

# 1. Executive Summary

The United States Congress designated Interstate 73/74 (I-73/74) as a corridor of national significance, connecting the Great Lakes with the Carolinas' coast. The Commonwealth Transportation Board determined that I-73 in Virginia will follow US 460 from West Virginia to Blacksburg, the Smart Road, I-81 to Roanoke, and then roughly parallel US 220 south to the Virginia-North Carolina line. The Board approved the route for the 70-mile corridor from Roanoke to the Virginia-North Carolina line. This study, produced by Chmura Economics & Analytics,<sup>1</sup> evaluates the economic impact of that segment, which has received the "Record of Decision" by the Federal Highway Administration.

## **The I-73 corridor includes six cities and counties in Virginia.**

In this study, the I-73 corridor region is defined as the following cities and counties in Virginia: Roanoke City, Salem City, Roanoke County, Franklin County, Henry County, and Martinsville City.<sup>2</sup> In this study, economic impacts are presented for both the northern and southern corridor. The northern I-73 corridor consists of Roanoke City, Salem City, Roanoke County, and Franklin County. The southern I-73 corridor consists of Henry County and Martinsville County. For the past three decades, the six localities composing this collective region lagged the state in population and employment growth.

## **Economic literature indicates that highway networks are beneficial to regional economies.**

Economic literature on the relationship between highway and economic development generally concludes that the following economic benefits are associated with a highway network:

1. **Travel efficiency.** The construction of a highway can reduce travel time for area businesses and residents alike. Trade, manufacturing, and construction sectors will benefit more from a new highway than other sectors such as health care and education.
2. **Attraction of service businesses.** Oftentimes, businesses such as hotels, gas stations, retail stores and restaurants cluster around interstate interchanges.
3. **Economic development benefits of firm relocations and expansions.** Several case studies have found that rural counties with an interstate highway enjoy faster population and employment growth than similar counties without an interstate highway.

## **In the past three decades, the economy in the I-73 corridor was below the state average in population, employment, and high-tech industry growth as well as per capita income.**

The I-73 corridor region's population grew at a much slower 0.5% annual pace than the state's 1.4% in the 30 years ending with 2000. For the ten years ending in 2005, the I-73 corridor had essentially no employment growth compared to a 1.9% average annual rate in the state. The lack of employment growth in the I-73 corridor occurred

<sup>1</sup> Chmura Economics & Analytics, located in Richmond, Virginia, is an economic consulting firm specializing in applied economics. Since 1999, the firm's economic impact studies have centered on many different topics including highways, airports, tourism, and mixed-use developments. Further details are available at [www.chmuraecon.com](http://www.chmuraecon.com).

<sup>2</sup> The proposed I-73 will directly pass through the city of Roanoke and the counties of Roanoke, Franklin, and Henry. The I-73 corridor, defined as the region in the immediate vicinity of I-73, includes the aforementioned localities as well as the cities of Salem and Martinsville due to their close proximity to I-73.

partially because manufacturing, which has been in decline nationwide, is more concentrated in the I-73 corridor than in the state. In addition, the relatively fast-growing high-tech sector is less concentrated in the I-73 corridor region than in the state.

Per capita income in all localities of the I-73 corridor region was lower than the statewide average in 2005. Moreover, the income gap between the I-73 corridor and the state widened as I-73 corridor average income fell from 99% of the state average in 1969 to 85% by 2005.

**Growth rates of the localities in the I-73 corridor region varied widely in the past three decades.**

Localities in the northern part of the corridor that are close to or part of the metropolitan areas of Roanoke and Lynchburg enjoyed modest growth in population and employment while the communities in the southern part of the corridor saw a decline in both population and employment.

**Traffic is expected to increase 23% from 1997 to 2020 along I-73.**

The Virginia Department of Transportation (VDOT) traffic model projects an increase in traffic volume after I-73 is completed. From 1997 to 2020, total average daily traffic is expected to increase 41% on I-73 from traffic on existing roadways. The traffic volume is expected to increase an additional 6% from 2020 to 2025. The largest increase in traffic volume is projected to occur on the northern end of I-73 in the Roanoke region. The model outputs also indicate that the heavy vehicle traffic along the I-73 corridor will be between 11% and 19% of total traffic volume.

**The one-time economic impact of the I-73 construction can reach \$4.4 billion in the corridor region from 2012 to 2020.**

From 2012 to 2020, the construction of I-73 is projected to generate \$4.42 billion in economic impact in the corridor region. Of this total, \$2.75 billion is direct construction spending while \$1.66 billion is the ripple economic impact of the construction.<sup>3</sup> The construction of I-73 is forecast to directly create 3,415 new jobs per year from 2012 to 2020 and by ripple effect create an additional 1,887 jobs per year in the region. This sums to an average 5,303 jobs per year during the construction phase. Twenty-nine percent of the economic impact from the construction of I-73 is expected to occur in the southern corridor.

**I-73 can provide between \$141.2 and \$161.0 million in annual cost savings for current businesses as a result of improved travel efficiency.**

A new highway can reduce travel time for regional businesses, thus producing cost savings and improved productivity. The total cost savings for the region is estimated to reach \$141.2 million in 2020 and \$161.0 million in 2025, assuming the interstate is in place. The value of travel efficiency and cost savings is estimated to be 0.4% of the total corridor regional output. About 20% of the cost savings will take place in southern corridor.

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<sup>3</sup> The direct impact is economic activity generated by a project or operation. For construction, this represents activity of the contractor. The indirect impact is the secondary economic activity that is generated by a project or operation. An example is a new office building generating demand for parking garages. The induced or household impact is economic activity that occurs when households employed by the construction firm or its suppliers spend their income in the region. The ripple effect is the sum of induced and indirect impacts.



**By 2020, I-73 can support 141 service businesses and 2,455 jobs in the region with a total annual economic impact of \$310 million.**

In 2020, it is estimated that I-73 can support approximately 141 businesses with 44 hotels, 43 gas stations, 32 fast food restaurants, and 22 full-service restaurants. The direct output of these businesses is estimated to be \$201 million in 2020 with ripple effects of \$109 million. The number of business establishments in 2025 is projected to grow to 155. In terms of job creation, service businesses can support an estimated 2,455 jobs in 2020 and 2,688 jobs in 2025. The city of Roanoke is expected to land more than half of the jobs along I-73, followed by the counties of Henry, Franklin, and Roanoke.<sup>4</sup> In 2020, 15% of the economic impact due to service businesses is expected to take place in the southern corridor. That percentage is expected to increase to 19% by 2025 because of increases in economic activity.

**The newly built I-73 can also support distribution centers, each averaging \$22 million in economic impact and 277 new jobs.**

The location of I-73 can attract retail distribution centers. An average distribution center employs about 200 workers and would directly generate about \$14 million in economic output in 2020. Adding ripple effects, the total economic impact of a distribution center can reach \$22 million in output and 277 jobs in 2020.

**After I-73 is completed, it is estimated that Virginia will receive \$13 to \$17 million in annual tax revenue while fiscal benefits for local governments will be over \$10 million per year.**

After construction is complete, the state is expected to collect corporate and personal income taxes from service businesses and other businesses along I-73. Tax revenues are estimated to be \$13.7 million for 2020 and \$17.1 million for 2025. For local governments, I-73 is projected to contribute \$10.2 million in local revenue per year, with \$9.2 million in the northern corridor and \$1.0 million in the southern corridor. With the increase in traffic expected by 2025, service businesses can bring \$12.5 million tax revenue for local governments per year, with \$10.8 million in the northern corridor and \$1.6 million in the southern corridor.

**Other benefits of I-73 are better market access, increased appeal for business relocations, faster population growth, increased tourism, better road safety, and improved quality of life.**

I-73 will benefit manufacturers and agricultural businesses in the I-73 corridor by providing easy access to markets. The presence of an interstate highway can increase the appeal of the region to expanding and relocating firms, especially those in the manufacturing and transportation sectors. I-73 will also improve access to Smith Mountain Lake, a popular area for retirement and vacation homes. As a result, I-73 will have a positive effect on population and tourism growth in the region. Other benefits include fewer accidents and better safety on the roads.

**There are both upside and downside risks for economic projections made in this study.**

The analysis of the economic impact of I-73 attempts to project the regional economy ten to twenty years from now based on a certain set of assumptions. Some examples of these assumptions are that I-73 is a non-toll road and that there are no recessions or oil crisis during the projection period. The projection is subject to forecasting risks as actual events may change those assumptions. Unpredictable events create the potential for either larger (upside) or

<sup>4</sup> The cities of Martinsville and Salem are not listed here because they have no interchanges and thus would not be expected to see a direct benefit in terms of services businesses.

smaller (downside) effects than indicated here. For example, an oil crisis and rise in gas prices could reduce the traffic on the proposed I-73 and reduce the economic impact. Imposing tolls on I-73 could also reduce the use of the road and the resulting economic benefits. On the positive side, the expansion of a large manufacturing firm to the area that benefits from the new interstate would cause the projections in this report to err on the low side.

The economic impact of I-73 is summarized in Table 1.1.

<b>Table 1.1: I-73 Economic Impact Summary</b>					
	<b>Total Economic Impact (\$MM)</b>	<b>Total Employment Compensation (\$MM)</b>	<b>Total Job Creation</b>	<b>State Tax Revenues (\$MM)</b>	<b>Local Tax Revenues (\$MM)</b>
<b>Average Annual One-time Construction Impact (2012-2020)</b>					
Northern Corridor	\$346.9	\$156.4	3,749	\$5.7	\$0.3
Southern Corridor	\$143.7	\$64.8	1,553	\$2.4	\$0.2
<b>I-73 Corridor</b>	<b>\$490.6</b>	<b>\$221.3</b>	<b>5,303</b>	<b>\$8.1</b>	<b>\$0.5</b>
<b>On-going Impact (2020)-Northern Corridor</b>					
Cost Saving (Productivity)	\$111.7				
Business Services	\$265.4	\$89.2	2,721	\$11.4	\$9.2
One Distribution Center	\$22.4	\$12.8	277	\$0.4	\$0.1
<b>Total Northern Corridor 2020</b>	<b>\$399.5</b>	<b>\$101.9</b>	<b>2,998</b>	<b>\$11.8</b>	<b>\$9.2</b>
<b>On-going Impact (2020)-Southern Corridor</b>					
Cost Saving (Productivity)	\$29.5				
Business Services	\$44.1	\$14.8	443	\$1.9	\$1.0
Distribution Center	\$22.4	\$12.8	277	\$0.4	\$0.0
<b>Total Southern Corridor 2020</b>	<b>\$96.0</b>	<b>\$27.5</b>	<b>720</b>	<b>\$2.3</b>	<b>\$1.0</b>
<b>On-going Impact (2020)-I-73 Corridor</b>					
Cost Saving (Productivity)	\$141.2				
Business Services	\$309.6	\$103.9	3,164	\$13.3	\$10.1
One Distribution Center	\$22.4	\$12.8	277	\$0.4	\$0.1
<b>Total I-73 Corridor 2020</b>	<b>\$473.1</b>	<b>\$116.7</b>	<b>3,441</b>	<b>\$13.7</b>	<b>\$10.2</b>
<b>On-going Impact (2025)-Northern Corridor</b>					
Cost Saving (Productivity)	\$129.1				
Business Services	\$313.7	\$105.4	2,821	\$13.5	\$10.8
One Distribution Center	\$23.5	\$13.4	277	\$0.5	\$0.1
<b>Total North Corridor 2025</b>	<b>\$466.3</b>	<b>\$118.8</b>	<b>3,098</b>	<b>\$13.9</b>	<b>\$10.9</b>
<b>On-going Impact (2025)-Southern Corridor</b>					
Cost Saving (Productivity)	\$31.9				
Business Services	\$73.2	\$24.6	645	\$3.2	\$1.6
One Distribution Center	\$23.5	\$13.4	277	\$0.5	\$0.0
<b>Total Southern Corridor 2025</b>	<b>\$128.6</b>	<b>\$38.0</b>	<b>922</b>	<b>\$3.6</b>	<b>\$1.6</b>
<b>On-going Impact (2025)</b>					
Cost Saving (Productivity)	\$161.0				
Business Services	\$386.9	\$129.9	3,466	\$16.7	\$12.4
Distribution Center	\$23.5	\$13.4	277	\$0.5	\$0.1
<b>Total I-73 Corridor 2025</b>	<b>\$571.4</b>	<b>\$143.3</b>	<b>3,743</b>	<b>\$17.1</b>	<b>\$12.5</b>
Figures may not sum due to rounding. Source: Chmura Economics & Analytics					