

**MASTER PLAN
ECONOMIC CONDITIONS**

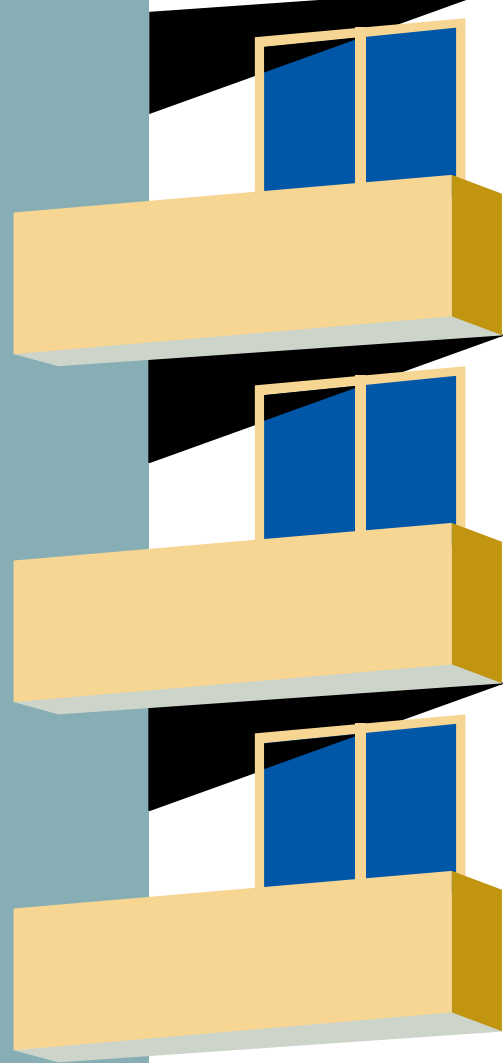
MASTER PLAN ECONOMIC CONDITIONS

City of Novi



01

EMPLOYMENT / INFLOW & OUTFLOW



EMPLOYMENT OF NOVI RESIDENTS

6,810

Manufacturing

01

02

4,028

Professional, scientific,
and management, and
administrative and
waste management
services

3,961

Educational services,
and health care and
social assistance:

03

04

1,822

Finance and insurance,
and real estate and
rental and leasing:

INFLOW AND OUTFLOW



40,803

Inflow



3,564

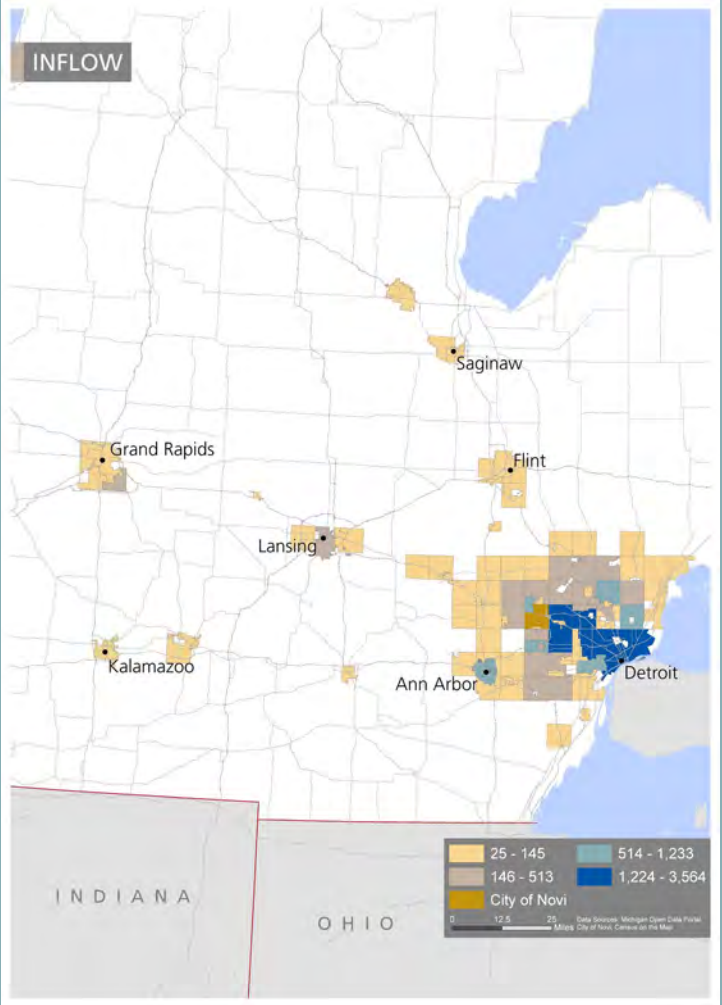
Live and Work



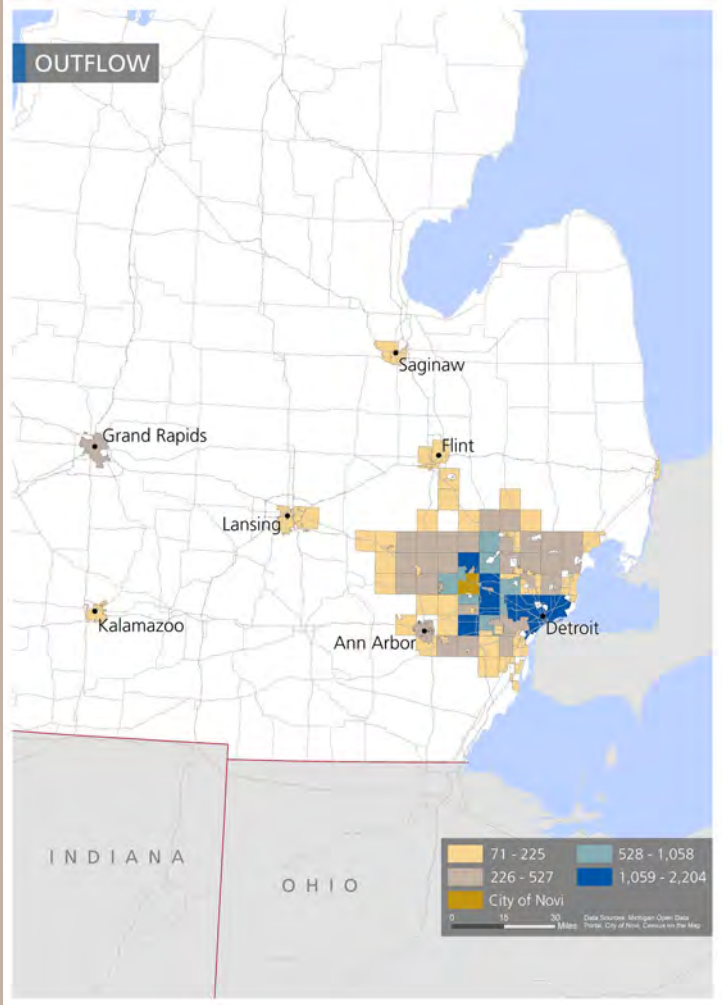
25,980

Outflow

INFLOW



OUTFLOW



An abstract graphic on the left side of the slide. It features a yellow background with a grey trapezoidal shape containing a black rectangle. To the left of this is a yellow triangle with a black triangle inside. At the bottom, there is a blue staircase graphic with light blue steps. The right side of the slide is a solid teal background.

02

BASE SECTOR ANALYSIS

INTRODUCTION TO IMPLAN

Economic Modeling Software

Input - Output Model

Upstream economic activity (resources, supply, and manufacturing of goods and services)

County level data

INTRODUCTION TO IMPLAN

Economic Modeling Software

Input - Output Model

Upstream economic activity (resources, supply, and manufacturing of goods and services)

County level data

**Employee
Compensation**



**Proprietor
Income**



Labor Income



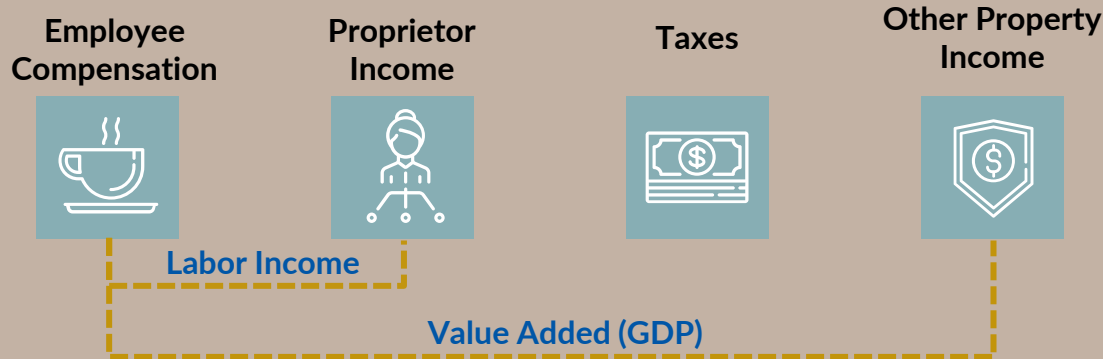
INTRODUCTION TO IMPLAN

Economic Modeling Software

Input - Output Model

Upstream economic activity (resources, supply, and manufacturing of goods and services)

County level data



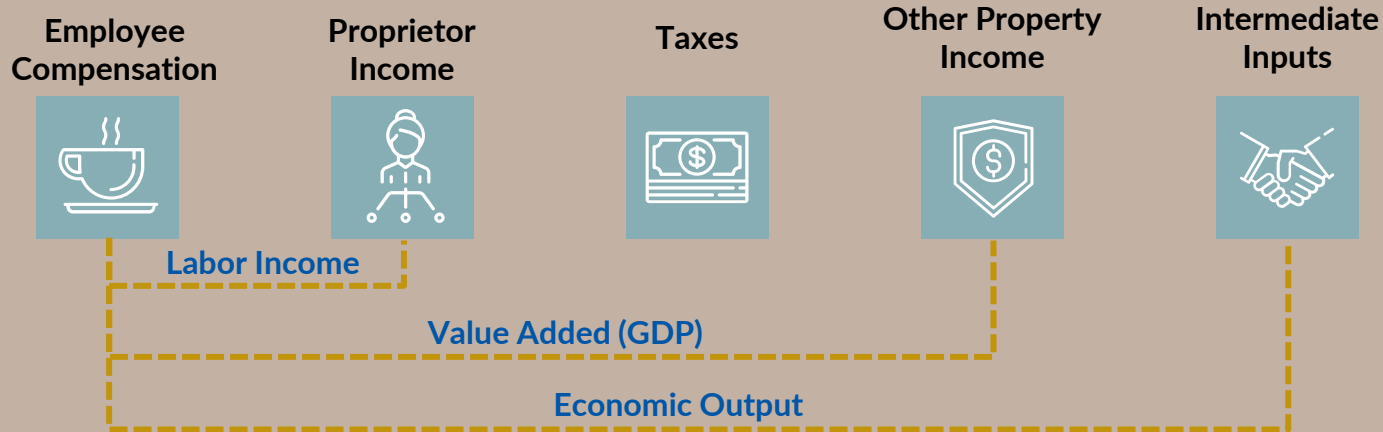
INTRODUCTION TO IMPLAN

Economic Modeling Software

Input - Output Model

Upstream economic activity (resources, supply, and manufacturing of goods and services)

County level data



\$198 BILLION

Oakland County Economic Output

LARGEST INDUSTRIES

01

REAL ESTATE

\$11,700M Output
50,696 Employees
\$2,341M Labor Income

03

HOSPITALS

\$6,579M Output
35,344 Employees
\$2,960M Labor Income

02

ARCHITECTURE AND ENGINEERING

\$9,747M Output
52,468 Employees
\$5,768M Labor Income

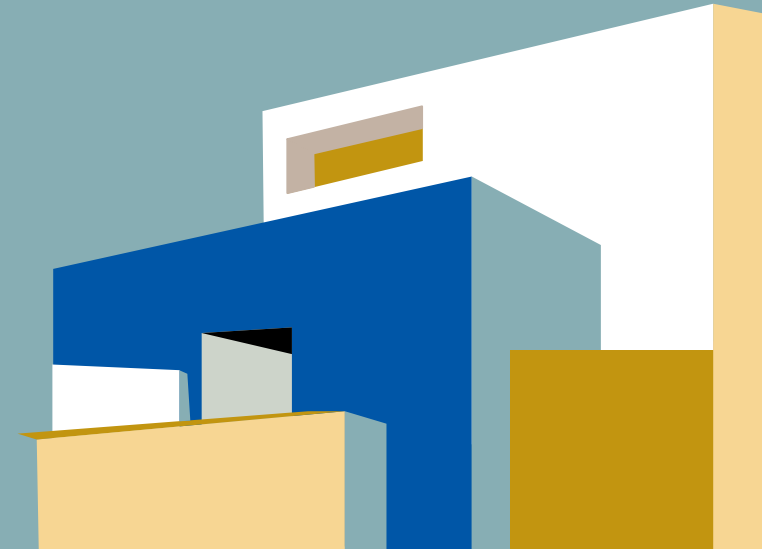
04

INSURANCE CARRIERS

\$6,352M Output
10,429 Employees
\$2,741M Labor Income

BASE SECTOR ANALYSIS

Identifies which industries in the region are importing or exporting and which industries are expanding or retracting



IMPORT OR EXPORT?

Is the ratio of economic activity of Industry_x to total economic activity in the region greater or less than the same ratio in the state?

EXPANDING OR RETRACTING?

Did the economic activity increase or decrease between 2014 and 2019?

IMPORT OR EXPORT?

Is the ratio of economic activity of Industry_x to total economic activity in the region greater or less than the same ratio in the state?

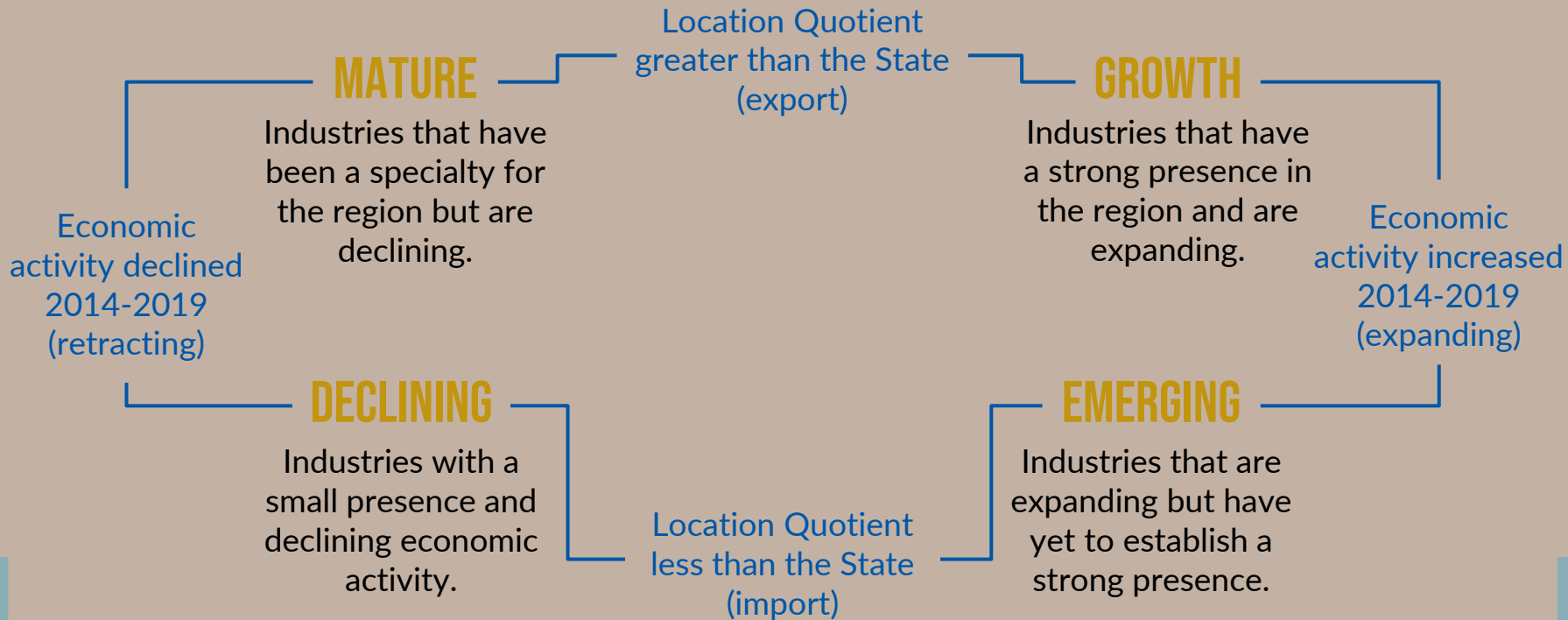


LOCATION QUOTIENT (LQ)

EXPANDING OR RETRACTING?

Did the economic activity increase or decrease between 2014 and 2019?

BASE SECTOR CATEGORIES



BREAKDOWN

9%

MATURE

\$16,495M Output
82,632 Employees
44 Industries

58%

GROWTH

\$113,453M Output
549,193 Employees
115 Industries

6%

DECLINING

\$11,174M Output
49,207 Employees
133 Industries

27%

EMERGING

\$53,146M Output
287,657 Employees
141 Industries

BREAKDOWN

9%

MATURE

- Wholesale – professional and commercial equipment
- Wholesale – drugs
- Other financial investment opportunities

58%

GROWTH

- Real estate
- Architectural and Engineering
- Insurance

6%

DECLINING

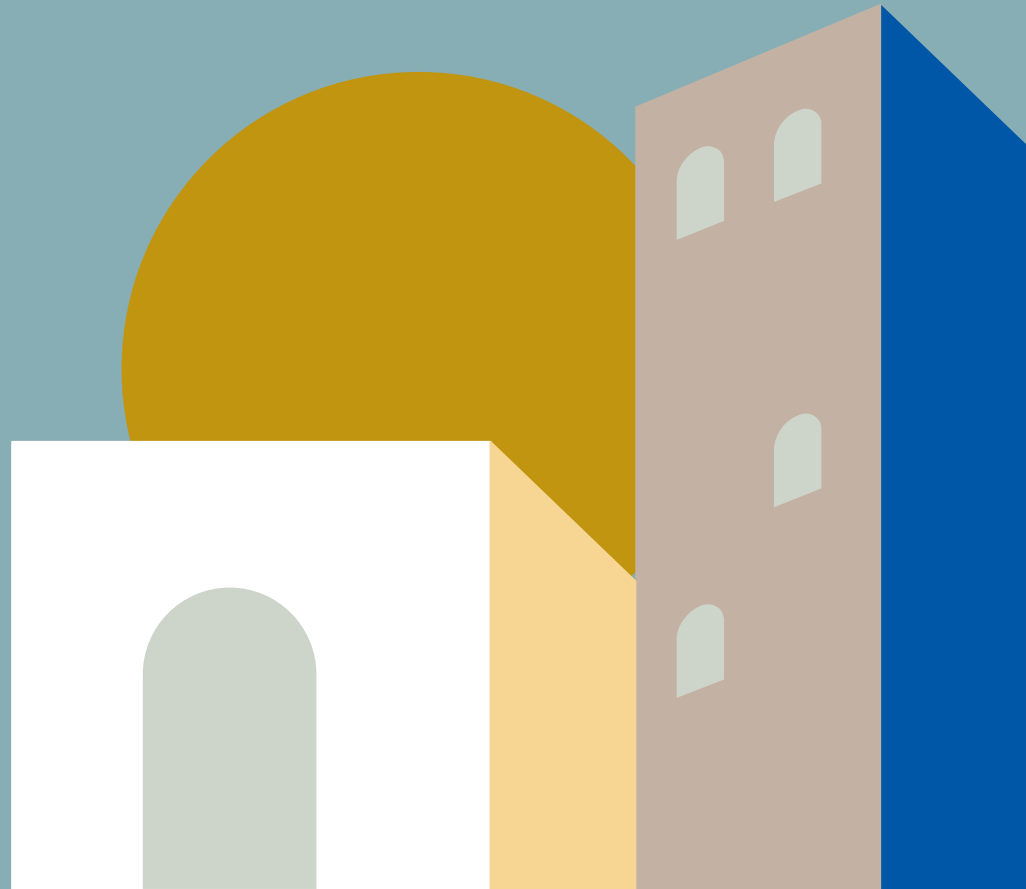
- Automobile manufacturing
- Motor vehicle transmission manufacturing
- Retail – general merchandise

27%

EMERGING

- Hospitals
- Scientific research and development
- Other motor vehicle parts manufacturing

EXPLORE THE
DATA



POST COVID-19 ECONOMY

Overall economy +3% 2019 - 2021

+3%

MATURE

+3%

GROWTH

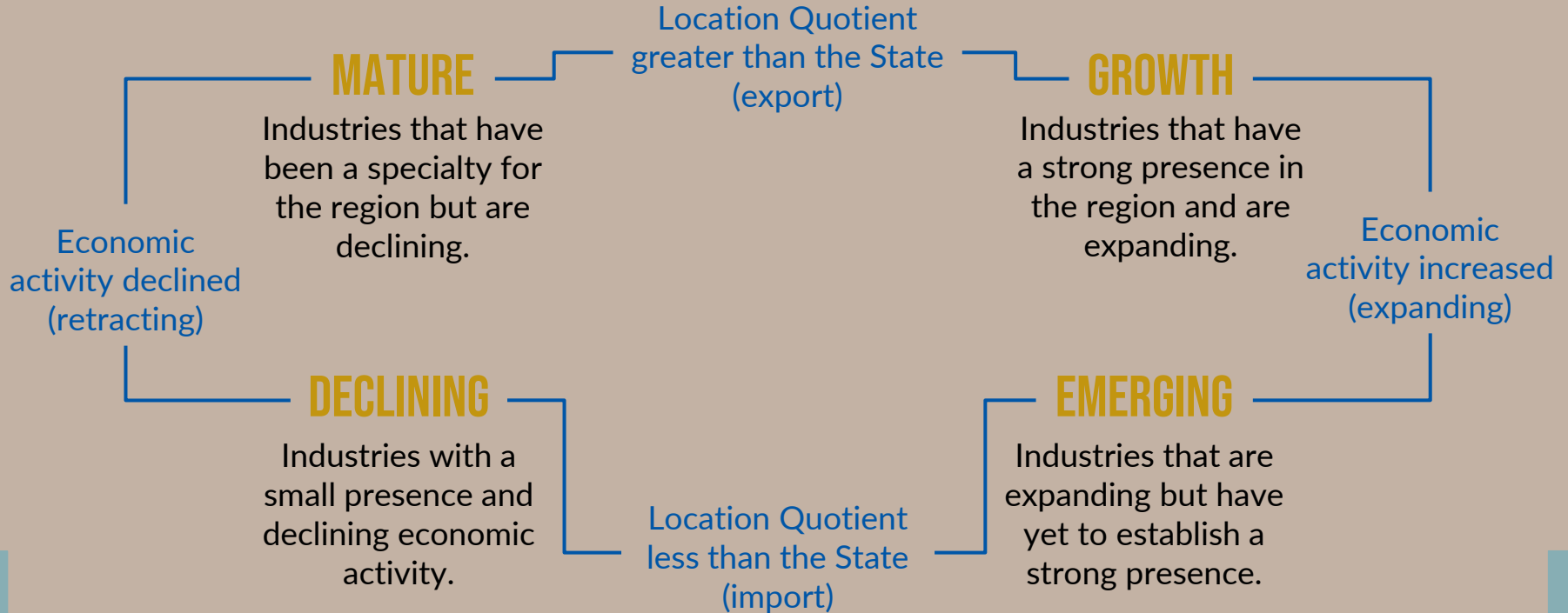
-8%

DECLINING

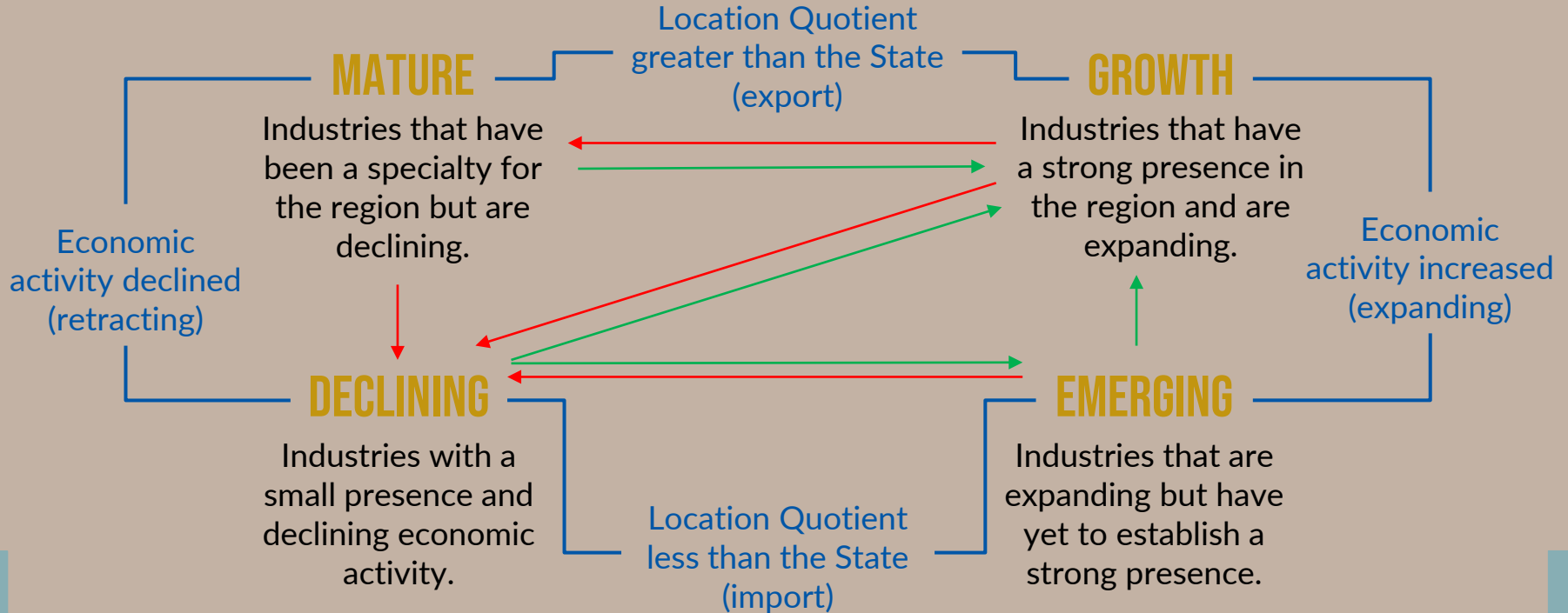
+6%

EMERGING

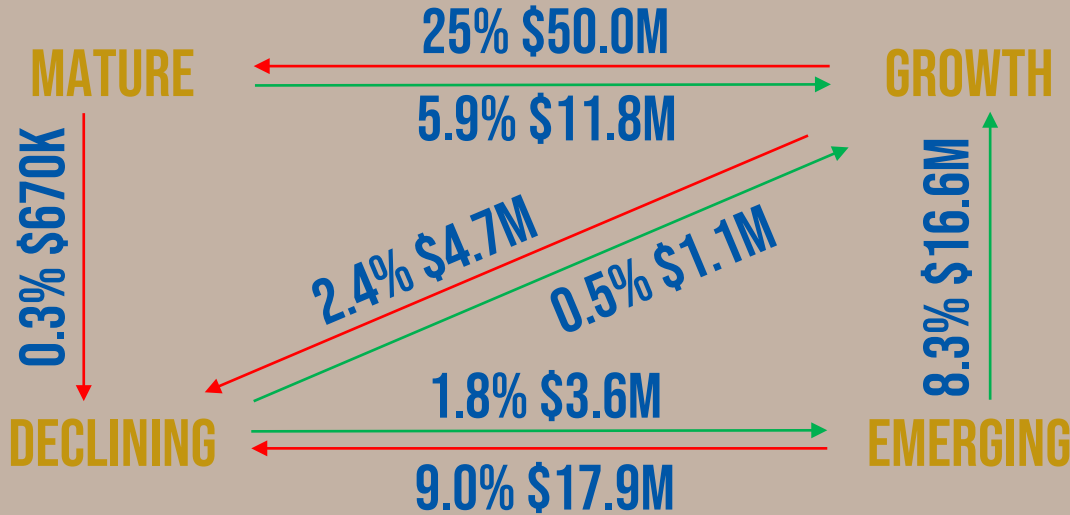
POST-COVID ECONOMIC SHIFTS



POST-COVID ECONOMIC SHIFTS



POST-COVID ECONOMIC SHIFTS



| Economic Shift | Percent of Economy | Economic Activity |
|----------------|--------------------|-------------------|
| Positive | 19% | \$38M |
| No change | 45% | \$89M |
| Negative | 37% | \$73M |

2019 BREAKDOWN

9%

MATURE

- Wholesale – professional and commercial equipment
- Wholesale – drugs
- Other financial investment opportunities

58%

GROWTH

- Real estate
- Architectural and Engineering
- Insurance

6%

DECLINING

- Automobile manufacturing
- Motor vehicle transmission manufacturing
- Retail – general merchandise

27%

EMERGING

- Hospitals
- Scientific research and development
- Other motor vehicle parts manufacturing

POST COVID SHIFTS

| | Growth Sectors | | | Emerging Sectors | | | Mature Sectors | | | Declining Sectors | | |
|----------------|----------------|------------------------------|-----------|------------------|-------------------------------------|---|-----------------------|-------------------|----------------------------|--------------------------|----------------------------|------------------------------|
| | Real Estate | Architecture and engineering | Insurance | Hospitals | Scientific research and development | Other motor vehicle parts manufacturing | Wholesale – equipment | Wholesale – drugs | Other financial investment | Automotive manufacturing | Transmission manufacturing | Retail – general merchandise |
| 2019 Output | \$11.7B | \$9.8B | \$6.4B | \$6.6B | \$2.2B | \$2.0B | \$2.0B | \$1.8B | \$1.6B | \$1.9B | \$1.4B | \$1.0B |
| 2021 Output | \$13.5B | \$9.4B | \$6.2B | \$6.5B | \$2.2B | \$2.2B | \$2.1B | \$1.9B | \$2.1B | \$956M | \$987M | \$1.1B |
| Economic Shift | No change | Negative | Negative | Negative | No change | No change | Positive | Positive | Positive | No change | No change | Positive |

GAINS

By Percent

- Breakfast cereal manufacturing (2,881%)
- Search, detection, and navigation manufacturing (2,661%)
- In-vitro diagnostic manufacturing (1,969%)

By Value

- Real estate (\$1.8B)
- Credit intermediation (\$1.4B)
- Employment services (\$1.1B)

LOSSES

By Percent

- Lawn and garden equipment manufacturing (-99%)
- Commercial sports (-95%)
- Fluid cylinder manufacturing (-91%)

By Value

- Automotive manufacturing (-\$959M)
- Motor-vehicle steering manufacturing (-\$629M)
- Motor vehicle electronic manufacturing (-\$626M)

TAKEAWAYS

- Legacy manufacturing sectors (auto, machinery) hit hard by COVID
 - Likely accelerated an inevitable decline
- Specialized manufacturing (medical equipment, materials) accelerated
- Retail held constant
- Arts, entertainment, and accommodation on the rebound
 - Limited service restaurants boomed in productivity
- Increased strain on household budgets
- 12.5% of workers left or were hired into a new sector

