

MI

The Narrative

Reality

Does America Need More Urban Rail Transit?

“Projects like this Southwest light-rail are exactly the type of investments we need to be making right now.”¹

MINNESOTA SENATOR AL FRANKEN

“The transforming impact of light rail should not be controversial. It is working in other cities across the country.... We should not be arguing about which one route to build. We should be discussing how to build all the routes.”²

ST. LOUIS MAYOR FRANCIS SLAY

“President Trump’s proposed budget would be a disaster for cities and their transportation systems.”³

**LINDA BAILEY, EXECUTIVE DIRECTOR,
NATIONAL ASSOCIATION OF
CITY TRANSPORTATION OFFICIALS**

Efficient rail transit requires dense cities with highly concentrated downtown employment centers. Yet only a limited number of cities, such as New York and Chicago, fit the bill. Most American cities are low-density, have extremely decentralized origins and destinations of employment and trips, and have development and commuting patterns based on the automobile.

Low-density U.S. cities with new rail-transit systems have experienced limited ridership and single-digit transportation market share. Federal funds should be directed to rebuilding aging rail transit in cities where it already exists and where it serves a critical transportation function. In most cases, state and local governments should focus on providing transit service via traditional buses, not building new rail lines.

Key Findings

- Apart from New York, Chicago, San Francisco, Boston, Philadelphia, and Washington, U.S. cities are a poor fit for rail transit. Why?
 - ◆ Most cities have small central business district (CBD) employment: compare, say, Charlotte, North Carolina (63,000 CBD employment), St. Louis (58,000), and Dallas (70,000) with New York (2 million CBD), Chicago (500,000), and San Francisco (300,000).⁴
 - ◆ Most cities also have low-density populations: compare, say, Denver (4,000 residents per square mile), Dallas (3,600), and Charlotte (2,700) with New York⁵ (28,000), San Francisco (18,400), and Boston (13,800).⁶
- New rail construction has proved to be a poor investment in most cities:
 - ◆ Los Angeles's public-transit ridership has declined since 1985 despite \$9 billion spent on new rail-transit lines.⁷
 - ◆ Dallas built America's largest light-rail network by length (90 miles),⁸ at a cost of \$5.5 billion;⁹ but the network carries a mere 100,000 riders per weekday,¹⁰ a sliver of total travel in the Dallas region.
 - ◆ Despite billions of dollars in new rail spending nationwide, during 2004–14 84% of national growth in total public-transit ridership came in the New York region.¹¹
 - ◆ Of the 53 U.S. metro areas with more than a million residents, only five have at least 10% of their commuters use any kind of public transit; and only 11 have at least 5% of commuters use public transit of any kind.¹²
- Critical existing rail systems in America's high-density cities require significant investment in repairs:
 - ◆ Boston's MBTA system has a \$7 billion maintenance backlog.¹³
 - ◆ The San Francisco Bay Area's BART rail system has a \$10 billion repair backlog.¹⁴
 - ◆ Rail systems in the metro areas of New York, Washington, D.C., and Philadelphia also face multibillion-dollar repair backlogs.

President Trump's budget blueprint proposes eliminating all funding for the Federal Transit Administration's Capital Investment Grant program. This includes the New Starts program, frequently used to help finance rail-transit expansion and new lines.

While complete elimination of these capital grants is not necessary, significant reform is warranted. Other than a handful of critical projects, such as future phases of New York's Second Avenue subway, the federal government should stop financing rail-transit expansion projects. Instead, it should reroute all capital funds for rail transit toward critical repairs of major legacy-rail systems.

Public transit in the U.S. consists of buses and rail systems. Rail systems include heavy rail (such as subway systems), light rail or streetcar systems, and commuter rail. Bus systems include traditional bus routes as well as enhanced routes, "bus rapid transit," which are eligible for some of the same funding streams as new rail projects and are generally seen as similar to, but lower quality than, light rail.

Only a few U.S. cities retained significant rail-transit systems into the post-World War II era—dense cities with huge downtown employment centers: New York, Chicago, Boston, Philadelphia, and San Francisco. The Washington area also built a major heavy-rail system, Metro, in the 1970s. Collectively, these are the "rail-transit legacy cities."

Many smaller cities have built rail systems, generally light rail, since the 1970s. These include Denver, Portland, Minneapolis-St.

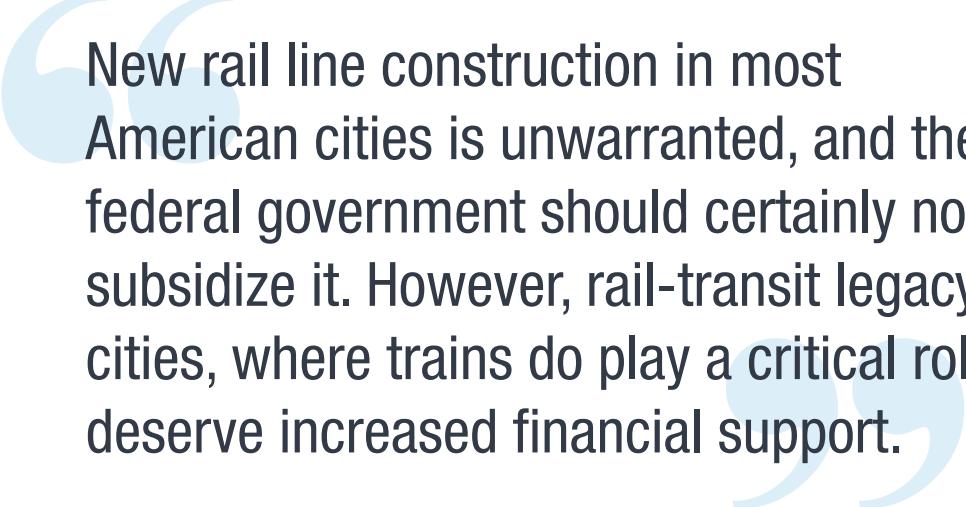
Paul, Dallas, and Charlotte. Promoting transit expansion, particularly rail, has been a key platform for America's urban leaders. Civic leaders have tried—and failed—to implement rail systems in many additional cities, and they will continue to try.

Rail—and bus rapid-transit systems that attempt to mimic it—are a poor fit for most American cities. Unlike rail-transit legacy cities, which have large employment centers that were largely developed long ago in tandem with rail systems, most U.S. cities have a highly dispersed development pattern that grew up around the automobile, with limited downtown employment.

Unlike New York City, where large numbers of people commute daily to work in the skyscrapers of Manhattan, or Chicago, where over half of the regional office space is in the greater downtown area,¹⁵ most cities have small central business districts with a limited share of regional employment. Employment in New York City's CBD is almost 2 million. Chicago's is more than 500,000, and San Francisco's is nearly 300,000. By contrast, Charlotte's CBD employs 63,000, St. Louis's employs 58,000, and Dallas's employs 70,000.¹⁶

Instead of commuting to downtown, most people in cities like Dallas commute from everywhere to everywhere. This type of highly dispersed commuting is unsuited to the fixed route, downtown-centered pattern of rail networks.

On the Record



New rail line construction in most American cities is unwarranted, and the federal government should certainly not subsidize it. However, rail-transit legacy cities, where trains do play a critical role, deserve increased financial support.

Aaron Renn, Senior Fellow, Manhattan Institute

Additionally, the rail-transit legacy cities are far denser than most other U.S. cities. Density is important for rail transit because of the need to get to and from the train, usually on foot. New York City has a density of 28,000 people per square mile, San Francisco has 18,400 people/sq mi, and Boston has 13,800 people/sq mi. By contrast, Denver has only 4,000 people/sq mi, Dallas has 3,600 people/sq mi, and Charlotte has 2,700 people/sq mi.

For these reasons, attempts to create high-impact rail-transit systems have failed in most U.S. cities. Los Angeles, a large, relatively dense city and region, has spent \$9 billion on rail lines since 1985, but overall public-transit ridership has fallen. In L.A., gains in rail ridership were offset by declines in bus ridership. Dallas built the largest light-rail system in the U.S.: 90 miles at a cost of \$5.5 billion. Yet the system carries only about 100,000 daily riders, a tiny sliver of regional travel.¹⁷

These disappointing numbers help explain why rail-transit boosters now tend to focus on economic-development arguments.¹⁸ For example, one report suggested that Cincinnati's streetcar line has triggered millions of dollars in development along the line.¹⁹

Yet cities without streetcars, such as Indianapolis and Columbus, have seen major downtown construction booms. (Since the time that Cincinnati announced its streetcar project, \$1.5 billion in public funds has been spent on other projects along the route, suggesting other reasons for spin-off development besides the city's streetcar line.)²⁰ Economic-development arguments for rail projects typically claim credit for growth that would have happened anyway.

In short, new rail line construction in most American cities is unwarranted, and the federal government should certainly not subsidize it. Transit analyst Yonah Freemark observes, "The [Trump budget's] limitations on the Capital Investment Grant program will be extremely painful for cities and transit agencies that have pinned their hopes on investing in new rail and bus lines."²¹ While there are a limited number of expansion projects that do warrant federal aid, most—such as the proposed \$3.3 billion Durham-Orange light-rail line in North Carolina²²—do not. Reform to New Starts, which subsidizes questionable transit spending, is overdue.

Rail-transit legacy cities, where trains do play a critical role, deserve increased financial support. New York City, for example, would not function without its subways. These cities' rail-transit systems face serious challenges, in the form of multibillion-dollar maintenance backlogs. In Washington, D.C., such backlogs have caused serious safety problems and have caused commuters to abandon public transit.

In New York, the signal system regulating the flow of the city's subways dates to the 1930s.²³ Upgrading this to modern technology is just one element of billions of dollars in repairs needed to maintain reliability and serviceability in the Big Apple. New train cars, as well as track, bridge, and tunnel repairs, are also needed. Boston's MBTA system has a \$7 billion maintenance

backlog. The San Francisco Bay Area's BART rail system has a \$10 billion repair backlog. Philadelphia, New Jersey Transit's commuter system (which funnels workers into Manhattan), and the Chicago area all need to invest large sums of money to catch up on deferred maintenance.

President Trump is right to defund federal capital grants for new rail construction. But rather than eliminate the funding completely, it should be redirected to projects that will reduce the huge maintenance backlog on the critical public-transport systems in America's rail-transit legacy cities.

Endnotes

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- ⁴ See *Demographia Central Business Districts*, 3rd ed., Mar. 2014.
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- ⁶ Census Bureau population estimates.
- ⁷ Laura J. Nelson and Dan Weikel, "Billions Spent, but Fewer People Are Using Public Transportation in Southern California," *Los Angeles Times*, Jan. 27, 2016.
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- ¹² Census Bureau American Community Survey: 2015 ACS 1-Year Estimates.
- ¹³ Gabrielle Gurley, "A Tale of Two Subway Systems," *The American Prospect*, Apr. 11, 2016.
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- ¹⁸ See, e.g., Aaron Wiener, "Why Streetcars Aren't About Transit: The Economic Development Argument for Trams," Next City, Jan. 12, 2014.
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- ²² Sarah Willets, "Sticker Shock: Why Does the Durham-Orange Light Rail Transit Project Suddenly Cost \$3.3 Billion?" *Indy Week*, Apr. 12, 2017.
- ²³ Verena Dobnik, "NYC Subways Slowly Upgrading from 1930s-Era Technology," *Phys.org*, Dec. 21, 2014.