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## Estimating the Impacts of PlazaCorp Investments Related to the Acquisition of the Arcadia Ramp in Downtown Kalamazoo on the Region

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# Estimating the Impacts of PlazaCorp Investments Related to the Acquisition of the Arcadia Ramp in Downtown Kalamazoo on the Region

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W.E. Upjohn Institute for Employment Research

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# Introduction

PlazaCorp engaged the W. E. Upjohn for Employment Research to estimate the economic impact of a series of investments in the central business district in downtown Kalamazoo. PlazaCorp is a Kalamazoo-based firm that acquires property for redevelopment and development, “reimagines” sites for adaptive reuse, and engages in property management services.

At the center of PlazaCorp’s investment is a branded hotel that will bring another 118 rooms to Kalamazoo’s urban core. PlazaCorp began this investment in 2017, with the hotel anticipated to be fully operational by the end of 2018.

The study estimates the economic impact of six projects proposed by PlazaCorp: 1) building the hotel, 2) operating the hotel, 3) acquiring and

renovating the Arcadia parking facility, 4) building out the Arcadia North building with 22 residential units (2019), 5) redeveloping 40,000 square feet of currently vacant office and retail space (2020), and 6) adding a second hotel in 2021.

Between 2017 and 2021, PlazaCorp plans to make a total investment of \$40 million, which will anchor additional investments by other entities in the northwest quadrant of the city, referred to as Arcadia Commons West.

To estimate the net impact of the six projects, the Upjohn Institute uses the REMI econometric model, which forecasts future economic growth in the region with and without the projects listed. The net impact analysis is based on investment estimates provided by PlazaCorp. The Institute has made no attempt to validate the direct investment estimates.

# Summary of Projects

The net impact study estimates separately the indirect and induced effects of the following six projects, as identified by PlazaCorp. The economic impacts are based on investment estimates provided by PlazaCorp. The REMI model uses typical relationships between investment and other economic outcomes, such as additional employment and output, to estimate the impact of the additional investment on employment, gross regional output, personal income, and sales. The region covered by the impact is the Kalamazoo Metropolitan Statistical Area (MSA), which includes Kalamazoo and Van Buren counties. The length of time included for the impact is one year (except for the operations of the hotel) after the completion of each project.

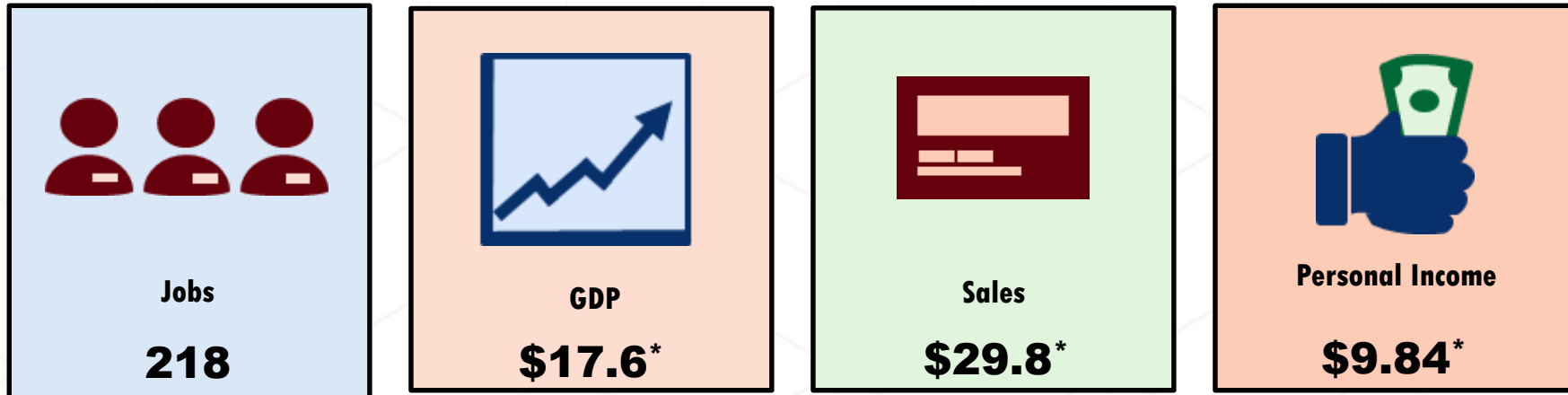
<b>Project</b>	<b>Date Completed</b>	<b>Total Direct Investment</b>
• Hotel “built” investment	2018	\$20 million
• Arcadia ramp	2018	\$5 million
• Hotel operations	2019	\$4.8 million*
• Arcadia North building expansion	2019	\$5 million
• Existing office/retail build out	2020	\$2 million
• Future hotel expansion	2021	\$8 million

\*The economic impacts for hotel operations do not include patron spending off-site for food, beverages, retail, entertainment, and transportation.

# Details of the Analysis

- PlazaCorp supplied all investment data, including build out and operational costs. The Institute did not attempt to validate the estimates.
- All investments in buildings are assumed to occur in a 12-month period. While there may be overlap across years, the estimates of impacts are provided based on a calendar-year cycle.
- Building investments provide economic impacts only in the year they occur.
- Impacts of operations continue forward while the hotel operates using the sets of inputs specified for the first year of operations.
- The impacts are reported for the Kalamazoo Metropolitan Statistical Area (MSA), which includes Kalamazoo and Van Buren counties. Although the economic activity is located in downtown Kalamazoo, suppliers that are part of this impact analysis may be located within city limits or may be outside the city but in the rest of the MSA.
- The direct investment occurs within the City of Kalamazoo. It is assumed that all of the hotel patrons are from outside the City. Because we feel that downtown hotels are at capacity, we assume that there is no “crowding out.”
- There may be additional impacts from the hotel estimates that are not included in this analysis. These could include:
  - Spending by customers on items such as food, retail, and entertainment that occur off premises from the hotel
  - Transportation-related spending on gas, trains, and air transportation

# Hotel Investment: \$20 million in 2018



The \$20 million invested in the hotel is associated with an additional 218 jobs (including workers directly hired to build the hotel) and \$9.84 million in personal income in the Kalamazoo MSA the year following construction. The impact estimates are based on \$20 million in expenditures including costs of land acquisition, building and tenant construction, soft costs, financing and capital costs, insurance, and government fees and permits.

# Hotel Investment: Top 10 Industries by Employment

Industry	Jobs 2018
Construction	126.9
Retail Trade	15.3
Professional, scientific, & technical services	14.7
Furniture and related product manufacturing	8.7
Real Estate	6.6
Administrative & support services	6.0
Food services & drinking places	5.4
Monetary Authorities/Credit	4.7
Ambulatory health care services	4.4
Personal and laundry services	2.0

About 60 percent of the additional jobs associated with the hotel investment are concentrated in the Construction industry. The remainder are distributed across a variety of industries, which for the most part reflect the industrial composition of the region.

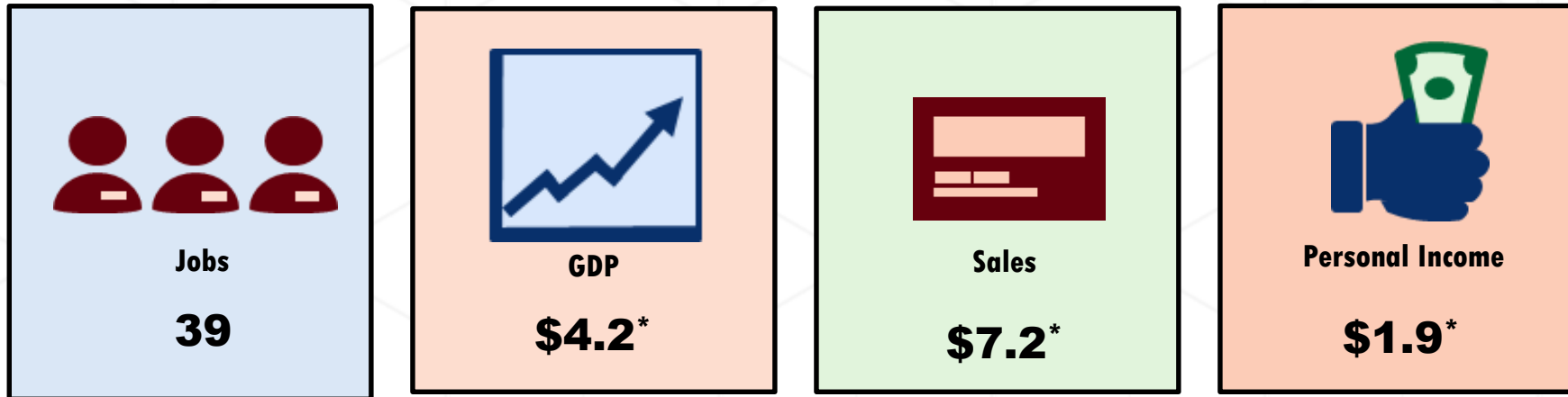
# Hotel Investment: Top 10 Industries by Sales

Industry	Sales 2018
Construction	\$14,224,100
Real estate	\$3,125,600
Furniture & related product manufacturing	\$2,992,800
Professional, scientific, & technical services	\$1,774,000
Retail Trade	\$1,298,100
Monetary authorities -bank; credit intermediation and related activities	\$1,117,400
Ambulatory health care services	\$645,400
Administrative & support services	\$457,100
Wholesale trade	\$415,300
Food services & drinking places	\$273,800

In contrast to employment, only 48 percent of sales are concentrated in the Construction industry. The Real Estate industry rises to the second most-impacted industry and Furniture to the third most-impacted, largely because of the nature of hotel construction, furnishing, and finishes.

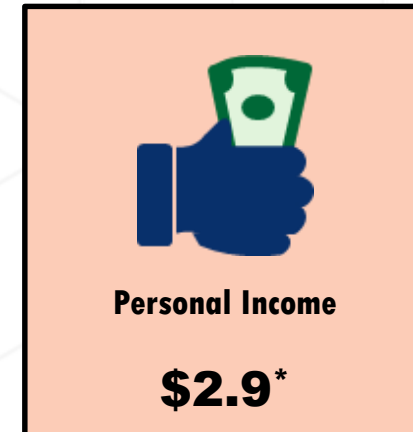
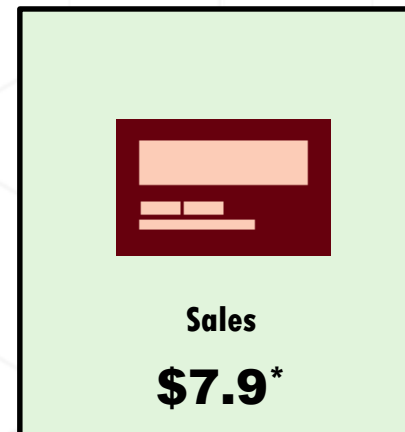
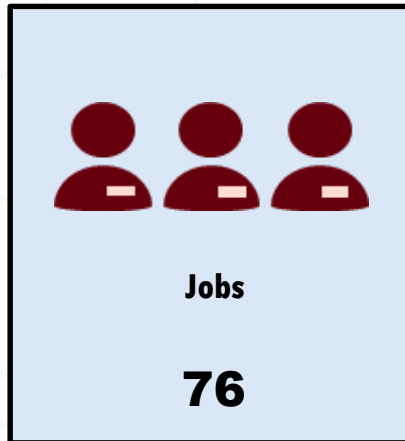


# Arcadia Ramp: Investment of \$5 Million in 2018



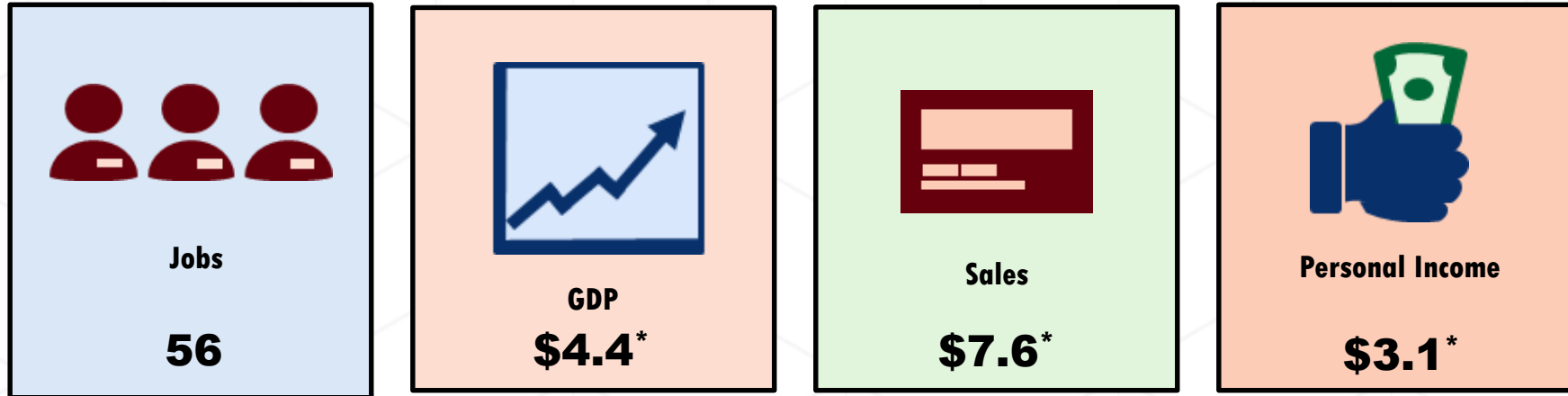
Investment of \$5 million in the Arcadia Ramp leads to an additional 39 jobs in the Kalamazoo MSA and \$1.9 million in personal income. The Arcadia Ramp expansion impacts are based on \$5 million in expenditures including cost of land acquisition, deferred maintenance, access and bridge enhancements, and equipment purchases.

# Hotel Operations: \$4.8 Million in Revenues in 2019



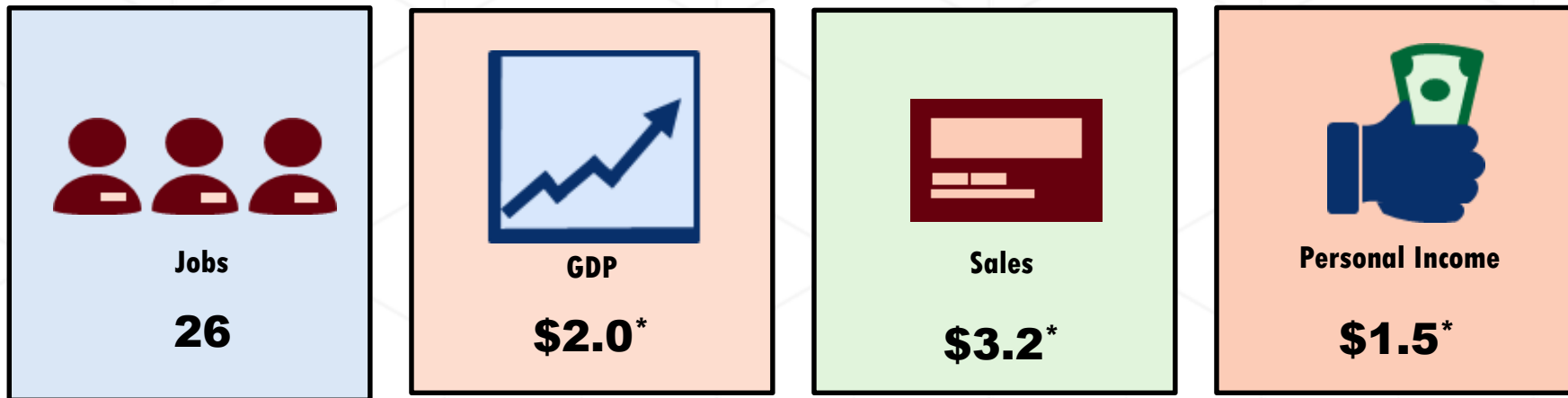
The operation of the hotel, which according to PlazaCorp will generate an estimated \$4.8 million in revenues, will lead to 76 additional jobs and \$2.9 million in personal income. Unlike construction impacts, which are concentrated in the Construction industry, most of the employment impacts of hotel operations will be concentrated in the Accommodation and Food Services industries. It is important to note that these are annualized estimates and are for one year only. Employment and other returns from the investments continue while the hotel and facilities operate.

# Arcadia North: Expansion Project of \$5 Million in 2019



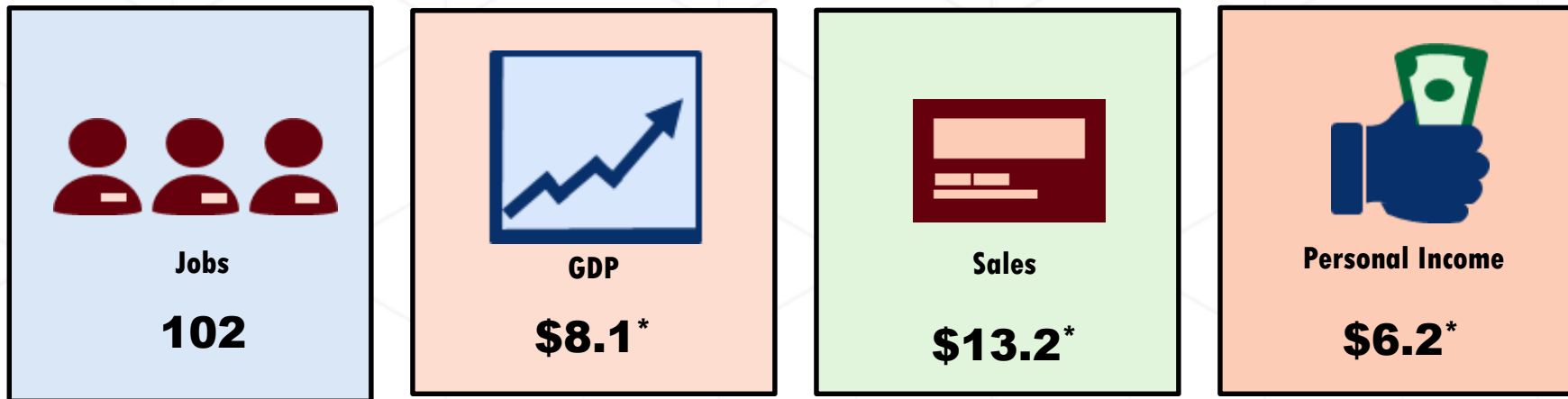
The \$5 million expansion of residential units leads to 56 additional jobs and \$3.1 million dollars in personal income in the Kalamazoo MSA. While this project is primarily residential, impacts are not included in future periods from the effect of residents occupying 22 units. Based on the average occupancy in downtown Kalamazoo of 1.8 persons per unit (American Community Survey), this investment would add another 40 residents in downtown, which could contribute to aggregate growth that drives new investment in providers of goods and services.

# Existing Office & Retail: A Project of \$2 Million in 2020



The \$2 million expansion in office and retail space is estimated to lead to 26 additional jobs and \$1.5 million in personal income in the Kalamazoo MSA. This does not include the impacts of office and retail uses in 2021 and forward.

# Future Hotel Expansion: A Project of \$8 Million in 2021



Future expansion of the hotel is estimated to lead to 102 additional jobs and \$6.2 million in personal income in the Kalamazoo MSA. This additional investment is would occur if the hotel completed in 2018 is successful. Based on that hotel's success, the investment in an additional hotel would occur in 2021.

# Summary

PlazaCorp has proposed making a series of investments between 2017 and 2021 that will total an estimated \$40 million. Part of this investment includes \$20 million for a new branded hotel. This hotel will generate ongoing revenues and provide employment opportunities in the City of Kalamazoo into the future.







Gross regional product (GRP) from construction-related projects is \$36.3 million, with an additional \$4.9 million from the new 2018 hotel operations. Additional sales is \$61 million from construction-related projects and an additional \$7.9 million from the new 2018 hotel operations.

Personal income, from construction-related projects, is estimated at \$22.5 million, with an additional \$2.9 million from operations of the new 2018 hotel.

Due to the nature of these investments occurring in different time periods, as well as the fact that jobs only exist in a given time, it isn't logical to combine jobs from the different investments in hotel operations.

The next slide depicts the jobs by project and the other measures of GRP, sales, and income.

# Summary

Forecast	Time Frame	Input	Output			
	 Year	 Amount	 Jobs	 GDP	 Sales	 Personal Income
<b>Hotel Investment</b>	<b>2018</b>	<b>\$20*</b>	<b>218</b>	<b>\$17.6*</b>	<b>\$29.8*</b>	<b>\$9.84*</b>
<b>Arcadia Ramp</b>	<b>2018</b>	<b>\$5*</b>	<b>39</b>	<b>\$4.2*</b>	<b>\$7.2*</b>	<b>\$1.9*</b>
<b>Arcadia North</b>	<b>2018</b>	<b>\$5*</b>	<b>56</b>	<b>\$4.4*</b>	<b>\$7.6*</b>	<b>\$3.1*</b>
<b>Hotel Operations</b>	<b>2019</b>	<b>Revenue-based</b>	<b>76</b>	<b>\$4.9*</b>	<b>\$7.9*</b>	<b>\$2.9*</b>
<b>Existing Buildout</b>	<b>2020</b>	<b>\$2*</b>	<b>26</b>	<b>\$2.0*</b>	<b>\$3.2*</b>	<b>\$1.5*</b>
<b>Future Hotel</b>	<b>2021</b>	<b>\$8*</b>	<b>102</b>	<b>\$8.1*</b>	<b>\$13.2*</b>	<b>\$6.2*</b>

# The REMI Model

The study used a model developed by Regional Economic Models, Inc. (REMI) to estimate the economic impacts of PlazaCorp investments on the regional economy ([www.remi.com](http://www.remi.com)).

An important feature of the REMI model is that it creates estimates using equations that reflect the dynamic nature of the economy (change in relative price) rather than static input/output tables. This allows the analysis to be sensitive to both the timing and scale/scope of the impacts, which is not found in other models.

Embedded in the REMI model is a baseline economic forecast for the region through 2050. To create estimates of PlazaCorp's investment and operational activities, the REMI model is "shocked" and an alternative forecast is estimated. The difference between the baseline and the alternative forecasts provide the estimates of economic impact.

More specifically, the REMI model offers several unique features:

- It is customized to the Kalamazoo MSA.
- It has an exceptionally strong theoretical foundation.
- It combines several different kinds of analytical tools, including economic-base, input-output, and econometric models, allowing it to take advantage of each specific method's strengths and compensate for its weaknesses.
- It allows users to manipulate an unusually large number of input variables and gives forecasts for an unusually large number of output variables.
- It allows users to generate forecasts for any combination of future years, offering special flexibility in analyzing the timing of economic impacts.
- It accounts for business cycles.



# Definitions of Economic Outcomes

Here we define the variables used in this study to estimate economic impacts. Most economic impact studies focus on four main variables:

- **Job creation**
- **Change in gross domestic product (GRP)**
- **Changes to income**
- **Output**

## **Job Creation**

- The estimated number of jobs created by PlazaCorp investments.
- These jobs are simply “jobs” as counted by the U.S. Bureau of Economic Analysis (BEA) & are not necessarily full- or part-time positions.
- These jobs are likely distributed across a number of industries.

- In any given industry, a “job” may represent a summation of positions across a number of industries in which each industry has less than one complete position.
  - The impact study may report one “job” but the spending patterns in the study may generate positions in three industries; however, each industry may require only one third of a person.
  - In this case, the three industries that employ one third of a person each to meet demand would sum to one “job” in the REMI model.
- Employment is comprised of three elements:
  - Direct – The employment created by the actual investment, growth, or change
  - Indirect – Employment created by the need of the new firm to purchase goods & services, essentially the local supply chain

# Definitions of Economic Outcomes

- Induced – The households that supply goods and services to the workers in the prior two elements
  - Examples include education, dry cleaners, accountants, gas stations, lawyers, and grocers

## Change in Gross Regional Product

- GRP is an economic measure of the additional value that labor contributes to the final product or service.
- GRP does not include the value of “intermediate goods” or inputs into estimating the economic impact.
  - For example, if a \$25,000 auto is produced in a region, it may be composed of \$15,000 in parts (intermediate goods) and \$10,000 in labor to assemble the parts into a

complete auto. The \$10,000 in GRP is the amount the region uses to measure its input into the auto.

- If output (or sales) is used, the same \$25,000 auto may only generate \$500 to the seller. In the initial example, the GRP for the region making the auto would be \$10,000, while the GRP from selling the auto in the region would only be \$500.
- The GRP from making the auto is greater and more likely to change the wealth curve of the region. If output is used, both would have the same value and appear (incorrectly) to have similar economic impacts.

# Definitions of Economic Outcomes

## Changes to Income

- The impact of an event is also measured on the regional pool of income.
- This can be measured as the impact to total income from both residents & commuters generated from the event.
- The income statistic is likely to be overestimated, as it includes wages by place of residence as well as by place of work.

## Output

- This measure is essentially the same as sales in the study region.
- It includes both the value of GRP & the value of intermediate goods – the goods or materials needed to make the product or service.
- Output is useful as a measure of economic activity & some of the output is responsible for driving sales taxes at both the state and county levels.

# About the Upjohn Institute

The W.E. Upjohn Institute for Employment Research is an activity of the W.E. Upjohn Unemployment Trustee Corporation, which was established in 1932 to address issues of unemployment during the Great Depression. The Upjohn Institute is a private, nonprofit, nonpartisan, independent research organization devoted to investigating the causes and effects of unemployment, to identifying feasible methods of insuring against unemployment, and to devising ways and means of alleviating the distress and hardship caused by unemployment.

Upjohn's broad objectives are to: (1) link scholarship and experimentation with issues of public and private employment and unemployment policy; (2) bring new knowledge to the attention of

policy makers and decision makers; and (3) make knowledge and scholarship relevant and useful in their applications to the solutions of employment and unemployment problems.

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