MEASURING THE TAX BENEFITS OF THE FISCALIZATION OF LAND USE: A CASE STUDY OF COMMERCIAL VEHICLE SERVICES IN THE SOUTH AVENUE TRAVEL CENTER, CORNING, CA

A Thesis

Presented

to the Faculty of

California State University, Chico

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Geography

---

by

Adam L. Hansen

Fall 2014

MEASURING THE TAX BENEFITS OF THE FISCALIZATION OF

LAND USE: A CASE STUDY OF COMMERCIAL VEHICLE

SERVICES IN THE SOUTH AVENUE TRAVEL CENTER,

CORNING, CA

A Thesis

by

Adam L. Hansen

Fall 2014

APPROVED BY THE DEAN OF GRADUATE STUDIES
AND VICE PROVOST FOR RESEARCH:

_____
Eun K. Park, Ph.D.

APPROVED BY THE GRADUATE ADVISORY COMMITTEE:

_____
Don Hankins, Ph.D.
Graduate Coordinator

_____
LaDona Knigge, Ph.D., Chair

_____
Noriyuki Sato, Ph.D.

_____
Kevin S. Rosser, M.S., PE

TABLE OF CONTENTS

PAGE

List of Tables v

List of Figures vi

List of Acronyms vii

Abstract ix

CHAPTER

I. Introduction 1

South Avenue Travel Center 2
Significance of Study 4
Organization of Study 4

II. Literature Review 7

Fiscalization of Land Use 8
California Fiscal Tax Policies 12

III. Background of Study Area: South Avenue Travel Center 16

Study Area 16
Corning Fiscalization of Freeway Frontage 20
Truck Stops on Interstate 5 27

IV. Methods and analysis 32

Sales Tax Revenue 33
Property Tax Revenue 53
Comparison of Sales Tax and Property Tax Revenue 58
Costs of the Fiscalization of Land Use 60

V. Conclusion 70

PAGE

References 75

Appendices

A. Parcels in Study Area 81
B. South Annexation Map 83
C. Comparison Cities on I-5 Corridor 85
D. Allocation of Property Taxes 87

LIST OF TABLES

TABLE		PAGE
1.	Breakdown of California Sales Tax Distribution in 2011	13
2.	Projected Average Daily Traffic on I-5	24
3.	Date Businesses Were Constructed or Opened in Travel Center	25
4.	Services Provided by the Truck Stops in Near South Avenue Interchange	28
5.	Jobs Generated by Businesses in the Travel Center	30
6.	Comparison of Fuel Sales and Travel Center Tax Revenue to Total Bradley-Burns Sales Tax Received by Corning Which Peaked in 2007-08	36
7.	Fluctuations in Fuel Sales Due to Economic Recession	38
8.	Big-box Stores and Shopping Centers in each Comparison City	43
9.	Sales Tax Produced compared to Population	47
10.	Bradley-Burns Sales Tax and LTF from South Avenue Travel Center	53
11.	Breakdown of Property Tax Allocations	54
12.	Cost of Phase 1 South Avenue Interchange Project	65

LIST OF FIGURES

FIGURE		PAGE
1.	Map of South Avenue Travel Center Study Area with Businesses	3
2.	Southern Portion of Corning Showing Neck of Land Connecting to Travel Center	18
3.	Historical Picture of J&W Café Located on the Corner of 99W and South Avenue	19
4.	Land Use Designations in the Study Area	22
5.	Parcels Purchased to Construct Flying J Truck Stop	26
6.	Corning's Sales Tax Revenue Compared to Service Station and Travel Center Sales Tax Revenue	35
7.	Comparison of Per Capita Vehicle Miles Traveled to Gas Prices in the United States	37
8.	Average Price of Fuel During Study Period	39
9.	Tax Revenue Compared to Average Fuel Price	40
10.	Comparison of Cities Bradley-Burns Sales Tax Per Capita	45
11.	Comparing Sales Tax Per Capita of All Cities and Unincorporated County Populations in California in 2011-12	49
12.	Histogram of California Cites Between 6,000 and 10,000 in Population in 2011-12	50
13.	Assessed Land Values and Improvement Values	57
14.	Sales Tax Revenue Compared to Property Tax Revenue from South Avenue Travel Center	59

LIST OF ACRONYMS

99W- Old State Highway 99

99E- State Route 99 East

I-5- Interstate 5

AB- Assembly Bill

CFN- Commercial Fueling Network

CH-highway Service commercial District zoning classification

BOE- Board of Equalization

Caltrans- California Department of Transportation

CEC- California Energy Commission

DOF- Department of Finance

GIS- Geographic Information System

LAO- Legislative Analysis Office

METS- Medical Transportation Service

LTF-Local Transportation Fund

NOx- Nitrogen oxide

Petro- Stopping Centers

Prop. 13- Proposition 13

RTIP- Regional Transportation Improvement Program

SB- Senate Bill

TA- TravelCenters of America

TCTC- Tehama County Transportation Commission

TDA- Transportation Development Act

TRAX- Tehama Rural Area Express

VMT- vehicle miles traveled

ABSTRACT

MEASURING THE TAX BENEFITS OF THE FISCALIZATION OF LAND USE: A CASE STUDY OF COMMERCIAL VEHICLE SERVICES IN THE SOUTH AVENUE TRAVEL CENTER, CORNING, CA

by

Adam L. Hansen

Master of Arts in Geography

California State University, Chico

Fall 2014

When California voters passed Proposition 13 in 1978, it limited property taxes to 1% of assessed value and greatly diminished local government's ability to generate discretionary revenue. Local governments needed a source of revenue to pay for government services demanded by residents. The Bradley-Burns sales tax which returns 1% of taxable to sales to the point of sale is the mechanism utilized by local governments to make up for the lost revenue. Businesses that generate a high volume of retail sales or sell big ticket items such as automobiles are seen as advantageous to local governments since more tax revenue is generated by the business than expended on local services provided to the businesses.

The City of Corning lacks the population base to attract big-box stores so an alternative strategy was used. In 1979, Corning annexed land along Interstate 5 at the South Avenue Interchange that contained a single truck stop. Due to the City's control over land use policies three truck stops and additional commercial vehicle services were built to form the South Avenue Travel Center. This study examines the sales and property taxes generated by the South Avenue Travel Center to determine if the City's strategy has paid off or if commercial vehicle services require more investment in transportation infrastructure alone than tax revenue produced.

CHAPTER I

INTRODUCTION

After the passage of Proposition 13 (Prop 13) in California in 1978 the amount of property taxes that jurisdictions could assess was limited. The competition for sales tax revenue thus intensified. In order to replace lost property tax revenue, cities began offering incentives to attract large sales tax generators such as big-box stores, shopping centers and malls (Lewis 2001). Retail developments generally provide more tax revenue to the local jurisdiction (in sales tax and property tax) than the jurisdiction expends on public services (Hamilton 1975). Retail developments are desirable for smaller cities because consumers are brought in from outside the city, purchase goods and thus increase the tax revenue of the jurisdiction. However, retail developments such as malls and big-box stores are harder for smaller cities to attract and sustain because they lack the population base necessary to support the large volume of sales that retail developments need. Therefore cities must find alternative ways to generate local revenue to pay for essential public services that residents demand (Hamilton 1975; Schwartz 1997; Lewis 2001; Jacob and Parano 2010).

The City of Corning, CA, with a population of 7,663 (California Department of Finance 2011), decided to pursue an alternative strategy to bring revenue into the community. Corning has tapped into the flow of traffic on Interstate 5 (I-5) by providing developable land with city services adjacent to a freeway interchange that is properly

zoned for travel orientated services. These conditions have facilitated the development of a large scale travel center. The South Avenue Travel Center, which will be referred to as the Travel Center, provides basic services for commercial vehicles and travelers such as fueling stations, truck washes, truck repair, restaurants, fast food, merchandise stores, and hotels (Figure 1). Travel centers that cater to commercial vehicles are not the typical retail development that cities strive to attract due to externalities they create such as noise, pollution and pavement degradation caused by the weight of commercial vehicles. Despite the externalities, Corning has encouraged the Travel Center to grow using its local control over land use.

South Avenue Travel Center

The Travel Center is a prosperous business district consisting of businesses which cater to truckers and travelers. Businesses located in the Travel Center are thriving due to the volume of traffic using the South Avenue Interchange and as evidenced by the growth in the number of businesses over the past few years. The Travel Center is convenient for travelers and commercial vehicles as many services are located in a cluster adjacent to I-5. However the more important question is how beneficial is the Travel Center to the City of Corning and the regional economy? The Travel Center has not come without a price. To accommodate the large number of commercial vehicles, the South Avenue Interchange needed to be reconfigured. The total cost to reconfigure the entire interchange exceeded available funding, so the project was divided into two phases. The cost to construct Phase 1 was $10 Million and Phase 2 is estimated to cost $14 million (California Department of Transportation 2013). To determine if the Travel Center is

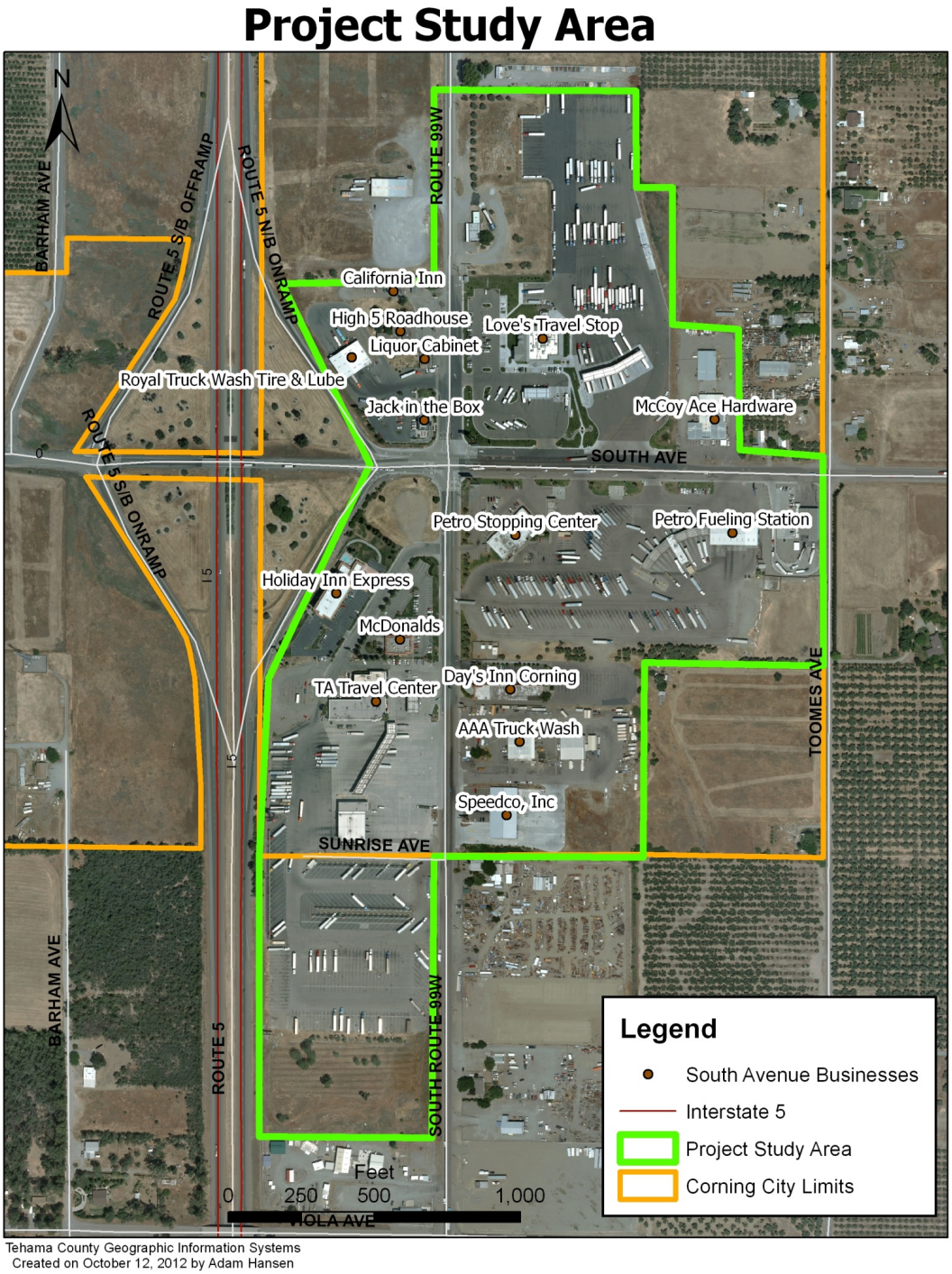


Figure 1. Map of South Avenue Travel Center study area with businesses.

Source: Tehama County Public Works. 2012. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

worth such a large investment for a rural county, I measured the sales and property taxes generated by the Travel Center from 2000 to 2012 and compared them to the nearly $10 million to construct Phase 1 in 2009.

Significance of Study

The findings of this study are beneficial in two ways. First, this study provides data and analysis to Corning which can be used as a tool to assist Corning when enacting fiscal policies or land use decisions that impact the future of the Travel Center. Decisions on expansion of the Travel Center through annexation, investments in additional infrastructure within the Travel Center, and costs to maintain the current infrastructure can be justified by tax revenue generated by the Travel Center. Second, this study can be utilized as a model for other jurisdictions located on shipping corridors to help them forecast the revenue that could potentially be created by allowing truck stops and other commercial vehicle services to develop near an interchange in their community. This model could be especially useful for small towns that do not have the population to support a shopping mall or big-box stores which are typically sought after as tax revenue generators (Lewis 2001). Many studies have been completed that analyze policy makers' pursuit of large retail developments (Public Policy Institute of California 1999; Bell 2007; Beasley 2013), but little research has been done on the role of commercial vehicle services as a local tax revenue generator.

Organization of Study

Chapter I introduces the topic of sales tax competition and explains that competition among cities for retail development has intensified after the passage of Prop

13 in 1978. Corning is no exception, and has used its control over land use to encourage the development of the Travel Center. Chapter II, the Literature Review, describes the "Tax Revolt" which resulted in the passage of Prop 13 in 1978 (Temple 1996) and how researchers tie its passage to the start of the "fiscalization of land use" in California. This fiscalization of land use has influenced development patterns as cities use incentives and land use policies favorable to retail developments to attract businesses. The competition has become so intense that, almost 30 years later, legislation was passed limiting what a jurisdiction can do to lure a retail development away from a neighboring jurisdiction. Despite new legislation, researchers claim jurisdictions continue to use their local power over land use to attract retail developments and boost discretionary tax revenue. Chapter III provides the context for the study. It describes the South Avenue Travel Center in greater detail outlining history, development, traffic volumes in the study area as well as a description of services available at the Travel Center. Chapter III also explains how land use designations found in plans, such as Corning's Highway 99W Corridor Specific Plan, have encouraged the development of high sales tax generating businesses in the Travel Center. Chapter IV contains the methods and analyses of the study. Each analysis is introduced with the methods of analysis and data used in that specific analysis. Tax revenues are analyzed first, specifically the revenue generated by the Travel Center. A discussion of factors that impact revenue from the Travel Center follows the analysis. The economic factors that impact sales tax revenues are the demand for diesel and gasoline and price of fuel. Next, sales tax per capita is used to compare Corning to cities regionally and statewide. The chapter also contains information on how property taxes are assessed, factors that cause assessed values to increase and how property taxes are

distributed. After sales tax and property taxes from the Travel Center are clearly defined, they are compared to each other. Chapter IV also compares the impacts of commercial vehicles on transportation infrastructure to the cost to enhance transportation infrastructure to accommodate them. Lastly, sales and property taxes are examined to determine if either of them is sufficient to fund the needed transportation infrastructure enhancements. Chapter V summarizes the findings and determines if the development of the Travel Center through the fiscalization of land use has been financially beneficial to Corning and the region.

CHAPTER II

LITERATURE REVIEW

The taxpayer's quest to restrict the taxing and spending powers of local governments referred to as the "Tax Revolt" led to the approval of Proposition 13 (Prop 13) (Temple 1996). The initiative was passed by California voters on June 6, 1978. Prop 13 limited the amount of property taxes cities could assess by amending the California Constitution which rolled back property assessments to 1975 market values (California Board of Equalization 2009; Jacob and Parano 2010). Prop 13 also restricted the property tax rate to one percent annually plus assessments to fund local voter-approved bonded indebtedness (California State Board of Equalization 2009; Jacob and Parano 2010). Tax increases are limited to base year value plus two percent per year except when properties change ownership or new construction occurs. The purchase price or assessed value of new construction becomes the assessed value for tax purposes and usually more accurately reflects the current market value (California State Board of Equalization 2009).

The ability of jurisdictions to raise revenue from property taxes was crippled by limiting jurisdictions to one percent of total assessed value and limiting annual increases in assessed values to two percent annually (Public Policy Institute of California 1999). Since the passage of Prop 13 in 1978, the real estate values in California have far outpaced the allowed two percent increase in assessed value allowed by Prop 13, which

means that property owners are not paying one percent of the fair market value in property taxes each year (O'Sullivan, Sexton and Sheffrin 1994). The passage of Prop 13 reduced county property tax revenue by 50% from $10.3 billion in 1977-1978 to $5.04 billion in 1978-79 (California State Board of Equalization 2009). This significant reduction in revenue caused cities to look elsewhere to generate revenue to fund basic public services. This search for revenue intensified the competition for sales tax revenue and consequently has impacted land use decisions (Schwartz 1997; Public Policy Institute of California 1999).

The limit on property taxes imposed by Prop 13 has caused local governments to use their power over land use to increase their fiscal resources (Jacob and Parano 2010). After the passage of Prop 13, cities, suburbs, and counties began to shift their planning priorities and land use decisions became based upon the amount of sales tax or property tax the land use would generate. Establishing land use and zoning based on the amount of potential tax generation is referred to as the "fiscalization of land use" (Misczynski 1986; Lewis 2001; Wassmer 2002).

Fiscalization of Land Use

Since Misczynski (1986) first coined the term "the fiscalization of land use," a few definitions have emerged that are similar yet reflect how each researcher views different jurisdiction's engagement in the practice. Wassmer (2002) defines fiscalization of land use as the influence that local public finance exerts on local land use decisions. Kotin and Peiser defined it in Urban Studies as "the tendency of communities to establish land uses based on the net tax revenue they will generate for the city" (1997, 1,975).

Land use planers have to consider additional fiscal factors such as bolstering the budget of their jurisdiction, or pressure from administrators or elected officials to increase local revenue while making land use decisions. This "outside influence" from administrators or elected officials, or from planners themselves, applied to land use decisions has impacted the development patterns of many communities. Wassmer argues that local discretionary revenue is the single most important factor driving local land use decisions in the state (2002). Therefore, many cities compete with each other for developments that generate the most in sales tax. Big-box stores, malls and auto dealerships are the main retailers targeted by jurisdictions to increase their sales tax base (Kotin and Peiser 1997).

Effects of Proposition 13

Many researchers argue that basing land use decisions on net tax revenue gain leads to poor and inefficient land use patterns. For instance, Gottlieb argues that "reliance on tax revenue induces too much growth and blinds communities to regional environmental and planning objectives" (2006, 1088). Urban planners do not like the fact that decisions are based more heavily on the anticipated incremental increase in the tax base, instead of on sound planning practices (Gottlieb 2006). Gottlieb looks at ways to minimize the local government reliance on the local tax base. He argues that if the incentive of an increased tax base was removed, local jurisdictions would shun developments with negative externalities like increased traffic, noise, congestion and environmental impacts in favor of open space (2006).

The Public Policy Institute of California conducted a survey of city managers in California by sending a questionnaire to all 471 cities. The questionnaire was designed to gather data on how city managers viewed different development projects and how that

influenced land use and annexation decisions. The survey found that among cities planning to annex land in the next five years, increasing sales tax revenue was the second most important consideration, only surpassed by control of development of surrounding areas (Public Policy Institute of California 1999).

The survey of city managers also revealed that new sales-tax revenue always finished first or second in terms of the position most often given for making a land use decision (Public Policy Institute of California 1999). Under such conditions, competition for big-box, high-volume retailers has become intense (Kotin and Peiser 1997). Cities often offer incentives to attract retail businesses, but this tactic is counterproductive for several reasons. First, the fiscalization of land use has caused many unwanted land development patterns that are not beneficial to the overall economy (Stroshane 2004). Second, the incentives can be fiscally dangerous since they can put a strain on the jurisdiction's financial state until the incentive period ends. Third, by offering financial incentives to lure a business away from a neighboring community, there is a net loss of taxes paid to local governments (California Legislative Analyst's Office 2007). A California Legislative Analyst's Office (LAO) report argued that relocating businesses does not grow the (tax revenue) pie, but instead the overall pie shrinks due to the financial incentives offered by the local jurisdiction to influence the move, which usually means a lower tax burden on the firm (California Legislative Analyst's Office 2007).

Competition for sales tax generators became so problematic that it has attracted the attention of state legislators. In 1999 the California State Legislature passed Assembly Bill 178 (AB 178), which required a community that uses financial incentives to lure a big-box retailer or dealership from a neighboring community to offer the other

community an agreement to share tax revenue generated by the business (California Legislative Analyst's Office 2007). In 2003, Senate Bill 114 (SB 114) replaced AB 178 (Shigley 2005). SB 114 prohibits a community from providing any form of financial assistance to a vehicle dealer or big-box retailer relocating from a neighboring community (California Legislative Analyst's Office 2007).

Legislators continue to try to stop creative ways jurisdictions have used to increase tax revenue. However, jurisdictions still maintain a significant amount of control over local land use decisions. Jacob and Parano state that "local governments have found ways—through their powers over land development—to control their fiscal resources, despite state imposed constraints" (2010, 2). This is done through favorable zoning for businesses that have the potential to generate the most sales tax revenue. According to the California LAO 2007 report, communities zone disproportionate amounts of ready-to-develop land for future retail development and leave less desirable land for other development purposes. This pattern is not desirable from the State's standpoint as housing or manufacturing may face higher costs to develop due to reduced amount of land available (California Legislative Analyst's Office 2007). However, many jurisdictions are pressured to give preferential treatment or have engaged in fiscal zoning practices to capture tax revenue such that citizens only pay a marginal cost for the public services they demand (Hamilton 1975; Jacob and Parano 2010; Lewis 2001; Schwartz 1997).

Communities have also become more sophisticated in their efforts to lure sales tax generating businesses. Wilson (1999) and Hendrick et al. (2007) claim that each jurisdiction chooses fiscal policies that maximize the welfare of residents (and firms)

within the region rather than directly examining the fiscal policies of other governments in the region. For instance, more business friendly tax rates persuade firms to relocate to the jurisdiction at the expense of other nearby jurisdictions. The findings from studies conducted to measure the benefits of retail on a city's sales tax revenue, encourage greater competition as significant financial benefits are found (Hamilton 1975; Kotin and Peiser 1997). However, none of the studies have measured the tax benefits of travel centers on major transportation corridors.

California Fiscal Tax Policies

Sales tax policies in California have provided incentives to jurisdictions to favor land uses that generate the greatest tax revenue. The Bradley-Burns sales tax and the Local Transportation fund both return funds to the point of sale. These taxes are perceived as a mechanism to generate revenue for jurisdictions to appease residents who want the maximum amount of government services for the least amount of money from their own pockets (Hamilton 1975).

The Bradley-Burns Law was passed on January 1, 1956 to fix the problems with locally administered sales taxes (Public Policy Institute of California 1999). The problems included inconsistencies on how taxes were levied between jurisdictions. There were variations between jurisdictions on tax rates and the definition of a taxable good. The variations caused tax compliance issues for retailers who had businesses in multiple jurisdictions. The passage of the Bradley-Burns Law allows cities and counties to levy an optional one percent sales tax if they choose which is distributed on a situs basis (Public Policy Institute of California 1999). The one percent tax applies to taxable goods

Table 1. Breakdown of California sales tax distribution in 2011

Rate	Jurisdiction	Purpose
3.69%	State	Goes to State's General Fund
0.25%	State	Goes to State's General Fund
0.25%	State	Goes to State's Fiscal Recovery Fund, to pay off Economic Recovery Bonds (2004)
0.50%	State	Goes to Local Public Safety Fund to support local criminal justice activities (1993)
0.25%	State	Goes to State's Education Protection Account to support school districts, county offices of education, charter schools, and community college districts.
0.50%	State	Goes to Local Revenue Fund to support local health and social services programs (1991 Realignment)
1.06%	State	Goes to Local Revenue Fund 2011
1.00%	Local	0.25% Goes to county transportation funds (LTF) 0.75% Goes to city or county operations (Bradley-Burns)
7.50%	State/Local	Total Statewide Base Sales and Use Tax Rate

Source: Adapted from the California State Board of Equalization. 2011. "Detailed description of the sales & use tax rate." Accessed October 4, 2011. http://www.boe.ca.gov/news/sp111500att.htm.

uniformly throughout the state (Table 1). It is collected by the California State Board of Equalization and distributed by the State Controller based on situs rule. This one percent tax, levied by cities and counties, is important to financing local government because it is not designated by the State for a specific use, but instead used at the jurisdiction's discretion.

The Local Transportation Fund (LTF) is a .25% sales tax that is collected by the California State Board of Equalization and distributed back to jurisdictions based on the situs rule. The LTF was created by the Transportation Development Act (TDA) of 1972 (California Department of Transportation 2013). The TDA designated .25% of the retail sales tax to fund transit. To increase transit funding, the TDA extended the retail sales tax to gasoline (California Department of Transportation 2013). The .25% LTF tax is not mentioned in studies since it is not as important as the Bradley-Burns sales tax. However, the TDA has built in flexibility for counties which had a population of 500,000 or less in the 1970 federal census. LTF can be used for local streets and roads, but only after all reasonable public transportation needs are met (California Department of Transportation 2009). Each county that distributes LTF funds for local streets and roads must hold a public hearing each year to determine if all reasonable transit needs are being met. If the finding is that all reasonable needs are being met, the funds can be distributed to the cities and county to fund local streets and roads (California Department of Transportation 2013). If not all needs are met, the TDA funds must be used to meet the requested transit need.

Cities and counties compete for the one percent Bradley-Burns sales tax and often the LTF is seen as a byproduct. This is because the Bradley-Burns sales tax revenue is discretionary, while LTF must first fund transit before being used for local streets and road projects.

The breakdown of the statewide base sales tax rate is shown in Table 1. The last row of Table 1 contains the Bradley-Burns and LTF sales taxes that are the focus of this study. The .75% was a full one percent before the shifting of funds took place in

2004 to repay $15 billion in bond debt that funded Proposition 57 (Prop 57). Prop 57 was part of former Governor Schwarzenegger's plan to pay off accumulated General Fund deficits as of June 30, 2004 (California Legislative Analyst's Office 2004). Cities and counties still receive the full one percent of Bradley-Burns sales tax but in a circuitous way. Now .25% is diverted from local governments to repay bond debt. In turn, the state diverts property taxes from school districts to local governments to offset their sales tax loss. Then the state adds General Fund payments to school districts to replace their diverted property taxes (California Legislative Analyst's Office 2004).

The loss of discretionary income as a result of the passage of Prop 13 has had unintended consequences. Jurisdictions' efforts to attract retail development have even impacted land use planning in a small city like Corning. While most jurisdictions compete for retail developments/sales tax revenue, some cities are unable to increase their revenue as much as others. The next section will introduce the City of Corning and the study area known as the South Avenue Travel Center

CHAPTER III

BACKGROUND OF STUDY AREA: SOUTH AVENUE TRAVEL CENTER

This chapter will introduce key characteristics of the Travel Center and define the study area. The first section describes the history of the land now occupied by the Travel Center as well as the businesses that occupy the Travel Center today. Also, it will present evidence of what Corning has done to practice the fiscalization of land use in the area that led to the development of the Travel Center. Next, the type and volume of traffic on I-5 and other roads in the study area will be discussed which will provide justification for the truck stops being built at their present location. Then, it discusses a timeline of development of the Travel Center businesses with detail of the development of the three anchor tenant truck stops followed by a discussion of other truck stops on the I-5 Corridor that compete with the Travel Center. Lastly, statistics and information on Travel Center employment will show the magnitude of the economic impact of the Travel Center.

Study Area

Corning, California is a small rural town with a population of 7,583 (California Department of Finance 2011) that is located 110 miles north of Sacramento in

the Northern Sacramento Valley on the I-5 Corridor. Solano Street is the main street in Corning where a small downtown business district is located. The South Avenue Travel Center is located south of Solano Street at the intersection of Historic 99W (99W) and South Avenue (Figure 2).

The Travel Center is located adjacent to I-5 near the South Avenue Exit #630. The South Avenue Interchange is strategically located midway (500 miles) between the ports of Portland and Los Angeles, making it an ideal refueling and stopping point for trucks traveling between these cities on the I-5 Corridor (California Department of Transportation 2005). The Travel Center is located 1.5 miles south of downtown Corning. The 99W runs north/south and connects Solano Street to South Avenue. Much of the land along 99W consists of olive orchards or vacant fields (City of Corning Planning Department 1997). This strip of agricultural land connects the South Avenue area to the City of Corning, but causes the South Avenue Travel Center to be shaped like a flag lot (Figure 2).

History of Travel Center

Historically, at the northeast corner of the intersection of South Avenue and 99W, where Love's Truck Stop is currently located, there was a business called J&W Café that operated as a restaurant and fueling station (Figure 3). Behind the restaurant was Clean Ride Truck Wash. The area also served as a makeshift truck stop since there was ample room for parking on a flat dirt field that surrounded these businesses. The J&W Café and fueling station operated for many years until they closed down in the late 1980s. The Clean Ride Truck Wash, located on a separate parcel, operated on the site

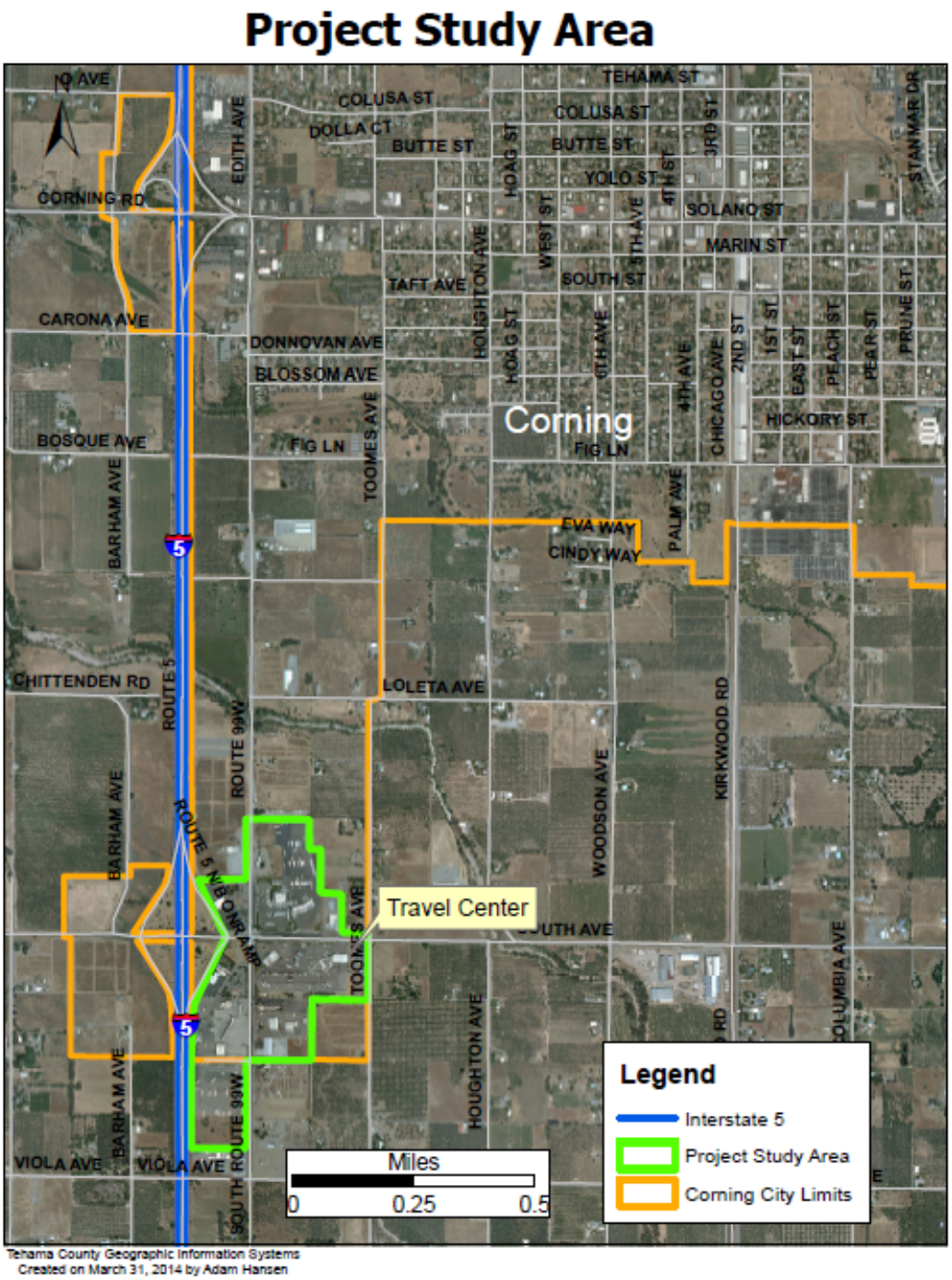


Figure 2. Southern portion of Corning showing neck of land connecting to Travel Center.

Source: Tehama County Public Works. 2014. *Tehama County GIS Data*. Red Bluff, CA: Tehama County.

Figure 3. Historical picture of J&W Café Located on the corner of 99W and South Avenue.

Source: Tehama County Assessor's Office. 2012. *Historical Picture of J&W Cafe*. Red Bluff, CA: Tehama County Assessor's Office.

until 1993 when it moved across the street and was renamed Royal Truck Wash Tire & Lube.

Travel Center Businesses

Since the early days of development when J&W Café was the only truck stop/cafe that offered services to commercial vehicles, the Travel Center has expanded. Today the Travel Center consists of the following twenty-one businesses:

- 4 fast food restaurants
- 3 formal restaurants
- 3 truck repair/tire shops
- 3 truck stops/fueling stations/commercial vehicle parking
- 3 hotels

- 2 truck washes (Blue Beacon Truck Wash is outside study area)
- 2 communications/CB radio businesses
- 1 convenience store
- 1 hardware store

This conglomerate of businesses for commercial vehicles is complemented by a fourth truck stop located two miles to the south at Rolling Hills Casino. The fiscal impact of this truck stop located on the Paskenta Band of Nomlaki Indian reservation is not included in the economic analysis part of this study because the reservation is a sovereign nation and property or sales taxes are not paid like the businesses in the Travel Center. As such, the data proved difficult to find. However, it is important to discuss the impacts of a fourth truck stop in the area that draws regional traffic. The truck stop was opened next to Rolling Hills Casino in 2002 by the Paskenta Band of Nomlaki Indians. Rolling Hills Casino is one of the largest employers of residents in the area as it has expanded its operations to include a hotel, RV park, golf course, Chevron service station, truckers lounge and commercial vehicle parking. Travelers and truckers can access the casino by using the South Avenue Interchange or take the more direct route and via the Liberal Avenue Interchange.

Corning Fiscalization of Freeway Frontage

By adopting the Highway 99W Corridor Specific Plan (Specific Plan) in 1997, Corning established land use designations that encourage developments that generate jobs and tax revenue. The specific plan includes land along the I-5 and 99W corridors along the western edge of the City. The Specific Plan identifies underutilized parcels in the

corridor that are available for development (Figure 4). A majority of these underutilized parcels fall within an overlay zone called the Highway Service Commercial District. According to the Specific Plan, "projects [within the Highway Service Commercial District] should cater to the services required by freeway travelers such as service stations, restaurants, motels, and convenience stores" (City of Corning Planning Department 1997, 3-4). The underlying zoning of the Specific Plan is designated as "Mixed Use and Highway Service," which is designed to provide a range of opportunities for developers such as commercial, office, industrial, or even multi-family housing.

The goals and policies of the Specific Plan are designed to attract businesses that generate sales tax revenue and provide employment. The Specific Plan's Land Use Goals, Policies and Implementation Measures state that traveler and visitor orientated land uses should be located near the I-5 Corridor (City of Corning Planning Department 1997). The Specific Plan further establishes a goal that new development will pay for the necessary facilities and services through tax revenue generated, fees, or other means (City of Corning Planning Department 1997). By accepting the potential future tax revenue to pay for necessary facilities and services, it allows planners to assess minimal impact fees to new development if significant sales tax revenue could potentially be produced by the firm. This quest for sales tax is reiterated in the Land Use Element which states that the Specific Plan's purpose is to encourage the development of businesses that generate high property and sales taxes and provide local employment (City of Corning Planning Department 1997). Allowing the Travel Center to expand as new businesses were built is simply implementing the Specific Plan established 17 years ago. These policies and implementation measures seem logical and not anything spectacular, but they allowed the

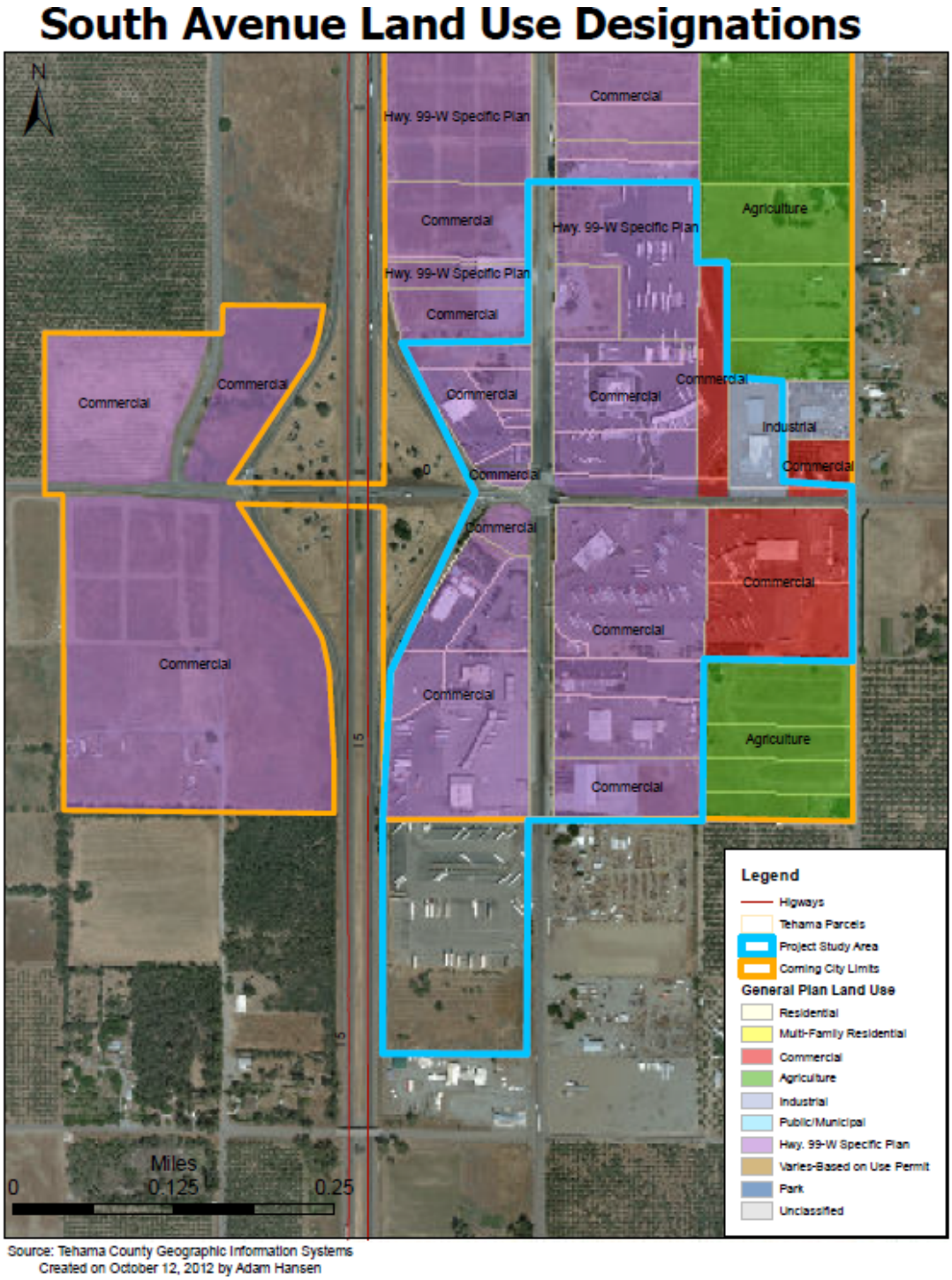


Figure 4. Land use designations in the study area.

Source: Source: Tehama County Public Works. 2012. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

truck stops to develop first and then infill developments such as fast food restaurants and other services that followed.

Traffic in Study Area

Built in 1965 (California Department of Transportation District 2 2005), the South Avenue Interchange provides freeway access to the services available at the Interchange, as well as to South Avenue, which is a vital connector between I-5 and State Route 99. In fact, 15% of the vehicles that use the South Avenue Interchange travel to State Route 99 (California Department of Transportation District 2 2005).

According to the Interstate 5 Transportation Concept Report, 23% of the traffic that passes through Corning on I-5 are commercial vehicle traffic, 2% are RV traffic, and the remaining 75% are passenger vehicles (California Department of Transportation District 2 2008). According to Table 2, the 2010 average daily traffic on the I-5 corridor in Corning is 30,800, of which 7,084 are trucks. The average daily traffic is projected to increase to 55,100 by 2050 (California Department of Transportation District 2 2008) which will increase the number of vehicles accessing the services provided at the Travel Center.

Travel Center Development

Soon after annexation in 1979, the land by the South Avenue Interchange started to develop (Appendix B). The annexation enabled the city to install utilities and provide public services to the area which spurred the growth as two major truck stops opened: TravelCenters of America (TA) in 1981 and Petro Stopping Centers in 1984. These two truck stops continue to anchor the Travel Center and generate tax revenue. The Travel Center continued to grow as fast food restaurants and hotels followed in the late

Table 2. Projected average daily traffic on I-5

Current Highway Information- Interstate 5				
Number of lanes			4	
Percent Trucks			23%	
Percent RVs			2	
Directional Split			54%	(South AM)
Posted Speed			70 MPH	
Year	AADT	Peak Hour	Density	LOS
2005	27,000	3,000	14.5	B
2010	30,800	3,400	16.5	B
2015	35,300	3,900	18.9	C
2020	40,800	4,500	22	C
2025	47,300	5,200	26.1	D
2030	55,100	6,100	32.8	D

Source: Adapted from California Department of Transportation District 2. 2008. "Interstate 5 Transportation Concept Report. Redding, CA." Accessed February 23, 2012. http://www.dot.ca.gov/dist2/planning/conceptrpts.htm.

1980s. The 1990s brought a hardware store and additional fast food establishments (Table 3).

The next wave of development of the Travel Center occurred from 2004 to 2008. A portion of this growth can be attributed to actions taken by city administrators. In the early 2000s, City of Corning administrators heard that Flying J, a major operator of truck stops, was looking for a place to build a truck stop in Northern California. City officials met with representatives from Flying J to give them information about the South Avenue area and communicated that they were willing to accommodate another truck stop on land that was available. Cooperative and proactive city officials, available land

Table 3. Date businesses were constructed or opened in travel center

Company Name	Industry Type	Year	Event
Liquor Cabinet	Food/Beverage	1980	Constructed
TA Travel Center	Fuel	1981	Constructed
Petro Truck Stops	Fuel	1984	Constructed
Iron Skillet Restaurant	Food	1984	Constructed
Holiday Inn Express	Lodging	1988	Constructed
McDonalds corp.	Food	1988	Constructed
Days Inn of Corning	Lodging	1989	Constructed
Royal Truck Wash Tire & Lube	Maintenance	1995	Opened
McCoy's Ace Hardware	Tools	1995	Constructed
Arby's/Subway	Food	1996	Opened
Jack in the Box	Food	1999	Constructed
Speedco, Inc.	Maintenance	2004	Constructed
Love's Travel Stop	Fuel	2005	Constructed
Smiley's CB Shop	Communication	2007	Opened
Yak Yak Shack	Communications	2008	Opened
Denny's	Food	2009	Opened
AAA Truck Wash/Tire Sales	Maintenance	2010	Constructed
Blue Beacon Truck Wash	Maintenance	2011	Constructed
High 5 Roadhouse Restaurant	Food/Entertainment	2012	Opened

Source: City of Corning Building Department. 2012. *Date of Construction*. Corning, CA: City of Corning Building Department.

and proper zoning were sufficient to attract Flying J to the Travel Center. Flying J purchased the closed J&W Café and three adjacent parcels through a county tax lien sale (Figure 5). The parcels, despite being located near two truck stops and an interchange, sold for $65,000 due to the contaminated state of the land (Tehama County Assessor's Office 2012). The low price took into account the remediation work needed to clean up years of oil and diesel spills on the property. Remediation work included removing contaminated soil from the site and bringing in additional soil to cap/cover the site. The last parcel needed to construct the truck stop was not contaminated and sold for $300,000 (Tehama County Assessors' Office 2012). Flying J truck stop was completed in 2005

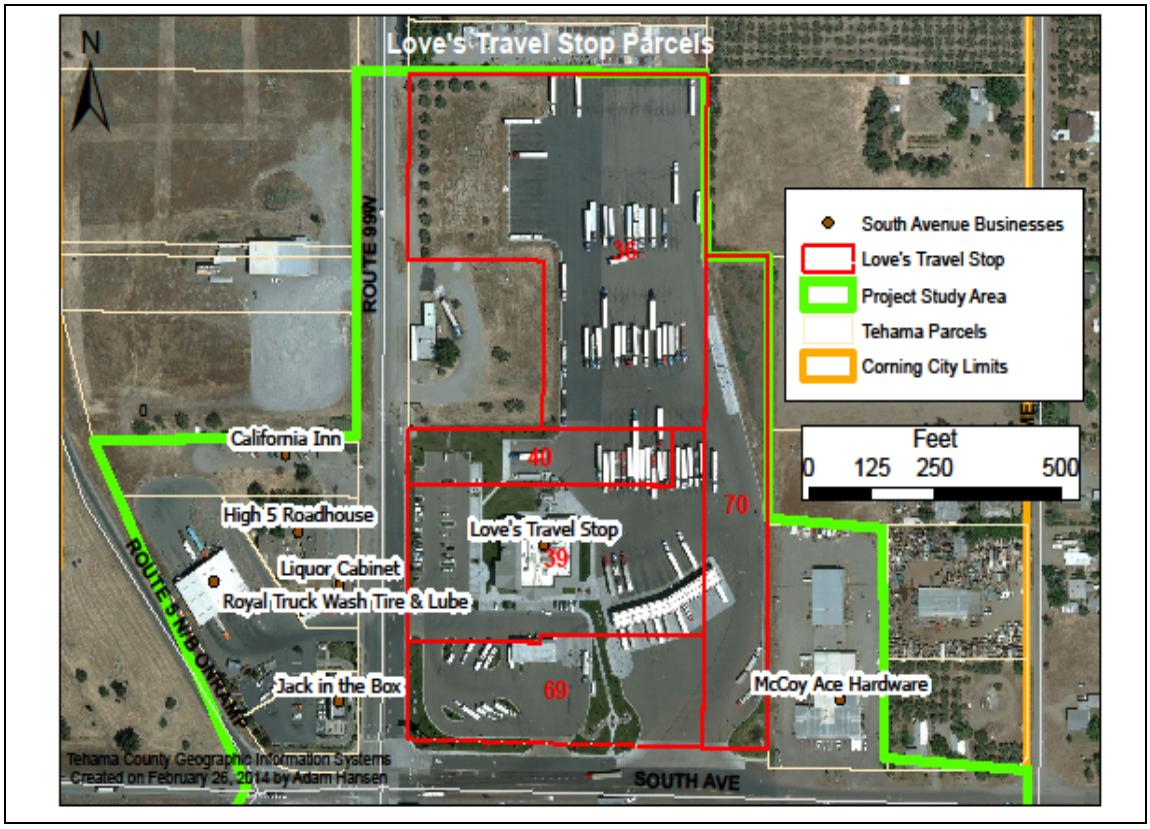


Figure 5. Parcels purchased to construct Flying J Truck Stop.

Source: Tehama County Public Works. 2014. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

(Table 3). The truck stop was built on five parcels that totaled almost 17 acres. The truck stop was later sold to Love's in 2009, which continues to operate the facility today.

The growth of businesses in the Travel Center has caused increased usage of the South Avenue Interchange. As a result, the interchange needed to be expanded and stop signs at intersections were replaced with traffic signals to accommodate peak traffic volumes. There were insufficient funds available to reconfigure the entire interchange, so the project was broken down into two phases. Phase 1 was completed in 2009 at a cost of nearly $10 million (California Department of Transportation 2013). If traffic volumes

continue to increase due to growth in the area, Phase 2 will be needed at an estimated cost of $14 million. The likelihood that Corning will have to pay for a portion of Phase 2 is high. Investment in transportation infrastructure is a consequence of using the fiscalization of land use to generate tax revenue.

Development of additional truck stops along I-5 could pose competition as other jurisdictions could try to follow Corning's blueprint. Additional competition could stymie growth of the Travel Center and prolong the need for construction of Phase 2. The next section will analyze the services proved by truck stops in the Travel Center and other truck stops on the I-5 corridor in Northern California.

Truck Stops on Interstate 5

The three large truck stops Petro Stopping Centers, TravelCenters of America (TA) and Love's Travel Stop, are the anchor tenants of the Travel Center. Table 4 summarizes the type and quantity of services provided by each truck stop, including the truck stop at Rolling Hills Casino which is outside the study area. There are 52 gasoline fueling station sand 63 diesel fueling stations which allow truckers and travelers to exit I-5, refuel, grab a snack and resume traveling quickly without having to wait in line to pump fuel (Table 4). There are also a Jack In the Box, McDonald's, Arby's and Subway, which provide variety of fast food choices within the Travel Center. The availability of fuel and fast food with easy access on and off the freeway attracts truckers and travelers to the Travel Center.

There are three other truck stops on the I-5 Corridor within 80 miles of the Truck Stop: Pilot (Dunnigan, CA), TA (Redding, CA) and the previously mentioned

Table 4. Services provided by the truck stops in near South Avenue interchange

	Truck Stops in Study Area			2.5 miles Outside Study Area	
Services	**PETRO**	**TA**	**Love's**	**Rolling Hills Casino**	**Totals**
Parking Spaces	120	254	159	142	675
Auto Fuel stations (Gas)	12	16	12	12	52
Auto Fuel stations (Diesel)	2	4	8	6	20
Truck Fuel stations	12	15	12	4	43
Service Bays	6	4	2	0	12
Showers	14	10	15	6	45
Restaurants	Iron Skillet	Arby's and Subway	Denny's	Various in nearby Casino	
Goods	General food and trucking supplies	General food and trucking supplies	General food and trucking supplies	General food and trucking supplies	
Maintenance Services	Oil, tires, light mechanical	Oil, tires, light mechanical	Tires	None	
Other Services	Roadside assistance, truck scales		CAT scales, roadside assistance	None	

Source: Hansen, Adam L. 2012. *Informal Phone and Walking Survey*, conducted July 2012.

truck stop on the reservation owned by the Paskenta Band of Nomlaki Indians (The Tribe). The Pilot Truck Stop is located 76 miles to the south in the town of Dunnigan, CA. The truck stop has fuel services, a convenience store, several fast food businesses but only 70 commercial vehicle parking spaces. TA, which operates a truck stop within the Travel Center, also operates a truck stop with 196 parking spaces, a restaurant, fueling stations, and two service bays. TA is located 44 miles to the north of the Travel Center near Redding. The truck stop by Rolling Hills Casio has a Chevron gas station which leased land from the Tribe and opened in 2009. Next to Chevron is a Commercial Fueling network (CFN) fueling station which sells fuel to commercial vehicles. To support the gas station and attract commercial vehicles, the Tribe constructed truck parking and a trucker's lounge with computers, Internet, showers and laundry facilities. These services were built despite similar services being offered two miles away at the Travel Center. However the Casino has the advantage of upscale restaurants and entertainment options for truckers as well as providing parking for truckers who may have already fueled up at the Travel Center. The taxable sales from purchases at the Casino are minimal compared to the fuel sales. With 142 parking spaces available, the Casino is able to lure some business away from the Travel Center. Despite the competition, the additional services, food and entertainment choices provided by the Casino draw more commercial vehicles and travelers to the area, increasing business for everyone.

Employment

The Travel Center is one of the largest employment centers in Tehama County with an estimated 389 people employed as of September 2012 (Table 5). These jobs provide income to local residents who buy goods and generate additional tax revenue in

Table 5. Jobs generated by businesses in the travel center

Company Name	Industry Type	# of Employees
Petro Truck Stops	Fuel	50
Iron Skillet Restaurant	Food	45
McDonalds corp.	Food	45
Blue Beacon Truck Wash	Maintenance	40
TA Travel Center	Fuel	39
Denny's	Food	30
Love's Travel Stop	Fuel	25
Jack in the Box	Food	24
Holiday Inn Express	Lodging	20
Speedco, Inc.	Maintenance	17
Arby's/Subway	Food	16
McCoy's Ace Hardware	Tools	10
Royal Truck Wash Tire & Lube	Maintenance	8
Days Inn of Corning	Lodging	6
High 5 Roadhouse Restaurant	Food/Entertainment	5
AAA Truck Wash/Tire Sales	Maintenance	4
Liquor Cabinet	Food/Beverage	3
Smiley's CB Shop	Communication	1
Yak Yak Shack	Communications	1
	Total Employees	**389**

Source: Hansen, Adam L. 2012. *Informal Phone and Walking Survey*, conducted July 2012.

Corning and Tehama County. The employment count in Table 5 does not include the truck drivers who deliver fuel to the Travel Center daily or employees of other local businesses that benefit by providing goods or services that are sold in the Travel Center.

However, it shows that Corning is achieving its goal of using freeway frontage land to provide jobs.

The Petro Truck Stop is the 7th largest employer in Tehama County and TA Travel Center is the 13th largest employer (Tehama County Economic Development Center 2012). These rankings counted all employees that work for the company that owns the truck stops but not all employees on site. The ranking excludes 45 positions at the Iron Skillet Restaurant, 16 positions at the Arby's-Subway site, and 30 positions at Denny's. The truck stops and restaurants located within the buildings provide 205 of the 389 jobs in the Travel Center.

Corning's decision to annex the land and maintain land use designations that are favorable to business development has allowed the Travel Center to develop into an economic center. The Travel Center is used by travelers, commercial vehicles and local traffic which utilize the parking, restaurant selection and fuel services available 24 hours a day. This Travel Center also benefits the local government as tax revenue is generated each day. Quantifying the benefits to the local governments is the basis of this study.

CHAPTER IV

METHODS AND ANALYSIS

The South Avenue Travel Center would be considered an unwanted development by many jurisdictions due to the noise, pollution and degradation to the roadways, but the City of Corning has welcomed the Travel Center into their community. Corning has decided that job creation and tax revenue outweigh the costs of the externalities. Normally communities seek after shopping centers, big-box stores and new car dealerships in an effort to generate local tax revenue (Lewis 2001). An overabundance of malls, strip malls and shopping centers has led to empty storefronts where there was not sufficient patronage to support them. Instead of trying to compete with these nearby communities and their shopping centers, Corning chose to increase tax revenue by capitalizing on I-5 frontage to attract development that will bring commercial vehicles and travelers into their City.

The methods and analyses in this study are organized into four sections: sales tax the cost of the fiscalization of land use which includes a comparison of all tax revenue from the Travel Center to the past and future costs of transportation infrastructure to support the Travel Center. A description of methods and data used is discussed before each analysis.

Sales Tax Revenue

The Travel Center generates sales tax revenue due to its location on I-5 which is convenient for travelers and commercial vehicles to stop, refuel, eat and resume traveling. One of the main differences between travelers and commercial vehicles is that commercial vehicles purchase considerably more fuel. Most long haul trucks fuel tanks can hold 150 to 300 gallons of diesel which costs $600 to $1,200 to fill (Heavy Duty Trucking 2014). A substantial amount of fuel is sold daily, with 39 diesel commercial vehicle fuel pumps, 14 automobile diesel fuel pumps and 40 automobile gas fuel pumps available. Sales of diesel and gasoline to a portion of the 30,800 vehicles on I-5 that stop at the Travel Center generate significant tax revenue. The amount of tax revenue the Travel Center generates compared to Corning's total revenues will be discussed next followed by three comparisons to other cities in California using sales tax per capita.

Travel Center and Service Station Tax Revenue

The intent of the first analysis in this study is to determine the impact of the Travel Center on the local economy. To determine the significance of revenue from the Travel Center, I obtained local sales tax data specific to Corning by working with city officials and their consultant HdL Companies. HdL Companies is a firm that helps over 360 cities, counties, redevelopment agencies and special districts maximize revenue though allocation audits and financial and economic analysis (HdL Companies 2012). Due to the confidentiality of sales tax information, the data was aggregated in order to protect the privacy of the individual businesses. HdL Companies provided the following three sets of tax data for each year of the study period (2000-2012) that are were needed

for the analyses: (1) Corning's total Bradley-Burns sales tax revenue, (2) Bradley-Burns sales tax from the service stations in Corning, and (3) Bradley-Burns 1% sales tax revenue for each business that operated in the Travel Center during the study period. By comparing and analyzing this data I was able to calculate the level of Corning's dependency on service station tax revenue and the Travel Center tax revenue. However, the datasets for citywide service station tax revenue and Travel Center tax revenue include more than just fuel sales as goods sold at service stations such as refreshments are also taxed.

In Figure 6, Corning's sales tax revenue was compared to sales tax revenue from all service stations in Corning and to the sales tax revenue generated by the Travel Center. By charting the City of Corning's total tax revenue and the Travel Center's tax revenue, it became visually apparent that there is a relationship. As shown in Figure 6, the Travel Center's tax revenue steadily increased from 2001-08 before experiencing fluctuations in 2008-09 and 2009-10 before rebounding back to peak levels. This pattern is mirrored by the City of Corning's tax revenue. The following analysis will explore how strong the relationship is between Corning's tax revenues and the Travel Center tax revenues and the causes of the fluctuations in the revenue.

To better understand the relationship, an analysis was completed comparing the sales tax revenue of Corning, service stations in Corning and the Travel Center. I created a table with all three datasets obtained from HdL (Table 6) and calculated the percentage of Corning's tax revenue that is derived from service stations and from the Travel Center. By analyzing the data in a table, specific evidence on Corning's dependence on sales from service stations for tax revenue became evident. As of 2011-

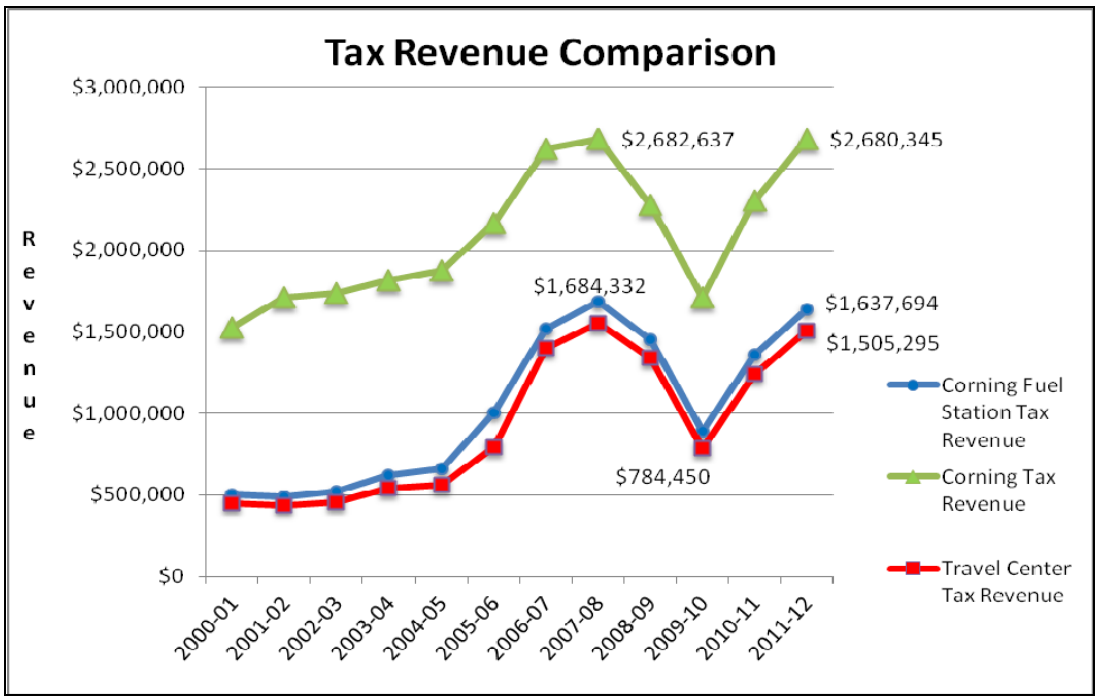


Figure 6. Corning's sales tax Revenue compared to service station and Travel Center Sales tax revenue.

Source: HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2.

12, service station tax revenue constituted 61.1% of Corning's total sales tax revenue (Table 6). In the same year, 56.16% of Corning's total sales tax revenue was generated by the Travel Center (Figure 6). The fluctuations in the tax revenue from service stations and the Travel Center closely follow each other during the study period (Figure 6). This is likely because the three truck stops in the Travel Center generate a large portion of the service station tax revenue. Since the Travel Center's ability to generate tax revenue depends on fuel sales, the factors that contribute to the fluctuations in fuel sales and consequently impact Corning's sales tax revenues will be analyzed next. The three factors are the demand for fuel, the price of fuel and the number of businesses in the Travel Center.

Table 6. Comparison of fuel sales and travel center tax revenue to total Bradley-Burns sales tax received by corning which peaked in 2007-08 (highlighted in grey)

Fiscal Year	Corning Tax Revenue	Fuel Station Tax Revenue	Fuel Station % of Total	Travel Center Tax Revenue	Travel Center % of Total
2000-01	$1,524,272	$499,007	32.74%	$449,385	29.48%
2001-02	$1,712,164	$489,044	28.56%	$433,732	25.33%
2002-03	$1,737,580	$520,278	29.94%	$455,011	26.19%
2003-04	$1,817,657	$619,227	34.07%	$542,638	29.85%
2004-05	$1,875,493	$661,780	35.29%	$563,321	30.04%
2005-06	$2,168,215	$1,000,747	46.16%	$792,292	36.54%
2006-07	$2,619,477	$1,518,339	57.96%	$1,403,291	53.57%
2007-08	$2,682,637	$1,684,332	62.79%	$1,551,174	57.82%
2008-09	$2,278,926	$1,453,442	63.78%	$1,340,901	58.84%
2009-10	$1,712,164	$888,840	51.91%	$784,450	45.82%
2010-11	$2,303,409	$1,361,345	59.10%	$1,238,980	53.79%
2011-12	$2,680,345	$1,637,694	61.10%	$1,505,295	56.16%

Source: HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2.

Demand for Fuel. To conduct the analysis of the three factors that impact the demand for fuel, data was collected from the California Energy Commission's (CEC) Energy Almanac which is published annually and contains historical fuel prices. The California Board of Equalization (BOE) collects the tax on fuel, therefore knows the volume of gasoline and diesel sold in California during the study period. The number of businesses selling fuel in the Travel Center was obtained from the Corning Building Department. These three datasets enable me to analyze the factors that impact fuel sales and better understand the sales tax revenue Corning receives from the Travel Center.

There are three factors that play a role in the demand for fuel: the fuel efficiency of vehicles in California, total vehicle miles traveled and the health of the

economy. First, the overall fuel efficiency of vehicles in California has increased due to a combination of government mandates and consumer preference (U.S. Department of Transportation 2013). Increased fuel efficiency of vehicles decrease the amount of fuel needed for travel. Second, vehicle miles traveled (VMT) per capita has been on the decline since 2004 (Figure 7) (Smart Transportation Initiative 2012). The combination of an increasing number of licensed drivers but decreasing VMT per capita has led to relatively flat total VMT since 2007 (U.S. Department of Transportation 2013). Flat total VMT and an increase of the fuel efficiency of vehicles on the road causes a decrease in fuel purchased and decreases demand.

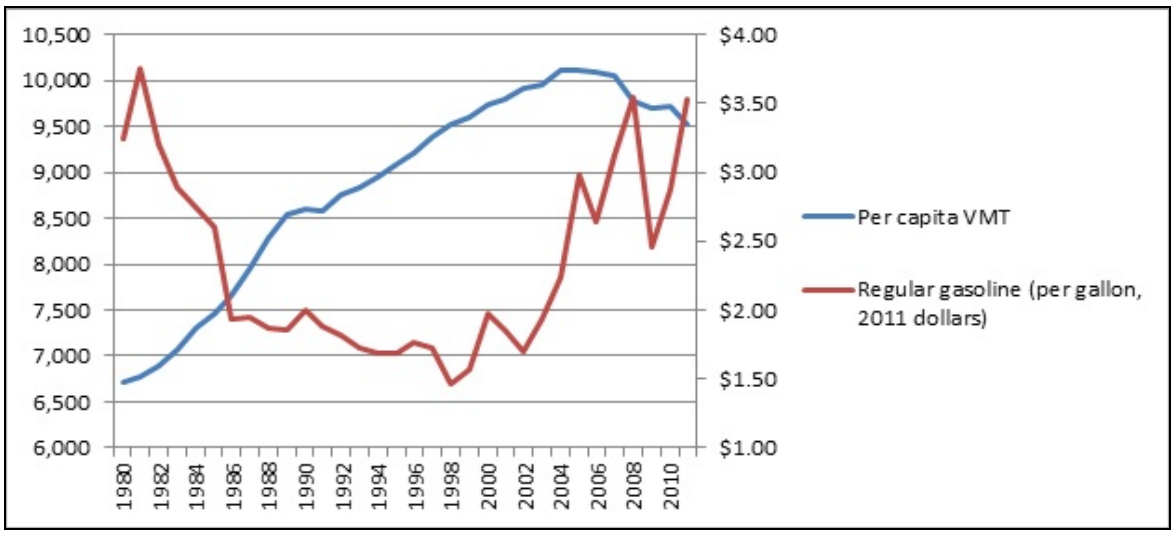


Figure 7. Comparison of per capita vehicle miles traveled to gas prices in the United States.

Source: Smart Transportation Initiative. 2012. "Motor Vehicle Demand Continues Long-term Downward Trend in 2011". http://www.ssti.us/2012/02/motor-vehicle-travel-demand-continues-long-term-downward-trend-in-2011/. Accessed April 12, 2012.

The third factor that significantly decreased the demand for diesel from 2008 to 2011 is the "Global Financial Crisis" that started in 2007 (Reinhart and Rogoff 2008).

The Crisis caused a recession which impacted the trucking industry as fewer goods were shipped. This led to a 10% reduction of gallons of diesel sold in California in 2009 (Table 7). Gasoline sales experienced much smaller declines in the years following the Global Financial Crisis. These factors have reduced demand and impacted Travel Center sales tax revenue, but have been partially offset by the increases to the price of fuel during the study period (Figure 8). Can increases in the price of fuel maintain Corning's tax revenue despite decreasing demand?

Table 7. Fluctuations in fuel sales due to economic recession

Net Taxable Gallons Gasoline and Diesel Sold in California				
Year	Gasoline sold	% Change	Diesel Sold	% Change
2005	15,937,855,020		2,963,733,672	
2006	15,914,082,620	-0.15%	2,944,034,196	-0.66%
2007	15,775,688,699	-0.87%	3,075,583,325	4.47%
2008	15,461,861,205	-1.99%	2,984,774,216	-2.95%
2009	14,836,698,095	-4.04%	2,683,710,916	-10.09%
2010	14,801,303,851	-0.24%	2,587,827,874	-3.57%
2011	14,728,734,063	-0.49%	2,564,017,901	-0.92%
2012	14,613,293,887	-0.78%	2,641,551,113	3.02%
2013	14,443,650,668	-1.16%	2,637,184,371	-0.17%

Source: California State Board of Equalization. .2013b. "Fuel taxes statistics & reports." http://www.boe.ca.gov/sptaxprog/spftrpts.htm. Accessed October 8, 2013.

Price of Fuel. The price of fuel can have a significant impact on tax revenue since sales tax is based on total sales price, rather than per gallon like the federal excise tax. Fuel is taxed like other goods in Tehama County at 7.5%. This means that the higher the price of fuel, the greater amount of sales tax generated per gallon sold. The California average weekly price of fuel helps explain why the Travel Center tax revenue has grown during the study period. In 2002, the average price for a gallon of gasoline was $1.84

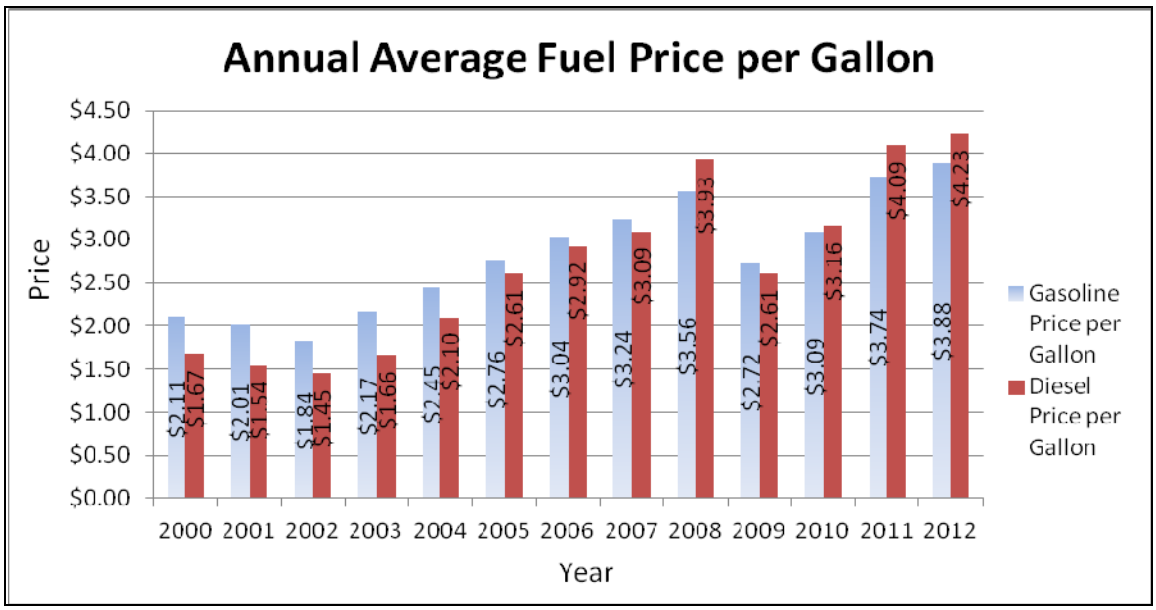


Figure 8. Average price of fuel during study period.

Source: California Energy Commission. 2012. "Historical yearly average of California gasoline prices per gallon 1970 to 2012." Accessed October 12, 2012. http://energyalmanac.ca.gov/gasoline/gasoline_cpi_adjusted.html.

(Figure 8). It has more than doubled to $3.88 in 2012 (California Energy Commission 2012). The doubling of the price of fuel and opening of the new truck stop in 2005 (Love's) have caused the fuel station tax revenue to triple from 2002 to 2012 (Table 6).

Figure 9 combines tax revenue on the left vertical axis with the price of fuel on the right vertical axis. This chart clearly shows the impact that the Global Financial Crisis had on fuel prices when it started in the fall of 2007 (Reinhart and Rogoff 2008). The significant drop in fuel prices in 2009 is illustrated by the dip in both Corning's and the Travel Center's tax revenue generation in 2009-10 (Figure 9). Corning's tax revenue decreased by $970,473 from the peak in 2007-08 to the low in 2009-10, largely due to the Travel Center's tax revenue decrease of $766,724 over the same period (Table 6). This large decrease in sales tax revenue was caused by a simultaneous decrease in demand and

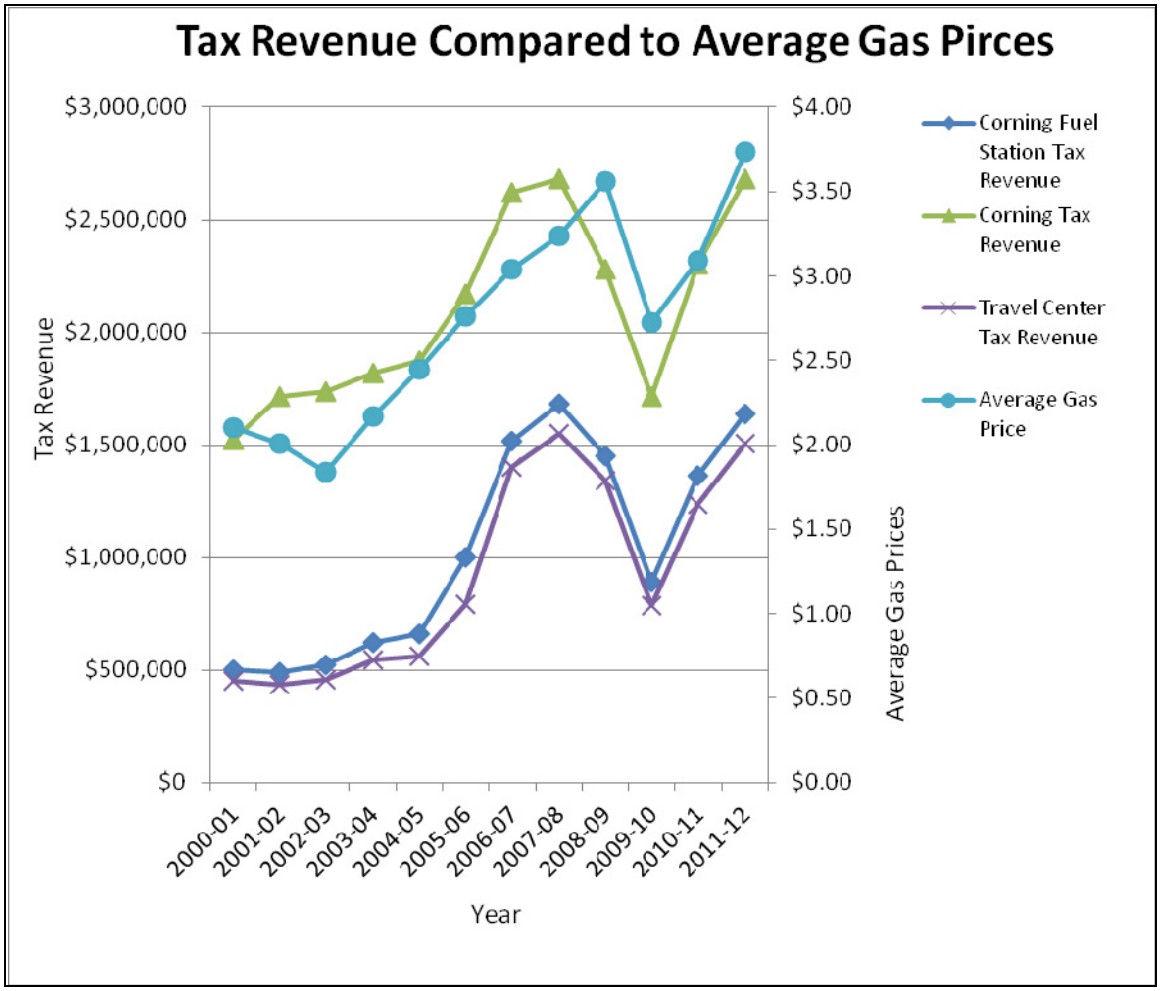


Figure 9. Tax Revenue compared to average fuel price.

Source: California Energy Commission. 2012. "Historical yearly average of California gasoline prices per gallon 1970 to 2012." Accessed October 12, 2012. http://energyalmanac.ca.gov/gasoline/gasoline_cpi_adjusted.html; HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2.

price. Normally a decrease in price will increase demand, but the Global Economic Crisis kept demand from increasing.

Business Growth in the Travel Center. The businesses that create tax revenue in the Travel Center have had a significant impact to Corning's overall tax revenue.

During the study period, the Travel Center generated an average of 42% of Corning's total Bradley-Burns sales tax (Table 6). However, this number is deceivingly low considering that Travel Center produced 29.6% of the tax revenue over the first six years of the study period (2000-01 to 2005-06) before Flying J (now known as Love's) opened in 2005 (City of Corning Building Department 2012). The addition of the third truck stop to the Travel Center caused the percentage of tax revenue from the Travel Center to increase to 58.84% or $1,340,901 in 2008-09 (Table 6). Future growth of the Travel Center will continue to increase tax revenue. There is room for future growth as land west of the South Avenue Interchange is vacant and is prime for development (Figure 2). However, as previously discussed, growth could necessitate Phase 2 of the South Avenue Interchange Project at a cost of $14 million.

Based on this analysis, Corning's tax revenue will fluctuate based on the demand for fuel (especially by the trucking industry), the price of fuel (diesel and gasoline) and growth in the number of businesses selling fuel in Corning. Unless there is another recession or a technological breakthrough that significantly increases the fuel efficiency of commercial vehicles, the demand for fuel should remain steady in the long term. In the short term, price is the strongest determining factor in projecting Corning's tax revenue.

Comparison of Sales Tax Revenue to other Cities in California

The Bradley-Burns sales tax revenue per capita from 2000-2012 is used in three separate comparisons with other California cities. Corning is compared to four similar cities in Northern California, to cities statewide and to cities statewide with

similar populations. Each comparison is designed to determine if Corning has competed more successfully than cities throughout California to generate sales tax revenue. The data needed to compare the cities is described next.

Data for these analyses was obtained from the California Local Government Finance Almanac and from site visits. An analysis of sales tax per capita is done annually by the California Local Government Finance Almanac. The Almanac aggregates sales tax data from the California State Controller's Office and population data from the California Department of Finance. The total sales tax revenue is divided by the population to calculate the sales tax per capita. Using sales tax per capita is a way to normalize the data so cities with varying populations can be compared.

Site visits were conducted to each of the four similar Northern California cities (Anderson, Corning, Orland, Red Bluff and Willows) used in the analysis. The existence of big-box stores, new car dealerships or any other business that appeared to generate sales tax through high volume of retail sales were documented. Documenting these businesses helps to interpret the analysis of sales tax per capita of the comparison cities.

Comparison to Small Cities on I-5 Corridor

The amount of Bradley-Burns sales tax revenue per capita that Corning generates is compared to four similar cities in Northern California. The four cities used in the comparison include: Red Bluff (14,032), Anderson (10,195), Orland (7,541) and Willows (6,107) (California Department of Finance 2011). These cities were selected because they have similar characteristics to Corning. The cities are located in northern California on the I-5 Corridor with populations similar to Corning's (7,586) (See

Appendix C for location map). Through site visits, major sales tax generators such as big-box stores and auto dealerships in each city were documented (Table 8). Creating the table of sales tax generators in each city shows in what ways the cities are similar and different when it comes to sales tax generation. Compared to Corning, which has a Safeway and two vehicle dealerships, Anderson has two big-box stores and two RV vehicle dealerships. Red Bluff has a Walmart, Food Max and Home Depot as well as three car dealerships (one of which closed its doors in 2008). Orland has only a Sav-Mor grocery store and no vehicle dealerships. Willows only has a Walmart Super Center.

Table 8. Big-box stores and shopping centers in each comparison city

Large Scale Retail Open during Study Period July 1, 2000 to June 30, 2012			
	Pop.	Big-Box/Shopping Center	New Vehicle Dealerships
Anderson	10,195	Walmart Supercenter (opened June 2006) Anderson Outlets	Camping World RV Dan Gamel RV Center (closed 6-2008)
Red Bluff	14,032	Walmart Food Maxx Home Depot	Red Bluff Ford (closed 4-2009) Growney Motors Helser Chevrolet/Red Bluff Dodge
Corning	7,586	Safeway Rite Aid	Corning Ford Corning Chevrolet
Orland	7,451	Sav-Mor (grocery)	None
Willows	6,107	Walmart Supercenter	None

Source: Population from California Department of Finance. 2011. "E-1 Population Estimates for Cities, Counties and the State with Annual Percentage Change—January 1, 2010 and 2011." Sacramento, CA. Accessed July 8, 2011. http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php; Data collected and compiled by Hansen, 2014.

As shown in Table 8, the other cities in this comparison have a big-box store that attracts regional shoppers. Corning and Orland are at a distinct disadvantage because their largest store is a grocery store. Food is not taxed in California, thus these stores have little impact on sales tax revenue. The City of Anderson and Willows each have a Walmart Supercenter which attract shoppers from the surrounding area. In June 2006, the Anderson Walmart Supercenter opened its doors (Benda 2009). The drastic increase in revenue from $129 to $160 in sales tax per capita between 2006 and 2007 is largely due to the Walmart Supercenter opening. The 1% Bradley-Burns sales tax increased by $316,000 which means approximately $31,600,000 more in taxable sales occurred in Anderson the year the Supercenter opened than the year before (Figure 10). Anderson also has the Anderson Outlets located on I-5 which attracts shoppers from outside the city.

Red Bluff has a Walmart as well as Home Depot which are both considered big-box stores due to the volume and net worth of goods sold. To add to the advantage over other cities, Red Bluff also has three new car dealerships (Table 8). The recession that started in December 2007 (Isidore 2008) hit Red Bluff especially hard. In April 2009 Red Bluff Ford closed (Benda 2009a) and in August 2010 Helser Chevrolet, which had been in Red Bluff since 1973, closed as well (Benda 2010).

The comparison of the large sales tax generators in Table 8 appears to show that Anderson and Red Bluff have the advantage of the most sales tax generators. Orland appears to have the lowest sales tax revenue amount the comparison cities because it only has a grocery store. Willows has only one sales tax generator as well, but a Walmart Supercenter can produce a significant amount of sales tax.

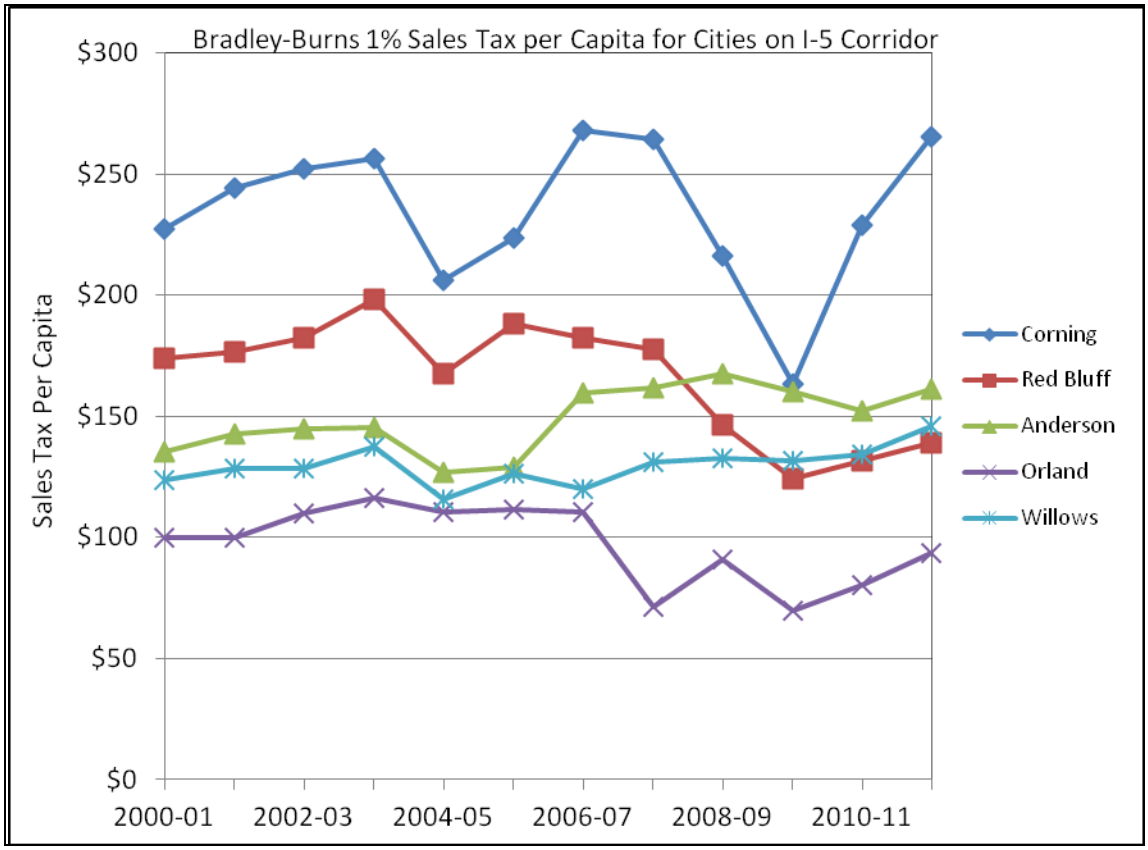


Figure 10. Comparison of cities Bradley-Burns sales tax per capita.

Source: Tax revenue from California State Board of Equalization. 2013a. "Local tax allocations." Accessed September 19, 2013. http://www.boe.ca.gov/legdiv/localTaxAllocations.htm; Population from California Department of Finance. 2011. "E-1 Population Estimates for Cities, Counties and the State with Annual Percentage Change—January 1, 2010 and 2011." Sacramento, CA. Accessed July 8, 2011. http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php.

Corning has two car dealerships that provide sales tax revenue and a Safeway that produces minimal sales tax and a Rite Aid. Based on this analysis, Corning should produce less sales tax per capita than Red Bluff and Anderson and even Willows, but should produce more sales tax per capita than Orland. How do these cities rank when sales tax per capita is compared?

Corning's annual average sales tax per capita is $227.85 followed by Anderson and Red Bluff at $162.20 and $157.71. Willows generated $128.67 while Orland generated significantly less than all other cities in the comparison at $85.64 (Figure 10). Despite appearing not to have a significant tax base, Corning had, by far, the highest Bradley-Burns sales tax per capita. A more detailed look at the sales tax generators is needed to understand why the cities finished in such an order.

Corning has a Travel Center and two new car dealerships, but lacks a big-box store. Corning Ford is prominently located adjacent to I-5, while Corning Chevrolet is located on Solano Street. The combination of car dealerships and the Travel Center has produced significant sales tax. In 2011-12, Corning generated the highest total sales tax ($2,680,345) and sales tax per capita ($265) than the other cities in this comparison (California State Board of Equalization 2013). In fact, in 2011-12 Corning generated more total sales tax than Willows ($889,242) and Orland ($705,243) combined and more total sales tax than Red Bluff ($1,949,659) despite having just over half the population of Red Bluff. Corning's total taxable sales in 2011-12 equates to $35,332 per resident which is impressive considering income per capita was $13,101 (City-Data 2014).

The City of Anderson has the second highest sales tax revenue per capita as of 2011-12. Despite having the Anderson Outlets and a Walmart Supercenter which opened in 2006, Anderson has generated 29% less sales tax per capita than Corning's in 2011-12. Willows generated $146 in sales tax per capita in 2011-12 which is just 55% of what Corning generates. Willows sales tax revenue was significantly more stable due to the Walmart Supercenter despite the recession and fluctuation in gas prices. Red Bluff generated the third most sales tax per capita. The decline in Red Bluff's sales tax per

capita from 2006-07 to 2009-10 is likely due to decreased automobile sales. Orland generates the lowest sales tax per capita because it only has a large grocery store which produces minimal sales tax revenue (Figure 10).

The next comparison uses a ratio to determine how much sales tax revenue each city generates within their respective counties. The ratio for each city is found by dividing the percentage of the counties' total tax revenue generated in each city by the percentage of the county population in each city. To calculate this ratio, the percentage of Tehama County's population that lives in Corning is compared to the percentage of the County's total sales tax produced in Corning. Corning has 12.04% percent of the total Tehama County population but produces 38.24% of the total tax revenue (Table 9). This equates to a ratio of 3.18 times the amount of sales tax revenue in proportion to its population, which is far above the ratio of other cities examined in this study. This ratio is an indicator that outside dollars are being expended in Corning by Tehama County residents and from consumers outside the County.

Table 9. Sales tax produced compared to population

2011-12 Comparison of Sales Tax Generation by City and County Population			
City-County	% of County Population	% of County Sales tax revenue	Ratio of % sales tax & % population
Corning-Tehama	12.04%	38.24%	3.18
Anderson- Shasta	5.62%	8.49%	1.5
Willows-Glenn	21.72%	36.90%	1.7
Red Bluff-Tehama	22.20%	37.05%	1.67
Orland-Glenn	26.54%	29.26%	1.1

Source: California Local Government Finance Almanac. 2013. "Local sales and use tax per resident." Accessed February 6, 2014. http://californiacityfinance.com/index.php#SALESTAX.

Comparison to All Cities Statewide

The Public Policy Institute of California (1999) analyzed cities in California and found that there were "winners" and "losers" in competing for local sales tax revenue. They found that sales tax per capita ranged from a low of $2.25 to a high of $56,891.84 among California cities. How well has Corning competed for tax revenue? To answer that question, the Bradley-Burns sales tax revenue generated by the City of Corning is compared to the sales tax generated by all cities within the State of California.

Data on sales tax per capita was obtained from the Local Government Finance Almanac in order to create a histogram of sales tax per capita of California cities (Figure 11). The Almanac uses the population data from the California DOF and sales tax data from the California BOE to calculate sales tax per capita for all cities. In 2010-11 Corning generated $265 in sales tax per capita which is highlighted red in Figure 11. Corning placed 33rd out of 478 jurisdictions, which is in the top 7% statewide (California Local Government Finance Almanac 2013). Being in the top 7% of all California cities when comparing sales tax per capita is noteworthy considering that out of the 58 counties in California, Tehama County ranked 37th in sales tax per capita, or in the bottom 35% California Local Government Finance Almanac 2013). Despite being located in a county with minimal sales tax per capita, Corning has competed well as shown by Figure 11. The chart shows that 60% of the cities produce less than $100 in sales tax per capita and 86% of cities produce less than $200 in sales tax per capita. Compared to cities statewide, Corning has found a way to bolster sales tax revenue.

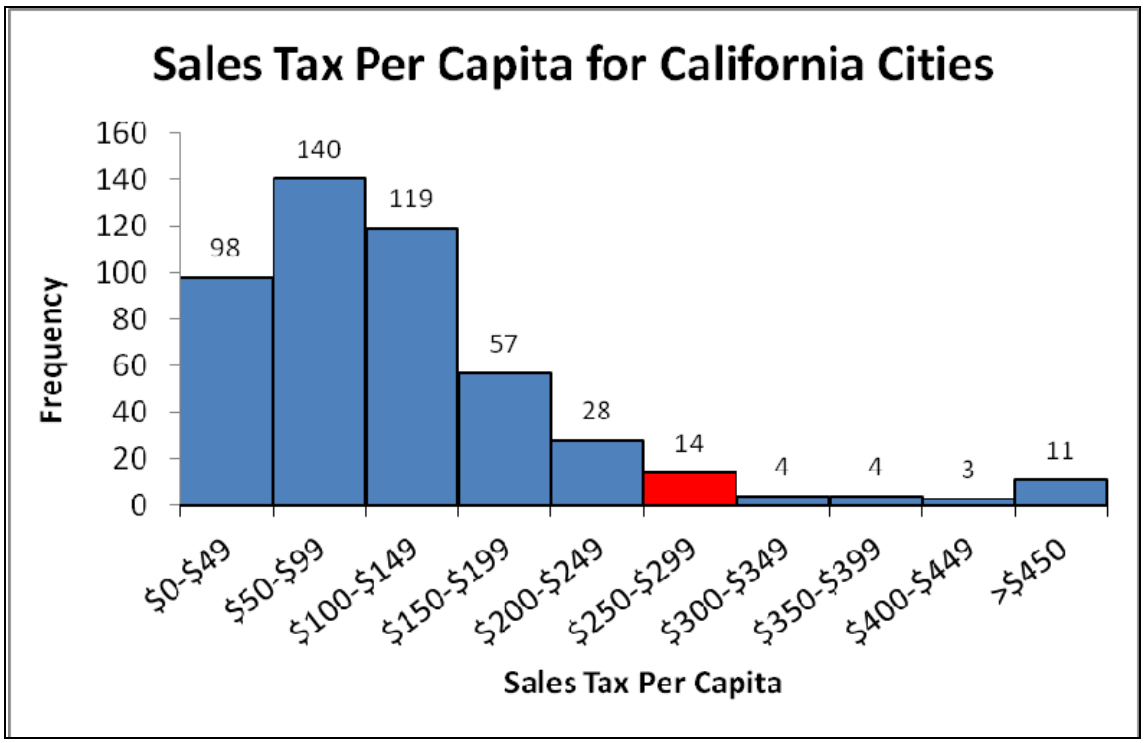


Figure 11. Comparing sales tax per capita of all cities and unincorporated county populations in California in 2011-12.

Source: California Local Government Finance Almanac. 2013. "Local sales and use tax per resident." Accessed February 6, 2014. http://californiacityfinance.com/index.php#SALESTAX.

Comparison to Cities Statewide with 6,000-10,000 in Population

Last, Corning's sales tax per capita is compared to California cities with a population similar to Corning's. A histogram using 2011-12 sales tax per capita for the 40 cities in California with a population between 6,000 and 10,000 was developed (Figure 12). The comparison to similar cities using sales tax per capita is a more accurate representation of how much sales tax Corning generates. A small city with a large sales tax generator such as an auto mall can rank high when compared to larger cities using sales tax per capita, when the small city may only produce minor amounts of sales tax.

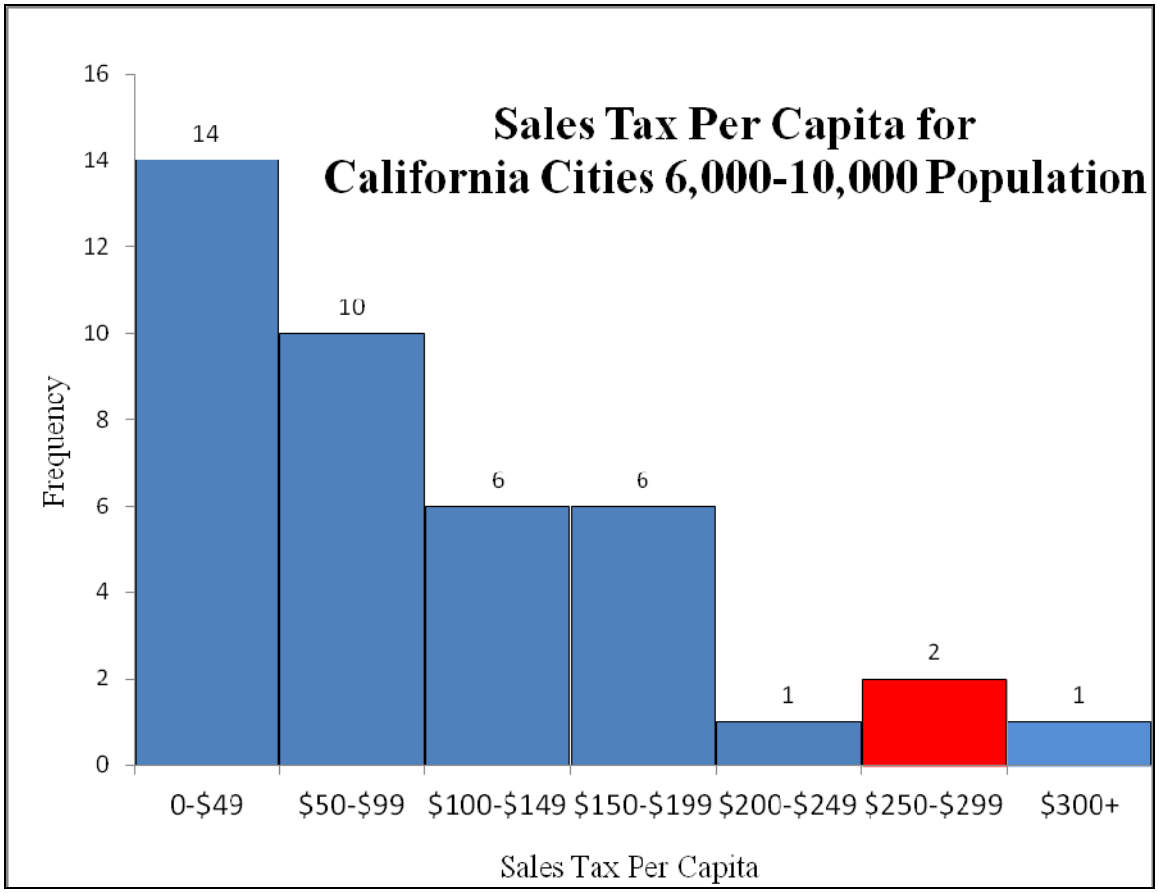


Figure 12. Histogram of California cites between 6,000 and 10,000 in population in 2011-12.

Source: California Local Government Finance Almanac. 2013. "Local sales and use tax per resident." Accessed February 6, 2014. http://californiacityfinance.com/index.php#SALESTAX.

Comparing Corning to cities with a similar population removes the advantage of having a small population.

The comparison to similar small city only exemplifies how well Corning competed for sales tax revenue. In 2011-2012 Corning generated $265 in sales tax per capita which places it as one of the two cities with sales tax per capita between $250 and $300 (Figure 12). Only Corte Madera ($431.79) in Marin County and Westlake Village

($297.33) in Los Angeles County, which both have the advantage of being located near large metropolitan areas, had a higher sales tax per capita than Corning (California Local government Finance Almanac 2013). Mammoth Lakes which generated $172.35 sales tax per capita produced the fourth highest sales tax per capita which is almost $93 dollars per person less than Corning (Figure 12). This histogram shows that the top three cities have found a way to attract outside dollars into their community and produce a significant amount of tax revenue. As Kotin and Peiser (1997) stated, there are real winners and losers in cities' quest for sales tax revenue.

Impact on Transit Funding

This study would not be complete if it did not include an analysis of the LTF generated by the Travel Center that funds regional transit. The Local Transportation Fund (LTF) was created by the Transportation Development Act (TDA) of 1972 (Public Policy Institute of California 1999). The TDA created an additional .25% situs sales tax, meaning that the revenue is returned to point of sale. The TDA dictates that LTF may be used for streets and road purposes after all reasonable transit needs are met (California Department of Transportation 2008). The LTF funds are desirable because once they are distributed for maintenance of streets and roads, they have few strings attached, and consequently, can be used at the discretion of the jurisdiction for any transportation related expenses. The historical financial record of what has been distributed to the three incorporated cities (Corning, Red Bluff and Tehama) and the County of Tehama for maintenance of local streets and roads was obtained from Tehama County Public Works.

Sales within the Travel Center increase the amount of LTF that Tehama County receives to fund public transportation. Public transportation in Tehama County

consists of TRAX (fixed route), ParaTRAX (demand response) and METS (nonemergency volunteer transportation to medical appointments). After these regional transit services are funded, LTF funds are distributed to the three incorporated cities (Corning, Red Bluff and Tehama) and the County based on population percentage. Since Corning's population is approximately 12% of the total Tehama County population, Corning receives approximately 12% of the funds that are distributed by this formula.

Since the Bradley-Burns sales tax and LFT are both situs based taxes, I was able to use the total Bradley-Burns tax generated by the Travel Center to calculate the .25% LTF generated by the Travel Center. The amount of LTF distributed annually to Corning from Tehama County Public Works annual transit budget was obtained. Table 10 compares the LTF generated by the Travel Center to the LFT distributed for street and road maintenance after transit has been fully funded.

Analysis revealed that the proportional share of LTF Corning receives is less than the LTF that is generated by the Travel Center in every year except 2001-02 (Table 10). This means that the Travel Center alone generates more LTF than is returned to Corning for streets and roads maintenance. However, population centers often receive the bulk of public services such as transit. In fact, Corning residents benefit from TRAX and METS services five days a week. The LTF generated in Corning benefits all Tehama County residents through increased funding for transit and maintenance of local streets and roads throughout the County.

Table 10. Bradley-Burns sales tax and LTF from South Avenue Travel Center

South Avenue Travel Center Sales Tax			
Fiscal Year	South Ave. Travel Center 1%	.25% LTF due to South Ave. Travel Center Taxable Sales	LTF Distributed to Corning for Streets and Roads
2000-01	$449,385	$112,346	$106,586
2001-02	$433,732	$108,433	$112,812
2002-03	$455,011	$113,753	$100,570
2003-04	$542,638	$135,660	$85,740
2004-05	$563,321	$140,830	$103,134
2005-06	$792,292	$198,073	$130,775
2006-07	$1,403,291	$350,823	$119,510
2007-08	$1,551,174	$387,794	$126,689
2008-09	$1,340,901	$335,225	$126,189
2009-10	$784,450	$196,113	$128,293
2010-11	$1,238,980	$309,745	$0
2011-12	$1,505,295	$376,324	$0
Total	**$11,060,470**	**$2,765,118**	**$1,140,299**

Source: HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2; Tehama County Department of Public Works. 2012. *Chart of LTF Distributed to Cities and County*, by Mark Moses. Gerber, CA.

Property Tax Revenue

This section analyzes property tax revenue from Travel Center properties during the study period. Property tax data were collected and analyzed to determine the tax revenue increases to the City of Corning, Tehama County, local schools and various special districts as a result of the development of the Travel Center. Data for the analysis of property taxes was obtained from various Tehama County departments. Property tax data for the 24 parcels in the study area were obtained from the Tehama County Assessor's Office Unsecured Roll (Appendix A). The assessment on the land,

improvements and special assessments were added to find the total property tax paid for each year of the study. Information on how property taxes are distributed was obtained from the Tehama County Auditor's Office. Each year the Tehama County Auditor adjusts the formulas to allocate property taxes collected according to current law. After the junior college, elementary school and earthquake bond debts are taken off of the top of property tax revenues, the remaining funds are divided up by the formula generated by the County Auditor to school districts, county, cities and special districts (Table 11).

Table 11. Breakdown of property tax allocations

2009-10 Property Tax Allocations	
Schools	67.8350%
County General Fund	24.4737%
Cities	4.2244%
Special Districts	3.4669%

Source: Auditor-Controller. 2012. *County of Tehama Final Budget, 2011-12*. Red Bluff, CA: Tehama County Auditor-Controller Office; Auditor-Controller. 2010. *Tehama County Budget, 2009-10*. Red Bluff, CA: Tehama County Auditor-Controller Office.

For simplicity, the property taxes collected from the 24 parcels in the South Avenue Travel Center were allocated based on the Tehama County Auditor's 2011-12 formula for each fiscal year from 2000 to 2012. The formula the Auditor uses is adjusted slightly to account for population changes and shifts in boundaries or due to new legislation, but for the purposes of this study the 2011-12 formula is sufficiently accurate to show the allocation of property taxes.

Cities only receive a small portion (4.2244%) of the total property tax collected (Table 11). Despite this, there are five districts in Corning that benefit from increased property taxes generated by the Travel Center. They included the Corning Cemetery District, Corning Healthcare District, Corning Water District, Corning Elementary School District and Corning High School District. In 2011-12 fiscal year, these jurisdictions received $41,703.97 in property taxes from the 24 parcels within the Travel Center while Corning received only $4,483.33 in property taxes from the Travel Center (Appendix D). Corning's quest to bolster its budget through sales tax increases property taxes as well, thus benefiting local schools, special districts and the County General Fund (Appendix D). Thus, Corning and Tehama County residents benefit from the trickle-down effect of the fiscalization of land use.

Land Values vs. Improvements

It is important to note that the local schools, County general fund, junior college and fire protection districts are the main beneficiaries of property tax increases (Appendix D). Property taxes are a more suitable funding source for fire protection and schools since they are a much more stable revenue source than sales taxes. Property taxes have steadily increased during the study period from 2000 to 2012 due to a number of factors. First, the 2% incremental increase per year allowed under Prop 13 is normally implemented by the county assessor since property values have appreciated by more than 2% per year since 1978 when Prop 13 passed (California State Board of Equalization 2009). Second, when a property is purchased, the purchase price becomes the value of the property that is assessed. Prop 13 changed the market values based property tax system to an acquisition value based system (California State Board of Equalization 2009). During

the study period, the purchase price of property has increased, thus increasing assessed values. Third, improvements by private investments such as buildings, fuel tanks, pumps, parking lots and kitchen/restaurant equipment make up a larger portion of the property tax base compared to the land value alone (Figure 13). Empty vacant land, while it does not require many public services, does not provide much of a tax base due to the restrictions placed on property tax rates by Prop 13. However, the vacant land located near the South Avenue Travel Center is likely to be sold at a higher rate and improved as the Travel Center expands. Thus the Travel Center has caused a ripple effect that will increase property tax assessments of the surrounding land. The willingness of Corning to continue the fiscalization of land use and annex additional land will determine how far reaching this ripple effect spreads.

The assessed value of each of the 24 parcels in the study area was aggregated for each year of the study. Once the total assessed value was calculated, I separated the assessed value of the land and assessed value of the improvements so that they could be compared. The assessed value of the improvements measures the additional property taxes that are generated as a result of the development of the Travel Center. The comparison of land values to improvement values for each year of the study is shown in Figure 13. This chart shows that the total assessed values of the 24 parcels increased during the study period.

A portion of the increase in assessed values is a result of the development that occurred in the Travel Center. Within the Travel Center, land values are only 28.1% of the total assessed value in 2011-12. The assessed value of land in the study area has increased by 292% from $3,071,156 in 2000 to $12,043,320 in 2012 (Tehama County

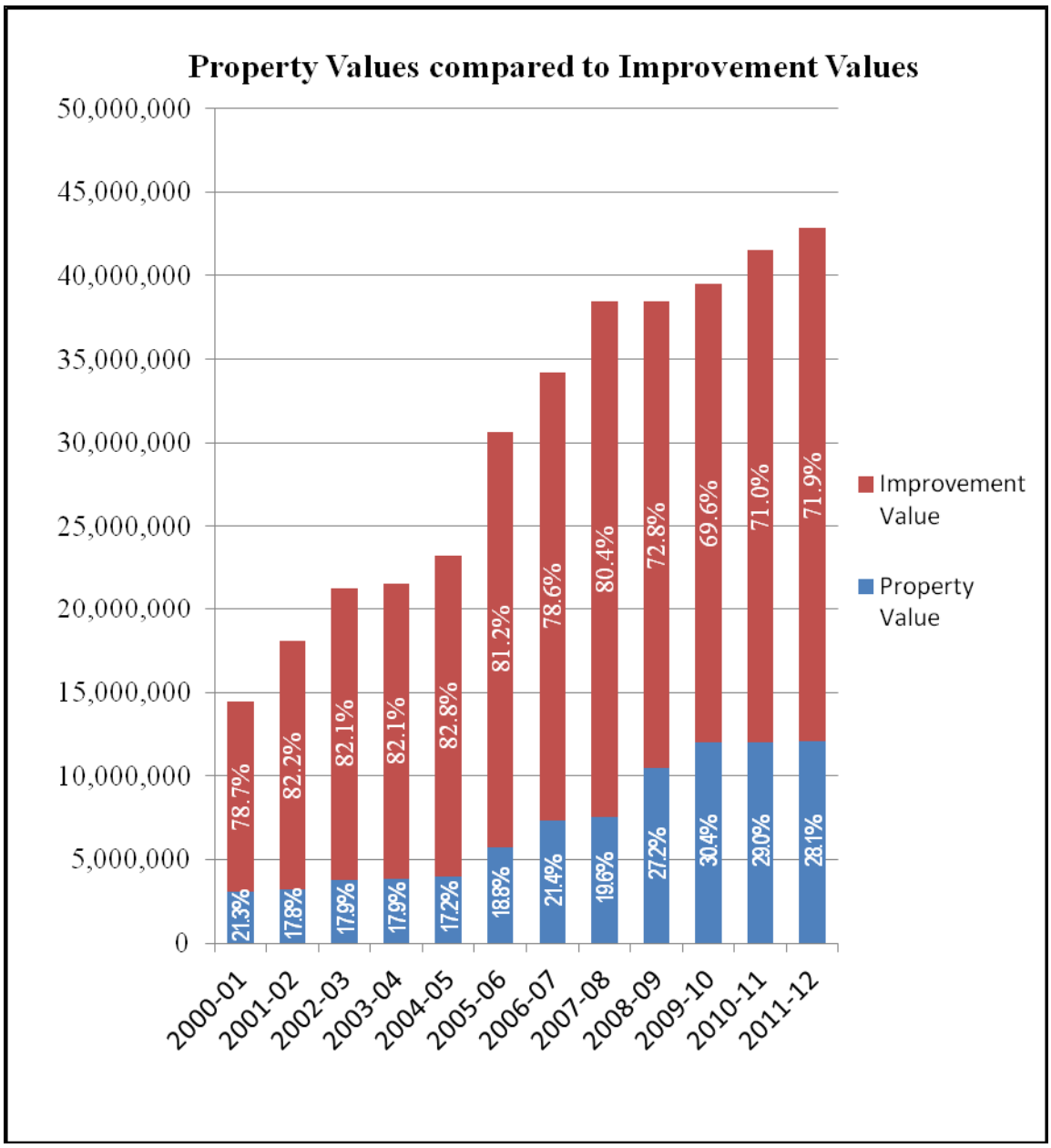


Figure 13. Assessed land values and improvement values.

Source: Tehama County Assessor's Office. 2012. *Historical Picture of J&W Cafe*. Red Bluff, CA: Tehama County Assessor's Office.

Assessor's Office 2012). Despite this significant increase, in 2012 improvements (structures, fixtures and personal property) accounted for $30,819,151 or 72% of the total

assessed value of properties within the Travel Center in 2011-12 (Tehama County Assessor's Office 2012). Without the development of the Travel Center, local jurisdictions would receive 72% less property taxes from the 24 parcels. Additionally, without the Travel Center the land would likely be worth less, further decreasing property taxes. In the next section, I compare sales and property tax revenues from the Travel Center.

Comparison of Sales Tax and Property Tax Revenue

The comparison of sales tax and property tax revenue from the Travel Center supports the claim made by the Public Policy Institute of California (1999) that cities have limited ability to increase revenue through property tax but can increase sales tax revenue through their land use authority. By aggregating the values of the property tax assessments and determining how it is distributed, property tax revenue can be compared with the 1% Bradley-Burns sales tax Corning receives. This comparison of sales tax and property tax revenue generated by the Travel Center from 2000 to 2012 was completed (Figure 14). The Travel Center that consisted of a café, fueling station and truck wash in the 1970s is now a major tax revenue generator. Due to development during the course of the study period from 2000 to 2012, property taxes have doubled while sales tax revenue have tripled (Table 6). In 2011-12, the Travel Center generated $1,505,295 in sales tax revenue (Figure 14). The sales tax from the Travel Center goes directly into Corning's general fund. Only $4,483.33 or 4.2244% of the $413,688 in property taxes generated go to Corning's general fund (Table 11). The property taxes generated by the Travel Center are only .3% of the sales tax revenue. The disparity between the much more lucrative but

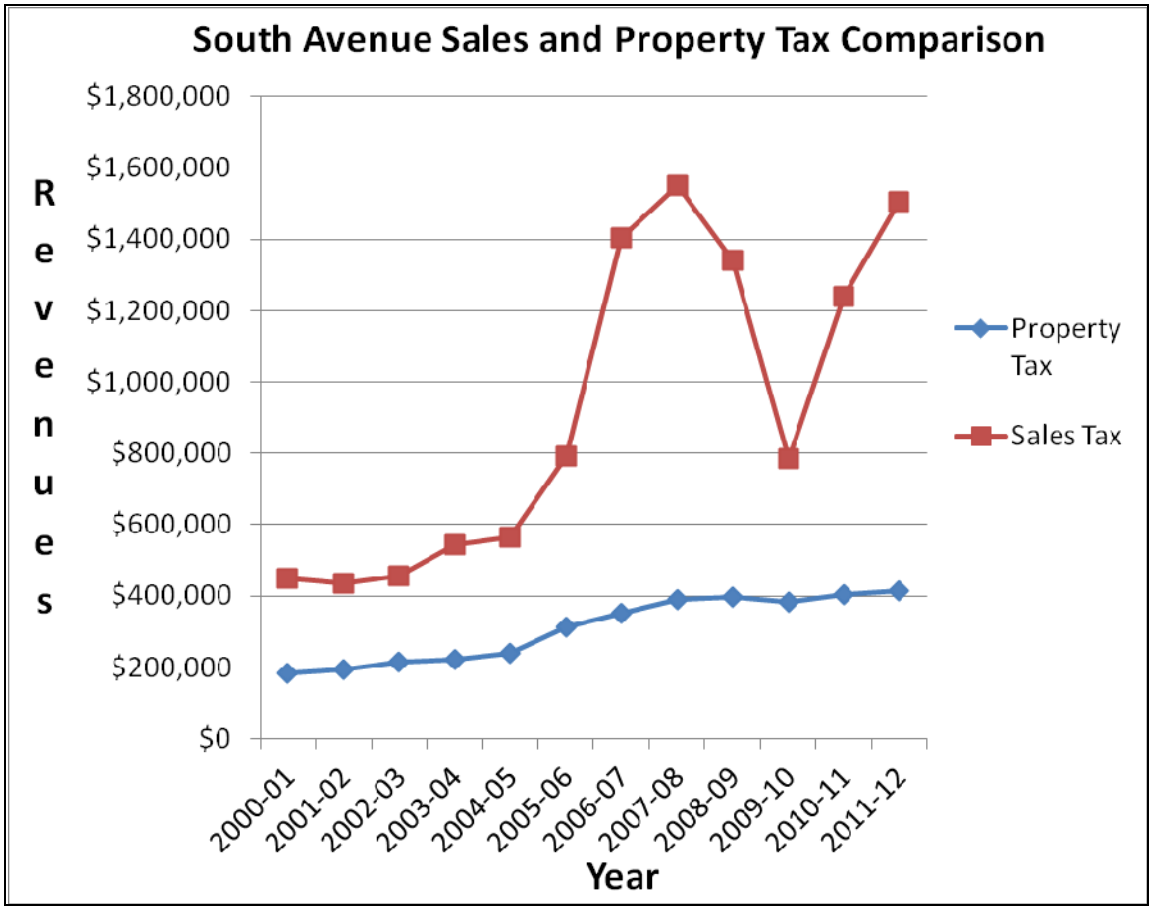


Figure 14. Sales tax revenue compared to property tax revenue from South Avenue Travel Center.

Source: Tehama County Assessor's Office. 2012. *Historical Picture of J&W Cafe*. Red Bluff, CA: Tehama County Assessor's Office; HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2.

volatile sales tax revenue compared to the property taxes generated from the Travel Center supports Corning's desire for retail developments that generate sales tax revenue.

When comparing the Bradley-Burns sales tax to property taxes, it is easy to see why the quest for property taxes has been replaced by the fiscalization of land use (Figure 14). Corning's pursuit of retail development supports research that has found that California cities and counties no longer strive for increased property tax revenue, but

rather try to maximize development with high sales tax returns (Public policy Institute of California 1999). This is because the sales tax generation is a potentially large revenue stream that, to a large degree, is still under local control.

Costs of the Fiscalization of Land Use

Corning's success at creating a Travel Center that generates significant property and tax revenue for the City and region does not come without a cost. Wassmer (2002) argues that in most instances retail developments require a small amount of government resources and cause little environmental damage compared to the revenue produced for the jurisdiction. The California Legislative Analyst's Office (2007) states that jurisdictions report the highest net revenue from retail while housing and manufacturing developments often yield more costs to the local jurisdiction than tax revenue. In both instances, the authors were referring to the traditional big-box, strip mall or auto malls and not commercial vehicle services. However, when categorizing the Travel Center as a retail development, do these statements still hold true? This section will explore whether the costs of improving transportation infrastructure to accommodate the Travel Center generated traffic to the tax revenue produced by the Travel Center.

By strategically zoning land that caters to I-5 users, Corning has developed an economic base that constitutes a significant portion of the local economy. Truckers and travelers are attracted to the variety of choices and easy access to fueling stations in Corning. In 2011-12, tax revenue from service stations throughout the City accounted for 61.1% of the total taxable sales (Table 6). This is the ideal situation for Corning because outside dollars are being brought into the City to support local business, create jobs and

generate tax revenue. Corning has also been successful in what Jacob and Parano (2010) call the "urban design of sales-tax cities" which means that in order to maximize revenue and minimize costs, commercial centers are built at the city's edge and non-residents are encouraged to shop. In Corning, commercial vehicles and travelers exit I-5, access the services, and resume traveling on I-5 with few demands on local infrastructure. The commercial vehicles only cause congestion and wear and tear on Corning's local streets and roads directly adjacent to the South Avenue Interchange (Figure 2). Jurisdictions with big-box stores or outlet malls often have to provide significantly more infrastructure such as additional travel lanes, turn lanes, traffic signals, sidewalks, lighting and landscaping to accommodate the traffic generated by large retail developments.

Corning has avoided the additional infrastructure costs and wear and tear on local streets and roads due to the location of the Travel Center along the I-5 Corridor away from the city center. Despite the Travel Center being optimally located near I-5, the high percentage of commercial vehicles has caused some operational and maintenance issues. The South Avenue Interchange and adjacent intersection of South Avenue and 99W needed to be expanded to accommodate the high intensity uses.

Impacts of Commercial Vehicles

Attracting more commercial vehicles to the Travel Center is ideal because it brings more outside dollars into Corning. However, the increased traffic intensifies the negative impacts commercial vehicles have on public infrastructure. Lawson (2007) compared the environmental footprint of ship, rail and truck modes of freight transport and found that trucks have the largest impacts. Impacts noted include community disruption, congestion and degradation of air quality. Diesel vehicles produce dangerous

amounts of nitrogen oxide (NOx) and particulate matter that have been linked to health issues such as asthma (Fernandez 2006). While these impacts are significant and should not be ignored, quantifying these impacts is beyond the scope of this project and would require further research.

The impact with the largest financial burden for the local jurisdiction is the damage caused to the roadway surface. The weight of commercial vehicles, which can be up to 80,000 pounds (California Vehicle Code Section 35550-35558 2014), causes pavement rutting, cracking and crumbling. Streets with a large volume of commercial vehicles often require more frequent repairs than streets with typical traffic. This is a large expense, especially for a small city like Corning.

The sheer size of commercial vehicles also causes problems in Corning. With 533 parking spaces available at the three truck stops (Love's, TA, and Petro) located at the South Avenue Interchange, there was often congestion in the evening as trucks jockey for parking spaces. Commercial vehicle traffic averages between 30-40% of the total traffic using the Interchange and can reach 65% of total traffic during peak hours as trucks access the services (California Department of Transportation District 2 2005). In the evening, trucks pull off I-5 at South Avenue, refuel and park for the night. Stop signs at the northbound off ramp intersections caused trucks to queue at intersections. The distance between the I-5 northbound off ramp and the intersection of South Avenue and 99W was only 150 feet (Figure 1). Two stop signs with 150 feet of each other created a bottleneck which caused trucks to become backed up on the off ramp onto I-5 causing congestion and safety issues (California Department of Transportation District 2 2005). A capacity enhancing project was undertaken to address these issues because the

Interchange lacked the capacity to keep traffic flowing at acceptable levels during peak hours.

Transportation Infrastructure

To address the issues caused by the amount of commercial vehicles and travelers accessing the services available at South Avenue, the interchange needed to be improved. In 2009, South Avenue Interchange underwent geometric improvements funded by the Tehama County Transportation Commission. Improvements included enhancing safety and providing additional capacity to accommodate growth (California Department of Transportation District 2 2005). Due to the scale of the project and scarce resources available to Corning, the South Avenue Interchange Project was broken into two phases. Phase 1: Improve the east side of the freeway by extending the northbound off-ramp and on-ramp, signalize the intersections on South Avenue and the freeway ramps on each side of I-5 as well as the intersection of South Avenue and 99W. Phase 2 will improve the on and off ramps on the west side of the freeway and realign a frontage road and widen the overcrossing from two to five lanes.

Phase 1 was completed in 2010 with a total cost of $9,839,498 (California Department of Transportation 2013). Phase 2 was postponed indefinitely due to funding constraints and because Phase 1 addressed current traffic needs. A few factors could cause increased traffic and warrant Phase 2 interchange improvements. First, Phase 2 will be needed if the Travel Center continues to grow as it has during the study period. Second, land across the freeway from the Travel Center on the west side of I-5 could develop and cause a significant increase in traffic. Lastly, increased traffic using South

Avenue to travel between State Route 99 and I-5 may also warrant the investment in Phase 2.

Cost-Benefit Analysis of the Fiscalization of Land Use

The study has shown that the Travel Center produces a substantial portion of Corning's sales tax revenue. The study has also discussed the necessity and cost of constructing Phase 1 of the two phase project. To determine if current and future investment in the South Avenue Interchange is economically beneficial, two questions must be answered. During the study period, have commercial vehicle services brought in more tax revenue than it takes to provide infrastructure or did Corning take a gamble, giving away the proverbial family farm (prime I-5 frontage), and now are the citizens paying the price? Secondly, considering long-term future revenue, will the Travel Center require more investment in transportation infrastructure alone, ignoring other negative externalities, than it brings into Corning through increased sales tax and property tax revenue?

The Regional Transportation Improvement Program (RTIP) funds were used to fund Phase 1 of the South Avenue Interchange Project. The RTIP receives funds from the State Fuel Excise Tax of $0.18 per gallon of which 44% goes to the RTIP (California Department of Transportation 2014). The funds are then allocated to regional transportation planning agencies using a formula established in the California Streets & Highways Code §2103 (a)(3)(A)(B) (Caltrans 2014). The regional transportation planning agencies are responsible for planning and financing local transportation projects (Caltrans 2014). The amount of funding allocation varies every two-year cycle but in the

2014 cycle, $2,592,000 was allocated to the Tehama County Transportation Commission to fund local projects (California Department of Transportation 2013a). Using the 2014 RTIP allocation of $2,592,000 to the Tehama County Transportation Commission (TCTC), and assuming future allocations are similar, it would take approximately 7 years to complete the $9,839,498 Interchange project (Table 12).

Table 12. Cost of Phase 1 South Avenue interchange project

South Avenue Phase 1 Project Costs			
Project Stage	Date Completed	Cost	% per Stage
Environmental Documents	2005-06	$534,676	5.43%
Plans, Specs & Engineering	2007-08	$1,730,819	17.59%
Right-of-Way Support		$400,000	4.07%
Right-of-Way Capital	2011-12	$1,505,000	15.30%
Construction Support		$886,507	9.01%
Construction Capital	5/24/2010	$4,782,496	48.61%
Total		**$9,839,498**	**100.00%**

Source: California Department of Transportation. 2013. *STIP Final Progress Report: South Avenue*, by Steve Rogers. Redding, CA: California Department of Transportation.

Despite the large price tag of the Interchange, the return on investment of RTIP funds is rather fast. Using a 1.45% future growth rate of Bradley-Burns sales tax to project future tax revenue Corning receives, it would take 6.4 years to fund Phase 1. The 6.4 years is almost equal to the 7 years it took to accumulate sufficient RTIP dollars to fund Phase 1. In comparison, if it were possible to use all future property tax revenue generated from the Travel Center to fund transportation improvements, instead of dispersing the revenue to various agencies, it would take 23.8 years to fund Phase 1. Lastly, using the total tax benefits to Tehama County, which includes property taxes, 1% Bradley-Burns sales tax and the .25% LTF generated from the Travel Center, the payback

period for Phase 1 would be 4.2 years. The benefits to Corning and the County outweigh the costs as the $10 million dollar investment should accommodate traffic for many years to come. Additional development will increase traffic at the Interchange. However, if the current Interchange configuration reaches capacity due to increased usage by travelers and truckers, additional sales taxes will be generated thus benefiting Corning and the region. If congestion occurs again at the Interchange, Phase 2 of the South Avenue Interchange Project would need to be constructed at an estimated cost of $14 million. Caltrans projected that Phase 1, which was completed in 2009, would accommodate traffic growth for the next 10 years.

Fiscal Zoning

Despite the known negative impacts of commercial vehicles, Corning has maintained an environment at South Avenue which encourages the growth of commercial vehicle services. Since the area that contains the Travel Center was annexed in 1979 (Local Agency Formation Commission 1979), it has been zoned to allow for development of commercial vehicle services. (Appendix B). Corning's General Plan maintains the commercial designation which provides flexibility for commercial vehicle services. This may not seem like a real incentive to attract commercial vehicle services, but according to David McClure, Director of Marketing for Petro, it is almost impossible to find 40 acres of open land near a highway interchange, let alone getting it zoned for a truck stop (Matthews 2007).

The 1994 General Plan update identified the Highway 99W Corridor as an area of potential growth (City of Corning Planning Department 1997). To further guide development of valuable open commercial land, Corning completed a Highway 99W

Corridor Specific Plan (1997). The purpose of the plan is to direct all aspects of future development including land use, location and size of infrastructure, methods of financing public improvements and standards of development. More importantly, Corning realized that land along the 99W Corridor that parallels I-5 was valuable to "capture freeway travelers" and meet the City's employment needs (City of Corning Planning Department 1997). The land around the South Avenue Interchange is designated CH-Highway Service Commercial District Zoning Classification. The designation expressly states that "proposed projects should cater to the services required by freeway travelers, such as, service stations, restaurants, motels, and convenience stores" (City of Corning Planning Department 1997, 3-4). This designation allows many of the truck related services to locate there. Favorable zoning and synergy created by the three large truck stops has attracted many other businesses to the Travel Center.

Coning has fiscalized the I-5 freeway frontage for economic benefit. A spatial analysis of the top 25 revenue generating businesses in the City of Corning shows that Corning has utilized I-5 frontage to maximize tax revenue. Fifteen of the City of Corning's top 25 sales tax generators are within a quarter of a mile of I-5. The Travel Center plays a role in this as the Travel Center contains seven out of the top 25 revenue generating businesses in the City (HdL Companies 2012). The businesses within the Travel Center are successful at attracting a portion of the traffic that passes by on I-5 each day.

Through the fiscalization of land use this research has shown that Corning has been able to create a retail based economy that produces significantly more sales tax revenue that other northern California cities and many cities statewide. The willingness

of Corning's administrators to annex the land by the South Avenue Interchange, provide the infrastructure and encourage the development of commercial vehicle related services created the Travel Center. The sales tax revenue generated from the Travel Center provides funding for many essential government series with the least amount coming from the pockets of local residents (Hamilton 1975). As the 99W Corridor Specific Plan (1997) states and the Public Policy Institute of California (1999) found when it surveyed city managers of California, future land use decisions will largely be based on the amount of sales tax revenues it generates, especially by the Travel Center. However, as seen during the study period, sales tax revenue based heavily on fuel sales will fluctuate with the price of fuel which necessitates cautious budgeting of sales tax revenues.

Property tax revenue from the Travel Center is significantly more stable and will steadily increase as property assessments increase 2% per year, property is sold and development occurs in the Travel Center. The local schools and the County's General Fund receive a large portion of the property taxes, thus the Travel Center benefits the region. The generation of property tax will have little impact on Corning's budget or land use decisions going forward due to the minimal amount that is returned to the City.

The investment of RTIP funds to construct Phase 1 and increase the capacity of the South Avenue Interchange was needed due to the successful development of the Travel Center and will enable the Travel Center to continue to grow. The growth of the Travel Center will increase sales tax revenue for Corning, transit funding, property taxes and provide more jobs. However, continued growth will necessitate Phase 2 of the South Avenue Interchange Project which will require additional investment in transportation infrastructure. As this analysis has shown, the benefits to Corning and the region

outweigh the nearly $10 million cost of Phase 1. Does this also justify the potential investment of $14 million to construct Phase 2?

CHAPTER V

CONCLUSION

The Travel Center fulfills a vital transportation need. This is evidenced by the fact that during I-5 closures or during peak trucking season, the 675 parking spaces are at full capacity. Since the Travel Center serves regional traffic, regional transportation funds were used to improve the deficient Interchange. The large investment of $24 million needed for Phases 1 and 2 of the South Avenue Interchange Project pulls transportation dollars away from other regional projects within Tehama County. However, after measuring the magnitude of the economic benefits the Travel Center generates, it is unlikely that competing investments in transportation infrastructure elsewhere in Tehama County could generate comparable economic benefits.

The City of Corning has benefited greatly from the annexation of the Travel Center in 1979 and subsequent land use designation that has allowed a prosperous commercial district to develop. The sales tax revenue, property tax revenue and jobs created benefit the City and County. The biggest winners from sales tax generation are the City of Corning followed by the regional transit system (TRAX) and the jurisdictions that receive Local Transportation Funds (LTF) for road maintenance. The property tax revenue benefit the Tehama County General Fund and school funding as seven of the top ten recipients of property tax revenue are school funds (Appendix D). It is fitting that the jurisdiction that benefits the most (City of Corning) has the responsibility to maintain the

infrastructure to accommodate the Travel Center while other agencies receive the benefits with little effort.

These RTIP funds are passed down from the State to regional transportation planning agencies to allocate to projects that address local infrastructure issues caused by regional traffic. To alleviate congestion at the South Avenue Interchange, regional transportation funds were allocated to Phase 1 of the project. The RTIP funds are scarce as there are many needs throughout the County to rehabilitate roads, replace bridges and increase safety of the roadway. The investment of nearly $10 million in RTIP funds was a big sacrifice for the other cities and the County. The project required significant time and effort from the City of Corning staff, but no tax revenue or development fees from the Travel Center were used to fund Phase 1 of the Interchange Project. Not contributing financially to Phase 1 increased the benefits of the Travel Center for Corning since the tax revenue from the Travel Center can be used to bolster the general fund or pay for other transportation infrastructure projects that benefit residents.

The RTIP funded 100% of Phase 1 of the project, but Phase 2 is estimated to cost considerably more at $14 million (four million more than Phase 1). Consequently, it is unlikely that there will be sufficient regional transportation funds to fully fund Phase 2. If Corning is required to contribute a portion of Phase 2 project costs, it would impact the Travel Center's short term benefits to Corning. Since it is unknown when Phase 2 will be needed, Corning has time to come up with a funding strategy. Strategies to fund the Phase II improvements include implementing a citywide .25%-.5% sales tax, forming a special assessment district or charging increased impact fees to new development. Each

strategy and challenges and consequences of implementing each of them will be discussed.

The Travel Center provides Corning with options to fund improvements to the South Avenue Interchange. Many other California cities and counties have passed sales tax measures that increase the sales tax rate by .25-.5%. In Corning, a .25% increase sales tax would generate approximately $670,000 a year for transportation projects. Another idea would be to form a special assessment district which would charge an annual assessment to each parcel. The assessment must be designed specifically for a service or project that will benefit the property owners. This may impact less profitable businesses and slow the growth of the Travel Center. The assessment district would also need the support of property owners to be formed.

If voters refuse to increase the sales tax and property owners do not support a special assessment district, Corning may have to sacrifice sales tax revenue. With $1.5 million in Bradley-Burns sales tax generated yearly from the Travel Center, Corning could save 25% or $375,000 and expend the remaining 75% ($1,125,000) on City services. Ten years after the completion of Phase 1 in 2009, increased traffic will likely necessitate Phase 2 of the South Avenue Interchange Project. A contribution of $3,750,000 from Corning would likely be sufficient to attract additional regional, state or federal funds to fully fund the $14 million project.

Another option is to increase the assessment of impact fees charged to new development. To implement the impact fees, a study would be needed to provide justification for the fees. Currently, the impact fees collected by Corning are used for public infrastructure such as water, sewer, and local roadways. Current impact fees do not

take into account the estimated $14 million that would be needed for Phase 2. If Corning increased impact fees on new development within the Travel Center to account for the future investment of $14 million, little development would occur. The last businesses to develop should not have to pay the portion of the impact fees that all businesses that built in the Travel Center could have been paying all along. Until the need for Phase 2 materializes due to increased traffic, the residents of Corning will enjoy enhanced public services such trails, sidewalks, attractive downtown streetscape and well maintained transportation infrastructure, while only paying the marginal cost of the services they demand (Hamilton 1975, Jacob and Parano 2010, Lewis 2001, Schwartz 1997).

The Travel Center has generated $17.5 million total in Bradley-Burns, LTF and property taxes during the twelve-year study period. This is a significant amount of tax revenue for Corning and jurisdictions that receive a portion of them. Additional benefits that were not able to be quantified in this study include the 389 jobs and the multiplier effect of money brought into the County. The $17.5 million alone is sufficient to justify the investment in Phase 1 of the South Avenue Interchange Project and is evidence that Corning has wisely utilized open land and the South Avenue Interchange to benefit the region. Phase 2 will greatly expand capacity of the Interchange and allow for more growth for many years to come. Even if Phase 2 only induces minimal growth of the Travel Center, the current benefits of sales tax and property tax generation and bringing outside dollars into the region justify the cost.

Can investment in transportation infrastructure increase sales tax revenue by creating a travel center? The answer is yes, but purposely investing transportation dollars with the goal of creating tax revenue could be considered the “fiscalization of

transportation planning." The use of regional transportation dollars to implement the "fiscalization of transportation planning" would not be possible without cooperation from the local jurisdiction to have the proper land use designations in place, which is called the fiscalization of land use. Together these two tools can induce growth, provide jobs and generate sales tax which improves the economic wellbeing of an entire region.

REFERENCES

REFERENCES

Auditor-Controller. 2010. *Tehama County Budget, 2009-10*. Red Bluff, CA: Tehama County Auditor-Controller Office.

Auditor-Controller. 2012. *County of Tehama Final Budget, 2011-12*. Red Bluff, CA: Tehama County Auditor-Controller Office.

Beasley, Lacy. 2013. "Cities Hungrier Than Ever for Retail Development." *Shopping Centers Today* 18, no. 11.

Bell, Greg. 2007. "Sales Tax and Land Use: Are Cities Being 'Driven to the Mall?' " *Hinckley Journal of Politics,* Vol. 8.

Benda, David. 2010. "Helser Chevrolet Closing." *Record Searchlight,* August 2. Accessed January 9, 2012. http://www.redding.com/news/2010/aug/02/helser-chevrolet-closing/.

Benda, David. 2009. "Redding's Walmart Supercenter Will Open Next week." *Record Searchlight*, November 14. Accessed January 9, 2012. http://www.redding.com/news/walmarts-redding-supercenter-will-open-next-week.

———.2009a. "Red Bluff Ford Closes Down." *Record Searchlight*, April 25. Accessed January 9, 2012. http://www.redding.com/news/2009/apr/25/red-bluff-ford-closes-down/.

California Department of Finance. 2011. "E-1 Population Estimates for Cities, Counties and the State with Annual Percentage Change—January 1, 2010 and 2011." Sacramento, CA. Accessed July 8, 2011. http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php.

California Department of Transportation. Division of Mass Transportation. 2013. "Transportation Development Act." Sacramento, CA. Accessed March 9, 2014. http://www.dot.ca.gov/hq/MassTrans/Docs-Pdfs/STIP/TDA_4-17-2013.pdf.

California Department of Transportation District 2. 2005. *South Avenue/I-5 Interchange Reconstruction Project Report.* Redding, CA: California Department of Transportation District 2.

———. 2008. "Interstate 5 Transportation Concept Report. Redding, CA." Accessed February 23, 2012. http://www.dot.ca.gov/dist2/planning/conceptrpts.htm.

California Department of Transportation. 2013. *STIP Final Progress Report: South Avenue*, by Steve Rogers. Redding, CA: California Department of Transportation.

———. Economic Analysis Branch, Division of Transportation Planning 2014. "Transportation funding in California 2014." Sacramento, CA. Accessed November 28, 2014. http://www.dot.ca.gov/hq/tpp/offices/eab/fundchrt_files/Transportation_Funding_in_CA_2014.pdf.

California Energy Commission. 2012. "Historical yearly average of California gasoline prices per gallon 1970 to 2012." Accessed October 12, 2012. http://energyalmanac.ca.gov/gasoline/gasoline_cpi_adjusted.html.

California Legislative Analyst's Office. 2004. "Proposition 57 the economic recovery bond act." Accessed October 2, 2013. http://www.lao.ca.gov/ballot/2004/57_03_2004.htm.

———. 2007. "Issues and options: allocating local sales taxes." Accessed April 20, 2012. http://www.lao.ca.gov/2007/sales_tax/sales_tax_012407.pdf.

California Local Government Finance Almanac. 2013. "Local sales and use tax per resident." Accessed February 6, 2014. http://californiacityfinance.com/index.php#SALESTAX.

California State Board of Equalization. 2009. "California property tax: an overview, Pub. 29. Sacramento." Accessed August 10, 2012. http://www.scribd.com/doc/81474141/California-Board-of-Equalization-BoE-Publication-California-Property-Taxes.

———. 2011. "Detailed description of the sales & use tax rate." Accessed October 4, 2011. http://www.boe.ca.gov/news/sp111500att.htm.

———. 2013a. "Local tax allocations." Accessed September 19, 2013. http://www.boe.ca.gov/legdiv/localTaxAllocations.htm.

———. 2013b. "Fuel taxes statistics & reports." http://www.boe.ca.gov/sptaxprog/spftrpts.htm. Accessed October 8, 2013.

California Tax Service Center. 2013. "What is taxable?" Accessed March 26, 2014. http://www.taxes.ca.gov/Sales_and_Use_Tax/WhatsTaxable.shtml.

California Vehicle Code Section 35550-35558. 2014. Accessed February 12, 2014. http://www.leginfo.ca.gov/cgi-bin/displaycode?section=veh&group=35001-36000&file=35550-35558.

City-Data. 2014. *Corning, California*. Accessed August 2, 2014. http://www.city-data.com/city/Corning-California.html

City of Corning. 1994. *Corning General Plan*. Corning, CA: City of Corning.

———. 2011. *City of Corning Planning Commission Agenda*, January 18. Corning, CA: City of Corning.

City of Corning Building Department. 2012. *Date of Construction*. Corning, CA: City of Corning Building Department.

City of Corning Planning Department. 1997. *Highway 99W Corridor Specific Plan*. Corning, CA: City of Corning Planning Department.

Fernandez, Manny. 2006. "A Study Links Trucks' Exhaust to Bronx Schoolchildren's Asthma." *New York Times*, Region ed. October 29. Accessed March 22, 2013. http://www.nytimes.com/2006/10/29/nyregion/29asthma.html?pagewanted=all.

Gottlieb, Paul D. 2006. "State Aid Formulas and the Local Incentive to Chase (or Shun) Ratables." *Urban Studies* 43, no. 7:16.

Hamilton, Bruce W. 1975. "Zoning and Property Taxation in a System of Local Governments." *Urban Studies* 12, no. 2: 205-211.

Hansen, Adam L. 2012. *Informal Phone and Walking Survey*, conducted July 2012.

HdL Companies. 2012. "About HdL." Accessed September 20, 2012. https://www.hdlcompanies.com/index.aspx?page=2.

Heavy Duty Trucking. 2014. "How to Improve Fuel Efficiently on the Road." Accessed November 23, 2014. http://www.truckinginfo.com/channel/drivers/article/story/2013/06/how-to-improve-fuel-efficiency-on-the-road.aspx.

Hendrick, Rebecca, Wu Yonghong, and Benoy Jacob. 2007. "Tax Competition Among Municipal Governments: Exit Versus Voice." *Urban Affairs Review* 43, no. 2: 221-55.

Isidore, Chris. 2008. "It's Official: Recession Since December '07." Accessed August 2, 2013. http://money.cnn.com/2008/12/01/news/economy/recession/index.htm.

Jacob, Benoy and Michael A. Parano. 2010. "Border Wars: Do Taxes influence Land-use Decisions across State Boundaries? Claremont Graduate University, School of Politics and Economics. Claremont, CA." Accessed August 24, 2012. http://collinsinstitute.fsu.edu/sites/collinsinstitute.fsu.edu/files/FINAL%20PAPER-JACOB.pdf.

Kotin, Allan, and Richard Peiser. 1997. "Public-Private Joint Ventures for High Volume Retailers: Who Benefits?" *Urban Studies (Routledge)* 34, no. 12: 1, 971.

Lawson, John. 2007. "The Environmental Footprint of Surface Freight Transportation." Lawson Economics Research, Inc., Ottawa, Canada. Accessed March 23, 2012. http://onlinepubs.trb.org/onlinepubs/sr/sr291_lawson.pdf

Lewis, Paul G. 2001. "Retail Politics: Local Sales Taxes and the Fiscalization of Land Use." *Economic Development Quarterly* 15, no. 1: 21.

Local Agency Formation Commission. 1979. *Petition No. 5-1979*. Corning, CA: Local Agency Formation Commission.

Matthews, Robert Guy. 2007. "Rigs Keep on Trucking, Searching for Parking." *The Wall Street Journal*. Accessed October 9, 2012. http://online.wsj.com/articles/SB117798627241187730.

Misczynski, Dean. 1986. "The Fiscalization of Land Use." *California Policy Choices,* no. 3: 127-150.

O'Sullivan, Arthur, Terri A. Sexton, and Steven M. Sheffrin. 1994. "Differential Burdens from the Assessment Provisions of Proposition 13." *National Tax Journal* 47, no. 4: 721-29.

Public Policy Institute of California. 1999. *California Cities and the Local Sales Tax*. San Francisco, CA: Public Policy Institute of California.

Reinhart, Carmen and Kenneth Rogoff. 2008. "Is the 2007 U.S. Sub-prime Financial Crisis So Different?" An International Historical Comparison. National Bureau of Economic Research, University of Maryland. Accessed November 18, 2012. http://www.nber.org/papers/w13761.pdf .

Schwartz, J. 1997. "Prisoners of Proposition 13: Sales Taxes, Property Taxes, and the Fiscalization of Municipal Land Use Decisions." *Southern California Law Review* 71: 183-217.

Shigley, Paul. 2005. "Sales Tax Law Blocks Development Incentives." *California Planning & Development Report* 20, no. 02.

Smart Transportation Initiative. 2012. "Motor Vehicle Demand Continues Long-term Downward Trend in 2011". http://www.ssti.us/2012/02/motor-vehicle-travel-demand-continues-long-term-downward-trend-in-2011/. Accessed April 12, 2012.

Stroshane, Tim. 2004. "Scenes From the Ongoing Tax Revolt." *Spillway-California Land, Water, and People* 3, no. 2. Accessed August 24, 2012. http://www.spillwaynews.net/BackIssues/v3n2/Spilv3n2.pdf.

Tehama County Assessor's Office. 2012. *Historical Picture of J&W Cafe*. Red Bluff, CA: Tehama County Assessor's Office.

Tehama County Department of Public Works. 2012. *Chart of LTF Distributed to Cities and County*, by Mark Moses. Gerber, CA.

Tehama County Economic Development Center 2012. "Tehama County Employers: Public and Private." Accessed July 23, 2012. http://tehamaedc.com/WorkforceLabor/MajorEmployers/tabid/76/Default.aspx

Tehama County Public Works. 2012. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

———. 2014. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

Temple, Judy. 1996. "Community Composition and Voter Support for Tax Limitations: Evidence from Home-rule Elections." *Southern Economic Journal* 62, no. 4: 1002-16.

U.S. Department of Transportation. Federal Highways Administration. 2013. "Travel Monitoring and Traffic Volume." Accessed February 9, 2013. http://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm

Wassmer, Robert W. 2002. "Fiscalization of Land Use, Urban Growth Boundaries and Non-central Retail Sprawl in the Western United States." *Urban Studies (Routledge)* 39, no. 8: 1307-27.

Wilson, John Douglas. 1999. "Theories of Tax Competition." *National Tax Journal* 52, no. 2: 35.

APPENDIX A

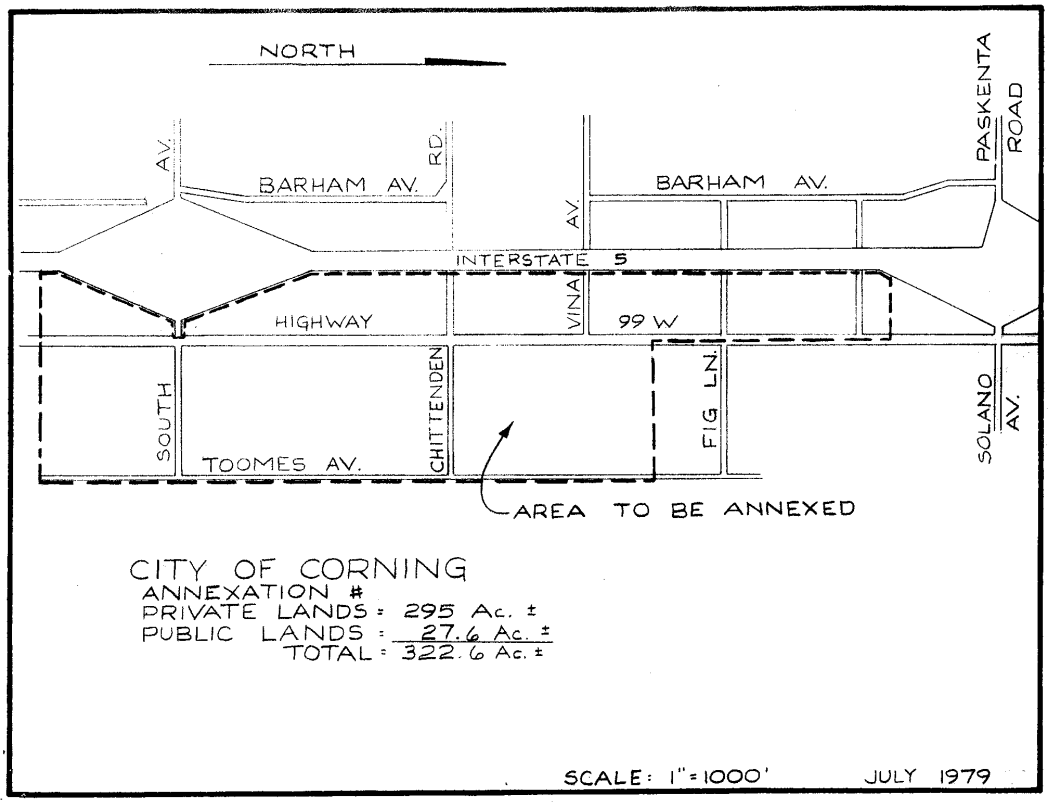
Parcels in Study Area

	Business Name	**APN**
1	Flying J- Loves	087-050-39-1
2	Flying J- Loves	087-050-69-1
3	Flying J- Loves	087-050-70-1
4	Flying J- Loves	087-050-36-1
5	Flying J- Loves	087-050-40-1
6	TA Travel Center	087-090-41-1
7	TA Travel Center	087-090-42-1
8	TA Travel Center	087-090-13-1
9	Days Inn	087-100-59-1
10	Speedco Inc.	087-100-79-1
11	AAA Truck Wash Tire & Lube	087-100-80-1
12	PETRO Stopping Center	087-100-81-1
13	PETRO Stopping Center	087-100-43-1
14	Petro	087-100-03-1
15	Liquor Cabinet	087-040-58-1
16	Jack in the Box	087-040-64-1
17	Glassblowers	087-050-35-1
18	Inn of California	087-040-42-1
19	Royal Truck Wash Tire & Lube	087-040-62-1
20	High 5 Roadhouse	087-040-57-1
21	Holiday Inn Express	087-090-62-1
22	McDonalds	087-090-61-1
23	Ace Hardware	087-050-65-1
24	Ace Hardware	087-050-66-1

Source: Tehama County Public Works. 2012. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

APPENDIX B

South Annexation Map

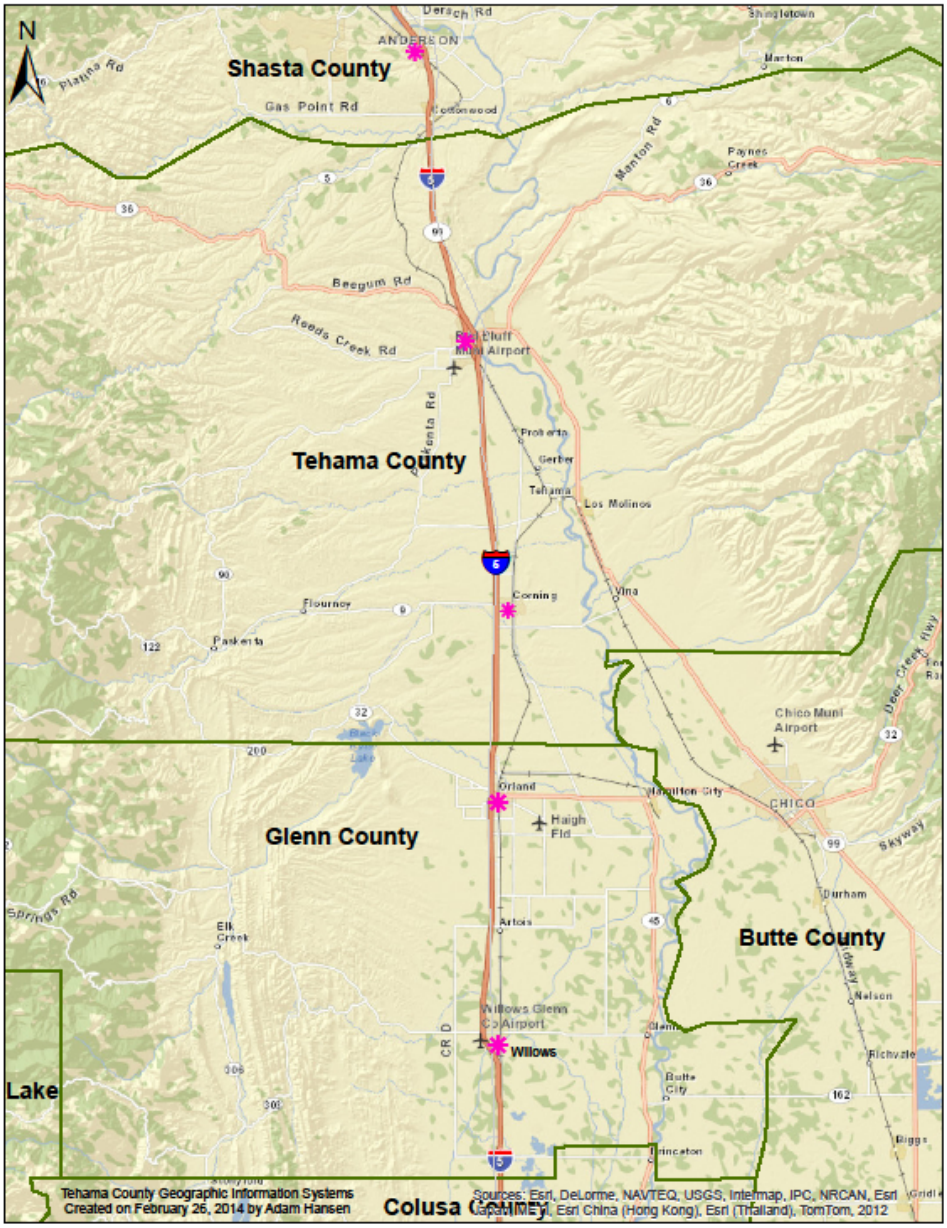


BOOK 795 PAGE 547

Source: Local Agency Formation Commission. 1979. *Petition No. 5-1979*. Corning, CA: Local Agency Formation Commission.

APPENDIX C

Cities Included in Comparison Study of Sales Tax per Capita



Source: Tehama County Public Works. 2014. *Tehama County GIS Data*. Red Bluff, CA: Tehama County Public Works.

APPENDIX D

Allocation of Property Taxes

Jurisdiction	FY 2011-12	2000-2012 Totals
County General Fund	$75,509.22	$675,983.69
Education Revenue Augmentation	$68,335.67	$611,763.56
Red Bluff High School	$48,578.23	$434,888.40
Red Bluff Elementary School	$25,948.06	$232,295.61
Junior College	$24,242.79	$217,029.47
Fire	$23,578.48	$211,082.40
Corning High School	$17,138.50	$153,429.54
Corning Elementary School	$16,509.25	$147,796.29
Department Of Education	$12,705.93	$113,747.70
Evergreen Elementary School	$12,167.32	$108,925.87
City Of Red Bluff	$11,911.10	$106,632.15
Los Molinos Unified	$8,942.49	$80,056.16
Special Education	$8,925.17	$79,901.09
Antelope Elementary School	$7,528.08	$67,393.88
Junior College Bond	$6,526.19	$58,424.64
Lassen View Elementary School	$4,938.96	$44,215.18
City Of Corning	$4,483.33	$40,136.27
Earthquake & Elementary Bonds	$4,310.51	$38,589.09
Gerber Elementary School	$4,091.36	$36,627.19
Tehama County Vector Control	$2,959.75	$26,496.66
Corning Healthcare District	$2,335.73	$20,910.24
Richfield Elementary School	$2,315.19	$20,726.33
Red Bluff Cemetery	$2,110.54	$18,894.24
Reeds Creek Elementary School	$1,818.07	$16,275.94
Bend Elementary School	$1,798.33	$16,099.23
R. O. P.	$1,563.06	$13,993.06
Corning Cemetery	$1,202.11	$10,761.69
T. C. Flood Control	$1,052.25	$9,420.08
Capay Elementary School	$918.10	$8,219.12
Rio Alto Water	$905.61	$8,107.33

Jurisdiction	FY 2011-12	2000-2012 Totals
Mineral Elementary School	$801.27	$7,173.23
Juvenile Hall Education	$765.42	$6,852.27
T. C. Flood Control Zone 3	$715.87	$6,408.67
Kirkwood Elementary School	$524.92	$4,699.22
Flournoy Elementary School	$517.66	$4,634.30
Plum Valley Elementary School	$475.77	$4,259.25
Manton Elementary School	$433.87	$3,884.15
Rio Alto Special Improvements	$429.44	$3,844.48
Gerber/L. F. Comm. Svc. Munici	$394.39	$3,530.72
Orland High School	$393.18	$3,519.90
Capay Fire	$374.25	$3,350.40
Elkins Elementary School	$373.44	$3,343.18
Los Molinos Cemetery	$369.82	$3,310.72
Lemon Home (Orland Elem)	$311.40	$2,787.80
A.C.I.D.	$287.64	$2,575.00
Tehama Cemetery	$208.68	$1,868.15
Glenn County Special Education	$201.02	$1,799.62
City Tehama	$165.57	$1,482.26
Orland Cemetery	$111.19	$995.38
Paskenta Cemetery	$107.96	$966.52
Los Molinos Lighting	$102.32	$916.05
Manton Cemetery	$101.92	$912.44
Gerber/L. F. Comm. Svc. Las Flores	$45.12	$403.93
Corning Water District	$35.05	$313.77
Vina Cemetery	$29.81	$266.90
Deer Creek Irrigation District	$29.41	$263.28
Kirkwood Cemetery	$29.41	$263.28
Paskenta Community Svc.	$2.82	$25.24
Totals	**$413,688.00**	**$3,703,472.21**

Source: Auditor-Controller. 2012. *County of Tehama Final Budget, 2011-12*. Red Bluff, CA: Tehama County Auditor-Controller Office.