

Jobs & Economy: The Economic Impacts of the Regional Transportation Plan

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Some Economic Impacts of the 2018 RTP/SCS
San Joaquin Council of Governments
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September 21, 2017

<http://pacific.edu/cbpr>

Overview

- 2018 RTP/SCA Scenarios Analysis
- Technical context
- Scenario 1
- Scenario 2a
- Scenario 2b
- Scenario 3
- Comparison of Results
- Other Considerations

2018 RTP/SCS Scenarios

Transportation Scenarios and Investments 2018-2042

- Scenario 1 (no K 3.0)
 - ▣ \$11.46 Billion
- Scenario 2a (no K 3.0)
 - ▣ \$11.46 Billion
- Scenario 2b (with K 3.0)
 - ▣ \$12.56 Billion
- Scenario 3 (no K 3.0)
 - ▣ \$11.46 Billion

Definitions

Types of Effects from RTP Investments:

- **Direct impacts:** These are the employment, labor income, value added, and output (expenditure) impacts resulting directly from the RTP/SCS Investments
- **Indirect impacts:** These result from company purchases of goods and services from other local industries, and the local purchases of these industries in turn, until the local supply chain is exhausted.
- **Induced impacts:** These are produced by the consumer spending of local direct and indirect company employees.

Definitions (continued)

Dimensions of impacts from RTP Investments:

- **Employment** is the number of full- and part-time jobs based on an annual average of monthly jobs. In other words, employment is measured as a full year of employment. Thus, 3 temporary jobs that lasted for 4 months are reported as 1 job.
- **Labor Income** is the sum of employee compensation and proprietor income. Employee compensation includes wages, salaries, benefits, and all other employer contributions, while proprietor income consists of payments received by self-employed individuals, and unincorporated business owners.
- **Output** represents the value of industry production. It accounts for the total change in the value of production in an industry for a given time period. Output varies as a measure across industries. For manufacturers, the value of production is sales plus or minus any change in inventories. For service sectors, the value of production equals their sales. While for retail and wholesale trade, the value of production equals their gross margin and not their gross sales.
- **Value added** is the difference between an industry's or an establishments total output and the cost of intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). It measures the contribution to GDP made by the RTP investments.

Important assumptions

- **Local economy has no supply constraints:** Industries can increase their demand for inputs and labor as needed to meet additional demand. If local firms are already operating at full capacity, then additional inputs may need to come from outside the region, thereby reducing the local impact.
- **Local inputs preference:** Inputs will be sourced locally before using imports.
- **Fixed patterns of purchases:** Assume that an industry must double its inputs to double its output. If a firm can increase its output without hiring additional employees and without purchasing additional inputs, then the impact of the change on the local economy will be smaller than estimated impact.

Scenario 1 (no K 3.0)

- Infill & Downtown Investment
 - LOW
- Compact Development
 - LOW
- Farm & Other Land Consumed
 - HIGH
- Direct Expenditures 2018-2042
 - \$11.46 Billion
 - Less \$0.5 Billion Land Acquisition
 - Less \$1.5 Billion Out of County
 - Total Direct In-County: \$9.7 Billion
- Indirect Expenditure Impacts:
 - \$2 Billion
- Induced Expenditure Impacts:
 - \$2.2 Billion
- Total Expenditure Impacts:
 - \$13.9 Billion

Scenario 1 (no K 3.0) Other Local Impacts

- In total for each \$1 Million of expenditures 8.13 new jobs locally

Employment

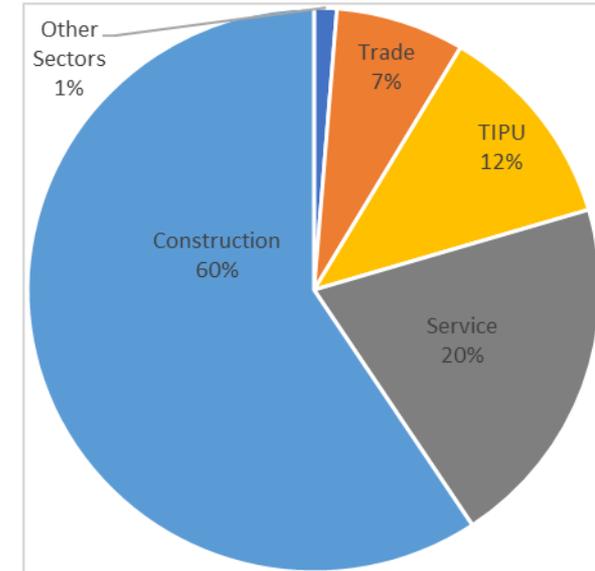
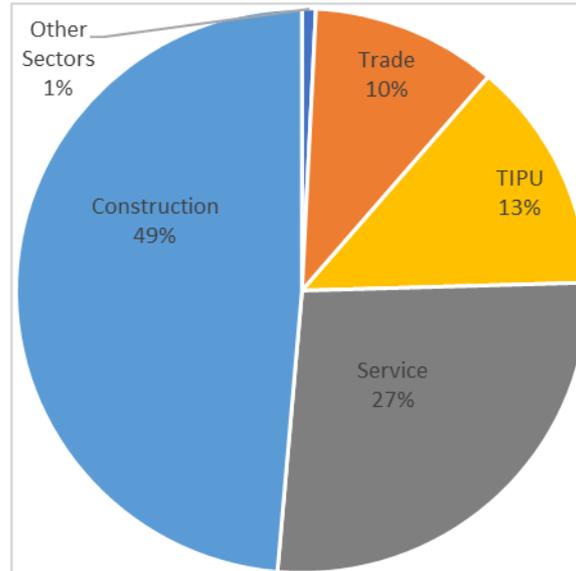
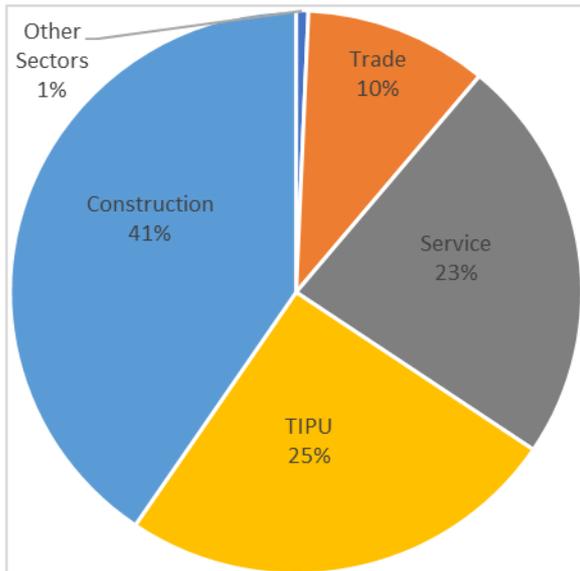
- 91,314 Total Job Yrs
- 17.4% Indirect
- 18.1% Induced

Value Added

- \$6.55 Billion Total
- 18.5% Indirect
- 20.5% Induced

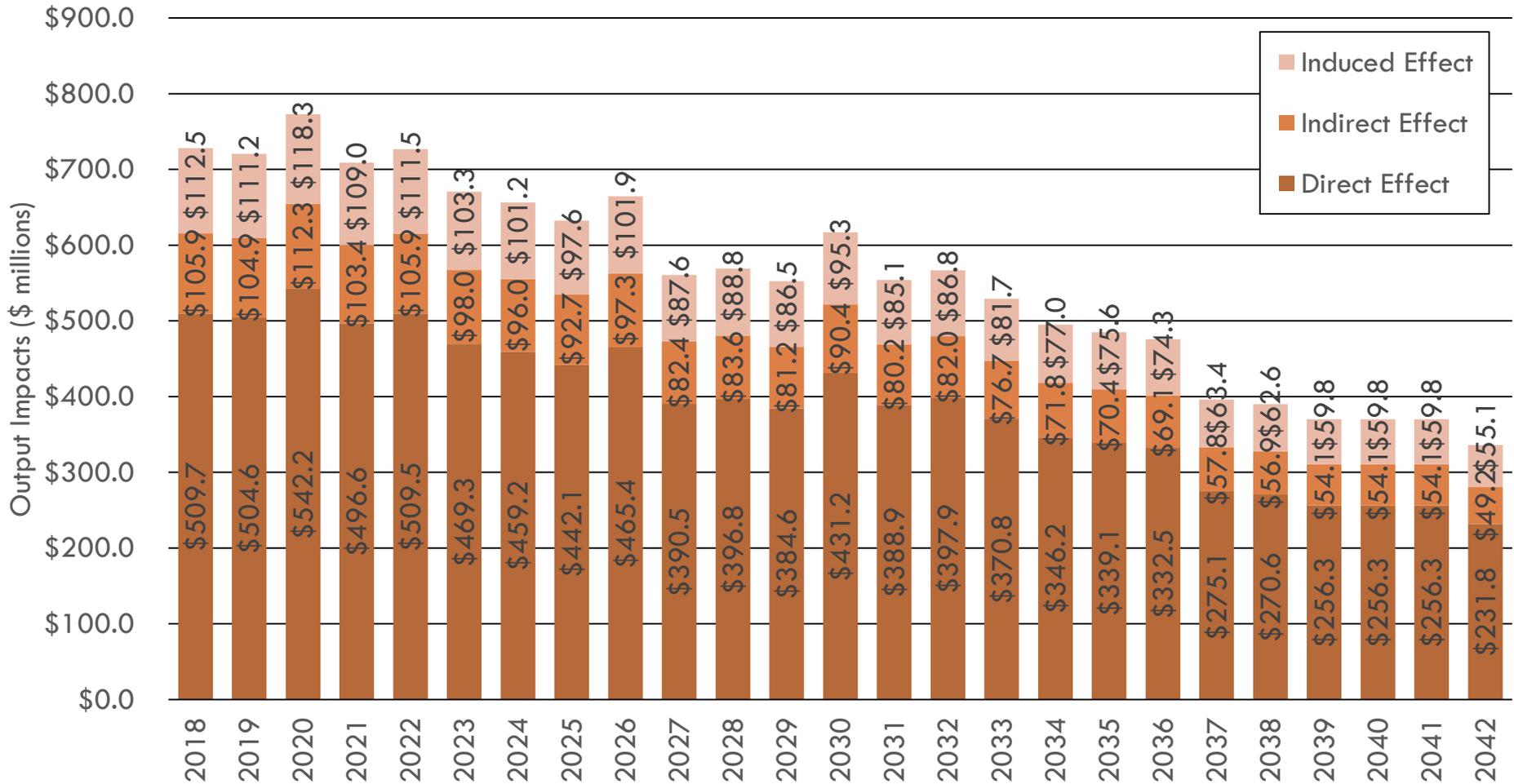
Expenditures

- \$13.92 Billion Total
- 14.6% Indirect
- 15.6% Induced



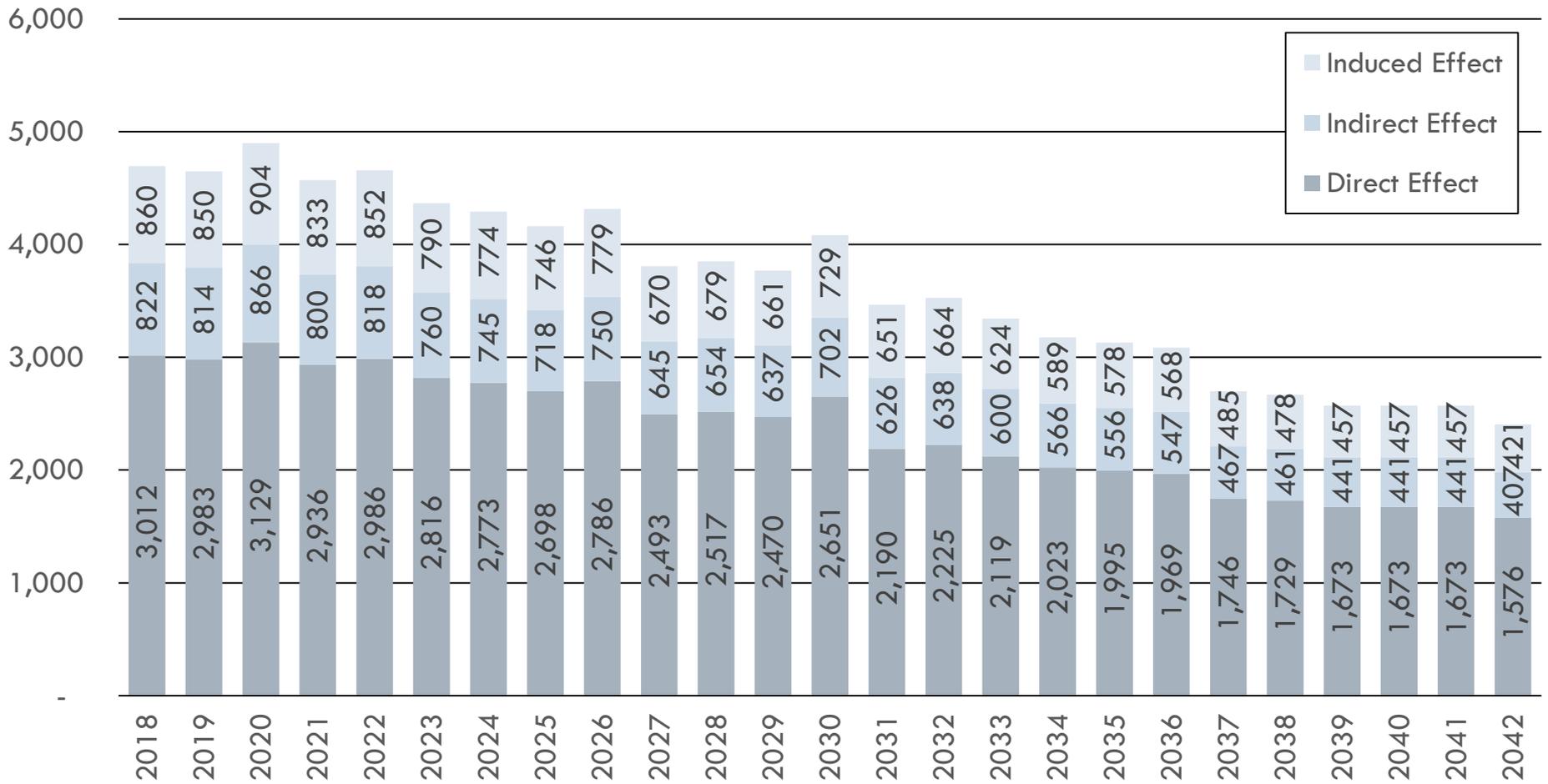
Scenario 1 (no K 3.0) Timing of Local Output Impacts

San Joaquin County Output Impacts of Scenario 1



Scenario 1 (no K 3.0) Timing of Local Employment Impacts

San Joaquin County Employment Impacts of Scenario 1



Scenario 2a (no K 3.0)

- Infill & Downtown Investment
 - ▣ MODERATE
- Compact Development
 - ▣ MODERATE
- Farm & Other Land Consumed
 - ▣ MODERATE
- Direct Expenditures 2018-2042
 - ▣ \$11.46 Billion
 - ▣ Less \$0.5 Billion Land Acquisition
 - ▣ Less \$1.6 Billion Out of County
 - ▣ Total Direct In-County: \$9.6 Billion
- Indirect Expenditure Impacts:
 - ▣ \$2 Billion
- Induced Expenditure Impacts:
 - ▣ \$2.1 Billion
- Total Expenditure Impacts:
 - ▣ \$13.8 Billion

Scenario 2a (no K 3.0) Other Local Impacts

- In total for each \$1 Million of expenditures 8.05 new jobs locally

Employment

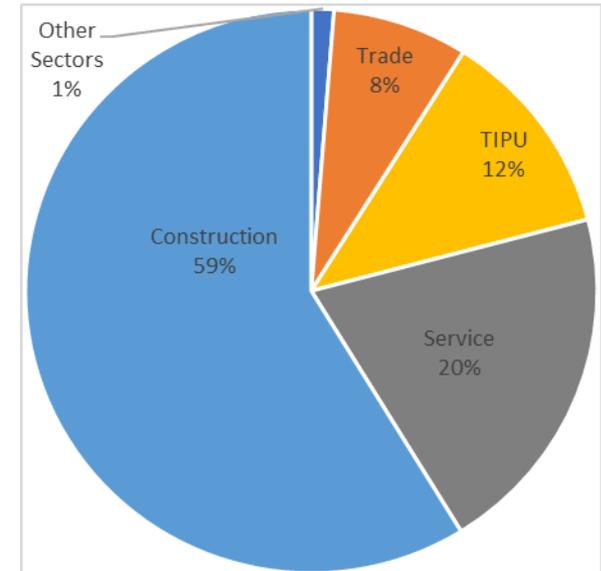
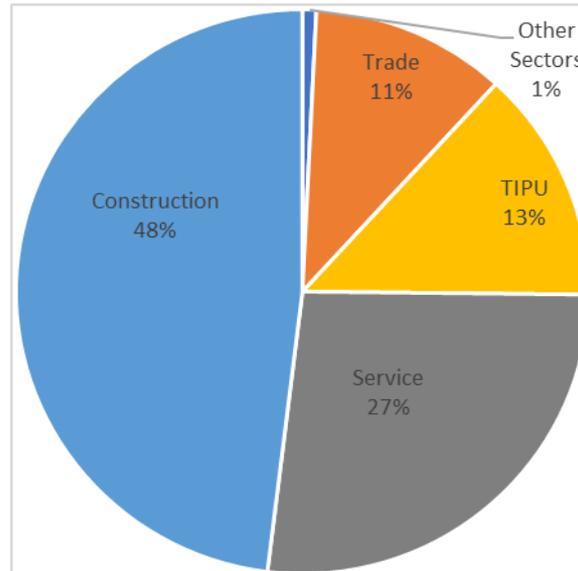
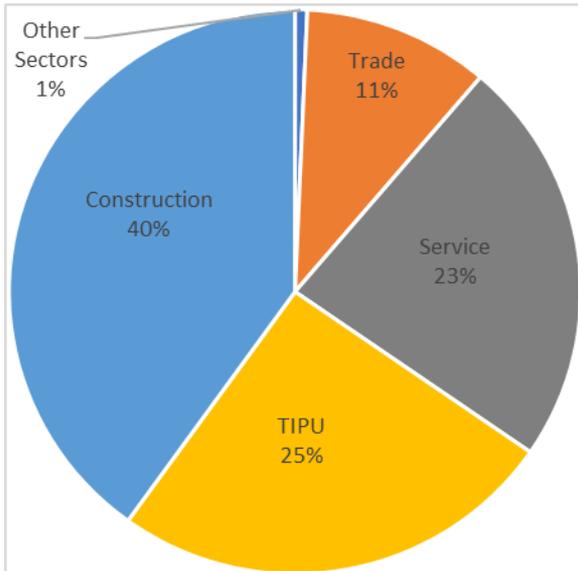
- 90,422 Total Job Yrs
- 17.4% Indirect
- 18.1% Induced

Value Added

- \$6.49 Billion Total
- 18.4% Indirect
- 20.4% Induced

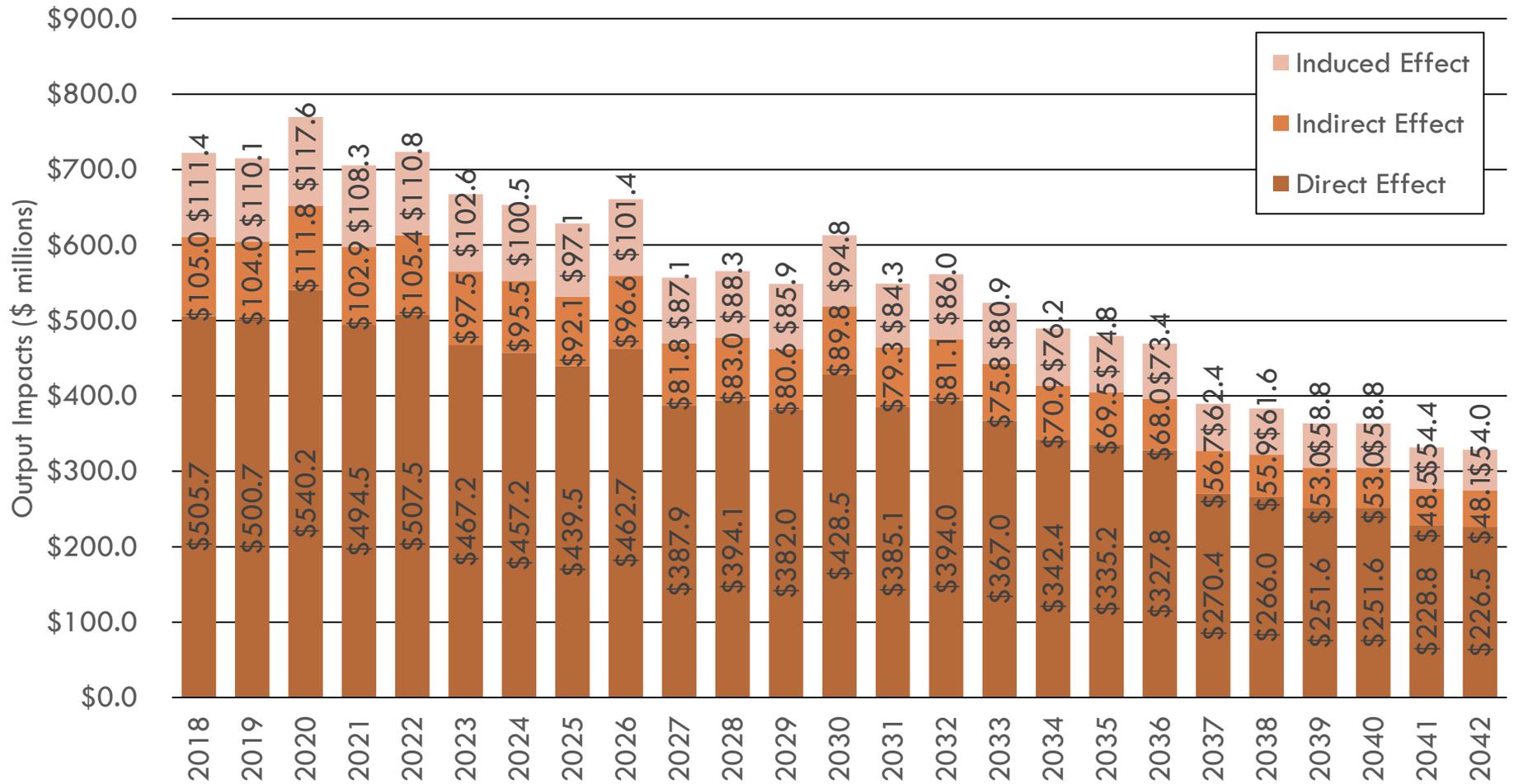
Expenditures

- \$13.76 Billion Total
- 14.6% Indirect
- 15.6% Induced



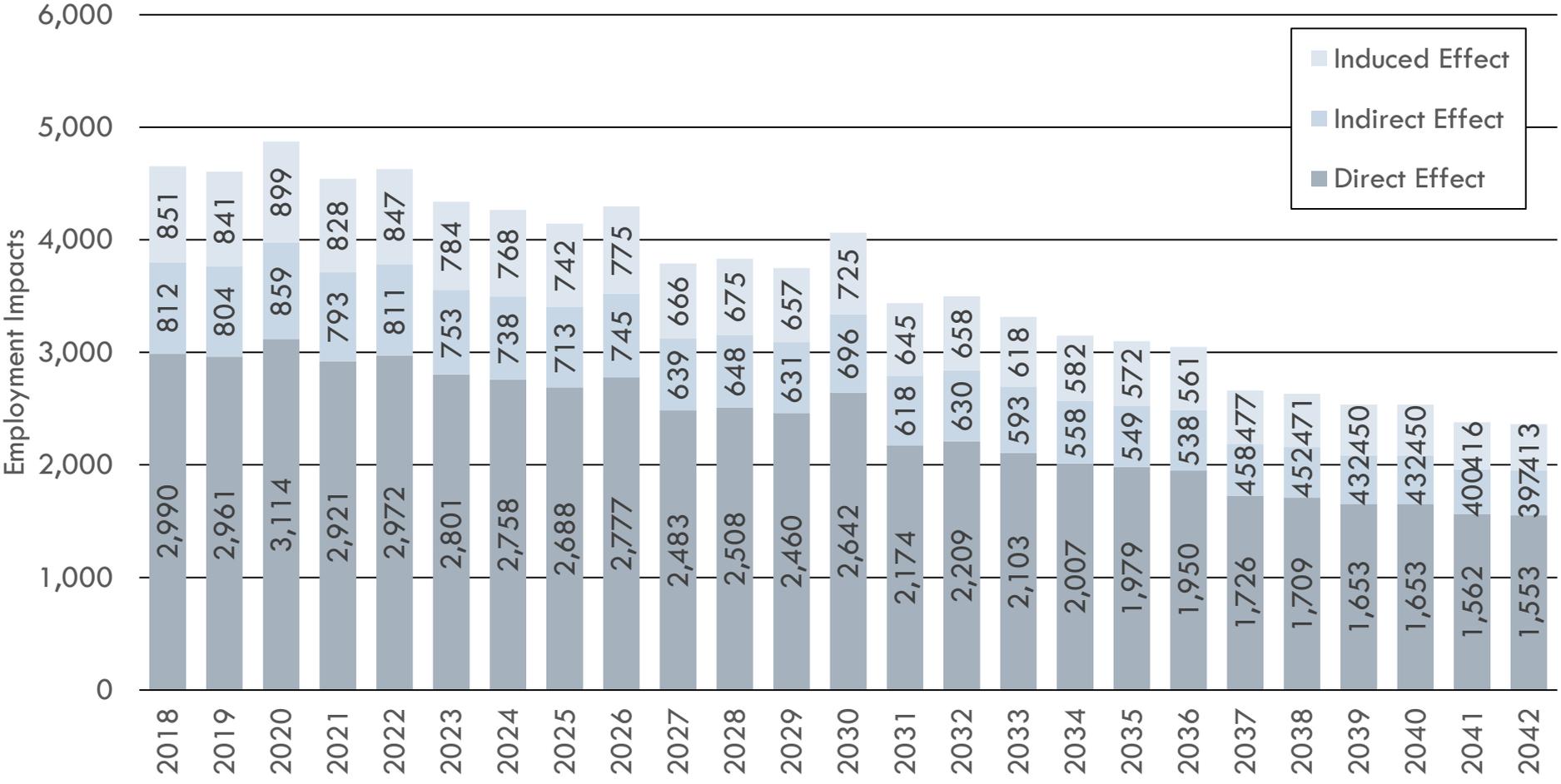
Scenario 2a (no K 3.0) Timing of Local Output Impacts

San Joaquin County Output Impacts of Scenario 2a



Scenario 2a (no K 3.0) Timing of Local Employment Impacts

San Joaquin County Employment Impacts of Scenario 2a



Scenario 2b (with K 3.0)

- Infill & Downtown Investment
 - MODERATE
- Compact Development
 - MODERATE
- Farm & Other Land Consumed
 - MODERATE
- Direct Expenditures 2018-2042
 - \$12.56 Billion
 - Less \$0.5 Billion Land Acquisition
 - Less \$1.8 Billion Out of County
 - Total Direct In-County: \$10.7 Billion
- Indirect Expenditure Impacts:
 - \$2.2 Billion
- Induced Expenditure Impacts:
 - \$2.3 Billion
- Total Expenditure Impacts:
 - \$15.2 Billion

Scenario 2b (no K 3.0) Other Local Impacts

- In total for each \$1 Million of expenditures 7.82 new jobs locally

Employment

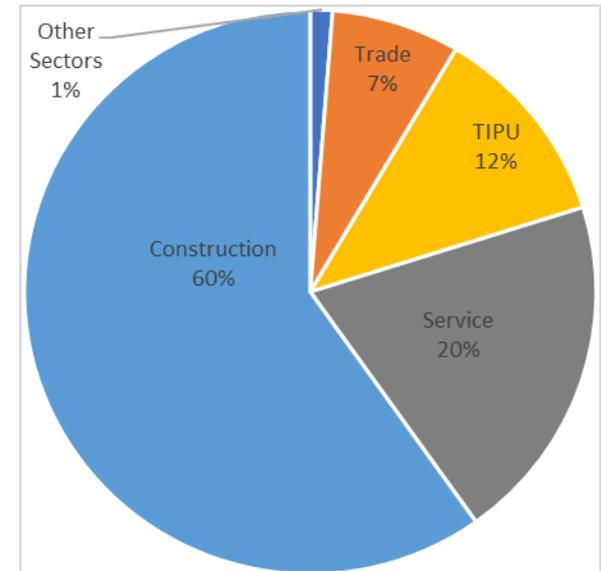
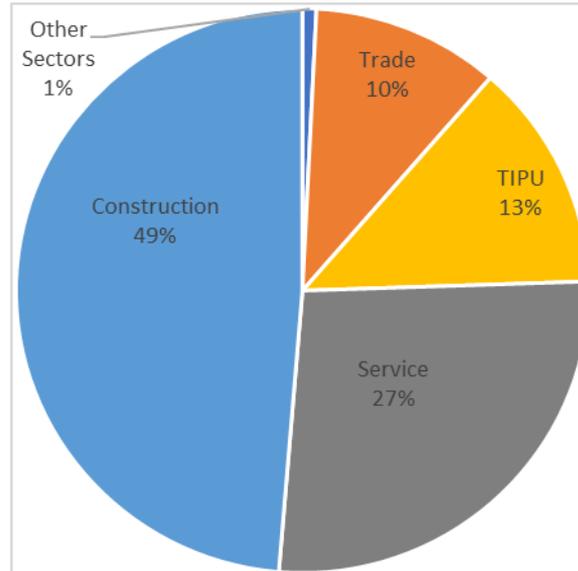
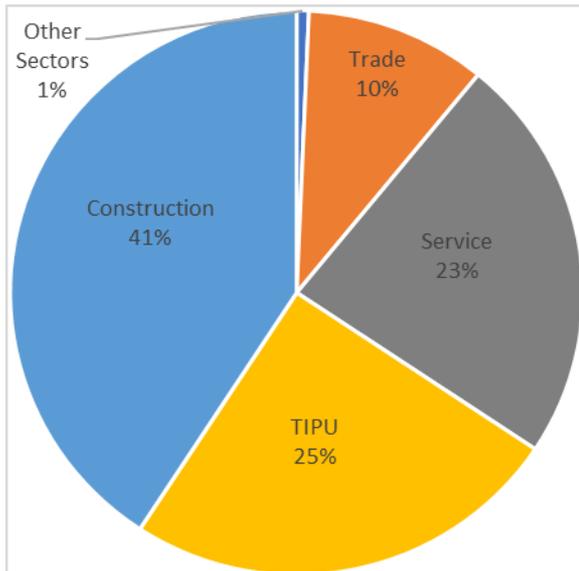
- 97,648 Total Job Yrs
- 17.4% Indirect
- 18.2% Induced

Value Added

- \$7.08 Billion Total
- 18.7% Indirect
- 20.3% Induced

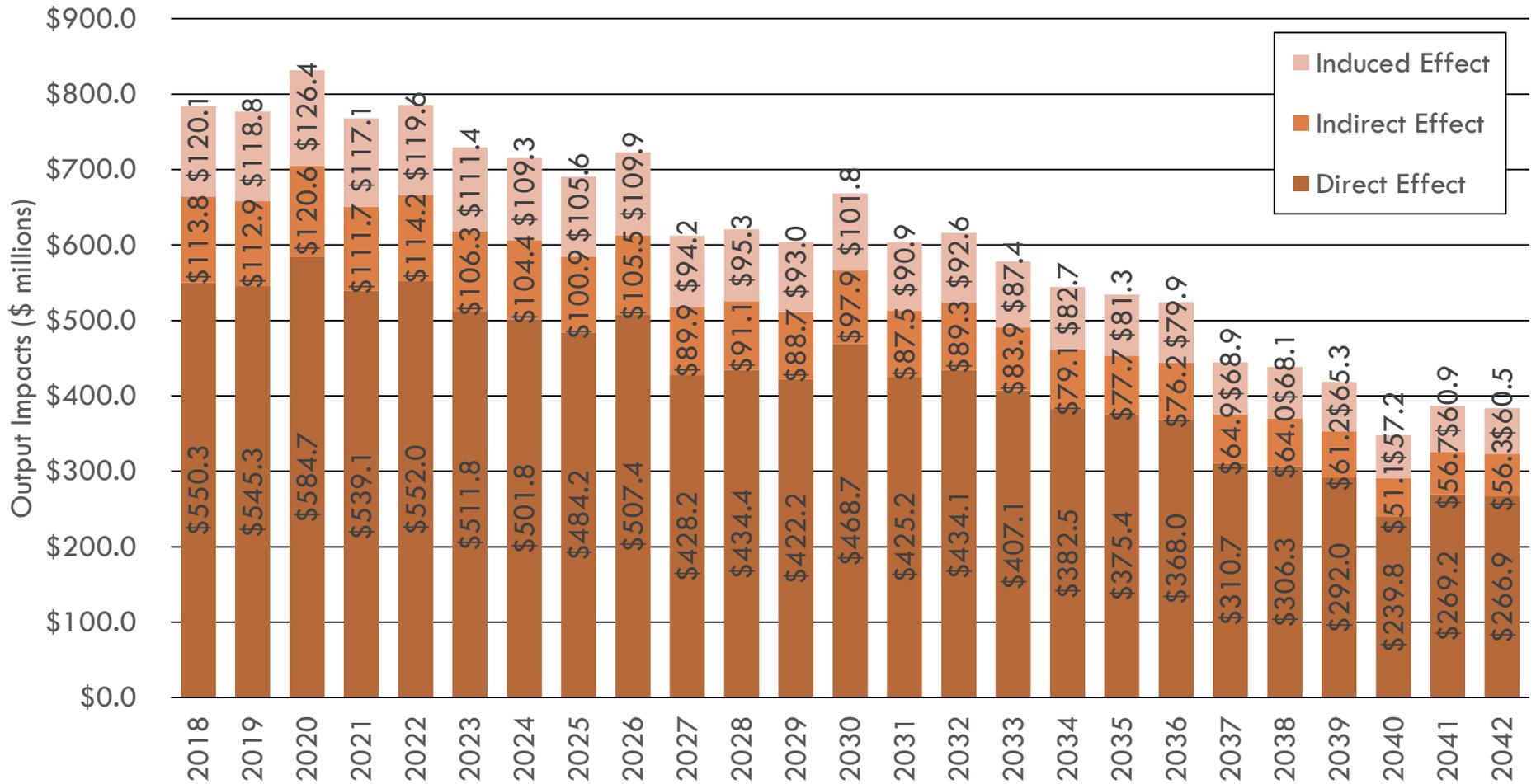
Expenditures

- \$15.20 Billion Total
- 14.6% Indirect
- 15.3% Induced



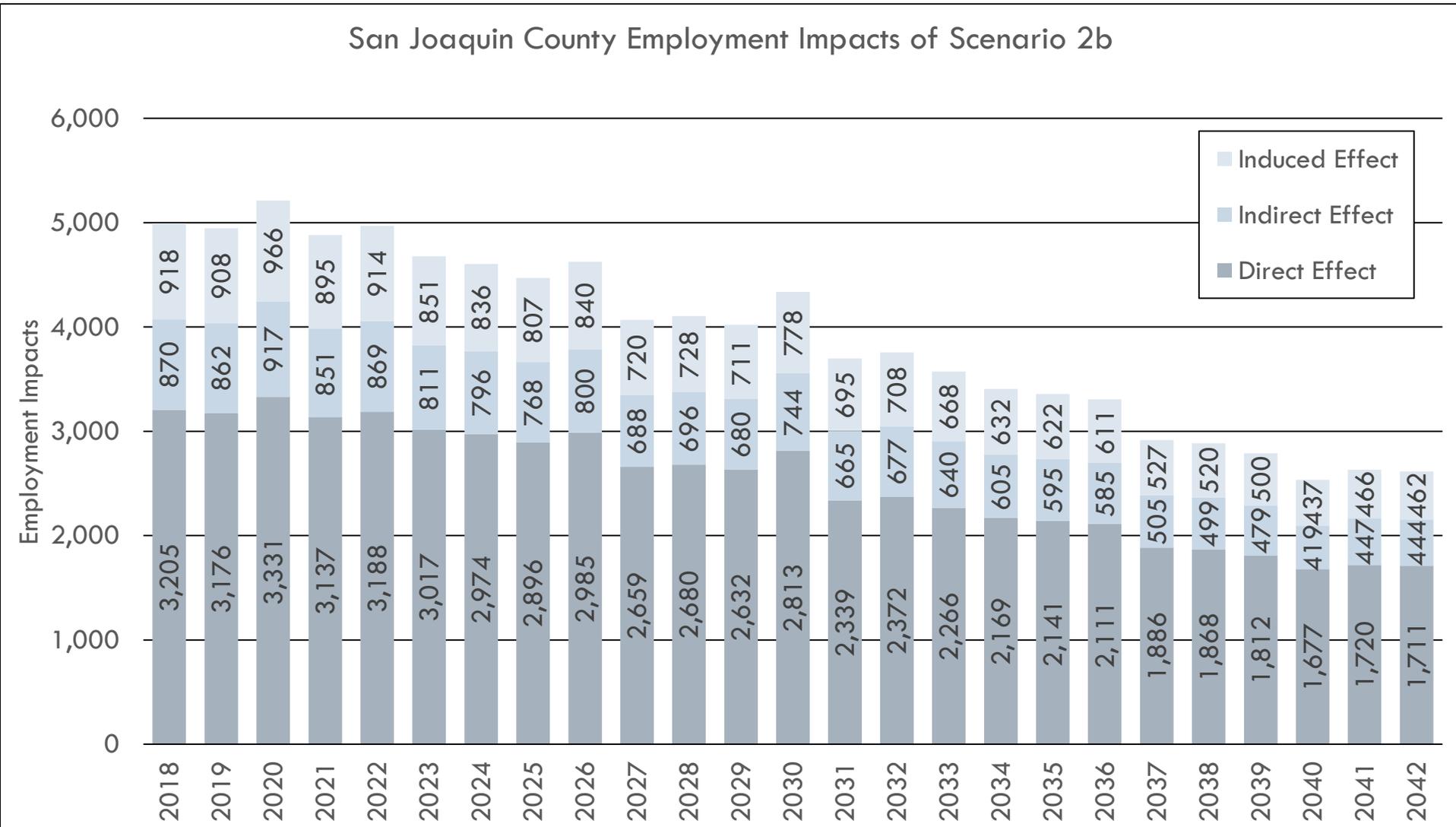
Scenario 2b (with K 3.0) Timing of Local Output Impacts

San Joaquin County Output Impacts of Scenario 2b



Scenario 2b (with K 3.0) Timing of Local Employment Impacts

San Joaquin County Employment Impacts of Scenario 2b



Scenario 3 (no K 3.0)

- Infill & Downtown Investment
 - HIGH
- Compact Development
 - HIGH
- Farm & Other Land Consumed
 - LOW
- Direct Expenditures 2018-2042
 - \$11.46 Billion
 - Less \$0.5 Billion Land Acquisition
 - Less \$1.7 Billion Out of County
 - Total Direct In-County: \$9.5 Billion
- Indirect Expenditure Impacts:
 - \$2 Billion
- Induced Expenditure Impacts:
 - \$2.1 Billion
- Total Expenditure Impacts:
 - \$13.7 Billion

Scenario 3 (no K 3.0) Other Local Impacts

- In total for each \$1 Million of expenditures 8.15 new jobs locally

Employment

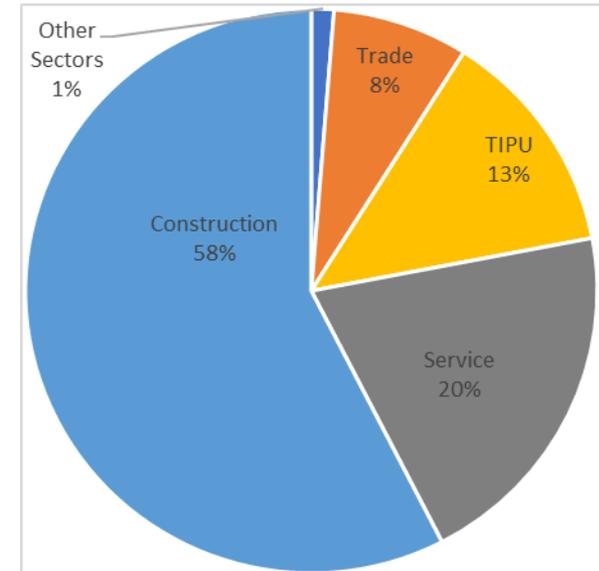
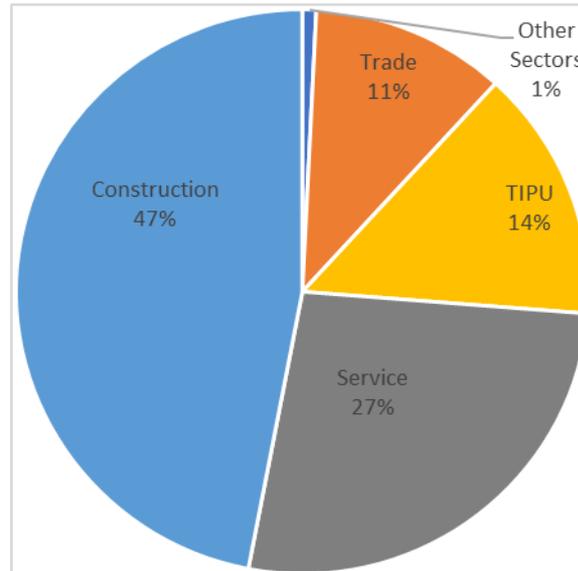
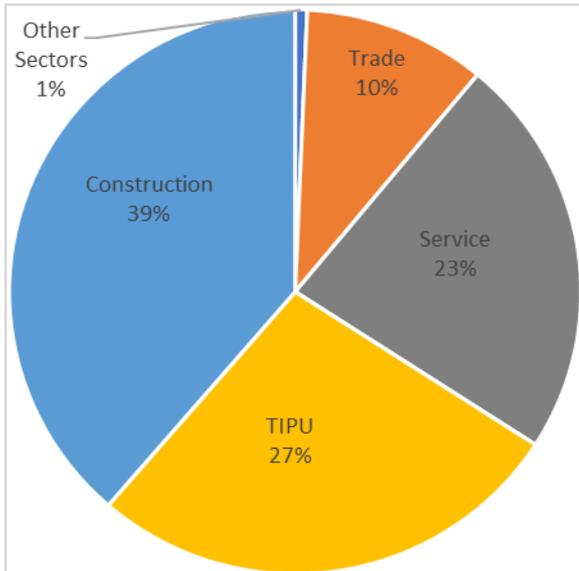
- 91,559 Total Job Yrs
- 17.1% Indirect
- 17.8% Induced

Value Added

- \$6.49 Billion Total
- 18.3% Indirect
- 20.4% Induced

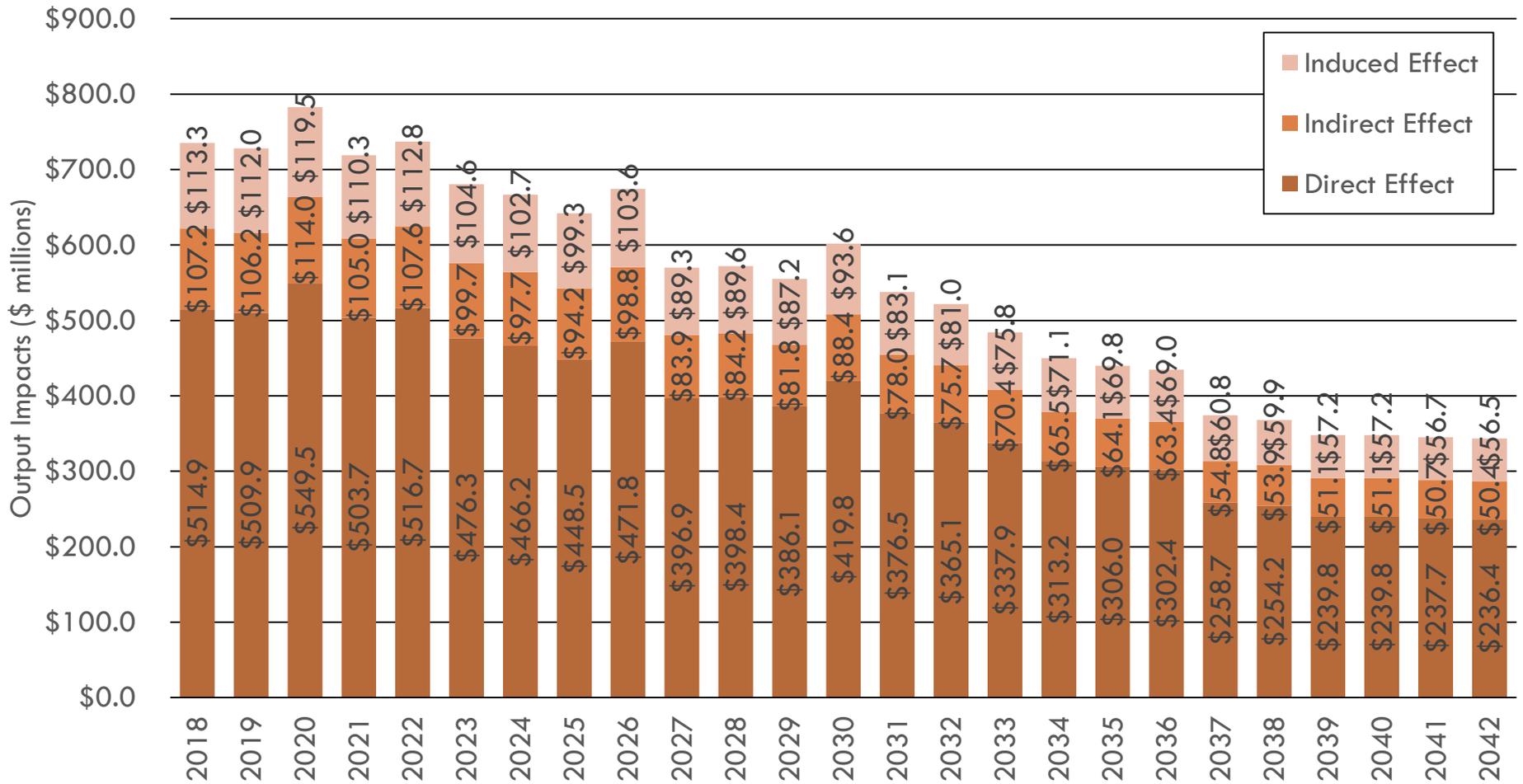
Expenditures

- \$13.66 Billion Total
- 14.6% Indirect
- 15.6% Induced



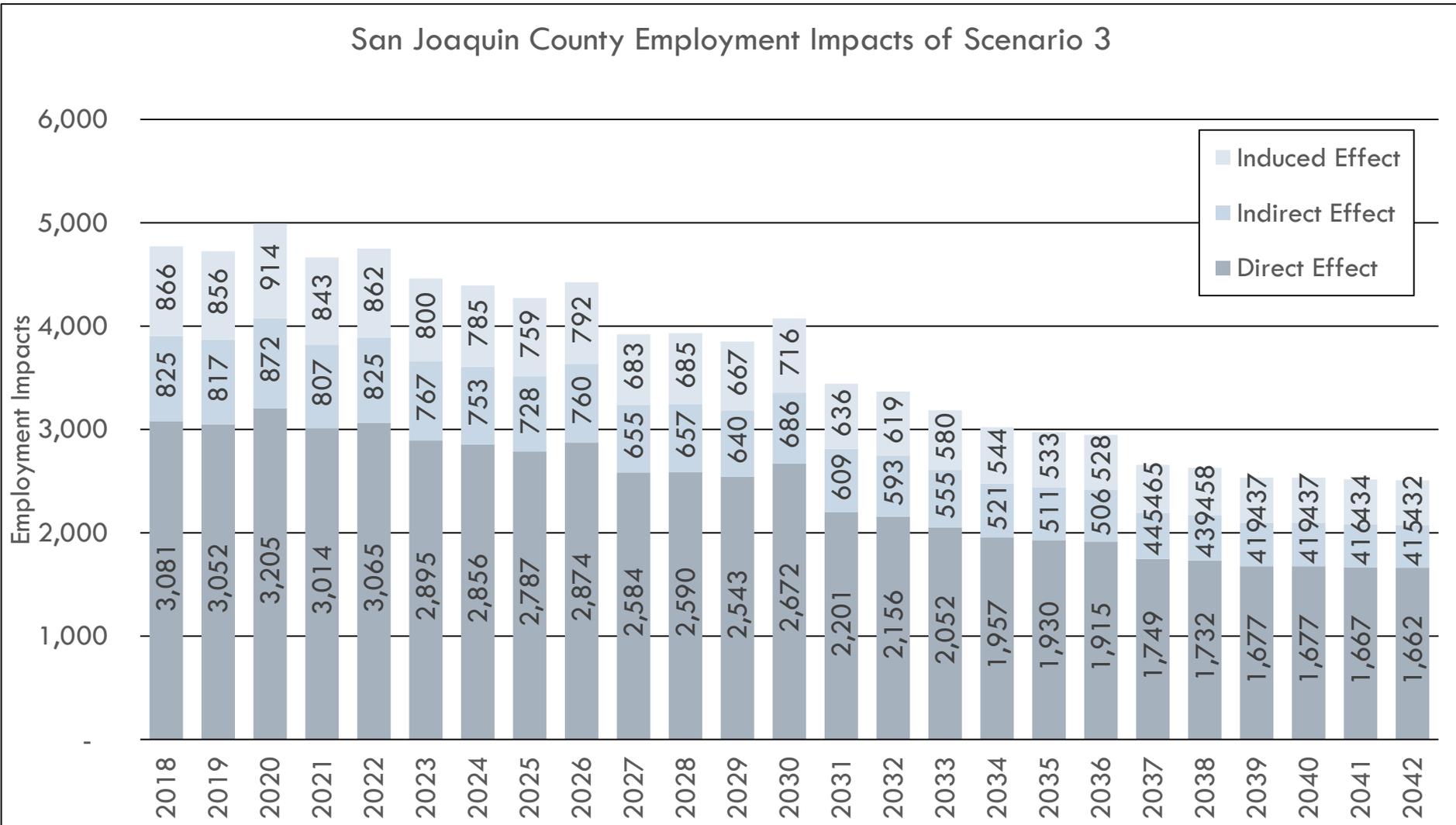
Scenario 3 (no K 3.0) Timing of Local Output Impacts

San Joaquin County Output Impacts of Scenario 3



Scenario 3 (no K 3.0) Timing of Local Employment Impacts

San Joaquin County Employment Impacts of Scenario 3



2018 RTP/SCS Scenarios: Comparison of Local Impacts

Total Local Impacts of RTP/SCS Investments 2018-2042

	Investment*	Employment	Labor Income	Value Added	Output
Scenario 1	\$11,410,943,807	91,314	\$4,604,407,916	\$6,546,145,564	\$13,919,492,223
Scenario 2a	\$11,410,943,807	90,422	\$4,552,535,793	\$6,493,388,963	\$13,761,362,170
Scenario 2b	\$12,510,943,807	97,648	\$4,944,479,159	\$7,075,016,697	\$15,201,264,692
Scenario 3	\$11,410,943,807	91,559	\$4,541,375,969	\$6,486,046,894	\$13,660,418,809
* Not including right-of-way acquisition worth \$49.1 Million					

Total Multipliers of RTP/SCS Investments' Local Impacts 2018-2042

	Employment	Labor Income	Value Added	Output
Scenario 1	1.55	1.44	1.64	1.43
Scenario 2a	1.55	1.44	1.63	1.43
Scenario 2b	1.55	1.44	1.64	1.43
Scenario 3	1.54	1.44	1.63	1.43

2018 RTP/SCS Scenarios: Other Considerations

- Not just a transportation & sustainability strategy:
 - ▣ Economic development strategy
 - ▣ Infrastructure strategy
- Therefore – what is the relationship between these investments and the competitiveness, costs, and efficiency of the local economy?
- Importance of systemic impacts
 - ▣ The Stockton Airport example
 - Current operations – aviation & tenants
 - Air passenger service – international & network domestic
 - Air cargo service

THANK YOU!

For more information: go.pacific.edu/cbpr