

THE OHIO HUB ECONOMIC IMPACT STUDY



PREPARED FOR
THE OHIO RAIL DEVELOPMENT
COMMISSION

AUGUST 28, 2007

PURPOSE AND OBJECTIVES OF THE GEM ECONOMIC IMPACT STUDY OF THE OHIO HUB

- **Provide Professional, Objective, Third-party Validation of the TEMS Analytical Methodologies**
- **Provide a “Check and Balance” for the Concurrent and Parallel TEMS Study of the Ohio Hub**
- **Apply an Alternative Methodology for Analyzing the Projected Benefits of the Ohio Hub**
- **Develop a Context for Understanding Employment, Household Income, and Real Estate Development Benefits of the Ohio Hub**
- **Evaluate the Effects of Existing Rail Service in Other Parts of the Nation on the Communities in which Station Stops are Currently Located**
- **Provide Insight into the Local Markets in which Ohio Hub Station Stops are to be Located**

THE PRIMARY TASKS OF THE GEM STUDY OF THE OHIO HUB

- **An Independent Review and Evaluation of TEMS Methodologies**
- **An Input/Output Analysis of the Economic Benefits of the Ohio Hub**
- **Provide Context Regarding Employment, Household Income, and Real Estate Development Impacts of the Ohio Hub in the Long-term**
- **Community Input and Observations Regarding the Ohio Hub**
- **An Assessment of Urban Development and Land Use Impacts Near High-volume Amtrak stations in Selected Cities Elsewhere in the U.S.**
- **Offer a Set of Recommendations for the Next Steps in the Process of Making the Ohio Hub a Reality**

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – CAPITAL COSTS

Total Capital Costs of the Ohio Hub by Type (2005 Dollars)

Type of Capital Spending	Expenditure (millions)	Percent of Total
Infrastructure	\$3,265,703	87%
Land	\$157,618	4%
Rolling Stock	\$349,563	9%
TOTAL	\$3,772,884	100%

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – INFRASTRUCTURE COST SHARES

Ohio Hub Infrastructure Cost Shares by State

State	Infrastructure Cost Millions (2005 Dollars)	% Share
Ohio	\$2,380.271	73%
Pennsylvania	\$315.736	10%
New York	\$327.369	10%
Michigan	\$178.772	5%
Ontario	\$63.555	2%
Total	\$3,265.703	100%

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – EXTENT OF EXTERNAL FINANCE

Impact of Construction Spending on Ohio's Economy Related to the Extent of External Finance (\$000)

State of Ohio			Economic Impact on State of Ohio (Millions)	
Type of Impact	RIMS II Multipliers	Capital Expenditures	100% External	80% External
Output	2.51780	\$2,380,271	\$5,993	\$4,794
Earnings	0.77560	\$2,380,271	\$1,846	\$1,477
Employment	22.91321	\$2,380,271	\$54,540	\$43,632

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – ECONOMIC IMPACT OF CONSTRUCTION SPENDING BY REGIONS

Economic Impact of Construction Spending by Regions				
	(Millions)	Economic Impacts		
<u>Ohio MSA Regions</u>	<u>Capital Cost</u>	<u>Output (Mi.)</u>	<u>Earnings (Mi.)</u>	<u>Employment</u>
Cleveland MSA	\$653.299	\$1,418.247	\$414.518	11,210
Columbus MSA	\$361.835	\$829.217	\$252.850	6,951
Cincinnati MSA	\$240.458	\$554.136	\$175.342	4,914
Dayton MSA	\$120.946	\$236.993	\$69.411	1,901
Toledo MSA	\$190.165	\$373.236	\$107.975	2,966
Youngstown MSA	\$141.799	\$256.855	\$77.280	2,056
Akron MSA	\$184.883	\$348.283	\$89.262	2,458
Mansfield MSA	\$68.781	\$110.504	\$30.188	832
Total MSA Regions	\$1,962.166	\$4,127.471	\$1,216.826	33,288
Other counties⁴	\$418.108	\$589.992	\$173.557	4,664
Total Four Corridors	\$2,380.274	\$4,717.463	1,390.383	37,952
Total State of Ohio	\$2,380.274	\$5,993.047	\$1,846.138	54,540
Balance of State⁵	N/A	\$1,275.584	\$455.755	16,588

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – INDUSTRY IMPACT OF CONSTRUCTION EXPENDITURES

Industry Impact of Ohio Hub Construction Expenditures (2005 Dollars)			
Industry	Impact Multiplier	Economic Impact (Millions)	% Impact
1. Agriculture, forestry, fishing, and hunting	0.0111	\$26.42	0.4
2. Mining	0.0141	\$33.56	0.6
3. Utilities*	0.0319	\$75.93	1.3
4. Construction	1.0071	\$2,397.17	40.0
5. Manufacturing	0.4313	\$1,026.61	17.1
6. Wholesale trade	0.0978	\$232.79	3.9
7. Retail trade	0.1454	\$346.09	5.8
8. Transportation and warehousing	0.0684	\$162.81	2.7
9. Information	0.045	\$107.11	1.8
10. Finance and insurance	0.1167	\$277.78	4.6
11. Real estate and rental and leasing	0.1374	\$327.05	5.5
12. Professional, scientific, and technical services	0.0967	\$230.17	3.8
13. Management of companies and enterprises	0.0390	\$92.83	1.5
14. Administrative & waste management services	0.0445	\$105.92	1.8
15. Educational services	0.0133	\$31.66	0.5
16. Health care and social assistance	0.1088	\$258.97	4.3
17. Arts, entertainment, and recreation	0.0108	\$25.71	0.4
18. Accommodation and food services	0.0419	\$99.73	1.7
19. Other services	0.0565	\$134.49	2.2
Total Output Impact	2.5177	\$5,992.81	100

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – INDUSTRY EMPLOYMENT IMPACT OF CONSTRUCTION EXPENDITURES

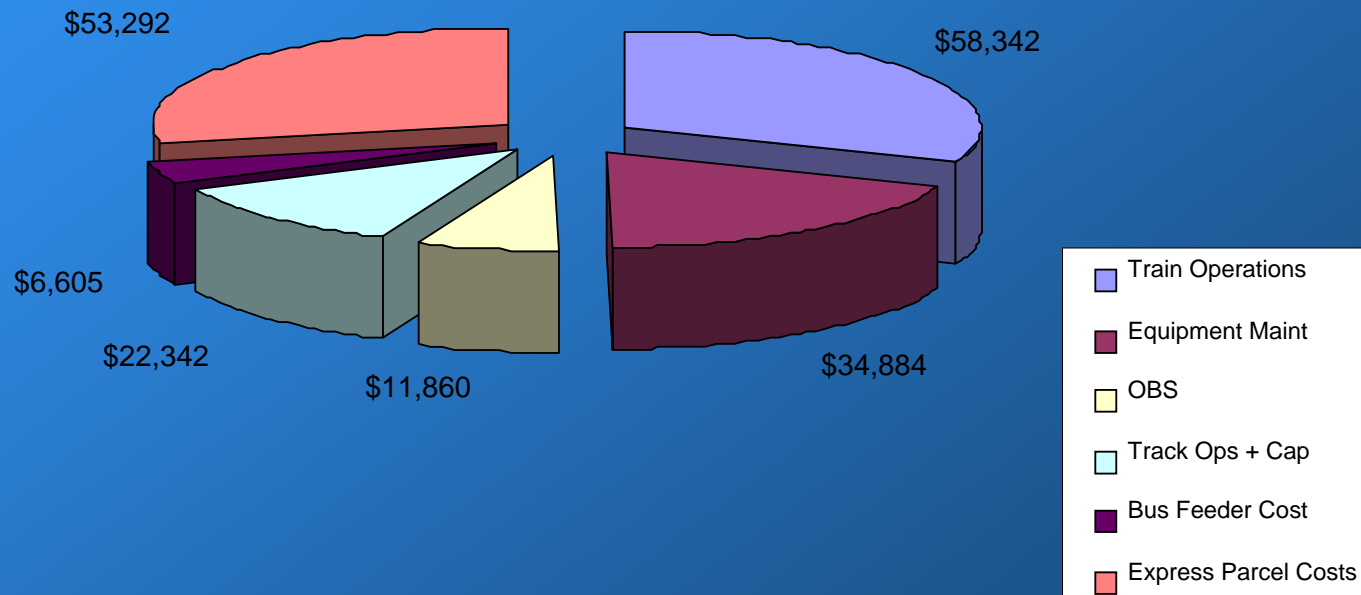
Industry Employment Impact of Ohio Hub Construction Expenditures			
Industry	Employment Multipliers	Employment Impact	% Impact
• Construction	10.0123	21,953	44.0
• Manufacturing	1.6882	3,702	7.4
• Wholesale trade	0.6174	1,354	2.7
• Retail trade	2.2781	4,995	10.0
• Transportation and warehousing	0.5596	1,227	2.5
• Finance and insurance	0.6103	1,338	2.7
• Administrative and waste management services	0.8337	1,828	3.7
• Health care and social assistance	1.5255	3,345	6.7
• Accommodation and food services	1.3170	2,888	5.8
• Other services	0.8373	1,836	3.7
Total Ohio Employment Impact	22.7601	49,904	100.0

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – 2025 OPERATING AND MAINTENANCE EXPENDITURES

2025 Operating & Maintenance Expenditures (2005 Dollars)		
Operation & Maintenance Costs	(000s)	Percent Cost Shares
A. Train Operations Cost	\$8,542	
Energy & Fuel	\$13,979	5.9
Train Crew	\$11,848	9.6
Service Admin	\$10,185	8.1
Sales and Marketing	\$5,401	7.0
Station Costs	\$7,623	3.7
Insurance Liability	\$5,758	5.2
Operational Profit	\$63,336	4.0
Total Train Operations	\$0	43.5
B. Other Costs	\$37,870	
Equipment Maintenance	\$24,254	26.0
Track Operations + Cap	\$12,875	16.7
OBS	\$8,542	8.8
Total Other Cost		51.5
C. Bus Feeder Cost	\$7,170	4.9
Total Costs	\$145,506	100.0

THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – 2025 OPERATING AND MAINTENANCE EXPENDITURES

Ohio Hub 2025 O&M Expenses (000s)



THE INPUT/OUTPUT MODEL RESULTS FOR THE OHIO HUB – ECONOMIC IMPACT OF 2025 O&M EXPENDITURES

Economic Impact of 2025 Ohio Hub O&M Expenditures* (2005 Prices)

Impact Indicators	O & M Multipliers	Aggregate Impact*
Output	1.9914	\$ 289,761 million
Earnings	0.5075	\$ 73,846 million
Employment	12.1039	1,761

*O&M Operating Expenditures are projected to be approximately \$135.5 million annually.

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – PROJECTED OVERALL EMPLOYMENT GROWTH

TABLE IV.1

TEMS LONG-TERM BENEFITS - OHIO HUB TOTAL EMPLOYMENT GROWTH PROJECTIONS							
Employment	CURRENT TOTAL EMPLOYMENT BY GEOGRAPHIC AREA						
	TEMS Estimates	0.25 Mile Radius	0.50 Mile Radius	City	County	Metropolitan Area	
		%	%	%	%	%	%
City		Change	Change	Change	Change	Change	Change
Cincinnati		900	2,784	258,831	567,423	1,026,949	
Lower Limit	1,010	112.22%	36.28%	0.39%	0.18%	0.10%	
Upper Limit	1,390	154.44%	49.93%	0.54%	0.24%	0.14%	
Columbus		11,697	35,281	476,760	706,545	915,456	
Lower Limit	1,400	11.97%	3.97%	0.29%	0.20%	0.15%	
Upper Limit	1,925	16.46%	5.46%	0.40%	0.27%	0.21%	
Middletown		497	1,725	19,893	143,248	1,026,949	
Lower Limit	105	21.13%	6.09%	0.53%	0.07%	0.01%	
Upper Limit	150	30.18%	8.70%	0.75%	0.10%	0.01%	
Toledo		710	2,614	166,485	253,024	348,969	
Lower Limit	450	63.38%	17.21%	0.27%	0.18%	0.13%	
Upper Limit	620	87.32%	23.72%	0.37%	0.25%	0.18%	

Prepared by GEM PUBLIC SECTOR SERVICES from
Data Supplied by DemographicsNow and TEMS

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – PROJECTED RETAIL EMPLOYMENT GROWTH

TABLE IV.2

TEMS LONG-TERM BENEFITS - OHIO HUB RETAIL EMPLOYMENT GROWTH PROJECTIONS						
Employment	CURRENT RETAIL EMPLOYMENT BY GEOGRAPHIC AREA					
	TEMS Estimates	0.25 Mile Radius %	0.50 Mile Radius %	City %	County %	Metropolitan Area %
City		Change	Change	Change	Change	Change
Cincinnati		68	205	31,248	104,562	207,881
Lower Limit	1,010	1485.29%	492.68%	3.23%	0.97%	0.49%
Upper Limit	1,390	2044.12%	678.05%	4.45%	1.33%	0.67%
Columbus		42	161	85,937	142,404	187,137
Lower Limit	1,400	3333.33%	869.57%	1.63%	0.98%	0.75%
Upper Limit	1,925	4583.33%	1195.65%	2.24%	1.35%	1.03%
Middletown		92	231	4,983	30,492	207,881
Lower Limit	105	114.13%	45.45%	2.11%	0.34%	0.05%
Upper Limit	150	163.04%	64.94%	3.01%	0.49%	0.07%
Toledo		75	263	28,091	49,545	69,152
Lower Limit	450	600.00%	171.10%	1.60%	0.91%	0.65%
Upper Limit	620	826.67%	235.74%	2.21%	1.25%	0.90%

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EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – PROJECTED OFFICE EMPLOYMENT GROWTH

TABLE IV.3

TEMS LONG-TERM BENEFITS - OHIO HUB OFFICE EMPLOYMENT GROWTH PROJECTIONS								
Employment	CURRENT OFFICE EMPLOYMENT BY GEOGRAPHIC AREA							
	TEMS Estimates	0.25 Mile Radius	0.50 Mile Radius	City		County		Metropolitan Area
		% Change	% Change	% Change	% Change	% Change	% Change	
City								
Cincinnati		281	751	62,071	116,503	181,877		
Lower Limit	1,010	359.43%	134.49%	1.63%	0.87%	0.56%		
Upper Limit	1,390	494.66%	185.09%	2.24%	1.19%	0.76%		
Columbus								
Columbus		2,976	8,763	100,510	146,202	173,596		
Lower Limit	1,400	47.04%	15.98%	1.39%	0.96%	0.81%		
Upper Limit	1,925	64.68%	21.97%	1.92%	1.32%	1.11%		
Middletown								
Middletown		497	1,725	3,436	21,419	181,877		
Lower Limit	105	21.13%	6.09%	3.06%	0.49%	0.06%		
Upper Limit	150	30.18%	8.70%	4.37%	0.70%	0.08%		
Toledo								
Toledo		44	263	31,695	50,565	63,814		
Lower Limit	450	1022.73%	171.10%	1.42%	0.89%	0.71%		
Upper Limit	620	1409.09%	235.74%	1.96%	1.23%	0.97%		

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Data Supplied by Demographics/Now and TEMS

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – PROJECTED HOUSEHOLD INCOME GROWTH

TABLE IV.7

OHIO HUB AND MWRRI - HOUSEHOLD INCOME INCREASE ESTIMATES									
Ohio Hub Station Stops	TEMS % Household Income Increase(s)				TEMS \$/Household Income Increase(s)				
	Ohio Hub		Ohio Hub + MWRRI		Ohio Hub		Ohio Hub + MWRRI		
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit	
Cincinnati MSA	0.12%	0.17%	0.18%	0.26%	\$80.30	\$111.19	\$117.37	\$166.78	
Hamilton County	0.31%	0.43%	0.45%	0.64%	\$198.53	\$274.89	\$290.16	\$412.33	
Cincinnati City	0.97%	1.35%	1.42%	2.02%	\$470.31	\$651.20	\$687.38	\$976.80	
0.50 Mile Radius	172.53%	238.89%	252.16%	358.33%	\$34,031.41	\$47,120.42	\$49,738.22	\$70,680.63	
0.25 Mile Radius	810.23%	1121.86%	1184.19%	1682.79%	\$159,705.16	\$221,130.22	\$233,415.23	\$331,695.33	
Columbus MSA	0.19%	0.26%	Unchanged	Unchanged	\$124.09	\$167.89	Unchanged	Unchanged	
Franklin County	0.30%	0.41%	Unchanged	Unchanged	\$189.60	\$256.51	Unchanged	Unchanged	
Columbus City	0.52%	0.70%	Unchanged	Unchanged	\$275.92	\$373.31	Unchanged	Unchanged	
0.50 Mile Radius	713.89%	965.85%	Unchanged	Unchanged	\$313,653.14	\$424,354.24	Unchanged	Unchanged	
0.25 Mile Radius	7320.63%	9904.38%	Unchanged	Unchanged	\$2,931,034.48	\$3,965,517.24	Unchanged	Unchanged	
Cincinnati MSA	0.01%	0.02%	Unchanged	Unchanged	\$8.65	\$12.35	Unchanged	Unchanged	
Butler County	0.08%	0.12%	Unchanged	Unchanged	\$53.74	\$76.77	Unchanged	Unchanged	
Middletown City	0.60%	0.86%	Unchanged	Unchanged	\$317.69	\$453.84	Unchanged	Unchanged	
0.50 Mile Radius	8.10%	11.57%	Unchanged	Unchanged	\$3,480.86	\$4,972.65	Unchanged	Unchanged	
0.25 Mile Radius	33.85%	48.36%	Unchanged	Unchanged	\$16,241.30	\$23,201.86	Unchanged	Unchanged	
Toledo MSA	0.17%	0.27%	0.17%	0.37%	\$95.94	\$153.51	\$95.94	\$211.08	
Lucas County	0.25%	0.40%	0.25%	0.55%	\$139.53	\$223.24	\$139.53	\$306.96	
Toledo City	0.45%	0.72%	0.45%	0.98%	\$201.35	\$322.16	\$201.35	\$442.97	
0.50 Mile Radius	75.69%	121.10%	75.69%	166.52%	\$27,839.64	\$44,543.43	\$27,839.64	\$61,247.22	
0.25 Mile Radius	395.24%	632.38%	395.24%	869.52%	\$147,928.99	\$236,686.39	\$147,928.99	\$325,443.79	

Prepared by GEM PUBLIC SECTOR SERVICES from
Data Supplied by Demographics Now and TEMS

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – PROJECTED REAL ESTATE DEVELOPMENT COSTS

TABLE IV.8

CURRENT UNIT CONSTRUCTION COSTS BY IMPROVEMENTS USE TYPE*								
Use	RESIDENTIAL				GENERAL OFFICE			
Density	Low-rise**		High-rise		Low-rise**		High-rise	
Class	D	C	B	A	D	C	B	A
Grade	Average	Excellent	Average	Excellent	Average	Excellent	Average	Excellent
\$/Sq.Ft.	\$63.50	\$117.58	\$156.73	\$204.94	\$88.99	\$181.62	\$126.35	\$215.14

Use	MEDICAL/PROFESSIONAL OFFICE				RETAIL			
Density	Low-rise**		High-rise		Low-rise***		High-rise***	
Class	D	C	B	A	D	C	B	A
Grade	Average	Excellent	Average	Excellent	Average	Excellent	Average	Excellent
\$/Sq.Ft.	\$113.60	\$200.03	\$142.66	\$234.40	\$49.98	\$114.44	\$79.57	\$134.69

*The value of underlying land is excluded from the costs cited above

**Low rise structures are of three stories or less

***Priced on the basis of inclusion in a larger scale mixed use structure

Footnotes to Table IV.8

The unit costs are current as of November 20, 2006

The costs cited above represent basic unit costs without refinement for specific building design and specifications

In general, classes "A" and "B" are built with a structural framework while classes "C" and "D" are built with load bearing exterior walls

This table was prepared by GEM PUBLIC SECTOR SERVICES from data supplied by Marshall Valuation Service

REAL ESTATE DEVELOPMENT SCENARIOS

TABLE IV.9

TEMS LONG-TERM ECONOMIC DEVELOPMENT BENEFITS OF THE OHIO HUB - MID-HIGH RISE DEVELOPMENT FORMAT

Retail Development Scenario

City	TEMS Benefits Values	Gross Floor Area of Retail Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	572,333	2,862	164	328
Upper Limit	\$275,000,000	787,667	3,938	225	450
Columbus					
Lower Limit	\$250,000,000	793,333	3,967	165	329
Upper Limit	\$340,000,000	1,090,833	5,454	219	438
Middletown					
Lower Limit	\$20,000,000	59,500	298	15	31
Upper Limit	\$30,000,000	85,000	425	25	50
Toledo					
Lower Limit	\$75,000,000	255,000	1,275	43	86
Upper Limit	\$105,000,000	351,333	1,757	63	125

Office Development Scenario

City	TEMS Benefits Values	Gross Floor Area of Office Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	341,618	1,708	207	415
Upper Limit	\$275,000,000	470,147	2,351	285	570
Columbus					
Lower Limit	\$250,000,000	473,529	2,368	225	451
Upper Limit	\$340,000,000	651,103	3,256	302	604
Middletown					
Lower Limit	\$20,000,000	35,515	178	20	40
Upper Limit	\$30,000,000	50,735	254	31	63
Toledo					
Lower Limit	\$75,000,000	152,206	761	63	125
Upper Limit	\$105,000,000	209,706	1,049	90	179

Prepared by GEM PUBLIC SECTOR SERVICES from Data Supplied by DemographicsNow and TEMS

TABLE IV.10

TEMS LONG-TERM ECONOMIC DEVELOPMENT BENEFITS OF THE OHIO HUB - LOW RISE DEVELOPMENT FORMAT WITH STRUCTURED PARKING					
Retail Development Scenario					
City	TEMS Benefits Values	Gross Floor Area of Retail Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	505,000	2,525	354	707
Upper Limit	\$275,000,000	695,000	3,475	486	972
Columbus					
Lower Limit	\$250,000,000	700,000	3,500	387	774
Upper Limit	\$340,000,000	962,500	4,813	519	1,039
Middletown					
Lower Limit	\$20,000,000	52,500	263	34	68
Upper Limit	\$30,000,000	75,000	375	54	107
Toledo					
Lower Limit	\$75,000,000	225,000	1,125	108	216
Upper Limit	\$105,000,000	310,000	1,550	154	308
Office Development Scenario					
City	TEMS Benefits Values	Gross Floor Area of Office Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	341,618	1,708	383	765
Upper Limit	\$275,000,000	470,147	2,351	526	1,052
Columbus					
Lower Limit	\$250,000,000	473,529	2,368	427	854
Upper Limit	\$340,000,000	651,103	3,256	575	1,150
Middletown					
Lower Limit	\$20,000,000	35,515	178	37	74
Upper Limit	\$30,000,000	50,735	254	58	116
Toledo					
Lower Limit	\$75,000,000	152,206	761	121	242
Upper Limit	\$105,000,000	209,706	1,049	172	344

Prepared by GEM PUBLIC SECTOR SERVICES from
Data Supplied by DemographicsNow and TEMS

TABLE IV.11

**TEMS LONG-TERM ECONOMIC DEVELOPMENT BENEFITS OF THE
OHIO HUB - LOW RISE DEVELOPMENT FORMAT
WITH SURFACE PARKING**

Retail Development Scenario

City	TEMS Benefits Values	Gross Floor Area of Retail Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	505,000	2,525	494	987
Upper Limit	\$275,000,000	695,000	3,475	678	1,357
Columbus					
Lower Limit	\$250,000,000	700,000	3,500	571	1,143
Upper Limit	\$340,000,000	962,500	4,813	772	1,544
Middletown					
Lower Limit	\$20,000,000	52,500	263	48	97
Upper Limit	\$30,000,000	75,000	375	74	149
Toledo					
Lower Limit	\$75,000,000	225,000	1,125	166	332
Upper Limit	\$105,000,000	310,000	1,550	235	469

Office Development Scenario

City	TEMS Benefits Values	Gross Floor Area of Office Space	Parking Spaces	Residential Units	Parking Spaces
Cincinnati					
Lower Limit	\$200,000,000	341,618	1,708	490	980
Upper Limit	\$275,000,000	470,147	2,351	674	1,347
Columbus					
Lower Limit	\$250,000,000	473,529	2,368	566	1,133
Upper Limit	\$340,000,000	651,103	3,256	765	1,530
Middletown					
Lower Limit	\$20,000,000	35,515	178	48	96
Upper Limit	\$30,000,000	50,735	254	74	148
Toledo					
Lower Limit	\$75,000,000	152,206	761	164	328
Upper Limit	\$105,000,000	209,706	1,049	232	465

Prepared by GEM PUBLIC SECTOR SERVICES from
Data Supplied by DemographicsNow and TEMS

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – OBSERVATIONS

- **Overall employment increases projected to result from the Ohio Hub over the long term are not likely to be noticed if these employment increases do not occur in close proximity to the local station stops**
- **While employment growth has been projected to occur across the full range of occupations in each local community there are likely to be segments of employment that could benefit more greatly as the result of high-speed passenger rail service**
- **Any employment growth is likely to lag the introduction of the Ohio Hub until the expected transportation efficiencies are demonstrated**

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – OBSERVATIONS

- **Similar to the observation, above, household income growth is likely to be virtually unnoticed unless it is concentrated in close proximity to the local station stops**
- **It is likely that new households with considerably higher household incomes would gravitate to the areas of the local station stops to reside in a mixed-use transportation oriented development**
- **High-speed rail connectivity may make residing in one community while working some distance away in another community a practical alternative**

EMPLOYMENT, HOUSEHOLD INCOME, AND REAL ESTATE DEVELOPMENT IMPACTS OF THE OHIO HUB – OBSERVATIONS

- **Real estate development related to the Ohio Hub is likely to take the form of an individual mixed-use transportation oriented development**
- **Real estate projects are likely to be of a mid-rise to high-rise configuration with a mix of employment centers, retail and entertainment outlets and urban residential units as well as supporting structured parking to serve the local and rail based needs**
- **Projects are likely to be “redevelopment” projects in order to be in close proximity to the local station stops given the built environment, today, in all of the proposed station stop locations along the Ohio Hub route**

LOCAL MARKET INPUT MEETINGS – VIEWS FROM FOUR COMMUNITIES

- **Gem selected four communities to meet with interested public sector officials and private sector executives for an exchange of information about the Ohio Hub**
- **The four communities selected included; Cincinnati, Columbus, Middletown, and Toledo**
- **Each community was selected for specific reasons focusing on each community's firm in the Ohio Hub route network**
- **Attendees in all four communities were asked questions about use projections, local uses, and specific areas of local interest about the Ohio Hub**

LOCAL MARKET INPUT MEETINGS – VIEWS FROM FOUR COMMUNITIES

- In each community the primary purpose for using the Ohio Hub was for “business meetings”
- Pleasure, commuting, sporting events, and shopping, in declining order of importance, were all mentioned as additional purposes to use the Ohio Hub
- Columbus was the most frequently mentioned destination with Cleveland, second, and “out-of-state” destinations, third
- A large majority of attendees thought that face-to-face communications are still important means of conducting business and the Ohio Hub would help facilitate such meetings

LOCAL MARKET INPUT MEETINGS – VIEWS FROM FOUR COMMUNITIES

- Attendees expressed several reasons for switching to rail as a mode of transportation:
 1. Ability to do work while traveling
 2. Out-of-pocket cost savings
 3. Congestion avoidance
 4. Convenience to destination
- Over two-thirds of meeting attendees thought it was “likely” to “very likely” that the Ohio Hub would be used for business
- Over two-thirds of attendees thought that “mornings” would be the most important time of day for regular travel
- Corporations, government workers, service providers, professionals, and educators were thought to be the most frequent users of the Ohio Hub system

LOCAL MARKET INPUT MEETINGS – VIEWS FROM FOUR COMMUNITIES

- **Timeliness and convenience rank high on the “want” list in the local communities**
- **The frequency of use cited by meeting attendees suggests that members of the local communities are confused between “commuter rail” and “intercity rail” – commuting is not the primary purpose of the Ohio Hub**
- **Convenience means completing the links between points of departure and destinations – this connectivity at the local level has been left up to the various communities to address, but the success of the system rests on this local connectivity to provide the timeliness and convenience cited above**

PROJECTED DAILY BOARDINGS FOR THE OHIO HUB AND ACTUAL DAILY BOARDINGS FOR SEVERAL SELECTED EXISTING RAIL STATION STOPS

Table VI.1: Daily Boarding(s) for Representative Intercity Rail Stations			
Proposed Ohio Stations	Projected Daily Boarding(s)	Existing Stations (State)	Daily Boarding(s) (2005)
Cleveland Hub	2,749	Philadelphia (PA)	11,996
N. Cincinnati	1,367	Lancaster (PA)	1,070
Dayton	1,025	Harrisburg (PA)	1,088
Toledo	959	Pittsburgh (PA)	355
Columbus	888	Portland (ME)	368
Elyria	639	Old Orchard Beach (ME)	26
Cincinnati	503	Saco (ME)	69
Sandusky	448	Wells (ME)	91
Cleveland Airport	369	Milwaukee (WI)	1,522

AN AERIAL PHOTOGRAPH OF AN EXISTING RAIL STATION STOP IN HARRISBURG, PENNSYLVANIA

Figure VI.1
Aerial Photo of Harrisburg
Amtrak Station



Source: Google Earth

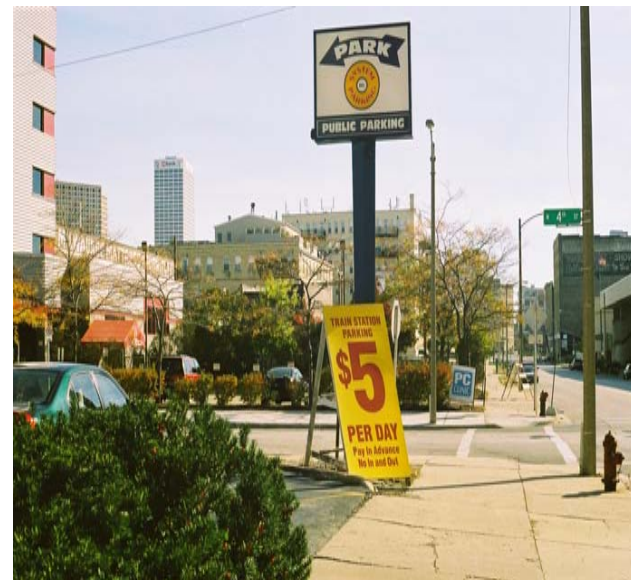
AN EXAMPLE OF AN EXISTING RAIL STATION STOP IN MILWAUKEE, WISCONSIN

Figure VI.18
Aerial View of Downtown Milwaukee Amtrak Station



Source: Google Earth

Figure VI.23
Surface Parking Near Milwaukee Amtrak Terminal



URBAN DEVELOPMENT AND LAND USE OBSERVATIONS FROM THE BENCHMARK STUDIES

- The impacts of proximity to intercity passenger rail service on residential development are modest and mixed
- Proximity to an intercity passenger rail station had little direct impact on projected household spending or increases in property values based on projected property tax revenue increases.
- Stations in existing built up urban neighborhoods, most notably Harrisburg and Lancaster, appeared to have stronger and more robust housing and residential trends.

URBAN DEVELOPMENT AND LAND USE OBSERVATIONS FROM THE BENCHMARK STUDIES

- Stations with the highest rider-ship tended to be terminal stations (e.g., Milwaukee, Portland, Harrisburg)
- No evidence suggested that the existence of the rail station significantly impacted overall development trends, suggesting investments in intercity passenger rail stations would support, rather than drive, existing real estate markets.

THE OHIO HUB ECONOMIC IMPACT ANALYSIS – GEM CONCLUSION

Gem Public Sector Services concludes that construction of high-speed passenger rail is economically feasible and justifiable assuming an 80% federal construction match. By feasible, we believe the economic benefits justify the investment and the project will not be a burden on the State biennial budget. This conclusion is consistent with the analysis of TEMS. Accordingly, Gem Public Sector Services recommends that ORDC move forward to the next stage of determining the feasibility of implementing this project.

THE OHIO HUB ECONOMIC IMPACT ANALYSIS – GEM RECOMMENDATIONS

- **Seek funding for a complete Environmental Impact Statement (EIS).**
- **Develop and implement an integrated design, construction, and implementation plan.**
- **Involve local communities in planning and implementation efforts as soon as possible to maximize the potential economic development benefits.**
- **More fully integrate airport connections into the Ohio HUB system.**
- **Investigate the potential benefits or costs to Ohio's rail freight operators and users.**
- **Prepare a construction and start-up business plan for the Ohio HUB system.**