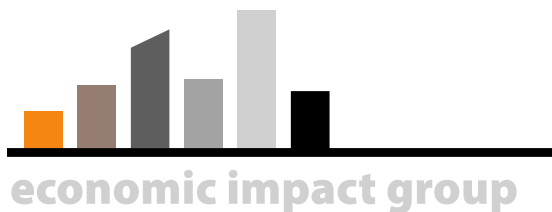


# AN UPDATE OF THE PROJECTED ECONOMIC AND FISCAL IMPACTS OF A TENNESSEE HISTORIC REHABILITATION INVESTMENT INCENTIVE

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*Prepared by:*

**Economic Impact Group, LLC.**



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## Executive Summary

- Thirty-five states, including all of the states contiguous to Tennessee, have enacted historic rehabilitation investment incentives to bring buildings back into active commerce, drive economic development, and create jobs. Historic rehabilitation tax credits incentivize private capital investment that generates a number of beneficial outcomes for communities of all sizes, from small town main streets to city centers.
- Legislation has been introduced to make Tennessee the 36<sup>th</sup> state to enact a historic rehabilitation investment incentive. The legislation would create a tax credit of 25 percent of the amount of a certified building's qualified rehabilitation expenditures. The credit would be earned only after all rehabilitation expenditures have been made, and utilization of the credit would be spread in equal installments over three years.
- The purpose of this report is to estimate the economic and fiscal impact of a Tennessee historic rehabilitation investment incentive. The approach in this report looks at the benefits of the program in terms of spending (construction and operations), tax revenue created, as well as the costs of the program in tax revenues foregone from use of the credit.
- Inputs were derived from actual investments made under Louisiana's historic rehabilitation tax credit. For this analysis, it was assumed 1) that \$50 million in new investment would occur in Tennessee; 2) that the mix of those projects would mirror that of Louisiana; 3) that all of this investment was qualified spending under the program; 4) that the projects were constructed equally over the first three years of the program; and 5) that the economic activity that occurs within the rehabilitated historic property represents new economic activity to Tennessee. The key findings below rely on these assumptions. Under these assumptions, the cost to the state for this investment would be \$12.5 million in tax credits.

### **KEY FINDINGS:**

- ✓ In total over the next 10 years, based on \$50 million of historic rehabilitation work over three years incentivized by \$12.5 million in tax credits, the construction and operations of the projects supported by the Tennessee Historic Rehabilitation Tax Credit would create nearly \$22 million in new tax revenue for the State of Tennessee. Importantly, projects supported by the Tennessee Historic Rehabilitation Tax Credit would generate additional substantial local tax revenue of \$2 million annually through property taxes, retail and hotel operations.
- ✓ **Over 10 years, for every dollar that the state will invest in the Tennessee Historic Rehabilitation Tax Credit, it will collect \$1.77 in new tax collections, measured in 2016 dollars.**

### CONSTRUCTION PHASE:

- ✓ The projects supported by the Tennessee Historic Rehabilitation Tax Credit program would generate an additional \$43.5 million in secondary spending, for a total impact on the Tennessee economy of \$93.5 million.
- ✓ The spending associated with the construction phase of these projects will support \$35.7 million in income for the residents of Tennessee.
- ✓ The construction projects made possible by the Tennessee Historic Rehabilitation Tax Credit would create a total of \$1.6 million in tax revenue for the state of Tennessee and an additional \$1.2 million of local tax revenue.

### OPERATIONS PHASE:

- ✓ The projects undertaken with the help of the historic rehabilitation investment incentive will support a total of \$27.2 million in direct spending annually in the state's economy. The direct spending will create an additional \$22.5 million in secondary spending for a total spending increase in the economy of nearly \$50 million.
- ✓ On an annual basis, the projects will support \$18.3 million in income for the state's residents; \$2.6 million in new state revenues; and \$2.0 million in new local revenues.

### NET PRESENT VALUE:

Under the assumptions outlined above, the net present value over 10 years of the stream of new taxes less the stream of allowed tax credits is \$6.2 million. This analysis was done using a 5 percent discount rate, which is well above expected inflation and represents a higher risk-free return rate than would be available to the State of Tennessee in the marketplace.

## Introduction

In 1981, during President Reagan's administration, as part of the Kemp-Roth Economic Recovery Tax Act (ERTA), the federal government passed an incentive that provided a tax credit for the rehabilitation of historic commercial properties. This federal incentive has encouraged a great deal of investment and activity in the area of historic preservation and economic development.

The federal legislation has prompted 35 states, including all of the states contiguous to Tennessee, to create their own historic rehabilitation investment incentives. The purpose of these tax incentives is to bring buildings back into active commerce, drive economic development, and create jobs. Historic rehabilitation tax credits incentivize private capital investment that generates a number of beneficial outcomes for communities of all sizes, from small town main streets to city centers.

In February 2014, the Economic Impact Group, LLC. (EIG) conducted a study that projected both the economic and fiscal impact of a proposed Tennessee Historic Rehabilitation Investment incentive. Because there was no existing program in Tennessee to analyze, the study used actual investments made in Louisiana as a result of that state's rehabilitation tax credit. Those investments were scaled down to \$50 million, modeled, and analyzed as if they had been made in Tennessee and the resulting fiscal and economic impacts were presented. However, while the best available at the time, the Louisiana data was three years old.

A new analysis of the Louisiana program was released in May of 2015<sup>1</sup>. EIG was asked to update the 2014 study using the latest available data from Louisiana. As was the case in 2014, for this study it was assumed 1) that \$50 million in new historic rehabilitation investment would occur in Tennessee; 2) that the mix of those projects would mirror that of Louisiana; 3) that all of this investment was qualified spending under the program; 4) that the projects were constructed equally over the first three years of the program; and 5) that the economic activity that occurs within the rehabilitated historic property represents new economic activity to Tennessee.

Under these assumptions, this study provides a model estimate of both the economic and fiscal impacts that would result from the construction spending, as well as the operations of the new economic activity that locates within these rehabilitated historic properties.

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<sup>1</sup> Novogradac & Company, LLP. (2015). *Economic Impact Analysis: Louisiana Historic Tax Credit Program*. Bethesda, MD.

## Construction Phase

There are two distinct phases to the economic activity generated as a result of this tax incentive — construction and on-going operations. Because the construction phase is limited in duration while the operational phase can continue in perpetuity, these two must be analyzed separately. Here we will provide an economic and fiscal impact analysis of the construction phase, and in a subsequent section, we will provide the same for the on-going operations. A summary table at the end of this report will combine the two fiscal analyses for purposes of calculating a net tax benefit to the State of Tennessee.

### Economic Impact

“Economic impact” is measured by the number of new jobs, amount of new income, and level of new economic output associated with an activity. The foundation of this type of analysis is economic base theory. Simply put, economic base theory states that economic growth occurs when there is an increase in the flow of money into an area through the export of goods and/or services. The “direct” impact of that economic activity includes the number of jobs directly related to that activity and the wages those jobs are paid. It also includes total output and value added (i.e., contribution to GDP) that is directly related to the activity. (See the definitions in Appendix A.)

However, the “direct” activity is just the beginning of the total economic impact. Companies use the new money flowing into a region to purchase goods and services. Some of these are purchased locally, while others are purchased outside the region. To the extent that goods and services are purchased locally, they represent an increase in local employment and income, and therefore, have additional economic impact beyond the “direct” impacts. To the extent that goods and services are purchased outside the region, they are said to have “leaked” out of the local economy and have no more local economic impact. The impacts that arise from the purchases of local businesses represent the “indirect” impact of the initial economic activity.

The third and final component of the economic impact is a result of the spending decisions of employees. Local employees spend some of their income within the region, and as mentioned before, some leaks out. Again, to the extent that their income is spent locally, it also generates an additional increase in local employment and income. These impacts represent the “induced” impact of the initial economic activity.

Therefore, the total economic impact of any economic activity is the sum of the direct, indirect, and induced economic impacts. Obviously, an important aspect of economic impact analysis is the size of the regional economy under review. In a large region (e.g., a state) there would be more opportunity to make local purchases, which means that the new money has more opportunity to be spent locally. Conversely, a small region (e.g., a single county or a group of counties) would experience faster leakage, and consequently, a smaller economic impact.

The process described above is simulated using an input-output model of the economy under consideration, which in this case, is the State of Tennessee. Specifically, the economic impact analysis was conducted using the nationally recognized model, IMPLAN, developed by the Minnesota IMPLAN Group.<sup>2</sup> IMPLAN is an input-output model (I-O model) configurable for any multi-county region, state, or even a single county. An I-O model simulates the

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<sup>2</sup> Minnesota IMPLAN Group can be accessed at the following URL: [www.implan.com](http://www.implan.com)

interconnectedness of industries, government and households in an economy, and tracks the flow of money from one entity to another. It also simulates transactions between the regional economy and the rest of the world. Through looking at these interactions between sectors in an economy, the model can predict what the overall impact would be from new economic activity in a particular sector in a specific economy. For this analysis, an IMPLAN model was built and customized for the State of Tennessee using the most recent data on industry interactions within the state, as well as commuting patterns and other demographic information.

Construction spending on the rehabilitation of historic property will obviously generate economic benefits in the area where the project is located as well as the neighboring communities. Workers are employed, materials are purchased, and the wages that are generated are used to buy other goods and services. The Louisiana study referenced earlier measured the impact of new investment in the rehabilitation of historic properties that was due to the state’s historic tax credit program. As previously mentioned, this analysis studied \$50 million in new rehabilitation investment as if it instead occurred in Tennessee and with the same mix of projects experienced in Louisiana. That level of construction spending in Tennessee would generate another \$43.5 million in indirect and induced spending for a total impact on the Tennessee economy of \$93.5 million (Table 1).

**Table 1**  
**Economic Impact of the Construction Activity Related to Historic Rehabilitation Investment**

	<b>Jobs</b>	<b>Income*</b>	<b>Value Added*</b>	<b>Output*</b>
Direct	371	\$20.6	\$22.8	\$50.0
Indirect & Induced	303	\$15.1	\$24.0	\$43.5
<b>Total Impact</b>	<b>674</b>	<b>\$35.7</b>	<b>\$46.8</b>	<b>\$93.5</b>

\* Income, Value Added, and Output are in millions of dollars.  
Source: Economic Impact Group, LLC using an IMPLAN model for the State of Tennessee.

That \$93.5 million of spending obviously creates jobs and income across the state. As can be seen in Table 1, through indirect and induced impacts, that \$50 million of initial construction spending would support more than 674 full and part-time jobs in Tennessee and generate more than \$35 million in total personal income.<sup>3</sup>

**Fiscal Impact**

In addition to the economic impact of this construction activity – e.g., jobs, income, value added, and output – there are fiscal impacts in the form of new revenues that will accrue to the state and local governments in Tennessee. In the IMPLAN model, the tax impacts represent the historical distribution of collected indirect business taxes (IBT) for Tennessee based on data from the *Annual Census of Government Finance*. The amount of IBT paid is state-specific and industry-specific; however, the distribution of IBT across the various types of tax (property, sales, severance, etc.) is not industry-specific. It is based on the state's distributions as defined by the *Annual Census of Government Finances*.

<sup>3</sup> Total income includes wage and salary income, as well as total benefits.

Unfortunately, the IMPLAN model does not separate state and local government tax revenues when reporting fiscal impact. However, using data from the *Annual Survey of State and Local Government Finances* (SLGF) published by the U.S. Bureau of the Census, the share of the modeled tax revenue impact that will accrue to the state versus local governments can be estimated.

Combined, the model estimates that tax revenues that would accrue to the state and local governments as a result of this construction activity would be \$2.8 million. After using data from the Census Bureau, it is estimated that for Tennessee, 57.3 percent, or \$1.6 million of that would go to the state government (Table 2). The remaining \$1.2 million in taxes would accrue to local governments in Tennessee.

**Table 2**  
**Fiscal Impact of the Construction Activity Related to Historic Rehabilitation Investment**

	State	Local	Total
Sales Taxes	\$ 1,100,384	\$ 370,500	\$ 1,470,884
Property Taxes	\$ -	\$ 663,147	\$ 663,147
Employee Compensation	\$ -	\$ -	\$ 66,992
Corporations	\$ 208,798	\$ -	\$ 141,806
Other Taxes & Revenues	\$ 273,930	\$ 146,071	\$ 420,001
<b>Total Impact</b>	<b>\$ 1,583,112</b>	<b>\$ 1,179,718</b>	<b>\$ 2,762,830</b>

Source: Economic Impact Group, LLC using an IMPLAN model for the State of Tennessee; *Annual Survey of State and Local Government Finances*, U.S. Census Bureau.

As mentioned above, the construction phase is limited in its duration. As such, it is important to note, that both the economic and fiscal impacts of the construction activity are one-time impacts and last only through the construction phase.

## Operational Phase

After the construction phase, the on-going operations of the business activity made possible by the rehabilitation will have significant economic and fiscal impacts to the State of Tennessee. Of course, the types of businesses which operate in these facilities will have a significant impact on the size and scope of those impacts. For example, a retail establishment has a very different economic and fiscal impact than hotel or commercial office. In the most recent Louisiana study, the largest single use of rehabilitated historic buildings was for residential development. However, under the legislation proposed in Tennessee, residential uses will not qualify for the tax credit. The other major uses in the Louisiana study include commercial office space, retail, restaurants, hotels, cultural amenities, community services, education, and health care. These categories represent the majority of the projects that have been approved under the Louisiana program over the past 12 years.

Without knowing exactly what businesses are going to operate within the rehabilitated buildings, and the operating budgets of those firms, an estimate of employment and average annual revenue must be made. First, because the database of Louisiana projects did not include square feet, the number of square feet for each project had to be estimated using average estimates for per square foot historic renovation costs. Next, the number of employees for each project was estimated using national norms for square feet per employee for various uses, i.e., hotel, retail, restaurants, office space, etc. Finally, the employment numbers were scaled down to reflect the \$50 million of historic rehabilitation used in this report, while keeping the same mix of projects as have been undertaken in Louisiana. (It is important to note that the initial database of Louisiana projects included future use/type information for only 20 percent of the total projects that qualified under the program.)

### Economic Impact

Using these operational estimates and construction investment of \$50 million, if the same mix of economic activity that was generated by the Louisiana historic rehabilitation investment incentive occurred in Tennessee, it would inject a total of \$27.2 million in direct spending annually into the Tennessee economy. An important aspect of economic impact is that the activity under review must be **new** to the economy. For example, if an existing restaurant moves from one existing location into a renovated historic space, then the economic activity is not “new” and cannot be included in the economic impact calculations. Since construction activity is by definition new, this distinction is usually not an issue when evaluating construction activity. However, it is important that this distinction be made when analyzing the operations of firms locating in renovated historic spaces. For some of the project uses, such as hotels, the “new” standard is easy to justify. For some, such as retail, it is less so. However, for purposes of this report, we will assume that the operational activity of all the firms represents new economic activity that would not have occurred at all without the historic rehabilitation incentive. While at first this may seem to give the analysis an upward bias, in order to “scale down” our economic impact estimate, we have assigned all those properties that were classified as unspecified “commercial” (or 30 percent of the total) as “retail” – a category with the lowest economic impact per employee. Under these assumptions, that level of spending in Tennessee would generate another \$22.5 million in indirect and induced spending for a total impact on the Tennessee economy of \$49.7 million (Table 3).



As with the construction activity, that spending creates jobs and income across the state. As can be seen in Table 3, through indirect and induced impacts, that \$27.2 million of initial spending in these firms would support more than 500 full and part-time jobs in Tennessee and generate more than \$18 million in total personal income.<sup>4</sup> However, unlike the construction impacts which are one-time impacts and last only through the construction phase, these impacts will continue as long as the businesses operate.

**Table 3**

**Economic Impact of the Operational Activity Related to Historic Rehabilitation Investment**

	<b>Jobs</b>	<b>Income*</b>	<b>Value Added*</b>	<b>Output*</b>
Direct	349	\$10.4	\$17.2	\$27.2
Indirect & Induced	158	\$7.9	\$12.8	\$22.5
<b>Total Impact</b>	<b>507</b>	<b>\$18.3</b>	<b>\$30.0</b>	<b>\$49.7</b>

\* Income, Value Added, and Output are in millions of dollars.

Source: Economic Impact Group, LLC using an IMPLAN model for the State of Tennessee.

**Fiscal Impact**

As was the case with the construction phase, there are fiscal impacts in the form of new revenues that will accrue to the state and local governments in Tennessee as a result of the on-going operation of these businesses. Combined, the model estimates that tax revenues that would accrue to the state and local governments as a result of this activity would be \$4.6 million. After using data from the Census Bureau, it is estimated that for Tennessee, 56.1 percent, or \$2.6 million of that would go to the state government (Table 4). The remaining \$2.0 million in taxes would accrue to local governments in Tennessee. Again, unlike the construction impacts which are one-time impacts and last only through the construction phase, these impacts continue as long as the businesses continue to operate. As such, the state can expect these revenues to continue in perpetuity.

**Table 4**

**Fiscal Impact of the Operational Activity Related to Historic Rehabilitation Investment**

	<b>State</b>	<b>Local</b>	<b>Total</b>
Sales Taxes	\$ 1,998,404	\$ 672,863	\$ 2,671,267
Property Taxes	\$ -	\$ 1,191,356	\$ 1,191,356
Employee Compensation	\$ -	\$ -	\$ 38,188
Corporations	\$ 151,932	\$ -	\$ 113,744
Other Taxes & Revenues	\$ 414,826	\$ 139,568	\$ 554,394
<b>Total Impact</b>	<b>\$ 2,565,162</b>	<b>\$ 2,003,787</b>	<b>\$ 4,568,949</b>

Source: Economic Impact Group, LLC using an IMPLAN model for the State of Tennessee; *Annual Survey of State and Local Government Finances*, U.S. Census Bureau.

<sup>4</sup> Total income includes wage and salary income, as well as total benefits.

## Tax Credit Return Ratio

Under the assumptions presented earlier in this report, the total utilization of tax credits of \$12.5 million would be spread out over the first six years of the program. Assuming no more than a 1-year construction period for each project, the new state revenues associated with the construction and operation of these projects are represented in Table 5 for the first 10 years of operation under the program. (This analysis is presented in real terms and does not consider the effect of inflation.) Under this scenario, the program has a positive return by year 7, and by year 10, the return ratio is 1.77. Using a discount rate of 5 percent, the net present value (NPV) of the tax credit is \$10.3 million while the NPV of the new state revenues is \$16.5 million giving the program analyzed here an overall NPV of \$6.2 million. This doesn't even consider the fact that local governments in Tennessee will be collecting \$2.0 million in additional revenue annually after construction.

**Table 5**  
**Tennessee Historic Tax Credit Return Ratio and Net Present Value**

	Tax Credit	New State Revenue from Construction	New State Revenue from Operations	Total New State Revenue	Cumulative Return Ratio
2017	\$ 0	\$ 527,704	\$ 0	\$ 527,704	~
2018	\$ 1,388,889	\$ 527,704	\$ 855,054	\$ 1,382,758	1.38
2019	\$ 2,777,778	\$ 527,704	\$ 1,710,108	\$ 2,237,812	1.00
2020	\$ 4,166,667	\$ 0	\$ 2,565,162	\$ 2,565,162	0.81
2021	\$ 2,777,778	\$ 0	\$ 2,565,162	\$ 2,565,162	0.84
2022	\$ 1,388,889	\$ 0	\$ 2,565,162	\$ 2,565,162	0.95
2023	\$ 0	\$ 0	\$ 2,565,162	\$ 2,565,162	1.15
2024	\$ 0	\$ 0	\$ 2,565,162	\$ 2,565,162	1.36
2025	\$ 0	\$ 0	\$ 2,565,162	\$ 2,565,162	1.56
2026	\$ 0	\$ 0	\$ 2,565,162	\$ 2,565,162	1.77
<b>Total:</b>	<b>\$ 12,500,000</b>	<b>\$ 1,583,112</b>	<b>\$ 20,521,296</b>	<b>\$ 22,104,408</b>	<b>1.77</b>
<b>PV @ 5%:</b>	<b>\$10,300,111</b>			<b>\$ 16,511,812</b>	<b>1.60</b>
<b>NPV:</b>	<b>\$6,211,701</b>				

Source: Economic Impact Group, LLC using an IMPLAN model for the State of Tennessee; *Annual Survey of State and Local Government Finances*, U.S. Census Bureau.

# **Appendix A**

## **Definitions**

### ***Direct Impacts***

The initial economic activity that results from changes in production or expenditures by producers and/or consumers.

### ***Indirect Impacts***

The economic activity that results from local industries buying goods and services from other local industries. This cycle of spending continues until all the money leaks out from the regional economy.

### ***Induced Impacts***

The economic activity that results from the spending of employees' labor income. This cycle of household spending continues until all the money leaks out from the regional economy.

### ***Wages/Income***

All forms of employment income, including employee compensation and proprietor income.

### ***Value Added***

The difference between an industry's output and the cost of its intermediate inputs. This includes employee compensation, taxes on production, and gross operating surplus. This is the measure of the contribution to GDP made by the industry.

### ***Output***

Final value of industry production. For manufacturing companies, output is sales plus/minus changes in inventory. For service sectors, output is equal to sales. For retail and wholesale trade companies, output equals gross margin, NOT gross sales.

## Researcher Biographical Information

### **Dr. Alfred B. Meek**

Dr. Meek has nearly 25 years of experience in economic/fiscal impact analysis and research. He is currently the Director of the Center for Economic Development Research at the Georgia Institute of Technology's Enterprise Innovation Institute. Prior to his current time at Georgia Tech, he served for nine years as the Chief Economist and Director of Economic Analysis for a local government in Georgia. Prior to his time in local government, he spent three years as the Director of Applied Research at The University of Georgia's Business Outreach Services and Small Business Development Center. Preceding his work for both Georgia Tech and The University of Georgia, Dr. Meek was the Research Economist for SunTrust Banks, Inc.

Current areas of special focus include economic/fiscal impact analysis, forecasting and modeling, work-force issues, tax policy analysis, and target industry analysis. In addition to his research, Dr. Meek speaks widely on topics relating to economic impact and economic development. He has also written for economic development-related publications, as well as other periodicals. His research on the size and economic impact of the sports industry in the United States was published in *Sport Marketing Quarterly*. This research has been written about and cited in numerous publications - *USA Today*, *Georgia Trend*, *Financial Times London*, *Fortune Magazine*, and *Investors Business Daily* among others.

Dr. Meek is a member of the National Association for Business Economics, and is a past president of the Atlanta Economics Club. He holds a PhD. in Agricultural Economics from The University of Georgia; a Master of Science in Business Economics from Georgia State University; and a Bachelor of Science in Economics from the Georgia Institute of Technology.