

EXECUTIVE SUMMARY

Located in northwest Tennessee, the proposed infrastructural development of the Port of Cates Landing will alter economic dynamics in the three-county region (Dyer, Lake, and Obion). The three counties have long been affected by the flight of manufacturing companies. The proposed infrastructure investment of \$20 million in the Port of Cates Landing will create a truly intermodal transportation system in the region, connecting area businesses to the Mississippi River and local and interstate highway systems (including the future I-69).

The Business and Economic Research Center (BERC) at Middle Tennessee State University has been retained by the Northwest Tennessee Regional Port Authority to assess the contributions of the proposed investment in the Port of Cates Landing to the economy of the three-county region and its surrounding areas.

The BERC's estimates include the (1) benefit-cost ratio and (2) regional economic impact of the proposed investment. In the absence of survey data, given the time constraints, the BERC used several methods to estimate first cargo volume and then the benefit-cost ratio and regional economic impact. Impact estimates were obtained using the IMPLANpro model.

Study Findings

The Study Region. The basic characteristics of the study region (Dyer, Lake, and Obion counties):

- Per capita income equivalent to 76.17 percent of U.S. per capita income
- Unemployment rate 1.7 percentage points higher than that of the U.S.
- Declining population (down 1.46 percent from 2000 to 2009)
- Poverty rate 4.49 percentage points higher than that of the U.S.

Benefit-Cost Analysis. The proposed investment of \$20 million will generate the following long-term public benefits over the 20-year life cycle of the port:

- State of good repair (in present value, in 2010\$) of \$3.04 million (3% discount rate) or \$2.15 million (7% discount rate)
- Economic competitiveness (in present value, in 2010\$) of \$73.58 million (3% discount rate) or \$52.10 million (7% discount rate)
- Livability (in present value, in 2010\$) of \$7.86 million (3% discount rate) or \$5.56 million (7% discount rate)
- Sustainability (in present value, in 2010\$) of \$20.52 million (3% discount rate) or \$14.52 million (7% discount rate)
- Safety (in present value, in 2009\$) of \$98.54 million (3% discount rate) or \$69.72 million (7% discount rate)
- Estimated benefit-cost ratio (BCR) of 4.64 (7% discount rate) or 6.06 (3% discount rate)

- Net present value (NPV) of \$113 million (7% discount rate) or \$170 million (3% discount rate)

Regional Economic Impact: The proposed \$20 million investment will create a variety of economic opportunities for the area's population—some short-term, most long-term.

Short-term economic impact

- New jobs: 234
- Business revenue: \$26.78 million
- Value added: \$11.20 million
- Personal income: \$8.27 million
- Federal taxes: \$1.48 million
- State and local taxes: \$0.49 million

Long-term economic impact

- New permanent jobs: 1,700
- Business revenue : \$354.45 million
- Value added: \$115.66
- Personal income: \$77.80 million
- Federal taxes: \$14.18 million
- State and local taxes: \$7.86 million
- Related jobs retained in the region: 2,293

Implications of Study Findings for the Region. The findings suggest that the proposed investment will

- boost the local payroll by \$45.5 million,
- reverse the declining population trends by creating employment opportunities in the region,
- reduce the unemployment rate by 4.9 percentage points, and
- reduce the poverty rate by 5.48 percentage points in the core region.

Conclusion. The study indicates that benefits to both the general public and the regional economy outweigh the cost of proposed investment. Given the nature of investment and the extent of economic distress in the study region, the findings of this study strongly recommend the proposed investment.

CUMULATIVE 20-YEAR PUBLIC BENEFITS (ALL MONETARY FIGURES ARE IN 2010 \$)				
Port construction year	2011			
Benefit period	2012-2031			
M. Cumulative 20-Year Project Cost (in 2010\$)				
Cost	Discount Rate			
	0%	3%	7%	Sensitivity Analysis: 10%
Total Cost	\$36,591,647	\$33,565,438	\$31,034,920	\$29,805,862
N. Benefits from Long-Term Outcomes (2012-2031)				
Long-Term Outcomes	Discount Rate			
	0%	3%	7%	Sensitivity Analysis: 10%
N1. State of Good Repair	\$4,107,388	\$3,039,575	\$2,150,570	\$1,720,796
N2. Economic Competitiveness	\$99,362,619	\$73,579,377	\$52,101,843	\$41,712,805
N3. Livability	\$10,622,556	\$7,860,969	\$5,561,819	\$4,450,335
N4. Sustainability	\$27,722,560	\$20,515,418	\$14,515,137	\$11,614,405
N5. Safety and Security	\$133,161,670	\$98,543,110	\$69,721,548	\$55,788,265
Cumulative Value (N1-N5)	\$274,976,793	\$203,538,449	\$144,050,917	\$115,286,606
Net Present Value (NPV)		\$169,973,011	\$113,015,997	\$85,480,744
Benefit-Cost Ratio (BCR)		6.06	4.64	3.87
O. OTHER CUMULATIVE 20-YEAR BENEFITS (UNDISCOUNTED, 2010\$)				
Ton-Miles Reduced from Highways	4,388,554,392			
Truck VMT Reduced	141,634,086			
Gallons of Fuel Saved	22,832,432			
Gallons of Hazardous Material Spills Prevented	15,230			
Number of Lives Saved	19.01			
Number of Injuries Avoided	434.52			
Tons of CO ₂ Eliminated	229,897			
Tons of CO Eliminated	451			
Tons of VOC Eliminated	33			
Tons of PM Eliminated	42			
Tons of NO _x Eliminated	1,732			
JOB CREATION AND ECONOMIC STIMULUS BENEFITS (ALL MONETARY FIGURES ARE IN 2010\$)				
P. Short-Term Economic Impact				
	Direct	Indirect & Induced	Total	
Jobs	173	61	234	
Business Revenue (Millions of 2010 \$)	\$20	\$6.78	\$26.78	
Value Added (Millions of 2010 \$)	\$7.54	\$3.67	\$11.20	
Personal Income (Millions of 2010 \$)	\$6.21	\$2.06	\$8.27	
Federal Taxes (Millions of 2010 \$)			\$1.48	
State and Local Taxes (Millions of 2010 \$)			\$0.49	
Q. Long-Term Economic Impact				
	Direct	Indirect & Induced	Total	
Jobs	972	728	1,700	
Business Revenue (Millions of 2010 \$)	\$274.97	\$79.48	\$354.45	
Value Added (Millions of 2010 \$)	\$70.85	\$44.81	\$115.66	
Personal Income (Millions of 2010 \$)	\$48.93	\$28.87	\$77.80	
Federal Taxes (Millions of 2010 \$)			\$14.18	
State and Local Taxes (Millions of 2010 \$)			\$7.86	
R. Retaining Potentially At-Risk Jobs in the Region				
	Core Region	Surrounding Region	Total	
Related Jobs	1,063	1,230	2,293	
S. Jobs due to Producers' Surplus				
			50	
T. REGIONAL IMPLICATIONS OF THE PORT OF CATES LANDING				
T1. Expected to reduce outmigration				
T2. Expected to reduce unemployment rate by 4.9 percentage points in the core region				
T3. Expected to reduce poverty rate by 5.48 percentage points in the core region				