence from case studies and regression analysis,” *Transportation*, Vol. 11, No. 4, Mar. 1983. 323–345.

²⁰ Matt G. Karlaftis and Patrick McCarthy, “Operating Subsidies and Performance in Public Transit: An Empirical Study,” *Transportation Research Part A: Policy and Practice*, Vol. 32, No. 5, 1998. 359–375.

²¹ Transportation Equity Act for the 21st Century, Pub. L. 105–178, 112 Stat. 107 (9 June 1998). § 3007.

FIGURE 1: MEASURES OF PRODUCTIVITY IN PUBLIC TRANSIT, 1960–2019



Source: William J. Mallett, “Federal Support of Public Transportation Operating Expenses,” Congressional Research Service (Jan. 2024).

Since 2018, the Bureau of Labor Statistics has published measures of urban transit labor productivity.²² Labor productivity is calculated by dividing an index of output (passenger-miles traveled) by an index of hours worked.²³ Figure 2 displays indices of transit productivity in the 13 years leading up to the COVID-19 pandemic. The labor productivity trend between 2007 and 2013 was slightly positive, increasing at an average rate of 1.4% per year. Output over this period increased at an average rate of 1.5% per year. However, between 2013 and 2019, labor productivity again declined.

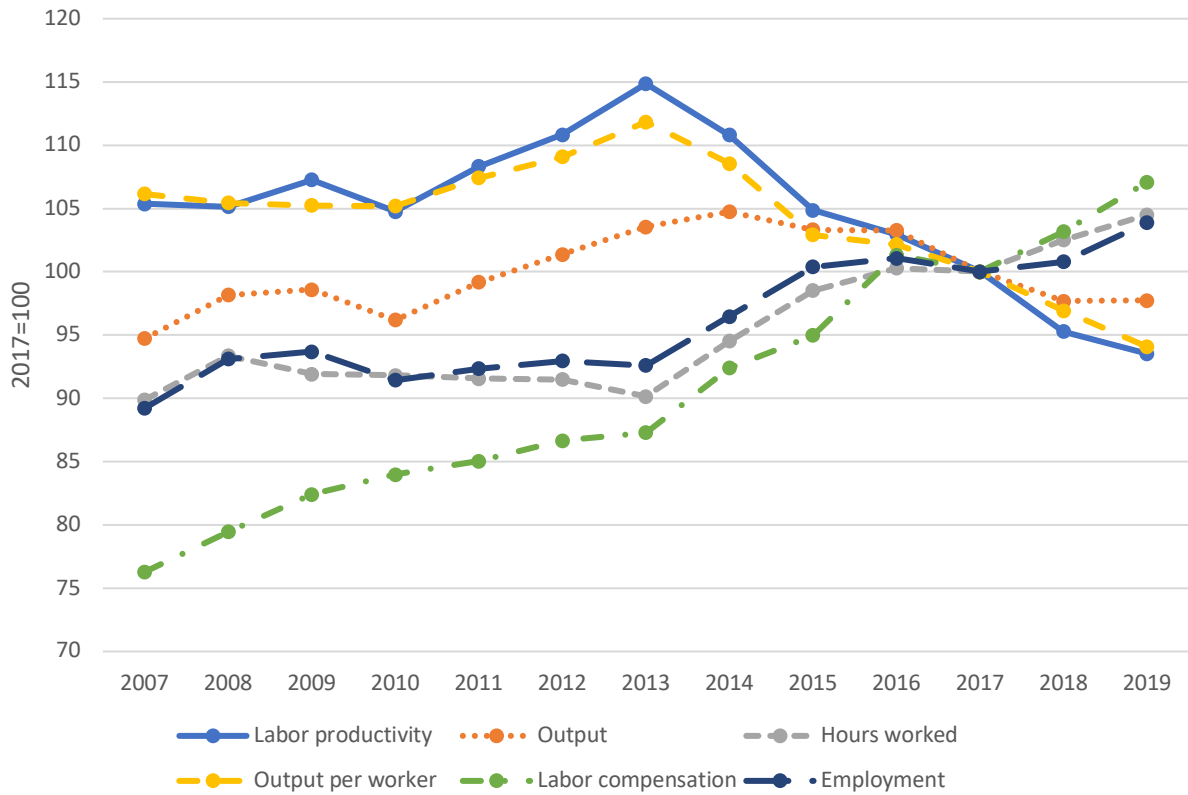
One important takeaway is that the 2013–2019 decline in transit labor productivity can mostly be explained by increases in transit agency employment. Ridership during this period decreased by an average rate of 1% per year while transit work hours increased at

²² “Urban Transit Systems Labor Productivity,” Bureau of Labor Statistics, 27 June 2024. <https://www.bls.gov/productivity/highlights/urban-transit-systems-labor-productivity.htm> (31 Oct. 2024).

²³ Brian Chansky and Nathan F. Modica, “Productivity in transit: a new measure of labor productivity for urban transit systems,” *Monthly Labor Review*, Bureau of Labor Statistics, Aug. 2018. <https://www.bls.gov/opub/mlr/2018/article/productivity-in-transit-a-new-measure-of-labor-productivity-for-urban-transit-systems.htm>.

an average rate of 2.5% per year. Hours worked per employee remained relatively constant, meaning new hires were responsible for the additional work hours and thus most of the decline in labor productivity. And as Figure 2 shows, labor compensation increased at an even faster rate during this period.

FIGURE 2: TRANSIT INDUSTRY LABOR PRODUCTIVITY TRENDS, 2007–2019



Source: Bureau of Labor Statistics, “Urban Transit Systems Labor Productivity: Urban Transit Dashboard” (27 June 2024).

PART 3

PANDEMIC IMPACTS ON TRAVEL BEHAVIOR AND TRANSIT SYSTEMS

The onset of the COVID-19 pandemic led to large declines in transit ridership. While nationwide ridership has since partially recovered from its nadir, it remained significantly depressed at 70.7% of the pre-pandemic ridership level as of 2023.²⁴ More-recent monthly ridership estimates show continued slow recovery, with the Federal Transit Administration approximating October 2024 ridership at 77.3% of 2019 levels.²⁵

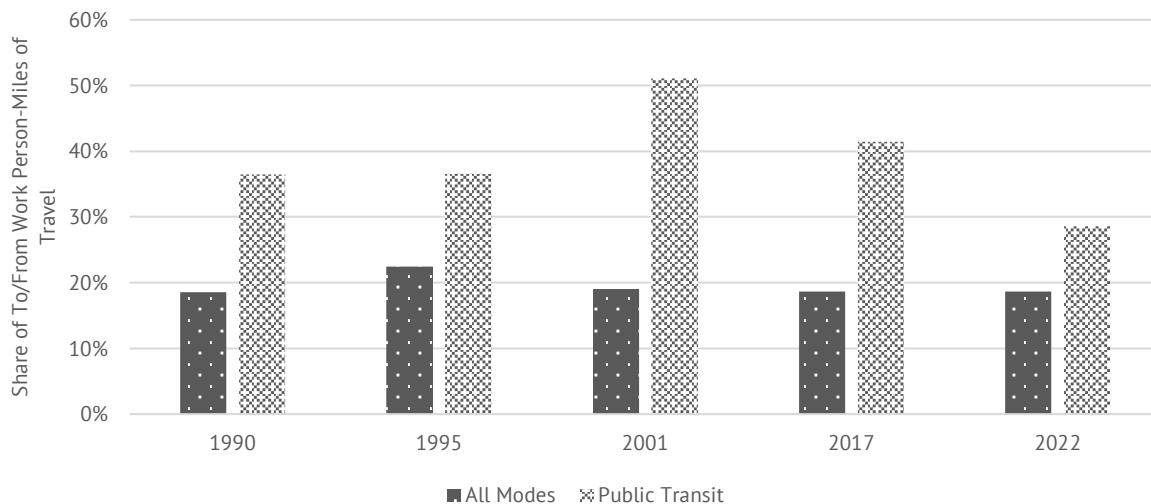
Transit systems were largely designed to serve peak-hour weekday commuting travel. Figure 3 displays data compiled from the Federal Highway Administration's National Household Travel Survey on commuting travel's share of total daily personal travel (in person-miles of travel) from 1990 to 2022. As it shows, commuting to and from work accounted for approximately one-fifth of personal travel (all modes) through that time period. Commuting accounted for one-third to one-half of travel by transit prior to the

²⁴ "2023 Annual Dataset: TS2.1 - Service Data and Operating Expenses Time Series by Mode," *National Transit Database*, Federal Transit Administration, Oct. 2024; author's calculations. <https://www.transit.dot.gov/ntd/data-product/ts21-service-data-and-operating-expenses-time-series-mode-2>.

²⁵ "October 2024 Complete Monthly Ridership (with adjustments and estimates)," *National Transit Database*, Federal Transit Administration, Dec. 2024. <https://www.transit.dot.gov/ntd/data-product/monthly-module-adjusted-data-release>.

pandemic. Following the pandemic, commuting diminished significantly as a share of travel by transit.

FIGURE 3: TRAVEL TO AND FROM WORK AS A SHARE OF PERSONAL TRAVEL, 1990–2022



Source: Federal Highway Administration, “Table 4-7. Daily PMT per Person by Mode of Transportation and Trip Purpose,” Summary of Travel Trends: 2022 National Household Travel Survey (Jan. 2024); author’s calculations.

Much of this decline in transit commuting travel can be attributed to dramatic increases in working at home. In 2019, the Census Bureau’s American Community Survey estimated 5% of U.S. workers rode transit to and from work.²⁶ In 2023, transit’s commuting mode share had decreased to 3.5%.²⁷ In contrast, working from home increased from 5.7% in 2019 to 13.8% in 2023.²⁸

Due to the design of the American Community Survey, this likely significantly underestimates working from home because it poorly captures hybrid work schedules where workers split their work time between their workplaces and homes. The Survey of Working Arrangements and Attitudes estimates that 27.8% of paid days in the U.S. in

²⁶ “Table S0801: Commuting Characteristics by Sex,” *American Community Survey 2019: 1-Year Estimates*, Census Bureau, <https://data.census.gov/table/ACSST1Y2019.S0801>.

²⁷ Census Bureau, “Table S0801: Commuting Characteristics by Sex,” *American Community Survey 2023: 1-Year Estimates*, Census Bureau, <https://data.census.gov/table/ACSST1Y2023.S0801>.

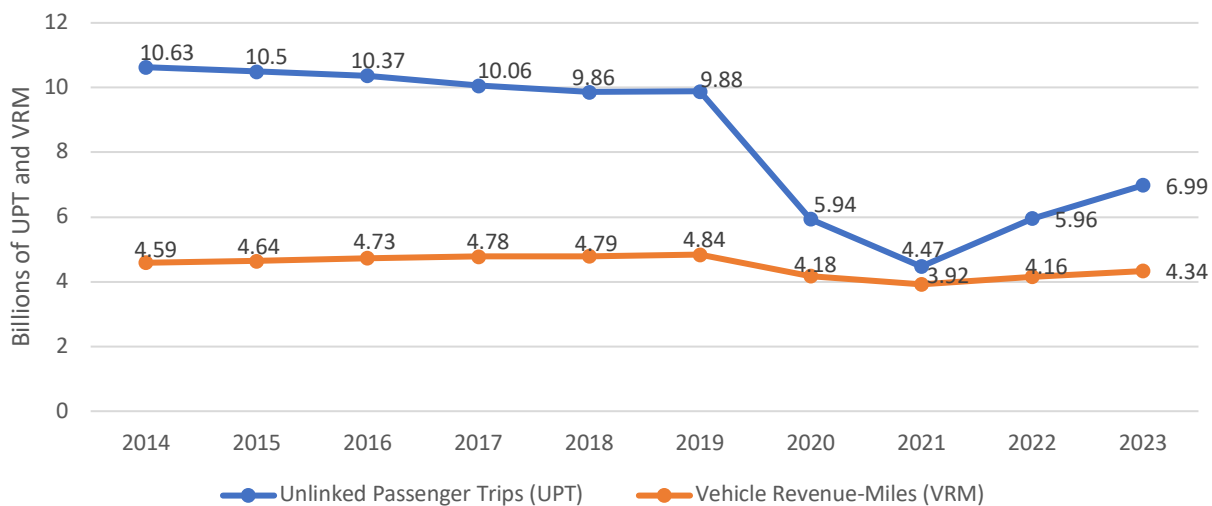
²⁸ Ibid. “Table S0801: Commuting Characteristics by Sex,” *American Community Survey 2019: 1-Year Estimates*, Census Bureau.

October 2024 were work-from-home days.²⁹ The upshot is that remote work remains two to five times its pre-pandemic share of “commuting”—and four to eight times the share of mass transit commuting.

In the face of this large decline in transit ridership, which is largely attributable to work travel trends, U.S. transit systems received record-setting federal subsidies. Supplemental COVID-19 appropriations during FYs 2020 and 2021 provided \$69.5 billion in emergency support for transit agencies, equivalent to nearly five years of pre-pandemic federal transit funding.³⁰ The Infrastructure Investment and Jobs Act enacted in FY 2022 increased federal transit funding by 67% over the levels previously authorized by the Fixing America's Surface Transportation (FAST) Act of 2015 in nominal dollars.³¹

This large increase in federal funding allowed transit agencies to continue to provide service close to pre-pandemic levels. As Figure 4 shows, while transit ridership (unlinked passenger trips) decreased by 29.3% between 2019 and 2023, transit service provided (vehicle revenue-miles) fell by only 10.3%.

FIGURE 4: TRENDS IN TRANSIT RIDERSHIP AND SERVICE PROVISION, 2014–2023



Source: Federal Transit Administration, “2023 Annual Dataset: TS2.1 - Service Data and Operating Expenses Time Series by Mode,” National Transit Database (Oct. 2024); author’s calculations.

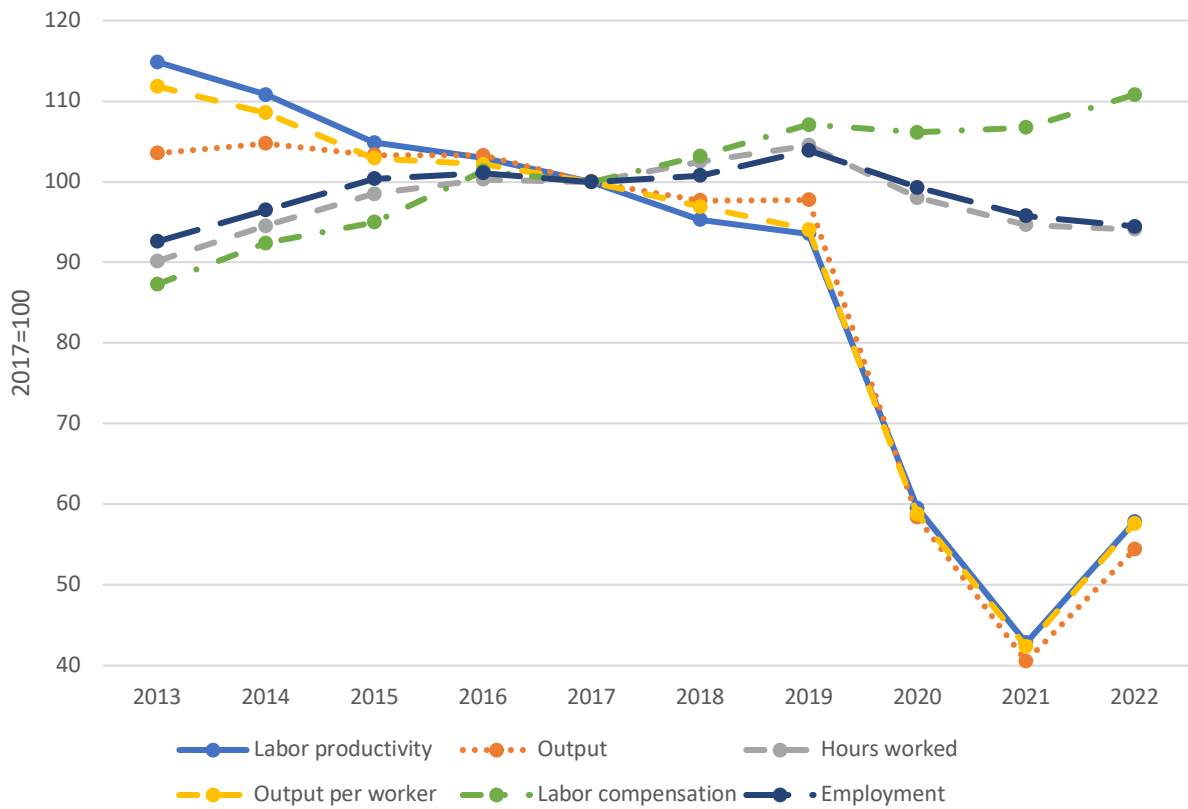
²⁹ Jose Maria Barrero et al., “SWAA November 2024 Updates,” *Survey of Working Arrangements and Attitudes (SWAA)*, 7 Nov. 2024. https://wfhresearch.com/wp-content/uploads/2024/11/WFHResearch_updates_November2024.pdf.

³⁰ Mallett, “Federal Support of Public Transportation Operating Expenses.” 8.

³¹ Ibid. 14.

These dynamics had predictable effects on transit labor productivity. Recall, as shown in Figure 2, that the decline in transit labor productivity from 2013 to 2019 was primarily driven by increases in hours worked by new transit agency employee hires. Following the pandemic, as shown in Figure 5, the declines in labor productivity between 2019 and 2022 were almost entirely driven by decreased ridership (output in passenger-miles traveled).

FIGURE 5: TRANSIT INDUSTRY LABOR PRODUCTIVITY TRENDS, 2013–2022



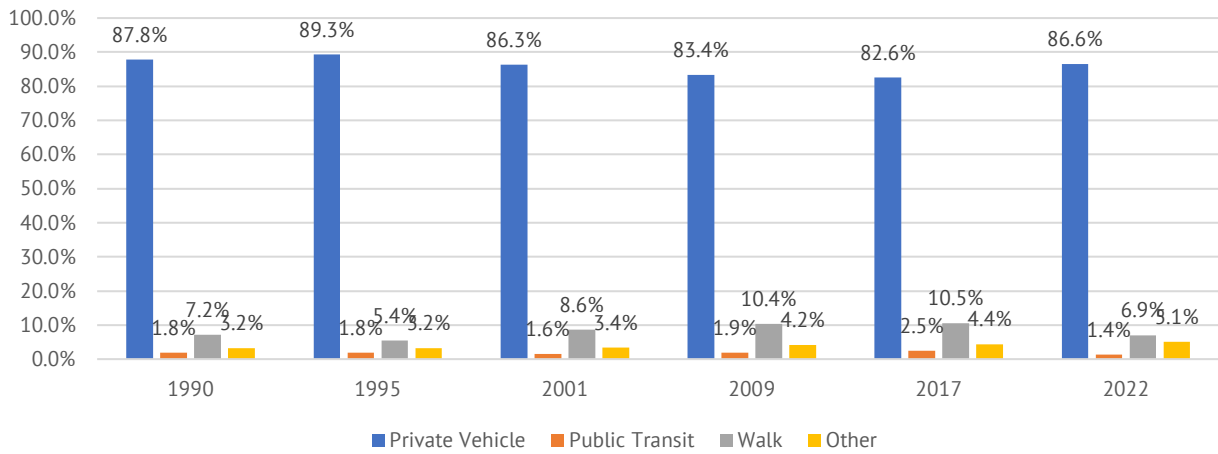
Source: Bureau of Labor Statistics, “Urban Transit Systems Labor Productivity: Urban Transit Dashboard” (27 June 2024).

PART 4

STRATEGIES FOR IMPROVING TRANSIT PRODUCTIVITY

Responses to the COVID-19 pandemic amplified preexisting trends and reduced transit efficiency to the lowest levels on record. Working from home remains elevated and is likely to persist at several multiples of transit's share of commuting. While commuting accounted for between one-third and one-half of pre-pandemic transit ridership, transit accounted for a small share of person trips in the United States. As Figure 6 shows, just 2.5% of person trips were made by transit in 2017, compared to 82.6% made by private vehicle. In 2022, transit's share of person trips had fallen to 1.4% versus 86.6% of trips made by private vehicle.

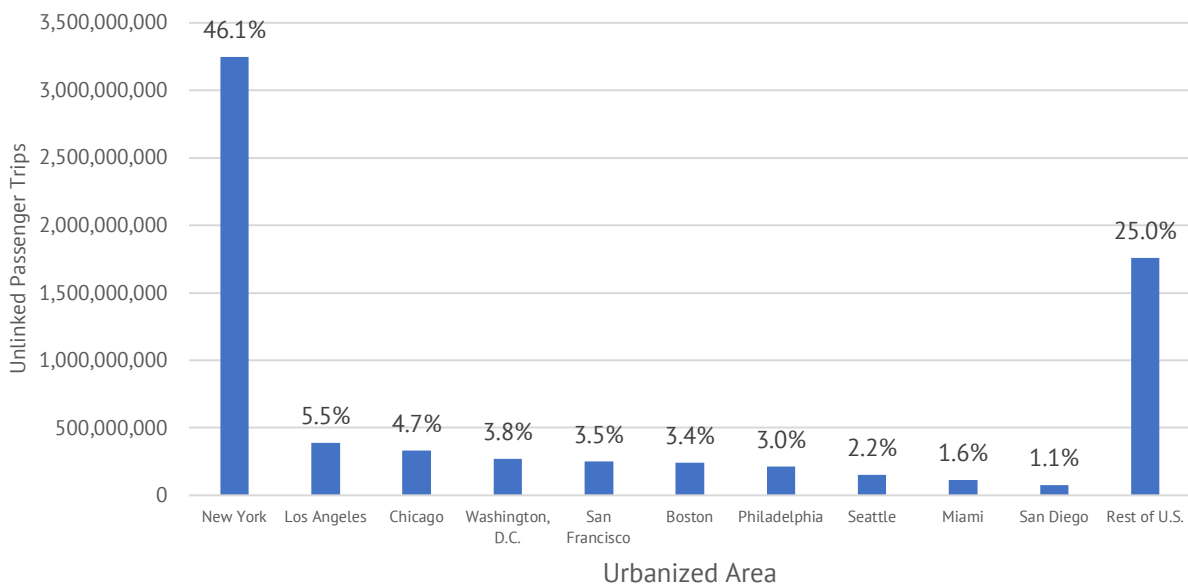
FIGURE 6: SHARE OF U.S. PERSON TRIPS BY MODE OF TRANSPORTATION, 1990–2022



Source: Federal Highway Administration, “Table 4-2. Distribution of Person Trips by Trip Mode and Trip Purpose (Percent),” Summary of Travel Trends: 2022 National Household Travel Survey (Jan. 2024).

Further, U.S. transit ridership is highly concentrated in a small number of cities. As Figure 7 shows, in 2023, 75% of U.S. transit ridership took place in just 10 urbanized areas—with the New York City urbanized area alone accounting for 46.1% of nationwide transit trips.

FIGURE 7: GEOGRAPHIC DISTRIBUTION OF U.S. PUBLIC TRANSIT TRIPS IN 2023



Source: Federal Transit Administration, “2023 Annual Dataset: Metrics,” National Transit Database (Oct. 2024); author’s calculations.

Despite transit's status as a niche mode of passenger transportation, it is a vital service outside of New York to those who cannot afford private vehicle transportation. But spending more than necessary to provide transit service translates to forgone service that could have otherwise been provided under the same allocation of resources. Since transit agencies are nonprofit government agencies whose operating and capital budget accounts are often rigidly separated, any savings on operations will most likely get plowed back into operations, providing opportunities to better serve a dwindling passenger population that depends entirely on public transit for daily needs and work commutes. In this way, recent negative trends in transit productivity are especially troubling because of the disproportionate burden that inefficient transit service imposes on low-income Americans dependent upon transit.

As historical experience with transit subsidies has shown, advancing transit efficiency is not a simple question of additional funding. Making better use of existing resources must be prioritized to avoid counterproductive subsidy policies that merely deepen and prolong transit's productivity crisis.



...spending more than necessary to provide transit service translates to forgone service that could have otherwise been provided under the same allocation of resources.



Transit agencies should be encouraged to experiment with operating practices that could improve system efficiency. With remote work expected to remain elevated, a number of agencies have begun rebalancing their operating schedules to de-emphasize traditional peak-hour service during the workweek to better serve their core customers.³²

These service adjustments may produce some benefits but are unlikely to address the steep declines in labor productivity. Two other policies show more promise to deliver substantial

³² Jared Brey, "Transit Agencies Rethink Schedules for Fewer Commuters," *Governing*, 30 Sep. 2023. <https://www.governing.com/transportation/transit-agencies-rethink-schedules-for-fewer-commuters> (14 Nov. 2024).

efficiency improvements by directly addressing labor costs, which account for approximately two-thirds of transit operating expenses.³³

First, competitive contracting should be encouraged. Under public-private partnerships, transit agencies can contract out transit service provision to private firms. The agency would serve as the coordinating and oversight entity, developing performance requirements and ensuring private partners adhere to those requirements embedded in their contracts. Poorly performing contractors can have their contracts terminated for cause and be replaced by a competing provider. Commuter rail, demand response, and paratransit services are regularly contracted out today.³⁴

Properly writing and enforcing service contracts could lead to substantial efficiency gains. A 2017 study published in the *Journal of Public Economics* estimated that contracting out bus service in the United States could reduce operating costs by 30%.³⁵ Importantly, these modeled cost savings were realized through increased labor flexibility, not cuts to service.

Second, automation of operations should be examined in longer-term capital planning. Fully automated trains are increasingly used in heavy-rail transit systems around the world and are in widespread use at U.S. airports.³⁶

A September 2023 report from the C2SMART university transportation research consortium compared automated and non-automated rail transit systems, finding that automated systems had operating costs 46% below non-automated systems.³⁷ To put this in perspective, the authors suggest that “automation alone could generate an operational profit on the Boston T’s Red, Blue, and Orange Line, as well as the New York Subway, Philadelphia Subway, [San Francisco’s Bay Area Rapid Transit], and Caltrain,” based on pre-pandemic cost and ridership trends.³⁸

³³ Mallett, “Federal Support of Public Transportation Operating Expenses.” 3.

³⁴ “Public Transit: Transit Agencies’ Use of Contracting to Provide Service,” Government Accountability Office, Sep. 2013. 6. <https://www.gao.gov/assets/gao-13-782.pdf>.

³⁵ Rhiannon Jerch et al., “The efficiency of local government: The role of privatization and public sector unions,” *Journal of Public Economics*, Vol. 154, Oct. 2017. 95–121.

³⁶ “List of driverless train systems,” Wikimedia Foundation, last modified 27 Oct. 2024, 17:31 (UTC), https://en.wikipedia.org/wiki/List_of_driverless_train_systems (31 Oct. 2024).

³⁷ Chetan Sharma and Joseph Y. J. Chow, “Reducing US Transit Costs: An Empirical Review and Comparative Case Study of Portland, Manchester Rail Systems,” C2SMART Center, Sep. 2023. 76. <https://c2smarter.engineering.nyu.edu/wp-content/uploads/2024/05/2024-05-19-Sharma-Chow-C2SMART-Report-Reducing-US-Transit-Costs.pdf>.

³⁸ Ibid.

It is important to note that retrofitting existing transit rail lines for automated operations is significantly more costly than automating newly built lines from the beginning, so these estimated cost savings are too optimistic in that context.³⁹ But the savings could still be very large and worth pursuing in the long term. Honolulu’s newly built Skyline elevated light-rail system is fully automated and its operating metrics should be examined in the years ahead.

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...retrofitting existing transit rail lines for automated operations is significantly more costly than automating newly built lines...But the savings could still be very large and worth pursuing in the long term.

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In addition to automated rail transit, developers are also pursuing automated road transit vehicles, which could offer even more cost savings than rail transit automation. The Federal Transit Administration (FTA) recently renewed its Strategic Transit Automation Research (STAR) Plan, which focuses on the automation of transit buses and other road vehicles.⁴⁰ Some automated road transit developers are supporting dramatically different vehicles and operating environments that resemble personal rapid transit (PRT).

PRT involves small transit vehicles carrying three to six passengers that travel on dedicated guideways without fixed routes, with automated PRT vehicles traveling between stations point-to-point on demand—akin to a horizontal elevator because PRT vehicles can bypass intermediate stations.⁴¹ Aside from some airport people mover projects, the most famous example is the system serving West Virginia University in Morgantown that has operated

³⁹ Keith Foley, “GoA4: The Way Forward for Metro Systems Worldwide,” WSP, 4 Aug. 2022. <https://www.wsp.com/en-gb/insights/goa4-the-way-forward-for-metro-systems-worldwide> (31 Oct. 2024).

⁴⁰ Joshua Cregger et al., “Strategic Transit Automation Research Plan 2.0: 2023-2028,” Federal Transit Administration, May 2024. <https://www.transit.dot.gov/sites/fta.dot.gov/files/2024-05/FTA-Report-No-0264.pdf>.

⁴¹ Shannon S. McDonald, “Personal Rapid Transit and Its Development,” *Encyclopedia of Sustainability Science and Technology*, ed. Robert A. Meyers, New York: Springer, 2012. 7,777–7,797.

since 1975.⁴² PRT was the subject of federally funded research in the 1970s but failed to attract broad interest.⁴³

One reason for the failure of PRT is that costs proved to be significantly greater than anticipated by researchers. Eschewing the rail model in favor of rubber-tire vehicles may address one of the most significant hurdles faced by PRT and thereby deliver quality of service improvements over conventional fixed-route transit.

Glydways is the leading developer of rubber-tire PRT. The company's purpose-built electric vehicles, which it calls Glydcars, can hold a maximum of four seated passengers and are fully compliant with the Americans with Disabilities Act's wheelchair accessibility standards.⁴⁴ One of Glydways' principal selling points is that it claims the system can be built and operated profitably by charging passengers no more than prevailing transit fares. It estimates operating costs of \$0.25 per passenger-mile traveled.⁴⁵



Operating costs per passenger-mile traveled have been elevated since the onset of the COVID-19 pandemic because declines in transit ridership have been nearly three times larger than decreases in service provision over the same period.



In 2023, the FTA estimated average public transit operating costs of \$1.64 per passenger-mile traveled across all sub-modes of transit and systems, meaning Glydway's claimed operating costs are 85% less than the U.S. transit average.⁴⁶ Operating costs per passenger-mile traveled have been elevated since the onset of the COVID-19 pandemic because declines in transit ridership have been nearly three times larger than decreases in service provision over the same period, as was displayed in Figure 4. For comparison, the FTA estimated average transit operating costs of \$1.16 per passenger-mile traveled in 2019,

⁴² Ibid.

⁴³ Ibid.

⁴⁴ "Approach," Glydways. <https://www.glydways.com/approach.html> (31 Oct. 2024).

⁴⁵ Ibid.

⁴⁶ Cook et al., "National Transit Summaries and Trends: 2023 Edition." 148–149.

which means Glydway's claimed operating costs are still 78% less than average U.S. transit operating costs that were incurred immediately prior to the pandemic.⁴⁷

In addition to operating cost savings, Glydways aims to dramatically reduce transit capital costs by relying on a paved fixed guideway that is approximately the width of a bicycle lane. The company claims this approach can achieve 95% cost savings compared to conventional transit capital costs.⁴⁸

Glydways is part of a consortium that was selected in April 2023 to build an airport connector project in San José, California.⁴⁹ A related consortium was also selected to build a 28-mile Glydways transit network in nearby Contra Costa County.⁵⁰ While it is too early to evaluate the efficiency claims made by Glydways, these projects should be watched closely.

While competitive contracting and automation can result in substantial savings, they will undoubtedly face opposition from labor organizations. While this opposition is understandable—if unfortunate from the taxpayer and transit-rider perspectives—a federal law known as Section 13(c) greatly limits the ability of transit agencies to adopt more-efficient operating practices and technologies.

⁴⁷ "2019 Metrics," *National Transit Database*, Federal Transit Administration, Oct. 2020; author's calculations. <https://www.transit.dot.gov/ntd/data-product/2019-metrics>.

⁴⁸ "Approach," Glydways.

⁴⁹ Marc Scribner, "Automated Transit Shows Promise, But Faces Political Challenges," *Surface Transportation Innovations*, Reason Foundation, 6 June 2023. <https://reason.org/transportation-news/privatization-report-automated-transit-shows-progress/#d> (31 Oct. 2024).

⁵⁰ "28 Miles Of New Network Connections In East Contra Costa County," Glydways, 4 Apr. 2024. <https://theride.glydways.com/east-contra-costa-county-2404/> (31 Oct. 2024).

PART 5

REPEALING SECTION 13(C) OF THE URBAN MASS TRANSPORTATION ACT OF 1964

Section 13(c) was included in the Urban Mass Transportation Act of 1964 to protect existing labor contracts while mass transit in the United States was transitioning from private to public provision.⁵¹ Congress justified this provision at the time because the public sector was often more hostile to organized labor than the private sector, and lawmakers wished to maintain labor peace during the government takeover of bankrupt transit companies. Yet Section 13(c) persists to this day even though labor-management relations are dramatically different in both the public and private sectors.

In exchange for federal funding, transit agencies are required to adopt “protective arrangements” to be certified by the Department of Labor, including:

- The preservation of rights and benefits of employees under existing collective bargaining agreements;
- The continuation of collective bargaining rights;

⁵¹ Presently codified at 49 U.S.C. § 5333(b).

- The protection of individual employees against a worsening of their positions in relation to their employment;
- Assurances of employment to employees of acquired transit systems;
- Assurances of priority of reemployment of employees whose employment is ended or who are laid off; and
- Paid training or retraining programs.

As a result of Section 13(c) labor protections, the principal mechanisms to increase transit productivity have been frozen for 60 years. Typical transit agency Section 13(c) agreements include provisions that greatly constrain agency management in any decision involving employees.

First, agreements generally require agencies to notify employee unions 60 to 90 days prior to any contemplated agency action that would alter the agency workforce as a result of a federally assisted project.⁵² Once notice has been given, agencies and unions must agree to implementing terms that apply Section 13(c) requirements to the proposed agency action. This can be a barrier to implementing any operational or service changes that impact the agency workforce, especially if employees or their representatives can make a plausible argument that the proposed changes would worsen their employment positions in some way.



While Section 13(c) as interpreted does not forbid contracting out service, it is in practice extremely challenging for agencies to contract out existing service in a cost-effective manner.



Second, contracting out service is greatly constrained. While Section 13(c) as interpreted does not forbid contracting out service, it is in practice extremely challenging for agencies to contract out existing service in a cost-effective manner. Many Section 13(c) agreements

⁵² G. Kent Woodman et al., “Transit Labor Protection: A Guide to Section 13(c) of the Federal Transit Act,” *Legal Research Digest* No. 4, Transit Cooperative Research Program, June 1995. 20–21, https://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_lrd_04.pdf.

include explicit language requiring the transit agency to be the “sole provider” of transit service. The “sole provider” clause is included as part of the standard Section 13(c) Model Agreement at Paragraph 23.⁵³ Generally, these restrictions are strongest when applied to contracting out existing service that had not been previously subcontracted, but some arbitrators have interpreted “sole provider” provisions to prohibit the subcontracting of new service as well.⁵⁴

Third, “carryover rights” clauses often contained in Section 13(c) agreement, which nominally require a new contractor to hire the employees of the former provider, generate sizable uncertainty for agencies.⁵⁵ The scope of these protections is unclear, but litigation is likely to arise if an agency attempts to contract out service it had directly provided as the sole provider.

Fourth, successor clauses contained in Section 13(c) agreements tend to require any future contractors to assume obligations that had previously been agreed on by the transit agency or a preceding contractor.⁵⁶ This greatly limits the ability of new contractors to introduce productivity-enhancing operational and service changes that may impact the workforce.

The challenge to contracting out service posed by Section 13(c) was highlighted in a General Accounting Office (GAO, since renamed the Government Accountability Office) survey of transit agencies conducted between October 1995 and September 2000.⁵⁷ While GAO’s final report concluded that “Section 13(c) had a minimal impact on most areas of transit operations we identified,” it also found that contracting out was the major exception to this general conclusion.⁵⁸

In response to GAO’s survey, 46.5% of transit agencies reported that Section 13(c) imposed a barrier to contracting out fixed-route transportation or related services, with 18.3% saying Section 13(c) made it “much more difficult” and another 28.2% saying it made it “somewhat

⁵³ “National (Model) Agreement Pursuant to Section 13(c) of the Urban Mass Transportation Act of 1964, as Amended,” Office of Labor-Management Standards, U.S. Department of Labor. <https://www.dol.gov/agencies/olms/compliance-assistance/transit/model-agreement> (31 Oct. 2024).

⁵⁴ Woodman et al., “Transit Labor Protection: A Guide to Section 13(c) of the Federal Transit Act.” 21–22.

⁵⁵ Ibid. 22–24.

⁵⁶ Ibid. 24–25.

⁵⁷ “Transit Labor Arrangements: Most Transit Agencies Report Impacts Are Minimal,” General Accounting Office, Nov. 2001. <https://www.gao.gov/assets/gao-02-78.pdf>.

⁵⁸ Ibid. 3.

more difficult.”⁵⁹ GAO concluded that “some transit industry officials reported that although provisions of Section 13(c) arrangements may directly limit contracting out for services, more often agencies are discouraged from contracting out because of their perception that such action will cause problems, such as Section 13(c) claims or delays in the receipt of grants.”⁶⁰

Finally, automating existing transit service faces similar barriers under the labor-management relations environment distorted by Section 13(c). The aforementioned GAO survey did not ask any questions about transit vehicle automation, likely owing to the fact that fully automated rail transit was not yet the mature technology that it is today. However, a 1976 report to Congress from the Office of Technology Assessment concluded:

*[Section 13(c)] allows the elimination of jobs, but only as workers presently holding those jobs retire or vacate the positions for other reasons. Thus, the economic benefits of workforce reduction through automation of an existing transit system may be deferred for a number of years until retraining, transfer, or attrition can account for the displaced workers. Alternatively, direct compensation can be paid to affected workers, eliminating the jobs earlier but at an earlier cost.*⁶¹

Given that deploying automation requires transit agencies to either incur substantial upfront costs to pay off affected employees or delay the realization of labor-saving benefits, transit agencies largely dependent on annual government appropriations face a strong financial disincentive to investing in automation that would improve service and reduce growing operating subsidies. With fully automated road vehicles being deployed in increasing numbers, the case for addressing the barriers posed by Section 13(c) has grown more urgent.

Transit employee labor protections included as part of the Urban Mass Transportation Act of 1964 were designed to address the particular circumstances of the time. In the early 1960s, it was understandable for unions representing employees of private transit companies to lobby for a continuation of collective bargaining rights during the

⁵⁹ Ibid. 29.

⁶⁰ Ibid. 13.

⁶¹ “Automatic Train Control in Rail Rapid Transit,” Office of Technology Assessment, May 1976. 162. <https://ota.fas.org/reports/7614.pdf>.

government takeover of public transit systems because just 2% of state and local government employees were permitted to collectively bargain under state law.⁶²

But this transition period has passed, and all affected employees have long since retired. Further, most states have authorized public-employee collective bargaining since 1960, with 63% of state and local employees being authorized to collectively bargain as of 2010.⁶³ In 2023, public-sector unionization rates stood at 32% for state government employees and 41.7% of local government employees, compared to 6.9% of workers in the private sector⁶⁴—an inversion of public- and private-sector unionization shares of the early 1960s.⁶⁵ Today, public-employee unions are one of the most powerful forces in American politics, particularly at the state and local levels.⁶⁶



In the early 1960s, it was understandable for unions representing employees of private transit companies to lobby for a continuation of collective bargaining rights during the government takeover of public transit systems...But this transition period has passed, and all affected employees have long since retired.



Section 13(c) exists alongside federal, state, and local labor laws that apply to public-sector workers. Importantly, federal transit labor protections supplement rather than substitute for other general labor protections. As a result, Section 13(c) provides transit workers—and

⁶² Jeffrey H. Keefe, “Laws enabling public-sector collective bargaining have not led to excessive public-sector pay,” *EPI Briefing Paper #104*, Economic Policy Institute, 16 Oct. 2015. <https://www.epi.org/publication/laws-enabling-public-sector-collective-bargaining-have-not-led-to-excessive-public-sector-pay/>.

⁶³ Ibid.

⁶⁴ “Union Membership: Table 3. Union affiliation of employed wage and salary workers by occupation and industry,” *Economic News Release*, Bureau of Labor Statistics, 23 Jan. 2024. <https://www.bls.gov/news.release/union2.t03.htm> (31 Oct. 2024).

⁶⁵ Julia Wolfe and John Schmitt, “A profile of union workers in state and local government,” Economic Policy Institute, 7 June 2018. 6. <https://files.epi.org/pdf/148535.pdf>.

⁶⁶ Carl Smith, “Political Spending by Public-Sector Unions Is Deep Blue,” *Governing*, 15 Dec. 2023. <https://www.governing.com/politics/political-spending-by-public-sector-unions-is-deep-blue> (31 Oct. 2024).

only transit workers—with special protections beyond those enjoyed by other government employees. Accordingly, transit agencies are uniquely disadvantaged in labor-management relations when compared to other government agencies.

Occasionally, Section 13(c) has been wielded in surprising ways, such as when the Biden administration in 2021 attempted to block \$12 billion in federal transit grants to California over a 2013 statewide public employee pension law.⁶⁷ The courts ultimately sided with California,⁶⁸ but this episode underscores the risk that transit agencies—as well as state and local governments—face in doing anything that might be perceived as having a negative impact on transit workers.

The unique power imbalance between transit agencies and employees under Section 13(c) has two important implications for policymakers. First, eliminating Section 13(c) special transit worker labor protections would merely level the playing field between transit workers and other government employees. All other federal, state, and local labor policies that apply to government employees would continue to apply. Second, repealing Section 13(c) would not automatically usher in transit public-private partnerships or automation. Rather, it would remove an impediment to transit agencies seeking to negotiate more flexible labor contracts in the future.

⁶⁷ Wes Venteicher and David Lightman, “Biden administration blocks billions in California transit money, citing pension law,” *Sacramento Bee*, 11 Nov. 2021. <https://www.sacbee.com/news/politics-government/the-state-worker/article255720896.html> (20 Nov. 2024).

⁶⁸ *Amalgamated Transit Union International et al. v. U.S. Department of Labor et al.*, No. 23-15503 (9th Cir. 2024).

PART 6

CONCLUSION AND RECOMMENDATIONS

The impacts of the COVID-19 pandemic on travel behavior and transportation systems have rightly concerned many policymakers. With respect to public transit, sharp ridership declines and rising operating costs have amplified preexisting negative productivity trends. To date, much of the policy focus has been on providing emergency financial relief to transit agencies facing immediate insolvency, but these measures do nothing to address the underlying problems.

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Going forward, addressing the transit productivity crisis should be a top policy priority. Like all enterprises, transit agencies face budget constraints. When operating costs rise, transit agencies must forgo service improvements that would benefit their users. Given that those most dependent on public transit have few other options to access employment and social

opportunities, declining transit productivity should be understood as a regressive phenomenon—disproportionately hurting the most disadvantaged among us.

Public transit ridership is unlikely to recover to pre-pandemic levels within the next decade. Depressed farebox revenue and rising operating costs will continue to manifest in transit agency fiscal instability, and policymakers will face growing pressure to authorize additional operating subsidies. This would be a mistake given that past experience shows increasing operating subsidies may simply hasten productivity declines, which would undermine the public benefit case for continued transit service. A wiser approach would be encouraging transit agencies to make better use of existing resources.

Transit operating costs are mostly attributable to labor. Given that the decline in transit productivity is driven by the divergence of labor costs and transit ridership, removing barriers to transit agency self-help should be prioritized before additional subsidies are considered. Outside the United States, transit providers are increasingly leveraging competitive contracting and automation to contain labor costs. Unfortunately, federal transit law greatly limits the adoption of these innovative practices and technologies in the United States.

Due to the unique legacy of federal transit law, transit workers enjoy greater protections than any other occupation. Section 13(c) of the Urban Mass Transportation Act of 1964 is designed to restrict transit management negotiating tactics, so the entire collective bargaining process is distorted to advantage labor over service provision. In other words, Section 13(c) prioritizes the providers of a government service over the users of that service, which is contrary to the public interest. If transit agencies are to begin addressing the transit productivity crisis and providing better service to their riders, Congress must first repeal Section 13(c).

ABOUT THE AUTHOR

Marc Scribner is a senior transportation policy analyst at Reason Foundation.

Scribner's work focuses on a variety of public policy issues related to transportation, land use, and urban growth, including infrastructure investment and operations, transportation safety and security, risk and regulation, privatization and public finance, urban redevelopment and property rights, and emerging transportation technologies such as automated road vehicles and unmanned aircraft systems. He frequently advises policymakers on these matters at the federal, state, and local levels.

Scribner has testified numerous times before Congress at the invitation of both Democrats and Republicans on issues including highway revenue collection, traffic congestion management, public transit productivity, freight rail regulation, airport financing, and air traffic control modernization. He is a member of the Transportation Research Board's Standing Committee on Emerging Technology Law.

He has appeared on television and radio programs in outlets such as Fox Business Network, National Public Radio, and the Canadian Broadcasting Corporation, and has also written for numerous publications, including *USA Today*, *The Washington Post*, *Wired*, *CNN.com*, *MSNBC.com*, *Forbes*, and *National Review*. And his work has been featured by *The Wall Street Journal*, *New York Times*, *Washington Post*, *Los Angeles Times*, *Scientific American*, *Congressional Quarterly*, *Washington Monthly*, *POLITICO*, CNN, Bloomberg, BBC, C-SPAN, and other print, television, and radio outlets.

Scribner joined Reason Foundation after more than a decade at the Competitive Enterprise Institute, where he was a senior fellow in transportation policy. He received his undergraduate degree in economics and philosophy from George Washington University.

