

2-16-2021

An Economic Impact Study prepared for Michigan State University

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Glupker, Christian; Isely, Paul; and Grand Valley State University, "An Economic Impact Study prepared for Michigan State University" (2021). *Other Faculty Publications*. 8.
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FOR CONFIDENTIALITY REASONS, PORTIONS OF
THE REPORT WERE REDACTED.

Secchia Center

Grand Rapids Research Center

Doug Meijer Medical Innovation Building

Liner Building (Perrigo Headquarters)

An Economic Impact Study prepared for Michigan State University

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February 16, 2021

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EXECUTIVE SUMMARY

Scope of work

Michigan State University's investment and growth in Grand Rapids brings economic opportunity, scientific innovation, and business synergy to the Medical Mile in downtown Grand Rapids, Michigan.

Launched through the vision of Grand Action more than ten years ago and authorized through the MSU Board of Trustees, the economic impact of the presence of the initial Michigan State University College of Human Medicine is now amplified by subsequent buildings. The MSU presence along the Medical Mile in Grand Rapids expands medical education, scientific research and innovation. It supports pioneering innovators and researchers and strengthens the operations of regional partners including Van Andel Institute and Spectrum Health.

The late MSU Alumnus Ambassador Peter F. Secchia provided the financial investment that served as the lead gift for the Michigan State University expansion to Grand Rapids, now named the Secchia Center (opened in 2010). In the decade since, MSU added the Grand Rapids Research Center (GRRC). In the Fall of 2021, the Doug Meijer Medical Innovation Building (DMMIB) will open. Construction on a fourth building, slated to be North American Corporate Headquarters of Perrigo Company plc, begins in March 2021.

This report outlines the economic impact generated by the Secchia Center, the Grand Rapids Research Center, the Doug Meijer Medical Innovation Building and the liner building, four buildings that comprise the Michigan State University Grand Rapids presence on the Medical Mile.

Summary of Economic Impact

- When completed, the construction activity related to all four buildings will have added \$352 million in economic activity to Kent County in just over 12 years.
 - Construction of the DMMIB would add \$95 million in economic activity, support 473 jobs, and increase earnings by \$24 million.
 - The construction of Building 4 will complement the DMMIB through \$35 million in economic activity, supporting 178 jobs, and increasing earnings by \$9.1 million.
- When completed, the annual direct economic activity related to the four buildings anchored by the Secchia Center is estimated to be \$203 million with an economic impact of \$339 million, support of 2,017 jobs, and an increase in earnings of \$142 million.
 - When operating at capacity, the DMMIB will add 955 jobs in the Kent County area. Economic activity will increase by \$168 million and earnings will increase by \$57 million.
 - The economic impact of operations for Building 4 is estimated at \$122 million in economic activity, \$41 million increase in earnings, and will support 694 local jobs.
 - The GRRC and Secchia Center generate annual economic activity of \$50 million, supporting 368 jobs, and increasing earnings by \$43 million.
- MSU reports that the research being done at the Secchia Center and GRRC has already generated \$131 million in outside funding, NIH grants, and other federal funding. The success of this funding is already showing an effect on other research facilities in Grand Rapids. It is estimated that the Van Andel Institute success with NIH grants was improved by as much as \$1.8 million annually because of the existence of complementary research facilities at the Secchia Center and GRRC.
- MSU reports that at this point the Doug Meijer Medical Innovation Building, acting as an incubator, already has met the 75% threshold for tenants. New firms fail less often when they have the support of an incubator. The result will be roughly 105-185 jobs that will exist in firms that do not go out of business because of the support of the incubator 5 years from now.
- There are additional unmeasured benefits from the network externalities that now exist between MSU, Spectrum Health, and the Van Andel Institute. The most cited benefit is an improved ability to hire top talent because of the research ecosystem.

Methodology

This report focuses on the economic impact of the Doug Meijer Medical Innovation Building, the proposed Building 4, Grand Rapids Research Center, and the Secchia Center. Economic impact is the amount of economic activity that these facilities generate within a defined region. The report includes economic activity pertaining to these facilities. Displacement spending is excluded.

The economic impact is estimated using the Regional Input-Output Modeling System (RIMS II). This modeling system uses multipliers developed by the U.S. Department of Commerce Bureau of Economic Analysis.¹ These multipliers provide a way to measure the complete economic impact that the initial change in demand has on the local economy. These secondary effects come in two forms:

Indirect Effects Increase in sales by businesses that are suppliers to restaurants, hotels, retail stores, etc.

Induced Effects: Increased economic activity by individuals in the area who received extra income due to the increase in direct spending.

The RIMS II multipliers report economic impact in three ways:

Gross Output Gross output is the total economic activity, including the sum of intermediate inputs and the value they add to the final good or service. The intermediate inputs are the resources used in the production of final goods and services. It should be noted that gross output can be overstated if the intermediate inputs are used multiple times in the production of other goods and services.

Earnings Earnings measures the increases in wages, salaries and proprietors' income as a result of the initial change in demand. This can also be stated as an increase in household income for every \$1 change in demand.

Employment Employment is the increase in jobs (full-time and part-time) for every \$1 million change in demand. This measurement does not distinguish between a full-time or part-time employee. It also does

¹ Please note that the BEA does not endorse any estimates or conclusions concerning the study presented here.

not account for employees who moved from one job to another within the defined economic region. Thus it does have a tendency to overstate the number of jobs created.

The RIMS multipliers calculate economic impact in 2018 dollars. All figures were adjusted to 2020 dollars.

This report relied on information provided by MSU. For specific methodology, see Appendix.

ECONOMIC EFFECTS

This section will estimate the economic impact of the Secchia Center, the Grand Rapids Research Center, the Doug Meijer Medical Innovation Building, and the proposed building 4. The estimated impacts will be based on construction and operations.

Economic Impact of Construction

The Secchia Center is a 180,000 square foot building that serves as the headquarters for the Michigan State University College of Human Medicine. At a cost of \$90 million, the Secchia Center opened in September 2010.

The GRRC is a six-story, 162,800 square foot facility that opened in Fall 2017. The facility currently houses 33 research teams and has received over \$133 million in research funding.

The DMMIB will be a 205,500-square-foot building located next to the GRRC. Total construction costs are estimated at \$85 million, with 72% of the total cost being spent within Kent County.² Construction started in late 2019 and will be completed in late 2021.

² Data provided by the contractor

The construction of Building 4 will start in March 2021 and is expected to be completed in March 2022. The building will be approximately 130,000 square feet. Perrigo Company has signed a lease for 63,550 square feet of the building for their corporate headquarters. Perrigo will bring 170 new jobs to Kent County.

The construction of all four buildings totals \$295.1 million and will generate \$352 million in economic activity. Table 1 below summarizes the economic impact for each building.³

Table 1: Economic impact of construction

Building	Secchia Center	GRRC	DMMIB	Building 4	Total ⁴
Open Date	Q3 2010	Q4 2017	Q4 2021	Q1 2022	
Construction costs	\$90M	\$88.1M	\$85M	\$32M	\$295M
Output	\$118M	\$105M	\$95M	\$35M	\$352M
Earnings	\$30M	\$27M	\$24M	\$9M	\$90M
Jobs	850	490	473	178	

Economic Impact of Operations

The Secchia Center is a 180,000 square foot building that serves as the headquarters for the Michigan State University College of Human Medicine. The GRRC is a six-story, 162,800 square foot facility that currently houses 33 research teams and has received over \$133M in research funding. These two facilities have 212 employees with an approximate operational budget of \$30 million.⁵

The DMMIB will open Fall 2021 with operations gradually ramping up to capacity by FY 2022. The University and development team are currently negotiating with five corporate tenants. The DMMIB is projected to house between 500 and 600 new employees.

³ See [Appendix A-1: Economic Impact of Construction](#) for complete methodology. Construction costs are reported in dollars for the year they were built. Output, earnings, and jobs are reported in 2020 dollars.

⁴ The economic impact occurs during each building's construction phase. The total impact represents past economic activity (Secchia and GRRC) and future economic activity (DMMIB and building 4).

⁵ Data provided by MSU

The construction of Building 4 will start in March 2021 and is expected to be completed in March 2022. Perrigo Company has signed a lease for 63,550 square feet of the building for their corporate headquarters. Perrigo will bring 170 new jobs to Kent County. The 4th building is projected to house 400 total employees.

RIMS multipliers were used to estimate operational spending for DMMIB and the 4th building.

Based on the data provided and the estimates made, direct economic activity is estimated to increase gross sales (output) in Kent County by \$339 million and increase local earnings by \$142 million. The operational spending will support 2,017 local jobs. Table 2 provides these figures.

Table 2: Estimated Annual Economic Impact of Operational Spending

Building	Secchia Center and GRRC	DMMIB	Building 4	Total
Direct economic activity ⁶	\$31M	\$103M	\$75M	\$209M
Output	\$50M	\$168M	\$122M	\$339M
Earnings	\$43M	\$57M	\$41M	\$142M
Jobs	368	955	694	2,017

CATALYTIC EFFECT

Confidential information redacted from public report

Another effect of the Grand Rapids Research Center is that it becomes an asset to the research ecosystem in the West Michigan region. It complements research efforts being done by the Van Andel Institute (VAI) and Spectrum Health. As a result, it is easier to hire better researchers because they know there will be collaborative opportunities; grant applications will be more effective with high quality partners; and research spinoffs will

⁶ See [Appendix A-2: Economic Impact of Operational Spending](#) for methodology. All figures are reported in 2020 dollars.

start to generate new businesses by taking advantage of the innovation occurring. These effects are not looked for in a traditional economic impact study.

It is too early to attribute new businesses as the MSU research presence is relatively new. It is also hard to give an exact value in recruiting beyond seeing that MSU, Spectrum Health, and VAI believe that the existence of the current research ecosystem and the potential for growth within the system helps them attract better hires. However, the existence of MSU researchers in Grand Rapids is already showing a substantial effect on the ability of their counterparts to be successful in NIH grants.

INCUBATOR EFFECT

The third building in the MSU research complex, the DMMIB, contains incubator space. Recent research on business incubators⁷ provides some insights into how the DMMIB will help firms grow. Effectively the 5-year survival rate firms increases from 51% to 70-86% on average in an incubator. In this case, given that MSU reports they expect approximately 550 jobs associated with firms that are tenants in the DMMIB, this improved survival rate would result in 105-185 more jobs that survive 5 years compared to the expected outcome without the assistance of the DMMIB.

CONCLUSION

As a result of the research complex that began with the Secchia Center, there has been a **significant** economic effect the surrounding community. Building on the nearly \$300 million spent on new construction, the research will soon directly support more than 1,100 jobs which will then support another 900 jobs across the community. The scientific innovation underway is also elevating the stature research being done across the Medical Mile, leading to better chances at getting grants and recruiting top researchers not only for MSU, but also for the other research centers in Grand Rapids.

⁷ Stokan E., Thompson L., Mahu RJ. Testing the Differential Effect of Business Incubators on Firm Growth. *Economic Development Quarterly*. 2015;29(4):317-327. doi:10.1177/0891242415597065

APPENDIX

A-1: Economic Impact of Construction

All construction costs were provided by MSU. It is assumed 72% of the total cost is being spent within Kent County.⁸ We also assumed that 90% of the construction is new. Table A-1 below breaks down the net construction costs. The net construction costs were used to calculate the economic impact from construction [Table 1](#) in the main report.

Table A-1: Construction Costs

Building	Secchia Center	GRRC	DMMIB	Building 4
Open Date	Sept 2010	Fall 2017	Q4 2021	Q1 2022
Construction Costs	\$90M	\$88.1M	\$85M	\$32M
Percentage spent locally	72%	72%	72%	72%
Construction costs spent locally	\$64.8M	\$63.4M	\$61.2M	\$23M
Percentage considered 'new'	90%	90%	90%	90%
Net construction costs	\$58.3M	\$57.1M	\$55.1M	\$20.7M
Net construction costs (2018 dollars)	\$67.2M	\$59.7M	\$54.1M	\$20M
RIMS Multipliers				
Output	1.6986	1.6986	1.6986	1.6986
Earnings	.4365	.4365	.4365	.4365
Jobs	8.5847	8.5847	8.5847	8.5847
Economic Impact (2018 dollars)				
Output	\$114.1M	\$101.5M	\$91.9M	\$34.2M
Earnings	\$29.3M	\$26.1M	\$23.6M	\$8.8M
Jobs	850	490	473	178
Economic Impact (2020 dollars)				
Output	\$117.6M	\$104.6	\$94.7MM	\$35.2M
Earnings	\$30.2M	\$26.9M	\$24.3M	\$9.1M
Jobs	850	490	473	178

⁸ Data provided by contractor for DMMIB. The percentage was used for all buildings.

A-2: Economic Impact of Operational Spending

The following table outlines the methodology for estimating the operational spending for all four buildings. The calculations were done using the RIMS II multipliers.

Secchia Center and Grand Rapids Research Center

MSU provided operational expenses million and total salaries million, however these salaries did not include fringe. Therefore, fringe was estimated using data from MSU financial statements FYE 6/30/2019. Table A2-1 details these figures. Table A2-2 combines salaries and other operational spending to arrive at the total direct economic activity.

Table A2-1 Employee salaries

Total number of employees in Grand Rapids ⁹	212
Fringe costs per employee ¹⁰	\$15,480
Total fringe costs	\$3,281,760
Total salaries in Grand Rapids ¹¹	\$18,391,459
Total salaries including fringe	\$21,673,219

Table A2-2: Total direct economic activity

Total salaries including fringe	\$21,673,219
FY2020 Operational equipment spending ¹²	\$8,600,000
Total direct economic activity ¹³	\$30,273,219

⁹ Provided by MSU

¹⁰ http://www.ctr.msu.edu/download/fa/SIFringeChargeMemo20_21.pdf

¹¹ Provided by MSU

¹² Provided by MSU

¹³ This is the direct economic activity figure for [Table 2](#) in the main report.

Douglas Meijer Medical Innovation Building

No operational data was provided for the DMMIB, however MSU did estimate there would be 500-600 jobs. For the purpose of this analysis, we used 550 jobs. The RIMS II direct employment multiplier was used to estimate the total number of jobs within the industry, within Kent County. The RIMS II jobs multiplier was used to estimate the direct economic activity of the DMMIB. These calculations are presented in Table A2-3.

Table A2-3: Estimated direct economic activity

Projected number of jobs	550
RIMS Direct Employment Multiplier	1.736
Total jobs in Kent County	955
RIMS Jobs Multiplier	9.5287
Estimated direct economic activity (2018 dollars) ¹⁴	\$100,202,546

Building 4

No operational data was provided for Building 4, however MSU did estimate there would be 400 jobs. We used the same approach as the DMMIB (Table A2-3) to estimate direct economic activity. These calculations are shown in Table A2-4.

Table A2-4: Estimated direct economic activity

Projected number of jobs ¹⁵	400
RIMS Direct Employment Multiplier	1.736
Total jobs in Kent County	955
RIMS Jobs Multiplier	9.5287
Estimated direct economic activity (2018 dollars) ¹⁶	\$72,874,579

¹⁴ This is the direct economic activity figure for [Table 2](#) in the main report (adjusted to 2020 dollars)

¹⁵ Provided by MSU

¹⁶ This is the direct economic activity figure for [Table 2](#) in the main report (adjusted to 2020 dollars)

