

ECONOMIC IMPACT ANALYSIS

An Extension
Community
Economics Program

The Economic Impact of a Proposed Veterans Home in Montevideo, Minnesota



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Introduction

In 2007, the State of Minnesota conducted formal studies that identified a need for an additional Veterans Home in Minnesota. Several communities have responded to this identified need and are seeking to establish the Veterans Home in their community. Community members in the City of Montevideo, located in Chippewa County, are interested in the Veterans Home and have taken preliminary steps to obtain the facility for their community. The Montevideo team has secured local funding and support for the project. Preliminary design work for the project has been completed.

Montevideo's proposal is for a 90-bed Veterans Home to be built in the City of Montevideo. Local officials estimate the facility will have an operating budget of approximately \$8 million per year and employ between 120 and 160 employees on an annual basis. These estimates are based on the operating budgets and employment levels of other similar Veterans Homes in the state. The facility will cost an estimated \$22.1 million to construct and equip.

University of Minnesota Extension was commissioned to conduct a study that estimates the economic impact of this proposed Veterans Home. The following report is a summary of the analysis and the findings. This study was conducted under Extension's Economic Impact Analysis program. The Economic Impact Analysis program is designed to assist communities in examining and discussing the economic consequences of a change in the community. Lead researcher on this project was Brigid Tuck of the University of Minnesota Extension Center for Community Vitality. Assistance and guidance was provided by Dr. William Lazarus of the Department of Applied Economics. Bruce Sorte, David Nelson, and Neil Linscheid of University of Minnesota Extension also provided input.

Highlights of the Montevideo Economic Impact Study

In a 2008 study conducted by University of Minnesota Extension examining the economic impact of a proposed new Veterans Home in Montevideo, Minnesota it was found that:

- Output in the local economy is predicted to increase by \$11,674,088 annually due to the daily operation of the facility.
- Employment in the study area is predicted to increase by 205 full and part time jobs annually due to the daily operation of the facility.
- Labor income in the local economy is predicted to increase by \$7,945,566 annually due to the daily operation of the facility.
- The Health and Social Services industry, the Manufacturing industry, the Real Estate and Rental industry, and the Finance and Insurance industry will be the industries most significantly impacted due to the operation of the facility.
- Output in the local economy is expected to increase by \$23,561,842 for one year due to construction of the facility.
- Employment in the study area is expected to increase by 202 full and part time jobs for one year due to construction of the facility.
- Labor income in the local economy is expected to increase by \$9,294,023 for one year due to construction of the facility.

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Methodology

This study was completed using economic impact analysis methodology. Economic impact analysis predicts how an initial change due to an economic event will affect the entire economy. These studies can look at a wide range of economic events that either increase or decrease economic activity. A new business opening, a new government policy, or an increase in demand are examples of economic events that may increase economic activity. A business closing, layoffs, or a negative weather event are examples of economic events that may decrease economic activity.

For example, consider the local hospital. If demand for its product, here medical services, were to increase, then the hospital would correspondingly increase its production, measured as services. To increase its production, the hospital would have to do a series of things. First, the hospital would have to purchase more supplies. These supplies might be bandages, electricity, laundry cleaning services, and so forth. As the hospital increases its demand to its suppliers, the suppliers then have to increase their production. If the hospital buys more bandages, then the bandage manufacturer has to make more bandages and it demands more of its suppliers to accomplish this. Consequently, the suppliers to the bandage manufacturer have to increase their supplies. This process continues on through the economy. A “ripple” effect started by the initial increase in production occurs in the economy as these increases in production continue. The sum of the ripple effects related to an increased demand for supplies is called the “indirect” effect. Second, the hospital and its suppliers would need to purchase more labor. In order to treat more patients, the hospital needs to hire more doctors, nurses, and other employees. This means the hospital is paying more in wages. A newly hired nurse will take his/her paycheck and spend it on groceries, utilities, housing, and so forth. When his/her spending increases sales at the local grocery store, then the grocer must increase his or her production causing another wave of “ripples” in the economy. The sum of ripples associated with employee spending is called the “induced” effect. The initial effect plus the indirect and induced are then added together to calculate the total effect.

Special economic models, called input-output models, were developed to capture and quantify these “ripples”. There are several input-output models available. One particular input-output model is called IMPLAN (IMpact Analysis for PLANning, Minnesota IMPLAN Group). IMPLAN is widely used by economists for economic impact analysis because it: can measure output and employment impacts; is available on a county-by-county basis; and it is flexible for the user. Due to these reasons, the IMPLAN model was used for this analysis. IMPLAN has some limitations and qualifications, but it is one of the best tools available to economists for input-output modeling. Understanding the IMPLAN tool, its definitions, and its limitations will help ensure the best results from the model.

One of the most critical aspects of understanding impact analysis is the distinction between the “local” and “non-local” economy. The local economy is defined as part of the model building process. The local economy, also known as the study area, can be defined by either the group requesting the study or by the analyst. Typically, the study area is a county or a group of counties that share economic linkages. Once the study area is determined it becomes internalized into the model and becomes the local economy. At this point, it becomes essential to separate “local” expenditures from “non-local” expenditures. Only expenditures that are made locally can trigger a ripple effect in the local economy (which is what is being measured). Expenditures on items purchased outside the region will cause a ripple effect, but not in the local economy, therefore, it is not measured. To clarify, think of your household expenditures. You might spend a fraction of it locally, perhaps at the local hair salon or the local diner. These expenditures will then cause a local ripple as the places employ local residents and purchase some of their goods locally. However, you probably spend a significant fraction of your income outside of your local community. Your telephone and cable bills likely go to a company outside of the region. Your mortgage payment may go to a bank out-of-state. These expenditures do not go to employ local residents and it is unlikely these companies purchase supplies from your local stores. Therefore, there is no direct effect associated with these expenditures and consequently no ripple effect. It is important to distinguish in the IMPLAN modeling process which expenditures occur locally and which do not. As you read this report, note the discussions on how local expenditures were determined.

There is another aspect to the local versus non-local debate. As the direct expenditure (or impact) moves through the community, more and more of it will leave the model. These are leakages that occur as each round of spending has some money being expended outside the local economy.

There are a few definitions that are essential to understand in order to properly read the results of an IMPLAN analysis. IMPLAN uses the terms output, employment, and labor income. Output is measured in dollars and is equivalent to total sales. For example, the statement “output in the agricultural industry equaled \$1 million in 2007” can be interpreted “total sales in the agricultural industry were \$1 million in 2007”. The output measure can include significant double counting. For example, think of corn. The value of the corn is counted when it is sold to the mill, again when it is sold to the dairy farmer, again as part of the price of fluid milk, and then yet again when it is sold as cheese. The value of the corn is built into the price of each of these items and then the sales of each of these items are added up to get total sales (or output). Employment includes full and part time workers and is measured in annual average jobs. Total wage and salaried employees as well as the self-employed are included in employment estimates in IMPLAN. Therefore, a statement that says “employment will increase by 15 jobs” means that a mix of 15 full and part time jobs will be created. Because employment is measured in jobs and not in dollar values, it

tends to a very stable metric. Finally, labor income measures the value that is added to the product by the labor component. For example, in our corn example, when the corn is sold, a certain percentage of the sale goes to the farmer for his/her labor. Then when the mill sells the corn as feed to the dairy farmer it includes in the price some markup for its labor costs. When the dairy farmer sells the milk to the cheese manufacturer, he/she includes a value for his/her labor. These individual value increments for labor can be measured. This is labor income. Labor income does not include double counting. Each of these metrics has its own strengths and weaknesses; therefore, this report will include all three.

Here is a final review of the IMPLAN terminology and how it will be used in this report. The analysis will show the affect of a direct impact on output, employment, and labor income in the study area. The direct impact is equivalent to the money spent locally by or on behalf of the Veterans Home. This will create a ripple effect in the economy. The ripples that are related to spending for supplies and inputs are indirect effects. The ripples that are related to spending by labor as a household are the induced effects. The indirect and induced effects are additional impacts that exist solely because the direct impact occurred. The direct, indirect, and induced can be added together and are reported as the total effect.

Study Area

The first step in an economic impact analysis is to determine the boundaries of the economy to be studied or the study area. In this case, local officials decided to use Chippewa, Lac qui Parle, and Yellow Medicine counties as the study area. Selecting an appropriate study area is important. The counties of Chippewa, Lac qui Parle, and Yellow Medicine were selected because of their economic interconnectedness. These counties are now the local economy.

According to IMPLAN estimates, the total population of the study area is 29,851 individuals. Of the local residents, approximately 65 percent, or 19,392 individuals, are in the labor force. There are a total of 13,340 households in the study area with an average household income of \$72,644¹.

There are a total of 156 industries in the study area. IMPLAN uses an organizational scheme that contains 404 industries. These industries can be aggregated into larger industry categories. These industries categories are analogous to the North American Industry Classification system (NAICS). Total output, employment, and labor income by major industry for the study area is detailed in Table 1.

¹ All estimates in this section are from the IMPLAN software.

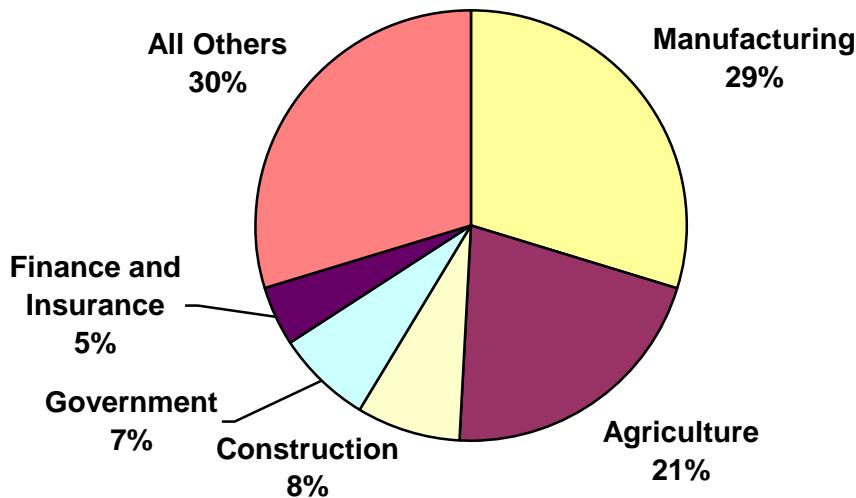
Table 1: Output, Employment, and Labor Income for the Study Area²

Industry	Output (\$)	Employment	Labor Income (\$)
Ag, Forestry, Fishing and Hunting	525,380,000	3,856	71,699,000
Mining	7,666,000	26	1,495,000
Utilities	66,303,000	129	10,110,000
Construction	194,077,000	1,329	70,597,000
Manufacturing	738,755,000	1,915	91,742,000
Wholesale Trade	87,413,000	695	32,525,000
Retail Trade	82,107,000	1,628	34,789,000
Transportation and Warehousing	70,696,000	739	23,263,000
Information	18,846,000	135	3,067,000
Finance and Insurance	115,554,000	523	21,510,000
Real Estate and Rental	109,057,000	185	3,373,000
Professional - Scientific and Tech. Svcs.	55,850,000	577	26,043,000
Management of Companies	11,600,000	80	3,829,000
Administrative and Waste Services	28,741,000	321	9,677,000
Educational Services	2,363,000	79	1,049,000
Health and Social Services	80,390,000	1,304	38,473,000
Arts - Entertainment and Recreation	5,291,000	247	1,408,000
Accommodation and Food Services	28,669,000	680	7,565,000
Other Services	74,541,000	1,413	23,795,000
Government (Federal, State, Local)	173,516,000	3,532	142,525,000
Total	2,476,815,000	19,392	618,534,000

These industries combine to produce \$2.5 billion of sales (output). The manufacturing industry is the area's largest producer in terms of output and contributes approximately 30 percent of total output to the local economy. The agriculture, forestry, fishing and hunting industry is the second largest contributor to the economy and produces 21 percent of total output. The construction industry is the third largest in terms of output with 8 percent of total sales production. See Chart 1.

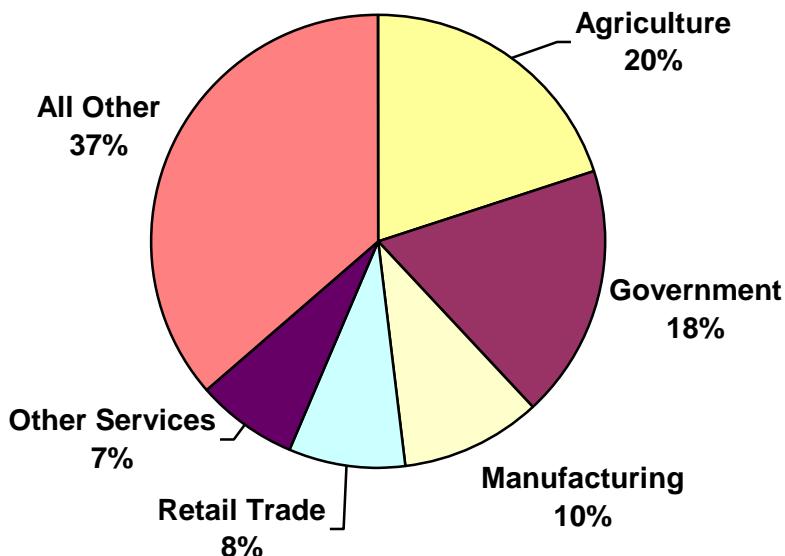
² Values were taken from the IMPLAN software.

Chart 1: Industry Share of Total Output 2007
Chippewa, Yellow Medicine, and Lac qui Parle Counties



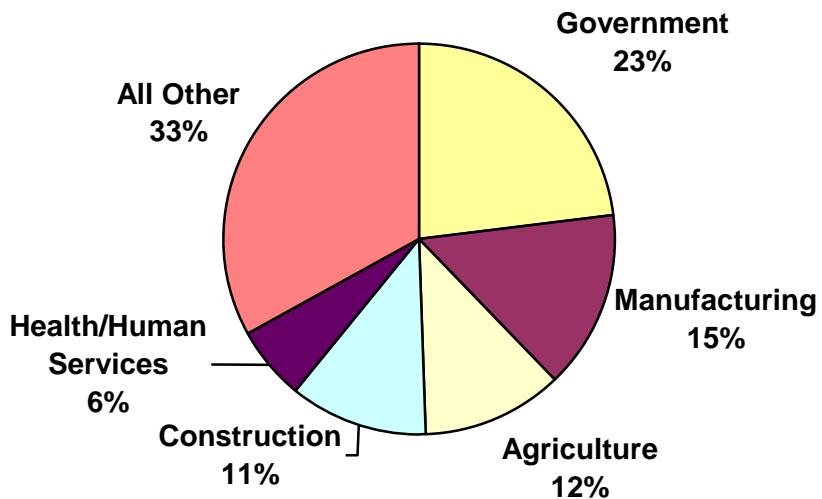
There are a total of 19,392 jobs in the study area. The agriculture, forestry, fishing and hunting industry is the largest single industry employer. The government sector is the second largest employer in the study area. The manufacturing industry and the retail trade industry are the third and fourth largest employers respectively. See Chart 2.

Chart 2: Industry Share of Employment 2007
Chippewa, Yellow Medicine, and Lac qui Parle Counties



Industries in the study area generate \$618 million dollars worth of labor income to the study area. The government sector provides the largest single source of this income, followed by the manufacturing industry and the agriculture, forestry, fishing and hunting industry. See Chart 3.

**Chart 3: Industry Share of Labor Income 2007
Chippewa, Yellow Medicine, and Lac qui Parle Counties**



Economic Impact Analysis

The proposed new Veterans Home project will affect the local economy in two phases. The first phase of the project will be the construction of the new facility. The local economy will feel a boost from construction of the facility. This will be a relatively large initial economic impact as the construction costs are fairly significant. However, these effects will be short-term as construction will last just over a year and when construction is complete, these economic impacts will dissipate. The second phase of the project will be the daily operation of the Veterans Home. Once the facility is completed, there will be day-to-day costs associated with running the home. This impact will be smaller, but it will be long-term. Each of these phases will be addressed separately in this report.

Construction

The first economic impact from the new Veterans Home facility will be due to construction. Montevideo city officials provided cost estimates for the construction phase (Table 2). Construction costs are expected to total \$22,119,000. Project planners estimate that \$16.8 million will be used for preliminary design, site improvements, and building costs. Another \$2.3 million will be spent on legal fees and construction management. Finally, \$2.75 million will be invested in materials to outfit the building, including furniture, kitchen appliances and supplies, and medical equipment.

Table 2: Proposed Construction Costs for New Veterans Home in Montevideo, Minnesota

Category	Proposed Cost
Preliminary Design Cost	\$60,000
Site Improvements	\$1,250,000
Building Costs	\$15,460,000
Legal/Construction Management	\$2,319,000
Furniture	\$750,000
Technology	\$250,000
Security/Telecommunications	\$250,000
Kitchen	\$500,000
Medical Equipment	\$1,000,000
Land Purchase	\$280,000
Total	\$22,119,000

All of these expenditures are necessary to complete the proposed Veterans Home. However, not all of these expenditures will be made locally. *Only local expenditures are used as the direct impact and are included in the model.* The figures provided in Table 2 are the total expenditures necessary to construct the Veterans Home. The amount of this spending that is local must be determined in order to quantify the value that is entered into the model as the direct effect.

The expenditures above can be grouped into four distinct categories: land acquisition; preparation; construction of the building; and outfitting with fixtures, equipment, and furniture. Each of these categories has a distinct methodology associated with it to determine how much of the initial spending is local versus non-local. These methodologies have been established in input-output literature. The following paragraphs explain the methodology utilized to determine the direct impact and thus the value used in the model.

The first category is land acquisition. Input-output methodology prescribes that the dollars spent to acquire land are not considered an impact in the local economy. The reasoning is that the land purchase is really just an exchange of assets. Land is given in return for cash. There is no net change in the local economy. To the extent that there are fees, such as commissions, generated these would be included in the economic impact. Since the land being used for this project is city-owned, it is assumed that no commission will be paid. Therefore, the direct effect of land acquisition is zero.

The second category is preparation for construction. These preparations include preliminary designs and legal fees. Preliminary design work and legal fees are payments for professional services. These are included in the economic impact analysis because they can be delivered locally. However, it is likely that some of these services will be provided by businesses outside the study area. IMPLAN default settings were used to estimate what percent of this spending will be made locally (therefore, be part of the direct impact) and what percent will be made non-locally (thus, not part of the direct impact).

The third category is the physical construction of the building. The costs for construction include only those for the building such as steel, concrete, wood, etc. It does not include the cost of outfitting the building with equipment, fixtures, and furniture. Construction impacts are all initially considered to be local. After all, the construction is taking place in the community even if the contractors are non-local. Therefore, the total cost of building construction is included in the direct impact.

The fourth, and final, category is the outfitting of the new building with fixtures, furnishings, and equipment. It is assumed that the fittings for the new Veterans Home will be acquired via a state bidding process; therefore, it is unlikely a local wholesale company will be used to provide these items. There will be no direct impact associated with the purchase of equipment, furnishings, and fixtures.

Table 3 summarizes what costs from Table 2 are considered local (and therefore direct) and the total value of the direct impact that was entered into IMPLAN. These values were determined following the methodology laid out in the above discussion. In total, it is estimated that of the \$22.1 million expended for the construction of the Veterans Home, \$17.3 million of that will be spent locally. This includes \$46,000 for preliminary design costs, \$1.25 million for site

improvements, \$15.5 million for building costs, and \$500,000 for legal fees. These values are the direct effect.

Table 3: Construction Costs as Entered into IMPLAN for Direct Effect

Category	Direct Effect for IMPLAN
Preliminary Design Costs	\$46,020
Site Improvements	\$1,250,000
Building Costs	\$15,460,000
Legal Fees	\$501,165
Total Direct Effect	\$17,257,185

The direct effect of construction of the new Veterans Home is estimated at \$17.3 million. Based on standard output to employment ratios, IMPLAN estimates that during construction 139 individuals will be employed on a full or part time basis. Some of these jobs will be continuous during the construction phase and some will be intermittent. IMPLAN also estimates that labor directly involved with the construction will receive \$7.3 million worth of payments. These are the direct effects as listed in Table 4. These output, employment, and labor income amounts are those that occur directly at the construction site.

As construction progresses, expenditures will begin to occur in the local economy. The construction companies will make some local purchases of supplies and labor. The employees at the site will begin to make local purchases. As these purchases occur, they will trigger additional spending in the local economy. This additional spending that occurs as a result of the direct spending can be measured and is labeled as indirect/induced effects. See Table 4. When \$17.3 million is spent directly on construction, another \$6.3 million worth of spending occurs in the local economy. In total, construction of the facility is expected to increase output in the local economy by \$23.6 million.

Table 4: Total Economic Impact of Construction of Proposed Veterans Home in Montevideo, Minnesota

	Direct	Indirect/Induced	Total
Output	\$17,257,185	\$6,304,657	\$23,561,842
Employment (Full & Part-Time)	139	63	202
Labor Income	\$7,254,034	\$2,039,989	\$9,294,023

The additional spending that occurs as a result of construction of the facility also affects employment. There will be an estimated 139 employees working on the construction of the facility. Local spending by the construction companies and their employees will stimulate additional spending in the local economy. As this happens, businesses in the study area will have to increase employment to meet increased demand. This employment is listed as the indirect/induced employment in Table 4. Because of spending on construction, 63 new jobs are expected to be created in the area. Jobs at the construction site plus additional jobs created by construction spending can be added to arrive at total change in

employment. Total employment in the study area is predicted to increase by 202 full and part time jobs as a result of construction of a new Veterans Home.

Labor income in the local economy will also be affected by construction of the new Veterans Home. IMPLAN estimates that labor directly utilized in the construction of the facility will generate \$7.3 million in income. The additional spending triggered by the construction will pay \$2 million in labor income. Total labor income in the local economy will increase by \$9.3 million as a result of construction of a new Veterans Home.

Table 5 provides more detail on what industries would be most affected by the construction of new Veterans Home in Montevideo. The direct effects of \$16.7 million in the construction industry are those of the design and construction. As a result of this direct effect, the construction sector in the study area will see a relatively minor increase in output of \$80,096 (indirect/induced). This is not surprising as much of the contract work is expected to come from outside the study area. The professional scientific and technical services industry in the study area will be the most affected industry. The construction project will directly pay \$547,185 to the professional scientific and technical services industry for lawyer fees and preliminary design work. Because of that spending, an additional \$1.25 million of output will be generated in this industry. This \$1.25 million is the sum of the “ripple” effects in the economy. The total impact is the sum of the direct and the indirect/induced effects. In total, output in the professional scientific and technical services industry will increase by \$1.798 million during the construction of this project. The real estate and rental industry, the wholesale trade, and the manufacturing industry in the study area will be other top gainers of additional output due to the construction. In total, 96 percent of the 156 industries in the study area will be affected by the construction phase.

Table 5: Impact on Industry Output in Study Area as a Result of Construction of a Proposed Veterans Home in Montevideo, Minnesota

Industry	Direct (\$)	(\$)	Indirect/Induced
			Total (\$)
Ag, Forestry, Fishing and Hunting	0	61,398	61,398
Mining	0	15,005	15,005
Utilities	0	214,761	214,761
Construction	16,710,000	80,096	16,790,096
Manufacturing	0	591,804	591,804
Wholesale Trade	0	604,154	604,154
Retail Trade	0	467,177	467,177
Transportation and Warehousing	0	298,111	298,111
Information	0	130,326	130,326
Finance and Insurance	0	515,609	515,609
Real Estate and Rental	0	737,953	737,953
Professional - Scientific and Tech. Svcs.	547,185	1,250,887	1,798,072
Management of Companies	0	41,593	41,593
Administrative and Waste Services	0	115,425	115,425
Educational Services	0	13,007	13,007
Health and Social Services	0	442,310	442,310
Arts - Entertainment and Recreation	0	25,145	25,145
Accommodation and Food Services	0	224,441	224,441
Other Services	0	370,347	370,347
Government (Federal, State, and Local)	0	105,108	105,108
Total	17,257,185	6,304,657	23,561,842

Operations

The second economic impact from the new Veterans Home facility will be due to daily operations. On a daily basis, the home will be spending money for labor and for supplies. Labor includes spending for all the people that work in the facility. Supplies cover a wide range of inputs necessary for the facility to function including, but not limited to: utilities, medical supplies, food, pharmaceuticals, and laundry services. Since this is a proposed facility, no operating budget currently exists. However, there are several other comparable Veterans Home facilities in operation in Minnesota. Total expenditures for those facilities are public knowledge. Extension was able to obtain an operating budget for a similar Veterans Home in Minnesota. This budget is an excellent proxy for the budget of the proposed new Veterans Home.

The budget that is available for the proxy Veterans Home indicates that total expenditures for an 85-bed facility in fiscal year 2008 summed to \$8,082,602. The majority of these expenditures were for labor, including full-time, part-time, and seasonal workers and wages, overtime pay, and benefits. Labor accounted for \$6,683,361 in the total budget and the remaining \$1,399,241 was spent on inputs into the operation of the facility. To measure the economic impact of the day-to-day operations of the facility, this study analyzed labor (employee compensation) and inputs. These two components (labor and supplies/inputs)

were entered separately into IMPLAN to account for their economic impact. The two components are treated separately because they each have distinct expenditure patterns. Labor will spend their money in a different manner than the Veterans Home spends its money on supplies and inputs.

Based on allocations in the proxy Veterans Home budget, it is estimated that Montevideo's Veterans Home will spend \$8,485,182 to operate a 90-bed facility. Of this, \$7.1 million will be spent on employee compensation. The other \$1.4 million will be spent locally on supplies and inputs for the facility. IMPLAN has a sector specifically designed to estimate the impact of employee compensation. The first step of this analysis was to run that impact. The results of this analysis show how the direct spending by the employees of the Veterans Home (labor) will potentially affect the economy of the study area. The second step of the analysis was to run the impact of the input and supplies budget. Since a detailed budget was not available, the researchers used the default budget for nursing and residential care facilities found in IMPLAN. Some budget detail was available and where available and feasible, the default IMPLAN budget was modified to reflect the proxy budget. The results of this analysis show how direct spending by the facility for supplies and inputs will potentially affect the local economy. The two components, labor and supplies/inputs, are then added together derive the impact of daily expenditures by the Veterans Home.

The facility is estimated to spend \$8.5 million dollars a year to operate. This is the direct effect of the proposed new Veterans Home. The facility is also expected to employ 160 individuals. Finally, the facility is expected to expend \$7.1 million for its labor. These are the direct effects to output, employment, and labor income in the study area as listed in Table 6.

Table 6: Total Economic Impact of Daily Operations of Proposed Veterans Home in Montevideo, Minnesota

	Direct	Indirect/Induced	Total
Output	\$8,485,182	\$3,188,906	\$11,674,088
Employment (Full & Part-Time)	160	45	205
Labor Income	\$7,100,000	\$845,566	\$7,945,566

The direct costs and employment needed to operate a Veterans Home on a daily basis are only part of the total economic impact of the facility. As the facility makes local purchases and as workers spend their paychecks, additional spending will be created in the local economy. This additional spending constitutes the indirect and induced effect shown in Table 6. The direct spending on inputs and supplies by the Veterans Home and by its employees will trigger a "ripple" effect in the economy and create an additional \$3.2 million dollars worth of spending in other industries. When this additional spending is added to the direct spending by the facility, the figure totals \$11.7 million. Total output in the local economy is estimated to increase by \$11.7 million on an annual basis due to the proposed Veterans Home.

The Veterans Home is predicted to employ 160 individuals on a full or part time basis. As spending from the Veterans Home and its employees works its way through the economy, local businesses will have to increase their level of employment to meet the new level of demand. IMPLAN projects that another 45 full and part time jobs will be created by this demand. Thus, total employment in the study area will increase by 205 jobs annually due to the proposed Veterans Home.

The Veterans Home will also affect labor income in the study area. The facility is anticipated to expend \$7.1 million for labor annually. This is the direct effect of labor income. As spending from the Veterans Home and its employees occur, employment will increase in the area. As employment increases, so do payments for labor. The “ripple” effect from direct expenditures by the Veterans Home and its employees is expected to generate an additional \$845,566 in labor income. In total, labor income in the local economy is predicted to increase by \$7.9 million on an annual basis due to the Veterans Home.

Some industries will experience a greater increase in total output from the new home than other industries. Details on how the impact will be spread across major industries in the study area are shown in Table 7. Institutions, which in this case are essentially households, will receive the greatest direct impact which is directly due to the increase in wages to employees. Manufacturing will also see a large initial impact (\$427,564) as will professional services (\$176,497) and administrative and waste services (\$174,570).

The results of this direct spending will create a series of ripple effects known as indirect/induced impacts. These impacts are listed in the second column of Table 7. Direct spending by the Veterans Home for supplies and labor will set off a ripple effect, the value of which will increase output in the real estate and rental market by \$561,561. The health and social services industry (\$367,556) along with the retail trade industry (\$343,145) will also see large additional increases.

Table 7: Impact on Industry Output in Study Area as a Result of the Operation of a Proposed Veterans Home in Montevideo, Minnesota

Industry	Direct (\$)	(\$)	Indirect/Induced	Total (\$)
Ag, Forestry, Fishing and Hunting	1,228	72,378	73,606	
Mining	3,209	9,497	12,706	
Utilities	93,131	171,330	264,461	
Construction	22,536	61,271	83,807	
Manufacturing	427,564	240,102	667,666	
Wholesale Trade	58,556	219,330	277,886	
Retail Trade	5,153	343,145	348,298	
Transportation and Warehousing	29,350	104,576	133,926	
Information	48,163	66,351	114,514	
Finance and Insurance	161,143	275,886	437,029	
Real Estate and Rental	12,636	561,561	574,197	
Professional - Scientific and Tech. Svcs.	176,497	123,942	300,439	
Management of Companies	59,716	28,049	87,765	
Administrative and Waste Services	174,570	79,565	254,135	
Educational Services	0	10,743	10,743	
Health and Social Services	880	367,556	368,436	
Arts - Entertainment and Recreation	2,553	18,593	21,146	
Accommodation and Food Services	60,112	170,206	230,318	
Other Services	30,763	182,855	213,618	
Government (Federal, State, and Local)	17,422	81,970	99,392	
Institutions	7,100,000			7,100,000
Total	8,485,182	3,188,906		11,674,088

In addition to output effects, the proposed new Veterans Home will also affect the level of employment in certain industries. There will be 160 jobs in the health and social services industry as these are the positions at the proposed new Veterans Home. The retail trade industry will experience the largest increase in employment (8 jobs) as a result of spending by the Veterans Home and its employees.

Table 8: Impact on Industry Employment in Study Area as a Result of the Operation of a Proposed Veterans Home in Montevideo, Minnesota

Industry	Direct	Indirect/Induced	Total
Ag, Forestry, Fishing and Hunting	0	0.3	0.3
Mining	0	0.0	0.0
Utilities	0	0.6	0.6
Construction	0	0.7	0.7
Manufacturing	0	1.2	1.2
Wholesale Trade	0	2.3	2.3
Retail Trade	0	7.7	7.7
Transportation and Warehousing	0	1.6	1.6
Information	0	0.8	0.8
Finance and Insurance	0	2.0	2.0
Real Estate and Rental	0	0.4	0.4
Professional - Scientific and Tech. Svcs.	0	3.3	3.3
Management of Companies	0	0.6	0.6
Administrative and Waste Services	0	5.7	5.7
Educational Services	0	0.4	0.4
Health and Social Services	160	5.5	165.5
Arts - Entertainment and Recreation	0	0.9	0.9
Accommodation and Food Services	0	5.4	5.4
Other Services	0	4.4	4.4
Government (Federal, State, and Local)	0	0.8	0.8
Total	160.0	44.6	204.6

Tourism

A strong argument can be made that the proposed Veterans Home will spur a third component of economic impact: tourism. People will most certainly come to the Montevideo Veterans Home to visit their relatives and friends. This impact is extremely difficult to quantify and does not fall into the scope of this report. However, it does merit some discussion. First, the reasons that tourism should and should not be included will be discussed. Second, this report will define the proper method for determining the economic impact of tourists.

As mentioned earlier, it is certain that individuals will come to the Veterans Home to visit friends and relatives. When these people are in Montevideo, they may choose to purchase gas and/or buy lunch. They may also stay in a hotel (if they traveled a distance) or they may choose to visit in the morning and recreate in the afternoon (a round of golf or an afternoon of hunting). This would constitute an economic boost from tourism.

However, this economic impact is only valid if two premises are upheld. First, the Veterans Home visitors must be traveling from some distance outside of the study area. People who live in Chippewa, Laq qui Parle, and Yellow Medicine counties and visit the Veterans Home will have no additional economic impact. Second, the visit must be the primary driver of the visitor's trip. The visitors have to be coming to Montevideo primarily to visit the Veterans Home. If they are in

town for a wedding and happen to stop by and visit an uncle or a cousin, then that visit's primary purpose was the wedding and the economic impact would be attributable to the wedding, not the Veterans Home.

These precise conditions make estimating the economic impact of tourists very complex. The most accurate way to determine the economic impact of visitors is to use a survey tool. Visitors to the facility could be asked a set of very simple questions to determine the following: the distance they are traveling, the reason for their trip, and how much they spent in the region as a result of the trip. This method would yield the most accurate estimate of tourism spending.

In conclusion, this study cannot determine what the total economic impact of visitors to the proposed Montevideo Veterans Home. There is likely some positive effect. In order to value that impact, a further study would need to be conducted.

Notes of Caution

Several notes of caution should be kept in mind when interpreting this report. First, the estimates for the cost of construction and operations are just that: *estimates*. The total economic impact is contingent on those estimates. If actual expenditures are lower than estimated, then the total economic impact of the home will also be lower than predicted. Input-output analysis makes the implicit assumption that the community is energetic and efficient at capturing the economic gains from a new activity. If the community is not efficient at capturing these gains, then additional leakages will occur and the economic impact will not be as high as predicted.

Second, any community that is home to a Veterans Home will experience positive economic gains. As the facility makes local expenditures, local output, employment, and labor income will increase. The rate of this increase may vary by community. In fact, it is the rate of increase that is unique to Montevideo.

Conclusions

Constructing and operating a new Veterans Home in the City of Montevideo will create new economic activity in the region. During the construction phase, economic activity in the study area will increase by \$6.3 million. This will cause an additional 63 jobs to be created in the study area to support the construction and the 139 workers at the site. In addition, over \$2 million of labor income will be infused into the economy while the facility is being constructed. These are short-term effects and will disappear when the construction is completed.

Once the facility is completed and operating, the region will see an additional increase in economic activity from expenditures related to day-to-day spending by the Veterans Home on goods, services, and labor. The Veterans Home itself will spend \$8.5 million per year. This will create an additional \$3.2 million of economic activity in the region. Therefore, total output in the study area of Chippewa, Lac qui Parle, and Yellow Medicine counties will increase by \$11.7 million annually. The Veterans Home will employ 160 individuals in the health and social services industry. As a result of the daily operations of the facility, an additional 44 jobs will be created in the study area. Total employment in the study area of Chippewa, Lac qui Parle, and Yellow Medicine counties will increase by 205 jobs as a result of the operation of the new Veterans Home. Labor income will also increase in the region. Income for labor related to the 160 jobs at the facility will be \$7.1 million in wages, salaries, and benefits. Spending by the Veterans Home and its employees will generate an additional 845,000 in labor income. Thus, in total, labor income in the counties of Chippewa, Lac qui Parle, and Yellow Medicine will increase by \$7.9 million annually as a result of the new Veterans Home.

Output in the studied region will increase by a total of \$11.7 million on an annual basis. Households in the region will clearly benefit the most from the proposed new Veterans Home. The operation of a nursing/personal care facility is labor intensive. The majority of the Veterans Home budget is payments to labor. Locally, households can expect an increase of \$7.1 million in income. Certain industries in the region will also receive significant benefits from the operation of the Veterans Home. The industries that will see the largest increase in output are: manufacturing, real estate and rental, and finance and insurance. The Veterans Home is in the health and social services industry. Traditionally, the health care industry has been relatively stable despite fluctuations in the economy. The health care industry is also more difficult to outsource. The study area's economy is primarily based on agriculture, manufacturing, and construction. A new business in the health and social services industry could add diversity to the economy.

Employment in the studied region will increase as well, by 205 jobs. The vast majority of these jobs will be in the health and social services industry as they are jobs at the Veterans Home. These jobs average \$44,000 per employee. The

additional 44 jobs created in the community will pay on average \$19,000 per job. According to IMPLAN, the average job in the study area pays \$33,000 per employee. The jobs created at the Veterans Home will also likely require some specific training. There will most likely be some low skill level jobs. However, the facility will also need some skilled and trained employees. This implies that either workers that already have the training will need to move into the area or individuals in the area will need to be trained to fill these positions.

Labor income will rise in the region by \$7.1 million. Households in the region will have additional dollars to spend. The results of their additional spending will affect service industries in the region. The retail trade industry will see an increase of nearly \$350,000 in additional output and the creation of 8 new jobs. While few new jobs will be created in goods-producing industries (such as agriculture, mining, construction, and manufacturing), new jobs will be created in many of the service-producing industries such as the administrative and waste services industry and the accommodation and food services industry. These industries are currently relatively minor sectors in the total economy of the study area. These jobs may require new training. They may also add to the diversity of the local economy.

To conclude, a new Veterans Home in the City of Montevideo will increase the annual output of the region studied by \$11.7 million annually and will increase employment by 205 jobs annually. The construction phase, expected to last about 15-18 months, will increase output in the region by \$6.3 million and will add 63 new jobs to the local economy while the construction takes place.