



AECOM

Passenger Rail Impact Study

SLATS Metropolitan Planning Organization
May 2025

Introductions



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Agenda

- **How did we get here?**
- **Corridor Context**
- **Opportunities & Impacts**
- **Key Findings**
- **Discussion/Q&A**

How did we get here?

An overview of SLATS passenger rail planning and the 2021 Passenger Rail Study

History

2002

*Metra UP Northwest Line Harvard, IL / Clinton, WI
Commuter Rail Extension Feasibility Study*

2008

South Central Wisconsin Commuter Transportation Study

2020

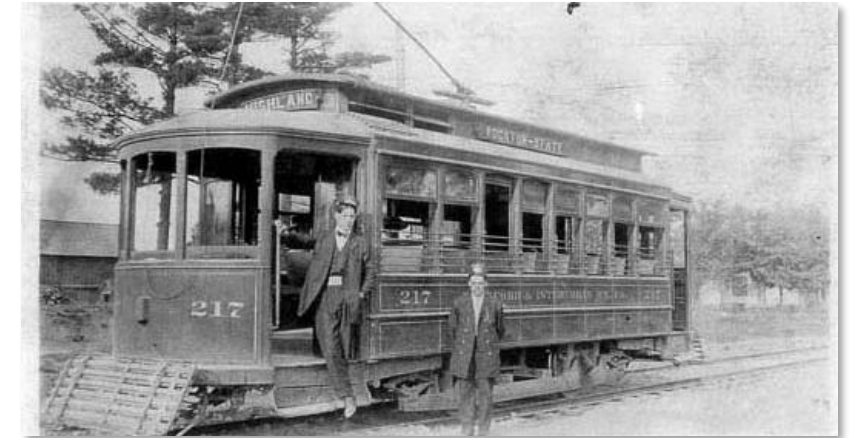
*IDOT restoring intercity passenger rail service between
Rockford and Chicago*

2021

*SLATS Passenger Rail Study (incorporated into 2045
LRTP)*

2025

SLATS Passenger Rail Impact Study



The Interurban Line (1902)

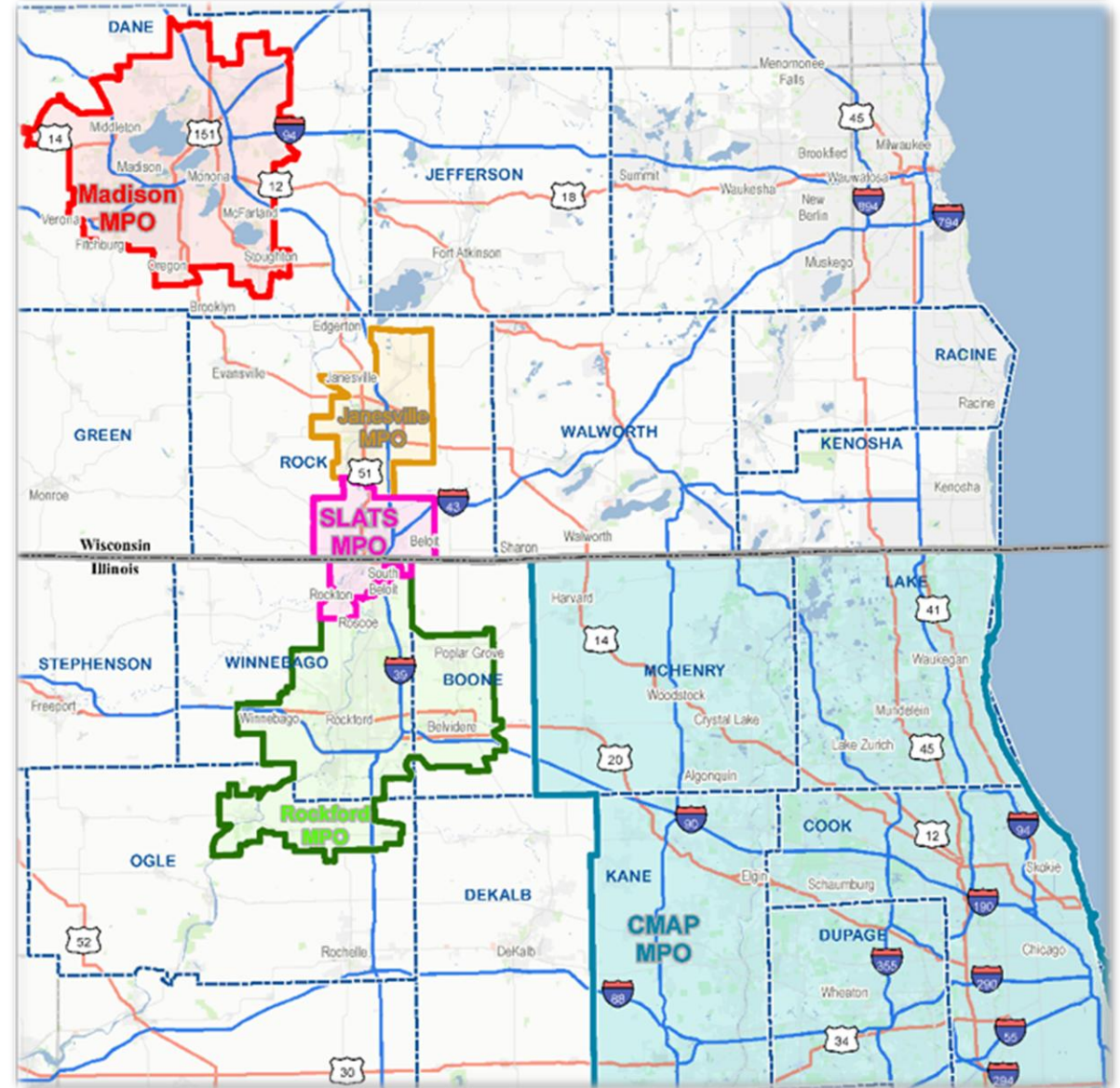


Streetcar on East Grand Avenue (1906)

SOURCE: <https://www.beloittransit.com/history/>

"Super Region"

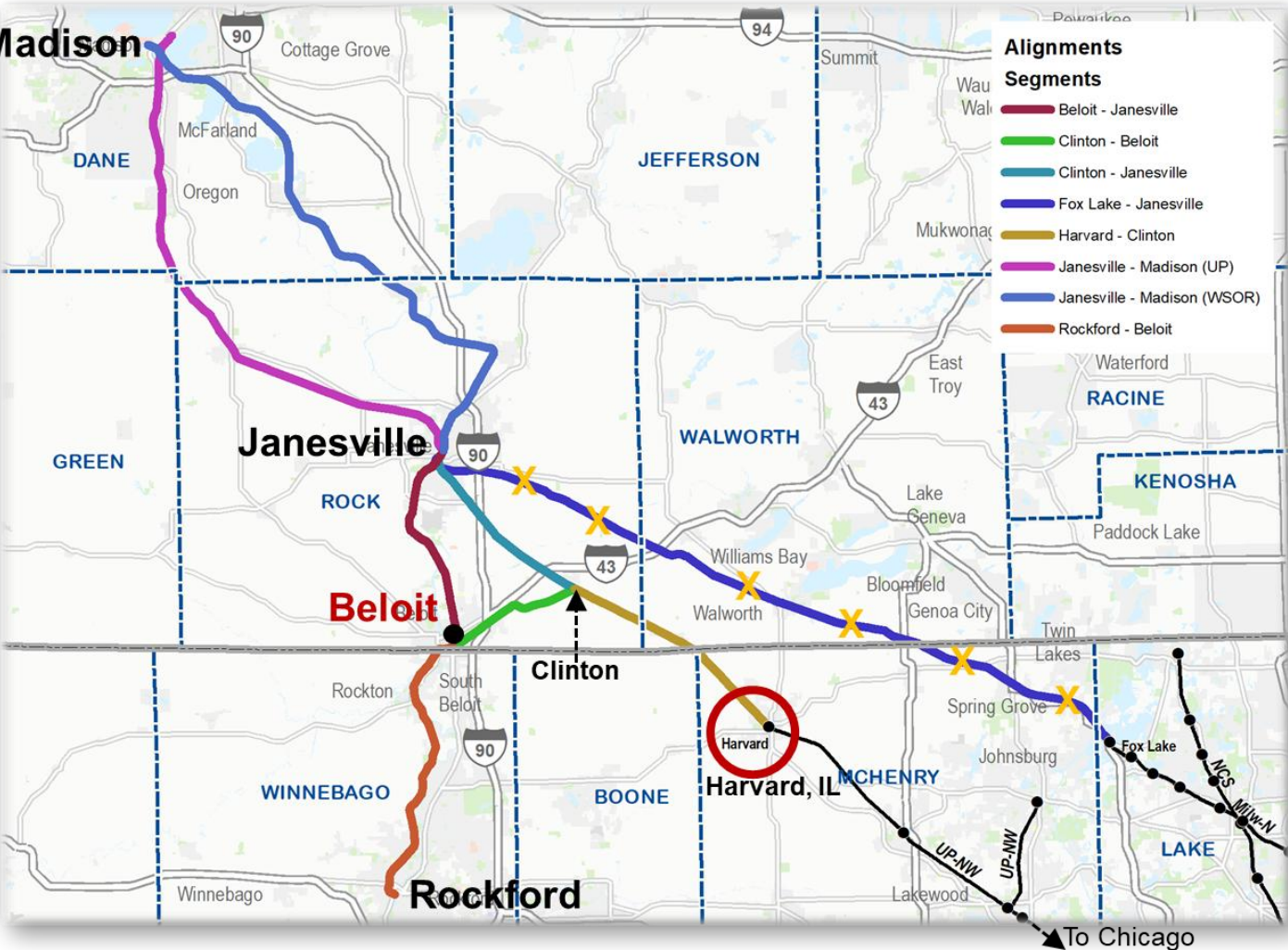
- *Stateline Area Transportation Study (SLATS)*
- *Janesville Area Metropolitan Planning Organization*
- *Greater Madison MPO*
- *Region 1 Planning Council (Rockford)*
- *Chicago Metropolitan Agency for Planning (CMAP)*



Potential Corridors and Stations

NOTE: Stations were identified in the 2008 South Central Wisconsin Commuter Transportation Study.

Rail Corridors

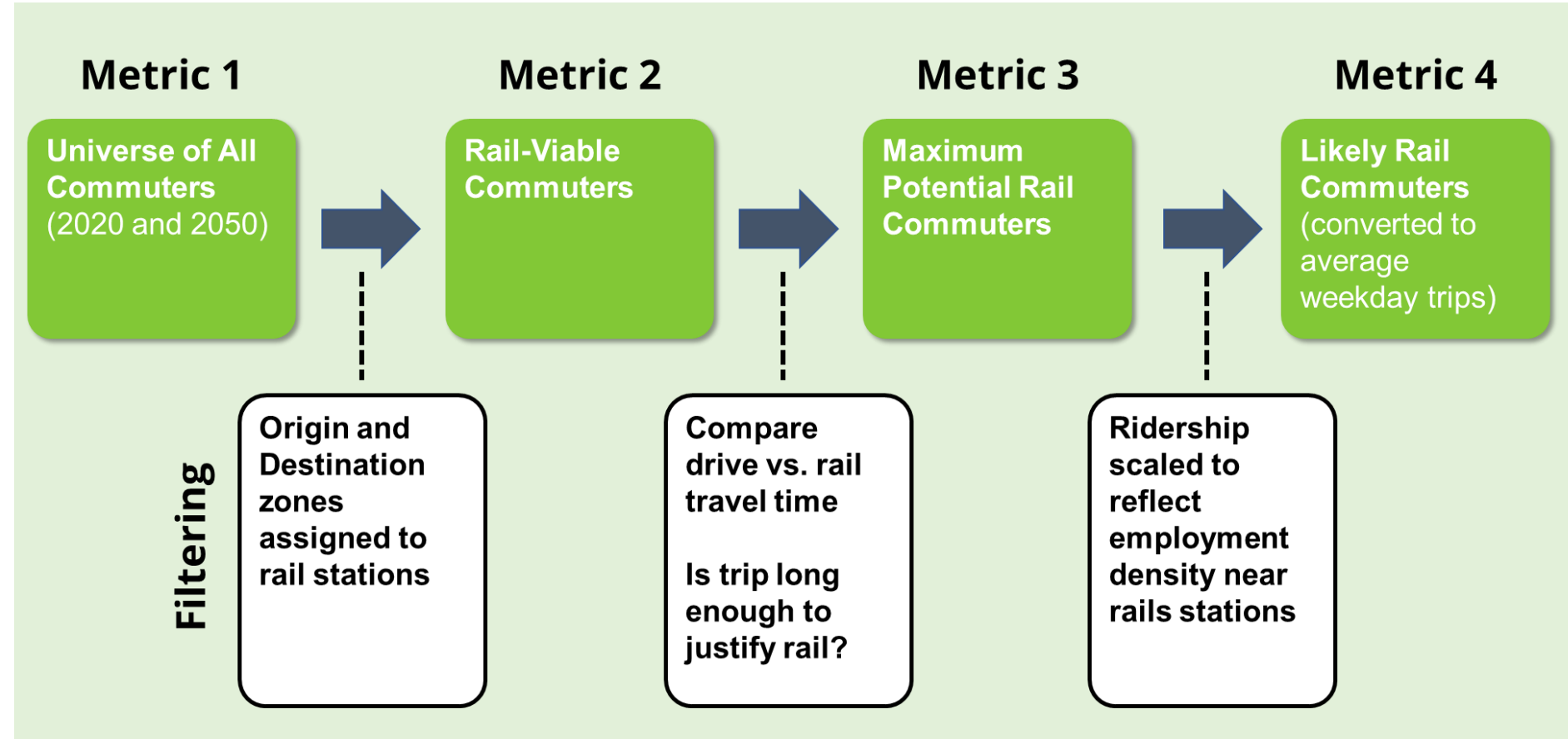


Rail Stations



Ridership Methodology

- *High-level planning analysis*
- *2020 and 2050 Socioeconomic data*
- *Focus on work commuting trips*



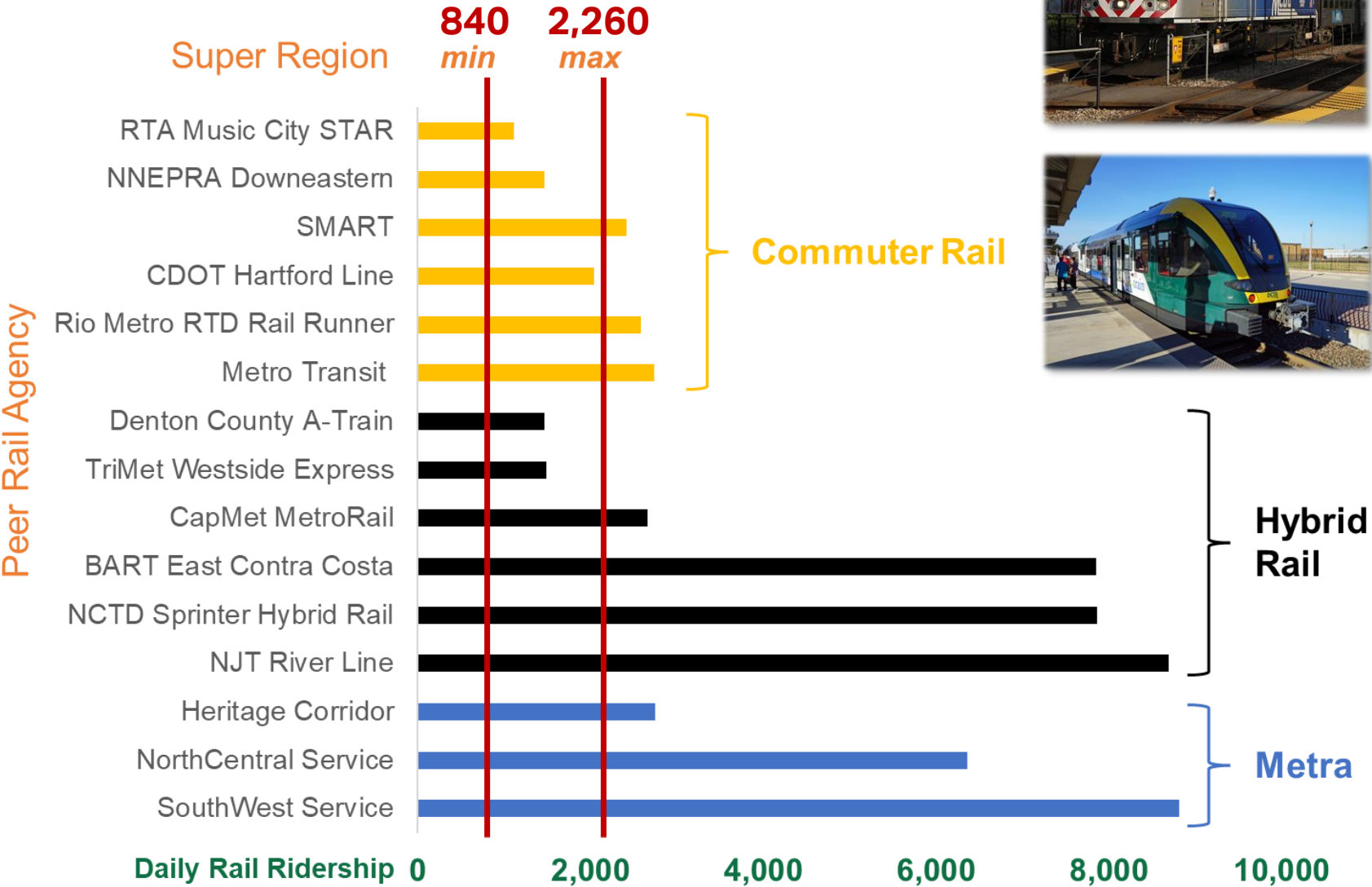
Estimated Average Weekday Trips



Minimum
840

Maximum
2,260

NOTE: Assuming Metra-like levels of service.



Corridor Context

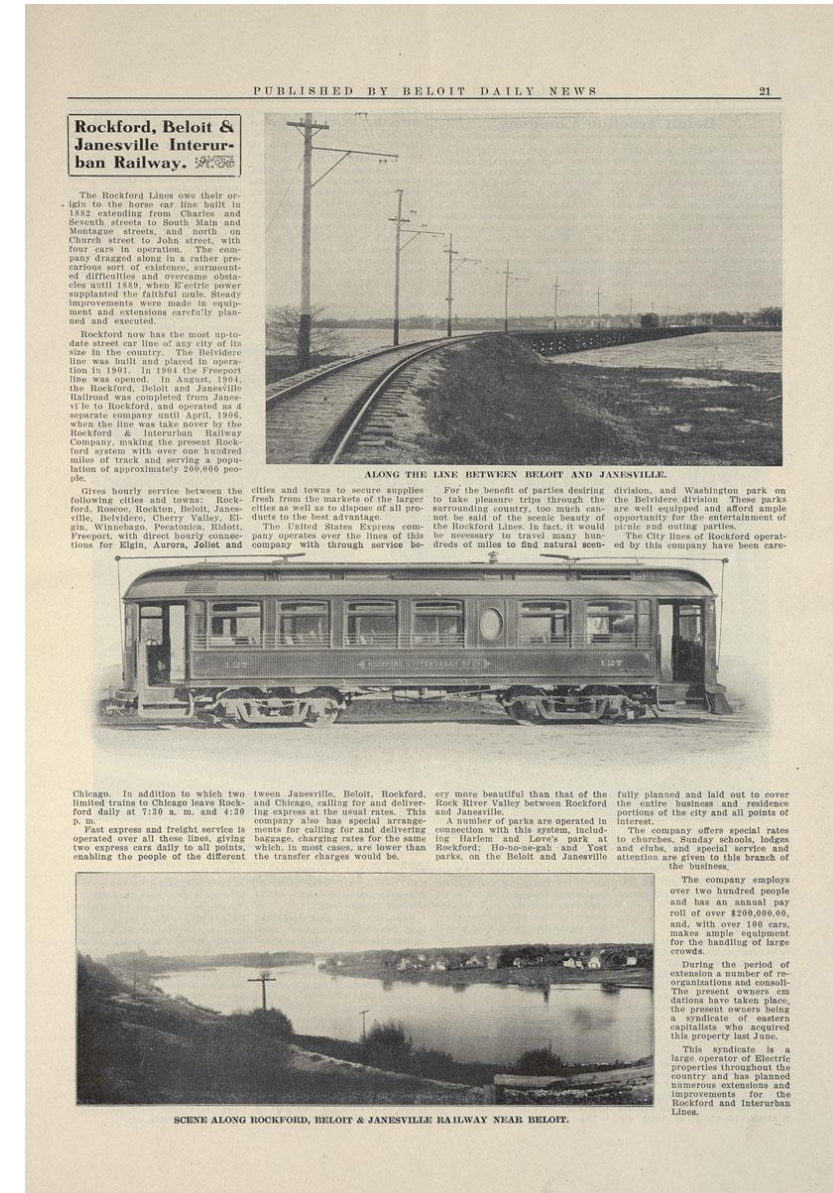
An overview of the Corridor demographics, employment, and real estate market conditions

Key Questions

- What are the **marginal benefits** of passenger rail access?
- How have communities that lost access to passenger rail fared differently than those that maintained access?
- If passenger rail access were to be restored to this Super Region ("the Corridor"), what could the **level of benefit** be for SLATS, and other MPAs (i.e., Madison, Janesville, Rockford)?



Left image shows the historic Stoughton Railroad Depot; right image shows historic Edgerton Depot
Source: AECOM



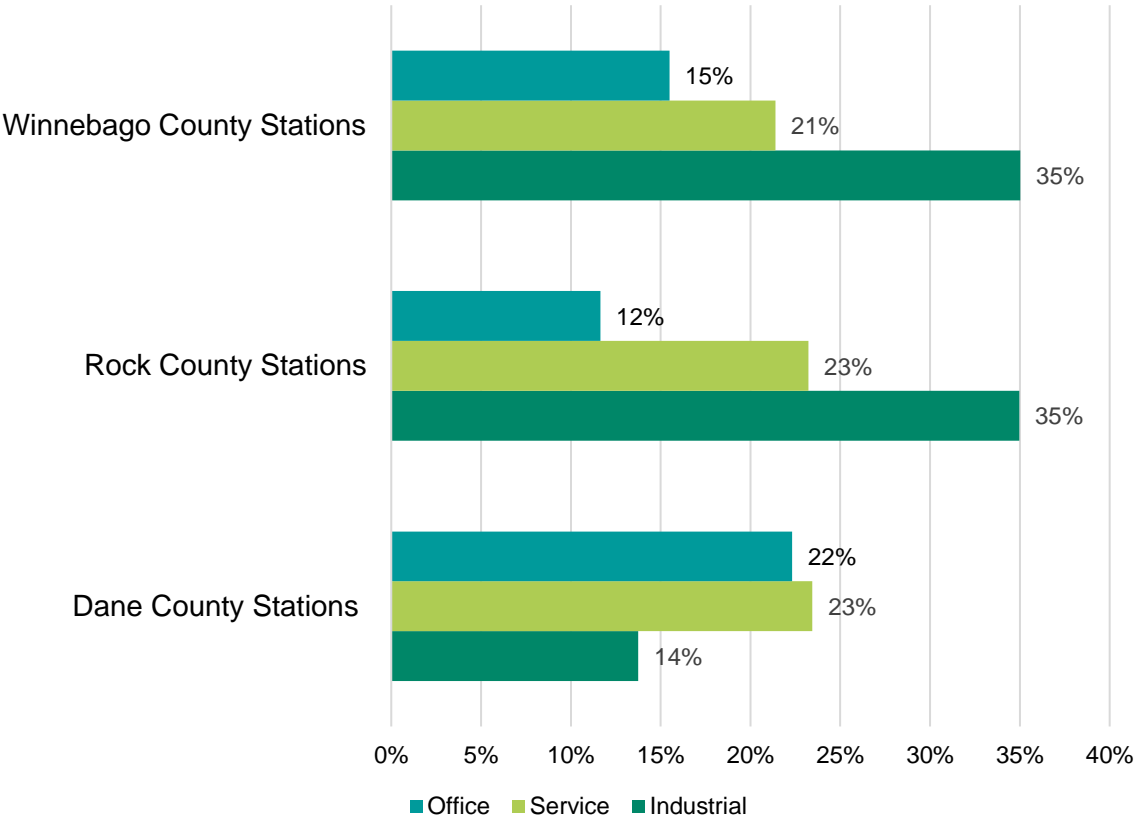
Source: Beloit Historical Society

Population & Employment Trends

Rock and Winnebago Counties have relatively higher shares of jobs in Industrial sectors, while Dane County has more traditionally “office” jobs.

- Education & Healthcare has highest employment, followed by Manufacturing, Retail, Professional Services, and Entertainment, Hotels, Food, & Art.
- Professional Services has seen impressive growth over the last decade, adding jobs at a rate of 4.5% per year.

Composition of employment, 2022

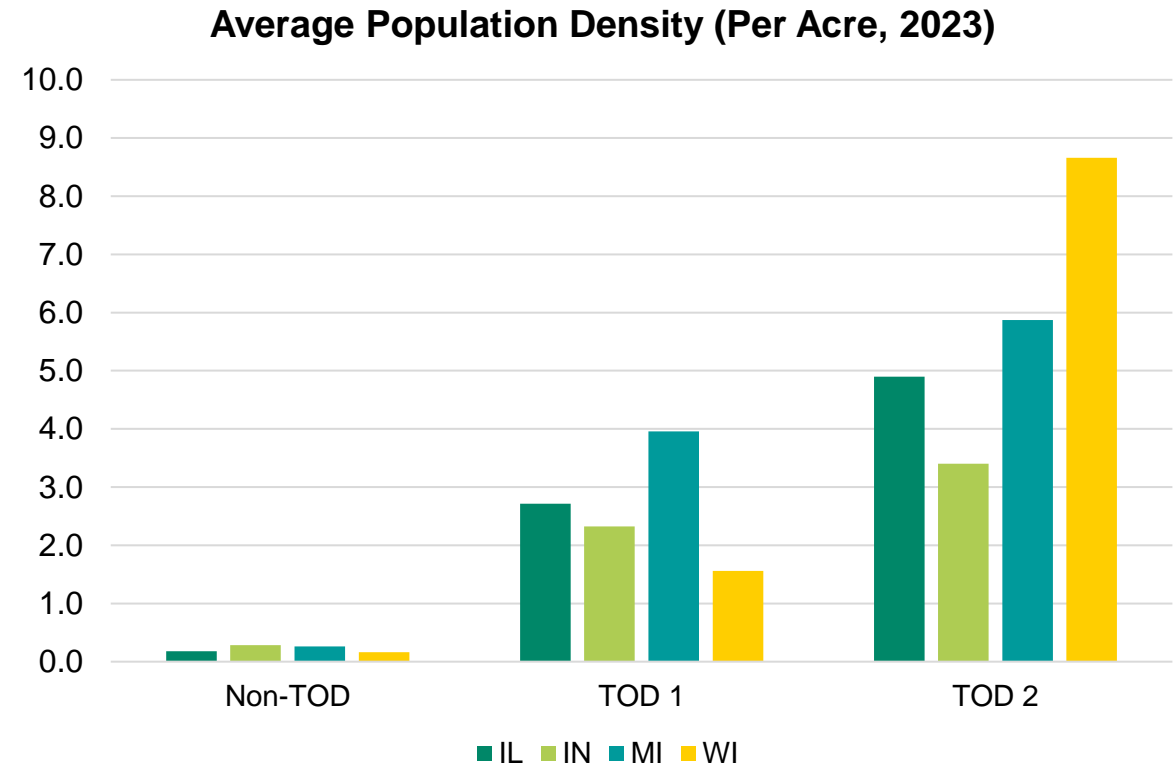


Source: ACS, 2010-2022

Population & Employment Trends

- **Positive economic outcomes linked to transit:**
 - Enhanced economic diversification
 - Population and income growth
 - Increased density of population and employment*
- For areas like Rock County that lost transit access, **the tradeoff of transit (a high-cost upfront investment) is slower pace of growth and economic activity.**

*APTA Economic Impact of Public Transit, 2020. <https://www.apta.com/wp-content/uploads/APTA-Economic-Impact-Public-Transit-2020.pdf>



Note: Levels of TOD access determined by AECOM based on number of transit stations within a 1-square mile geography. A "non-TOD" area is defined as one with no transit access, whereas TOD 1 and 2 areas have limited transit access.

Note: This analysis is conducted using AECOM's Transit Oriented Development (TOD) database which is a compilation of demographic and economic data with information on access to fixed rail transit. The database gives an opportunity to understand how development and growth patterns differentiate based on rail transit access. The database assembles data from US Census and Lightcast (formerly EMSI) on population, households, workers, and jobs since 2010 and uses proximity to rail stations to define rail access.

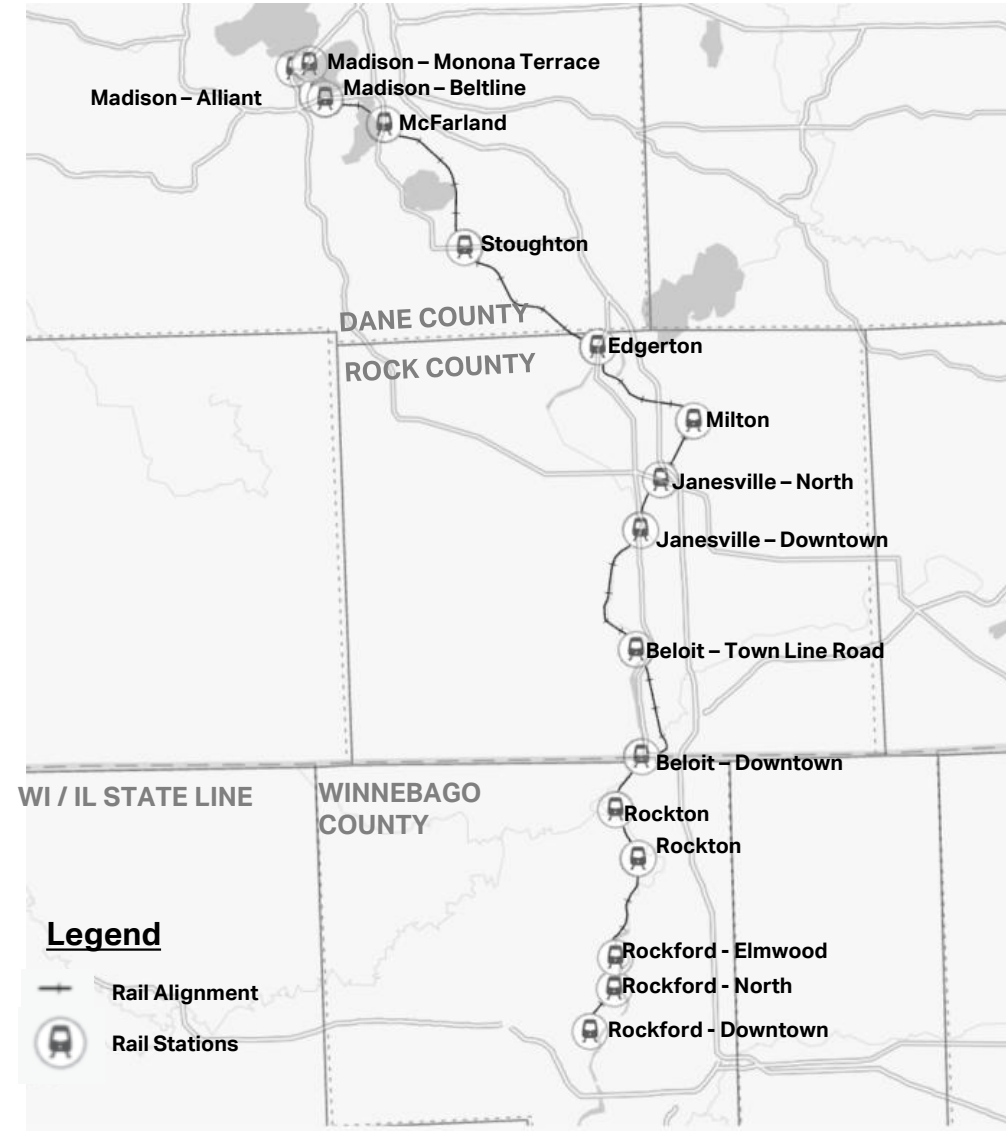
Source: ACS, 2010-2023

Station Area Demographic Analysis

- **Level of Analysis:** Station Area (i.e., 1-mile buffer around each prospective station)
- **Data Collected:** Census tract level, American Community Survey (ACS), 2010 and 2022.*
- **Scope of Analysis:** 16 Station Areas – total of 128,000 individuals and 52,000 households (as of ACS 2022 estimates).
- **Benchmark Geographies:**
 - Combined Station Areas
 - Dane, Rock, and Winnebago Counties
 - Madison, Janesville-Beloit, and Rockford Metro Areas

*Note: At the time of data collection in June 2024, the 2022 dataset was the most recent US Census data released.

Map 1: Corridor Stations



Source: AECOM

Stakeholder Engagement

Stakeholder conversations were held with the following entities:

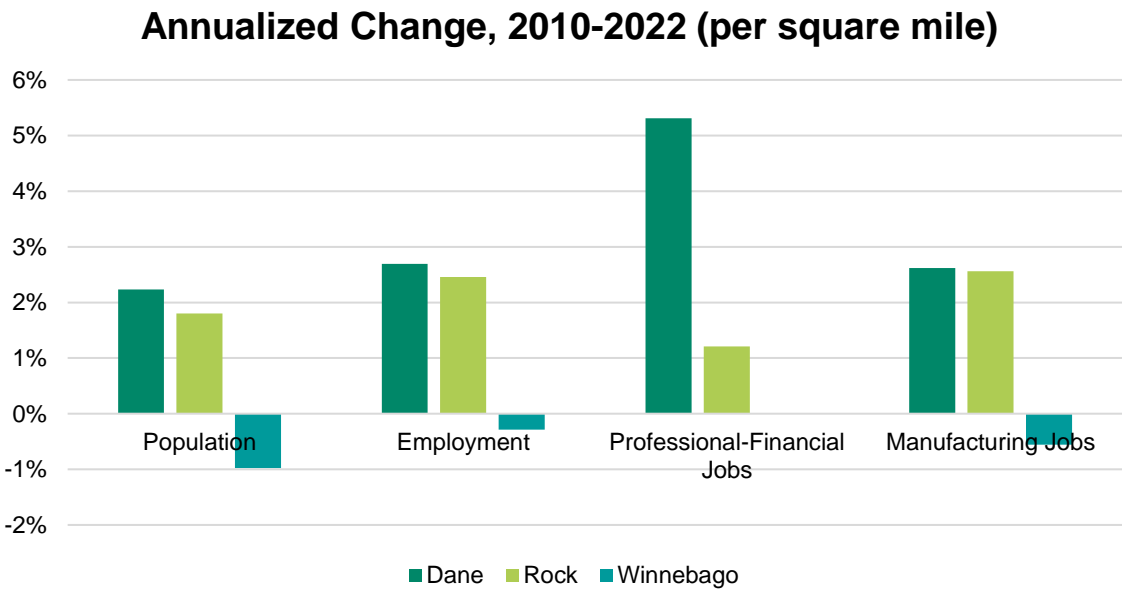
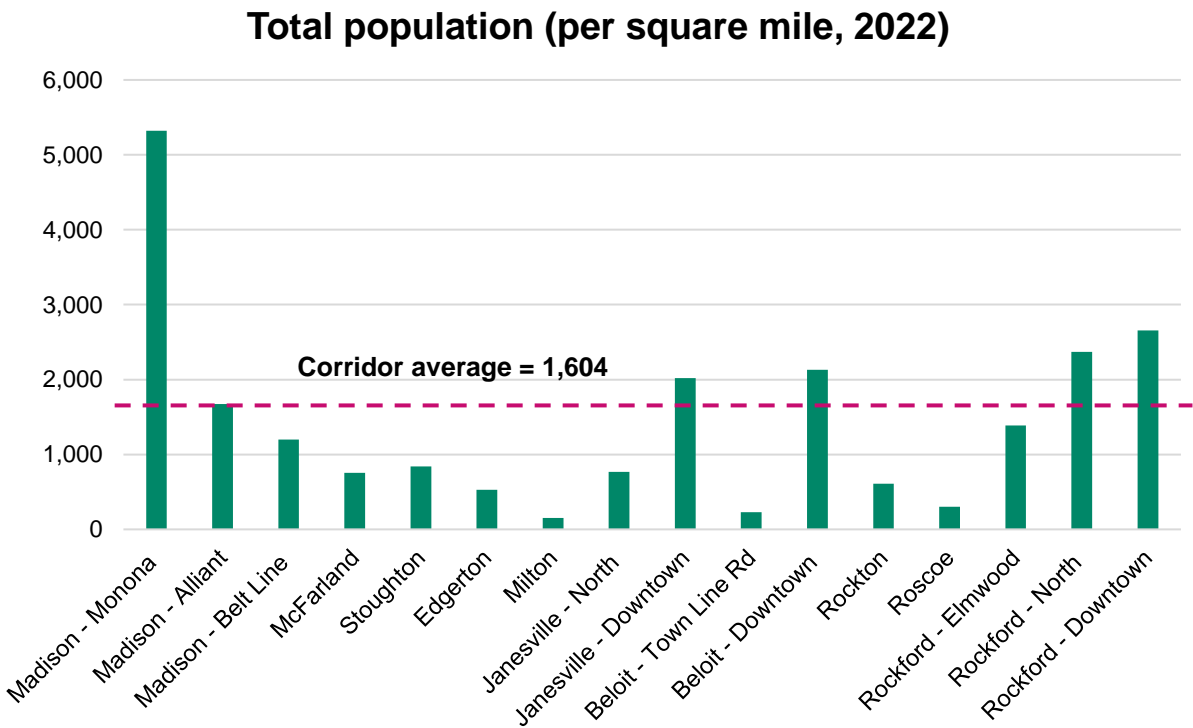
- **City of Beloit**
- **City of Edgerton**
- **City of Janesville/ Janesville Area MPO**
- **City of Madison**
- **City of Rockford**
- **Village of Rockton**
- **City of South Beloit**
- **Greater Madison MPO**
- **Region 1 Planning Council (Rockford MPO)**



Station Area Population & Employment

Downtown Madison and Beloit have seen population and employment growth over the past decade, while Rockford and Greater Rock County communities have declined.

- Greatest population growth in Downtown Beloit (+5%) from 2010 to 2022.
- Dane and Rock County Station Areas experienced growth in both advanced industries (i.e., Professional-Financial) and legacy Manufacturing industries, while Winnebago County saw decline.



*Note: Per square mile is reflective of the square-mile radius around rail Station Areas.
Note: Winnebago had 0% change in Professional-Financial Jobs between 2010 and 2022.
Source: ACS, 2022*

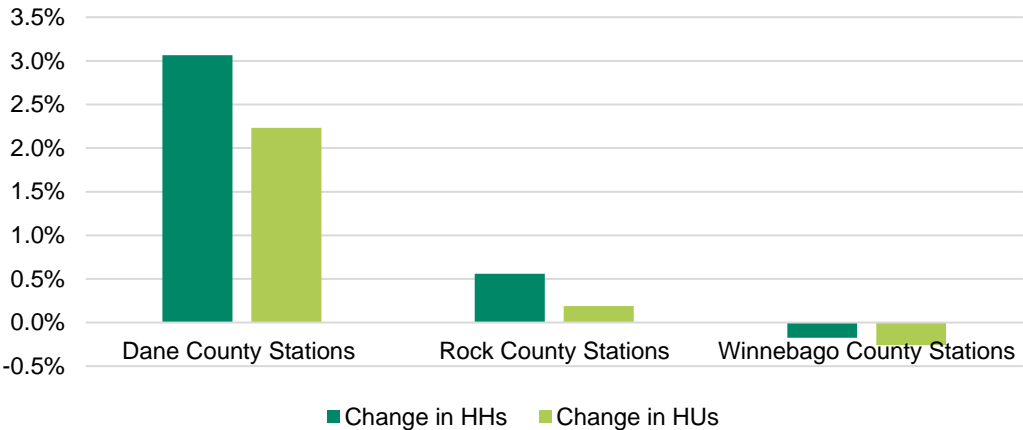
Station Area Housing Affordability

Between 2010 and 2022, growth in number of households (HHs) outpaced growth in supply (i.e., housing units, or HUs) in Dane and Rock Counties. This trend indicates a potential housing supply constraint which could lead to elevated prices.

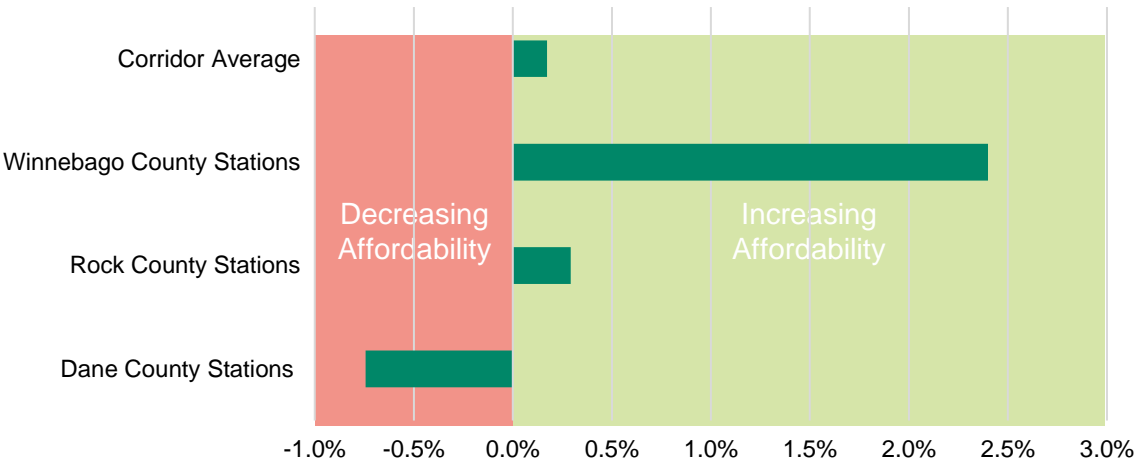
However, the Corridor as a whole is still relatively “affordable”, given that incomes seem to be growing faster (+0.2%) than housing costs.

- Exceptions to this trend (i.e., housing costs growing faster than incomes): Madison-Monona Terrace, McFarland, Stoughton, Janesville-North, and Beloit-Town Line Road Station Areas

Annualized Change in Households and Housing Units (2010-2022)



% Difference in income growth - % difference in home values



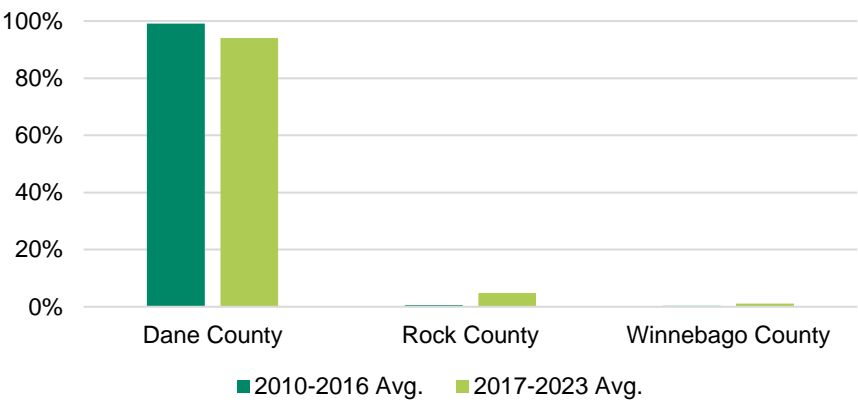
Source: ACS, 2010-2022

Station Area Real Estate – New Supply (Deliveries)

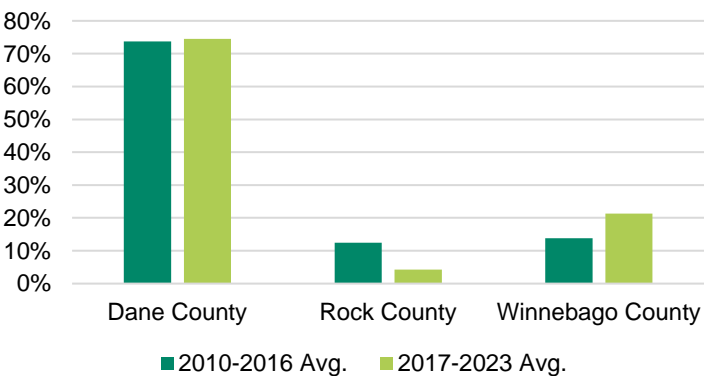
Since 2010, new development activity has been concentrated downtown, urban areas.

- Dane County has accounted for most new real estate supply, particularly among multi-family and office properties.
- ~70% of total Corridor retail (SF) and ~50% of industrial (SF) space added has been in Dane County.

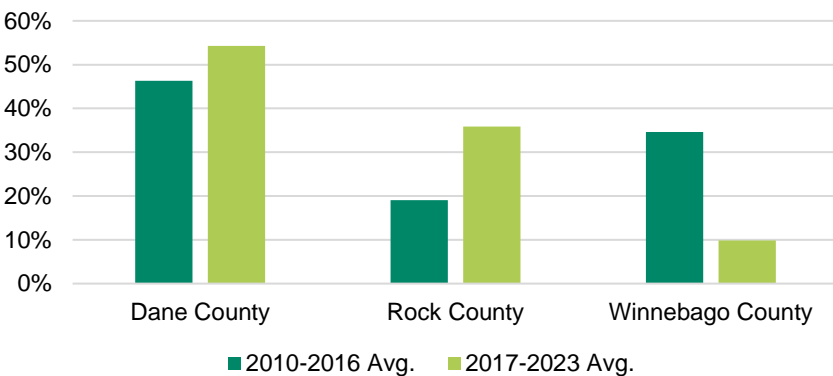
Multi-family deliveries (units), as % of 3-county total



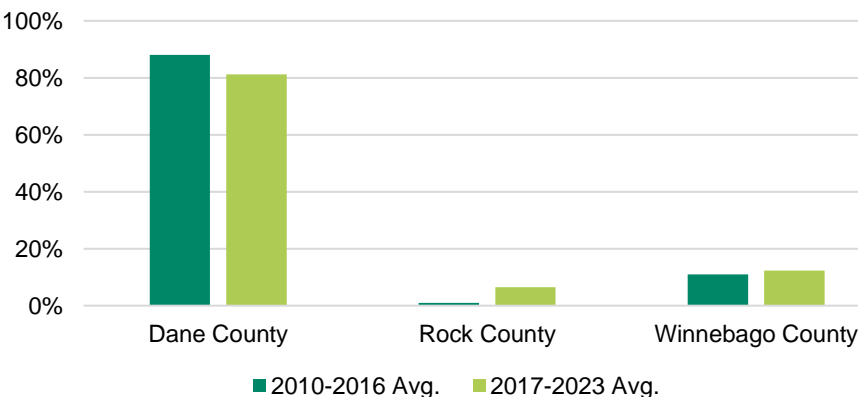
Retail deliveries (SF), as % of 3-county total



Industrial deliveries (SF), as % of 3-county total



Office deliveries (SF), as % of 3-county total



Opportunities & Impacts

An overview of the opportunities and impacts associated with the return of passenger rail transit to the region

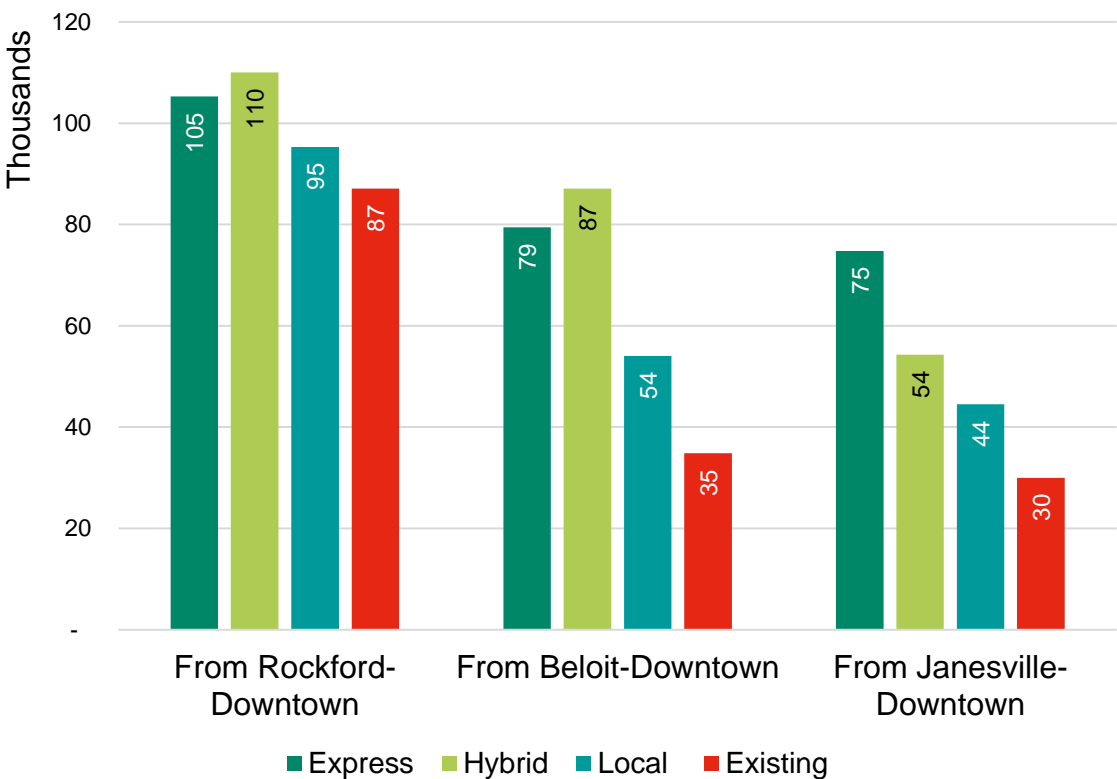
GTFS Analysis

Greatest impact to communities like Beloit and Janesville, outside of major job centers like Rockford and Madison.

- Under Express scenario*, the transit shed grows for Beloit-Downtown – number of jobs accessible from Beloit more than doubles, from 35,000 to 79,000.
- Given the large share of students and lower income individuals in Downtown Madison and Rockford, improved transit access would expand employment opportunities.

*Express scenario was modeled using General Transit Feed Specifications (GTFS) analysis, which projects transit access under different level of service scenarios: Existing – Beloit to Janesville transit connections only; Local – frequent stops, average trip times from downtown Beloit to Madison in ~2 hours; Hybrid/Express – infrequent stops at select stations, average trip times from downtown Beloit to Madison in ~1 hour.

Total jobs within 60-min. travel time of Origin Stations**



**Madison was omitted from charts due to the minimal difference in total jobs under different level of service scenarios (i.e., 167,000 jobs under Existing service and 170,000 jobs under Express service). Source: GTFS data from transit agencies in Beloit, Janesville, Rockford; AECOM-generated GTFS data for Rockford-Madison rail service, as well as Rockford extension of Metra service. ACS 2022 data.

Corridor Density

Census data was collected at a granular level (1 sq. mi) to evaluate differences in population and employment characteristics across geographies.

Key takeaways:

- Downtown Madison has the highest population and employment, and has also grown significantly since 2010.
- Downtown Beloit and McFarland have the highest rates of growth over the past decade.
- Rockford area stations have all declined in population and employment since 2010, with the highest rate of population decline in downtown Rockford.

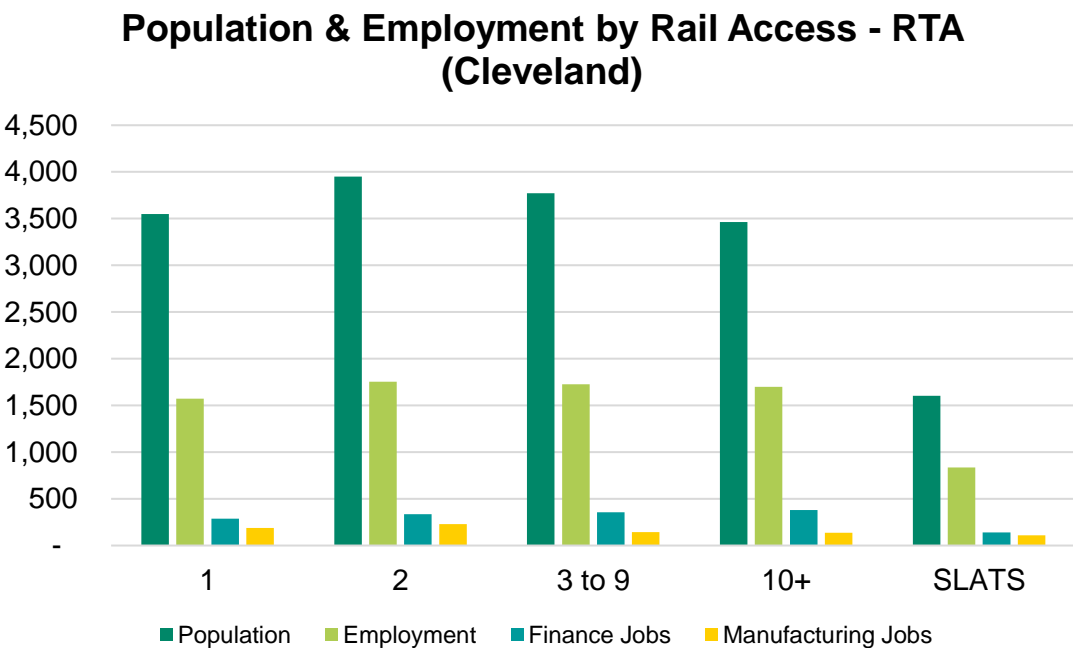
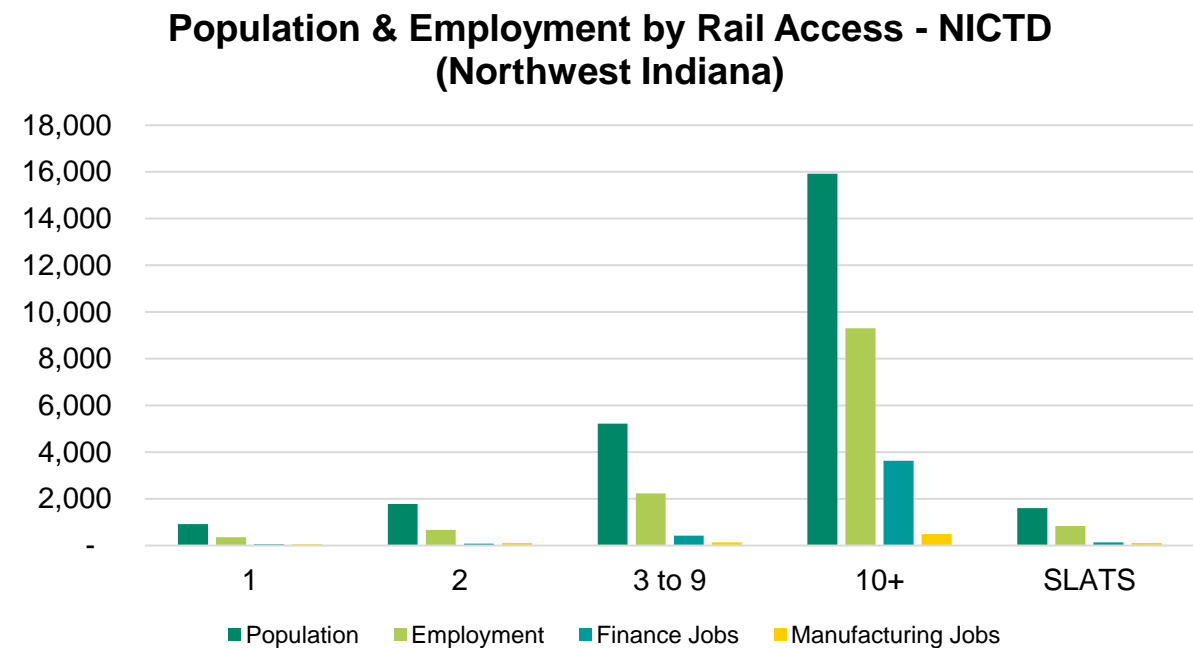
Station Area	Population Density (2022)	Population Density, Annual Growth Rate (2010-2022)	Employment Density (2022)	Employment Density, Annual Growth Rate (2010-2022)
Madison - Monona Terrace	5,322	3%	3,271	3%
Madison - Alliant	1,675	1%	1,036	2%
Madison - Belt Line	1,200	0%	717	2%
McFarland	754	4%	423	4%
Stoughton	840	0%	442	0%
Edgerton	528	0%	258	0%
Milton	154	-1%	87	0%
Janesville - North	767	1%	346	0%
Janesville - Downtown	2,019	0%	1,025	2%
Beloit - Town Line Rd	228	0%	112	0%
Beloit - Downtown	2,130	5%	962	6%
Rockton	611	0%	311	0%
Roscoe	304	0%	152	1%
Rockford - Elmwood	1,388	-1%	590	-1%
Rockford - North	2,368	-1%	1,001	-1%
Rockford - Downtown	2,656	-2%	872	0%
Corridor Average	1,600	1%	840	2%

Source: ACS, 2010-2022; AECOM

Midwestern Benchmark Density

Benchmark rail systems show higher population and employment density per acre, and workforce is comprised of relatively more professional/finance jobs, and fewer manufacturing jobs (i.e., as a share of total jobs).

- Midwestern benchmarks have 2x density of SLATS Corridor average (i.e., 3,800 and 1,800, respectively).
- These benchmarks informed the “aspirational” density of the Corridor under a passenger rail scenario.



Note: Population and employment data is shown as density per square mile
Source: ACS, 2022; respective transit agency websites; AECOM

Key Findings

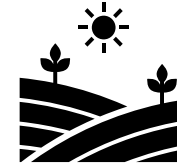
An overview of the key findings from the opportunities & impacts analysis, and discussion of implications for the region

Key Findings

#1: Uneven Historic Growth Along Corridor, Concentrated in Madison and Downtowns



#2: Excess Development Capacity (Including Greenfield, Greyfield, and Brownfield)



#3: Potential for Transit Improving Access for Rock & Winnebago Counties



#4: Transit Investment Unlocks Economic Diversification and Impact



Capital Costs

Capital costs were estimated using low and high unit cost estimates derived from historic benchmark data.

Applying per-mile capital costs to the proposed rail route length of 74.9 miles yields the following rough order of magnitude (ROM) capital costs. This reveals that the investment is likely to be approximately \$1.2 billion - \$1.6 billion.

Agency	Service	Service Start	Route Miles	Trains per Workday	Capital Cost (build year, \$mils)	Capital Cost (in 2024 \$mils)	Per Mile Adjusted to 2024 (\$mils)
Denton County, TX	A-Train, Denton-Trinity Mills, Dallas, Fort Worth Region	2011	21.3	6	69	\$347	\$538
TriMet	Westside Express, Beaverton-Wilsonville, Portland Region	2009	14.7	5	20	\$166	\$278
Capital Metro	Metro Rail, north suburbs to downtown Austin	2010	32.1	10	20	\$105	\$169
North County Transit Dist.	Sprinter Hybrid Rail, Oceanside to Escondido, San Diego Region	2008	22.0	15	68	\$477	\$796
Sum/ Average			90.1			\$1,781	\$19.8

Note: These estimates assume a hybrid rail service scenario.

Source: AECOM estimates based on publicly available information, and stakeholder interviews/data

Direct Benefits

Direct benefits capture the incremental addition of new job opportunities through the development of new residential and commercial amenities for residents and workers.

It is assumed that new development would be increasingly dense, walkable, and transit-oriented (i.e., TOD) in character.

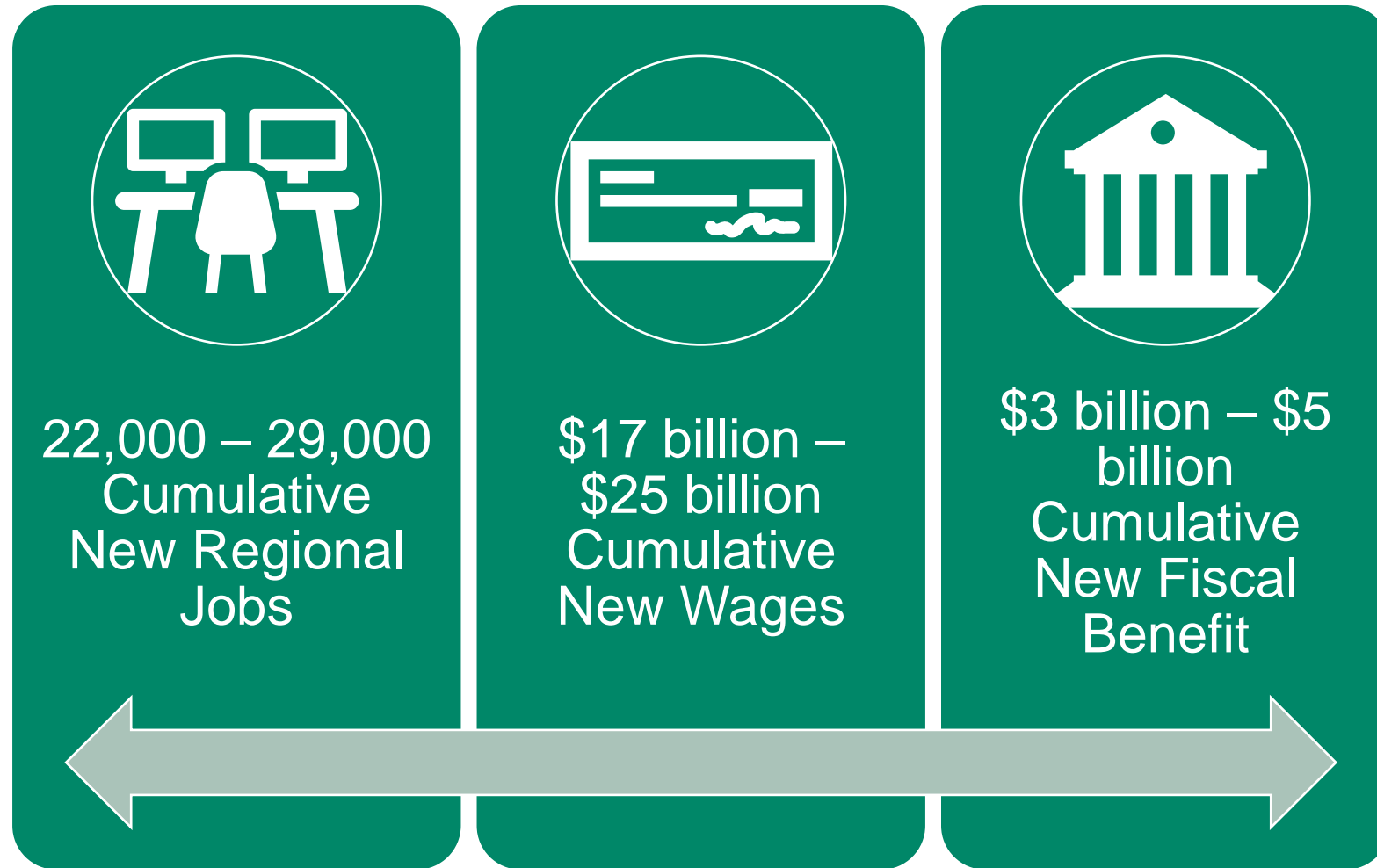
	Direct Benefits, Present Value	Conservative	Aggressive
Direct Economic Benefits, New Regional Jobs, Linked to Transit Improvements	New Regional Jobs, 30 Years	22,000	29,000
	Cumulative New Wages, 30 Years	\$12,860,000,000	\$16,951,000,000
	Cumulative New Regional Output, 30 Years	\$31,998,000,000	\$42,180,000,000
Transit Oriented Development New Construction Investment, Present Value	TOD Construction Jobs (Full-Time Equivalent)	54,000	108,000
	Cumulative Construction Wages	\$3,776,000,000	\$7,553,000,000
	Cumulative Construction Investment	\$7,553,000,000	\$15,105,000,000
Fiscal Implications	Cumulative Property Taxes, 30 Years	\$2,213,000,000	\$4,425,000,000
	Cumulative Income Taxes, 30 Years	\$601,000,000	\$792,000,000
	Total Fiscal Benefits	\$2,814,000,000	\$5,217,000,000
Total Benefits, Cumulative, 30 Years	New Regional Jobs	22,000	29,000
	New Construction Jobs	54,000	108,000
	New Regional Output	\$39,551,000,000	\$57,285,000,000
	New Fiscal Benefits	\$2,814,000,000	\$5,217,000,000

Note: Estimates are illustrative only, and not reflective of any defined, specific projects or investments.

Note: Estimates are in current \$USD 2025

Source: AECOM estimates

Summary



*Notes: Estimates are calculated for a 30-year future time horizon, in current \$USD 2025.
Fiscal benefits incorporate cumulative property taxes from new real estate development, and income taxes from new jobs.
Estimates are only reflective of direct benefits and exclude indirect/induced "ripple" effects associated with investment.
Estimates are illustrative only, and not reflective of any defined, specific projects or investments.*

Source: AECOM estimates

Next Steps

- Continue studying feasibility of the alignment and station locations
- Build consensus around the benefits of transit investment
- Pursue additional funding opportunities to continue planning/feasibility analysis
- Outputs flow into statewide rail planning efforts



Source: AECOM

Discussion/Q&A

Questions? Feel free to reach out!



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Thank you!