

**AN ECONOMIC IMPACT ANALYSIS OF  
GALLATIN COUNTY’S  
EAST BELGRADE I-90 INTERCHANGE**



**THIS STUDY IS FUNDED BY**



**RICK EDWARDS  
DIRECTOR OF KEY ACCOUNTS AND ECONOMIC DEVELOPMENT**

Prepared by:  
Solution Mountain, Inc.  
A NWE Technology Partner  
October 2011

## Table of Contents

General Project Description .....	3
Definitions and Methods .....	3
Executive Summary .....	4
Industry Sectors .....	5
About Solution Mountain, Inc: .....	6
Economic Impact Report .....	7

## General Project Description

The following economic impact analysis has been funded by NorthWestern Energy and is prepared on behalf of Gallatin County, Montana. This study is to measure the economic impacts of constructing the East Belgrade I-90 Interchange. The Interchange will serve Gallatin Field Airport, Yellowstone National Park, Big Sky, Bozeman, Belgrade and a multi-modal transportation radius of approximately 150 miles. The new Interchange will solve traffic congestion issues, increase public safety and increase access to commercial properties. This study seeks to forecast the economic impacts of the highway construction phase as well as projected new growth in manufacturing, retail and warehousing.

## Definitions and Methods

The Economic Impact Analysis Report (attached below) is based on data sets that are specific to Gallatin County. Typically an impact analysis is either supported by research that is specific to the project or it is based on historical datasets that are related to a unique market and industry sector(s). This report uses historical datasets provided by IMPLAN<sup>1</sup> that are related to the project area and related industries. The study represents a broader view than simply the Project’s direct expenditures or employment. For example the analysis measures the economic “footprint” as dollars multiply inside and outside of the market area and it includes calculations for both direct and indirect impacts.

This analysis uses six reports (defined below) to quantify the Project’s economic impacts. The results of this report are not scientific but seek to be historically-representative.

1. **Gross Economic Output:** The aggregated market value of goods and services produced by businesses and government enterprises in the economy. It is essentially equal to the revenue collected by businesses (including indirect taxes) within the County or impact area.
2. **Gross County Product:** The total of value added created by the production of goods and services in the economy. It represents the sum of labor compensation, capital type income and indirect business taxes. Gross County Product is best described as new money added to the community as a result of the Project.
3. **Total Labor Income:** The compensation to employees and self-employed proprietors including both wages and indirect payments such as retirement benefits, health insurance and other similar fringe benefits.

---

<sup>1</sup> The data sets used in this report are provided by Minnesota IMPLAN Group, Inc (MIG, Inc), the developers of the IMPLAN® economic impact modeling system. IMPLAN® is used to create complete, extremely detailed Social Accounting Matrices and multiplier models of local economies. IMPLAN enables users to make in-depth examinations of state, multi-county, county or sub-county and metropolitan regional economies. IMPLAN is used by more than 1,000 public and private institutions. MIG, Inc. has been developing complex localized databases and serving public and private organizations since 1993.

4. **Total Employment:** The number of jobs generated within the impact area including full-time and part-time positions, salaried workers and sole proprietors.
5. **Capital Income:** The sum of income such as business profits, interest and rental income. Capital Income is best described as non-labor benefits.
6. **Indirect Business Tax:** Taxes and fees not based in the businesses’ income. It may represent sales taxes (if any) levied by the state and county and also property taxes levied against businesses as well as federal, state and local fees.

## Executive Summary

*Gross Economic Output:* The following economic impact report summarizes the benefits of both the Project’s direct investment and the resulting indirect impacts. Initial estimates show the direct impacts (project-related expenditures and revenues) will be approximately \$69.8 million. These dollars represent the one-time expenditure for construction related activities and also include assumptions made for additional business revenues. It is not possible to accurately predict the new manufacturing, retail and warehousing space that may result from the project; assumptions are an analytical tool to help value the anticipated growth. The following projected square footages and associated revenues are best estimates and have been vetted with the Belgrade Chamber of Commerce; they are as follows:

1. **Manufacturing.** It is assumed that within 5 years the interchange will produce 50,000 square feet of new manufacturing space earning \$300 per foot annually. This analysis uses ‘miscellaneous wood product manufacturing’ for its example.
2. **Retail.** It is assumed that within 5 years the interchange will produce 50,000 square feet of new retail space earning \$150 per foot annually.
3. **Warehouse.** It is assumed that within 5 years the interchange will produce 100,000 square feet of new manufacturing space earning \$40 per foot annually.

The value of the direct investment has a multiplier effect as it changes hands. The analysis estimates a direct investment will produce an additional \$21.6 million in indirect impacts. The combined values of the direct and indirect impacts exceed \$91.4 million.

*Gross County Product:* The gross county product seeks to measure the economic value-add to the local community. The Project’s gross economic impact is estimated at \$91.4 million with an estimated \$48.8 million of this amount directly benefiting the local economy. The balance of the impact will typically be distributed in the surrounding counties, the state and nation.

*Labor & Jobs:* The analysis seeks to measure labor income and job impacts. The total labor income is estimated at \$31.5 million. The analysis estimates that 1,008 jobs (full and part-time) will be benefited.

The jobs in this analysis represent both the direct jobs as well as jobs that are indirectly impacted as a result of the project. Of the jobs created, 467 are projected to be on-going (developed within the first five years following completion of the Interchange).

*Capital Income:* Capital Income, including profits, interest and rental income generated from activities associated with this project is estimated to exceed \$13.7 million.

*Indirect Business Taxes:* This analysis estimates that Project activities will produce \$3.4 million in indirect business taxes.

#### *Ongoing Economic Benefits – 5 Years*

The analysis shows that over five years the economic impacts exceed \$175.8 million. To calculate the long-term benefit the one-time construction benefits (estimated at \$43.3 million) are totaled with five years of annual on-going economic impacts (\$26.5 million).

### **Industry Sectors**

This analysis is a study of the industry sectors and geographic area associated with this project. The result is a representative analysis with outputs that are based on historical datasets but not necessarily unique to this development. The following describes the industry categories that are associated with the analysis. The categories are based upon the North American Industry Classification System (NAICS).

Architectural and engineering services
Highway, street, bridge, and tunnel construction
Land Acquisition - Real estate
Miscellaneous store retailers
Miscellaneous wood product manufacturing
Warehousing and storage



### **About Solution Mountain, Inc:**

Since 2003, the principals of Solution Mountain, Inc. have prepared hundreds of economic impact reports for state agencies, cities, counties, economic development districts and private corporations. Each report is based on IMPLAN datasets specific to the Project's location and unique industry sectors. Solution Mountain, Inc. is a technology partner for NorthWestern Energy. Robert Gilmore, the CEO, is the recipient of the Ford Foundation's Award for Innovations in American Government and the Council of State Government's Award for Innovation.

## Economic Impact Report

### Gallatin County East Belgrade I-90 Analysis

#### Gross Economic Output

The aggregated market value of goods and services produced by firms and government enterprises in the County's economy. It is essentially equal to the revenue collected by businesses (including indirect taxes) within the County.

Implan Industry	Frequency	Direct Impact	Indirect and Induced Impact	Total Impact
Architectural and engineering services	One Time	\$7,337,003	\$3,233,835	\$10,570,838
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	\$8,854,736	\$38,104,736
Land Acquisition - Real estate	One Time	\$6,764,000	\$1,238,238	\$8,002,238
Miscellaneous store retailers	On Going	\$7,500,000	\$2,211,822	\$9,711,822
Miscellaneous wood product manufacturing	On Going	\$15,000,000	\$4,224,346	\$19,224,346
Warehousing and storage	On Going	\$4,000,000	\$1,883,972	\$5,883,972
<b>Totals:</b>		\$69,851,003	\$21,646,949	\$91,497,952

#### Gross County Product

The total value added created by the production of goods and services in the local economy. It is analogous to the concept of Gross Domestic Product at the national level. It represents the sum of labor compensation, capital type income (profits, interests and rents), and indirect business taxes (which are mainly sales taxes, but also include property taxes and government mandated fees).

Implan Industry	Frequency	Initial Purchase	Total Impact
Architectural and engineering services	One Time	\$7,337,003	\$5,166,150
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	\$19,283,182
Real estate	One Time	\$6,764,000	\$5,248,414
Miscellaneous store retailers	On Going	\$7,500,000	\$6,504,353
Miscellaneous wood product manufacturing	On Going	\$15,000,000	\$8,855,395
Warehousing and storage	On Going	\$4,000,000	\$3,793,575
<b>Totals:</b>		\$69,851,003	\$48,851,068

### Total Labor Income

The compensation to employees and self-employed proprietors including both wages and indirect payments such as retirement benefits, health insurance and other similar fringe benefits.

Implan Industry	Frequency	Initial Purchase	Total Impact
Architectural and engineering services	One Time	\$7,337,003	\$4,125,533
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	\$14,218,650
Real estate	One Time	\$6,764,000	\$1,606,014
Miscellaneous store retailers	On Going	\$7,500,000	\$4,302,802
Miscellaneous wood product manufacturing	On Going	\$15,000,000	\$4,637,896
Warehousing and storage	On Going	\$4,000,000	\$2,695,348
<b>Totals:</b>		\$69,851,003	\$31,586,242

### Total Employment

The number of jobs generated within the County, and includes: \* full-time and part-time positions \* salary workers \*sole proprietors.

Implan Industry	Frequency	Initial Purchase	Total Impact
Architectural and engineering services	One Time	\$7,337,003	108
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	382
Real estate	One Time	\$6,764,000	50
Miscellaneous store retailers	On Going	\$7,500,000	214
Miscellaneous wood product manufacturing	On Going	\$15,000,000	148
Warehousing and storage	On Going	\$4,000,000	105
<b>Totals:</b>		\$69,851,003	1,008



### Capital Income

The sum of all property type income (such as business profits, interest income and rental income) generated within the County.

Implan Industry	Frequency	Initial Purchase	Total Impact
Architectural and engineering services	One Time	\$7,337,003	\$800,559
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	\$4,248,776
Real estate	One Time	\$6,764,000	\$2,811,508
Miscellaneous store retailers	On Going	\$7,500,000	\$1,128,587
Miscellaneous wood product manufacturing	On Going	\$15,000,000	\$3,837,435
Warehousing and storage	On Going	\$4,000,000	\$944,374
<b>Totals:</b>		\$69,851,003	\$13,771,238

### Indirect Business Tax

Are taxes and fees that are not based in the businesses' income. For the most part they represent sales taxes levied by the State and the county, but also include property taxes levied against businesses as well as fees imposed by federal, state and local governments.

Implan Industry	Frequency	Initial Purchase	Total Impact
Architectural and engineering services	One Time	\$7,337,003	\$240,119
Highway, street, bridge, and tunnel construction	One Time	\$29,250,000	\$815,757
Real estate	One Time	\$6,764,000	\$830,836
Miscellaneous store retailers	On Going	\$7,500,000	\$1,072,964
Miscellaneous wood product manufacturing	On Going	\$15,000,000	\$380,191
Warehousing and storage	On Going	\$4,000,000	\$153,853
<b>Totals:</b>		\$69,851,003	\$3,493,720