



BEACONECONOMICS

FINAL REPORT

**ECONOMIC AND FISCAL IMPACTS OF
TRANSIT ORIENTED DEVELOPMENT AT
GOLD LINE FOOTHILL EXTENSION
PASADENA STATIONS**

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October 24, 2016

Impact Analysis

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Introduction & Purpose of Study

A new public transit line improves access and mobility, but it also has a fundamental economic impact on the community in which the infrastructure is located. The economic impact is typically evaluated in two areas: the impact associated with the construction of the new infrastructure, and the impact of activities that are associated with that infrastructure once it becomes operational.

The introduction of a new transit line also offers the community an opportunity to re-think land use activity in the vicinity of that line and may encourage development that can add a significant amount of new economic activity in the nearby area. Transit-oriented development (“TOD”) can be an effective form of revitalization even in thriving communities, bringing commercial development that helps to attract more spending and residential development, which in turn may help to alleviate the very tight supply of housing in communities throughout California.

The Foothill Gold Line light rail line opened its first segment in 2003 – between Downtown Los Angeles and East Pasadena, and recently opened the second segment from Pasadena to Azusa (2016). This line has encouraged, and will continue to encourage, a substantial amount of TOD in the area of the 19 operational and six future stations serving communities in Los Angeles and the San Gabriel Valley. Since opening in 2003, the most significant TOD has occurred within a half-mile¹ of the six stations located in the City of Pasadena, which include:

- Fillmore
- Del Mar
- Memorial Park
- Lake
- Allen
- Sierra Madre Villa

A substantial amount of residential, retail, commercial, hotel, and other development has been and will be built near these stations, such as single-family and multi-family housing, medical offices, grocery stores, and theaters.

In all, TOD at the six Pasadena stations has added:

- Over 3,300 housing units;
- 250,000 square feet of retail space;

¹ Throughout the rest of the report, all references to TOD in Pasadena correspond to an area within one-half mile of Gold Line stations.

- 603,000 square feet of office space;
- 421,000 square feet of hotel space; and
- 306,000 square feet of other commercial construction.

In addition, a number of future TOD projects are also planned or proposed for the six stations. All projects that have been planned and proposed are at some level of review or farther along, making it realistic to consider them as part of the total economic impact of TOD of the six stations in Pasadena. These planned and proposed projects together would add an additional:

- 475 housing units;
- 17,500 square feet of retail space;
- 652,000 square feet of office space;
- 228,000 square feet of hotel space; and
- 75,000 square feet of other commercial construction.

Property Type	Housing Units	Retail (s.f.)	Office (s.f.)	Hotel (s.f.)	Other Commercial (s.f.)
Completed	3,363	244,925	603,132	421,187	305,800
Planned/Proposed	475	17,500	652,000	228,000	74,800
Total	3,838	262,425	1,255,132	649,187	380,600

These developments will build upon the robust culture and quality of life the City of Pasadena provides to its residents.

Purpose of Study

The purpose of this analysis is to quantify the regional economic and fiscal impacts on all of Los Angeles County of the residential and commercial TOD that has been or is expected to be built near the six Gold Line stations in the City of Pasadena. TOD was evaluated in terms of its short-run impact and its long-run impact. The **short-run impacts** are the impacts connected to construction, adding new spending to the county economy in the form of labor and materials that are used to build residential and commercial properties. In addition, the **long-run impacts** are the ongoing impacts of operations of businesses operating in these properties, generating revenue and encouraging local spending activity.

Methodology and Data

Two different approaches were used to measure the two types of impacts. Short-run impacts were measured as the **expenditures** connected to both existing and planned and proposed construction of TOD projects. Long-run impacts were measured as the **revenues** earned by businesses at TOD properties. This analysis examined both short-run and long-run impacts to determine the total county-wide impact of TOD around the six stations in the City of Pasadena.

This study evaluates the impact of existing, planned, and proposed developments within one-half mile of the six Pasadena Gold Line stations. Data for the study, which was provided by the Foothill Gold Line Construction Authority, shows the number of units and square footage of various single-family and multi-family construction projects, as well as the square footage of various commercial construction projects. After applying assumptions about construction expenditures as well as the levels of economic activity that are associated with various types of commercial property, Beacon Economics assessed the total direct spending involved in residential and commercial TOD construction, as well as the expected revenue at retail, office, and other establishments that reside in TOD properties.

To determine the economic and fiscal impacts of TOD projects near Pasadena Gold Line stations, Beacon Economics applied a multiplier analysis approach, with the assumption that dollars spent in the local economy get re-spent, generating a total economic impact on Los Angeles County well above the initial level of spending. Beacon Economics employed the IMPLAN modeling system, which is an input/output model that can be used to estimate the short-run impact of changes in the economy through the use of multipliers.

Impact studies operate under the basic assumption that any increase in spending has three effects:

- First, there is a **direct effect** on that industry itself. For example, construction of TOD projects requires labor and building materials.
- Second, there is a chain of **indirect effects** on all the industries whose outputs are used by the industry under observation. For a construction project, indirect effects would include the demand and employment that is stimulated at firms that provide goods and services to this project, such as architectural/engineering services or suppliers of raw building materials.
- Third, **induced effects** arise when employment increases and household spending patterns are expanded. These induced effects arise because suppliers pay out wages to their employees associated with construction projects or operations at TOD properties, and those wages are then spent back into the local economy on goods such as food, gas, cars, and housing. These generate

additional demand and associated wages that are then spent back into the county economy, generating additional secondary effects.

Economic impacts of TOD projects were measured in terms of the following metrics:

- **Economic output:** the total amount of revenue generated by construction and ongoing operations
- **Employment:** the total number of jobs supported by construction and ongoing operations
- **Earnings:** the labor income generated by construction and ongoing operations

Fiscal impacts of TOD projects were examined in the following ways:

- Tax revenues generated by construction of TOD projects
- Tax revenues—in the form of transient occupancy tax (TOT), sales tax, and property tax—generated by ongoing operations at TOD commercial properties and spending by households residing at TOD residential properties

Together, these impacts demonstrate the substantial effect that TOD projects have on Los Angeles County.

Impacts of TOD Construction Projects

Direct Expenditures

The economic impact of construction activity begins with so-called direct expenditures. As described above, TOD projects within one-half mile of a Gold Line station in the City of Pasadena have added thousands of new single-family and multi-family residential units to Los Angeles County's housing stock, and many more are currently underway or going through the planning process. The expenditures that are associated with the construction of these housing units correspond to the direct expenditure that enter the county economy, and may be summarized as follows:

- Existing housing units have generated a total construction expenditure of roughly \$1.1 billion, of which \$336.4 million represented single-family construction spending and \$785.0 million represented multi-family construction spending.
- Additional planned and proposed residential construction is expected to generate an additional \$158.4 million in local spending, of which \$47.5 million represents single-family construction spending and \$110.9 million represents multi-family construction spending.
- **Altogether, TOD residential construction expenditures total \$1.28 billion, of which \$384.0 million represents single-family construction spending and \$895.9 million represents multi-family construction spending.**

In addition to housing, TOD includes the construction of various commercial structures, such as retail and office units, generates hundreds of millions of dollars in local spending:

- Among completed commercial TOD properties, construction spending totaled \$363.5 million.
- Planned and proposed construction of TOD commercial properties is expected to generate an additional \$252.3 million in local spending.
- **Altogether, TOD commercial construction expenditures total \$615.8 million.**

Economic Impacts: Jobs, Income, and Output

These combined expenditures on residential and nonresidential construction generate substantial economic impacts as they move through the economy of Los Angeles County. The impacts are summarized in Table 2.

Table 2 - Construction Impacts				
Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)	Tax Revenues (\$ Millions)
Direct Effect	11,419	616.9	1,895.7	
Indirect Effect	5,226	272.7	779.8	
Induced Effect	4,058	210.7	607.0	
Total Effect	20,703	1,100.3	3,282.5	66.3

Economic Output

Combined total direct expenditures of nearly \$1.9 billion on existing and planned and proposed property generate \$779.8 million in indirect economic impacts and \$607.0 million in induced economic impacts. **In all, construction of TOD projects generates a total of \$3.3 billion in economic output for Los Angeles County.**

Roughly 79% of total economic output from TOD within a half-mile of the six Gold Line stations in the City of Pasadena comes from impacts from existing property, with the remaining 21% of total economic output coming from impacts from planned and proposed property. The specific economic impacts will be discussed in detail in the sections below.

Employment

An estimated 11,419 workers are directly connected to construction of completed, planned, or proposed TOD projects near the six Pasadena Gold Line stations. While many of these workers are in the construction industry, some come from construction-related industries such as architecture or professional and business services. In addition

to the hires that are directly connected to construction, a total of 5,226 workers are supported through indirect economic effects such as the use of catering or security services. Finally, 4,058 workers are supported through induced economic effects that occur when workers spend their earnings in the local economy. **In all, construction of TOD projects supports a total of 20,703 workers in Los Angeles County.**

Earnings

Direct hiring of workers involved in construction of TOD projects generates a substantial amount of labor income for workers in Los Angeles County. However, spending in connection with that construction generates many more dollars for local workers as it moves through the county economy. A proportion of the uptick in revenue that local businesses receive as a result of construction-related spending flows to existing workers, who in turn spend money in the local economy generating even more income for the local existing labor force.

Labor income directly connected to TOD construction generates an estimated \$616.9 million for local workers. Indirect spending adds a total of \$272.7 million in labor income for local workers, while induced spending adds a total of \$210.7 million in labor income for local workers. **In all, construction of TOD projects generates a total of \$1.1 billion in earnings for workers in Los Angeles County.**

Fiscal Impact: Tax and Other Revenues

Construction of residential and commercial TOD properties near Pasadena's Gold Line stations generates tax revenues for public agencies in Los Angeles County, as construction spending moves through the county economy.

Some businesses that see an increase in revenue as a result of direct or indirect TOD construction-related spending buy goods locally, generating sales tax that will flow to these public agencies. Other businesses expand existing properties or build new properties, generating local property tax. Public agencies across Los Angeles County may also receive some disbursement of a variety of other taxes. Together, these tax revenues support local services and public spaces, improving the quality of life for Los Angeles County residents.

Altogether, the total economic output generated by residential and commercial construction of existing, planned and proposed TOD properties (\$3.3 billion) generates an estimated fiscal impact of \$66.3 million for public agencies in Los Angeles County. Within this total, roughly \$16.8 million represents sales taxes, \$38.4 million represents business property taxes, and \$0.4 million represents residential property taxes. *For a detailed breakdown of the fiscal impact, see Table A-1 in the report Appendix.*

Summary: Impacts of TOD Construction on Los Angeles County

Altogether, construction associated with existing, planned, and proposed TOD projects within a half-mile of the six Pasadena Gold Line stations is associated with a total of \$3.3 billion in economic output, 20,703 workers, and \$1.1 billion in worker earnings. These activities also support \$66.3 million in tax revenues.

Impacts of Existing TOD Project Construction

Existing—that is, completed—TOD projects account for 79% of total economic output from TOD within a half-mile of the six Gold Line stations in the City of Pasadena. Roughly \$1.5 billion in residential and non-residential construction is associated with these projects. In turn, these expenditures gave rise to \$634.7 million in indirect economic impacts—the spending by businesses down the construction supply chain—and \$474.8 million in induced economic impacts—the spending by workers at establishments directly or indirectly connected to construction of TOD projects. **In all, construction of existing TOD projects generated a total of \$2.6 billion in economic output for Los Angeles County.**

Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)	Tax Revenues (\$ Millions)
Direct Effect	8,790	473.1	1,484.9	
Indirect Effect	4,359	222.7	634.7	
Induced Effect	3,175	164.8	474.8	
Total Effect	16,324	860.7	2,594.4	52.9

It is estimated that 8,790 workers were connected to construction of existing TOD properties. Indirect economic effects of construction supported an additional 4,359 workers, while induced economic effects supported 3,175 workers. **In all, construction of existing TOD properties supported a total of 16,324 workers.**

Construction of existing TOD properties directly generated a total of \$473.1 million in wages and earnings for Los Angeles County workers. Indirect economic effects generated an additional \$222.7 million in labor income countywide, while induced economic effects generated \$164.8 million in labor income countywide. **Altogether, construction of existing TOD properties generated \$860.7 million in labor income for Los Angeles County workers.**

Finally, the \$2.6 billion in economic output generated by construction of existing TOD properties generated **\$52.9 million in tax revenues for Los Angeles County public agencies.**

Impacts of Planned and Proposed TOD Project Construction

Planned and proposed construction accounts for 21% of total TOD activity, and generate hundreds of millions of dollars of economic activity of its own. Direct spending on planned and proposed construction projects is estimated to be \$410.8 million. This spending generates \$145.1 million in indirect economic impacts and \$132.2 million in induced economic impacts. **Altogether, planned and proposed construction of TOD projects results in \$688.1 million in economic output for Los Angeles County.**

Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)	Tax Revenues (\$ Millions)
Direct Effect	2,629	143.8	410.8	
Indirect Effect	867	49.9	145.1	
Induced Effect	884	45.9	132.2	
Total Effect	4,379	239.6	688.1	13.4

Construction of planned and proposed TOD properties supports a substantial number of workers as well. A total of 2,629 workers are directly supported through construction of planned and proposed TOD properties. Indirect economic effects of this construction support an additional 867 workers, while induced economic effects support 884 workers. **Construction of planned and proposed TOD properties supports a total of 4,379 workers.**

A significant amount of labor income is generated as a result of this job creation. Construction of planned and proposed TOD properties directly generates a total of \$143.8 million in labor income for Los Angeles County workers. Indirect economic effects generate an additional \$49.9 million in labor income, while induced economic effects generate an additional \$45.9 million in labor income. **In all, construction of planned and proposed TOD properties generates \$239.6 million in labor income for Los Angeles County workers.**

Finally, the \$688.1 million in output that results from planned and proposed TOD construction will generate a total of \$13.4 million in tax revenues for Los Angeles County public agencies.

Impacts of Ongoing Operations at TOD Properties

Direct Revenues

TOD construction near Gold Line stations in Pasadena has already added hundreds of thousands of square feet of property to the county commercial stock, with planned and proposed TOD development slated to further increase those numbers. Businesses that occupy these properties generate economic activity for Los Angeles County in the form of business revenue each year. These direct revenues can be estimated by applying an average jobs-per-square foot figure for various types of commercial property,² and then estimating revenue based on the number of jobs in a given economic sector, such as retail sales. This makes it possible to generate a best estimate of the total revenue generated in the county economy as it moves through the local supply chain and multiplies, as businesses spend a share of the revenue they earn locally. It was estimated that:

- **TOD retail property** near the six Gold Line stations supports a total of 750 workers each year, and businesses employing these workers generate estimated total revenues of \$62.3 million. Of this total:
 - Existing retail property supports 700 workers and generates revenues of \$58.2 million.
 - Planned and proposed retail property supports 50 workers and generates revenues of \$4.2 million.

- **TOD office property** near the Gold Line stations supports a total of 5,579 workers each year, as the total square footage of new office property is over 1.2 million square feet. Businesses employing these workers generate estimated total revenues of \$496.1 million. Of this total:
 - Existing office property supports 2,681 workers and generates revenues of \$238.4 million.
 - Planned and proposed office property supports 2,898 workers and generates revenues of \$257.7 million.

- The 1,127 new **hotel rooms** built near the Gold Line stations support a total of 564 workers. The hotels generate estimated revenues of \$66.7 million each year. Of this total:
 - Existing hotel rooms support 316 workers and generate revenues of \$37.4 million.

² Assumptions:

Retail property – 350 sq. ft./worker;

Office property – 225 sq. ft./worker;

Hotel property – 0.5 workers/room;

Other commercial property – 500 sq. ft./worker.

- Planned and proposed hotel rooms support 248 workers and generate revenues of \$29.3 million.
- **All other establishments** that would occupy new TOD property support a total of 762 workers, generating a total of \$67.8 million in revenue each year. Of this total:
 - Existing establishments support 612 workers and generate revenues of \$54.4 million.
 - Planned and proposed establishments support 150 workers and generate revenues of \$13.3 million.

In all, businesses occupying TOD commercial properties generate a total of \$692.9 million in revenue for Los Angeles County on an ongoing basis, support an estimated 7,655 workers, and yield \$514.3 million in labor income.

Economic Impacts: Jobs, Income, and Output

Table 5 - Ongoing Economic Impacts			
Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)
Direct Effect	7,655	514.3	692.9
Indirect Effect	921	57.1	148.9
Induced Effect	2,609	135.5	390.7
Total Effect	11,185	707.0	1,232.4

Economic Output

It is estimated that a total of \$692.9 million in revenue will be generated by businesses occupying TOD commercial properties each year. This will generate an additional \$539.5 million in economic output in the county economy on an ongoing basis, with \$148.9 million generated through indirect effects and \$390.7 million generated through induced effects. **In all, businesses occupying TOD commercial properties will generate an estimated \$1.2 billion in economic output in Los Angeles County annually.**

Employment

Altogether, businesses occupying TOD commercial properties employ an estimated 7,655 workers on an ongoing basis. As their revenues move through the county economy, they support 921 workers through indirect effects and 2,609 workers through induced effects. Indeed, in this case, spending by workers has quite a large impact. This is because workers that see an increase in income as a result of the new business at TOD

properties spend much of that extra income at labor-intensive establishments, such as restaurants, grocery stores, or general merchandise stores. **In all, businesses occupying TOD commercial properties support an estimated 11,185 workers in Los Angeles County on an ongoing basis.**

Earnings

New hires at these businesses generate a substantial amount of local labor income on their own, but their spending, and spending by local businesses, generates millions of dollars more for local workers. Altogether, businesses occupying TOD commercial properties generate a total of \$514.3 million in earnings for Los Angeles County workers directly. In addition, indirect effects generate \$57.1 million in earnings for local workers, while induced effects generate \$135.5 million in earnings for local workers. **In all, businesses occupying TOD commercial properties generate an estimated \$707.0 million in earnings for workers in Los Angeles County.**

Fiscal Impact: Tax and Other Revenues

The ongoing operations of businesses that occupy TOD commercial properties and the spending of new residents generate a substantial amount of tax revenue for public agencies in Los Angeles County each year. Three of these taxes will be highlighted:

- Transient occupancy tax (TOT)
- Sales tax
- Property tax

Table 6 - Ongoing (Annual) Fiscal Impacts			
Property Type	Transient Occupancy Tax (\$ Millions)	Sales Tax (\$ Millions)	Property Tax (\$ Millions)
Existing Property	4.2	1.7	6.0
Planned & Proposed Property	3.3	0.2	1.7
Total	7.4	1.9	7.7

Transient Occupancy Tax

The new hotel rooms built near Pasadena’s Gold Line stations generate TOT for the City of Pasadena from their daily occupants. The city levies a TOT of 12.11% on revenue per occupied hotel room.

TOD properties add 1,127 hotel rooms in total (632 existing, 495 planned and proposed) to the available supply in the City of Pasadena. Although not all of these rooms are occupied every night, the recent occupancy rate for the city’s hotels stood at roughly 85% on average in 2014, 2015, and much of 2016. The average daily rate for hotel

rooms in the city stood at roughly \$175 per night in that same time period.³ Consequently, the estimated room revenue from the new hotels at TOD properties is \$61.2 million annually. Existing TOD hotel rooms generate a total of \$34.3 million in room revenue each year. In turn, the city's 12.11% TOT yields a total of \$4.2 million each year from those existing hotel rooms. Planned and proposed TOD hotel rooms generate a total of \$26.9 million in room revenue each year. The city's TOT yields a total of \$3.3 million each year from these planned and proposed hotel rooms. **In all, the city's 12.11% TOT generates a total of \$7.4 million in TOT tax revenue on an ongoing basis.**

Sales Tax

Local retail spending by and at businesses at TOD commercial properties, as well as local spending by new residents at TOD residential properties, generates sales tax that flows back to Los Angeles County public agencies. Generating an estimate of total retail spending requires several assumptions, and thus estimates are relatively fluid. It was assumed that retail sales stood at \$350 per square foot per year for businesses at TOD properties. It was also assumed that less than 15% of retail sales at these businesses would come from new residents at TOD residential properties (to avoid double-counting household spending on retail among these new residents). In addition, it was assumed that new households would make 80% of their retail spending in Los Angeles County.

In total, retail spending among new residents at TOD residential properties and at new retail establishments at TOD properties totals roughly \$192.1 million per year. Of this total, \$173.6 million in spending is made by residents or businesses at existing TOD properties. Reimbursement at a 1% rate generates \$1.7 million in sales tax revenue attributable to existing TOD properties. An additional \$18.5 million in spending is made by residents or businesses at planned and proposed TOD properties. Reimbursement at a 1% rate generates \$0.2 million in sales tax revenue attributable to planned and proposed TOD properties. **Altogether, reimbursement of \$192.1 million per year in retail sales at a 1% rate generates \$1.9 million in sales tax revenue across Los Angeles County on an ongoing basis.**

Property Tax

Altogether, the residential and commercial TOD property near Pasadena's Gold Line stations adds billions of dollars in assessed property value to Los Angeles County. The 3,363 existing single-family and multi-family residential units and 475 planned and proposed single-family and multi-family residential units have a total property value of roughly \$2.1 billion combined (\$1.8 billion for existing units and \$0.3 billion for planned and proposed units). Retail properties add \$0.1 billion in property value on their own (\$108.5 million for existing properties and \$7.2 million for planned and proposed properties), while office properties add roughly \$0.4 billion in property value (\$206.8

³ PKF Consulting Hotel Trends, December 2015 and July 2016.

million for existing properties and \$223.5 million for planned and proposed properties). Hotels add \$0.4 billion in value (\$212.6 million for existing properties and \$166.5 million for planned and proposed properties), while other commercial properties add \$0.1 billion in property value (\$73.4 million for existing properties and \$20.2 million for planned and proposed properties). Altogether, commercial property value increases by \$1.0 billion as a result of commercial TOD in Los Angeles County. Commercial and residential TOD property combined increases local assessed property value by \$3.1 billion in Los Angeles County, with \$2.4 billion in value coming from existing properties and \$0.7 billion in value coming from planned and proposed properties.

Proposition 13 caps property taxes each year at 1% of assessed value. Reassessments are also limited by Proposition 13, but for the sake of simplicity, it was assumed that taxes levied on TOD properties total 1%, or roughly \$30.7 million, on an ongoing basis—a total of \$24.0 million levied on existing TOD properties and \$6.7 million levied on planned and proposed TOD properties. The allocation of property taxes to public agencies varies from year to year. For this reason, it was assumed that on average local collections are 25% of that \$30.7 million. As a result, it was estimated that property tax revenue at existing TOD properties totals \$6.0 million and property tax revenue at planned and proposed TOD properties totals \$1.7 million. **In all, property tax revenue at TOD properties totals \$7.7 million in Los Angeles County on an ongoing basis.**

Impacts of Ongoing Operations at Existing TOD Projects

Of the \$692.9 million in revenue generated by businesses occupying TOD commercial properties, \$388.4 million in revenue is generated by businesses at existing properties. This \$388.4 million in revenue generates an additional \$87.4 million in economic output through indirect effects and \$212.9 million in economic output through induced effects. **In all, revenue generated by businesses occupying existing TOD commercial properties generates \$688.7 million in economic output in Los Angeles County annually.**

Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)
Direct Effect	4,309	278.1	388.4
Indirect Effect	535	33.4	87.4
Induced Effect	1,422	73.8	212.9
Total Effect	6,266	385.3	688.7

Businesses occupying existing TOD commercial properties directly employ a total of 4,309 workers on an ongoing basis. As the revenues at those businesses move through the economy of Los Angeles County, they support 535 workers through indirect effects and 1,422 workers through induced effects. **In all, businesses occupying existing TOD commercial properties employ 6,266 workers on an ongoing basis in Los Angeles County.**

Businesses occupying existing TOD commercial properties generate a total of \$278.1 million in labor income for Los Angeles County workers directly. In addition, as their revenues move through the county economy, they generate \$33.4 million in labor income through indirect effects and \$73.8 million through induced effects. **In all, businesses occupying existing TOD commercial properties generate a total of \$385.3 million in earnings for workers in Los Angeles County.**

Existing TOD hotel rooms generate a total of \$34.3 million in room revenue each year. Given the city's 12.11% tax rate, TOT yields a total of \$4.2 million each year from those existing hotel rooms. In addition, \$173.6 million in taxable spending is tied to residents or businesses at existing TOD properties. With a taxable sales rate of 1% rate, \$1.7 million in sales tax revenue is attributable to existing TOD properties. In addition, it was estimated that property tax revenue at on \$2.4 billion of existing TOD properties totals \$6.0 million. **Altogether, existing TOD properties generate an estimated \$11.9 million in tax revenues each year.**

Impacts of Ongoing Operations at Planned and Proposed TOD Projects

A total of \$304.5 million in revenue is generated by businesses at planned and proposed TOD commercial properties. This revenue generates an additional \$61.5 million in economic output through indirect effects and \$177.7 million in economic output through induced effects. **In all, revenue generated by businesses at planned and proposed TOD commercial properties generates \$543.7 million in economic output in Los Angeles County annually.**

Impact Type	Employment	Labor Income (\$ Millions)	Output (\$ Millions)
Direct Effect	3,346	236.2	304.5
Indirect Effect	386	23.8	61.5
Induced Effect	1,187	61.6	177.7
Total Effect	4,919	321.6	543.7

Businesses occupying planned and proposed TOD commercial properties directly employ a total of 3,346 workers on an ongoing basis. Their revenues support 386 workers through indirect effects and 1,187 workers through induced effects. **In all, businesses occupying planned and proposed TOD commercial properties employ 4,919 workers on an ongoing basis in Los Angeles County.**

Businesses occupying planned and proposed TOD commercial properties generate a total of \$236.2 million in earnings for Los Angeles County workers directly. Indirect spending by businesses down the supply chain generates \$23.8 million in earnings for local workers, while induced spending by workers connected to those new businesses generates \$61.6 million in earnings for local workers. **In all, businesses occupying planned and proposed TOD commercial properties generate \$321.6 million in earnings for workers in Los Angeles County.**

Planned and proposed TOD hotel rooms generate a total of \$26.9 million in room revenue each year. The city's TOT yields a total of \$3.3 million each year from these planned and proposed hotel rooms. In addition, \$18.5 million in taxable spending is associated with residents or businesses at planned and proposed TOD properties, corresponding to \$0.2 million in sales tax revenue. In addition, it was estimated that property tax revenue at on \$0.7 billion in value of planned and proposed TOD properties totals \$1.7 million. **Altogether, planned and proposed TOD properties generate an estimated \$4.2 million in tax revenues each year.**

Conclusion

The economic and fiscal effects of TOD near the six Gold Line stations in Pasadena is substantial and is growing, both in the short term due to residential and commercial construction and in the long term due to ongoing operations at businesses at TOD properties and spending by new residents. Residential and commercial construction at existing TOD properties generates \$2.6 billion in economic output, supports roughly 16,300 jobs, generates \$860.7 million in labor income, and generates \$52.9 million in tax revenue. In addition, residential and commercial construction at planned and proposed TOD properties generates \$688.1 million in economic output, supports roughly 4,400 jobs, generates \$239.6 million in labor income, and generates \$13.4 million in tax revenue. Altogether, residential and commercial construction at TOD properties generates \$3.3 billion in economic output, supports roughly 20,700 jobs, generates \$1.1 billion in labor income, and generates \$66.3 million in tax revenue for public agencies across Los Angeles County.

Ongoing operations by businesses at existing TOD properties generate \$688.7 million in economic output, support roughly 6,300 jobs, and generate \$385.3 million in labor income each year. Those ongoing operations also generate \$4.2 million in TOT, \$1.7 million in local sales tax, and \$6.0 million in local property tax each year. Ongoing operations by businesses at planned and proposed TOD properties generate \$543.7 million in economic output, support 4,900 jobs, and generate \$321.6 million in labor income. They also generate \$3.3 million in TOT, \$0.2 million in local sales tax, and \$1.7 million in local property tax each year.

Altogether, ongoing operations by businesses at TOD properties generate \$1.2 billion in economic output, support nearly 11,200 jobs, and generate \$707.0 million in labor income in Los Angeles County each year. In addition, local spending at and by those business and local spending by new residents at TOD residential properties generates \$7.4 million in TOT, \$1.9 million in local sales tax, and \$7.7 million in local property tax each year.

These economic and fiscal effects alone demonstrate that TOD from the Gold Line Foothill Extension increases economic development in Los Angeles County in both the short run and the long run. Add in the effects of a wide variety of new commercial development and much-needed residential development to alleviate a tight supply of housing, and the cultural and quality of life impacts of this TOD development edify its overall benefit that much more.

Appendix

Table A-1 provides a detailed look at the fiscal effects generated by construction of existing, planned, and proposed TOD properties.

Table A-1 - Construction Fiscal Impacts	
Description	Tax Revenues (\$)
Dividends	185,295
Social Ins Tax- Employee Contribution	237,803
Social Ins Tax- Employer Contribution	464,458
Tax on Production and Imports: Sales Tax	16,833,563
Tax on Production and Imports: Property Tax	38,368,777
Tax on Production and Imports: Motor Vehicle Lic.	16,904
Tax on Production and Imports: Severance Tax	26
Tax on Production and Imports: Other Taxes	4,160,683
Tax on Production and Imports: S/L NonTaxes	1,060,492
Personal Tax: NonTaxes (Fines- Fees)	4,549,513
Personal Tax: Motor Vehicle License	9,476
Personal Tax: Property Taxes	411,987
Total	66,298,974