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Economic Impact of Grand Valley State University: Final Report

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Final Report

**Economic Impact of
Grand Valley State University**

March 19, 2007

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Brad R. Watts**

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Final Report

Economic Impact of Grand Valley State University

March 21, 2007

Executive Summary

This report provides an economic impact assessment of Grand Valley State University (GVSU) on the greater Grand Rapids-Muskegon-Holland region.¹ Following are the report's major findings.

In total, GVSU and its students generate \$524 million in total sales in the region. This is the total amount of goods and services sold in the region due solely to the existence of Grand Valley State University. Included in this figure are the local purchases made by the University's faculty, staff, and students, and the University's purchases of goods and services from local suppliers and vendors.

Many of the goods purchased in the region are manufactured elsewhere, however. Most retail items are shipped into the area from China and other foreign countries. Taking the cost of these goods out of the equation, the impact of the University's presence on locally produced goods and services is \$316 million. This is the University's impact on region's Regional Domestic Product (RDP), which is comparable to the nation's Gross Domestic Product. This figure includes the mark-up at local retailers, doctor's and dentist's fees, and all other expenditures that go to local producers (minus the cost of goods shipped from outside the region).

In addition to sales, regional economic impacts are also measured in terms of jobs and income. The University through the direct purchases of goods and services, and the consumer expenditures of its staff, faculty, and students create a total of 8,955 jobs in the region. Finally, the region's personal income is increased by \$232 million due to the presence of the University.

The University's direct economic impact on the region is substantial:

- Within the Grand Rapids-Muskegon-Holland region, GVSU provides wages and salaries totaling \$151.1 million to 2,754 faculty and staff members and 2,768 part-time student workers.

¹The Grand Rapids-Muskegon-Holland region includes Barry, Ionia, Kent, Muskegon, Newaygo, and Ottawa Counties. It is comprised of the following three metro areas: Grand Rapids-Wyoming (Kent, Barry, Ionia, and Newaygo Counties), Holland-Grand Haven (Ottawa County) and Muskegon-Norton Shores (Muskegon County).

- The University's 23,295 students spend approximately \$136.7 million locally on supplies, textbooks, food, entertainment, and off-campus housing.

The economic impact of the University can be broken down into two separate components: the impact of the direct expenditures in the region made by the University itself including its faculty and staff and the impact on the region of its students' expenditures.

- During the 2006-2007 academic year, GVSU was solely responsible for the generation of 3,433 jobs in the region's business community. These jobs are generated by the University buying local services and goods, and the consumption expenditures of its staff, faculty, and students.
- We estimate that direct expenditures of GVSU and its faculty and staff generate 2,284 jobs in the region's private sector. In addition its students generate another 1,150 jobs in the region's business community through their consumer expenditures.

Summary Table
Total Economic Impact of GVSU
All Operations, Employment, and Expenditures

	Total	Holland-Grand Haven	Grand Rapids-Wyoming	Muskegon-Norton Shore
Value of Output Generated in the Region (\$mill)	\$524.0	\$290.5	\$210.0	\$23.4
Increase in the Gross Regional Product (\$mill)	\$315.9	\$174.5	\$126.6	\$14.9
Personal income impact (\$mill)	\$232.3	\$109.4	\$99.7	\$23.2
Employment Impact	8,955	5,321	3,228	406
GVSU	5,522	3,663	1,748	110
New Jobs in the Region's Business Community:	3,433	1,658	1,480	296
GVSU's direct expenditures and the expenditures of its staff and faculty	2,284	1,039	1,048	197
From Student Expenditures	1,150	619	432	99

Economic Impact of Grand Valley State University

George Erickcek
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W.E. Upjohn Institute for Employment Research
March 19, 2007

Introduction

The presence of Grand Valley State University (GVSU) impacts the greater Grand Rapids-Muskegon-Holland region² in numerous ways. Its two main campuses in Allendale and downtown Grand Rapids, along with regional centers³ in Holland and Muskegon, employ thousands of workers, spend millions of dollars on local vendors and service providers, and attract students from around the world. Although this report attempts only to quantify the economic impact of GVSU on the regional economy, it is important to acknowledge that the true benefit is much larger. Beyond its economic impact, the University brings cultural activities into the area, attracts young adults, provides career training, and improves knowledge and perspective in ways that are difficult to measure.

The economic impact of GVSU on the greater Grand Rapids region can be best measured by its effect on the region's employment and personal income in the following three ways.

- Direct purchases by the University from local vendors.
- Local expenditures on goods and services by the University's faculty and staff.
- Local expenditures made by students attracted into or retained in the area for the primary purpose of attending GVSU.

Although it may be argued that additional forms of economic impact could be attributed to the University—such as the wage differential of students who obtain higher-paying jobs due to their college degrees—we prefer to take a conservative approach and exclude these indirect expenses, since individuals can easily migrate outside the area for educational and employment opportunities.

Although it is true that most current GVSU students would not be in the region if the University did not exist, it is not fair to say that jobs in the community currently held by GVSU alumni would not have been filled by individuals from other colleges and universities. In other words, although a college degree undoubtedly increases one's earnings, thus impacting income levels and business output, this effect is not limited to the presence of one college or university.

² The terms "region" and "greater Grand Rapids-Holland-Muskegon" refer to an area composed of the three metro areas of Grand Rapids-Wyoming (Barry, Ionia, Kent and Newaygo Counties), Holland-Grand Haven (Ottawa County) and Muskegon (Muskegon County).

³ This report excludes activities at the Traverse City regional campus.

Generally speaking, both the population of degree-seeking students and the college-educated workforce are relatively mobile. It is realistic to believe that area residents would leave the area to obtain a college degree and that qualified job applicants would be drawn to the Grand Rapids region for employment in positions requiring a college degree. Without GVSU, talented students from the region would still attend college, only somewhere else, and local jobs requiring college-educated workers would still be filled; however, the impact of the educational process would not be felt locally.

Direct Economic Impact Activity Summary

According to information provided by GVSU, within the Grand Rapids region the University employs 2,754 faculty and staff members and provides part-time jobs to 2,768 student workers during the current 2006-2007 school year, earning gross wages of \$151.1 million. During the same period, University expenditures on products and services will total more than \$125 million. Based on the sample of vendors with contracts of \$175,000 or more, 65 percent will go to vendors and service providers located within the greater Grand Rapids-Holland-Muskegon region. Additionally, we estimate that 23,295 GVSU students spend approximately \$136.7 million locally on supplies, textbooks, food, entertainment, and off-campus housing.

Table 1
GVSU Summary of Activities Resulting in Regional Economic Impact

<u>University Employment</u>	
Total Direct Employment	5,522
Faculty and staff	2,754
Part-time student workers	2,768
Total Salary and Wage Payments (\$ millions)	\$151.1
Faculty and staff	\$143.6
Part-time student workers	\$7.5
<u>University Expenditures</u>	
Expenditures by the university for supplies/materials	\$125.3
Expenditures on Goods and Services from Vendors -- contracts of	\$52.0
Spent with local vendors or service businesses	\$33.8
Computers, office suppliers, furniture	\$2.7
Medical care & services, insurance	\$2.0
Other nondurables (e.g. printing)	\$1.0
Contract food service vending (Aramark)	\$9.8
Other services (e.g. catering, consulting services)	\$10.6
Repair and construction services	\$7.6
<u>Presence of Students in Region to Attend GVSU</u>	
Total Student Enrollment	23,295
Living on-campus in Allendale	5,020
Living on-campus downtown GR	332
Living off-campus	17,943
Student Expenditures (\$ millions)	\$136.7
Supplies and textbooks (all students)	\$21.0
Entertainment, personal, misc. (full-time students)	\$32.3
Housing and food (off campus full-time students only)	\$83.4

Activity data used for impact estimation are based on information provided by GVSU.

Methodology

The complete economic impact of GVSU consists of both the direct impact—the employment, income, and wages tied to University employment, regional University expenditures, and student spending—and the indirect impact or “spin-off effects” resulting from dollars spent in the community by employees and businesses that receive money from the University. The indirect impact captures the numerous “rounds” a dollar makes in the region before it leaves through the purchases of goods and services from outside the region. For instance, it captures the impact of the University’s vendors, as well as businesses that benefit from employee expenditures. In short, this indirect effect captures the total level of income and employment generated by the activities of the organization.

Of course, measuring this is a challenge, since the indirect impact that results from circulating money is highly dependent on the industry linkages and size of the regional economy. In other words, economic impact is a highly unique concept; as such, there is no such thing as a standard multiplier or impact effect.

To be able to estimate the impact of the University on the regional economy, we used an economic model of the greater Grand Rapids area that was built by Regional Economic Models, Inc. (REMI) specifically for the Upjohn Institute. The REMI model was used to generate two separate forecasts: a baseline forecast of the greater Grand Rapids area, which includes GVSU, and an alternative forecast which excludes the University. The difference between the two forecasts is the economic impact of the University on the region.

The model and its more than 5,000 equations can be thought to contain four interlinked components.

- A regional input-output model which captures the impact of local purchases made by area businesses and consumers. This is a common component to most economic models.
- A general equilibrium model which estimates the change in regional prices and demand for labor due to changes in local purchases. This is a highly unique feature of REMI.
- An interregional competitiveness model which estimates the change in the region’s national competitiveness due to its changes in its economy.
- A forecasting model.

Economic Impact

For purposes of clarity, the economic impact of GVSU is summarized in two parts. The first is the impact generated by University operations, which includes direct purchases of goods and services from regional suppliers and the impact of consumer purchases made by its faculty and staff. The second part of total impact is generated by the spending activities of students who are in the region primarily to obtain a college education. Combined, these two impact summaries represent the total economic impact of the presence of Grand Valley State University on the greater Grand Rapids-Holland-Muskegon region.

Impact of Operations and Expenditures

During the 2006-2007 academic period, we estimate that GVSU operations generate 5,038 jobs and personal income of \$201 million in the region. Of these jobs, 2,754 are employed by the University and 2,284 are jobs generated outside of the University and throughout the region by the expenditures of the University and its employees (Table 2). These positions are typically referred to as indirect jobs. Of the total income generated in the county, \$143.7 million is distributed directly by GVSU in the form of wages and salaries, while the remaining personal income of \$57.4 million is indirectly supported.

Table 2

Impact of GVSU Operations and Expenditures (excluding students)				
	Total	Holland-Grand Haven	Grand Rapids- Wyoming	Muskegon- Norton Shore
Employment Impact	5,038	2,866	1,920	252
Faculty and Staff Employment	2,754	1,827	872	55
Student employment*				
Indirect Employment	2,284	1,039	1,048	197
Consumer spending	1,039	444	485	110
Area Suppliers	664	341	299	24
Construction & other investment spending	418	256	142	20
Employment Multiplier for Faculty and Staff =	1.83			
*Impact of student spending shown in Table 4				
Personal Income Impact (\$ mil)	\$201.0	\$95.9	\$85.6	\$19.5
GVSU Wages & Salaries (exc students)	\$143.7	\$95.3	\$45.5	\$2.9
Indirect Income	\$57.4	\$0.7	\$40.1	\$16.6
Income Multiplier =	1.40			

Another way of describing the magnitude of economic impact is the multiplier, a number which essentially describes the rate at which the effect of one job or one dollar is then circulated throughout the region. It is important to note that multipliers are calculated after the REMI model generates its results as a means to describe the impact of the University on the region's economy; ***they are not the means the REMI model uses to estimate these impacts.*** For GVSU the estimated employment multiplier is 1.83; in other words every 10 employees at the University support more than eight additional jobs in the region. The income multiplier is 1.4. This means that for every \$10 in wages and salaries paid by GVSU, an additional \$4 of income are generated throughout the region.

Examining the industrial breakdown of indirect employment estimates (Table 3) shows the diversity of jobs generated by GVSU's operations and expenditures. Not surprisingly, sectors tied to regional exports or larger economic trends—manufacturing, wholesale, government—gain the fewest spin-off jobs. The sectors experiencing the largest indirect job impact are closely associated with resident spending (e.g. recreation and accommodations and retail) or services that are widely used by the University such as professional and business services (which includes temporary agency workers, contract workers, and services such as waste removal, landscaping, architecture, or engineering).

Table 3

Indirect Employment Impact of GVSU Operations and Expenditures by Industry Detail				
	Total	Holland-Grand Haven	Grand Rapids-Wyoming	Muskegon-Norton Shore
Total Indirect Employment Impact	2,284	1,039	1,048	197
By Industry:				
Construction	395	140	234	20
Manufacturing	68	32	32	3
Wholesale	56	33	20	2
Retail	395	177	168	50
Information	33	20	11	3
Financial & Real Estate	75	44	27	5
Professional & Business Services	108	55	47	6
Health Care	137	78	38	21
Recreation and Accommodation	279	153	126	39
Other Services	681	304	335	42
Government (exc. GVSU)	18	2	10	6

Impact of Student Expenditures

The estimates of student expenditures were derived from the GVSU financial aid office's estimates on the cost of going to school. Room and board for on-campus students was excluded from these estimates, as this impact is captured in the assessment of the University's overall operations. Part-time students were also excluded from these expenditure estimates—with the exception of spending on textbooks and classroom supplies—since it is likely that these individuals are living in the region for a primary purpose other than attending school (such as career or family) and would therefore be living and spending money within the region regardless of whether GVSU existed or not.

Of course, it is important to acknowledge that the spending habits of college students vary dramatically, depending on their background, employment status, or personal preferences. The values used in generating these expenditure estimates represent a conservative “average” level of spending. Without a doubt, countless stories exist about GVSU students spending far more or far less on their own annual living expenses.

Overall, based on information provided by the University, we estimate that GVSU students inject approximately \$136.7 million into the regional economy as a result of their decision to live in the area for the purpose of attending college. These student expenditures include things such as textbooks, personal items, entertainment, and the costs of housing, groceries, and transportation; however, the levels vary depending on the full- or part-time attendance status and housing choice of the individual. The expenditures of part-time students are estimated to be the lowest, \$4.8 million, due to their smaller numbers and the fact that most spending by part-time students cannot be uniquely tied to the presence of GVSU in the region. A similar number of students living on campus spend an estimated \$14.5 million in the region on supplies, books, and entertainment—with most other living expenses falling under University operations. Finally, at \$117.5 million, expenditures by full-time students living off campus are by far the largest. Not only is this group largest in number, but these students are also responsible for spending directly on major living expenses such as housing and food.

Table 4
Detail of Estimated Student Expenditures

Total Expenditures (\$ millions)	\$136.7
<u>Detail by Student Status</u>	
Full-time On-campus Students	5,352
X Per Student Expenditures:	
Entertainment & misc.	\$1,800
Supplies & Textbooks	\$900
<i>Sum (\$ millions)</i>	<i>\$14.5</i>
Full-time Off-campus Students	12,611
X Per Student Expenditures:	
Housing and Food	\$6,614
Entertainment & misc.	\$1,800
Supplies & Textbooks	\$900
<i>Sum (\$ millions)</i>	<i>\$117.5</i>
Part-time Off-campus Students	5,332
X Per Student Expenditures:	
Supplies & Textbooks	\$900
<i>Sum (\$ millions)</i>	<i>\$4.8</i>

Based on GVSU enrollment data and information provided by the financial aid

The consumer expenditures made by University’s students generate 1,150 jobs and personal income of \$31.3 million in the region (Table 5). Although this may seem like a fairly small impact, it is important to remember that student expenditures are generally focused on retail goods, food, and basic services—products that often must be imported from other regions or whose local production does not entail extensive supplier networks.

Student expenditures generate jobs in all industry sectors; however, the impact is mostly concentrated in sectors related to housing and apartment rentals as well as dining and entertainment. Compared to the general population, expenditures specifically tied to student activities are heavily concentrated on housing, personal services, dining, and entertainment.

Table 5
Employment Impact of GVSU Student Expenditures by Industry Detail

	Total	Holland-Grand Haven	Grand Rapids-Wyoming	Muskegon-Norton Shore
Number of students employed at GVSU	2,768	2,431	328	9
Total Indirect Employment Impact	1,150	619	432	99
Personal Income Impact (\$mill)	\$31.3	\$13.5	\$14.1	\$3.7
Employment by Industry:				
Construction	41	20	17	4
Manufacturing	35	18	16	1
Wholesale	37	17	19	1
Retail	410	235	137	38
Information	8	3	4	1
Real estate and Leasing	127	79	40	9
Financial & Real Estate	16	6	9	1
Professional & Business Services	23	9	12	2
Health Care	24	7	14	4
Recreation and Accommodation	306	168	109	29
Other Services	123	57	56	10
Government	0	0	0	0

Summary of Total Economic Impact

Finally, the presence of GVSU in the region generates \$524 in sales in the greater Grand Rapids-Muskegon-Holland region (Table 6). Most goods that are sold in the region are produced elsewhere; therefore, the University's impact on the level of regional production of goods and services is small. The University's impact on the Gross Regional Product is \$316 million. GVSU activities generate a total of 8,955 jobs and personal income of \$232.3 million in the region. Relative to the overall regional economy, the economic impact associated with GVSU represents approximately 1.3 percent of all regional employment and 0.6 percent of all personal income in the region.

Table 6
**Total Economic Impact of GVSU
 All Operations, Employment, and Expenditures**

	Total	Holland-Grand Haven	Grand Rapids-Wyoming	Muskegon-Norton Shore
Value of Output Generated in the Region (\$mill)	\$524.0	\$290.5	\$210.0	\$23.4
Increase in the Gross Regional Product (\$mill)	\$315.9	\$174.5	\$126.6	\$14.9
Personal income impact (\$mill)	\$232.3	\$109.4	\$99.7	\$23.2
Employment Impact	8,955	5,916	2,680	360
Direct impact				
Faculty and staff	2,754	1,827	872	55
Students	2,768	2,431	328	9
Indirect impact				
From GVSU Employees expenditures (excluding students)	2,284	1,039	1,048	197
From Student Expenditures	1,150	619	432	99

Further Consideration

While this analysis estimates the impact of Grand Valley State University on employment and personal income in the Grand Rapids-Muskegon-Holland region, it falls far short of measuring the overall importance of the University on the greater community. The University provides cultural activities and sporting events enjoyed by thousands of the region's residents. Moreover, the University offers numerous seminars and conferences for the business community. In short, it is impossible to measure the overall impact of the University on the region by jobs and income alone.

Economic Impact of Grand Valley State University on the Greater Grand Rapids-Muskegon-Holland Region

April 2007

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Major Findings

- GVSU generates \$524 million in total sales in the region, and includes
 - Retail sales made by the university's students and employees.
 - Services and equipment purchased directly by the university from regional suppliers.
 - All consequent rounds of spending such as local purchases of groceries made by employees of one of the university's suppliers.
-

Major Findings (cont'd)

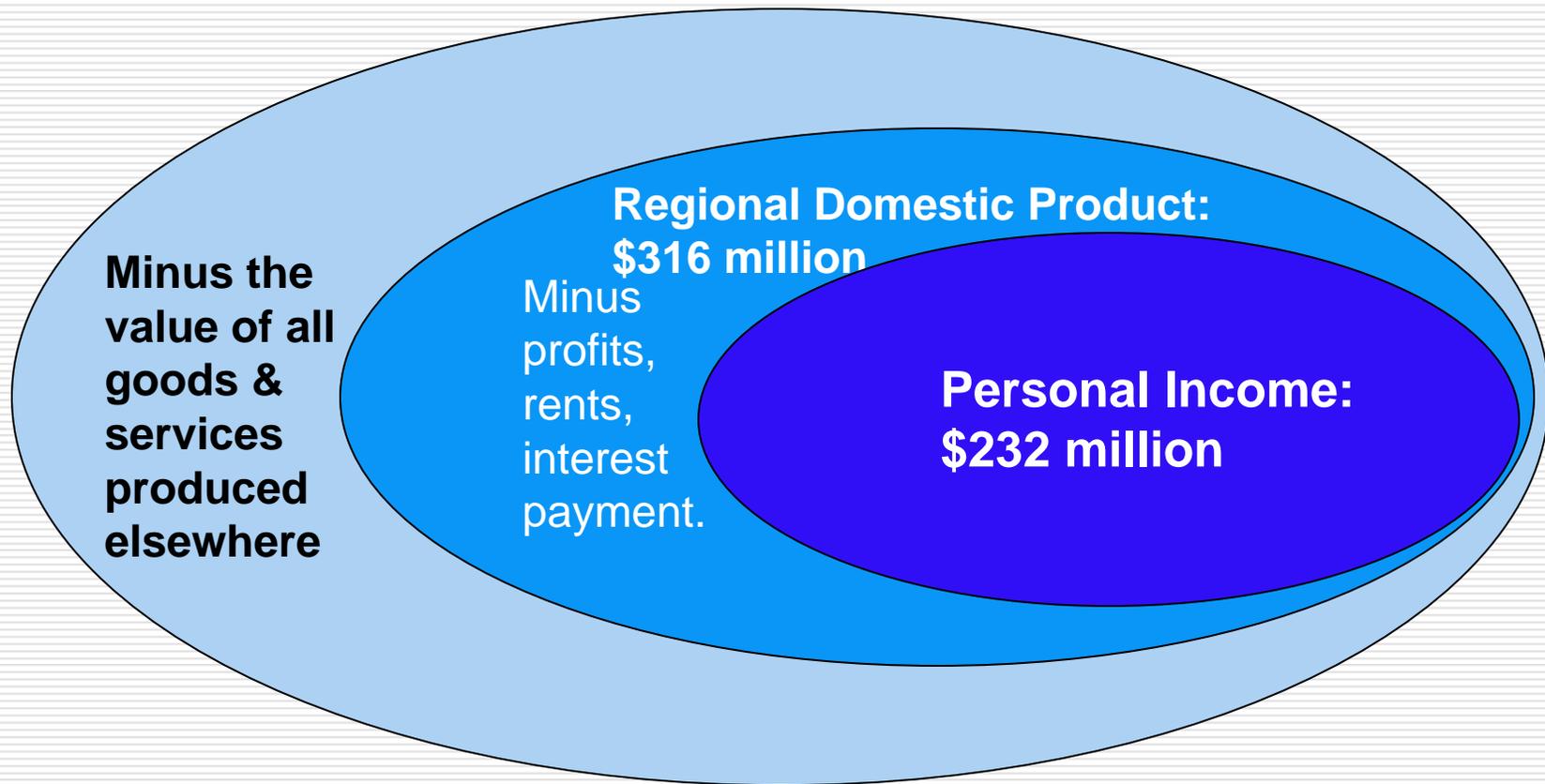
- Total sales is only one of the university's measurable impacts on the region. It also impacts
 - The region's Regional Domestic Product—the value of all goods and services generated in the region due to the university
 - Personal income—all income created in the region due to the presence of the university
 - Employment
-

Direct Impact of GVSU in 2006

- Total employment: 5,522 employees
 - 2,754 Faculty and staff
 - 2,768 student workers
 - Total salaries and wages: \$151.1 million
 - Expenditures on supplies/materials: \$125.3 million
 - Total student enrollment: 23,295
 - Estimated student expenditures: \$136.7 million
-

Measures of Impact

Total Sales: \$524 million



Employment Impact

Total impact: 8,955 jobs

<p>University Faculty and Staff: 2,754</p>	<p>Student Employees: 2,768</p>	<p>Regional jobs generated by expenditures made by the university and its faculty and staff: 2,283</p>	<p>Regional jobs created by student spending: 1,150</p>
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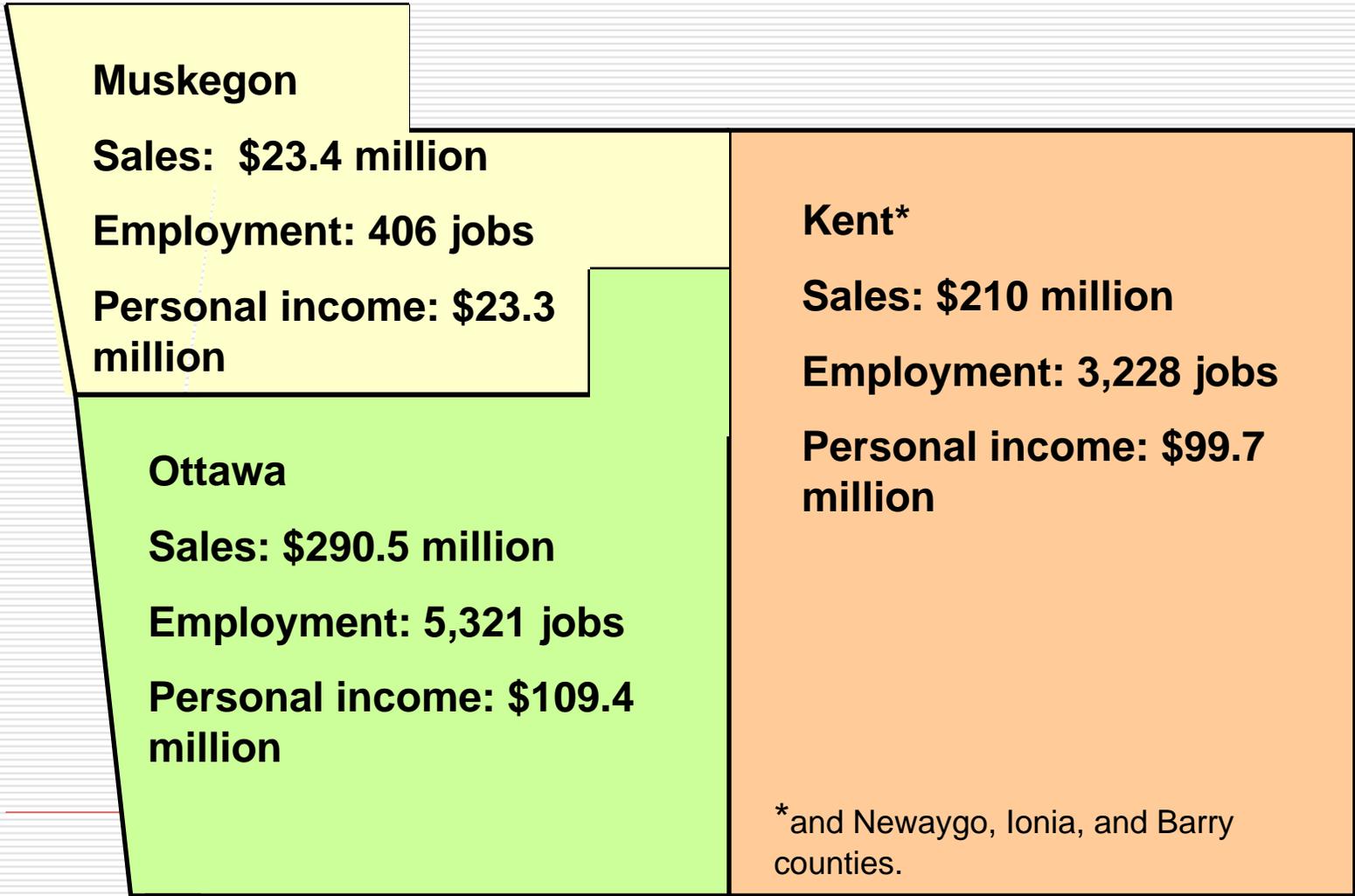
Employment Impact (cont'd)

Multiplier Impact:

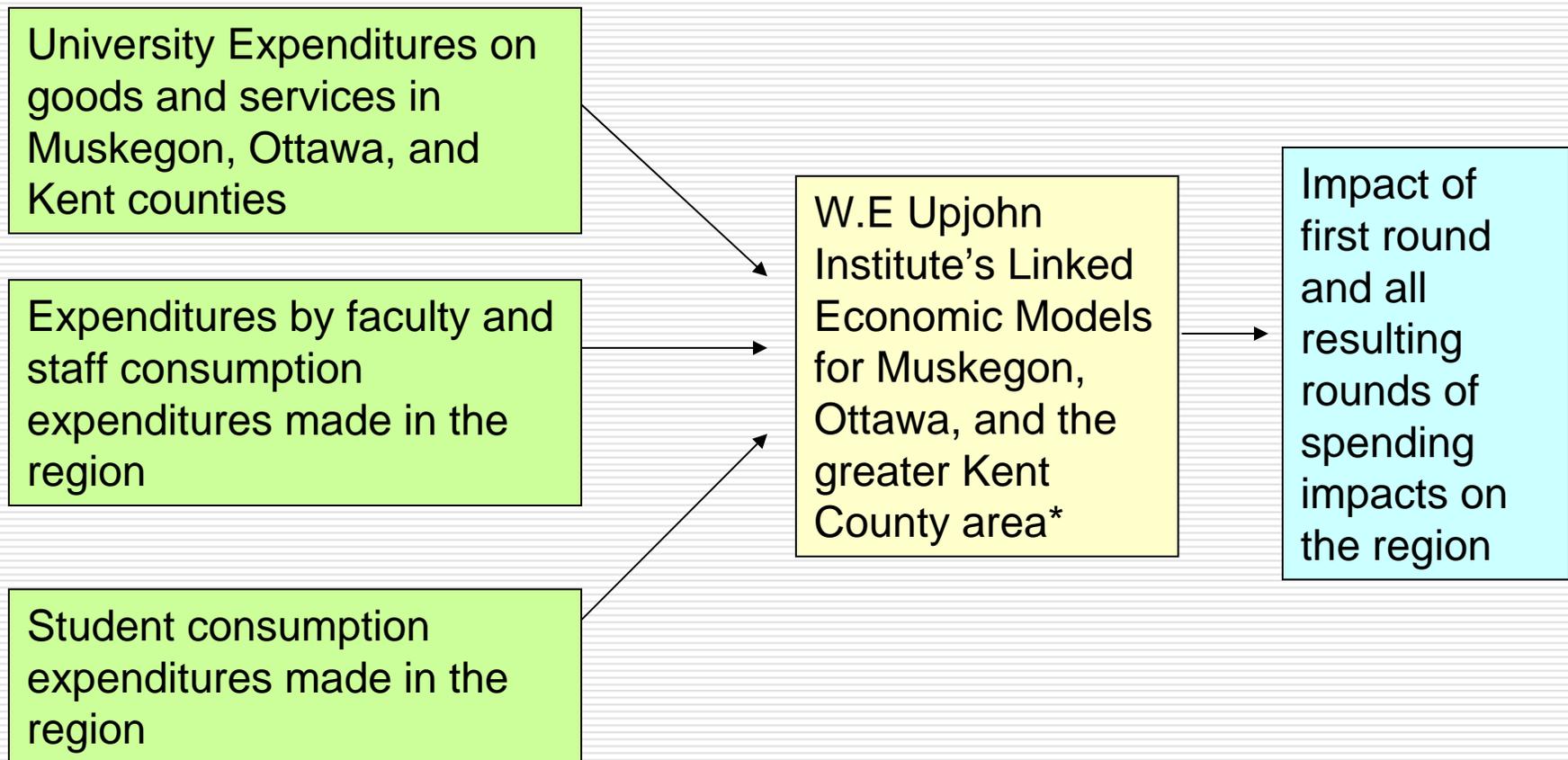
Every 100 employees* at GVSU create 83 jobs in the greater Grand Rapids-Muskegon-Holland region.

*Excluding student employees.

Regional Impact



Methodology



*Includes Barry, Ionia, and Newaygo counties.