

THE ECONOMIC IMPACT OF BENEFIS HELENA

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**BUREAU OF BUSINESS AND
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Summary

Benefis Health System, a nonprofit independent health care system based in Great Falls, has an extensive economic and health care footprint in the north central region of Montana and beyond. It has recently moved ahead with plans to extend its physical presence to Helena with investments in urgent care, medical imaging, and outpatient surgical facilities. Those new investments, collectively referred to as Benefis Helena in this report, are expected to increase the health care capacity of Lewis and Clark County and the adjacent regions, especially regarding access to specialized care. They also will contribute to job growth, income growth, and population growth as a result.

This report summarizes an independent analysis of the economic impact of Benefis Helena to the Helena area economy that was conducted by the Bureau of Business and Economic Research at the University of Montana (BBER), on behalf of Benefis Health System (BHS). By comparing the status quo, no-investment economy to a projection of economic activity that results from the acquisition, construction, and operations of Benefis Helena, the analysis provides a measure of how key economic metrics respond to this expansion of health care capacity in the local economy.

Table 1 The Economic Impact of Benefis Helena: Summary

Category	Units	Impacts by Year		
		2022	2024	2030
Total Employment.....	Jobs	159	168	207
Personal Income.....	\$ Millions	7.7	11.3	16.1
Disposable Personal Income.....	\$ Millions	6.6	9.8	13.9
Output.....	\$ Millions	23.3	35.4	53.3
Population	People	50	108	230

Our basic finding is that the (i) renovation and creation of an Urgent Care center on the northeast side of Helena, (ii) the acquisition and investment in a medical diagnostic imaging facility, Benefis Imaging, and (iii) the construction and operation of a new, 64,000 square foot outpatient surgical center in the old mall location together would have a significant impact on the local economy. Specifically, we find that an economy that includes Benefis Helena would

- have more than 200 additional permanent, year-round jobs, both in health care and across the spectrum of economic activity;
- have \$16.1 million in additional, annual income receive by households each year the facilities remain in operation, of which \$13.9 million is after tax income available for spending in the local economy;
- result in \$53.3 million in annual output, defined as gross receipts of business and non-business organizations, and
- experience an addition to population of 230 people, consisting primarily of working aged adults and their children.

All of these impacts are in comparison to a no-investment, status quo economy in the year 2030, when all of the facilities would have been in full operation for a number of years, and when the considerable, but temporary, impacts of building and construction would no longer be present. They pertain to the Helena area where the facilities are located.

These impacts come about because of the new income flows, the new spending, and the new production that takes place in the local economy as a result of the expansion in health care. Using a policy analysis tool that recognizes that spending and production in one segment of the economy ultimately affect demand, employment and production elsewhere, we are able to estimate how the addition of Benefis Helena to the local economy brings economic activity across the entire spectrum of the economy to a new equilibrium, or resting point. The difference between this new level of activity to what could be expected without Benefis Helena, summarized in the table above, represents the economic impact of the expansion.

The analysis recognizes that additions to health care in any local economy are not purely additive, and that some revenue, employment and patient volume at Benefis Helena may come at the expense of reductions in services provided by other health care providers. All of the findings presented in this report are net of any displacements that Benefis Helena's operations might produce, and all impacts represent the gains in economic activity overall that its presence in the economy brings about.

About This Study

This study was produced by the Bureau of Business and Economic Research at the University of Montana for Benefis Health System. The principal author is Patrick M. Barkey, Ph.D. The study made use of data on actual and projected Benefis Helena operations made available to BBER by Benefis Health Systems. All conclusions of this study are those of BBER.

How These Results Were Produced

Economic impacts come about from new spending, investment, and production in a local economy, such as when Benefis Helena is established, constructed, and operated. As jobs are created in both the construction phase and the operations phase of a project such as Benefis Helena, the incomes of the workers and the vendor payments received by businesses are re-spent in the economy, supporting additional jobs and income. As this process continues, the ultimate rise in economic activity evolves to be larger and more diverse than the activity of the new facilities themselves.

The research proceeds in three steps:

- i.) describe and quantify all of the "direct" impacts of the project, including the jobs, spending, production, and sales associated with Benefis Helena itself;
- ii.) identify, if any, outcomes or ancillary developments ("indirect impacts") that have a connection to the operations of Benefis Helena but are not part of the facilities themselves. These might include, say, improved health outcomes for area residents.

- iii.) Present these measurements to an economic model that identifies and quantifies the linkages between spending and production elsewhere in the economy to trace how the direct and indirect impacts propagate across the rest of the economy.

BBER received from Benefis Health System detailed information on employment, compensation, spending, and patient volume for the three facilities that comprise what we refer to as Benefis Helena. We were able to faithfully represent the construction and operations of the health care expansion, as we report here.

We did not attempt to quantify the indirect effects of the operations of Benefis Helena, but they can be expected to be significant. Better health outcomes that result from better access to the specialized health care services Benefis Helena provides can be expected to improve quality of life, improve individual productivity and reduce time away from the job. Thus, their impacts would doubtless add to the overall impacts presented in this report.

The BBER makes use of a policy model that has been designed for this purpose and calibrated with national and local economic data. The REMI model leased by the BBER has been used in hundreds of similar studies, and has been reviewed extensively in peer-reviewed journals and published research. More information about the REMI model is included in the Appendix.

Benefis Helena

We use the term Benefis Helena to refer to three separate health care facilities in the greater Helena area that together represent an expansion of health care access to residents of the region. These facilities are different with respect to the nature of what they do, as well as in their timetables for startup and full operation. We have reflected these differences in timing and type of service in this analysis.

Benefis Urgent Care is 5,000 square foot facility offering urgent care services, including lab and X-ray, seven days a week. After renovations to the existing structure were completed, the facility came into operation in mid-2021. It employs 18 full-time staff with 6 additional medical personnel who provide specialized services.

Benefis Helena Imaging, formerly Helena Imaging, is an existing business that was acquired by Benefis Health System in 2021. The acquisition includes plans for new investment, renovation, and equipment. The business currently employs 15 staff with two additional personnel providing specialized services.

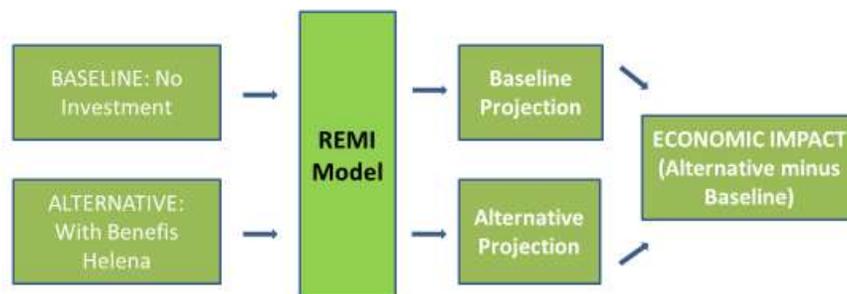
Groundbreaking for the 64,000 square foot Benefis Outpatient Surgery Center is projected for the spring of 2022, with construction completed in late 2023. When fully operational, the three-story facility will contain four operating rooms, as well as X-ray, laboratory, pharmacy and rooms for other related services. It will support at least eight full-time physician specialists in gastrointestinal, cardiology, oncology, and internal medicine care. It is expected to employ 70 full and part-time staff.

Research Design

The economic impact of Benefis Helena to the greater Helena region can be understood as the difference in economic activity in two different future scenarios. A status quo, no-investment scenario is a projection of the future where Benefis Helena is not present, and the investments and jobs are not added. The second scenario includes Benefis Helena. In the second scenario, the jobs, spending, production and sales attributable to Benefis Helena are added to the economy, and as that spending is received by Helena businesses, households and governments and, in part, re-spent in the local economy, the overall economy rises to a new equilibrium, or resting point.

This is shown graphically in Figure 1. The BBER's model is used to make both of these projections, using the data obtained on Benefis Helena construction and operations from BHS. The difference between the level of economic activity in these two projections – in terms of jobs, income, spending and other metrics – is the economic impact of Benefis Helena.

Figure 1 Research Design



The impacts can be further broken down into two parts, corresponding to the different phases of the individual projects. The construction phase is where the facilities are constructed or renovated, including equipment purchases and other improvements. The operations phase then commences, and is assumed to continue into the indefinite future.

The economic impacts reported here represent the summation of the impacts of the three separate pieces of Benefis Helena. Since they have different timings in terms of their construction (if any) and operations, it is useful to present these aggregate impacts for multiple years. To give a sense of the nature of the impacts without excessive detail, we show results for three years: 2022, 2024, and 2030. In 2022 the outpatient surgical center is assumed to be under construction, with 2024 the first year of its operation. Impacts for the year 2030 portray the impacts of things like population movements that take longer to respond.

Economic Impacts

The presence of Benefis Helena in the Helena region will make the local economy larger, more prosperous, and more populous. These changes are net of any crowding out of existing health care providers that may take place. As we reported in the summary section, by the year 2030 the economy of the Helena region will be larger by:

- 207 permanent, year-round jobs;
- \$16.1 million in annual personal income received by area households;
- \$53.3 million in gross receipts to Helena area business and non-business organizations, and
- 230 additional people, consisting overwhelmingly of working-age people and their children.

It is useful to consider these impacts in great detail, to gain a better understanding of the economic changes that the presence of Benefis Helena would ultimately support.

Employment Impacts

A closer look at the industry-specific job impacts of Benefis Helena reveals how the expansion of health care capacity of the region leads to higher levels of employment across a wide spectrum of industries. As shown in Table 2 , in year 2022 the job impacts on construction are the largest – this year and the next are assumed to be the construction phase for the \$42 million outpatient surgery center. As that part of Benefis Helena comes into full operation in later years, the health care jobs themselves rise in prominence.

Table 2 Employment Impacts

Industry	Impacts by Year		
	2022	2024	2030
Construction.....	94	9	11
Manufacturing.....	3	1	1
Retail Trade.....	14	16	18
Transportation and Warehousing.....	1	2	2
Professional and Technical Services.....	3	9	11
Administrative and Waste Services.....	3	11	15
Health Care and Social Assistance.....	14	67	69
Arts, Entertainment, and Recreation.....	1	3	3
Accommodation and Food Services.....	5	12	17
Other Services, except Public Administration.....	4	8	10
Other Private.....	7	11	14
Government.....	10	20	36
TOTAL.....	159	168	207

Also apparent from the Table are the job impacts on seemingly unrelated industries, including retail trade and government. These reflect the fact that an economy that includes Benefis Helena is a larger economy, with more spending and hence more employment across the full range of economic activity. The government jobs in particular reflect the increased demand for public services that comes from a rise in population, not the least of which is the increased demand for public schools.

Finally, it can be seen that health care job impacts are slightly smaller than the jobs at the Benefis Helena facilities themselves. This reflects the assumption that some job growth in health care that is embedded in the no-investment scenario is displaced by the addition of Benefis Helena to the economy.

Personal Income Impacts

The larger economy that results from Benefis Helena is evident from the detail on the increased annual income to area residents. There are two things of particular note in the detail on personal income impacts shown in Table 3.

The first is the increased size of the earnings and income impacts that occur in 2024 and beyond. These reflect the impact of the operations of the surgical center in particular, where very specialized surgical care is provided, and where much higher paying jobs are involved.

Table 3 Personal Income Impacts

Category	Impacts by Year		
	2022	2024	2030
Total Earnings by Place of Work.....	9.0	13.6	17.1
Total Wage and Salary Disbursements	5.7	10.3	13.1
Supplements to Wages and Salaries.....	1.3	2.5	3.5
Employer contributions for employee pension and insurance funds	0.9	1.7	2.4
Employer contributions for government social insurance	0.4	0.8	1.1
Proprietors' income with inventory valuation and capital consumption adjustments	2.0	0.8	0.5
Less:			
Contributions for government social insurance	1.0	1.8	2.4
Employee and self-employed contributions for government social insurance	0.5	1.0	1.2
Employer contributions for government social insurance	0.4	0.8	1.1
Plus:			
Adjustment for residence.....	(0.4)	(0.8)	(1.0)
Gross In.....	0.0	(0.0)	0.0
Gross Out.....	0.5	0.8	1.0
Equals:			
Net earnings by place of residence.....	7.6	10.9	13.8
Plus:			
Property Income.....	0.3	0.5	1.4
Dividends.....	0.1	0.2	0.5
Interest.....	0.1	0.2	0.7
Rent.....	0.1	0.1	0.3
Plus:			
Personal Current Transfer Receipts.....	(0.2)	(0.1)	0.9
Equals:			
Personal Income.....	7.7	11.3	16.1
Less:			
Personal Current Taxes.....	1.1	1.6	2.2
Equals:			
Disposable Personal Income.....	6.6	9.8	13.9

The second observation concerning income impacts comes from the detail on the smaller, but still significant, gains in property income that result from the presence of Benefis Helena. A more populous and prosperous economy has more dividends, rental income and other non-job related earnings, which are ultimately supported by the presence of the new health care capacity.

Output Impacts

Another way of communicating what the presence of Benefis Helena means to the Helena area economy is to consider the impacts from the point of view of area businesses. Area business and non-business organizations can expect to see gains in their gross sales, and the detail is given in Table 4.

The Table shows impacts of Benefis Helena on gross receipts by major industry, with one exception. For retail sales, mark up instead of gross receipts is shown. The Table clearly shows how in the years 2024 and 2030, when the surgical center is in operation, the majority of these output impacts come from health care itself – the net impact of Benefis Helena’s own revenues. For 2022 the construction industry sees the biggest impacts. This is the first year of the construction phase of the outpatient surgery center.

Table 4 Output Impacts

Industry	Impacts by Year		
	2022	2024	2030
Construction.....	13.6	1.5	1.8
Manufacturing.....	0.8	0.4	0.4
Mining.....	0.0	0.0	0.0
Retail Trade.....	1.1	1.4	1.9
Transportation and Warehousing.....	0.2	0.1	0.1
Professional and Technical Services.....	0.4	1.3	1.8
Administrative and Waste Services.....	0.2	0.9	1.4
Health Care and Social Assistance.....	2.5	21.6	33.7
Arts, Entertainment, and Recreation.....	0.1	0.1	0.2
Accommodation and Food Services.....	0.3	0.7	1.1
Other Services, except Public Administration.....	0.3	0.6	0.8
Other Private.....	2.6	4.3	5.7
Government.....	1.2	2.4	4.6
TOTAL.....	23.3	35.4	53.3

But as was the case with the employment impacts, there is considerable gains to output to businesses in industries other than health care. This shows how the spending from Benefis Helena itself, as well as the spending that is ultimately induced throughout the economy as the money is re-spent, finds its way into the balance sheets of companies across the economy.

Wages, Compensation, and Earnings Impacts

A closer examination of how the presence of Benefis Helena increases the job-related income flows in the local economy reveals useful information about the kinds of jobs the health care expansion ultimately supports. Wages and salaries paid in the area economy are \$13.1 million higher in year 2030 because of Benefis Helena, as shown in Table 5. When the cash value of employer-provided benefits are added to obtain total compensation, this grows to \$16.6 million. Finally, when employer-owner income is added to compensation, the total annual earning impact is \$17.1 million.

Table 5 Wage, Compensation and Earnings Impacts

Category	Units	Impacts by Year		
		2022	2024	2030
Wages and Salaries.....	\$ Millions	5.7	10.3	13.1
Compensation.....	\$ Millions	7.0	12.9	16.6
Earnings.....	\$ Millions	9.0	13.6	17.1
Earnings per Job, New Jobs.....	\$ Dollars	\$56,384	\$81,123	\$82,837

All of these increase significantly in the last two years shown in the Table as the surgical center operations and its higher paying jobs are included in the impact totals. The high proportion of high-paying jobs that are supported by the presence of Benefis Helena is also apparent from the Table. The 207 additional jobs that exist in the Helena area economy in a future that contains Benefis Helena produce additional earnings of \$82,837 per job, a figure that is well in excess of the \$51,177 average of all jobs in the area.

Population Impacts

Finally, we note that the economic opportunity -- that comes with the new jobs created directly and indirectly with the addition of Benefis Helena to the economy -- also attracts people. These include both people migrating from other regions, as well as the retention of those who may have migrated elsewhere in the baseline, no-investment scenario.

Table 6 Population Impacts

Age Cohort	Impacts by Year		
	2022	2024	2030
Ages 0-14.....	12	27	62
Ages 15-24.....	11	20	30
Ages 25-64.....	27	60	133
Ages 65+.....	0	1	5
Total.....	50	108	230

These population impacts take longer to show up in the local economy, but their impacts can be profound. As can be seen from Table 6, the increase in population grows significantly over time. This provides another avenue for economic impacts as the demographics of in-migration work through the economy over time.

Conclusion

This study has examined how the expansion of healthcare access that is produced by the construction and operation of the Benefis Helena investments interact with the local economy to grow the economic pie in the region. Using a peer-reviewed, widely respected economic model that has been specifically constructed for this purpose, we are able to compare two scenarios for the Helena area economy – one with, and one without, the Benefis Helena investments. Comparing the two reveals sizable economic impacts in terms of jobs, income, sales and population in the local economy that are due to those investments.

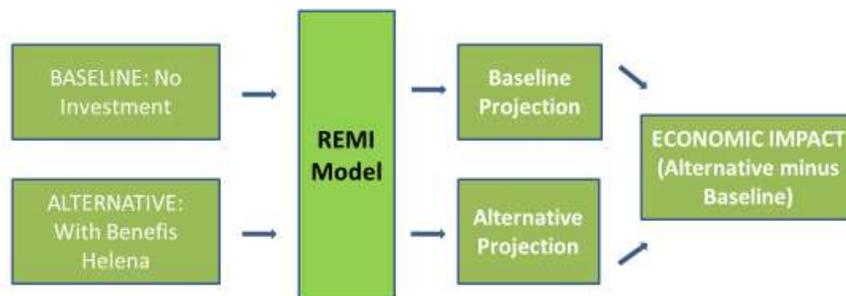
Appendix: The REMI Model

Regional economic impacts occur because of events or activities that create new expenditures within a region. “New spending” constitutes spending that is over and above existing expenditures, and which does not displace other spending elsewhere in the region. It not only adds to economic activity in its own right, but also induces further spending when the recipients of wages, sales, and tax revenues spend portions of their income in the local economy. Changes in the paths of investment, migration, prices, and wages are also possible.

This study utilized an economic model, calibrated to represent the interactions specific to the Montana economy, to estimate the economic impacts resulting from spending associated with Benefis Helena. Leased from Regional Economic Models, Inc., the REMI model is one of the best known and most respected analytical tools in the policy analysis arena, and has been used in more than 100 previous studies as well as in dozens of peer-reviewed articles in scholarly journals. It is a state-of-the-art econometric forecasting model that incorporates dynamic feedbacks between economic and demographic variables. The REMI model forecasts employment, income, expenditures, and populations for counties and regions based on a model containing over 100 stochastic and dynamic relationships, as well as a number of identities. A full explanation of the design and operation of the model can be found in Treyz (Treyz, 1993).

The REMI Modeling Methodology

The basic approach of using the REMI model to produce the results for this study is illustrated in , below. The analysis starts with a baseline projection for the Montana economy, using the status quo assumptions that do not include Benefis Helena. Next, the analysis employed the REMI model a second time, simulating an alternative scenario where the facilities are constructed and operated according to a scale and timetable envisioned by its investors.

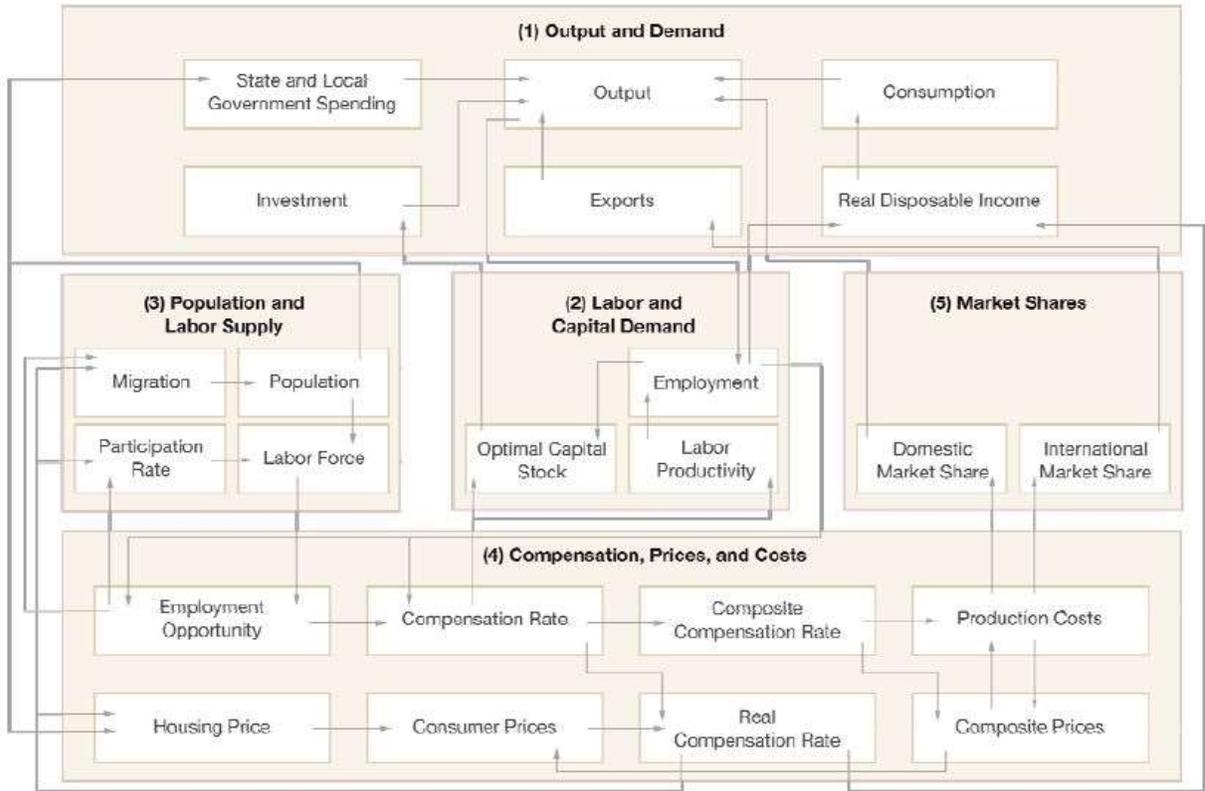


The difference between the baseline scenario and the Benefis Helena scenario constitutes the magnitude of the impact of the health care expansion on the local economy.

The REMI model utilizes historical data on production, prices, trade flows, migration, and technological advances to calibrate the relationship between five basic blocks of the state economy: 1) Output and

Demand; 2) Labor and Capital Demand; 3) Population and Labor Supply; 4) Compensation, Prices and Costs; and 5) Market Shares. These linkages are shown the Figure below.

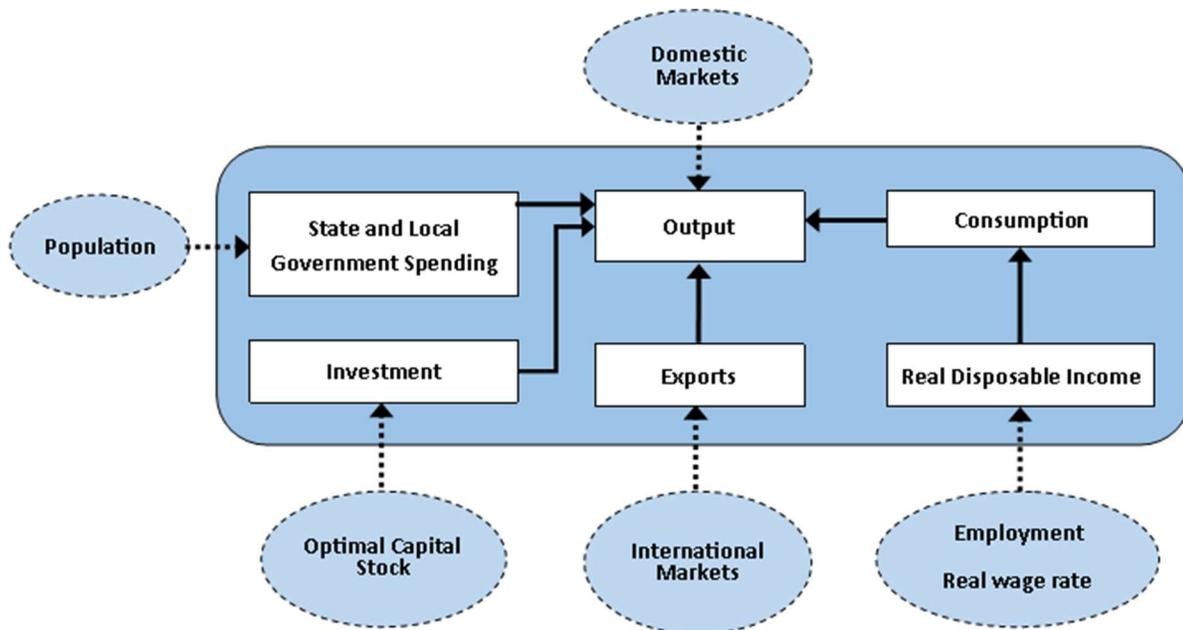
Schematic Model of REMI Linkages



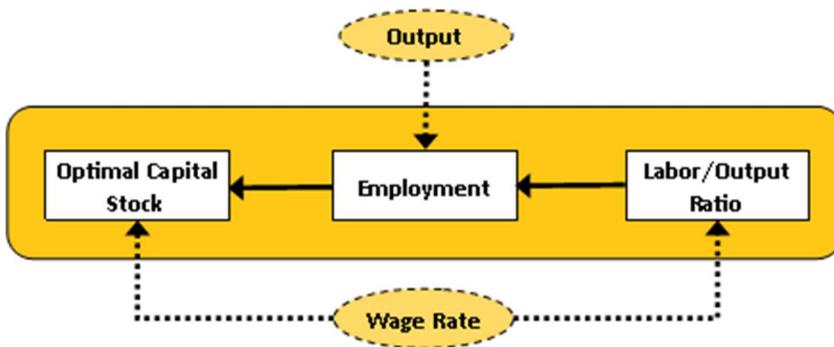
The differences in production, labor demand, and intermediate demand associated with the presence of Benefis Helena impact these blocks, causing them to react to the changes and adjust to a new equilibrium. This new equilibrium constitutes the alternative scenario referred to above—the new “resting point” for an economy with Benefis Helena in operation.

The underlying philosophy of the REMI model is that regions throughout the country compete for investment, jobs, and people. When events occur in one region, they set off a chain reaction of events across the country that causes dollars to flow toward better investment and production opportunities, followed over time by workers and households toward better employment opportunities and higher wages. The REMI model consists of an 82-sector input/output matrix that models the technological inter-dependence of production sectors of the economy, as well as extensive trade and capital flow data. Together, these components enable the estimates of the shares of each sector’s demand that can be met by local production. Simplified illustrations of the schematic model are provided below.

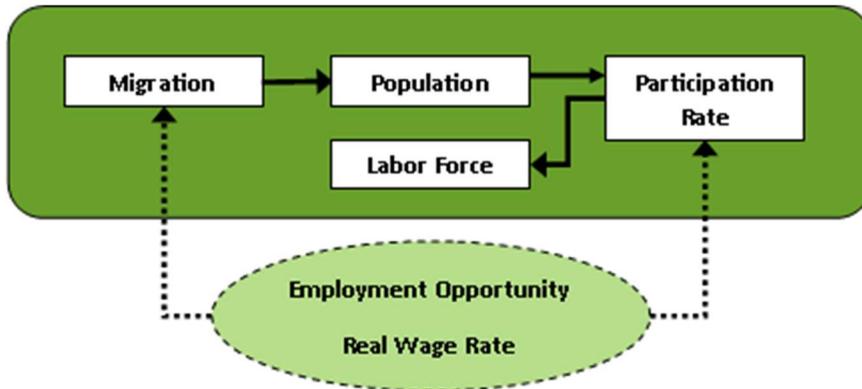
Output Linkages



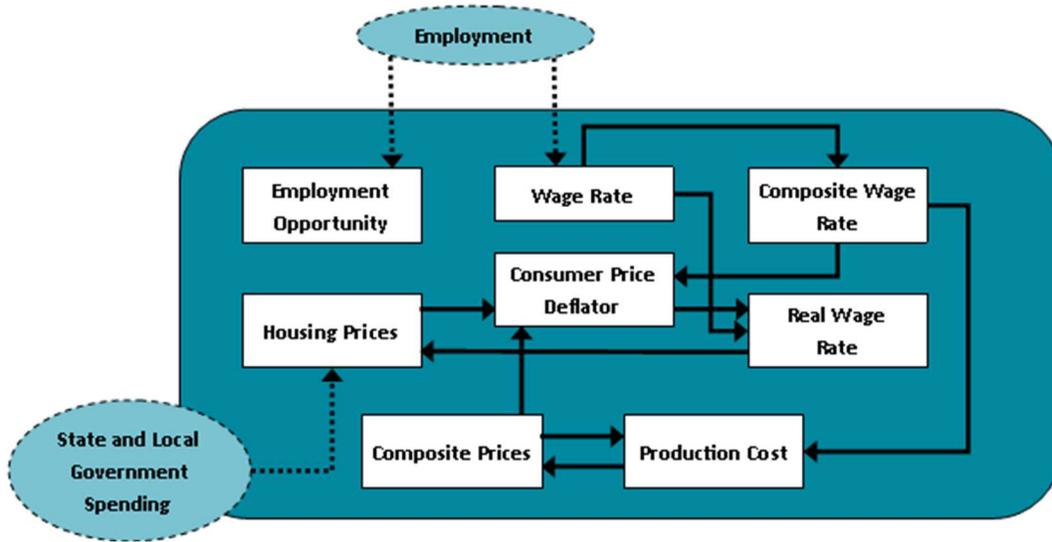
Labor and Capital Demand Linkages



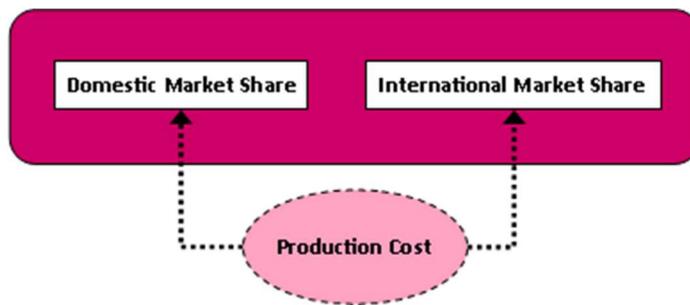
Demographic Linkages



Wages, Prices and Production Costs Linkages



Market Share Linkages



As powerful and flexible as this tool is, the output it provides is only as good as the inputs provided. The majority of the work for this study was to carefully craft the inputs used to construct a scenario for the economy that faithfully represents all of the events, income flows, and the direct and indirect impacts that would occur with the addition of Benefis Helena to the economy.