

Metro Hartford-Springfield Rail Improvements

Approach and Methodology

Introduction

AECOM was engaged by the Capitol Region Council of Governments to analyze the potential economic benefits of proposed rail improvements which have clear potential to economically reconnect Hartford and Springfield to the Northeast Corridor (NEC), including completion of the Hartford Line between Hartford and Springfield, and East-West Rail Improvements in Massachusetts within the Worcester-Springfield Corridor.

This study's primary focus on job growth in professional services and adjacent sectors is largely due to the fact that these occupations see a direct and positive relationship with **regional commuter rail usage** across US metro areas – and thus, serve as a reliable framework for estimating future job growth. Still, we know that many other classes of workers rely on and are positively impacted by improved transit service, including essential/frontline workers, low-skill/low-wage workers, and zero-car households. Further analysis would be needed to quantify these wide-reaching accessibility and equity impacts, likely to yield even greater future job growth.

Conservative Approach

Core hypotheses:

- That there is a positive relationship between the percentage of private sector workers in information, professional & business services, and financial activities sectors (broadly “professional services”), and the percentage of workers in counties who rely on commuter rail services. This argument also applies to broader transit use.
- That this relationship can inform a conservative perspective as to the regional jobs gap – the number of jobs across Metro Hartford-Springfield that are (1) currently “missing” and (2) could reasonably be expected to emerge over time, as proposed transit investments are made.
- The analysis is not intended to estimate transit ridership. Rather the intent is to estimate the number of future jobs in specific sectors that are likely to use transit.

Data was collected from:

- US Census 2016 Transportation Products, covering journey to work data via commuter rail by industry sector for employees in information, professional and business services, and financial activities.
- US Census American Community Survey 2019, covering journey to work data via transit for employees in information, professional and business services, and financial activities.
- EMSI, covering industry employment for information, professional and business services, and financial activities NAICS codes, alongside total private employment (QCEW definition) for 2016 and 2019.

Data from these sources was collected for the following groups of urban US Counties:

- 88 urban counties across US metropolitan areas which offer rail transit services,

- 75 urban counties across US metropolitan areas which support commuter rail infrastructure, and
- 55 urban counties with “legacy” commuter rail systems (NY, Chicago, Boston, San Francisco).

Summary statistics and linear regressions were performed, focused on the share of workers who use commuter rail in each county, in comparison with the percentage of total private sector employment in professional services (defined above).

- The analysis yielded a generally positive statistical relationship, and correlations improved when the analysis focused on counties with legacy commuter rail service.
- A generally positive relationship between professional services transit shares and concentration of professional services jobs, with significant improvement in R Correlations
- Metro Hartford-Springfield’s concentration in professional services is below median & mean in both benchmarks. Across the top 25 urban counties and top 25 counties with commuter rail access, the average share of employment in noted sectors was 28.4%, compared to the current share in Metro Hartford Springfield at 25.4%.

Option 1: Relationship, Commuter Rail Journey to Work and Professional Svcs Job %

Segment	Sample	Commuter Rail Share %, 2016	Professional Service Job %, 2019	R Correlation
Urban Counties	75	1.1%	29.0%	0.3156
Top Counties / Legacy Commuter Rail	55	1.4%	27.8%	0.4182
Metro Hartford-Springfield	3	0.0%	25.4%	

Option 2: Relationship, Professional Services Transit Share and Professional Svcs Job %

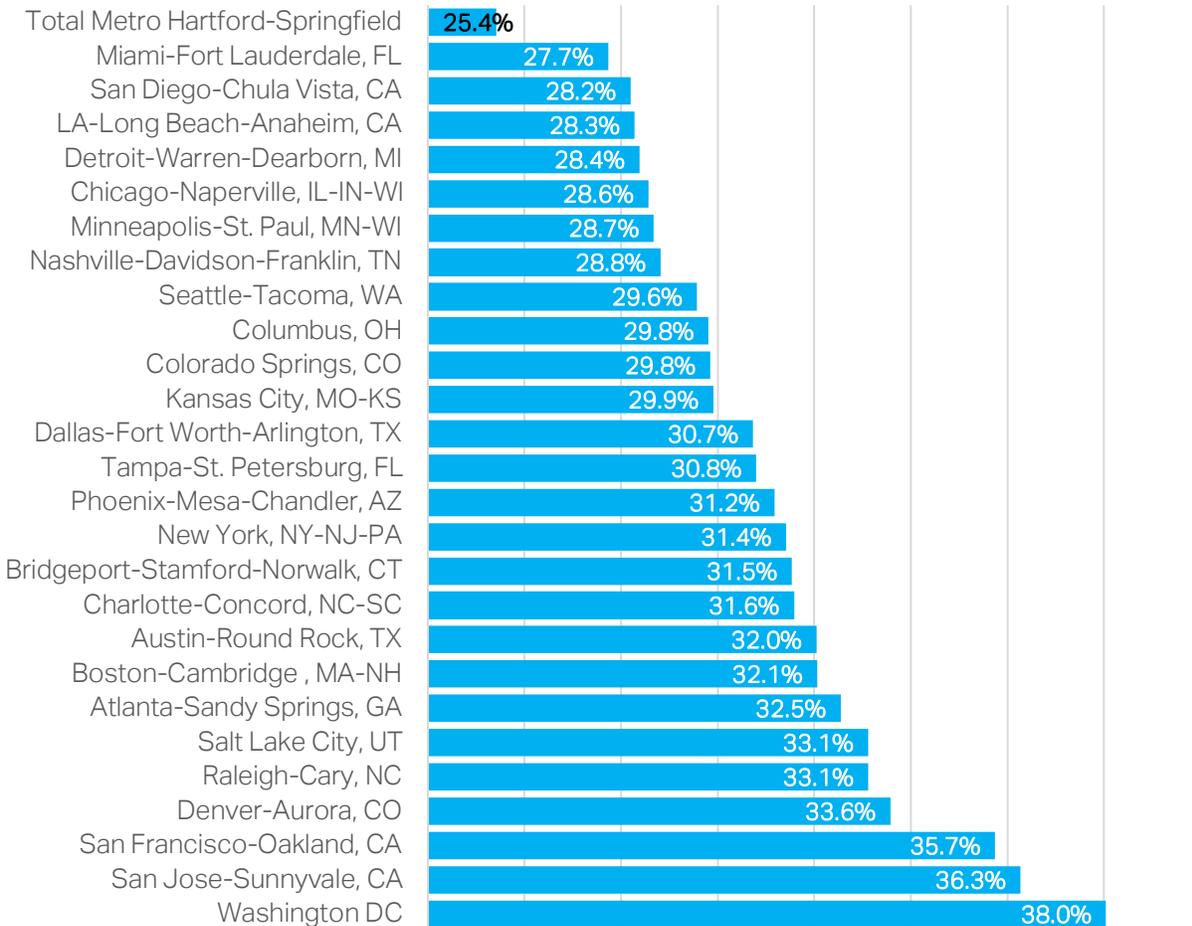
Segment	Sample Counties	Total Professional Services % Transit Share, 2019	Professional Services % Total Employment, 2019	R Correlation
Top Urban Counties	88	33.2%	29.4%	0.1902
Top Counties / Legacy Commuter Rail	50	37.6%	28.5%	0.3651
Metro Hartford-Springfield	3	17.9%	25.4%	

The analysis relies on projected growth in the share of private sector employment in information, professional & business services, and financial activities from the current 25.4% to about 28% over 30 years, yielding an increase of roughly 20,000 jobs, linked to transit improvements.

Aggressive Approach

While the conservative approach focuses on statistical relationships between county-level commuter rail ridership and the percentage of jobs in information, professional & business services, and financial activities sectors, the aggressive approach focuses on metro area comparisons for the percentage of jobs in noted services sectors. These relationships are summarized below for US metropolitan statistical areas (MSA) in comparison with Metro Hartford-Springfield.

Metropolitan Area Professional Services Job Percentage, Total Private Sector Employment, 2019



While Metro Hartford Springfield ranks as a consequential economic region across the US, with more than 1.6 million residents, \$120 billion in GDP, and roughly 674,400 private jobs in 2019, the analysis reinforces the apparent jobs gap, with a ranking of 35th among US MSA's for total private sector jobs, with a more distant ranking of 37th in the number of services sector jobs (25.4% of total private sector employment).

To provide an aggressive view as to the potential for growth in jobs across information, professional & business services, and financial activities sectors, the analysis focused on median and mean percentages across the top 25 markets (31.3%) for shares of jobs in these sectors. This factor was placed in context with Metro Hartford-Springfield's current 25.4% factor to estimate a potential opportunity for an additional **40,000** jobs across Metro Hartford-Springfield in information, professional & business services, and financial activities sectors over the next 30 years, linked to rail/transit improvements.