Strategic Transportation & Development — Analysis

OARC – Transportation Committee August 23rd, 2024



Content:

- Analysis Overview & Context
- Step 1: Existing Conditions
 & Stress Test
- Step 2: Develop Actionable Recommendations

STEP 1

Review Existing Conditions & Conduct Stress Test

Gather insights and analysis to identify transportation and economic development needs and opportunities

STEP 2

Identify Recommendations

Use insights and analysis to identify actionable recommendations for transportation system projects to support economic growth

Submit Findings

Deliver analysis to the Governor and Legislature by December 31, 2024

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Analysis Overview Purpose, Process, & Schedule

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HB23, Section 203.47

A statewide study of the Ohio transportation system, in collaboration with the Department of Development and the Governor's Office of Workforce Transformation. The study shall:

STEP 1



Analyze <u>statewide and regional demographics</u>, investigate <u>economic development growth</u> <u>opportunities</u>, examine <u>current transportation systems and capacities</u>



Forecast **passenger and freight travel needs** over a ten-, twenty-, and thirty-year timeframe



Identify <u>current and future transportation links</u>, evaluate and rank <u>current and potential risks</u> <u>of future system congestion</u>, and



- Make <u>actionable recommendations</u> for <u>transportation system projects</u> to <u>support statewide</u> <u>economic growth</u>, including improving links between Toledo and Columbus and between Sandusky and Columbus
- At any time, individual hotspot locations may receive advanced analysis of conceptual remedies with planning level costs

The study shall be completed by December 31, 2024.

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Step 1:Existing Conditions & Stress Test

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Existing Conditions & Stress Test Analyses

Statewide Demographics – Population & household characteristics & forecasts

Statewide Economics – Industry trends, trade patterns, and tourism

Statewide Workforce – Employment trends, including worker characteristics & commuting patterns

Statewide Development – Land use patterns & site development trends & plans

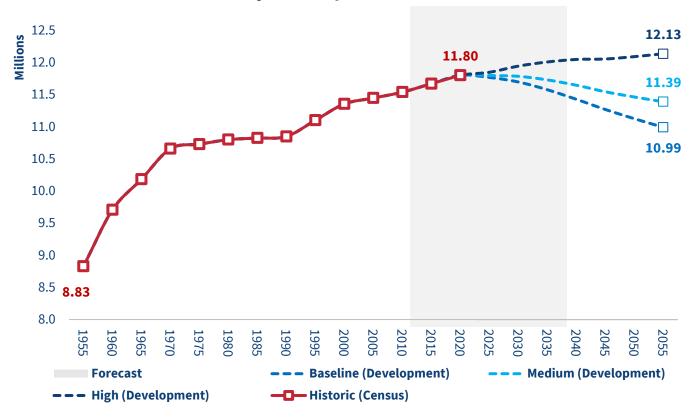
Statewide Transportation – Travel patterns, market connections, & system- & corridor-level congestion risks





Statewide Demographics

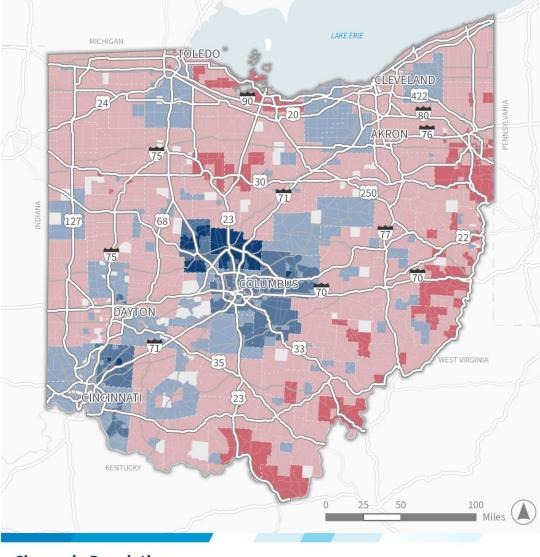
Statewide Historic & Projected Population Growth Scenarios



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Analysis



Change in Population

Baseline Scenario, 2025 to 2055

Decrease (15% or more)

Increase (1% to 15%)

Decrease (1% to 15%)

Increase (16% to 30%)

Minimal Change

Increase (30% or more)

Statewide Economics

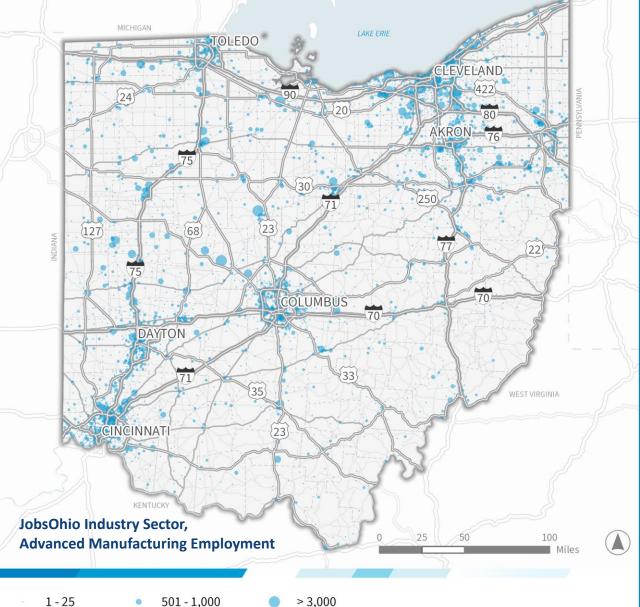
TABLE 2 - EMPLOYMENT BY JOBSOHIO INDUSTRY SECTORS

Sector	2012	2022	Growth	Growth (percent)
Advanced Manufacturing	480,459	473,789	-6,670	-1%
Advanced Mobility	16,124	16,948	824	5%
Aerospace & Aviation	38,518	39,663	1,145	3%
Automotive	117,838	119,744	1,906	2%
Energy and Chemicals	183,034	200,189	17,155	9%
Financial Services	243,335	261,564	18,229	7%
Food and Agribusiness	75,737	86,353	10,616	14%
Healthcare	29,280	29,486	206	1%
Logistics and Distribution	411,412	480,674	69,262	17%
Military and Federal	17,469	17,994	525	3%
Technology	107,457	113,690	6,233	6%
Total, all industries	5,048,166	5,392,612	344,446	7%

Source: CS, BLS QCEW and JobsOhio Sectors

Note: Employment in individual JobsOhio Sectors cannot be summed together because certain underlying NAICS codes are assigned to multiple sectors.



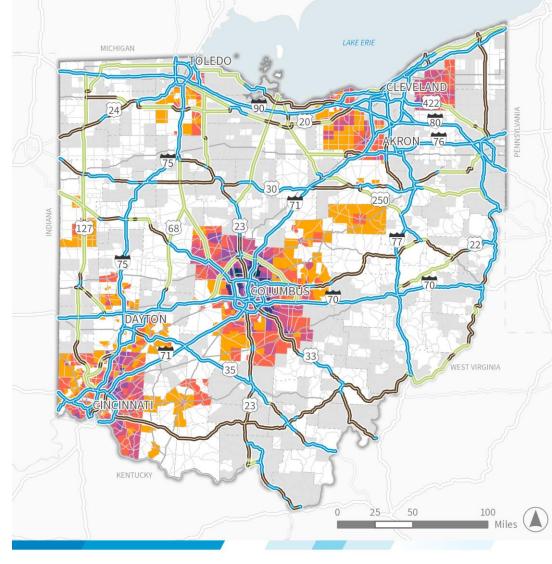


- 1 25
- 501 1,000

- 26 250
- 1,001 1,500
- 251 500
- 1,501 3,000

Statewide Development

- Historic, current and future land use patterns and areas of potential significant growth
- Site development trends and plans
- Anticipated growth areas along network segments with partial or no access control





Statewide Transportation

STDA Network

Market Connections (interregional)

44 markets connected by...

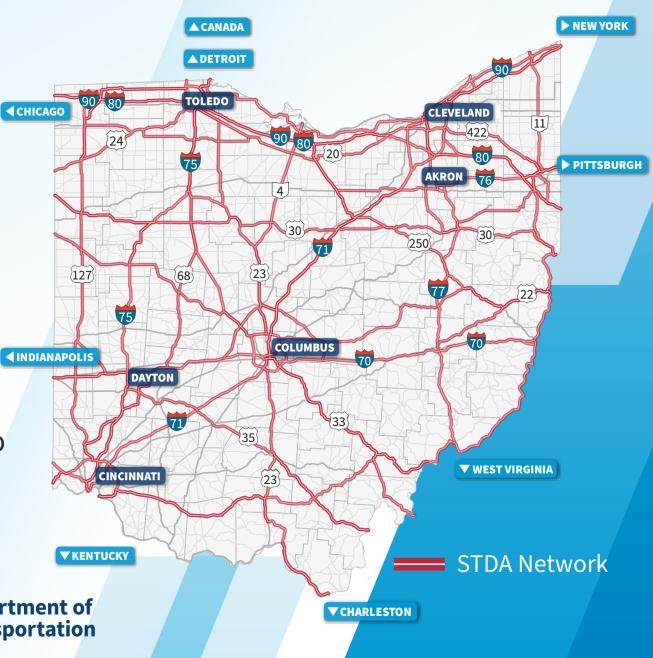
• 38 corridors (64 unique paths)

Regional Networks (intraregional)

 7 regions (representing JobsOhio regions and combination of MPOs/RTPOs)

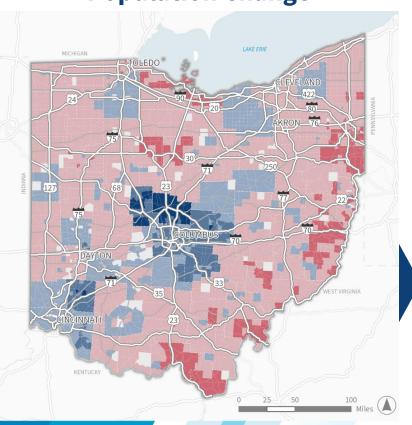
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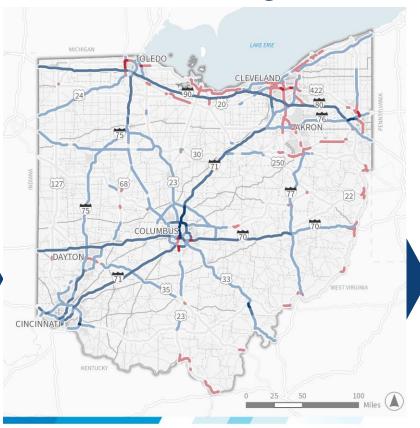


Forecasting Future Congestion

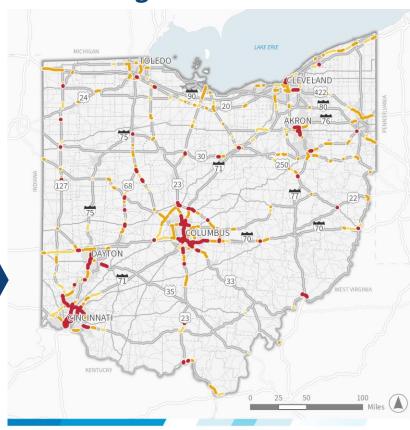
Population Change



Traffic Change

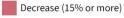


Congestion Forecast



Change in Population

Baseline Scenario, 2025 to 2055



Decrease (1% to 15%)

Minimal Change

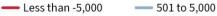
Increase (1% to 15%) Increase (16% to 30%)

ncrease (30% or more)

-4,999 to -500

Change in Total Volume

Baseline Scenario, 2025 to 2055



- 5,001 to 10,000

Minimal Change More than 10,000

Peak Period (Weekday) Congestion

Baseline Scenario, 2055



Near Congestion



Severe Congestion

Risks: Views of System Congestion

Access and Growth

locations where partial or no access control on STDA corridors overlap with projected growth

Quality **Places**

Market **Connections**

Peak Period

locations of severe congestion during the peak AM or PM period

Truck Bottlenecks

Locations with severe congestion, poor reliability, and high truck volumes

Business & Logistics **Efficiency**

Site **Development**

Site Buildout

potential locations of severe congestion associated with site buildout

Workforce Access

Commuting

potential locations where congestion leads to decreased workforce or jobs within 40 minutes





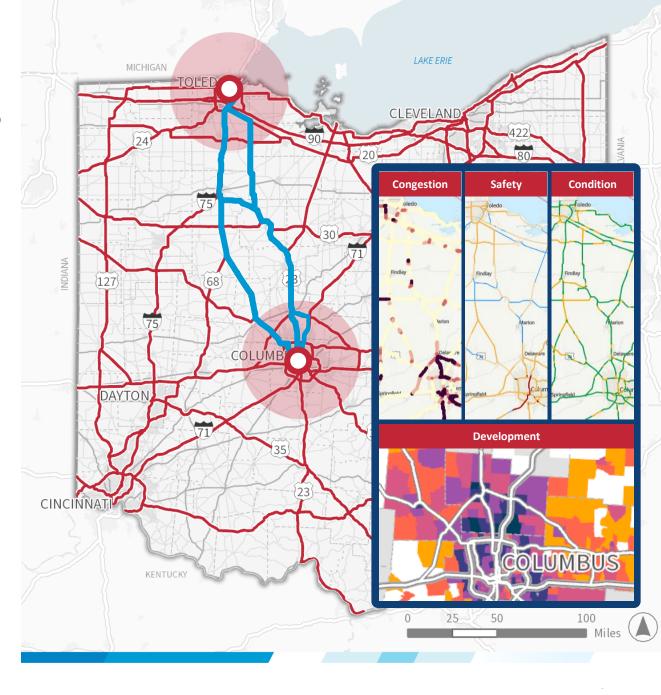
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Market Connections

(Toledo - Columbus Example)

- Defined the primary links used to connect trade/travel market today and travel characteristics.
- Analyzed transportation performance issues that exist along these facilities today.
- Identified where future performance may suffer due to potential development and population change.
- Evaluated economic value in relation to other economic corridors.



Step 2: Develop Actionable Recommendations

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Recommendations

"Actionable" Recommendations

Hotspot Strategies

Corridor Improvement Strategies

Statewide Strategies

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Statewide Policy/Program Review

Market Connections

- Access management policy and process
- Corridor management and preservation programs
- Corridor operations and technology programs

Site Development

- Site readiness and authentication processes
- Site readiness incentive/funding programs
- Site access improvement programs

Workforce Access

- Programs supporting commute flexibility
- Multimodal programs
- Private/employer funded/operated programs

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Business and Logistics Efficiency

- Commercial vehicle programs supporting safe/efficient operations
- Rural development and investment programs
- Statewide safety and traffic management programs

Quality Places

- Complete streets and active transportation programs
- Local/community investment/development programs
- Tourism and recreation related programs

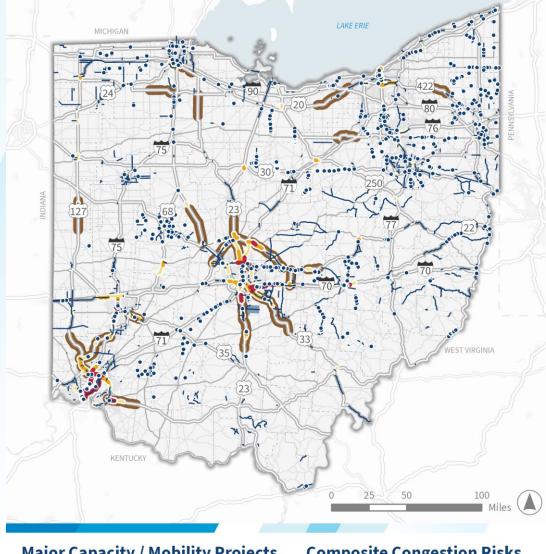


Hotspot Strategies

- Review existing and planned projects compared to risks to determine gaps
 - Major ODOT investments
 - Ongoing ODOT project development
 - MPO/RTPO transportation plans
- **Identify ODOT next steps to** address gaps

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Major Capacity / Mobility Projects

- Intersection / Interchange
- Roadway Alignments
- General Areas

Composite Congestion Risks

All Scenarios, 2055

0 Risk Types

artial or No Access Control Corridors in

Corridor Improvement Strategies

Corridor	ODOT District Overlap	
Corridors Required by HB23:		
Sandusky – Columbus (SR 4, US 23, US 250, I-71)	D3, D6	
Toledo – Columbus (I-75, US 23, SR 15, US 68, SR 31, US 33)	D1, D2, D6	
Additional Corridors:		
Columbus – KY (US 23, US 52)	D6, D9	
Columbus – WV (US 33)	D6, D10	
Cincinnati – Dayton (I-75, SR 4)	D7, D8	
Canton/Youngstown - Pittsburg (US 30, SR11)	D3, D4, D11	

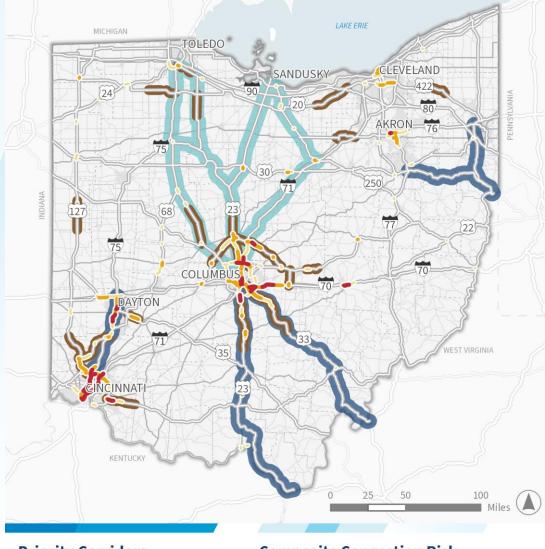
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Priority Corridors

Statutorily Required Corridors

Additional Corridors

Partial or No Access Control
Corridors in Growth Areas

Composite Congestion Risk

All Scenarios, 2055

0 Risk Types

— 1 Risk Type

2 Risk Types

3 Risk Types

STDA Deliverables

STDA Deliverables	Content
STDA Report and Executive Summary	Substantive report that fully addresses HB23 (includes a standalone executive summary document)
 Technical Reports and Appendices (8 total): 6 CIS Technical Reports 1 Engagement Appendix 1 Methodology Appendix 	Technical reports and appendices documenting entire STDA, including six CIS
Summary Fact Sheets and Presentations (x) (pending ODOT direction)	Regional profiles (7, one for each JobsOhio region); other factsheets and presentations for key topics as needed

Shared through STDA website

Interactive access to data and maps through STDA BI Tool

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