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# FRESNO/MADERA

SR 99 & 41 Fiscal Analysis



PREPARED FOR

**Fresno Council of Governments**

PREPARED BY

**Applied Development Economics, Inc.**

1756 Lacassie Avenue, Suite 100, Walnut Creek, CA 94596

925.934.8712

[www.adeusa.com](http://www.adeusa.com)



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# EXECUTIVE SUMMARY

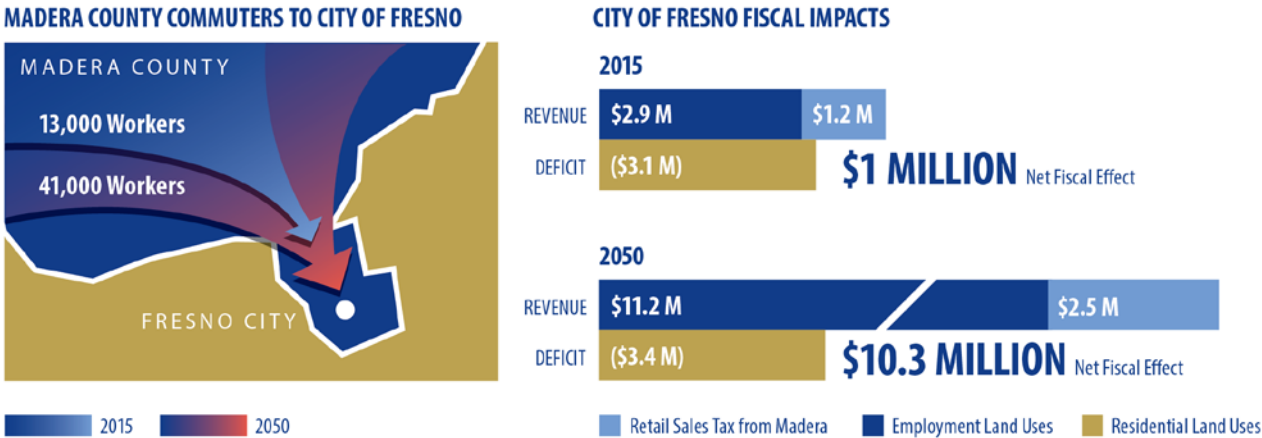
## INTRODUCTION

This study builds on the Phase 1 Origin-Destination Study for the State Route 99/41 Study Area. This report provides a fiscal impact analysis of the travel movements and related land uses within the Study Area. The analysis identifies the industry of employment for commuters in both directions between Madera and Fresno counties. These job destinations are then evaluated as land uses in the fiscal analysis, along with the residential units that house the workers in their home communities. In addition, the analysis identifies retail market conditions in each jurisdiction and estimates the retail sales that occur from non-work trips within the study area.

## CITY OF FRESNO

Approximately 13,300 workers commute from Madera County locations to the City of Fresno each day. **The fiscal benefit of having those jobs and businesses nets the City of Fresno \$2.9 million on an annual basis.** This is the net tax revenue over the cost to provide services to the affected businesses. We also estimate that 9,700 workers commute from Fresno to Madera County locations each day. These jobs support a household population of about 20,800 and more than 6,700 housing units. **The residential population requires more in services than they generate in property and sales tax, so this creates a fiscal deficit for the City of about \$3.1 million per year.**

Finally, based on the traffic data and the regional retail market analysis, we estimate that residents of study area in Madera County spend approximately \$120 million in taxable retail purchases annually in Fresno. **This yields \$1.2 million in additional sales tax revenues for the City of Fresno and overall the City realizes net revenues of \$1 million per year in 2015.**



With the additional residential and employment growth projected for Madera County and the City of Madera, the number of daily commuters to the City of Fresno is projected to increase to about 41,200 by 2050, an increase of more than 200 percent. Commuters from Fresno to Madera will also increase to about 14,200, a 46 percent increase, given the more balanced jobs/housing growth projected in

Fresno. **This jobs/housing balance in 2050 will generate net revenues of \$10.3 million (\$2017) for Fresno, as shown above.**

## MADERA COUNTY UNINCORPORATED

Nearly 7,600 workers who live in Fresno City commute to jobs in unincorporated Madera County and another 2,100 workers commute to jobs in the City of Madera. The businesses in Madera County that support those jobs yield a net fiscal benefit for County government of \$2.6 million per year.

Nearly 6,400 of the daily commuters to Fresno live in the Madera unincorporated area, supporting a household population of 15,800 and 4,900 housing units. The remaining 6,950 Fresno workers live in the City of Madera, supporting a population of 17,300 in 4,600 households. **This residential population creates a cost deficit of about \$5.4 million per year for the County.**

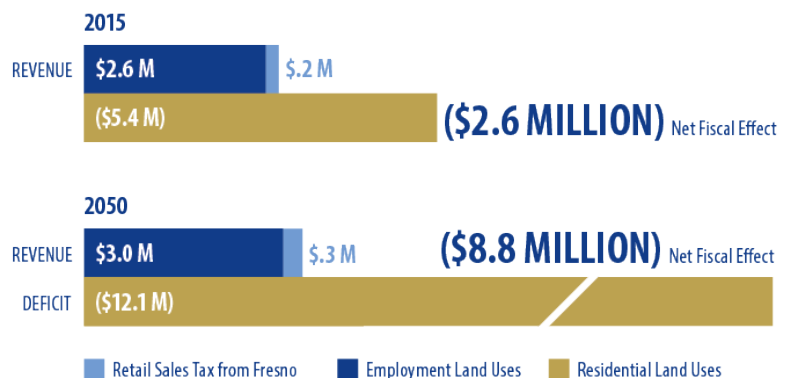
Although the City of Fresno is the main retail hub in the region, State estimates of day travel spending and the regional retail market analysis both suggest that Fresno residents do visit locations in Madera County and make retail purchases. Much of this spending is likely in the northern SR 41 area for recreation and entertainment trips; however, the City of Madera also enjoys excess sales of automobiles and building materials, a portion of which likely come from Fresno residents. **In the County unincorporated area, we estimate the additional retail spending amounts to \$21.3 million per year, generating about \$213,000 annually in sales tax revenues.**

CITY OF FRESNO COMMUTERS TO MADERA COUNTY



2015 2050

MADERA COUNTY FISCAL IMPACTS



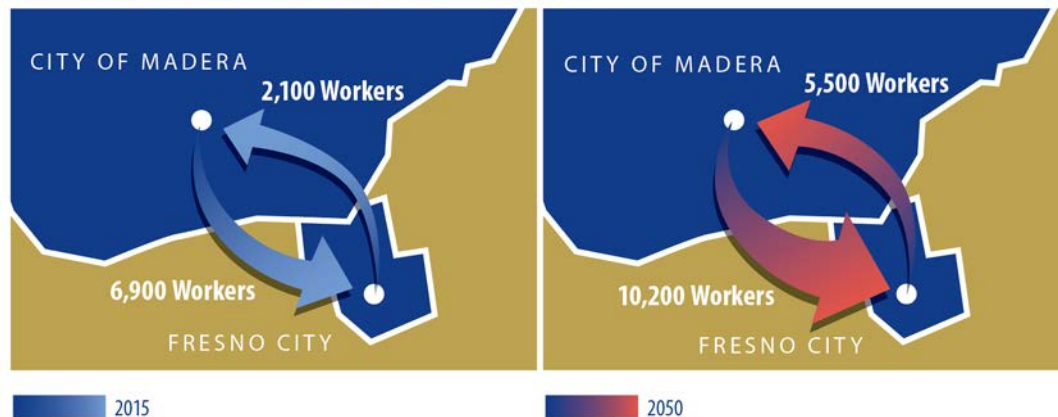
The situation is very different in 2050. The unincorporated area is projected to add 28,800 households, with an additional labor force of 38,000 workers. Jobs projections during this period total 23,300 in the unincorporated study area. This deficit in employment opportunities, combined with the projected strong job growth in Fresno, is estimated to increase commuters from Madera unincorporated communities to 25,900. In addition, City of Madera commuters to Fresno would increase to about 10,200 workers. **This additional housing development, mostly in the unincorporated area, would create a negative fiscal impact on Madera County of minus \$12.1 million per year.** The increased commuting from Fresno to Madera would have a positive fiscal impact of about \$3.0 million and Madera County would see a doubling of sales tax from

**Fresno City shoppers**, based on the growth in households in Fresno and the projected increase in retail centers in Madera County. **Overall, the County would have a negative fiscal impact of about \$8.8 million in 2050.** It should be noted, however, that this analysis does not include potential special district assessments that Madera County may levy on new residential development to help reduce its negative fiscal impact.

## CITY OF MADERA

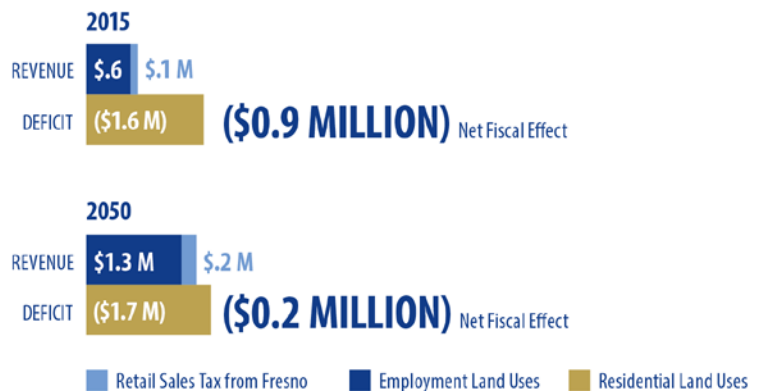
As noted above, about 2,100 workers who live in Fresno City commute to jobs in the City of Madera. The businesses in Madera that support those jobs yield a net fiscal benefit for the City \$562,000 per year. About 6,950 Fresno workers live in the City of Madera, supporting a population of 17,300 in 4,600 households. This residential population creates a net fiscal deficit for the City of Madera of about \$1.6 million per year. Retail shopping trips by Fresno residents to the City of Madera are estimated to generate about \$122,000 per year in additional sales taxes for the City.

### COMMUTERS BETWEEN CITY OF FRESNO AND CITY OF MADERA



Similar to the County, the City of Madera is projected in to increase housing and labor force faster than new jobs. This will increase the level of commuting into Fresno. The City is projected to also increase retail development along with the new households, which will help to increase sales tax revenues, including shopping from Fresno residents. The net effect in the future is better than the current situation for Madera, but still results in a negative fiscal impact.

### CITY OF MADERA FISCAL IMPACTS



# INTRODUCTION

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## INTRODUCTION

This study was commissioned by the Fresno Council of Governments on behalf of the City of Fresno, the counties of Madera and Fresno and the Madera County Transportation Commission. The study represents Phase II of a larger analysis of travel patterns within the study area (see Figure 1). Phase I was completed by Fehr & Peers Associates and detailed trips counts to and from a number of locations within the study area. Using a variety of techniques, including license plate analysis, cell phone records and a survey, Fehr & Peers was able to identify the directionality and basic purpose for a number of the trips. The present report uses socioeconomic data to further estimate the level of commuting across the county line and provide more detail on the industry of employment for those workers. Secondly, we have prepared retail leakage studies for both the cities and counties of Fresno and Madera, with a view to identifying the likely spending patterns of shoppers and workers crossing the county line. We have prepared a future growth scenario for the year 2050 based on specific plans and area plans in Madera County, the 2014 Madera County RTP projections and recent draft projections for the City and County of Fresno. For these land use scenario in 2015 and 2050, the report present a fiscal impact analysis based on the land uses associated with the commute and shopping trips within the study area.

ADE has reviewed the detailed select link data from Fehr & Peers and combined that with data on worker characteristics from the US Census of Transportation Policy and Programs (CTPP) journey to work dataset, which shows industry of employment for workers commuting between specific locations. Exhibit A summarizes this analysis for the AM and PM Peak periods as well as the mid-day and late night non-peak periods.

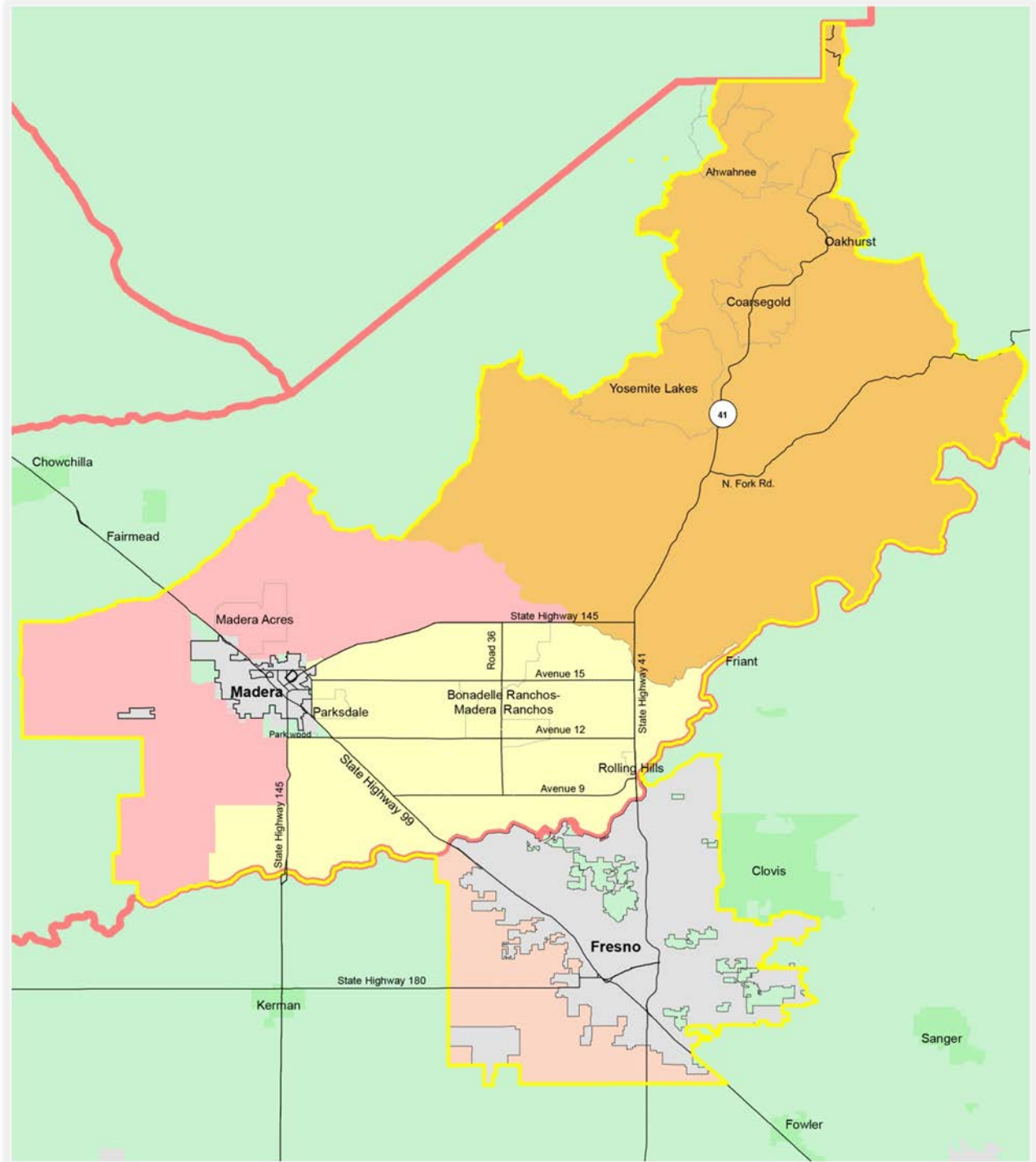
There are 17,606 trips identified originating in Madera County and ending in Fresno County. We have adjusted out 1,037 trips that either originate in Chowchilla or are destined for Clovis or south of Fresno. We have calibrated the CTPP data to match the 2015 ACS counts of workers in the Study Area, and based on the origin-destination data we estimate that 13,318 workers commute from the Madera County study area to the City of Fresno. This would leave at least 3,251 AM peak trips as discretionary non-work related trips. Some workers may not commute during the AM peak period, in which case the non-work trips would be higher.

In the City of Fresno, we estimate from the CTPP data that 9,690 workers commute to study area destinations in Madera County. This would leave at least 6,464 am peak trips as discretionary/other trips, if all workers commute during the morning peak.

The middle and lower portions of Exhibit A show the PM Peak and the Non-Peak periods. During the PM Peak, there are 607 more trips to from Fresno to the Madera Study area than came down during the morning peak. There is also a relatively high trip count from Madera to Fresno during the PM peak, with 5,266 more trips than had come up in the AM. It is likely that many of these trips are for shopping, entertainment or other discretionary purposes. During the Non-Peak periods there are about 2,260 more trips going to the Madera County Study Area than to the Fresno Study Area.



**FIGURE 1: STUDY AREA MAP**



**TABLE 1: TRIP DISTRIBUTION ANALYSIS BASED ON  
SELECT LINK AND CTPP DATA**

	TRIPS/ WORKERS	PERCENT
<b>AM Peak from Madera County to Fresno Co.</b>	17,606	100.0%
Less 466 trips from Chowchilla	17,140	2.6%
Non-Fresno City Destinations	571	3.2%
Fresno City Destinations from Study Area	16,569	
CTPP Workers commuting from Madera Co. to Fresno	13,318	75.6%
Non-Work Trips	3,251	18.5%
<b>AM Peak Fresno to Madera County</b>	19,299	
Non-Fresno Origin or Non-Study Area Dest.	3,145	16.3%
To Madera Study Area	16,154	
CTPP Workers commuting from Fresno to Madera Co.	9,690	50.2%
Non-Work Trips	6,464	33.5%
<b>PM Peak</b>		
To Madera County	19,634	
Chowchilla destination/Clovis origin	2,458	
Madera Study Area	17,176	
To Fresno	22,244	
Chowchilla origin/Non-Study Area destination	824	
Fresno Study Area	21,420	
<b>Non-Peak</b>		
To Fresno	30,368	
Chowchilla origin/Clovis destination	2,898	
Fresno Study Area	27,470	
To Madera County	31,307	
Chowchilla destination/Non-Study Area origin	1,578	
Madera County Study Area	29,729	

The remaining chapters of the report discuss the travel data in more detail, provide an analysis of industries of employment for commuters, analyze the retail trade flows between Madera and Fresno counties and project future growth within the study area. Finally, the last chapter provides a fiscal impact analysis for the City of Fresno, the County of Madera and the City of Madera, based on the existing and projected travel patterns and associated land uses in 2015 and 2050.

# TRAVEL PATTERNS

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The travel patterns identified and measured by Fehr & Peers in the Phase 1 report provide the foundation for the economic and fiscal analysis for Phase 2. This section presents the trip data in more detailed format in order to help define the land uses in each location that need to be addressed in the fiscal analysis. Figure 1 above shows the study area defined for this analysis. ADE has designated several subareas to correspond to the trip measurement locations in the Fehr & Peers data and also to provide relevant analysis areas for the socioeconomic data. The subareas separate incorporated from unincorporated areas to support the separate fiscal studies later in the process. Per direction of the study committee, the area does not include the cities of Chowchilla or Clovis, but reference is made to trips likely related to these locations, as the totals of labor force and shoppers presented in the socioeconomic data for the subareas is lower than the trip numbers captured by Fehr & Peers. In subsequent tables, the following sub areas are delineated within the overall Study Area:

- City of Madera
- Unincorporated area immediately surrounding Madera
- Avenue 12
- Upper SR 41
- City of Fresno
- Unincorporated Area west of Fresno
- Unincorporated Census Designated Places (CDPs) within the City of Fresno

Table 2 shows the 6-10 AM morning trips, with 17,035 originating in Madera County with destinations in Fresno County and 16,371 originating in Fresno County bound for Madera County destinations. Table 3 shows the PM peak period (3–7 PM) trips and Table 4 subtracts both peak periods from the daily trips to show the mid-day (10 AM – 3 PM) and late night (7 PM – 12 AM) trips combined. The PM peak returning to Madera has 826 trips more than the AM peak, suggesting that these trips likely originated after 10 AM in Madera. In the Fresno-Madera direction, the PM peak has 4,894 more trips than the AM peak, again suggesting either a delayed commute or a number of non-work trips north from Fresno County. The vast majority of Fresno County-Madera County trips do not end up in the City of Madera. Nearly 8,000 trips go to the Avenue 12 area and another 6,600 trips go to the area east of SR 41 in Madera County. As discussed in the next chapter, there are over 9,000 jobs in the Avenue 12 Area, including 3,500 in healthcare and nearly 900 in education, reflecting the major institutional uses in this area.

**TABLE 2: AM Peak Period Trip Counts**

AREA No.	AM ORIGIN	AM DESTINATION								TOTALS
		5	6	7	8	9	10	14	15	
		FRESNO-RIVER PARK SHOPPING	FRESNO-BLACKSTONE AVE SHOPPING	FRESNO-DOWNTOWN AREA	FRESNO-NORTHWEST AREA	FRESNO-NORTHEAST AREA	FRESNO-SHAW AVE SHOPPING	Southeast Fresno	Southwest Fresno	
1	Madera & Chowchilla	94	1,882	124	1,002	876	1,159	125	124	5,386
2	Madera-between 99 & 41	468	3,608	752	31	1,096	374	0	62	6,391
3	Madera-East of 41	1,226	1,382	0	0	0	0	0	0	2,608
4	Madera-Yosemite Lakes Area	1,247	1,060	343	0	0	0	0	0	2,650
	<b>Totals</b>	<b>3,035</b>	<b>7,932</b>	<b>1,219</b>	<b>1,033</b>	<b>1,972</b>	<b>1,533</b>	<b>125</b>	<b>186</b>	<b>17,035</b>
AREA No.	AM ORIGIN	1	2	3	4					TOTALS
		MADERA & CHOWCHILLA	MADERA-BETWEEN 99 & 41	MADERA-EAST OF 41	MADERA-YOSEMITE LAKES AREA					
		62	406	157	186					811
6	Fresno-Blackstone Ave Shopping	62	1,069	596	62					1,789
7	Fresno-Downtown Area	93	498	560	219					1,370
8	Fresno-Northwest Area	187	3,581	3,705	187					7,660
9	Fresno-Northeast Area	93	1,599	437	499					2,628
10	Fresno-Shaw Ave Shopping	0	93	62	0					155
14	Fresno-Southwest Area	31	93	94	0					218
15	Fresno-Southeast Area	31	404	685	0					1,120
16	Fresno-West Cities	0	31	124	0					155
17	Fresno-South Cities	31	217	217	0					465
	<b>Totals</b>	<b>590</b>	<b>7,991</b>	<b>6,637</b>	<b>1,153</b>					<b>16,371</b>

Source: ADE, Inc., based on data provided by Fehr & Peers.

**TABLE 3: PM Peak Period Trip Counts**

AREA No.	PM ORIGIN	PM DESTINATIONS								TOTAL
		5 FRESNO- RIVER PARK SHOPPING	6 FRESNO- BLACKSTONE AVE SHOPPING	7 FRESNO- DOWNTOWN AREA	8 FRESNO- NORTHWEST AREA	9 FRESNO- NORTHEAST AREA	10 FRESNO- SHAW AVE SHOPPING	14 SOUTHEAST FRESNO	15 SOUTHWEST FRESNO	
1	Madera & Chowchilla	248	2,317	187	811	749	1,344	0	218	5,874
2	Madera-between 99 & 41	1,185	5,897	498	155	1,875	187	0	187	9,984
3	Madera-East of 41	752	938	0	0	63	0	0	0	1,753
4	Madera-Yosemite Lakes Area	1,968	1,561	405	0	125	0	0	93	4,152
	<b>Totals</b>	<b>4,153</b>	<b>10,713</b>	<b>1,090</b>	<b>966</b>	<b>2,812</b>	<b>1,531</b>	<b>0</b>	<b>498</b>	<b>21,763</b>
AREA No.	PM ORIGIN	1 MADERA & CHOWCHILLA	2 MADERA- BETWEEN 99 & 41	3 MADERA- EAST OF 41	4 MADERA- YOSEMITE LAKES AREA					TOTAL
		62	625	248	469					1,404
6	Fresno-Blackstone Ave Shopping	125	407	281	93					906
7	Fresno-Downtown Area	0	405	498	250					1,153
8	Fresno-Northwest Area	188	4,329	4,643	280					9,440
9	Fresno-Northeast Area	94	1,218	404	408					2,124
10	Fresno-Shaw Ave Shopping	93	375	281	31					780
14	Fresno-Southwest Area	0	31	31	0					62
15	Fresno-Southeast Area	62	561	592	93					1,308
16	Fresno-West Cities	0	0	94	0					94
17	Fresno-South Cities	0	124	124	31					279
	<b>Totals</b>	<b>624</b>	<b>8,075</b>	<b>7,196</b>	<b>1,655</b>					<b>17,550</b>

Source: ADE, Inc., based on data provided by Fehr & Peers.

**TABLE 4: MID-DAY AND LATE NIGHT TRIP COUNTS**

AREA No.	MID-DAY AND LATE NIGHT ORIGIN	MID-DAY AND LATE NIGHT DESTINATIONS								
		5	6	7	8	9	10	14	15	TOTAL
		FRESNO-RIVER PARK SHOPPING	FRESNO-BLACKSTONE AVE SHOPPING	FRESNO-DOWN-TOWN AREA	FRESNO-NORTH-WEST AREA	FRESNO NORTH-EAST AREA	FRESNO-SHAW AVE SHOPPING	SOUTHEAST FRESNO	SOUTHWEST FRESNO	
1	Madera & Chowchilla	718	3,142	155	1,537	1,316	1,126	189	470	8,653
2	Madera-between 99 & 41	1,572	7,531	942	125	1,356	376	0	65	11,967
3	Madera-East of 41	750	1,698	124	0	93	0	0	31	2,696
4	Madera-Yosemite Lakes Area	2,613	2,139	377	0	94	0	0	94	5,317
	<b>Totals</b>	<b>5,653</b>	<b>14,510</b>	<b>1,598</b>	<b>1,662</b>	<b>2,859</b>	<b>1,502</b>	<b>189</b>	<b>660</b>	<b>28,633</b>
AREA No.	MID-DAY AND LATE NIGHT ORIGIN	1	2	3	4					
		Madera & Chowchilla	Madera-between 99 & 41	Madera-East of 41	Madera-Yosemite Lakes Area					
5	Fresno-River Park Shopping	346	1,956	817	601					3,720
6	Fresno-Blackstone Ave Shopping	33	1,009	661	346					2,049
7	Fresno-Downtown Area	93	1,038	1,100	63					2,294
8	Fresno-Northwest Area	817	6,461	6,679	157					14,114
9	Fresno-Northeast Area	252	1,737	817	570					3,376
10	Fresno-Shaw Ave Shopping	63	535	377	0					975
14	Fresno-Southwest Area	63	346	377	31					817
15	Fresno-Southeast Area	251	881	817	156					2,105
16	Fresno-West Cities	62	31	312	31					436
17	Fresno-South Cities	125	378	378	31					912
	<b>Totals</b>	<b>2,105</b>	<b>14,372</b>	<b>12,335</b>	<b>1,986</b>					<b>30,798</b>

Source: ADE, based on data provided by Fehr & Peers.

Fehr & Peers (F&P) provided a preliminary assessment of the purpose of trips in each direction through the Study Area. This was mainly based on the analysis licenses plate tracking where individual cars could be observed at different points in the study areas at different times of day. The F & P analysis is reproduced in Table 5, indicating that 38 percent of trip originating in Fresno were commute trips, compared to 27 percent of trips originating in Madera. However, as discussed in the next Chapter, data from the US Census of Transportation Policy and Programs (CTPP) suggests that there are higher numbers of workers in both counties commuting across the county line in both directions. The F & P data in Table 5 includes two categories labeled One-Way Multi Observation and Single Observation, which means that either the direction of the trip could not be determined or the trip was not exclusively one purpose. ADE's analysis of the CTPP data suggests that a number of these trips, which account for 41 percent of Fresno trips and 62 percent of Madera trips, are likely also commute trips.

**TABLE 5: INFERRED TRIP PURPOSE**

INFERRED TRIP PURPOSE	COUNTY OF ORIGIN			
	FRESNO	PERCENT	MADERA	PERCENT
Commute	5,437	38.4%	2,839	26.8%
Discretionary	1,843	13.0%	821	7.8%
One-Way Multi-Obs.	2,640	18.6%	2,828	26.7%
Single Observation	3,206	22.6%	3,721	35.1%
Pass-through	594	4.2%	183	1.7%
Other	455	3.2%	197	1.9%
Total	14,175	100.0%	10,589	100.0%

Source: Fehr & Peers, Fresno/Madera Origin-Destination Study Final Report. June 1, 2016. Table 7.

# WORK TRIPS

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As discussed in the previous chapter, we can identify trips that appear to be commuters, originating in both Fresno and Madera counties. Using the Census of Transportation Planning and Programs (CTPP) dataset, we can estimate the types of businesses/agencies in which those commuters are employed. Similar to the American Community Survey (ACS), the CTPP is based on survey data and does not represent a 100 percent sample of workers. The first step in the analysis was to evaluate how representative the CTPP data is for the Study Area jurisdictions.

The most recent CTPP data is for 2006-2010, while the American Community Survey (ACS) data for labor force and population characteristics is now available for the 2010-2015 time frame. ADE increased the CTPP worker counts to 2015 based on population growth for each major jurisdiction in the Study Area in order to obtain a better comparison in the worker demographic data. The comparison of the ACS and CTPP data for workers by industry within the Madera County portion of the Study Area is provided in Table 6. In Madera County, the CTPP data could be utilized only for workers living in Census Designated Places (CDPs). Comparing the worker totals from ACS for CDPs only, this accounts for about 80 percent of all workers living in the Madera County Study Area. Adjusting for this discrepancy, the CTPP further covers about 72 percent as many workers as does the ACS. Further adjusting the CTPP for this sample deficiency, we estimate that 13,318 workers living in the Madera County portion of the Study area commute to the City of Fresno (See Table 8).

In terms of the distribution of workers by industry the biggest discrepancy in Madera County is in the agricultural and construction sectors. CTPP has only 5,051 workers in these combined industries compared to 12,474 shown in the ACS. CTPP in Madera also has 63 percent as many manufacturing workers as the ACS, many of whom would be in food processing. For other sectors, CTPP ranges between 70 to 96 percent of ACS, meaning that the industry distribution is fairly consistent between the two data sets.

In the City of Fresno, there is much better coverage in the CTPP. Adjusting for the labor force growth from 2010-2015 and the portions of the unincorporated area around Fresno not covered by CTPP, the sample error is only about five percent, and the industry sectors are within 80 to 100 percent of the ACS worker counts (Table 7).

Comparing the industry distribution for all workers living in Madera County and commuting to Fresno, there is a slightly higher proportion of workers employed in Category 4 industries, which include information, finance, and professional and technical services. There is also a slightly lower proportion of workers employed in health and education.

Based on the CTPP analysis, we estimate that 9,690 workers who live in Fresno and commute to Madera County (Table 9). About 40 percent commute to the Avenue 12 area and 20 percent to the City of Madera. There are notable differences in the industry of employment for these workers compared to workers in Fresno as a whole. Much higher proportions of agricultural, construction and manufacturing workers commute to Madera, while the proportions of trade, information, and



professional services workers are lower. The largest category is education and health care, and there is a relatively high proportion of government and other service workers.

The distribution of jobs in each of the study areas subareas is shown in Table 10 followed by additional tables that provide background on the occupation and industry of workers in each subarea and the labor force and number of workers per household. This chapter concludes with a discussion of economic multipliers from jobs in the various industry sectors.

**TABLE 6: COMPARISON OF ACS AND CTPP DATA FOR WORKERS BY INDUSTRY, MADERA COUNTY**

INDUSTRY OF EMPLOYMENT	EMPLOYED WORKERS, 2015						
	ACS WITHIN MADERA COUNTY STUDY AREA	PERCENT	ACS WITHIN CTPP PORTION OF MADERA COUNTY STUDY AREA	CTPP AREA PORTION OF TOTAL STUDY AREA	CTPP WITHIN MADERA COUNTY STUDY AREA	CTPP ADJUSTED TO TOTAL STUDY AREA	CTPP AS PERCENT OF ACS
01 Agriculture, forestry, fishing and hunting, and mining; + Construction; + Armed Forces	12,474	26.1%	10,046	80.5%	4,068	5,051	40.5%
02 Manufacturing	4,295	9.0%	3,517	81.9%	2,223	2,714	63.2%
03 Wholesale trade; + Retail Trade; + Transportation and warehousing, and utilities	8,272	17.3%	6,902	83.4%	6,061	7,264	87.8%
04 Information; + Finance, insurance, real estate and rental and leasing; + Professional, scientific, management, administrative, and waste management services	5,034	10.5%	3,929	78.0%	3,785	4,849	96.3%
05 Arts, entertainment, recreation, accommodation and food services	3,609	19.8%	2,890	80.1%	2,028	2,532	70.2%
06 Educational, health and social services	9,465	7.6%	7,399	78.2%	6,109	7,815	82.6%
07 Other services (except public administration); + Public Administration	4,620	9.7%	3,761	81.4%	3,361	4,129	89.4%
<b>Total</b>	<b>47,769</b>	<b>100.0%</b>	<b>38,444</b>	<b>80.5%</b>	<b>27,634</b>	<b>34,354</b>	<b>71.9%</b>

Source: ADE, Inc., based on US Census of Transportation Planning and Programs Data 2006-2010, adjusted to 2015.

**TABLE 7: COMPARISON OF ACS AND CTPP DATA FOR WORKERS BY INDUSTRY, FRESNO**

INDUSTRY OF EMPLOYMENT	EMPLOYED WORKERS, 2015						
	ACS WITHIN FRESNO COUNTY STUDY AREA	PERCENT	ACS WITHIN CTPP PORTION OF FRESNO COUNTY STUDY AREA	CTPP AREA PORTION OF TOTAL STUDY AREA	CTPP WITHIN FRESNO COUNTY STUDY AREA	CTPP ADJUSTED TO TOTAL STUDY AREA	CTPP AS PERCENT OF ACS
01 Agriculture, forestry, fishing and hunting, and mining; + Construction; + Armed Forces	22,421	10.8%	21,747	97.0%	17,422	17,962	80.1%
02 Manufacturing	15,362	7.4%	15,251	99.3%	13,585	13,684	89.1%
03 Wholesale trade; + Retail Trade; + Transportation and warehousing, and utilities	41,716	20.2%	41,291	99.0%	40,827	41,248	98.9%
04 Information; + Finance, insurance, real estate and rental and leasing; + Professional, scientific, management, administrative, and waste management services	31,748	15.3%	31,468	99.1%	31,468	31,748	100.0%
05 Arts, entertainment, recreation, accommodation and food services	21,197	24.5%	50,124	99.1%	50,124	50,597	100.0%
06 Educational, health and social services	50,597	10.2%	21,091	99.5%	18,498	18,590	87.7%
07 Other services (except public administration); + Public Administration	23,831	11.5%	23,588	99.0%	23,588	23,831	100.0%
<b>Total</b>	<b>206,872</b>	<b>100.0%</b>	<b>204,560</b>	<b>98.9%</b>	<b>195,512</b>	<b>197,660</b>	<b>95.5%</b>

Source: ADE, Inc., based on US Census of Transportation Planning and Programs Data 2006-2010, adjusted to 2015 ACS worker totals.

**TABLE 8: FLOW OF WORKERS BY INDUSTRIES: MADERA COUNTY DESTINATIONS TO CITY OF FRESNO, 2015 ESTIMATED**

INDUSTRY OF EMPLOYMENT	WORKER RESIDENCE									
	TOTAL MADERA COUNTY STUDY AREA	PERCENT	MADERA CITY	PERCENT	UNINC. NEAR MADERA	PERCENT	AVENUE 12	PERCENT	UPPER SR- 41 AREA	PERCENT
01 Agriculture, forestry, fishing and hunting, and mining; + Construction; + Armed Forces	4,010	30.1%	2,962	42.6%	156	14.0%	736	17.8%	156	14.0%
02 Manufacturing	1,431	10.7%	550	7.9%	171	15.4%	539	13.0%	171	15.4%
03 Wholesale trade; + Retail Trade; + Transportation and warehousing, and utilities	2,084	15.6%	1,002	14.4%	251	22.6%	579	14.0%	251	22.6%
04 Information; + Finance, insurance, real estate and rental and leasing; + Professional, scientific, management, administrative, and waste management services	1,671	12.5%	723	10.4%	218	19.6%	511	12.3%	218	19.6%
05 Arts, entertainment, recreation, accommodation and food services	676	5.1%	192	2.8%	31	2.8%	421	10.2%	31	2.8%
06 Educational, health and social services	2,295	17.2%	844	12.1%	234	21.0%	983	23.7%	234	21.0%
07 Other services (except public administration); + Public Administration	1,151	8.6%	678	9.8%	51	4.6%	371	9.0%	51	4.6%
<b>Total</b>	<b>13,318</b>	<b>100.0%</b>	<b>6,950</b>	<b>100.0%</b>	<b>1,112</b>	<b>100.0%</b>	<b>4,141</b>	<b>100.0%</b>	<b>1,112</b>	<b>100.0%</b>

Source: ADE, Inc., based on US Census of Transportation Planning and Programs Data 2006-2010

**TABLE 9: FLOW OF WORKERS BY INDUSTRIES: WORKERS LIVING IN CITY OF FRESNO AND COMMUTING TO COUNTY OF MADERA DESTINATIONS, 2015 ESTIMATED**

INDUSTRY OF EMPLOYMENT	COMMUTE DESTINATION									
	TOTAL	PERCENT	MADERA CITY	PERCENT	UNINC. NEAR MADERA	PERCENT	AVENUE 12 AREA	PERCENT	UPPER SR 41 AREA	PERCENT
01 Agriculture, forestry, fishing and hunting, and mining; + Construction; + Armed Forces	1,674	17.3%	250	11.7%	362	19.1%	700	17.8%	362	20.9%
02 Manufacturing	1,411	14.6%	303	14.2%	239	12.6%	659	16.7%	210	12.1%
03 Wholesale trade; + Retail Trade; + Transportation and warehousing, and utilities	1,383	14.3%	389	18.3%	209	11.0%	496	12.6%	287	16.6%
04 Information; + Finance, insurance, real estate and rental and leasing; + Professional, scientific, management, administrative, and waste management services	1,191	12.3%	180	8.5%	284	15.0%	464	11.8%	264	15.2%
05 Arts, entertainment, recreation, accommodation and food services	1,162	12.0%	175	8.2%	191	10.1%	511	13.0%	284	16.4%
06 Educational, health and social services	1,668	17.2%	667	31.3%	323	17.0%	538	13.7%	140	8.1%
07 Other services (except public administration); + Public Administration	1,201	12.4%	165	7.7%	284	15.0%	569	14.4%	183	10.6%
<b>Total</b>	<b>9,690</b>	<b>100.0%</b>	<b>2,129</b>	<b>100.0%</b>	<b>1,892</b>	<b>100.0%</b>	<b>3,936</b>	<b>100.0%</b>	<b>1,730</b>	<b>100.0%</b>

Source: ADE, Inc., based on US Census of Transportation Planning and Programs Data 2006-2010

**TABLE 10: JOBS BY INDUSTRY OF SUB-AREAS (INCLUDING CDPS SURROUNDED BY CITY OF FRESNO) WITHIN THE STUDY AREA, 2015**

INDUSTRY SECTOR	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS OUTSIDE OF MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPS SURROUNDED BY CITY OF FRESNO	UNINC. AREAS OUTSIDE AND WEST OF FRESNO
<b>Total</b>	<b>48,531</b>	<b>16,040</b>	<b>6,023</b>	<b>9,188</b>	<b>4,745</b>	<b>374,433</b>	<b>219,839</b>	<b>2,212</b>	<b>5,648</b>
Agriculture, Forestry, Fishing and Hunting	11,932	2,495	2,971	1,152	257	49,281	3,837	83	224
Mining, Quarrying, and Oil and Gas Extraction	44	0	0	3	0	264	4	0	0
Utilities	262	63	27	24	49	2,160	1,195	13	20
Construction	1,142	462	115	166	184	13,906	7,683	109	219
Manufacturing	4,523	1,239	701	606	77	22,617	11,568	106	2,663
Wholesale Trade	760	243	214	163	59	14,480	8,291	199	359
Retail Trade	3,663	2,206	322	241	704	37,243	24,416	168	128
Transportation and Warehousing	752	170	97	405	77	11,353	6,564	228	540
Information	348	103	1	1	239	4,032	3,425	51	0
Finance and Insurance	451	217	10	33	135	9,189	7,911	83	6
Real Estate and Rental and Leasing	345	117	31	78	64	4,624	3,440	21	190
Professional, Scientific, and Technical Services	515	182	59	81	119	11,191	9,179	155	33
Management of Companies and Enterprises	381	53	282	6	36	2,269	1,951	6	208
Administration & Support, Waste Mgmt	1,894	379	37	983	109	18,556	14,650	121	300
Educational Services	4,702	1,901	414	858	283	41,166	21,314	148	270
Health Care and Social Assistance	7,513	3,115	262	3,538	332	55,913	38,597	288	152
Arts, Entertainment, and Recreation	300	11	5	12	262	3,325	2,178	100	7
Accommodation and Food Services	2,800	848	165	75	1,416	28,017	19,070	53	29
Other Services (excluding Public Administration)	1,293	506	47	56	305	15,301	11,068	280	303
Public Administration	4,910	1,731	263	708	39	29,545	23,499	0	0

Source: ADE, Inc., based on LEHD as updated for 2015 via EDD and EMSI

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**TABLE 11: INDUSTRY OF EMPLOYMENT FOR WORKERS LIVING IN SUB-AREAS WITHIN THE STUDY AREA, 2015**

INDUSTRY SECTOR	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS OUTSIDE OF MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO, INCL. INTERNAL CDPs	UNINC. AREAS OUTSIDE AND WEST OF FRESNO
<b>Total</b>	<b>53,032</b>	<b>24,129</b>	<b>9,902</b>	<b>6,589</b>	<b>7,149</b>	<b>374,564</b>	<b>204,560</b>	<b>2,312</b>
01 Ag, Forestry and Fishing	10,545	6,958	1,644	941	218	38,291	10,545	488
02 Mining	0	0	0	0	0	578	178	0
03 Construction	2,917	1,022	593	484	614	20,008	11,024	186
04 Manufacturing	4,580	2,310	1,101	584	300	27,843	15,251	111
05 Wholesale	1,268	426	275	125	271	14,798	7,449	121
06 Retail	5,160	2,685	905	672	671	40,067	24,102	204
07 Transportation and Warehousing	1,900	810	467	86	316	14,290	7,871	92
08 Utilities	595	177	192	62	132	3,413	1,869	8
09 Information	770	221	20	144	190	4,852	2,720	35
10 Finance and Insurance	968	269	152	171	177	11,613	7,327	64
11 Real Estate and Leasing	624	155	113	140	157	6,515	3,812	10
12 Prof. Scientific	1,347	299	196	202	379	13,618	8,100	66
13 MCE	0	0	0	0	0	199	154	0
14 Admin and Waste Mgt.	2,258	892	441	302	414	16,393	9,355	105
15 Education	4,409	1,531	1,161	607	749	34,332	17,890	154
16 Health and Social Svc.	5,841	2,741	1,014	753	909	53,946	32,234	319
17 Arts, Ent. And rec.	836	269	141	136	227	6,813	4,197	44
18 Accom. And Food Services	3,492	1,349	393	367	727	26,111	16,894	62
19 Other Svcs	2,323	804	505	337	283	18,182	11,088	68
20 Public Admin.	3,199	1,211	589	476	415	22,702	12,500	175

**TABLE 12: EMPLOYED PERSONS BY BROAD OCCUPATIONAL CATEGORIES: PROJECT AREA AND SUB-AREAS (INCLUDING CDPs SURROUNDED BY CITY OF FRESNO) (PERSONS 16 AND OVER)**

OCCUPATIONAL GROUP	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMED. AROUND MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPs SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMED. WEST OF FRESNO
<b>Total</b>	<b>53,032</b>	<b>24,129</b>	<b>9,902</b>	<b>6,589</b>	<b>7,149</b>	<b>374,564</b>	<b>198,113</b>	<b>6,447</b>	<b>2,312</b>
Management occupations	4,921	1,738	629	786	883	27,833	13,331	581	210
Business and financial operations occupations	908	252	119	245	196	13,145	7,436	185	59
Computer and mathematical occupations	381	96	58	52	113	4,254	2,619	53	24
Architecture and engineering occupations	396	98	166	95	50	3,479	1,997	33	5
Life, physical, and social science occupations	303	88	100	19	64	2,554	1,402	102	12
Community and social service occupations	442	249	94	47	63	7,661	4,624	173	17
Legal occupations	252	100	51	28	35	2,892	1,688	182	2
Education, training, and library occupations	3,251	1,132	909	411	584	21,863	11,404	338	125
Arts, design, entertainment, sports, media occup.	622	245	150	87	90	4,166	2,546	124	18
Health diagnosing, treating practitioners and other technical occupations	1,263	529	224	268	234	13,491	7,271	426	62
Health technologists and technicians	696	256	144	135	107	5,862	3,056	101	27
Healthcare support occupations	1,240	573	279	100	102	9,207	4,918	97	44
Fire fighting, and other protective service workers	708	202	125	127	216	4,874	2,577	127	18
Law enforcement workers including supervisors	735	114	169	144	97	4,306	1,890	48	28
Food preparation and serving related occupations	2,245	841	264	274	468	19,945	12,536	274	79
Building, grounds cleaning, maintenance occup.	2,086	797	360	227	310	15,420	8,770	360	94
Personal care and service occupations	2,017	826	388	274	256	18,292	10,837	428	136
Sales and related occupations	4,952	2,062	903	669	903	38,444	22,418	592	191
Office and administrative support occupations	6,093	2,600	993	837	1,019	48,359	27,334	814	286
Farming, fishing, and forestry occupations	8,036	5,842	1,253	526	104	29,971	8,511	152	267
Construction and extraction occupations	2,286	790	442	334	437	15,731	8,745	295	164



OCCUPATIONAL GROUP	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPS SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
Installation, maintenance, and repair occupations	2,165	986	513	285	171	11,590	5,465	289	81
Production occupations	3,339	1,844	730	380	234	21,185	12,190	237	146
Transportation occupations	1,943	712	493	143	338	14,906	7,449	271	77
Material moving occupations	1,752	1,157	346	96	75	15,134	7,099	165	140

Source: ADE, Inc., based on US Census ACS 2011-2015 5-Year Sample Table B24010

**TABLE 13: PERSONS IN THE LABOR FORCE IN PROJECT AREA AND SUB-AREAS (PERSONS 16 AND OVER)**

	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPS SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
Total Persons 16 and Over	115,435	44,086	17,813	13,662	17,817	709,064	375,566	12,205	4,874
In labor force:	57,371	25,811	10,496	7,010	7,897	432,146	231,332	7,043	2,702
In labor force: - Civilian labor force:	57,312	25,798	10,496	7,010	7,897	431,701	231,173	7,040	2,702
In labor force: - Civilian labor force: - Employed	53,032	24,129	9,902	6,589	7,149	374,564	198,113	6,447	2,312
In labor force: - Civilian labor force: - Full-Time	31,848	13,043	6,492	4,432	4,331	235,704	125,558	4,139	1,455
In labor force: - Civilian labor force: - Part-Time	21,184	11,086	3,410	2,157	2,818	138,860	72,555	2,308	857
In labor force: - Civilian labor force: - Unemployed	4,280	1,669	594	421	748	57,137	33,060	593	390
In labor force: - Armed Forces	59	13	0	0	0	445	159	3	0

	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPS SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
Not in labor force	58,064	18,275	7,317	6,652	9,920	276,918	144,234	5,162	2,172
Civilian unemployment rate	7.5%	6.5%	5.7%	6.0%	9.5%	13.2%	14.3%	8.4%	14.4%

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Tables B23025 and B23027

**TABLE 14: WORKERS PER HOUSEHOLD**

	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA	AVENUE 12 AREA	UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPS SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
In Labor Force:	57,371	25,811	10,496	7,010	7,897	432,146	231,332	7,043	2,702
Households:	43,159	16,791	6,472	4,915	8,330	296,305	161,914	5,437	1,818
Workers per Household:	1.3	1.5	1.6	1.4	0.9	1.5	1.4	1.3	1.5

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Tables B23025 and B11016

**TABLE 15: ANNUAL AVERAGE WAGES BY INDUSTRY, MADERA AND FRESNO COUNTIES, 2015**

INDUSTRY	MADERA	FRESNO	DIFFERENCE
<b>Total</b>	<b>\$37,778</b>	<b>\$39,124</b>	<b>\$1,346</b>
11 Ag	\$26,023	\$26,369	\$346
21 Mining	\$48,185	\$92,203	\$44,019
22 Utilities	\$111,356	\$110,219	(\$1,137)
236 Construction of bldgs	\$39,941	\$51,110	\$11,169
237 Heavy construction	\$53,368	\$63,441	\$10,073
238 Specialty trade construction	\$44,104	\$45,563	\$1,459
311-312 Food and beverage mfg.	\$33,414	\$36,472	\$3,057
313-339 Manufacturing (excl. food and bev.)	\$52,760	\$49,957	(\$2,802)
42 Wholesale	\$57,614	\$54,703	(\$2,910)
44-45 Retail	\$28,033	\$28,094	\$61
48 Transportation	\$39,153	\$44,032	\$4,880
49 Warehousing	\$46,686	\$47,518	\$832
51 Information	\$63,268	\$81,680	\$18,412
52 Finance	\$43,779	\$66,671	\$22,893
53 Real estate	\$30,270	\$38,184	\$7,915
54 Prof., Scientific	\$45,252	\$55,040	\$9,788
55 Mgt. of Comp.	\$52,410	\$69,096	\$16,686
561 Admin and support	\$25,270	\$25,156	(\$114)
562 Waste mgt.	\$56,249	\$42,920	(\$13,328)
61 Education	\$40,007	\$38,894	(\$1,114)
62 Health	\$49,402	\$45,142	(\$4,260)
71 Ent., Rec., Arts	\$16,469	\$18,224	\$1,755
721 Accommodations	\$19,424	\$19,177	(\$247)
722 Food services and drinking	\$14,735	\$15,662	\$926
81 Other services	\$27,235	\$27,843	\$608
901 Fed., civilian only	\$56,363	\$57,391	\$1,029
902 State civilian	\$57,482	\$62,363	\$4,881
903 Local govt.	\$45,364	\$52,691	\$7,328
999 Unclassified	\$30,326	\$30,081	(\$245)

*Source: Applied Development Economics, based on EMSI 2015 Q4 OCEW and Non OCEW Industry Employment Trends. Note: Public sector education and public sector health employment moved from public sector to "61 Education" and "62 Health" for purposes of comparative analysis.*

## ECONOMIC MULTIPLIERS

Jobs supported by economic activity in the Study Area create economic multiplier effects, both from business to business transactions and from employee spending for retail goods and other services. Using the IMPLAN input-output model for Fresno and Madera counties, we have calculated the jobs multipliers for the major industry sectors in the region. In the tables below, we have calculated the indirect (business to business) and induced (Employee spending) multipliers per 100 jobs in each industry sector for the City of Fresno, the City of Madera and unincorporated Madera County. These multipliers can be applied to the jobs held by commuters in each part of the Study Area.

**TABLE 16: CITY OF FRESNO JOBS MULTIPLIERS**

INDUSTRY GROUP	DIRECT JOBS	INDIRECT JOBS	INDUCED JOBS	TOTAL JOBS	TYPE I MULTIPLIER	TYPE SAM MULTIPLIER
11 Ag, Forestry, Fish & Hunting	100.0	26.7	73.5	200.2	1.27	2.00
21 Mining	100.0	31.8	98.1	229.9	1.32	2.30
22 Utilities	100.0	132.6	420.6	653.1	2.33	6.53
23 Construction	100.0	42.6	76.7	219.4	1.43	2.19
31-33 Manufacturing	100.0	104.8	130.7	335.5	2.05	3.36
42 Wholesale Trade	100.0	58.7	154.3	313.0	1.59	3.13
44-45 Retail trade	100.0	16.5	58.8	175.3	1.17	1.75
48-49 Transportation & Warehousing	100.0	45.1	85.6	230.8	1.45	2.31
51 Information	100.0	141.9	181.3	423.2	2.42	4.23
52 Finance & insurance	100.0	74.1	90.6	264.7	1.74	2.65
53 Real estate & rental	100.0	68.2	96.5	264.6	1.68	2.65
54 Professional- scientific & tech svcs	100.0	39.8	73.6	213.3	1.40	2.13
55 Management of companies	100.0	56.7	107.3	264.0	1.57	2.64
56 Administrative & waste services	100.0	16.1	35.7	151.9	1.16	1.52
61 Educational svcs	100.0	12.7	35.4	148.1	1.13	1.48
62 Health & social services	100.0	19.9	59.2	179.2	1.20	1.79
71 Arts- entertainment & recreation	100.0	20.7	28.4	149.1	1.21	1.49
72 Accommodation & food services	100.0	12.8	32.4	145.3	1.13	1.45
81 Other services	100.0	27.8	60.6	188.5	1.28	1.88
92 Government & non NAICs	100.0	6.2	75.6	181.9	1.06	1.82

Source: IMPLAN Input-Output Model

**TABLE 17: CITY OF MADERA JOBS MULTIPLIERS**

INDUSTRY GROUP	DIRECT JOBS	INDIRECT JOBS	INDUCED JOBS	TOTAL JOBS	TYPE I MULTIPLIER	TYPE SAM MULTIPLIER
11 Ag, Forestry, Fish & Hunting	100.0	22.0	51.4	173.4	1.22	1.73
21 Mining	100.0	12.2	27.5	139.6	1.12	1.40
22 Utilities	100.0	78.8	154.3	333.1	1.79	3.33
23 Construction	100.0	33.4	46.5	179.9	1.33	1.80
31-33 Manufacturing	100.0	90.3	92.4	282.7	1.90	2.83
42 Wholesale Trade	100.0	42.2	99.6	241.8	1.42	2.42
44-45 Retail trade	100.0	11.8	40.7	152.5	1.12	1.52
48-49 Transportation & Warehousing	100.0	33.7	47.3	180.9	1.34	1.81
51 Information	100.0	181.5	162.9	444.3	2.81	4.44
52 Finance & insurance	100.0	33.4	45.9	179.3	1.33	1.79
53 Real estate & rental	100.0	58.2	55.1	213.3	1.58	2.13
54 Professional- scientific & tech svcs	100.0	30.1	39.8	169.9	1.30	1.70
55 Management of companies	100.0	33.9	56.4	190.3	1.34	1.90
56 Administrative & waste services	100.0	9.7	20.2	129.9	1.10	1.30
61 Educational svcs	100.0	6.9	12.1	118.9	1.07	1.19
62 Health & social services	100.0	20.0	48.6	168.6	1.20	1.69
71 Arts- entertainment & recreation	100.0	15.1	17.7	132.8	1.15	1.33
72 Accommodation & food services	100.0	10.0	22.2	132.2	1.10	1.32
81 Other services	100.0	12.6	46.3	158.9	1.13	1.59
92 Government & non NAICs	100.0	2.9	50.9	153.7	1.03	1.54

Source: IMPLAN Input-Output Model

**TABLE 18: UNINCORPORATED MADERA COUNTY JOBS MULTIPLIERS**

INDUSTRY GROUP	DIRECT JOBS	INDIRECT JOBS	INDUCED JOBS	TOTAL JOBS	TYPE I MULTIPLIER	TYPE SAM MULTIPLIER
11 Ag, Forestry, Fish & Hunting	100.0	30.4	96.7	227.2	1.30	2.27
21 Mining	100.0	48.3	34.6	183.0	1.48	1.83
22 Utilities	100.0	187.3	156.5	443.9	2.87	4.44
23 Construction	100.0	28.6	41.1	169.7	1.29	1.70
31-33 Manufacturing	100.0	45.3	66.1	211.4	1.45	2.11
42 Wholesale Trade	100.0	49.7	97.4	247.1	1.50	2.47
44-45 Retail trade	100.0	15.8	36.8	152.6	1.16	1.53
48-49 Transportation & Warehousing	100.0	24.9	56.0	180.9	1.25	1.81
51 Information	100.0	102.3	103.6	305.8	2.02	3.06
52 Finance & insurance	100.0	50.1	25.1	175.1	1.50	1.75
53 Real estate & rental	100.0	124.1	74.1	298.2	2.24	2.98
54 Professional- scientific & tech svcs	100.0	34.8	36.4	171.2	1.35	1.71
55 Management of companies	100.0	55.4	61.6	217.1	1.55	2.17
56 Administrative & waste services	100.0	13.0	22.6	135.6	1.13	1.36
61 Educational svcs	100.0	9.3	13.6	122.9	1.09	1.23
62 Health & social services	100.0	12.9	25.4	138.2	1.13	1.38
71 Arts- entertainment & recreation	100.0	20.0	16.6	136.6	1.20	1.37
72 Accommodation & food services	100.0	10.3	22.4	132.7	1.10	1.33
81 Other services	100.0	22.2	38.7	160.9	1.22	1.61
92 Government & non NAICs	100.0	5.1	51.6	156.7	1.05	1.57

Source: IMPLAN Input-Output Model

# SHOPPING

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Mid-day and evening trips are likely to be for shopping, entertainment, education, medical appointments and other purposes. In this chapter we explore the retail shopping dynamics within the region, since sales tax is a major fiscal component of funding for local services. As described below, the retail market analysis utilizes ADE's retail demand model, which projects purchasing power based on a number of household and demographic characteristics, including household income, ethnicity and age of head of household. The tables with these background demographics factors are provided at the end of this chapter.

## RETAIL MARKET ANALYSIS

This section summarizes the retail market dynamics for the cities of Fresno and Madera, in addition to Fresno County and Madera County. Local household spending represents the single largest component that supports any community's retail commercial sectors. The primary factors that affect the demand for retail goods and services include the number of households living in the local market area, and the average income and its distribution across different income groups.

As described later in this section, retail leakage represents the gap between local market demand and retail sales by local retail establishments. This leakage represents an existing shortfall, as well as an opportunity for both retail expansion and possible attraction. Concurrently, net capture of regional sales indicates that a particular retail segment has strong enough concentration that it supports spending from outside of a particular community.

## COMPONENTS OF RETAIL DEMAND

In order to estimate the total retail demand for the geographic areas in the analysis, three different components of retail demand were estimated – household spending, visitor spending, and business-to-business spending.

Household spending represents the total purchases of retail goods and services made by residents living within a given geographic area. The estimated retail demand is based on household counts by income group. The household retail spending totals are calculated from an analytical model developed by ADE. This model estimates spending for over 40 different store types and 100 product categories. The household demand considers the distinct spending patterns for different income groups. Household spending generally encompasses a broad range of different retail store categories, and only considers the spending power by category, not where the spending occurs.

Visitor spending represents the purchases of retail goods and services made by out-of-town visitors. These visitors include a combination of overnight guests and day trippers. The spending levels are based on county level information from Dean Runyan Associates, and allocated to individual cities using transient occupancy tax (TOT) data. Generally, the visitor spending is heavily concentrated in food and transportation costs.

Business-to-business spending represents the purchases of retail goods and services made by other businesses. The spending levels are derived from the county and ZIP code level data from the IMPLAN Pro input-output model, and retail sales data from the State Board of Equalization.

## RETAIL LEAKAGE AND NET CAPTURE OF REGIONAL SALES

In order to calculate the retail leakage and/or net capture of regional sales, the analysis compares the total demand with the categorical retail sales. The sales data comes from the published reports by the State Board of Equalization. Because this data only includes taxable sales, ADE adjusted the data to include estimated sales of nontaxable items.

## RETAIL ANALYSIS BY AREA

### FRESNO (CITY)

#### RETAIL DEMAND

When looking at combined household, visitor, and business-to-business spending, the overall retail demand for the City of Fresno totals about \$4.0 billion, as shown in Table 19. The strongest demand occurs in the gasoline station, general merchandise, motor vehicle dealers, food store, and food service categories, each of which support over \$500 million in retail store spending.

Household spending accounts for the majority of the overall retail demand with nearly \$2.9 million in total demand. The largest spending categories among Fresno households are motor vehicle dealers, general merchandise stores, and food service.

**TABLE 19: RETAIL SPENDING BY CATEGORY, CITY OF FRESNO (2014/15)**

RETAIL CATEGORY	FRESNO HH SPENDING	FRESNO VISITOR SPENDING	FRESNO BUSINESS-TO-BUSINESS SPENDING	TOTAL LOCAL SPENDING
Motor Vehicle and Parts Dealers	\$505,562,051	\$0	\$75,015,239	\$580,577,290
Home Furnishings and Appliance Stores	\$101,517,315	\$622,851	\$48,502,702	\$150,642,868
Building Materials and Garden Eq	\$92,028,157	\$0	\$74,742,345	\$166,770,502
Food and Beverage Stores	\$492,157,092	\$42,647,485	\$6,330,867	\$541,135,444
Gasoline Stations	\$345,449,679	\$144,999,238	\$140,685,884	\$631,134,801
General Merchandise Stores	\$519,873,287	\$71,082,102	\$27,384,503	\$618,339,892
Clothing and Accessories Stores	\$144,014,590	\$35,633,052	\$47,160,787	\$226,808,430
Food Services and Drinking Places	\$516,732,544	\$238,331,857	\$95,224,873	\$850,289,273
Other Retail	\$136,848,141	\$45,462,958	\$86,498,144	\$268,809,242
<b>Total</b>	<b>\$2,854,182,856</b>	<b>\$578,779,543</b>	<b>\$601,545,344</b>	<b>\$4,034,507,743</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

Visitors to Fresno spend about \$578.8 million at retail stores. Most of this spending occurs at gasoline stations and food service establishments.

Business-to-business transactions account for about \$601.5 million in retail demand, with gasoline stations constituting the largest spending category.

## RETAIL SALES AND LEAKAGE/NET CAPTURE

The City of Fresno captures about \$6.2 billion in total retail sales (including sales from nontaxable items). The largest sales categories are food stores, general merchandise stores, and motor vehicle dealers (Table 20). Compared to the local demand, Fresno has a net capture of about \$2.2 billion in retail sales.

Among the major retail categories, the only retail leakage occurred with food service establishments. This indicates that the demand exceeds existing sales. However, it should be noted that the retail leakage of \$60.1 million is relatively small when compared to the categorical sales of \$790 million.

All of the other retail categories show a net capture of regional sales. This indicates that Fresno likely captures considerable spending from outside of the city. The largest net capture occurs in the food store, motor vehicle dealer, and general merchandise store categories.

**TABLE 20: RETAIL LEAKAGE, CITY OF FRESNO (2014/15)**

RETAIL CATEGORY	TOTAL LOCAL SPENDING	TOTAL FRESNO RETAIL SALES	RETAIL LEAKAGE (NET CAPTURE)
Motor Vehicle and Parts Dealers	\$580,577,290	\$1,158,377,000	(\$577,799,710)
Home Furnishings and Appliance Stores	\$150,642,868	\$305,230,000	(\$154,587,132)
Building Materials and Garden Eq	\$166,770,502	\$390,896,000	(\$224,125,498)
Food and Beverage Stores	\$541,135,444	\$760,361,789	(\$219,226,345)
Gasoline Stations	\$631,134,801	\$718,833,000	(\$87,698,199)
General Merchandise Stores	\$618,339,892	\$1,175,216,157	(\$556,876,265)
Clothing and Accessories Stores	\$226,808,430	\$427,202,000	(\$200,393,570)
Food Services and Drinking Places	\$850,289,273	\$790,222,000	\$60,067,273
Other Retail	\$268,809,242	\$545,052,000	(\$276,242,758)
<b>Total</b>	\$4,034,507,743	\$6,271,389,946	(\$2,236,882,203)

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

## MADERA (CITY)

### RETAIL DEMAND

The overall local spending for Madera totals about \$344.7 million (Table 21). The largest spending categories are motor vehicle dealers, food stores, general merchandise stores, and food service establishments. Each of these categories accounted for at least \$50 million in total demand.

Madera households generate a total of \$262.6 million in retail demand. Retail store categories with more than \$40 million in spending by Madera households include motor vehicle dealerships, food stores, general merchandise stores, and food service establishments.

Spending by overnight and day visitors to Madera total about \$34.7 million in retail demand. The largest portion of this spending goes to food service establishments.



Business-to-business activity in Madera accounts for about \$47.4 million in retail demand. The largest demand categories are motor vehicle dealers, gasoline stations, building materials, and other retail stores.

**TABLE 21: RETAIL SPENDING BY CATEGORY, CITY OF MADERA (2014/15)**

RETAIL CATEGORY	MADERA HH SPENDING	MADERA VISITOR SPENDING	MADERA BUSINESS-TO-BUSINESS SPENDING	TOTAL LOCAL SPENDING
Motor Vehicle and Parts Dealers	\$45,231,705	\$0	\$8,358,168	\$53,589,872
Home Furnishings and Appliances	\$9,334,019	\$0	\$2,309,518	\$11,643,537
Building Materials and Garden Eq	\$8,525,041	\$0	\$6,176,764	\$14,701,805
Food and Beverage Stores	\$46,168,734	\$3,323,678	\$674,980	\$50,167,392
Gasoline Stations	\$32,001,726	\$6,396,053	\$6,934,968	\$45,332,748
General Merchandise Stores	\$48,247,661	\$6,195,888	\$3,859,205	\$58,302,754
Clothing and Accessories Stores	\$12,963,410	\$1,233,102	\$3,781,117	\$17,977,629
Food Services and Drinking Places	\$47,616,811	\$15,718,228	\$7,968,503	\$71,303,542
Other Retail	\$12,552,700	\$1,826,530	\$7,307,373	\$21,686,604
<b>Total</b>	<b>\$262,641,807</b>	<b>\$34,693,479</b>	<b>\$47,370,597</b>	<b>\$344,705,883</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

#### RETAIL SALES AND LEAKAGE/NET CAPTURE

Retail stores in the City of Madera generate about \$567.2 million in total retail sales, which is substantially larger than the \$355.1 million in local spending demand. The largest sales category is general merchandise stores with \$126.7 million in total sales (Table 22).

Among the major retail categories, the home furnishings/appliance store, and food service categories show sales leakage. All of the other retail categories show a net capture of regional sales, with the largest net capture occurring in the motor vehicle dealer and general merchandise store categories.

The strong net capture for the City of Madera reflects the fact that other residents of the County shop in Madera for many goods and services, since large retail centers do not exist in the unincorporated areas.

## FRESNO COUNTY

#### RETAIL DEMAND

The overall local spending for Fresno County totals about \$7.0 billion (Table 23). The retail categories with over \$1 billion in total retail demand include motor vehicle dealers, gasoline stations, general merchandise stores, and food service establishments.

Fresno County households account for about \$5.3 billion in retail demand. Retail store categories with \$900 million or more in spending by Fresno County households include motor vehicle dealerships, food stores, general merchandise stores, and food service establishments.

Visitors to Fresno County generate about \$770 million in retail spending, with most of this spending going to gasoline stations and food service establishments.

Businesses in Fresno County account for about \$971.5 million in retail demand. The largest spending categories are gasoline stations, building materials, and food service establishments.

**TABLE 22: RETAIL LEAKAGE, CITY OF MADERA (2014/15)**

RETAIL CATEGORY	TOTAL LOCAL SPENDING	TOTAL MADERA RETAIL SALES	RETAIL LEAKAGE (NET CAPTURE)
Motor Vehicle and Parts Dealers	\$53,589,872	\$98,742,000	(\$45,152,128)
Home Furnishings and Appliance Stores	\$11,643,537	\$8,838,000	\$2,805,537
Building Materials and Garden Eq	\$14,701,805	\$45,814,000	(\$31,112,195)
Food and Beverage Stores	\$50,167,392	\$82,518,293	(\$32,350,901)
Gasoline Stations	\$45,332,748	\$79,366,000	(\$34,033,252)
General Merchandise Stores	\$58,302,754	\$126,651,000	(\$68,348,246)
Clothing and Accessories Stores	\$17,977,629	\$25,206,000	(\$7,228,371)
Food Services and Drinking Places	\$71,303,542	\$62,724,000	\$8,579,542
Other Retail	\$21,686,604	\$37,336,359	(\$15,649,755)
<b>Total</b>	<b>\$344,705,883</b>	<b>\$567,195,652</b>	<b>(\$222,489,769)</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

Note: Due to nondisclosure of taxable sales data from the Board of Equalization, the general merchandise store sales data comes from InfoUSA.

**TABLE 23: RETAIL SPENDING BY CATEGORY, FRESNO COUNTY (2014/15)**

RETAIL CATEGORY	FRESNO COUNTY HH SPENDING	FRESNO COUNTY VISITOR SPENDING	FRESNO COUNTY BUSINESS-TO-BUSINESS SPENDING	TOTAL LOCAL SPENDING
Motor Vehicle and Parts Dealers	\$942,093,796	\$0	\$126,707,619	\$1,068,801,416
Home Furnishings and Appliances	\$186,717,206	\$925,396	\$88,180,346	\$275,822,948
Building Materials and Garden Eq	\$168,854,573	\$0	\$147,566,378	\$316,420,951
Food and Beverage Stores	\$899,606,288	\$53,000,000	\$9,135,574	\$961,741,862
Gasoline Stations	\$633,549,381	\$232,000,000	\$227,382,020	\$1,092,931,401
General Merchandise Stores	\$952,537,367	\$125,660,001	\$48,369,573	\$1,126,566,941
Clothing and Accessories Stores	\$265,115,158	\$30,727,036	\$72,309,051	\$368,151,245
Food Services and Drinking Places	\$949,815,742	\$296,000,000	\$147,593,788	\$1,393,409,530
Other Retail	\$251,927,194	\$31,687,566	\$104,229,609	\$387,844,369
<b>Total</b>	<b>\$5,250,216,706</b>	<b>\$770,000,000</b>	<b>\$971,473,958</b>	<b>\$6,991,690,664</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

#### RETAIL SALES AND LEAKAGE/NET CAPTURE

Fresno County retail stores generate about \$9.8 billion in total retail sales (including sales from nontaxable items). The sales categories with over \$1 billion in sales are motor vehicle dealers, food stores, gasoline stations, general merchandise stores, and food service establishments (Table 24).

Retail leakage occurred with food service establishments in Fresno County. This is the only category that showed any leakage. All of the other retail categories show a net capture of regional sales. This indicates that Fresno likely captures considerable spending from outside of the city. The largest net

capture occurs in the motor vehicle dealer, building materials, and general merchandise store categories.

**TABLE 24: RETAIL LEAKAGE, FRESNO COUNTY (2014/15)**

RETAIL CATEGORY	TOTAL LOCAL SPENDING	TOTAL FRESNO RETAIL SALES	RETAIL LEAKAGE (NET CAPTURE)
Motor Vehicle and Parts Dealers	\$1,068,801,416	\$1,886,567,000	(\$817,765,584)
Home Furnishings and Appliance Stores	\$275,822,948	\$453,493,000	(\$177,670,052)
Building Materials and Garden Eq	\$316,420,951	\$755,449,000	(\$439,028,049)
Food and Beverage Stores	\$961,741,862	\$1,095,207,317	(\$133,465,455)
Gasoline Stations	\$1,092,931,401	\$1,274,649,000	(\$181,717,599)
General Merchandise Stores	\$1,126,566,941	\$2,099,456,469	(\$972,889,527)
Clothing and Accessories Stores	\$368,151,245	\$513,370,000	(\$145,218,755)
Food Services and Drinking Places	\$1,393,409,530	\$1,159,749,000	\$233,660,530
Other Retail	\$387,844,369	\$608,336,000	(\$220,491,631)
<b>Total</b>	<b>\$6,991,690,664</b>	<b>\$9,846,276,786</b>	<b>(\$2,854,586,122)</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

## MADERA COUNTY

### RETAIL DEMAND

The local household, visitor, and business-to-business retail spending for Madera County totals about \$997.4 million (Table 25). The retail categories with over \$150 million in total retail demand include gasoline stations, general merchandise stores, and food service establishments.

Madera County households account for about \$740.0 million in retail demand. Motor vehicle dealerships, general merchandise stores, and food service establishments each accounted for over \$130 million in retail spending.

Madera County visitors generate about \$158.3 million in annual retail spending, with most of this spending going to gasoline stations and food service establishments.

Madera County businesses account for about \$99.2 million in retail demand. Gasoline stations, building materials stores, food service establishments, and other/miscellaneous retail have the largest demand with each category accounting for at least \$15 million in business-to-business spending at retail establishments.

### RETAIL SALES AND LEAKAGE/NET CAPTURE

Madera County retail stores have sales totaling about \$1.2 billion (including sales from nontaxable items). The sales categories with over \$150 million in sales are gasoline stations, general merchandise stores, and food service establishments (Table 26).

Retail leakage in Madera County occurs in the home furnishings/appliance store, clothing store, general merchandise store, and food service categories. Food service establishments make up the largest leakage, with \$100.5 million more in local demand than sales in Madera County.

Madera County shows net capture in the other major retail categories. The largest net capture occurs in the food store and general merchandise store categories.

**TABLE 25: RETAIL SPENDING BY CATEGORY, MADERA COUNTY (2014/15)**

RETAIL CATEGORY	MADERA COUNTY HH SPENDING	MADERA COUNTY VISITOR SPENDING	MADERA COUNTY BUSINESS-TO-BUSINESS SPENDING	TOTAL LOCAL SPENDING
Motor Vehicle and Parts Dealers	\$131,812,450	\$0	\$12,330,215	\$144,142,665
Home Furnishings and Appliances	\$26,294,405	\$0	\$4,911,671	\$31,206,076
Building Materials and Garden Eq	\$23,848,632	\$0	\$15,848,144	\$39,696,776
Food and Beverage Stores	\$127,587,720	\$14,400,000	\$1,578,710	\$143,566,430
Gasoline Stations	\$89,443,831	\$35,700,000	\$25,440,561	\$150,584,392
General Merchandise Stores	\$134,567,877	\$15,041,696	\$4,571,713	\$154,181,285
Clothing and Accessories Stores	\$37,002,683	\$6,558,342	\$4,258,624	\$47,819,649
Food Services and Drinking Places	\$133,935,139	\$68,100,000	\$12,532,551	\$214,567,690
Other Retail	\$35,464,359	\$18,499,962	\$17,689,913	\$71,654,233
<b>Total</b>	<b>\$739,957,096</b>	<b>\$158,300,000</b>	<b>\$99,162,101</b>	<b>\$997,419,196</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

**TABLE 26: RETAIL LEAKAGE, MADERA COUNTY (2014/15)**

RETAIL CATEGORY	TOTAL LOCAL SPENDING	TOTAL MADERA COUNTY RETAIL SALES	RETAIL LEAKAGE (NET CAPTURE)
Motor Vehicle and Parts Dealers	\$144,142,665	\$174,172,000	(\$30,029,335)
Home Furnishings and Appliance Stores	\$31,206,076	\$22,881,000	\$8,325,076
Building Materials and Garden Eq	\$39,696,776	\$118,003,000	(\$78,306,224)
Food and Beverage Stores	\$143,566,430	\$200,266,260	(\$56,699,830)
Gasoline Stations	\$150,584,392	\$269,477,000	(\$118,892,608)
General Merchandise Stores	\$154,181,285	\$150,034,000	\$4,147,285
Clothing and Accessories Stores	\$47,819,649	\$32,042,000	\$15,777,649
Food Services and Drinking Places	\$214,567,690	\$114,046,000	\$100,521,690
Other Retail	\$71,654,233	\$90,385,000	(\$18,730,767)
<b>Total</b>	<b>\$997,419,196</b>	<b>\$1,171,306,260</b>	<b>(\$173,887,064)</b>

Source: ADE, Inc.; data from American Community Survey, IMPLAN, Dean Runyan Associates, and California Board of Equalization and Department of Finance; retail demand model derived from U.S. Economic Census, Bureau of Labor Statistics Consumer Expenditure Survey and PUMS database.

**TABLE 27: TOTAL NUMBER OF PERSONS IN STUDY AREA AND SUB-AREAS**

SUB-AREA	POPULATION
Madera County	153,187
City of Madera	63,053
Uninc. areas immediately around Madera	24,912
Avenue 12 Area	17,686
Other Madera County Uninc. In project area	21,628
Fresno County	956,749
City of Fresno	510,451
CDPs Surrounded by City of Fresno*	15,912
Uninc. areas immediately west of Fresno	6,216

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Table B01003

\*Note: CDPs surrounded by Fresno, i.e. Calwa CDP, Fort Washington CDP, Mayfair CDP, Old Fig Garden CDP, and Sunnyside CDP.

**TABLE 28: NUMBER OF HOUSEHOLDS IN PROJECT AREA AND SUB-AREAS**

SUB-AREA	ALL HOUSEHOLDS	FAMILY HOUSEHOLDS	NON-FAMILY HOUSEHOLDS
Madera County	43,159	33,201	9,958
City of Madera	16,791	13,361	3,430
Uninc. areas immediately around Madera	6,472	5,340	1,132
Avenue 12 Area	4,915	4,067	848
Other Madera County Uninc. In project area	8,330	5,904	2,426
Fresno County	296,305	216,106	80,199
City of Fresno	161,914	116,812	50,539
CDPs Surrounded by City of Fresno	5,437	3,780	1,657
Uninc. areas immediately west of Fresno	1,818	1,546	272

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Table B11016

**TABLE 29: PERSONS IN HOUSEHOLDS AND AVERAGE HOUSEHOLD SIZE:  
PROJECT AREA AND SUB-AREAS**

SUB-AREA	ALL HOUSEHOLDS: PERSONS	FAMILY HOUSEHOLDS: PERSONS	NON-FAMILY HOUSEHOLDS: PERSONS	ALL HOUSEHOLDS: PERSONS PER HOUSEHOLD	FAMILY HOUSEHOLDS: PERSONS PER HOUSEHOLD	NON-FAMILY HOUSEHOLDS: PERSON PER HOUSEHOLDS
Madera County	144,390	132,203	12,187	3.35	3.98	1.22
City of Madera	62,654	58,532	4,122	3.73	4.38	1.20
Uninc. areas immediately around Madera	24,900	23,478	1,422	3.85	4.40	1.26
Avenue 12 Area	17,137	15,935	1,202	3.49	3.92	1.42
Other Madera County Uninc. in Study Area	21,534	18,519	3,015	2.59	3.14	1.24
Fresno County	938,789	830,945	107,844	3.17	3.85	1.34
City of Fresno	501,212	434,180	67,032	3.10	3.72	1.33
CDPs Surrounded by Fresno	15,861	13,568	2,293	2.92	3.59	1.38
Uninc. areas west of Fresno	6,208	5,813	395	3.41	3.76	1.45

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Tables B11016 and B11002

**TABLE 30: TOTAL NUMBER OF PERSONS BY AGE IN PROJECT AREA AND SUB-AREAS**

AGE GROUP	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA		UPPER SR 41 AREA	FRESNO COUNTY	CITY OF FRESNO	CDPs SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
			AVENUE 12 AREA	UNINC. AREAS IMMEDIATELY AROUND MADERA					
<b>Total</b>	<b>153,187</b>	<b>63,053</b>	<b>24,912</b>	<b>17,686</b>	<b>21,628</b>	<b>956,749</b>	<b>526,363</b>	<b>15,912</b>	<b>6,216</b>
Less than 5	11,735	6,311	2,510	1,086	1,017	79,445	46,706	1,184	341
5-17	31,036	15,192	5,340	3,559	3,430	198,373	107,885	3,001	1,173
18-24	15,677	7,434	3,165	1,835	1,351	107,346	62,379	1,576	588
25-34	20,982	9,073	3,274	2,000	2,266	140,474	82,851	1,664	812
35-44	19,272	8,422	2,489	2,185	1,917	116,366	62,793	2,159	671
45-54	18,646	6,825	3,123	2,295	2,490	114,290	60,227	1,914	991
55-64	16,734	4,610	2,553	2,548	3,890	96,340	50,682	1,923	741
65-74	11,278	2,898	1,694	1,488	2,979	58,301	29,877	1,288	484
75+	7,827	2,288	764	690	2,288	45,814	22,963	1,203	415
Top 20th Pctl	12.0	9.1	10.0	13.4	16.5	10.8	10.5	13.4	13.9
Median	32.8	27.0	28.2	35.5	47.8	30.2	29.1	37.0	37.5
Lower 20 <sup>th</sup> Pctl	57.3	49.8	54.1	58.8	66.3	54.7	53.8	60.3	59.1

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Table B0100

**TABLE 31: TOTAL NUMBER OF PERSONS BY RACE IN PROJECT AREA AND SUB-AREAS**

	TOTAL	WHITE	LATINO	ASIAN	PACIFIC ISLANDER	BLACK	NATIVE AMERICAN	OTHER	TWO RACES OR MORE
Madera County	153,187	55,593	85,245	3,027	212	4,941	1,615	306	2,248
City of Madera	63,053	9,149	49,449	1,669	7	1,673	342	177	587
Uninc. areas immediately around Madera	24,912	6,235	17,222	514	0	867	25	0	49
Uninc. areas between 99/41 and south of 145	17,686	8,137	8,584	324	3	178	104	60	296
Other Madera County Uninc. In project area	21,628	17,326	3,016	112	4	394	309	23	444
Fresno County	956,749	298,219	494,077	91,670	1,341	45,409	4,608	1,818	19,607
City of Fresno	510,451	143,277	247,775	65,051	824	38,353	2,299	965	11,907
CDPs Surrounded by Fresno	15,912	7,398	6,353	1,506	8	322	13	40	272
Uninc. areas immediately west of Fresno	6,216	1,608	3,444	719	0	176	5	6	258

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Table B03002

**TABLE 32: STUDY AREA AND SUB-AREA HOUSEHOLDS BY INCOME**

INCOME GROUP	MADERA COUNTY	CITY OF MADERA	UNINC. AREAS IMMEDIATELY AROUND MADERA			FRESNO COUNTY	CITY OF FRESNO	CDPs SURROUNDED BY CITY OF FRESNO	UNINC. AREAS IMMEDIATELY WEST OF FRESNO
			AVENUE 12 AREA	UPPER SR 41 AREA					
Total Households	43,159	16,791	6,472	4,915	8,330	296,305	161,914	5,437	1,818
Less than \$10,000	3,656	1,520	415	223	829	23,689	15,368	517	115
\$10,000 to \$14,999	2,404	1,070	190	223	411	21,084	12,924	268	132
\$15,000 to \$19,999	2,512	1,146	298	278	518	20,119	12,220	353	149
\$20,000 to \$24,999	3,114	1,393	500	265	450	18,795	10,630	252	167
\$25,000 to \$29,999	2,706	1,102	316	157	357	18,692	10,369	176	109
\$30,000 to \$34,999	2,341	984	316	164	379	17,035	9,349	358	90
\$35,000 to \$39,999	2,558	1,072	302	344	390	13,726	7,479	140	82
\$40,000 to \$44,999	2,255	1,051	215	227	385	14,415	7,699	178	109
\$45,000 to \$49,999	2,100	1,011	390	233	319	12,134	6,672	273	51
\$50,000 to \$59,999	3,804	1,518	782	421	765	22,636	12,205	340	180
\$60,000 to \$74,999	4,464	1,551	791	501	1,011	28,709	15,464	638	164
\$75,000 to \$99,999	4,128	1,393	737	622	865	31,240	15,724	557	206
\$100,000 to \$124,999	3,147	1,161	520	488	567	20,431	9,959	375	75
\$125,000 to \$149,999	1,695	437	335	290	446	12,144	5,547	319	75
\$150,000 to \$199,999	1,316	263	163	308	386	11,955	5,947	261	39
\$200,000 or more	959	119	202	171	252	9,501	4,358	432	75
Top 20th Percentile (est.)	\$95,796	\$75,082	\$98,582	\$118,547	\$99,774	\$97,840	\$95,524	\$122,869	\$93,590
Median	\$45,073	\$40,457	\$54,996	\$58,165	\$51,572	\$45,233	\$42,009	\$57,130	\$43,079
Lower 20th Percentile (est.)	\$20,139	\$34,186	\$45,218	\$24,847	\$18,952	\$18,264	\$17,265	\$19,110	\$18,363
Avg Income @ HH <\$200K	\$54,348	\$48,844	\$59,464	\$67,045	\$58,853	\$55,456	\$52,423	\$60,393	\$51,183
Avg Income @ HH >=\$200K	\$290,615	\$230,480	\$294,089	\$363,293	\$271,356	\$300,514	\$300,005	\$358,712	\$288,175

Source: Applied Development Economics, Inc., based on US Census ACS 2011-2015 5-Year Sample Tables B19001 and B19013



# FUTURE GROWTH SCENARIO

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Substantial future growth is planned in both the study area in Madera County and in the City of Fresno. This chapter calculates a growth scenario of the Year 2050, based on current projections and plans by the Fresno Council of Governments, Madera County and the Madera County Transportation Commission.

Fresno COG has retained ADE to prepare countywide projections for the 2015-2050 time period. The draft projections have not been officially adopted as of this writing, but Fresno COG is anticipated to adopt projections prior to completion of the present study, and the official projections will be used when they are available. The draft projections for the City of Fresno Sphere of Influence (SOI) are shown below (Table 33).

**TABLE 33: JOBS AND POPULATION PROJECTIONS FOR FRESNO SOI, 2015-2050**

JOB SECTOR	2015	2050
Agriculture	1,330	1,380
Mfg./Mining	13,350	13,040
Other Industrial	34,520	51,030
Retail	23,860	34,090
Office	38,380	54,300
Education	27,170	41,030
Health Services	44,490	70,000
Hospitality	21,610	30,790
Government	26,850	30,790
<b>Total</b>	<b>231,560</b>	<b>326,450</b>
POPULATION VARIABLE	2015	2050
Population	574,590	903,790
Persons in HHs	564,060	887,530
Tot. Nos. of HHs	181,830	268,260
Persons Per Household	3.10	3.31

*Source: ADE, Inc. Fresno County 2050 Growth Projections, Draft, February 14, 2017*

Madera County projections are based on the 2014 Regional Transportation Plan (RTP) (Table 34). Comparing the City of Chowchilla and Madera data for 2010 with census data, we believe the projections in Table 34 for these cities include their spheres of influence. Hence the portion of the Study Area designated Unincorporated Area Around Madera would be included in the City of Madera figures. The additional unincorporated area shown in the Table do not match exactly the sub-areas for the present study, but generally the SE Growth Area would be centered in the Avenue 12 area and the Mountain Area would include a portion of the Upper SR 41 area designated for this study.

**TABLE 34: MADERA COUNTY GROWTH PROJECTIONS**

YEAR	SOCIOECONOMIC CONDITION	CHOWCHILLA	MADERA	MOUNTAIN AREA	MADERA COUNTY SE NEW GROWTH AREA	REMAINING RURAL AREA	TOTAL
2010	Population	13,810	76,516	41,535	1,509	17,496	150,866
	Households	3,964	21,963	11,922	433	5,022	43,304
	Employment	5,298	19,834	7,432	2,878	7,413	42,855
2020	Population	16,078	88,741	43,973	16,305	18,079	183,176
	Households	4,893	27,006	13,382	4,962	5,502	55,745
	Employment	6,201	24,855	8,961	7,363	7,815	55,195
2035	Population	20,489	112,681	50,760	38,319	20,281	242,530
	Households	6,286	34,570	15,573	11,756	6,222	74,407
	Employment	7,556	32,387	11,255	14,092	8,418	73,708
2040	Population	22,199	121,984	53,617	46,109	21,252	265,161
	Households	6,750	37,091	16,303	14,020	6,462	80,626
	Employment	8,007	34,897	12,020	16,334	8,619	79,877

Source: Madera County Regional Transportation Plan, Table 6-2

To better understand potential growth patterns, we have also estimated build out for the unincorporated areas in the Study Area based on Madera County specific plans and areas plans within the study area (Table 35). The various area plans and specific plans listed in the table provide development capacity for about 56,510 housing units. Using ACS data, we estimate that as of 2015 there were 19,717 existing units in these areas, leaving a future growth potential of 43,265 DUs.

In addition, substantial numbers of acres are designated for non-residential development. Using standard Floor Area ratios and Employee Density factors, as shown in the bottom of Table 34, we estimate total build out of all non-residential land could support as many as 77,152 jobs. Using the LEHD database, we estimate there are current 15,576 jobs in these areas, leaving a growth potential of 64,627 jobs.

Referring to the growth projections from the RTP, it is unlikely that build out would be achieved by the year 2050. Therefore, we have prepared projections for both households and jobs for the period of 2015 to 2050 (Tables 36 and 37). Based on the RTP growth rates for the city and county jurisdictions, we estimated that there would be 20,907 new household in Madera City by 2050, including growth in the SOI currently in under County jurisdiction. For the remaining unincorporated areas in the Study Area, we project growth of 28,787 households. The Avenue 12 area would see annual growth at a 5.3 percent rate, while areas in the Upper SR 41 area would have a lower growth rate of one percent per year. The RTP projects are 12 percent per year growth in the SE Growth Area from 2010 to 2040;

however, it does not appear that the early growth in this projection has occurred yet and the 2020 to 2040 growth rate is closer to the 5.3 percent rate used in our analysis. The RTP projects the Madera SOI to growth at about 1.8 percent per year. Assuming some of this occurs in annexed areas, the actual growth rate for the City itself would be 2.3 percent per year over its 2015 base.

**TABLE 35: ESTIMATED RESIDENTIAL BUILD OUT, MADERA COUNTY UNINCORPORATED STUDY AREA**

AREA	CURRENT UNITS	GROWTH	BUILD OUT UNITS
<b>Summary of Study Area</b>	<b>19,717</b>	<b>43,265</b>	<b>56,510</b>
Avenue 12 Area	4,915	35,740	40,655
Uninc. Areas Outside of Madera*	6,472	0	0
Upper SR 41 Area	8,330	7,525	15,855
AREA PLANS	STUDY AREA GEOGRAPHY		BUILD OUT UNITS
<b>Area and Specific Plans Total</b>			<b>56,510</b>
Oakhurst Area Plan	Upper SR 41 Area		4,865
Ahwahnee Area Plan	Upper SR 41 Area		3,455
North Fork Area Plan	Upper SR 41 Area		2,114
Coarsegold	Upper SR 41 Area		4,285
O'Neals Area	Upper SR 41 Area		265
Gateway Village/ Riverstone Specific Plan	Avenue 12 Area		6,578
Rio Mesa Area	Avenue 12 Area		29,367
Raymond	Upper SR 41 Area		871
Madera State Center Community College Area Plan	Avenue 12 Area		4,500
Gunner Ranch West Area Plan	Avenue 12 Area		210
Southeast Madera County Planning Area	Avenue 12 Area		0
<i>Source: ADE Inc. Current Units estimated using GIS based ACS data. Build Out estimated from area and specific plans.</i>			
<i>*Growth included as part of City of Madera SOI.</i>			

For the 2050 jobs projections, we generally use the growth rates from the Madera County 2014 RTP and the current draft Fresno County projections. These growth rates are shown in the right hand column of Table 38. The RTP growth rate for the SE Growth Area is 4.1 percent and for the Mountain Area 1.5 percent. These rates, combined with the area around the City of Madera, average to the 2.9 percent rate shown in the table. The City of Madera SOI is projected to add 18,541 jobs while the unincorporated remainder of the Study Area would add 27,385 jobs. The City of Fresno and its adjoining unincorporated areas are projected to add 91,231 jobs between 2015 and 2050.

**TABLE 36: ESTIMATED CURRENT AND BUILD OUT JOBS IN UNINCORPORATED MADERA COUNTY STUDY AREA**

<b>JOBS</b>	<b>CURRENT*</b>	<b>GROWTH</b>	<b>BUILD OUT***</b>
<b>Avenue 12 Area</b>			
Total Jobs	8,036	36,181	44,218
Retail	241	12,446	12,688
Office	198	7,540	7,738
Industrial	1,200	9,038	10,239
Other	6,396	7,157	13,553
<b>Uninc. Areas Outside of Madera**</b>			
Total Jobs	3,052	0	0
Retail	322	0	0
Office	382	0	0
Industrial	1,040	0	0
Other	1,308	0	0
<b>Upper SR 41 Area</b>			
Total Jobs	4,488	28,446	32,934
Retail	704	8,846	9,550
Office	592	736	1,328
Industrial	261	2,648	2,909
Other	2,930	16,216	19,147
<b>Total Uninc. Study Area</b>			
Total Jobs	15,576	64,627	77,152
Retail	1,268	21,293	22,238
Office	1,172	8,276	9,066
Industrial	2,501	11,686	13,148

Source: ABR Inc., based on land use data in Madera County Area and Specific Plans.

\*Excludes agricultural jobs.

\*\*Growth in this area projected as part of the Madera City SOI.

\*\*\* Jobs calculation based on the following factors:

<i>NON-RES USES</i>	<i>FAR</i>	<i>Bldg. Sq. Ft. per Job</i>
<i>Neigh/Mixed Use Retail</i>	<i>22%</i>	<i>500</i>
<i>Comm/Highway Retail</i>	<i>22%</i>	<i>300</i>
<i>Hotel</i>	<i>50%</i>	<i>1,100</i>
<i>Office/Other</i>	<i>75%</i>	<i>300</i>
<i>Light Industrial</i>	<i>40%</i>	<i>450</i>

**TABLE 37: MADERA COUNTY STUDY AREA HOUSEHOLD GROWTH PROJECTIONS, 2015-2050**

STUDY AREA SUB-AREAS	2015	2020	2040	2050	GROWTH	ANNUAL RATE
Madera City	16,791	18,323	28,691	35,402	18,611	2.2%
Uninc. Near Madera*	6,472	6,472	6,472	6,472	0	1.8*
Ave. 12 Area	4,915	6,372	18,005	30,264	25,349	5.3%
Upper SR 41Area	8,330	8,751	10,662	11,768	3,438	1.0%
Subtotal Uninc.	19,717	21,595	35,139	48,504	28,787	2.6%

Source: ADE, Inc.

\* Growth in the unincorporated area near Madera is expected to occur within the Madera SOI and be annexed, for purposes of the fiscal analysis. Growth rate shown is for the combined Madera SOI.

**TABLE 38: STUDY AREA JOBS PROJECTION, 2015 - 2050**

STUDY AREA JURISDICTION	2015*	GROWTH	2050	ANNUAL GROWTH RATE
City of Madera	13,545	18,541	32,086	1.9%
Madera County Study Area**	15,576	27,385	42,961	2.9%
City of Fresno	216,002	88,515	304,517	1.0%
Uninc. Fresno Study Area	7,553	2,716	10,269	0.9%

Source: ADE, Inc.

\*Job counts exclude agricultural jobs.

\*\* Uninc. Area around Madera is included in Madera County for 2015 but growth in this area is allocated to City of Madera in the future.

## PROJECTION OF FUTURE JOBS/HOUSING AND SHOPPING SCENARIO

With the projection of future households and jobs in the Study Area, we expand the analysis to include other socioeconomic variables that will be necessary to prepare the fiscal analysis. These factors are shown in Table 39 below and include population, labor force and jobs by type of non-residential land use. At the bottom of the table we have calculated ratios of jobs to workers, factoring out the agricultural jobs and labor force which are not included in the projections. (We assume the agricultural labor force will not grow appreciably due to lack in growth of jobs). The Avenue 12 area and the City of Fresno are both job centers in relation to the labor force that lives within their boundaries. With the growth rates for the Avenue 12 area presented in the 2014 RTP, by 2050 Avenue 12 will more resident workers than jobs, while the Upper SR 41 area is projected to see faster jobs growth than labor force. The City of Fresno's "surplus" of jobs in relation to its own workforce is projected to decline, but still remain positive by about five percent of jobs. That five percent is equal to about 15,225 jobs, whereas in the Madera County Study Area there would be 41,700 more workers than jobs. Based on ADE's estimates of build out capacity for jobs, there would be the potential for 37,000 more jobs in the Madera County Study Area, so it may be expected that this jobs/housing ratio would balance out beyond 2050.

**TABLE 39: SOCIOECONOMIC CHARACTERISTICS  
OF FUTURE GROWTH IN THE STUDY AREA**

<b>SOCIOECONOMIC VARIABLE</b>	<b>MADERA CITY</b>	<b>UNINC. NEAR MADERA</b>	<b>AVE. 12</b>	<b>UPPER SR 41</b>	<b>FRESNO CITY</b>	<b>FRESNO UNINC.</b>
<b>Households</b>						
2015	16,791	6,472	4,915	8,330	161,914	7,255
2050	35,402	6,472	30,264	11,768	238,877	10,704
<b>Household Size*</b>						
2015	3.73	3.85	3.49	2.59	3.10	3.06
2050	3.27	3.29	3.19	3.27	3.31	3.26
<b>Population</b>						
2015	63,053	24,912	17,686	21,628	574,890	22,128
2050	115,694	21,275	96,444	38,534	790,684	34,947
<b>Workers per Household</b>						
2015	1.5	1.6	1.4	0.9	1.4	1.5
2050	1.5	1.6	1.4	0.9	1.4	1.5
<b>Labor Force</b>						
2015	25,811	10,496	7,010	7,897	238,375	10,883
2050	53,104	10,355	42,370	10,591	334,428	16,055
<b>Jobs</b>						
2015						
Total	13,545	3,052	8,036	4,488	216,002	7,553
Retail	2,206	322	241	704	23,860	296
Office	1,051	382	198	592	38,380	1,171
Industrial	2,177	1,040	1,200	261	47,870	4,456
Others	8,111	1,308	6,396	2,930	105,892	1,630
2050						
Total	35,537		29,103	6,742	305,765	10,269
Retail	4,680		5,396	2,093	41,012	510
Office	2,910		6,260	1,264	51,213	1,596
Industrial	6,311		7,455	727	57,468	6,058
Others	21,636		9,992	2,658	156,072	2,105
<b>Jobs per Worker</b>						
2015						
Non Ag Workforce	17,171	8,258	5,648	6,931	194,015	8,586
Jobs/Workers	0.79	0.37	1.42	0.65	1.11	0.88
2050						
Non Ag Workforce	44,464	8,117	41,008	9,625	290,068	13,759
Jobs/Workers	0.80	0.00	0.71	0.70	1.05	0.75

Source: ADE, Inc.

\*2015 Household size obtained from ACS; 2050 figures are derived from Madera County RTP 2040 projections and Fresno County 2050 projections.

## RETAIL SPENDING

The growth in households will increase regional retail purchasing power and the projected increase in retail jobs implies an increase in retail store sales as well. The following tables show the projected retail demand and sales based on the projections discussed above.

**TABLE 40: CITY OF FRESNO PROJECTED GROWTH IN RETAIL DEMAND AND SALES**

RETAIL CATEGORY	2015 TO 2050 FRESNO HH SPENDING CHANGE	2015 TO 2050 FRESNO VISITOR SPENDING CHANGE	2015 TO 2050 FRESNO BUSINESS-TO- BUSINESS SPENDING CHANGE	2015 TO 2050 TOTAL LOCAL SPENDING CHANGE
Motor Vehicle and Parts Dealers	\$261,102,282	\$0	\$38,869,999	\$299,972,282
Home Furnishings and Appliance Stores	\$52,429,573	\$322,737	\$25,132,227	\$77,884,538
Building Materials and Garden Eq	\$47,528,808	\$0	\$38,728,596	\$86,257,405
Food and Beverage Stores	\$254,179,165	\$22,098,279	\$3,280,411	\$279,557,855
Gasoline Stations	\$178,410,740	\$75,133,004	\$72,897,991	\$326,441,735
General Merchandise Stores	\$268,493,455	\$36,832,000	\$14,189,592	\$319,515,047
Clothing and Accessories Stores	\$74,377,691	\$18,463,671	\$24,436,898	\$117,278,261
Food Services and Drinking Places	\$266,871,389	\$123,494,362	\$49,341,851	\$439,707,602
Other Retail	\$70,676,511	\$23,557,149	\$44,819,997	\$139,053,657
Total	\$1,474,069,615	\$299,901,203	\$311,697,562	\$2,085,668,381
Retail Sales Growth Based on Jobs				\$2,575,552,482
Projected Leakage/(Net Capture)				(\$489,884,102)

Source: ADE, Inc.

**TABLE 41: MADERA CITY PROJECTED GROWTH IN RETAIL DEMAND AND SALES**

RETAIL CATEGORY	2015 TO 2050 MADERA HH SPENDING CHANGE	2015 TO 2050 MADERA VISITOR SPENDING CHANGE	2015 TO 2050 MADERA BUSINESS-TO- BUSINESS SPENDING CHANGE	2015 TO 2050 TOTAL LOCAL SPENDING CHANGE
Motor Vehicle and Parts Dealers	\$42,257,914	\$0	\$7,793,134	\$50,051,047
Home Furnishings and Appliance Stores	\$8,720,348	\$0	\$2,153,388	\$10,873,736
Building Material and Garden Eq and Supplies	\$7,964,556	\$0	\$5,759,199	\$13,723,755
Food and Beverage Stores	\$43,133,337	\$3,098,989	\$629,350	\$46,861,675
Gasoline Stations	\$29,897,750	\$5,963,663	\$6,466,146	\$42,327,559
General Merchandise Stores	\$45,075,584	\$4,511,916	\$3,598,313	\$54,450,926
Clothing and Accessories Stores	\$12,111,121	\$897,959	\$3,525,504	\$16,786,366
Food Services and Drinking Places	\$44,486,209	\$14,655,635	\$7,429,811	\$66,571,655
Other Retail	\$11,727,414	\$3,219,947	\$6,813,376	\$20,243,842
Total	\$245,374,230	\$32,348,109	\$44,168,220	\$321,890,559
Retail Sales Based on Jobs Projection				\$458,215,224.91
Leakage/(Net Capture)				(\$136,324,665)

Source: ADE, Inc.

**TABLE 42: MADERA COUNTY STUDY AREA PROJECTED  
GROWTH IN RETAIL DEMAND AND SALES**

<b>RETAIL CATEGORY</b>	<b>2015 TO 2050 UNINCORPORATED MADERA Co. HH SPENDING CHANGE</b>	<b>2015 TO 2050 UNINCORPORATED MADERA Co. VISITOR SPENDING CHANGE</b>	<b>2015 TO 2050 UNINCORPORATED MADERA Co BUSINESS-TO- BUSINESS SPENDING CHANGE</b>	<b>2015 TO 2050 TOTAL LOCAL SPENDING CHANGE</b>
Motor Vehicle and Parts Dealers	\$89,930,591	\$0	\$7,963,434	\$97,894,025
Home Furnishings and Appliance Stores	\$17,457,764	\$0	\$5,216,977	\$22,674,740
Building Material and Garden Eq and Supplies	\$15,744,957	\$0	\$19,389,848	\$35,134,805
Food and Beverage Stores	\$83,389,509	\$14,532,410	\$1,811,859	\$99,733,778
Gasoline Stations	\$58,993,940	\$38,447,509	\$37,101,288	\$134,542,736
General Merchandise Stores	\$88,593,824	\$11,605,920	\$1,428,484	\$101,628,229
Clothing and Accessories Stores	\$24,760,597	\$6,986,849	\$957,338	\$32,704,783
Food Services and Drinking Places	\$88,833,053	\$68,726,190	\$9,150,318	\$166,709,560
Other Retail	\$23,608,280	\$21,875,957	\$20,815,630	\$66,299,868
<b>Total</b>	<b>\$491,312,514</b>	<b>\$162,174,835</b>	<b>\$103,835,175</b>	<b>\$757,322,524</b>
Retail Sales Growth due to Jobs Projection				\$322,964,598
Projected Leakage/(Net capture)				\$434,357,926

Source: ADE, Inc.



# FISCAL ANALYSIS

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## INTRODUCTION

The fiscal analysis evaluates the cost/revenue impacts of current and projected travel patterns in the study area on local government jurisdictions, including the cities of Fresno and Madera and Madera County. This chapter begins with an outline of the land use assumptions for the 2015 and 2050 scenarios and then presents the results of the fiscal impact analysis for each jurisdiction. The final section provides the methodology for the fiscal analysis. In general, the commute trips within the study area assumed to anchor two land uses: a job location at the destination and a residence at the origin. Therefore, for each jurisdiction, there are both residential and non-residential land uses evaluated in the fiscal analysis. The flow of retail trade dollars between Fresno and Madera is evaluated separately from the retail market study presented earlier. Other trips through the study area, such as students traveling to college or individuals going for health care or other professional services are not specifically analyzed in the fiscal analysis due to lack of definitive trip data. However, the fiscal effects of the major institutional uses in the study area are captured in the commute trip analysis.

## LAND USE SCENARIOS

The 2015 land use scenarios derive from the current travel data compiled in the Phase I Origin Destination Study by Fehr & Peers. The 2050 scenarios have been developed by ADE based on the projected growth shown in Table 39 above. Considering the future balance of job growth and housing growth in each jurisdiction, ADE calculated adjustments to the 2015 travel patterns to reflect added labor force and job opportunities in each location.

## CITY OF FRESNO

As noted in Table 8 above, 13,318 workers are estimated to commute from Madera County locations to the City of Fresno. Based on the CTPP data about industry of employment for those commuters, ADE has derived the distribution of workers by land use category shown in the upper part of Table 43. Using standard employee density factors we estimated the build sq. ft. occupied by these workers in Fresno and then estimated the assessed value of those spaces.

In addition, there are 9,690 workers commuting from Fresno to Madera County locations. Using the demographic factors in Table 39 above, we estimate these workers occupy at least 7,268 dwelling units and support a total population of 22,531 in the City of Fresno. The housing units have an estimated assessed value of \$1.29 million.

By 2050, the projection show substantial growth in housing in Madera County but a slower rate of job growth. In the Avenue 12 area, the jobs/housing ratio is projected to decline from 1.42 to 0.71. This will produce a significant increase in commuting from Madera County to Fresno, estimated to reach nearly 41,200 workers per day. This volume of workers would occupy 24.3 million sq. ft. of building space with a total assessed value of \$3.2 billion.

Between 2015 and 2050, Fresno is projected to have slightly higher growth in labor force than in jobs. We estimate there would be growth of just less than 50 percent in the workers commuting from Fresno to Madera County locations, increasing from 9,690 to 14,159 by 2050. These workers would live in 10,114 housing units and support a population of 31,951 persons. The assessed value of this housing is estimated at \$2.2 billion.

**TABLE 43: 2015 AND 2050 LAND USE SCENARIOS FOR CITY OF FRESNO**

2015 SCENARIO	WORKERS	BUILDING SQ. FT.	ASSESSED VALUE
<b>Commute Trips from Madera</b>			
Service Commercial	1,004	552,200	\$138,050,000
Office	1,671	501,300	\$125,325,000
Retail	1,296	712,800	\$178,200,000
Agriculture	1,990	NA	NA
Industrial	4,239	3,179,250	\$429,198,750
Hotel	41	47,150	\$11,787,500
Public-Institutional	3,077	1,692,350	\$0
Total Non-Residential	13,318	6,685,050	\$882,561,250
<b>Fresno Commuters to Madera</b>	<b>Housing</b>	<b>Population</b>	<b>Assessed Value</b>
9,690 Workers	7,268	22,531	\$1,290,089,189
2050	WORKERS	BUILDING SQ. FT.	ASSESSED VALUE
<b>Commute Trips from Madera</b>			
Service Commercial	3,650	2,007,500	\$501,875,000
Office	6,075	1,822,500	\$455,625,000
Retail	4,711	2,591,050	\$647,762,500
Agriculture	0	0	\$0
Industrial	15,414	11,560,500	\$1,560,667,500
Hotel	148	170,200	\$42,550,000
Public-Institutional	11,189	6,153,950	\$0
Total Non-Residential	41,187	24,305,700	\$3,208,480,000
<b>Fresno Commuters to Madera</b>	<b>Housing</b>	<b>Population</b>	<b>Assessed Value</b>
14,159 Workers	10,114	31,951	\$2,192,271,189

Source: ADE, Inc.

## MADERA COUNTY

The City of Fresno is estimated to send 7,559 workers to unincorporated Madera County locations within the study area in 2015. Based on the industry of employment and associated land uses, we estimate these workers occupy 4.1 million sq. ft. of building space, with an assessed value of \$540.2 million (not including the farm sector). At the same time, 6,368 workers living in Madera County areas commute into Fresno. We estimate they occupy a minimum of 4,889 housing units and support a population of 15,781. Those housing units have an estimated assessed value of \$853.6 million (Table 44).

**TABLE 44: 2015 AND 2050 LAND USE SCENARIOS FOR COUNTY OF MADERA**

<b>2015 SCENARIO</b>	<b>WORKERS</b>	<b>BUILDING SQ. FT.</b>	<b>ASSESSED VALUE</b>
<b>COMMUTERS FROM FRESNO TO MADERA COUNTY</b>			
Agriculture	591	0	\$266,422,800
Industrial	2,438	1,828,500	\$246,847,500
Retail	495	272,250	\$68,062,500
Service Commercial	1,165	640,750	\$160,187,500
Office	1,012	303,600	\$45,540,000
Lodging	68	78,200	\$19,550,000
Institutional	1,790	984,500	\$0
<b>Total</b>	<b>7,559</b>	<b>4,107,800</b>	<b>\$806,610,300</b>
<b>MADERA COUNTY COMMUTERS TO FRESNO</b>			
	<b>HOUSING</b>	<b>POPULATION</b>	<b>ASSESSED VALUE</b>
6,368 Workers	4,889	15,781	\$853,619,400
<b>2050 SCENARIO</b>	<b>WORKERS</b>	<b>BUILDING SQ. FT.</b>	<b>ASSESSED VALUE</b>
<b>Commuters from Fresno to Madera County</b>			
Agriculture	591	0	\$266,422,800
Industrial	2,330	1,747,500	\$235,912,500
Retail	1,510	830,500	\$207,625,000
Service Commercial	723	397,650	\$99,412,500
Office	1,724	517,200	\$77,580,000
Lodging	125	143,750	\$35,937,500
Institutional	2,245	1,234,750	\$0
<b>Total</b>	<b>9,248</b>	<b>4,871,350</b>	<b>\$922,890,300</b>
<b>MADERA COUNTY COMMUTERS TO FRESNO</b>			
	<b>HOUSING</b>	<b>POPULATION</b>	<b>ASSESSED VALUE</b>
25,883 Workers	20,994	67,767	\$7,662,810,000

Source: ADE, Inc.

As discussed above for the City of Fresno, by 2050, the Madera County unincorporated area is projected to see significant growth in housing and a smaller share of jobs growth. We estimate there will be a 46 percent increase in the number of Fresno workers commuting to Madera County locations, while in the reverse direction, Madera County commuters to Fresno will increase by 300 percent, from 6,368 to 25,883. Most of these commuters would be coming from the Avenue 12 area. These workers would support a population of 67,767 and the nearly 21,000 housing units they would occupy would have an assessed value of nearly \$7.7 billion.

It should be noted that in the fiscal analysis, discussed further below, the County of Madera is also affected by growth in the City of Madera, to the extent that the County receives a share of property tax from City jurisdiction property and also provides certain services to the countywide population.

## CITY OF MADERA

About 2,131 workers are estimated to commute from Fresno to the City of Madera in 2015, while 6,900 workers make the reverse commute. The workers coming to Madera occupy an estimated 1.2 million sq. ft. of building space, assessed at \$139.5 million. The outbound commuters from Madera live in about 4,600 residential units, assessed at an estimated \$712.5 million (Table 45).

The projected growth in the City of Madera is much more balanced between housing and jobs than in the unincorporated area growth, but it is likely the commute volumes will increase proportionally with the increase in labor force in the City. We estimate Madera commuters to Fresno will increase to 15,300 by 2050, while Fresno commuters to the City of Madera will increase by nearly 3,500 to 5,609.

**TABLE 45: 2015 AND 2050 LAND USE SCENARIOS FOR CITY OF MADERA**

2015 SCENARIO	WORKERS	BUILDING SQ. FT.	ASSESSED VALUE
<b>COMMUTE TRIPS FROM FRESNO</b>			
Service Commercial	180	99,000	\$24,750,000
Office	180	54,000	\$8,100,000
Retail	328	180,400	\$45,100,000
Agriculture	107	0	\$662,577
Industrial	508	381,000	\$51,435,000
Hotel/Visitors	33	37,950	\$9,487,500
Public-Institutional	795	437,250	\$0
Total Non-Residential	2,131	1,189,600	\$139,535,077
<b>MADERA COMMUTERS TO FRESNO</b>			
	<b>HOUSING</b>	<b>POPULATION</b>	<b>ASSESSED VALUE</b>
6,900 Workers	4,633	17,281	\$712,555,400
2050 SCENARIO	WORKERS	BUILDING SQ. FT.	ASSESSED VALUE
<b>COMMUTE TRIPS FROM FRESNO</b>			
Service Commercial	604	332,200	\$83,050,000
Office	678	203,400	\$30,510,000
Retail	634	348,700	\$87,175,000
Agriculture	107	0	\$662,577
Industrial	1,552	1,164,000	\$157,140,000
Hotel/Visitors	48	55,200	\$13,800,000
Public-Institutional	1,986	1,092,300	\$0
Total Non-Residential	5,609	3,195,800	\$372,337,577
<b>MADERA COMMUTERS TO FRESNO</b>			
	<b>HOUSING</b>	<b>POPULATION</b>	<b>ASSESSED VALUE</b>
15,303 Workers	10,202	35,492	1,993,425,400

Source: ADE, Inc.

## FISCAL IMPACTS

The tables in this section show the combined fiscal effects of the land uses shown for each scenario, 2015 and 2050, in the previous discussion. The methodology for the fiscal analysis is provided at the end of this chapter. In general, it is based on assumptions about the assessed value and related property taxes from each land use, estimates of taxable retail spending by each residential and employee population segment, and average per capita cost/revenue factors calculated from the budgets for each of the three jurisdictions in the analysis. From the scenarios presented above, the fiscal analysis groups all non-residential land uses except retail and institutional into a single Employment category. The retail land use is separated because it has very different sales tax generation factors, while public institutional uses generate very few revenues but do require local government services. In all scenarios, the residential and institutional land uses generate negative fiscal impact while the employment and retail uses provide the main tax base to support municipal services.

In addition to the figures in the tables, which are calculated using fiscal impact models for each jurisdiction, we have separately calculated the flow of retail dollars from shopping trips across the County line in both directions. These estimates are based on the retail leakage analysis and projections of future growth in retail demand and retail store space in the scenarios.

### FRESNO

In 2015, we estimate the residential units needed to house the workforce that commutes from Fresno to Madera County locations generate \$6.2 million per year in revenues for the City, but also \$9.4 million in service costs, for a deficit of nearly \$3.2 million per year (Table 46). This is partially offset by the positive fiscal impact of businesses in Fresno to which Madera County workers commute. Office, industrial, and hospitality businesses generate a net fiscal surplus of \$2.7 million while institutional uses to which Madera workers commute create a deficit of about \$585,200. The retail businesses in Fresno tip the balance to a positive fiscal impact overall. The share of net revenues generated by retail businesses to which Madera workers commute represents about \$800,000 per year for Fresno. The additional \$1.2 million of net revenue shown in Table 46 reflects shopping trips from Madera households. This figure represents the taxable sales leakage from Madera County communities and the City of Madera.

By 2050, Fresno would experience a much larger in-commute from Madera County and the non-retail/institutional businesses utilizing this work force would generate \$10.4 million per year in net revenues for the City (Table 47). This would be offset somewhat by a negative \$2.1 million from institutional land uses and a \$3.4 million annual deficit from housing from Fresno commuters to Madera County.

In terms of retail sales, analyzing the projected growth in household spending in Madera County and projected retail store development, we estimate shopping activity from Madera shoppers in Fresno will about double between 2015 and 2050, generating \$2.48 million in sales tax per year. Growth in in-commuters to retail businesses from Madera will add another \$2.9 million in net revenue, for a total net impact in 2050 of \$10.3 million per year.

**TABLE 46: FISCAL IMPACT OF FRESNO CITY JOBS,  
COMMUTERS TO MADERA COUNTY, AND MADERA SHOPPER, 2015**

<b>BUDGET CATEGORY</b>	<b>TOTAL</b>	<b>RESIDENTIAL</b>	<b>EMPLOYMENT</b>	<b>RETAIL</b>	<b>INSTITUTIONAL</b>
<b>REVENUES</b>					
Taxes					
Property Tax	\$5,146,737	\$3,056,060	\$1,668,544	\$422,134	\$0
Property Tax in lieu of VLF	\$2,613,302	\$1,551,742	\$847,218	\$214,342	\$0
Sales Tax	\$1,878,617	\$33,698	\$151,761	\$1,634,352	\$58,805
Transient Occupancy Tax	\$402,708		\$402,708		\$0
Other Taxes and Fees	\$228,837	\$179,724	\$43,944	\$5,169	\$0
Franchise Fees	\$560,610	\$440,293	\$107,654	\$12,663	\$0
Business License	\$730,870	\$0	\$653,949	\$76,921	\$0
Service Charges					
Development Review Fees	\$0	\$0	\$0	\$0	\$0
Recreation Fees	\$73,171	\$73,171	\$0	\$0	\$0
Other Charges for Services	\$621,784	\$488,337	\$119,401	\$14,045	\$0
Other Revenue	\$89,473	\$70,270	\$17,181	\$2,021	\$0
Transfers in	\$365,840	\$365,840	\$0	\$0	\$0
<b>TOTAL REVENUES</b>	<b>\$12,711,947</b>	<b>\$6,259,135</b>	<b>\$4,012,361</b>	<b>\$2,281,647</b>	<b>\$58,805</b>
<b>EXPENDITURES</b>					
General Government	\$586,057	\$471,445	\$63,257	\$19,134	\$32,220
Police	\$6,421,529	\$5,266,587	\$639,145	\$227,202	\$288,595
Fire	\$2,593,946	\$1,897,493	\$352,486	\$101,940	\$242,028
DARM	\$473,280	\$371,706	\$65,503	\$10,690	\$25,381
PARCS	\$598,997	\$598,997	\$0	\$0	\$0
Public Works	\$370,123	\$290,688	\$51,226	\$8,360	\$19,849
Transfers Out	\$670,631	\$526,702	\$92,817	\$15,148	\$35,965
<b>TOTAL EXPENDITURES</b>	<b>\$11,714,564</b>	<b>\$9,423,617</b>	<b>\$1,264,435</b>	<b>\$382,475</b>	<b>\$644,038</b>
<b>TOTAL BUDGET NET (DEFICIT)/SURPLUS</b>	<b>\$997,383</b>	<b>(\$3,164,481)</b>	<b>\$2,747,926</b>	<b>\$1,999,172</b>	<b>(\$585,233)</b>

Source: ADE, Inc.

**TABLE 47: FISCAL IMPACT OF FRESNO CITY JOBS, COMMUTERS TO MADERA COUNTY, AND MADERA COUNTY SHOPPERS, 2050**

BUDGET CATEGORY	TOTAL	RESIDENTIAL	EMPLOYMENT	RETAIL	INSTITUTIONAL
<b>REVENUES</b>					
Taxes					
Property Tax	\$12,745,619	\$5,145,130	\$6,066,020	\$1,534,468	\$0
Property Tax in lieu of VLF	\$6,496,117	\$2,636,902	\$3,080,075	\$779,140	\$0
Sales Tax	\$4,746,389	\$46,894	\$413,507	\$4,072,155	\$213,834
Transient Occupancy Tax	\$1,453,678		\$1,453,678		
Other Taxes and Fees	\$404,578	\$254,867	\$130,922	\$18,789	
Franchise Fees	\$991,144	\$624,379	\$320,735	\$46,030	\$0
Business License	\$2,227,925	\$0	\$1,948,314	\$279,611	\$0
Service Charges					
Development Review Fees	\$0	\$0	\$0	\$0	\$0
Recreation Fees	\$134,357	\$103,764	\$0	\$0	\$30,593
Other Charges for Services	\$1,099,297	\$692,511	\$355,734	\$51,053	\$0
Other Revenue	\$158,185	\$99,650	\$51,189	\$7,346	
Transfers in	\$518,797	\$518,797	\$0	\$0	
<b>TOTAL REVENUES</b>	<b>\$30,976,086</b>	<b>\$10,122,894</b>	<b>\$13,820,173</b>	<b>\$6,788,592</b>	<b>\$244,427</b>
<b>EXPENDITURES</b>					
General Government	\$1,033,504	\$674,971	\$171,817	\$69,554	\$117,163
Police	\$10,989,178	\$7,468,545	\$1,645,319	\$825,887	\$1,049,428
Fire	\$5,109,588	\$2,812,627	\$1,046,313	\$370,553	\$880,094
DARM	\$836,748	\$527,116	\$178,477	\$38,860	\$92,295
PARCS	\$849,437	\$849,437	\$0	\$0	\$0
Public Works	\$654,367	\$412,224	\$139,576	\$30,390	\$72,178
Transfers Out	\$1,185,659	\$746,915	\$252,900	\$55,064	\$130,780
<b>TOTAL EXPENDITURES</b>	<b>\$20,658,482</b>	<b>\$13,491,835</b>	<b>\$3,434,402</b>	<b>\$1,390,308</b>	<b>\$2,341,938</b>
<b>TOTAL BUDGET NET (DEFICIT)/SURPLUS</b>	<b>\$10,317,604</b>	<b>(\$3,368,941)</b>	<b>\$10,385,771</b>	<b>\$5,398,285</b>	<b>(\$2,097,511)</b>

Source: ADE, Inc.

## MADERA COUNTY

As a county government, Madera County serves both the unincorporated population and the cities for certain services. The County receives a share of property tax generated within the cities but also provides countywide services such as public health, criminal justice, public assistance and the County Assessor among others. The jobs in the county filled by Fresno commuters generate a positive fiscal impact for the County. In addition, we estimate that the County retail establishments capture about \$21.3 million in taxable spending from Fresno shoppers. This is based on an analysis of daytime visitor spending in Madera County by Dean Runyon Associates prepared annually for the state tourism office.

However, since more commuters in the study area originate in Madera County than in Fresno County, the negative impact of the housing supporting the Madera workers creates an overall negative fiscal impact for Madera County of about \$2.6 million per year in 2015 (Table 48).

**TABLE 48: FISCAL IMPACT OF MADERA COUNTY JOBS AND COMMUTERS TO FRESNO, 2015**

BUDGET CATEGORY	TOTAL	RESIDENTIAL	EMPLOYMENT	RETAIL	INSTITUTIONAL
<b>REVENUES</b>					
Property Taxes	\$3,086,459	\$1,452,169	\$1,521,466	\$112,823	
VLF Tax Swap	\$2,707,989	\$1,274,101	\$1,334,900	\$98,989	
Sales & Use Tax	\$1,012,675	\$571,712	\$101,810	\$304,598	\$34,554
Transient Occupancy Tax	\$417,432		\$417,432		
Documentary Stamp	\$132,671	\$62,421	\$65,400	\$4,850	
Other Taxes	\$29,822	\$25,214	\$4,213	\$395	
Business License	\$36,487		\$33,356	\$3,131	
Licenses, Permits & Franchises	\$869,800	\$754,024	\$105,842	\$9,934	
Fines, Forfeitures & Penalties	\$869,825	\$723,514	\$133,757	\$12,554	
Use of Money & Property	\$24,601	\$15,371	\$8,040	\$1,125	\$63
Charges for Services	\$2,443,903	\$2,053,784	\$356,646	\$33,474	
Miscellaneous Rev.	\$1,555,716	\$1,307,377	\$227,030	\$21,308	
<b>TOTAL REVENUES</b>	<b>\$13,187,379</b>	<b>\$8,239,688</b>	<b>\$4,309,891</b>	<b>\$603,181</b>	<b>\$34,617</b>
<b>EXPENDITURES</b>					
General	\$1,604,482	\$1,390,623	\$143,492	\$16,256	\$54,112
Public Protection	\$8,198,374	\$7,001,024	\$819,046	\$84,846	\$293,457
Sheriff	\$4,078,208	\$3,454,297	\$435,157	\$40,842	\$147,693
Fire	\$1,530,364	\$1,287,668	\$169,274	\$15,888	\$57,452
Other Public Protection	\$2,590,102	\$2,259,058	\$214,615	\$28,117	\$88,313
Public Ways & Facilities	\$927,221	\$808,712	\$76,829	\$10,065	\$31,615
Health & Sanitation	\$2,779,208	\$2,423,994	\$230,284	\$30,169	\$94,760
Public Assistance	\$562,464	\$562,464	\$0	\$0	\$0
Education	\$313,784	\$273,679	\$26,000	\$3,406	\$10,699
Contingencies/Reserves	\$1,388,700	\$1,211,208	\$115,067	\$15,075	\$47,349
<b>TOTAL EXPENDITURES</b>	<b>\$15,774,233</b>	<b>\$13,671,704</b>	<b>\$1,410,719</b>	<b>\$159,818</b>	<b>\$531,992</b>
<b>NET (COST)/REVENUE</b>	<b>(\$2,586,855)</b>	<b>(\$5,432,017)</b>	<b>\$2,899,172</b>	<b>\$443,363</b>	<b>(\$497,375)</b>

Source: ADE, Inc.

This situation would be magnified in 2050, with a four-fold increase in commuters from Madera County to Fresno, and a relatively small increase in jobs attracting Fresno commuters. The net balance increases to negative \$8.8 million per year (Table 49). However, this outcome does not include the mitigating effect of County Service District assessments that may be levied on new development to help pay for urban level services that the County historically has not been accustomed to providing. It



is the County policy with the new developments that have been approved to require such assessments. Of the negative \$12.1 million generated by residential land uses, about \$8 million is due to unincorporated area development. The negative impact per unit is about \$420, which is slightly higher than the assessments the County has been considering for the initial developments going forward now. Factoring in the positive fiscal effect of non-residential development in the unincorporated area, CSD assessments in the range of \$300 per unit could effectively mitigate the fiscal impact on the County.

**TABLE 49: FISCAL IMPACT OF MADERA COUNTY JOBS AND COMMUTERS TO FRESNO 2050**

BUDGET CATEGORY	TOTAL	RESIDENTIAL	EMPLOYMENT	RETAIL	INSTITUTIONAL
<b>REVENUES</b>					
Property Taxes	\$15,060,262	\$13,193,816	\$1,535,029	\$331,417	
VLF Tax Swap	\$13,213,534	\$11,575,957	\$1,346,800	\$290,777	
Sales & Use Tax	\$3,768,516	\$3,026,720	\$106,038	\$592,420	\$43,338
Transient Occupancy Tax	\$767,338		\$767,338		
Documentary Stamp	\$647,364	\$567,135	\$65,983	\$14,246	
Other Taxes	\$139,078	\$133,484	\$4,388	\$1,206	
Business License	\$44,292		\$34,742	\$9,550	
Licenses, Permits & Franchises	\$3,147,083	\$3,006,543	\$110,237	\$30,304	
Fines, Forfeitures & Penalties	\$2,907,269	\$2,729,662	\$139,311	\$38,296	
Use of Money & Property	\$98,737	\$87,082	\$8,817	\$2,757	\$79
Charges for Services	\$8,026,299	\$7,552,732	\$371,455	\$102,111	
Miscellaneous Rev.	\$5,109,301	\$4,807,843	\$236,457	\$65,001	
<b>TOTAL REVENUES</b>	<b>\$52,929,073</b>	<b>\$46,680,975</b>	<b>\$4,726,594</b>	<b>\$1,478,086</b>	<b>\$43,416</b>
<b>EXPENDITURES</b>					
General	\$6,279,951	\$5,982,443	\$172,617	\$45,210	\$79,681
Public Protection	\$34,980,729	\$33,413,287	\$919,305	\$246,301	\$401,836
Sheriff	\$19,050,769	\$18,287,499	\$453,227	\$124,590	\$185,235
Fire	\$7,113,989	\$6,817,083	\$176,303	\$48,465	\$72,056
Other Public Protection	\$8,816,272	\$8,308,705	\$289,775	\$73,246	\$144,546
Public Ways & Facilities	\$3,156,105	\$2,974,403	\$103,735	\$26,221	\$51,745
Health & Sanitation	\$9,459,958	\$8,915,333	\$310,931	\$78,594	\$155,099
Public Assistance	\$2,068,715	\$2,068,715	\$0	\$0	\$0
Education	\$1,068,068	\$1,006,578	\$35,105	\$8,874	\$17,511
Contingencies/Reserves	\$4,726,900	\$4,454,765	\$155,364	\$39,272	\$77,499
<b>TOTAL EXPENDITURES</b>	<b>\$61,740,426</b>	<b>\$58,815,525</b>	<b>\$1,697,058</b>	<b>\$444,472</b>	<b>\$783,372</b>
<b>NET (COST)/REVENUE</b>	<b>(\$8,811,353)</b>	<b>(\$12,134,550)</b>	<b>\$3,029,536</b>	<b>\$1,033,614</b>	<b>(\$739,955)</b>

Source: ADE, Inc.

## CITY OF MADERA

In 2015, the City of Madera is estimated to receive about 2,100 commuters from Fresno while sending 6,950 workers south each day. The City is also estimated to capture about \$12.2 million in retail sales from Fresno shoppers, creating sales tax for the City of about \$122,000 per year. However, overall, this commute balance produces a \$1.0 million negative fiscal impact for the City (Table50).

**TABLE 50: FISCAL IMPACT OF MADERA CITY JOBS AND COMMUTERS TO FRESNO CITY 2015**

BUDGET CATEGORY	TOTAL	RESIDENTIAL	EMPLOYMENT	RETAIL	INSTITUTIONAL
<b>REVENUES</b>					
Taxes					
Property Tax	\$1,054,039	\$881,433	\$116,817	\$55,789	\$0
Property Tax in lieu of VLF	\$1,528,257	\$1,277,995	\$169,373	\$80,889	\$0
Sales Tax	\$585,829	\$225,136	\$60,199	\$278,914	\$21,580
Franchise Tax	\$170,524	\$160,111	\$8,810	\$1,603	\$0
Transient Occupancy Tax	\$371		\$371		
Interest Income	\$82,245	\$68,515	\$7,197	\$6,231	\$296
Business License Tax	\$55,468	\$0	\$46,930	\$8,537	\$0
CFD Assessments	\$213,855	\$213,855	\$0	\$0	\$0
Other Fees, Rentals, Transfers	\$82,583	\$77,540	\$4,267	\$776	\$0
Recreation Fees	\$90,853	\$90,853	\$0	\$0	\$0
Development Fees	\$0	\$0	\$0	\$0	\$0
Other Charges for Service	\$146,135	\$137,211	\$7,550	\$1,374	\$0
Other Taxes and Fines	\$91,319	\$86,016	\$4,487	\$816	\$0
Grant Revenue	\$0	\$0	\$0	\$0	\$0
Contract Revenue	\$94,343	\$88,582	\$4,874	\$887	\$0
Interfund Charges/Transfers in	\$1,776,802	\$1,668,302	\$91,799	\$16,700	\$0
<b>TOTAL REVENUES</b>	<b>\$5,972,622</b>	<b>\$4,975,550</b>	<b>\$522,675</b>	<b>\$452,515</b>	<b>\$21,876</b>
<b>EXPENDITURES</b>					
General Government	\$657,165	\$626,916	\$11,374	\$7,240	\$11,634
Police	\$3,008,064	\$2,866,243	\$48,111	\$40,802	\$52,908
Fire	\$911,977	\$836,664	\$26,403	\$17,455	\$31,455
Public Works	\$683,687	\$643,981	\$18,782	\$6,111	\$14,813
Community Development	\$585,970	\$552,153	\$15,996	\$5,205	\$12,616
Parks & Rec	\$1,124,923	\$1,124,923	\$0	\$0	\$0
Grants	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXPENDITURES</b>	<b>\$6,971,785</b>	<b>\$6,650,879</b>	<b>\$120,666</b>	<b>\$76,814</b>	<b>\$123,426</b>
<b>TOTAL BUDGET NET (DEFICIT)/SURPLUS</b>	<b>(\$999,163)</b>	<b>(\$1,675,329)</b>	<b>\$402,009</b>	<b>\$375,702</b>	<b>(\$101,551)</b>

Source: ADE, Inc.

Madera City is projected to have relatively balanced growth between jobs and housing between 2015 and 2050. With the growing job base in Fresno, however, commuting in both directions is projected to

increase. In addition, Madera would see some increase in shopping from Fresno residents, growing from an estimated 2015 level of \$12.2 million to \$17.9 million in 2050, which would generate \$179,000 in annual sales tax revenues. With these trends, the outlook in 2050 is more positive for Madera but still negative, with a \$555,355 annual fiscal deficit (Table 51).

**TABLE 51: FISCAL IMPACT OF MADERA CITY JOBS AND COMMUTERS TO FRESNO CITY 2050**

BUDGET CATEGORY	TOTAL	RESIDENTIAL	EMPLOYMENT	RETAIL	INSTITUTIONAL
<b>REVENUES</b>					
Taxes					
Property Tax	\$2,890,807	\$2,430,224	\$352,747	\$107,836	\$0
Property Tax in lieu of VLF	\$4,191,397	\$3,523,596	\$511,450	\$156,352	\$0
Sales Tax	\$1,113,103	\$495,756	\$81,135	\$482,302	\$53,909
Franchise Tax	\$356,242	\$328,834	\$24,310	\$3,098	\$0
Transient Occupancy Tax	\$539		\$539		
Interest Income	\$194,099	\$162,388	\$19,707	\$11,251	\$739
Business License Tax	\$145,996	\$0	\$129,494	\$16,502	\$0
CFD Assessments	\$439,213	\$439,213	\$0	\$0	\$0
Other Fees, Rentals, Transfers	\$172,525	\$159,252	\$11,773	\$1,500	\$0
Recreation Fees	\$186,593	\$186,593	\$0	\$0	\$0
Development Fees	\$0	\$0	\$0	\$0	\$0
Other Charges for Service	\$305,291	\$281,803	\$20,833	\$2,655	\$0
Other Taxes and Fines	\$190,617	\$176,658	\$12,381	\$1,578	\$0
Grant Revenue	\$0	\$0	\$0	\$0	\$0
Contract Revenue	\$197,092	\$181,928	\$13,449	\$1,714	\$0
Interfund Charges/Transfers in	\$3,711,923	\$3,426,342	\$253,301	\$32,280	\$0
<b>TOTAL REVENUES</b>	<b>\$14,095,437</b>	<b>\$11,792,586</b>	<b>\$1,431,120</b>	<b>\$817,068</b>	<b>\$54,648</b>
<b>EXPENDITURES</b>					
General Government	\$1,380,991	\$1,301,242	\$36,690	\$13,995	\$29,064
Police	\$6,259,946	\$5,886,659	\$162,249	\$78,866	\$132,171
Fire	\$2,049,355	\$1,849,866	\$87,171	\$33,739	\$78,578
Public Works	\$1,427,110	\$1,322,601	\$55,693	\$11,813	\$37,004
Community Development	\$1,223,015	\$1,134,005	\$47,433	\$10,061	\$31,516
Parks & Rec	\$2,310,355	\$2,310,355	\$0	\$0	\$0
Grants	\$0	\$0	\$0	\$0	\$0
<b>TOTAL EXPENDITURES</b>	<b>\$14,650,772</b>	<b>\$13,804,728</b>	<b>\$389,236</b>	<b>\$148,475</b>	<b>\$308,333</b>
<b>TOTAL BUDGET NET (DEFICIT)/SURPLUS</b>	<b>(\$555,335)</b>	<b>(\$2,012,142)</b>	<b>\$1,041,884</b>	<b>\$668,593</b>	<b>(\$253,685)</b>

Source: ADE, Inc.

## METHODOLOGY

The fiscal analysis reflects annual costs and revenues to the General Fund for each jurisdiction. The focus is on services funded by locally generated revenues; therefore, most outside grant funds or subventions from state and federal sources are excluded from the analysis. In addition, the analysis addresses performance of the land uses once they are in place so that one-time entitlement fees, building permits and the like are also excluded from the analysis, on the assumption that local jurisdictions set these charges to cover the cost of the entitlement and building process. Finally, this analysis does not estimate major capital costs associated with growth and development and therefore also excludes development impact fees or other developer exactions that may be levied to pay for new infrastructure or capacity increases.

The following sections show the city and county budgets data used in the analysis and the adjustments made to reflect the above assumptions. In addition, the assumptions used to calculate property tax and sales taxes are discussed. For most other revenues and costs, the analysis uses an average per capita methodology that assigned non-residential uses 50 percent of the impact of residential uses. This is a standard assumption in fiscal impact analysis that residents demand a higher level of service from local government than do businesses and workers, compared on a per person and per employee basis.

## FRESNO

The Fresno 2017 General Fund budget shows current revenues of \$309.6 million and current expenditures of \$313.2 million (Table 52). It is balanced with the use of a \$4.2 million prior year reserve. The fiscal analysis excludes the one time triple flip true up and also makes the adjustments shown in Table 53 below. These are mainly for entitlement revenues and costs and intergovernmental revenues. However, for purposes of the analysis, we also assume that 50 percent of General Government costs are fixed and are therefore not likely to change due to future growth.

Table 54 shows the per capita factors used for a number of revenue and cost items. The fiscal model uses a current population figure of 520,453 and a total jobs count of 305,765. Assigning non-residential uses one half the service impact of the resident population, results in residential uses comprising 77 percent of total service demand in Fresno.

For the property tax, the analysis uses a current average assessed value per residential unit of \$177,500 and a new market value of \$317,000. The 2015 land use scenario uses the lower figure and the increment of growth between 2015 and 2050 uses the higher figure. Fresno receives 23.7 percent of the base one percent property tax and an additional 50 percent of its property tax comes through the property tax in lieu of vehicle license fees.

**TABLE 52: CITY OF FRESNO GENERAL FUND BUDGET, FISCAL YEAR 2017**

BUDGET CATEGORY	FY 2017-18 AMOUNTS
<b>REVENUES</b>	
Property Tax	\$77,202,000
Property Tax in lieu of VLF	\$39,200,000
Sales Tax	\$83,642,000
Triple Flip Final True Up	\$10,204,000
Transient Occupancy Tax	\$11,378,000
Other Taxes and Fees	\$5,371,000
Franchise Fees	\$13,158,000
Business License	\$18,148,000
Intergovernmental	\$6,368,000
Service Charges	
Development Review Fees	\$15,658,000
Recreation Fees	\$1,690,200
Other Charges for Services	\$14,593,800
Other Revenue	\$2,100,000
Transfers in	\$10,933,000
<b>TOTAL REVENUES</b>	<b>\$309,646,000</b>
<b>EXPENDITURES</b>	
General Government	\$29,759,300
Police	\$160,126,500
Fire	\$58,098,600
DARM	\$26,766,300
PARCS	\$13,929,400
Public Works	\$8,776,100
Transfers Out	\$15,740,300
<b>TOTAL EXPENDITURES</b>	<b>\$313,196,500</b>
<b>NET BEFORE RESERVES</b>	<b>(\$3,550,500)</b>

Source: City of Fresno 2016-17 Budget.

**TABLE 53: CITY OF FRESNO FISCAL MODEL REVENUE AND EXPENDITURE ADJUSTMENTS**

FUNCTION	AMOUNT	ITEM
<b>Revenues</b>		
Intergovernmental	\$6,368,000	Homeowners In-lieu
Services Charges	\$4,330,723	Development Review Fees (ex. rental inspections)
Service Charges	\$350,000	Fire Plan Check Fees
<b>Expenditures</b>		
General Government	\$12,483,100	50% fixed
General City Purpose	\$4,793,100	Intergovernmental
Police Dept.	\$2,736,300	Intergovernmental
Fire Dept.	\$3,394,737	Intergovernmental
DARM	\$5,609,400	Licenses and Permits
DARM	\$10,048,600	Charges for Service
PARCS	\$93,000	Intergovernmental
Public Works	\$89,000	Intergovernmental

Source: ADE, Inc.

**TABLE 54: FRESNO PER CAPITA REVENUE AND COST FACTORS**

BUDGET CATEGORY	RESIDENTIAL		BUSINESS	
	PROPORTION	PER CAPITA	PROPORTION	PER CAPITA
<b>Revenues</b>				
Sales Tax	NA	\$4.64	100%	\$19.11
Transient Occupancy Tax	0%	\$0.00	100%	\$4,270.50
Other Taxes and Fees	77%	\$7.98	23%	\$3.99
Franchise Fees	77%	\$19.54	23%	\$9.77
Business License	0%	\$0.00	100%	\$59.35
Recreation Fees	100%	\$3.25	0%	\$0.00
Other Charges for Services	77%	\$21.67	23%	\$10.84
Other Revenue	77%	\$3.12	23%	\$1.56
Transfers in	77%	\$16.24	0%	\$0.00
<b>Expenditures</b>				
Police	77%	\$233.75	23%	\$116.87
Fire	77%	\$64.99	23%	\$32.50
DARM	77%	\$16.50	23%	\$8.25
PARCS	100%	\$26.59	0%	\$0.00
Public Works	77%	\$12.90	23%	\$6.45
Transfers Out	77%	\$23.38	23%	\$11.69

Source: ADE, Inc.

## MADERA COUNTY

The General Fund Budget for Madera County is shown below (Table 55). Additional non-General Fund appropriations include \$20.2 million in the Road Fund, \$8.5 million in the Refuse Disposal and Flood Control Fund and \$7.3 million in the AB 109 and Community Corrections Performance Increase Fund.

County governments provide many services related to criminal justice, health care and public assistance that are heavily subsidized by the state and federal governments. Hence, a lot of intergovernmental revenues and associated service costs are netted out of the fiscal analysis, as shown in Table 56.

The per capita revenue and cost factors are shown in Table 57. These are based on a current County population of 155,349, of which 71,328 are in the unincorporated area. In addition, the current estimate of jobs in the County is 45,513, of which 20,080 are in the unincorporated area. Madera County cost factors reflect an urban level of service, consistent with the new Riverstone development recently evaluated for its service standards and fiscal impact on County government. The analysis does not include the Road Fund, so road maintenance costs reflect the level that would need to be funded from local assessments.

For the property tax, the analysis uses a current assessed value of \$174,600 for 2015 development and a new market value of \$365,000 for new development between 2015 and 2050. The County receives 14.9 percent of the base one percent property tax.

**TABLE 55: MADERA COUNTY BUDGET FISCAL YEAR 2016-2017 BUDGET**

BUDGET CATEGORY	FY 2016-17 AMOUNT
<b>REVENUES</b>	
Property Taxes	\$20,355,985
VLF Tax Swap	\$17,859,882
Sales & Use Tax	\$5,673,000
Transient Occupancy Tax	\$2,260,000
Documentary Stamp	\$875,000
Other Taxes	\$130,000
Development Permits	\$1,221,000
Business Licenses	\$127,000
Other Licenses, Permits & Franchises	\$3,265,884
Fines, Forfeitures & Penalties	\$4,127,230
Use of Money & Property	\$175,760
Intergovernmental	\$120,044,372
Charges for Services	\$14,459,518
Miscellaneous Rev.	\$7,005,296
Other	\$21,357,972
<b>Total Revenue</b>	<b>\$218,937,899</b>
<b>EXPENDITURES</b>	
General	\$35,262,773
Public Protection	\$64,835,765
<i>Sheriff</i>	\$18,864,998
<i>Fire</i>	\$7,799,026
<i>Other Public Protection</i>	\$38,171,594
Health & Sanitation	\$44,415,587
Public Assistance	\$77,556,682
Education	\$1,466,014
Contingencies/Reserves	\$6,488,070
<b>Total Expenditures</b>	<b>\$230,024,744</b>
<b>NET BEFORE PRIOR FUND BALANCE/CARRY OVER</b>	<b>(\$11,086,845)</b>

Source: County of Madera Fiscal Year 2016/2017 Budget

**TABLE 56: COUNTY OF MADERA FISCAL MODEL BUDGET ADJUSTMENTS**

DEPARTMENT	FUNCTION	ACTIVITY	INTERGOVERNMENTAL			OTHER
			GENERAL	STATE	FEDERAL	
Engineering	General	Property Management	\$53,000			
Engineering	General	Flood Control		\$3,353,100		
Special Districts Services	General	Property Management				\$1,909,068
Sheriff	Public Protection	Police Protection		\$2,740,031	\$418,319	\$1,890,249
Sheriff - Emerg. Planning	Public Protection	Police Protection			\$157,337	
Sheriff - CalOES	Public Protection	Police Protection		\$231,740		
Fire Prevention	Public Protection	Fire Protection	\$268,000			\$2,307,849
Child Support Services	Public Protection	Judicial		\$1,082,004	\$2,291,498	
District Attorney	Public Protection	Judicial		\$738,533	\$882,000	
Public Defender	Public Protection	Judicial		\$40,000		
Trial Courts	Public Protection	Judicial				
Grand Jury	Public Protection	Judicial				
Corrections	Public Protection	Det. & Corrections	\$404,170	\$1,965,000		\$150,000
Juvenile Hall	Public Protection	Det. & Corrections				
Probation	Public Protection	Det. & Corrections	\$1,685,000	\$8,704,448		\$600,000
Ag Commissioner	Public Protection	Protective Inspection		\$687,815		
Development Permits	Public Protection					\$1,221,000
Engineering Fees	Public Protection					\$408,850
Planning	Public Protection			\$736,050		\$616,000
Water and Natural Resources	Public Protection			\$500,000		
Behavioral Health	Health and Sanitation	Health		\$19,991,138	\$5,158,407	
Public Health	Health and Sanitation	Health			\$6,182,451	
Environmental Health	Health and Sanitation	Health			\$99,000	
Social Services	Public Assistance	Admin		\$4,038,044	\$30,990,575	
Social Services	Public Assistance	Pub Assistance Prog.		\$19,755,781	\$18,011,750	\$868,795
Social Services	Public Assistance	General Relief				\$64,600
Veterans Services					\$53,198	
Community Action Partnership					\$216,346	

Source: ADE, Inc.



**TABLE 57: MADERA COUNTY PER CAPITA REVENUE AND COST FACTORS**

BUDGET CATEGORY	RESIDENTIAL			BUSINESS		
	PROPORTION	TOTAL COUNTY PER CAPITA	UNINC. PER CAPITA	PROPORTION	TOTAL COUNTY PER CAPITA	UNINC. PER CAPITA
<b>Revenues</b>						
Sales & Use Tax	88%		\$36.23	12%		\$19.30
Transient Occupancy Tax	0%	\$0.00		100%		\$2,669.00
Other Taxes	88%		\$1.60	12%	\$0.37	\$0.80
Business License	0%	\$0.00		100%		\$6.32
Licenses, Permits & Franchises	88%	\$18.44	\$27.59	12%	\$9.22	\$20.07
Fines, Forfeitures & Penalties	88%	\$20.60	\$23.29	12%	\$11.65	\$25.36
Charges for Services	88%	\$62.14	\$62.10	12%	\$31.07	\$67.62
Miscellaneous Rev.	88%	\$39.55	\$39.53	12%	\$19.78	\$43.05
<b>Expenditures</b>						
Public Protection						
<i>Sheriff</i>	88%		\$218.88	12%		\$82.51
<i>Fire</i>	88%		\$81.59	12%		\$32.10
<i>Other Public Protection</i>	88%	\$68.33		12%	\$34.16	
Public Ways & Facilities	88%	\$24.46	\$24.46	12%	\$12.23	
Health & Sanitation	88%	\$73.32		12%	\$36.66	
Public Assistance	100%	\$17.01		0%	\$0.00	
Education	88%	\$8.28		12%	\$4.14	
Contingencies/Reserves	88%	\$36.63		12%	\$18.32	

Source: ADE, Inc.

## CITY OF MADERA

The budget amounts for the City of Madera shown in Table 58 include all general functions, but exclude costs and revenues associated with the Community Development Block Grant (CDBG) program, Code Enforcement, and the insurance reserve, which are handled in separate sub-funds.

Similar to the City of Fresno, the fiscal analysis assumes that 50 percent of General Government costs are fixed. The other budget adjustments shown in Table 59 reflect plan check and other entitlement fees as well as non-CDBG intergovernmental revenues.

**TABLE 58: CITY OF MADERA FISCAL YEAR 2016-17 GENERAL FUND BUDGET**

BUDGET CATEGORY	FY 2016-17 AMOUNTS
<b>REVENUES</b>	
Taxes	
Property Tax	\$3,517,470
Property Tax in lieu of VLF	\$5,100,000
Sales Tax	\$7,750,000
Franchise Tax	\$685,000
Transient Occupancy Tax	\$645,000
Interest Income	\$400,000
Business License Tax	\$420,000
CFD Assessments	\$810,247
Other Fees, Rentals, Transfers	\$331,740
Recreation Fees	\$344,220
Development Fees	\$931,250
Other Charges for Service	\$587,030
Other Taxes and Fines	\$368,000
Grant Revenue	\$531,817
Contract Revenue	\$378,978
Inter fund Charges/Transfers in	\$7,137,479
Misc.	\$172,800
<b>TOTAL REVENUES</b>	<b>\$30,111,031</b>
<b>EXPENDITURES</b>	
General Government	\$4,351,938
Police	\$12,262,614
Fire	\$3,563,618
Public Works	\$2,755,135
Community Development	\$3,258,518
Parks & Rec	\$4,262,069
Grants	\$458,721
<b>TOTAL EXPENDITURES</b>	<b>\$30,912,613</b>
<b>TOTAL NET BEFORE RESERVES</b>	<b>(\$801,582)</b>

Source: City of Madera 2016-17 Budget.

**TABLE 59: CITY OF MADERA FISCAL MODEL BUDGET ADJUSTMENTS**

BUDGET CATEGORY	ADJUSTMENTS
General Government	\$2,175,969
Fire	\$35,000
Community Development	\$896,250
Grants	\$458,721
<b>TOTAL</b>	<b>\$3,565,940</b>

Source: ADE, Inc.

The per capita revenue and cost factors shown in Table 60 are based on a current City population of 65,474 and a job base of 16,040. Residential land uses are estimates to comprise 89 percent of service demand in Madera.

The property tax calculations use a current average assessed value of \$153,800 for the 2015 land use scenario and new market value of \$230,000 for the 2015 to 2050 growth increment. Madera receives 12.4 percent of the base one percent property tax and gets nearly 60 percent of its total property tax in lieu of vehicle license fees.

**TABLE 60: CITY OF MADERA PER CAPITA REVENUE AND COST FACTORS**

BUDGET CATEGORY	RESIDENTIAL		BUSINESS	
	PROPORTION	PER CAPITA	PROPORTION	PER CAPITA
<b>REVENUES</b>				
Sales Tax	89%	\$48.59	11%	\$27
Franchise Tax	89%	\$9.27	11%	\$5
Transient Occupancy Tax	0%	\$0.00	100%	\$2,208
Business License Tax	0%	\$0.00	99%	\$26
CFD Assessments	100%	\$12.38	0%	\$0
Other Fees, Rentals, Transfers	89%	\$4.49	11%	\$2
Recreation Fees	100%	\$5.26	0%	\$0
Other Charges for Service	89%	\$7.94	11%	\$4
Other Taxes and Fines	89%	\$4.98	11%	\$2
Grant Revenue	89%	\$7.19	11%	\$4
Contract Revenue	89%	\$5.13	11%	\$3
Inter fund Charges/Transfers in	89%	\$96.54	11%	\$51
<b>EXPENDITURES</b>				
Police	89%	\$165.86	11%	\$82.93
Fire	89%	\$38.18	11%	\$19.09
Public Works	89%	\$37.27	11%	\$18.63
Community Development	89%	\$31.95	11%	\$15.87
Parks & Rec	100%	\$65.10	0%	\$0.00

Source: ADE, Inc.