



**TRANSPORTATION  
CORRIDOR AGENCIES**

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# Economic Impact Study: 241 Initial Segment



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## Executive Summary

The Transportation Corridor Agencies (TCA) are two joint powers authorities formed by the California legislature in 1986 to plan, finance, construct and operate Orange County's 67-mile public toll road system. Fifty-one miles of the system are complete, including the 73 Toll Road (San Joaquin Hills Transportation Corridor Agency), 133, 261 and 241 Toll Roads (Foothill/Eastern Transportation Corridor Agency). Elected officials from surrounding cities and county supervisorial districts are appointed to serve on each agency's Board of Directors.

Public oversight ensures that the interests of local communities and drivers are served and that TCA continues to meet the region's growing need for congestion-free transportation alternatives. The Foothill/Eastern Transportation Corridor Agency has been working since the late 1980s to complete the state and federal environmental process for the final 16-miles of the system - the completion of the 241 Toll Road into San Diego County.

Beacon Economics has done an economic analysis of the proposed budget for the 241 Initial Oso-Ortega Segment project in inland Southern Orange County and found that it will provide a significant economic impact to Orange County and the rest of California. Specifically, the impact study has found that:

- This four-mile project will create 2,015 jobs in Orange County and generate more than 407 jobs throughout the remainder of California through leakage.
- The \$205.7 million project will generate a total of \$380 million in economic output throughout the state based upon the figures provided by the TCA; \$293.6 million will accrue in Orange County from the beginning of the initial segment through its completion. The 241 initial segment will also generate more than \$86 million in economic output in the remainder of California.
- A total of \$171.6 million in value added will be created in Orange County by the \$205.7 million investment to complete the 241 initial segment.
- Beacon Economics estimates that more than \$17.7 million in tax revenues will go to state and local government as a result of the 241 initial segment.

### Economic Impact Summary

	Orange County	Remainder of California	Total
Jobs	2,015	408	2,423
Output (\$ Millions)	293.6	86.5	380.2
Earnings (\$ Millions)	142.4	25.3	167.8
State/Local Taxes (\$ Millions)	13.3	4.4	17.7

Source: IMPLAN, Calculations by Beacon Economics

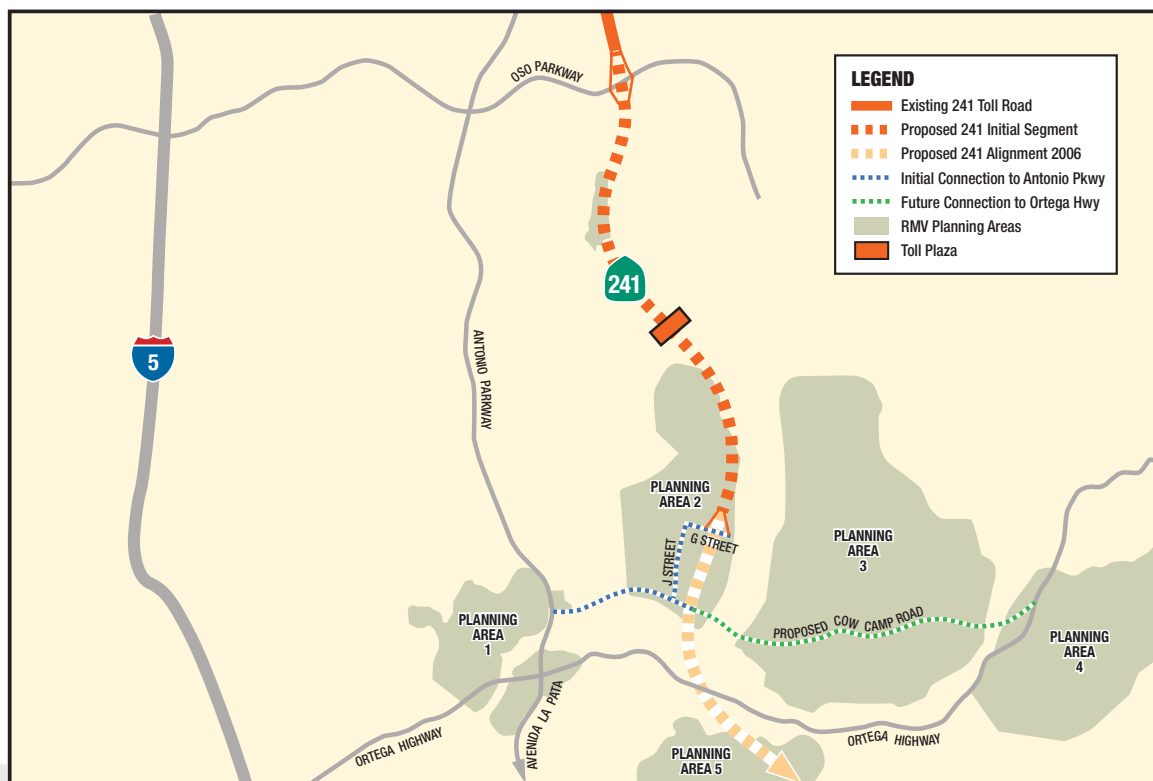
## Scope of Work

TCA has contracted with Beacon Economics to conduct an economic impact analysis of the 241 initial segment. The purpose of this report is to provide TCA with a better understanding of the benefits that are likely to accrue to Orange County and the state from the infrastructure investment described below. The impact to the economy is generated through several channels. First, spending related to the 241 initial segment would create economic output in Orange County. Second, the project would also support employment, particularly in the construction sector. Finally, the project would generate tax revenues for state and local government.

## About the Project

The four mile Oso-Ortega segment in inland Southern Orange County is the first step in a larger project that will complete the final piece of Orange County's 67-mile toll road system. The 241 Toll Road currently ends at Oso Parkway in Rancho Santa Margarita. The inland four-mile segment would extend the road to Ortega Highway. The planned full project would extend the 241 Toll Road from Oso Parkway to Interstate 5 south of San Clemente in San Diego County. As with the current 51 miles of toll roads in Orange County, the final 16 miles of the 241 Toll Road would be part of the California highway system, but operated as a toll facility by the Transportation Corridor Agencies.

### 241 COMPLETION - INITIAL SEGMENT



The initial segment analyzed here will form the first stage of this completion project by extending the existing 241 Toll Road from its current terminus at Oso Parkway down to the vicinity of Ortega Highway. TCA will continue to pursue the balance of the completion project, but this report focuses on the economic impact that can be expected from the 241 Initial Segment project.

The purpose of this project is to improve the transportation infrastructure system in Orange County. Interstate 5 is currently the only direct route between Orange and San Diego Counties. The completion of the 241 Toll Road would provide an alternative to the over-burdened I-5, which is projected to become more congested due in part to population growth in Southern California. The initial segment of the 241 Completion Project is the first step toward meeting that goal.

According to the annual Urban Mobility Report from the Texas Transportation Institute, highways in Orange and Los Angeles Counties are among the most congested in the U.S. Without the completed toll road, travel from the San Diego/Orange County border to Mission Viejo is projected to take one hour in 2025. With the toll road, travel time is projected to be 25 minutes on I-5 and 16 minutes on the 241 Toll Road. Completing the toll road would also provide the redundancy needed in the event of an emergency.

The 241 Toll Road is also critical for goods movement from the Port of Los Angeles and Port of Long Beach to destinations across America. Over 10,000 trucks use I-5 every day, a number expected to increase as Southern California port activity grows. Therefore, the initial segment of the 241 Completion Project begins to bring an alternative to the I-5 for goods movement closer to reality.

## Impact Overview and Methodology

This report analyzes the direct and indirect economic impacts that will stem from the planned initial segment of the 241 Completion Project. To estimate the economic impact of the 241 initial segment, Beacon Economics used Version 3 of the IMPLAN modeling system. This is an input-output model that can be used to estimate the short-run impact of changes in the economy through the use of multiplier analysis.

Impact studies operate under the basic assumption that any increase in spending has three effects: First, there is a direct effect on the industry itself, resulting from the additional output of goods or services. Second, there is a chain of indirect

### ***Economic Impact Highlights***

The 241 initial segment will generate over \$380 million in economic output throughout California:

- \$205.7 million will be spent on the 241 initial segment.
- Direct spending on the project will generate over \$293.6 million in economic output in Orange County.
- The initial segment will also generate more than \$86.5 million in economic output in the remainder of California.

This project will also generate significant additional employment opportunities throughout the state:

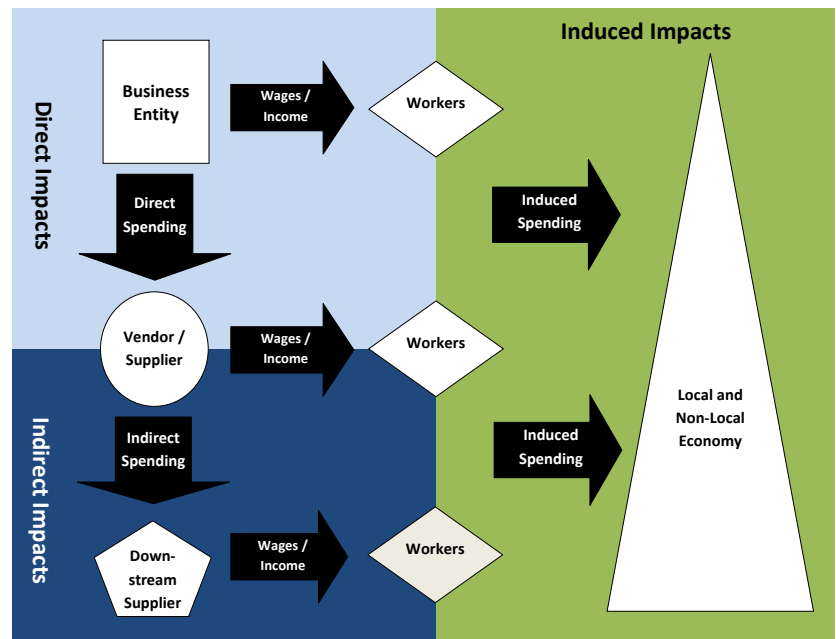
- The 241 initial segment will create more than 2,015 jobs in Orange County through the end of the project.
- The 241 initial segment will also create 408 jobs throughout the remainder of California.

State and local government will also benefit from nearly \$13.3 million in additional revenues per year in Orange County. Another \$4.4 million in tax revenues will be earned by state and local governments in the rest of the state.

effects on all the industries whose outputs are used by the industry under observation. These are the impacts generated by a business' supply chain. Third, there are induced effects that arise when employment increases and household spending patterns are expanded. These impacts are the result of the additional income that is earned in the course of producing this output, both by employees in the target industry and in those supplying it.

There are several components to the overall economic impact. First, there is an effect on value added—the net increase in the overall value of the local economy. Value added is the total increase in an industry's output less the cost of any intermediate inputs, and it is commonly used to measure an industry's contribution to local gross product. Value added consists primarily of labor income, but also includes indirect business taxes and other property income. Second, there is an impact on local employment, with the single-largest share of jobs created in the industry itself, and the others spread throughout the study area's economy. Third, is the increase in output, where the difference between value added and output is that the former concentrates on various earnings, while the latter includes the costs of intermediate inputs.

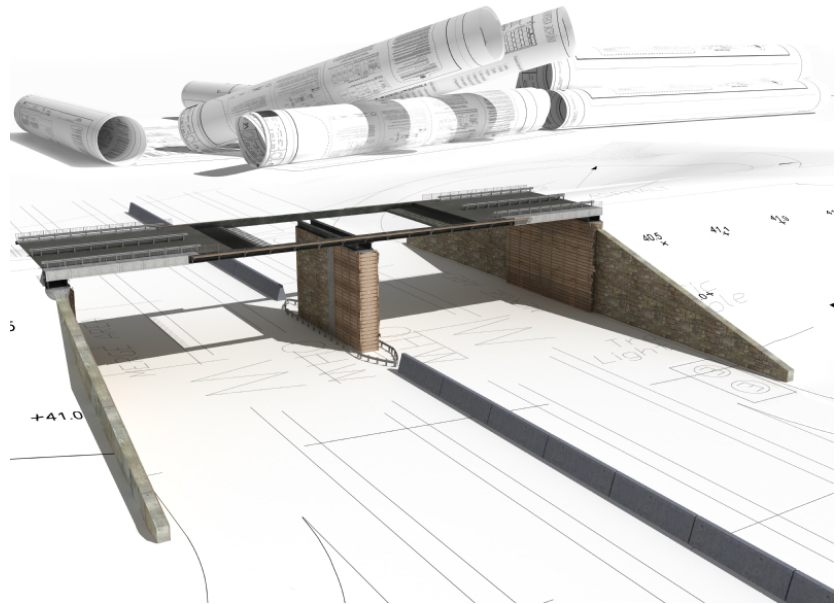
It is also important to note that capital investments made on different types of projects can lead to different multipliers. Why? A sector can have a large multiplier if it induces economic activity in industries whose employees have a high propensity to spend from take-home pay. Also, if the sector does not import many materials from abroad or from out of state, then its multiplier effect on the local economy will be high. In essence, some of the spending in the local economy may “leak out” into other states and countries. If raw materials are imported, then a change in a local sector's level of production will result in a commensurate change in economic activity abroad. The same is true if a California business buys inputs from firms in different states.



Thus, our analysis here covers the main areas of economic impact that will accrue at the county level due to the planned \$199.7 million investment to build the initial segment of the 241 Toll Road Completion Project. First, the direct employment, output, and value added effects for Orange County after accounting for "leakage" out of the county. Second, we estimate the indirect effects on all the industries whose outputs are used by the proposed project as well as the induced effects arising when employment increases and household spending patterns are expanded. Finally, to measure the "leakage" out of Orange County that accrued to another part of the state, we estimate the indirect effects of the 241 initial segment on the remainder of California.

## Planned Investment

It is estimated that a total of \$205.7 million will be spent on the 241 initial segment. The project's expenditures are broken out into a variety of categories. According to estimates from TCA, the capital costs, which include the cost of constructing the 241 initial segment, will comprise 95 percent of the \$205.7 million in expenditures. Other costs, including right-of-way, construction management, planning and engineering services, and financial services fees account for the remaining 5 percent of the spending. Expenditures are further broken out into two time periods to distinguish between present and future spending. These planned expenditures are shown in the table below.



**241 initial segment Expenditures (\$ thousands)**

Category	FY2012	FY2013 and Beyond	Total
Preliminary Engineering/Design	2,720.0	680.0	3,400.0
Environmental and Mitigation	637.1	143.0	780.1
Construction	0.0	195,000.0	195,000.0
Financial Services	200.0	0.0	200.0
Administration and Legal	320.0	0.0	320.0
<b>Total</b>	<b>3,877.1</b>	<b>195,823.0</b>	<b>199,700.1</b>

Source: Foothill/Eastern Transportation Corridor Agency

It should be noted that \$6 million of the planned expenditures on the 241 initial segment are for right-of-way. This is primarily land and right-of-way services, and is akin to an asset purchase. Realistically, this is a transfer of ownership from one party to another, and as such it does not generate any significant economic impact for Orange County. Thus, our impact analysis detailed herein excludes a total of \$6 million in right-of-way expenditures, resulting in total impact-generating expenditures of \$199.7 million.

## Economic Impact

Based on these data, we have found that the initial segment of the 241 Toll Road Completion Project will provide a significant economic impact to Orange County as well as the remainder of California. Specifically, we estimate that this project will create over 2,015 jobs in Orange County between commencement of the project in fiscal year 2012 and completion of the work estimated to be in December 2014. This includes 1,455 jobs directly created as a result of the construction work, and 560 jobs created through indirect and induced effects of the project. Of these 560 jobs, 211 will be created by indirect effects on all the industries whose outputs are used in the construction of the initial segment of the 241 Toll Road Completion Project. Another 349 jobs will be created when employment increases and household spending patterns are expanded as a result of the project. In addition to the jobs created within Orange County, this project will generate another 408 jobs throughout the remainder of California through leakage, as some of the \$199.7 million investment will go toward goods and services located outside of the county.

We have determined that this \$205 million project will generate \$380 million in economic output throughout the state. A total of \$199.7 million will be generated through direct spending on the construction in Orange County between now and the completion of the project, which will in turn generate more than \$93 million in indirect and induced output from the projects' consumption of goods and services sourced from within the county. The 241 initial segment will also generate \$86.5 million in economic output in the remainder of California. It should be noted that the indirect and induced effects of this project in the remainder of California are very large, and in some cases are even larger than the secondary impacts within Orange County. This points to the fact that much of the materials and services that will be used as a result of the completion will be sourced from outside of Orange County but within California.

The \$380 million in economic output created by the 241 initial segment will lead to a significant increase in value added. Value added consists of employee compensation, proprietor income for self-employed and unincorporated businesses, corporate profits, rent payments and dividend income. Based upon the analysis, over \$212 million in value added will be created by the \$199.7 million investment. This includes \$117 million in direct value added to Orange County as a result of the project as well as \$54 million in indirect and induced value added locally. Again, a sizable share (\$40.9 million) of the additional value added will accrue to regions outside of Orange County due to leakage.

Not only does the 241 initial segment create a sizable effect on value added in Orange County and California, it should be noted that a majority of this value added is comprised of additional labor income. To illustrate, \$142 million of the additional \$172 million, or 83 percent, in value added is additional income earned by employees and proprietors' within Orange County. The same is true in the remainder of California, where 62 percent of the additional value added is in the form of additional labor income.

### Economic Impact Summary

	Orange County	Remainder of California	Total
Jobs	2,015	408	2,423
Output (\$ Millions)	293.6	86.5	380.2
Earnings (\$ Millions)	142.4	25.3	167.8
State/Local Taxes (\$ Millions)	13.3	4.4	17.7

Source: IMPLAN, Calculations by Beacon Economics

Finally, this project will generate additional tax revenues in Orange County and throughout the rest of the state. We estimate that close to \$13.3 million in tax revenues will go to state and local government in Orange County between now and the completion of the project. This consists of taxes on employee compensation, indirect business taxes, taxes paid by households, and by corporations. An additional \$4.4 million in tax revenues will be earned by state and local governments in the rest of the state.

In sum, the 241 initial segment will have a significant impact on the local and statewide economy. In addition to the reduced congestion and time savings, the work itself will give Orange County's economy a boost as it recovers from the Great Recession. Not only will the 241 initial segment create a relatively large number of jobs, the region will see additional value added and income for its residents, and local governments can expect more tax revenues as a result. Finally, this project will bring the region one step closer to recognizing the overall goal of the 241 Completion Project by extending the existing 241 Toll Road down from Oso Parkway to the Ortega Highway.

## **Conclusion**

This report finds that the 241 initial segment would generate over \$293.6 million in economic output and support 2,015 jobs in Orange County. Labor income would increase by \$142.4 million locally. However, the benefits of the project would not be limited to Orange County. The rest of the state would also benefit from spillover impacts generated by the 241 initial segment. The remainder of California would see an increase in economic output of \$86.5 million, and 408 jobs would be supported, resulting in \$25.3 million in additional labor income. California and local governments would benefit from \$17.7 million in tax revenues—\$13.3 million of which would go to state/local government agencies within Orange County and an additional \$4.4 million in tax revenues would be generated for agencies in the remainder of the state.

## Detailed Results

### Economic Impact of 241 Initial Segment

Impact on Orange County

	FY2012	FY2013 and Beyond	Total Impact
<b>Employment</b>			
Direct Effect	23.7	1,431.2	1,454.9
Indirect Effect	7.6	203.6	211.2
Induced Effect	7.0	341.9	348.9
Multiplier	1.62	1.38	1.38
<b>Total</b>	<b>38.3</b>	<b>1,976.7</b>	<b>2,015.0</b>
<b>Output</b>			
Direct Effect	3,877,113	195,823,012	199,700,125
Indirect Effect	1,177,464	37,646,397	38,823,861
Induced Effect	1,096,853	53,999,627	55,096,480
Multiplier	1.59	1.47	1.47
<b>Total</b>	<b>6,151,430</b>	<b>287,469,036</b>	<b>293,620,466</b>
<b>Value Added</b>			
Direct Effect	2,178,078	115,277,721	117,455,799
Indirect Effect	689,281	20,136,595	20,825,876
Induced Effect	663,312	32,661,469	33,324,781
Multiplier	1.62	1.46	1.46
<b>Total</b>	<b>3,530,670</b>	<b>168,075,785</b>	<b>171,606,455</b>
<b>Labor Income</b>			
Direct Effect	2,045,992	109,319,291	111,365,283
Indirect Effect	439,353	13,425,545	13,864,898
Induced Effect	342,452	16,862,470	17,204,922
Multiplier	1.38	1.28	1.28
<b>Total</b>	<b>2,827,797</b>	<b>139,607,305</b>	<b>142,435,102</b>
<b>State and Local Tax Revenues</b>			
Employee Compensation	7,399	396,475	403,874
Indirect Business Tax	114,757	5,644,586	5,759,343
Households	118,606	5,818,889	5,937,495
Corporations	29,489	1,132,242	1,161,731
<b>Total</b>	<b>270,251</b>	<b>12,992,192</b>	<b>13,262,443</b>

Source: IMPLAN, Calculations by Beacon Economics

**Economic Impact of 241 Initial Segment****Impact on Remainder of California**

	FY2012	FY2013 and Beyond	Total Impact
<b>Employment</b>			
Direct Effect	0.0	0.0	0.0
Indirect Effect	5.8	233.7	239.5
Induced Effect	3.7	164.4	168.1
Multiplier	0.40	0.28	0.28
<b>Total</b>	<b>9.5</b>	<b>398.1</b>	<b>407.6</b>
<b>Output</b>			
Direct Effect	0	0	0
Indirect Effect	1,087,911	55,153,119	56,241,030
Induced Effect	653,699	29,652,041	30,305,740
Multiplier	0.45	0.43	0.43
<b>Total</b>	<b>1,741,611</b>	<b>84,805,160</b>	<b>86,546,771</b>
<b>Value Added</b>			
Direct Effect	0	0	0
Indirect Effect	567,340	23,928,674	24,496,014
Induced Effect	354,701	16,023,592	16,378,293
Multiplier	0.42	0.35	0.35
<b>Total</b>	<b>922,041</b>	<b>39,952,266</b>	<b>40,874,307</b>
<b>Labor Income</b>			
Direct Effect	0	0	0
Indirect Effect	369,757	15,400,916	15,770,673
Induced Effect	206,442	9,366,351	9,572,793
Multiplier	0.28	0.23	0.23
<b>Total</b>	<b>576,199</b>	<b>24,767,267</b>	<b>25,343,466</b>
<b>State and Local Tax Revenues</b>			
Employee Compensation	2,547	109,853	112,400
Indirect Business Tax	51,643	2,612,009	2,663,652
Households	23,141	994,468	1,017,609
Corporations	14,873	632,395	647,268
<b>Total</b>	<b>92,204</b>	<b>4,348,725</b>	<b>4,440,929</b>

Source: IMPLAN, Calculations by Beacon Economics

## About Beacon Economics

Beacon Economics is an independent economic research and consulting firm with offices in Los Angeles and the San Francisco Bay Area. We deliver economic analysis and data sites that help our clients make informed, strategic decisions about investment, growth, revenue, policy, and other critical economic and financial issues. Our nationally recognized forecasters were among the first to predict the collapse of the housing market and foretell the onset and depth of the economic downturn that followed. Our core areas of expertise include economic and revenue forecasting, market and industry analysis, economic impact studies, economic policy analysis, and international trade analysis.

## Services

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