

# The Economic Value of the I-84 Viaduct in Hartford

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**Summary.** An economic analysis was conducted of the proposed **\$5.3 billion replacement** of the I-84 Viaduct in Hartford. The analysis is part of Let's Go CT – the state's transportation program for restoring and transforming Connecticut's transportation system to support a strong and growing economy.

Two types of analyses were conducted. One method is a general assessment of the overall value of the Viaduct to users or travelers, and the other is more narrowly focused on the impacts to the economy. The first is a **Benefit Cost Analysis (BCA)** that compares the cost of replacing the aging Viaduct to the benefits to be gained by all users of a new I-84 facility in Hartford. The second is an **Economic Impact Assessment (EIA)** that measures the impact of the I-84 Viaduct on the state's economy – most importantly on business sales and output. **Both analyses show the viaduct is a valuable transportation and economic asset that cannot be allowed to deteriorate without imposing huge costs on travelers, and causing major losses in business sales and output.**

The analyses were conducted as a worst case scenario intended to gauge the potential economic losses to the region if the Viaduct deteriorates to an unsafe condition that requires closure. It assumes a decade of diminishing funding for repairs resulting in deterioration and then closure in 2026. Both the BCA and EIA for this worst case scenario clearly demonstrate that the **benefits of replacing the Viaduct far outweigh the cost of constructing a new facility.**

## **Benefit Cost Analysis (BCA)**

The BCA results are presented in Table 1. The analysis demonstrates that the benefits are 2-3 times the cost of replacement. With a present value of future benefits estimated at **\$9.2 billion** and a present value of project cost of \$3.4 billion, the **benefit/cost ratio is 2.68**. This is a very good B/C ratio for a major project that is primarily a state of good repair project. The Viaduct was built through the heart of the City in the mid-1960s and requires major reconstruction or replacement to keep it safe and functioning. Rebuilding the Viaduct also provides an opportunity to include improvements to reduce accidents, reduce congestion, and remediate adverse community impacts of the outdated Viaduct designed over 50 years ago.

**Table 1**  
**Benefit/Cost Analysis: Long-term Costs & Benefits<sup>1</sup>**

Replacement versus Closure	"Present Value" (1) of Benefits & Costs
<b>A. Project Benefits</b>	<b>\$9.2 Billion</b>
<b>B. Project Costs</b>	<b>\$3.4 Billion</b>
<b>C. Net Benefits</b>	<b>\$5.8 Billion</b>
<b>D. Benefit/Cost Ratio</b>	<b>2.68</b>

<sup>1</sup> The BCA method accounts for all future costs and benefits, but discounts or lowers the value of future costs and benefits to be comparable to current dollars. A discount or interest rate is applied to reflect the lower value of \$1000 in benefits received 20 years from now as compared to receiving \$1000 today. Costs are also discounted.

## ***Economic Impact Assessment (EIA)***

**Long-Term Benefits.** The long-term impacts of the Viaduct on the economy are presented in Table 2. The analysis shows that replacing the Viaduct will result in over **\$10.2 billion** in long-term cumulative business sales and output. This represents the value of the Viaduct to Connecticut’s economy as compared to allowing it to deteriorate to an unsafe and unusable condition over the next decade.

**Table 2**  
**Economic Impact Assessment: Long-term Economic Growth Benefits<sup>2</sup>**

Type of economic benefit	Cumulative amount of benefit from replacement
Additional Business Sales (Output)	<b>\$10.2 Billion</b>
Additional Gross State Product	<b>\$6.1 Billion</b>
Additional Wage Income	<b>\$4.2 Billion</b>

**Short-Term or Construction Benefits.** The impacts of the project’s construction spending on the economy were analyzed separately. These impacts are limited to the time period during project construction and are not considered to be a permanent boost to the economy. Construction impacts are presented in Table 3. Construction spending is expected to generate **\$7.3 billion** in additional business sales during the construction period.

**Table 3**  
**Economic Impact Assessment: Short-Term or “Construction” Impacts**

Type of economic benefit	Cumulative amount of benefit from construction
Additional Business Sales (Output)	<b>\$7.3 Billion</b>
Additional Gross State Product	<b>\$4.1 Billion</b>
Additional Wage Income	<b>\$3.1 Billion</b>

**Job Impacts.** The economic impact of job growth is accounted for in the ‘Additional Wage Income’ reported in Tables 2 and 3. However, there is no good way to portray the *cumulative* job impacts, so these are presented separately in Table 4. Table 4 presents both the new jobs created during construction and the long-term or permanent jobs.

***Construction Jobs.*** The project will provide a **major boost to construction and related** industries during the multi-year construction period. The construction project is expected to support **3,000 – 7,000 jobs** during the period of construction. However, these are not permanent jobs, and will mostly disappear once construction is complete.

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<sup>2</sup> Values for the EIA table are the cumulative totals for the stream of benefits over the study period which extends to 2050. They are not discounted as in the BCA, and the individual categories cannot be added since both Gross State Product and Wage Income are components of Business Sales.

*Permanent Jobs.* The long-term impact of the Viaduct replacement on jobs will be substantial. For every year following the opening of the new facility, the improved transportation efficiency and lower travel and shipping costs will save households time and money, and create a competitive advantage for the region’s businesses. These transportation cost savings will support the creation of **2,500 – 3,500 jobs** over the life of the new facility

**Table 4**  
**Economic Impact Assessment: Construction & Permanent Jobs**

Type of Job	Number of Jobs
<b>Construction Jobs</b> <i>(for duration of construction )</i>	<b>3,000 – 7,000 jobs</b>
<b>Permanent Jobs</b> <i>(for the life of the new Viaduct)</i>	<b>2,500 – 3,500 jobs</b>

**Conclusions**

The proposed \$5.3 billion replacement of the I-84 Viaduct is an expensive, but essential project to replace an aging ¾ mile structure that serves over 170,000 vehicles daily. The constant heavy traffic on the 50-year old Viaduct requires regular and expensive repairs and maintenance to keep it safe. The state will likely have to spend \$2-3 billion over the next 30 years just for more frequent repairs and for periodic reconstruction of the most seriously deteriorated sections. By comparison, the replacement project offers the opportunity to create a new facility that will be designed for longer life and lower maintenance needs, and will also correct many of the traffic safety and operational problems that cause the high accident rates and congestion on the existing Viaduct.

The two economic analyses show the region and state will gain benefits that far exceed the cost of replacement.

- The **Benefit/Cost Analysis** shows that users will realize **over \$9 billion dollars in benefits** such as reduced travel time, improved travel reliability, fewer accidents, and reduced vehicle operating costs. This provides a **B/C ratio** of **2.68**, or a return of 2.68 dollars for every dollar spent to build a replacement.
- The **Economic Impact Assessment** shows that the replacement will yield an over **\$10.2 billion in business sales and output** over a 25-30 year period after it is constructed.
- **Construction spending** will generate another **\$7.3 billion** in business sales during the period of construction.

The worst case scenario tested for this analysis demonstrates critical economic role the Viaduct plays in the region and state’s economy. It also shows how much the state stands to lose if the Viaduct is allowed to deteriorate and why it is essential that the state reconstruct or replace an aging but critical piece of our highway infrastructure.