NEW ECONOMICS & ADVISORY®

LAND USE ANALYSIS & STRATEGIES

North State Building Industry Foundation: Research Paper

EXECUTIVE SUMMARY

Prepared by New Economics & Advisory

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1 Executive Summary

1 Introduction and Purpose of Research Study

The North State Building Industry Foundation (NSBIF) commissioned this Research Study (Research Study), which analyzes the impacts of the new residential homebuilding industry (New Residential Industry) within the Sacramento Region. The Research Study effort includes three broad components:

1. It studies the role of the New Residential Industry within the Sacramento Region Economy, including the number of jobs, annual wages, and ripple effect on jobs in other industries.
2. It evaluates the ways in which the New Residential Industry helps the Region to achieve its economic growth objectives.
3. It analyzes the financial impact on local jurisdictions' general fund revenues, compared to new non-residential development, focusing on property and sales tax.

The Research Study applies, in many cases, new approaches, methodologies, and/or data sources that have not been widely utilized in other land-use studies. Some portions of the analysis produce a series of new questions and identify areas for future additional study. This Research Study, therefore, may lead to other new ways of thinking about and analyzing the role of the New Residential Industry within Sacramento's Regional economy.

2 Purpose & Goals of Research Study

Goals

This Research Study, funded by the North State Building Industry Foundation (NSBIF) and California Homebuilding Foundation (CHF), was framed by three important goals:

- **Goal #1: Focus on the Sacramento Region.** This Research Study aims to analyze the impact of the New Residential Industry on the Sacramento Region to establish and document insights that are relevant to local cities and counties. The Research Study analyzes the 6-county Sacramento Region (El Dorado County, Placer County, Sacramento County, Sutter County, Yolo County, and Yuba County and their respective cities) as much as possible. In some instances, data was only available for the Sacramento Metropolitan Statistical Area (Sacramento MSA)-- which includes El Dorado County, Placer County, Sacramento County, and Yolo County—or an even smaller case-study area.
- **Goal #2: Analyze the New Residential Industry as a whole.** Existing publicly available job count estimates for the New Residential Industry provide only a "partial" picture of the jobs supported by the New Residential Industry within the Sacramento Region. Commonly used data sources are based on job counts collected from businesses, whose services may apply to a variety of industries or even sub-

industries. Companies associated with New Residential Industry activities could also engage in commercial building as well as remodeling of residential and/or commercial uses. This Research Study seeks to estimate the number of jobs in the Sacramento Region that are uniquely associated with the New Residential Industry specifically.

- **Goal #3: Maintain Objectivity.** This Research Study was commissioned by the NSBIF, a non-profit organization focused on charitable and education purposes. A variety of research efforts were pursued and the Research Study publishes all of the results, even if they are not favorable to the New Residential Industry. Further, this Research Study underwent external peer review by economic development/finance experts, whose feedback and insights on the research have been integrated into the final report.

3 Role of the New Residential Industry in the Regional Economy

Research Goal: Characterize the role of the New Residential Industry within the Sacramento Region Economy.

- Identify the number of jobs associated with this industry.
- Analyze wages within Industry occupations.
- Evaluate the multiplier effect on jobs in other industries.

3.1 Jobs Estimate

New Economics undertook a Jobs Estimate to establish the scale of jobs, including direct, indirect, and induced jobs associated with the New Residential Industry within the Sacramento MSA over time, accounting for the peaks and troughs of real estate and larger economic cycles.

The direct application of existing industry jobs data provides only a partial "picture" of the jobs supported by the New Residential Industry and present some inherent challenges. While the New Residential Industry includes a diverse array of specialists and supporting jobs (such as real estate agents, engineers, architects, etc.) that cannot be easily attributed to one industry.

Building upon existing data available through public sources, New Economics created three (3) separate approaches to estimate the scale of all jobs associated with the New Residential Industry within the Sacramento MSA over time. These three approaches utilize unique data sources and analytical techniques to provide a reasonable range of results. **Figure 1.1** highlights the results of the Jobs Estimate.

- **Finding 3.1a: The Sacramento MSA has had an average of about 1.1 million jobs, last peaking in 2007.**

- **Finding 3.1b: The number of total jobs associated with the New Residential Industry has averaged 50,483 between 2000 and 2015, representing approximately five percent of total jobs in the MSA during this timeframe.** These jobs include direct, indirect, and induced jobs.

3.2 Occupational Wage Analysis

The New Residential Industry includes a variety of occupations and associated wages. Using 2014 data, New Economics obtained local wage data for occupations in the Residential Construction Industry. In addition, by applying the statewide distribution of jobs within the Residential Construction Industry [1] to the Sacramento MSA, New Economics estimated the Regional number of jobs associated with each occupation. This data was compared to the mean annual wage for the Sacramento MSA, both for all industries and for a series of selected comparison industries. **Figure 1.2** synthesizes the results of the Occupational Wage Analysis.

- **Finding 3.2a-b: The Sacramento MSA had a mean annual wage for all industries of $52,448 in 2014. Jobs associated with the Residential Construction Industry paid $57,590, which is about 10 percent more than the Sacramento mean annual wage for all industries.**
- **Finding 3.2c: About 70 percent of Residential Construction Industry jobs fall within 6 occupations that pay a mean annual wage of $58,860, which is 12 percent higher than the Sacramento MSA mean annual wage for all industries.** These occupations include carpenters, construction laborers, first-line supervisors/managers of construction trades and extraction workers, secretaries, and general and operations managers.
- **Finding 3.2d: While mean annual wages in some comparison industries are lower (including Retail, Insurance, and Restaurants) than the Residential Construction Industry, wages in other comparison industries are higher (including Hospitals, State government, and Local government education) than the New Residential Industry.**

3.3 Multiplier Effect Analysis

Direct jobs in the New Residential Industry support and sustain jobs in other sectors of the economy in the Sacramento MSA. The Multiplier Effect Analysis evaluates the number of jobs in other industries are supported by the New Residential Industry, and compared this to other industries in the Sacramento MSA.

More specifically, New Economics assessed two sectors (as defined by IMPLAN) that comprise the majority of activity in the homebuilding industry: "Construction of New Single-Family Homes" and "Construction of new Multifamily Residential Structures." These sectors were compared to several other sectors, including State and Local

[1] Wage data was not available for the New Residential Building Industry but rather for the Residential Building Construction sector, which includes both new residential and alterations to existing residential.

Government, Restaurants, Hospitals, Retail, and Insurance Carriers. **Figure 1.3** shows the results of the Multiplier Effect Analysis.

- **Finding 3.3a: When accounting for the full spectrum of direct, indirect, and induced jobs (which include "multiplier" or "spin-off" effects), the home-building industry supports a relatively high number of jobs as compared to many other industries.** For every 100 jobs that exist in the Construction of New Single-Family Residential Structures sector in the Sacramento region, an additional 90 jobs are created in other sectors. The Multifamily Construction sector demonstrates an even higher figure, accounting for 122 additional jobs per 100. These multiplier effects from homebuilding are higher than many other industries that are prevalent in the Sacramento region such as in various retail and government sectors, but lower than some other more "specialized" industries such as hospitals and insurance carriers.

4 Ability for New Residential Development to Help Achieve Regional Growth Objectives

Research Goal: Evaluate how the New Residential Industry helps the Sacramento Region achieve its growth objectives.

- Review the Sacramento Region's growth objectives.
- Synthesize the role of energy efficiency improvements and water conservation in the New Residential Industry.
- Evaluate the role of the New Residential Industry in maintaining the Sacramento Region as an attractive place to live and do business.

The New Residential Industry plays an important role in maintaining the Sacramento Region's image as an attractive place compared to other nearby areas in Northern California and Northern Nevada. The Sacramento Region is expected to grow by 810,634 residents and 439,358 jobs between 2012 and 2035.[2] The ability to achieve this growth will rely upon a number of factors, including the ability to implement key infrastructure improvements, the cultivation of lifestyle amenities, and the ability to successfully retain, grow, and attract businesses to grow and diversify the Region's job base.

[2] SACOG's Draft 2016 Metropolitan Transportation Planning/ Sustainable Communities Strategy (2016 MTP/SCS). Chapter 3: Summary of Growth and Land Use Forecast.

Funding By New Development

Housing growth continues to occur within the context of state planning laws, which require new development to fund its proportionate share of costs so as not to burden existing development with any associated impacts. Specifically, new development funds its proportionate share of the cost for new infrastructure, provides new parkland and facilities, mitigates environmental impacts, dedicates new networks of streets, bicycle paths, and open space, and ensures that the cost of annual public services does not adversely impact local jurisdictions' General Fund Budgets. These contributions ensure that the Region can continue to grow in a manner that maintains and/or enhances the Region's local quality of life. Some researchers maintain that historic patterns of new development have, over time, created more costs than revenues; this issue is addressed later in the Research Study.

Energy Efficiency

California is one of the country's leading states for energy efficiency standards designed to decrease energy usage and greenhouse gas (GHG) emissions. To help meet statewide GHG emission reduction goals, the New Residential Industry continues to place great importance on non-vehicular modes of transportation and build homes that are increasingly energy efficient, set to culminate in "zero net energy" (ZNE) homes by 2020.

New development is also reducing its use of water through the implementation of water-efficient fixtures inside, the inclusion of much more water efficient appliances, and, most importantly, dramatic changes in landscaping. All of these changes are helping the Region reduce its water usage on a per capita basis and overall water usage in the Sacramento Region despite growth in population, households, and businesses.

4.1 Affordability Analysis

The Sacramento Region has often perceived itself as an "affordable alternative" to the Bay Area. Other areas in Northern California and Northern Nevada also present potentially affordable places to live. This Research Study analyzed home sales trends, including the number of sales, sales prices, and household incomes between the Sacramento Region and 7-County Bay Area over a 19-year period. It also studied housing tenure, median home values, homeowner incomes, and monthly housing costs for other nearby MSA's using 2014 snapshot data from the U.S. Census. **Figure 1.4** highlights some of the findings associated with the Affordability Analysis.

- **Finding 4.1a: By continuing to increase the supply of new homes, the New Residential Industry is helping to ensure that the Sacramento Region's cost of housing remains at a level that is relatively affordable as compared to other urban markets (such as the Bay Area). In addition, by assisting with the provision of infrastructure and civic amenities that enhance the Region's "quality of life" fabric (such as parks, air quality, transportation options, etc.), the New Residential Industry helps to set the stage for economic growth in the Sacramento Region.** These efforts have helped the Region to maintain its attractiveness in a variety of ways, and, coupled with more robust job growth and improvements and other economic development factors, the Sacramento Region can continue to work towards its economic growth objectives.

- **Finding 4.1b: The Sacramento Region, often characterized as an affordable alternative to the Bay Area, is continuing to provide more new housing than the 7-County Bay Area.** The Sacramento Region has sold about 11 percent more *new* single-family homes each year than the Bay Area over the last 19 years.
- **Finding 4.1c: Sacramento continues to be a relatively affordable place to live compared to the 7-County Bay Area.** Sacramento's single-family home prices have been about 50-60 percent of the Bay Area, while Sacramento incomes have been about 74 percent of the Bay Area. As a result, home prices in the Bay Area are about 3.61 times the amount of annual income, while home prices in the Sacramento Region are only 2.43 times annual income. In 2016, the median price of a Bay Area home was more than double the price of the Sacramento Region's median home price (as shown in **Figure 1.4**).
- **Finding 4.1d: A snapshot comparison of additional MSAs near the Sacramento Region indicates that Sacramento achieves relatively high homeownership rates, even though its home prices and housing costs are higher than many other nearby areas.** This homeownership rate is likely supported by a complex interrelationship of factors that includes affordability but also income/wages, job growth and mobility, education, lifestyle amenities, etc.

5: Local Revenue Generation

Research Goal: Compare the revenue impacts to local cities and counties of new residential to new retail development.

- Estimate the scale of property tax revenues created by new residential versus other new development.
- Evaluate sales tax revenue trends influenced by retail centers, e-commerce, and/or residential development.

Since the passage of Proposition 13 in 1978, local revenue sources for cities and counties have been greatly constrained. New development provides an opportunity for local jurisdictions to expand the discretionary revenue base within their General Fund, which mostly contains revenues that can be used for any legitimate public purpose and in the amounts or proportions deemed appropriate. This Research Study focuses on two primary sources of General Fund revenues that constitute the largest sources of discretionary revenue for cities and/or counties: property tax revenue and sales tax revenue. These revenues are used to fund police, fire, parks, and other public services.

The analysis of these revenue sources reflects only a portion of the fiscal implications of development. When new development occurs, local jurisdictions must also provide public services, such as police and fire, recreation, and maintenance of roads, parks, and other public facilities. Some researchers focused on urban economics have found that historic development patterns have contributed to the strain on local General Funds, as costs to maintain communities have not kept pace with revenue sources. However, changes in state laws that significantly limit the ability to make commensurate increases in revenues also play a major role in this economic reality, affect development that existed prior to the arrival of suburban development, and will continue to pose a challenge for all new development, including infill and smart growth.

5.1 Trends in New Assessed Value (AV)

New Economics collected new building permit and associated AV data from the California Homebuilding Foundation (CHF) in the Sacramento Region for 2000-2016. The "new" AV's exclude any alterations to existing buildings as well as new public buildings that would not have required a local building permit (such as State buildings).

- **Finding 5.1a: The volume of new annual Residential AV in the Sacramento Region greatly exceeds new annual Non-Residential AV.** Over the period of 2000-2016, new residential AV ranged from $636 million to $4.9 billion annually, while new non-residential AV ranged from $203 million to $1.1 billion. New residential AV accounted for about 78% of total new AV each year during this 16-year period.
- **Finding 5.1b: New residential and new Non-Residential AV volumes appear to follow similar cyclical trends.** This pattern may suggest that there is a correlation between the scale of new residential and new non-residential-- for example, perhaps a certain amount of new residential development is needed to support new Non-Residential development. Further study would be needed to analyze the nature of this potential correlation.

5.2 Per-Acre Property Tax Revenues

Most privately held real estate property in California is subject to a one percent General Property Tax Levy (One Percent Levy), as well as any other locally approved additional taxes or assessments. The One Percent Levy rate is applied to the AV of the property to produce the amount of property tax per parcel. Over time the base year AV increases by up to two percent each year and is re-set each time the property is sold.

The Property Tax Revenue Analysis seeks to identify long-term property tax revenues generated by residential versus retail development. Based on consultation with a group of master plan developers long active in the Sacramento Region, this analysis identified a series of case-study developments in Sacramento County. Using Zillow and Sacramento County Assessor data, New Economics identified and analyzed property tax revenues for four New Study Areas (retail and residential built in the early 2000's) and five Established Study Areas (retail and residential built in the 1950's, 1960's, 1970's, 1980's, and 1990's). Each Study Area contains a retail and residential component developed during the same era and comprises a similar number of acres—for example, a Study Area might include 15 acres of retail and 15 acres of residential development. **Figures 1.5a-b** highlight some of the findings associated with the Property Tax Analysis.

- **Finding 5.2a: Case study analysis of established development areas suggests that residential and retail property tax revenues have remained relatively close in value per acre and appear to be growing at a similar rate.** The amount of property tax revenue generated by retail and residential in Established Study Areas has been growing at about 1.80-2.00 percent annually and generate very similar revenues of about $14,000-$15,000 per acre. While these Study Areas are located in Sacramento County only, they include areas within incorporated cities and unincorporated areas; as such, this Research Study presumes that the conclusions reached from Sacramento County-based data can be applied to the Sacramento Region as a whole.
- **Finding 5.2b: Case study analysis of new development areas indicates that, initially, retail development may generate much higher revenues; however, over time, it appears that retail revenues decrease while residential revenues increase.** New Study Areas suggested that in 2009/10 new retail development produced per-acre property tax revenues that were 1.72 times residential revenues. By 2015/16, though, per-acre retail revenues had fallen, to only 1.36 times residential revenues. In light of the similarity of per-acre retail and residential revenues in Established Study Areas, these changes suggest that new retail and new residential per-acre property tax revenues will likely converge over time.
- **Finding 5.2c: These results could be enhanced to refine and/or validate this case-study analysis.** Integration of multifamily development data, analysis of a longer timeframe for Established Study Areas, and/or inclusion of data from other areas within the Region could refine this analysis and validate whether Sacramento County findings are indeed reflective of the larger Sacramento Region.

5.3 Taxable Sales Analysis

Fiscal studies analyzing new development projects often conclude that retail projects (or projects with large retail components) produce positive net revenues, while residential projects produce negative net revenues. California's current base sales and use tax rate is 7.50 percent, of which 1.25 percent goes to Local funds, (including 1.00 percent for the operations of a city or county and 0.25 percent for the county's transportation fund). The Taxable Sales Analysis seeks to evaluate the level of taxable sales that both older and newer retail centers have achieved over time.

Because taxable sales data published by the California Board of Equalization (BOE) cannot be broken down to reflect sales at individual retail centers, New Economics and the NSBIF coordinated with a local jurisdiction in the Sacramento Region to study long-term taxable sales at the retail center level. Data for a series of both older and newer retail centers was gathered and analyzed for the period of 2005-2015, including unadjusted and adjusted for inflation. **Figure 1.6** highlights some of the technical results of the Taxable Sales Analysis.

- **Finding 5.3a: More than two-thirds of the Region's retail center space is concentrated in local-serving centers.** 56 percent of the Region's retail center space is concentrated in neighborhood and community retail centers, and another 14 percent in strip centers**.**

- **Finding 5.3b: Taxable sales in the Sacramento Region as a whole have decreased by an average of 1.32 annually percent since 2006 but have increased by an average of 4.16 percent annually since 2010, after adjusting for inflation.**
- **Finding 5.3c: The Taxable Sales Analysis indicates that Older Retail Centers remain at around 78 percent of 2006 taxable sales levels and experienced negative annual average growth rates of about 2.7 percent.** One possible explanation for the lackluster level of taxable sales within some centers is that retail owners are re-tenanting vacant space with users who generate little or no taxable sales; examples of these users are churches, gyms, medical/dental offices, and other personal services.
- **Finding 5.3d: Case-study research suggests that, since 2010, Older Retail Centers have posted modest taxable retail sales gains, while Newer Retail Centers have performed favorably.** These gains, adjusted for inflation, reflect real average annual growth rates of approximately 3.2 percent annually for Older Retail Centers and 6.0 percent for Newer Retail Centers.

5.4 E-Commerce Sales Tax Analysis

In 2015, Electronic commerce (e-commerce) accounted for about 7.25 percent of total retail sales in the U.S. E-commerce is increasing much more rapidly (by 15 to 20 percent annually), than traditional brick-and-mortar sales (2 to 4 percent annually).

The E-Commerce Sales Tax Analysis explores how e-commerce affects the generation of sales and use tax revenues for local Sacramento Region jurisdictions and the role that residential development plays in the generation of taxable sales, particularly in the context of e-commerce trends. **Figure 1.6** also shows the growth of e-commerce.

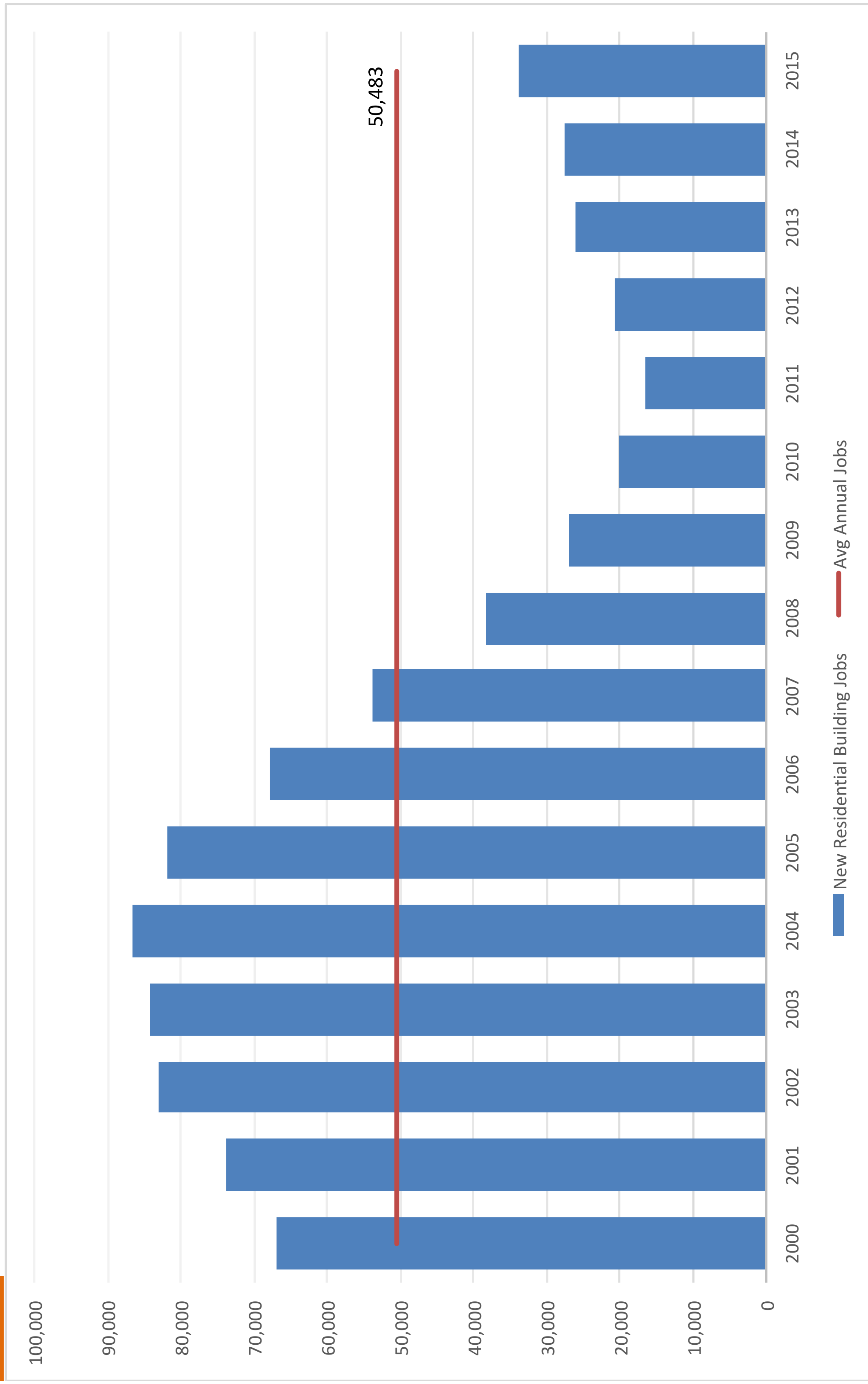
The technical approach utilized for this analysis includes a combination of quantitative data and analysis, review of existing research on these issues, interviews with California BOE staff and finance/sales tax experts, and qualitative assessments of local impacts.

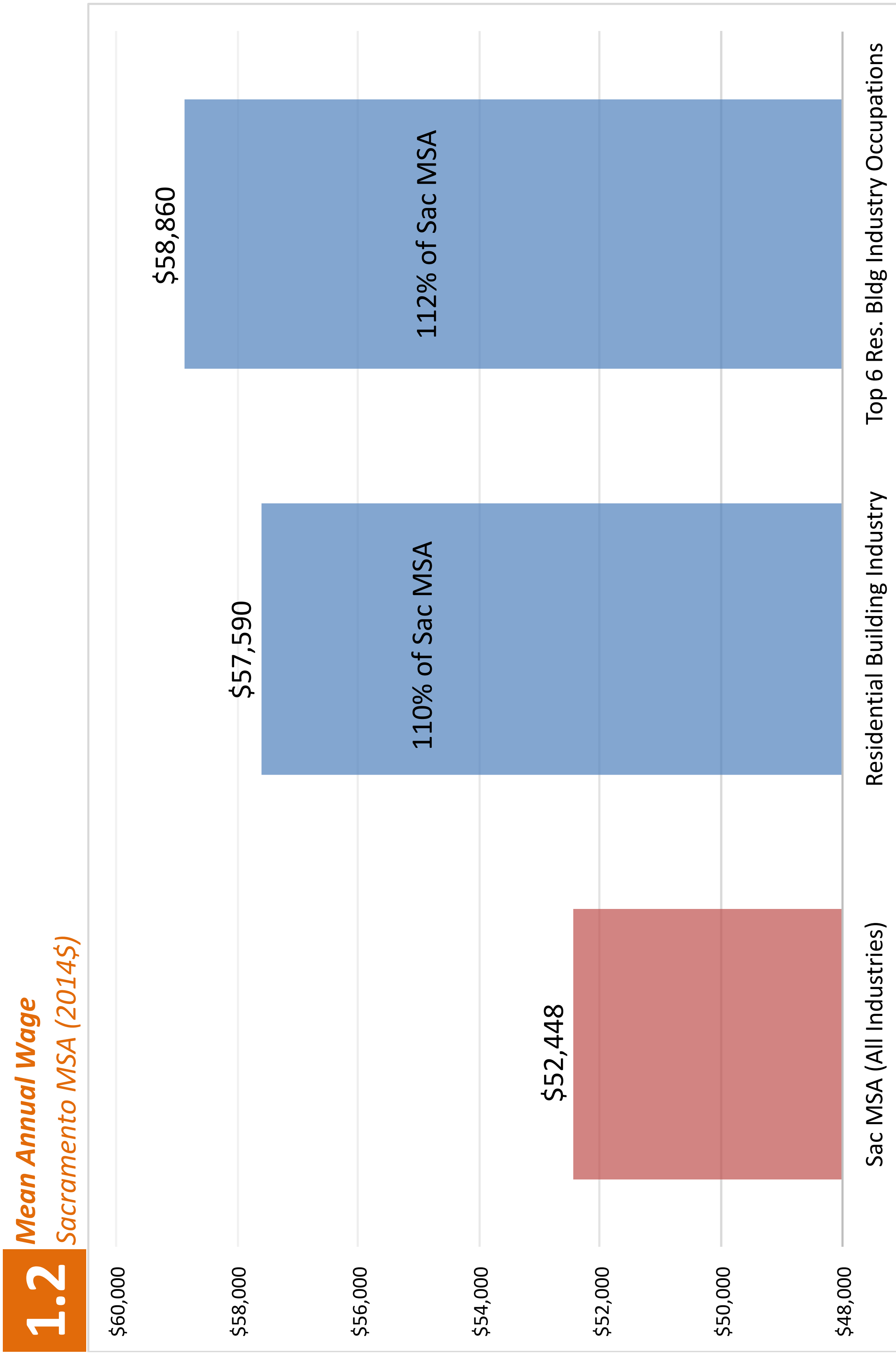
- **Finding 5.4a: E-Commerce is a rapidly growing component of retail sales, and a relatively small number of companies comprise the overwhelming majority of on-line sales.** In 2015, e-commerce accounted for 7.25 percent of total retail sales in the U.S.
- **Finding 5.4b: About 75 percent of e-commerce sales are from mass merchandise, apparel/accessories, computers/electronics, and books/music/ videos.** Other categories representing a small portion of overall sales are growing by 16 to 22 percent annually, (i.e. Housewares/Home Furnishings, Specialty, Health/Beauty).
- **Finding 5.4c: For many large retail companies with both an internet and brick-and-mortar presence, e-commerce sales are growing much more quickly than store sales and/or the number of stores.** In 2015, select major retailers experienced rapid growth in web sales (ranging from 15 to 30 percent), while their store sales experienced lower or even negative growth (ranging from -2.5 to 7 percent).

- **Finding 5.4d: In recent years, power centers appear to be the most heavily impacted by e-commerce, whereas other types of retail centers that focus on food and other products that consumers have not purchased on-line may not be as affected.** Neighborhood centers, lifestyle centers, and other retail centers that provide entertainment, food and beverages, and other "experience-based" retail, appear to be less affected by e-commerce. These centers rely upon local communities, whose residents and daytime workers support restaurants, attend concerts and fairs, and help make these centers a place people want to gather and connect in person.
- **Finding 5.4e: While e-commerce sales are treated the same as brick-and-mortar stores for purposes of generating sales tax revenues, in practice e-commerce generates sales tax revenues differently than brick-and-mortar stores.** The sale of digital products in downloaded or streaming format does not trigger sales or use tax. However, the complexity associated with defining the retailer's physical presence in and within California makes it difficult to identify and/or track which local jurisdiction will receive the Local portion of the sales and use tax revenue.
- **Finding 5.4f: E-commerce is probably creating sales and use tax revenues losses for local jurisdictions in the Sacramento Region, although the exact scale is unknown.** Statewide, the BOE estimates significant losses from on-line purchases from out-of-state retailers who do not collect use tax. These estimates are not made at the local level, but a distribution of these losses sales tax revenues statewide equates to $37.6 million from Sacramento Region households and $14.4 million from Sacramento Region businesses.
- **Figure 5.4g-h: There are indications that most or all of Amazon's direct sales are distributed through countywide pools, which have been increasing significantly since 2012; as of 2014, countywide pool revenues made up about 13 percent of total taxable sales revenues for local jurisdictions. For California retailers engaged in both store and e-commerce sales, e-commerce sales are not reported to the BOE separately from brick-and-mortar sales, making it difficult to assess the portion of total sales tax revenues generated by each type of sale.**
- **Finding 5.4i: E-commerce relies heavily upon fulfillment centers, which will also likely continue to be a major "point of sale" for e-retailers. Existing research indicates that these centers seek locations close to highly populated areas, which new residential development will help to provide.** As companies build fulfillment centers in the Sacramento Region, many of these sales will be allocated to the jurisdiction in which the fulfillment center is located (unless that retailer also has brick and mortar stores from which the sales are transacted). These fulfillment centers currently seek to locate within 1-3 days of major markets; over time, however, smaller centers could be demanded and will likely be located close to highly concentrated populations.
- **Finding 5.4j: New homes located close to store-based retail (which will be more oriented toward local services and entertainment as on-line shopping continues to grow), can help sustain those existing local brick-and-mortar retail centers, capture**

a larger share of e-commerce sales that end up in countywide pools, and attract the development of fulfillment centers, which are often alternative "point of sale" venues. As brick-and-mortar retail increases its focus on entertainment, health/fitness, destination, and food and beverage, high concentrations of local populations will be needed to support and sustain these centers. Without population growth, existing centers may continue to struggle, as there is only so much each household can spend on food, entertainment, and health/fitness.

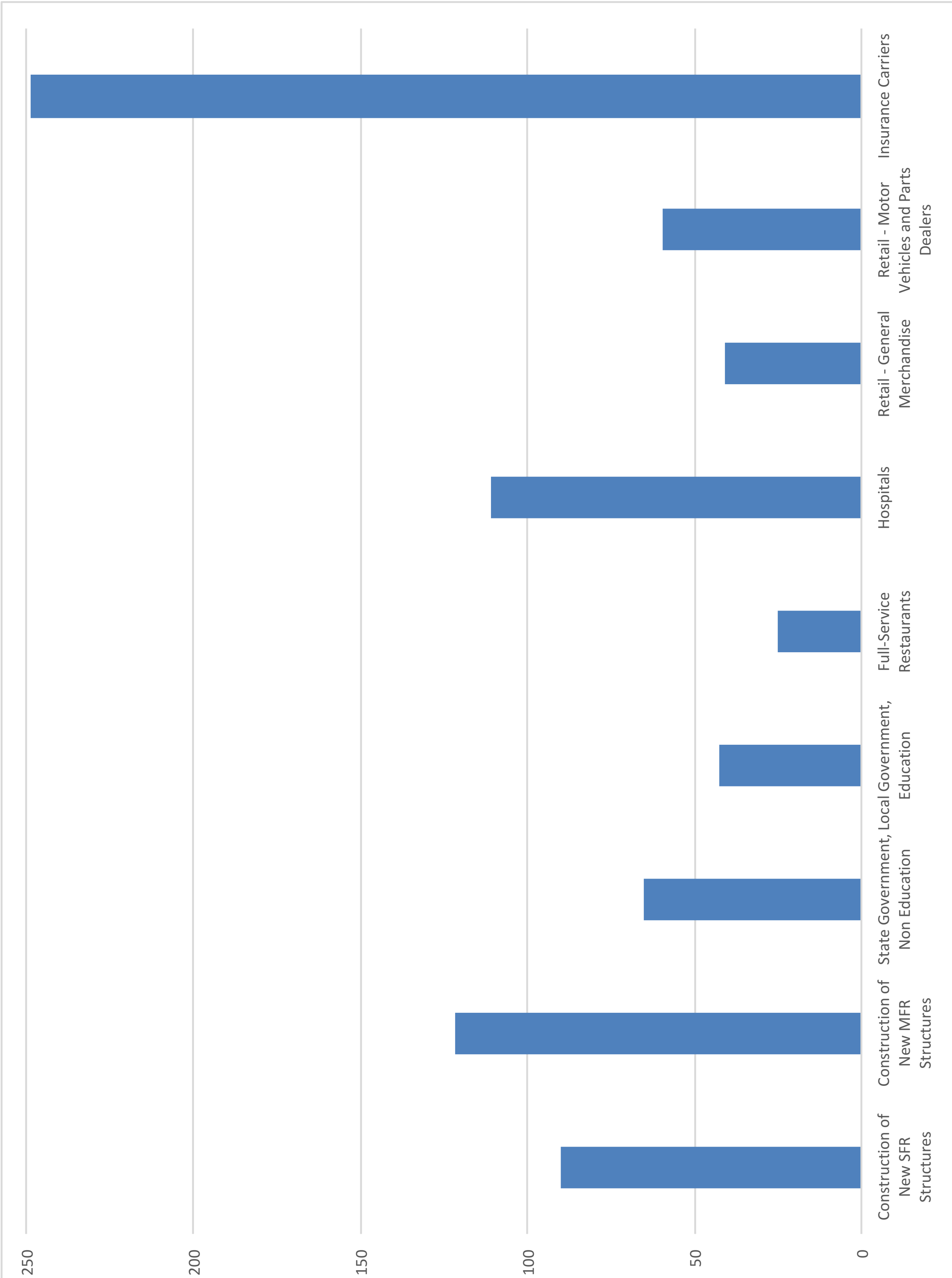
1.1 New Residential Industry Jobs
Sacramento MSA, 2000-2015




1.2
Mean Annual Wage
Sacramento MSA (2014$)
$60,000
$58,000
$56,000
$54,000
$52,000
$50,000
$48,000
$52,448
$57,590
110% of Sac MSA
$58,860
112% of Sac MSA
Sac MSA (All Industries)
Residential Building Industry
Top 6 Res. Bldg Industry Occupations

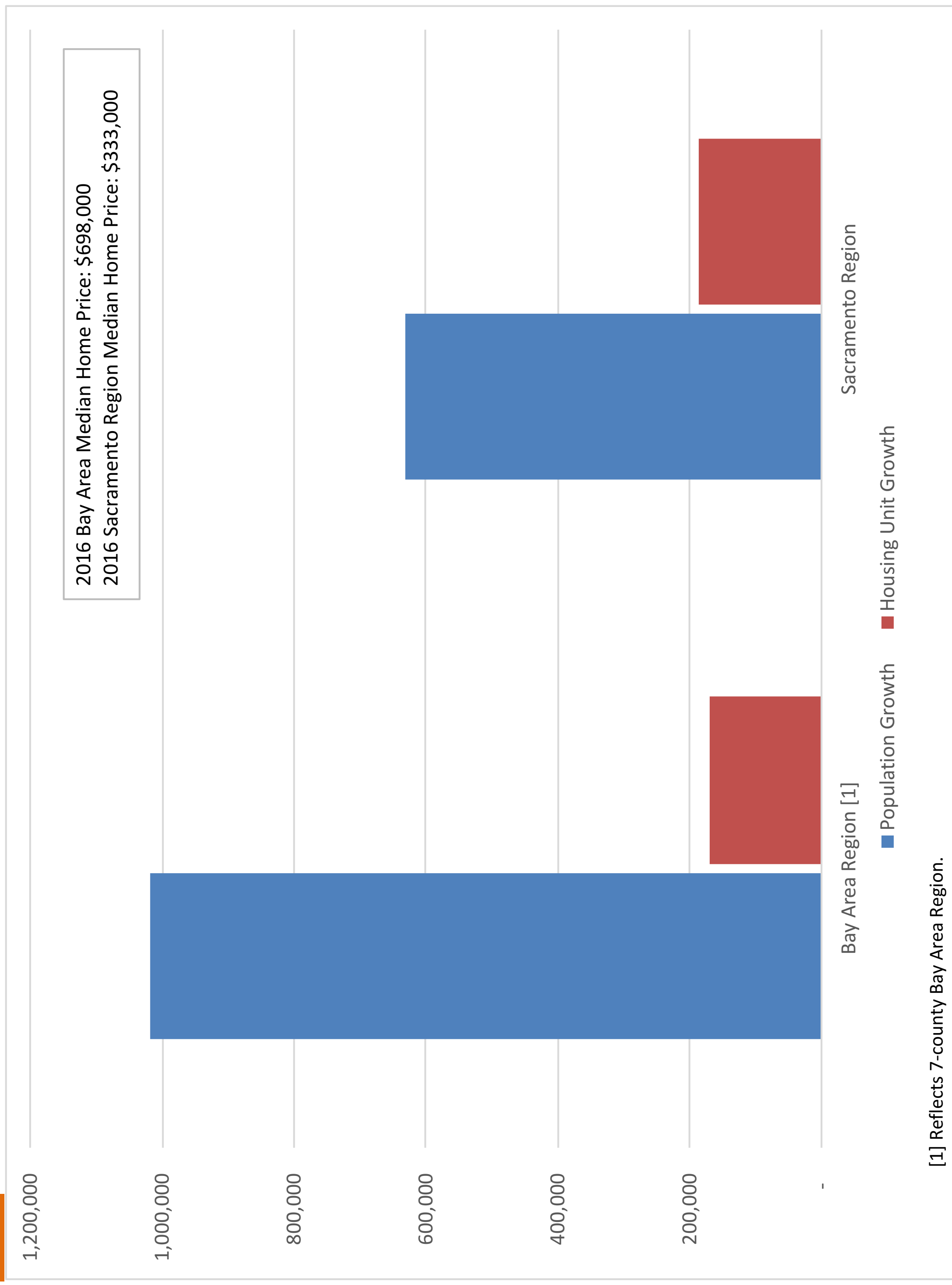
1.3 *Summary of Impacts of 100 Direct Jobs per Industry*

Sacramento 4-County MSA - 2014

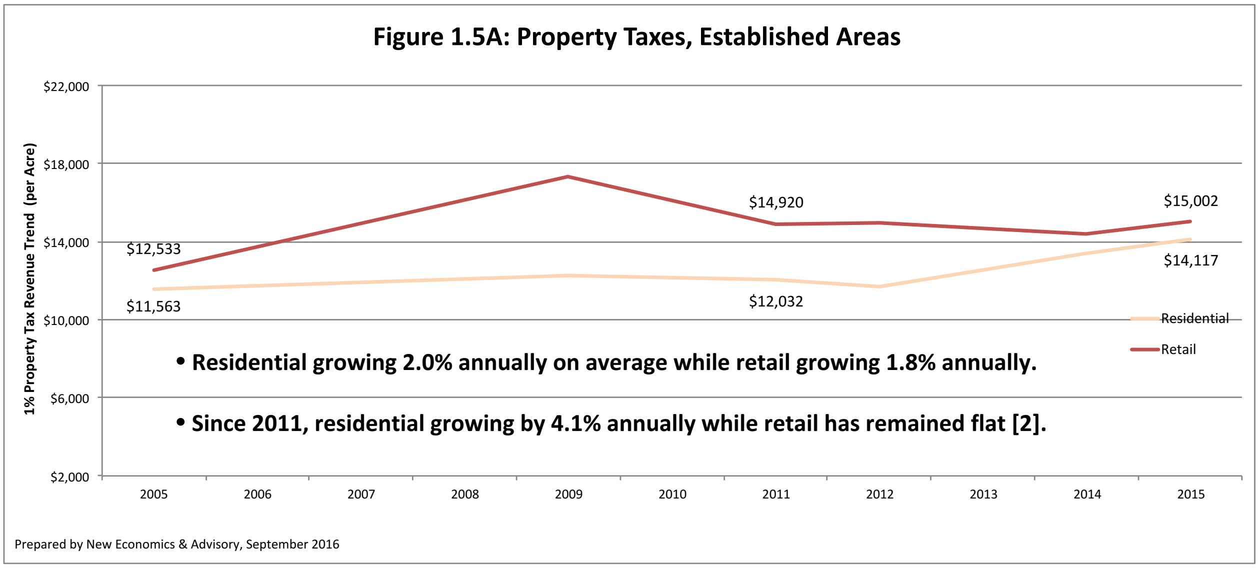


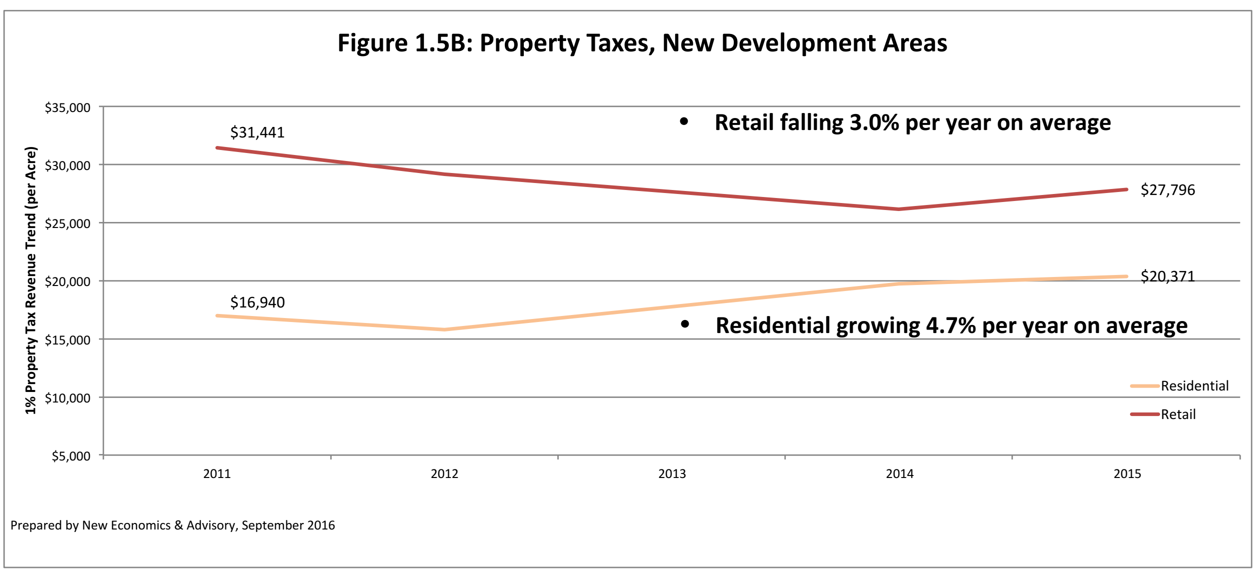
1.4 *Population and Housing Unit Growth*

Bay Area Region vs. Sacramento Region (1997-2016)



Property Tax Analysis: Sacramento County Case Studies [1]

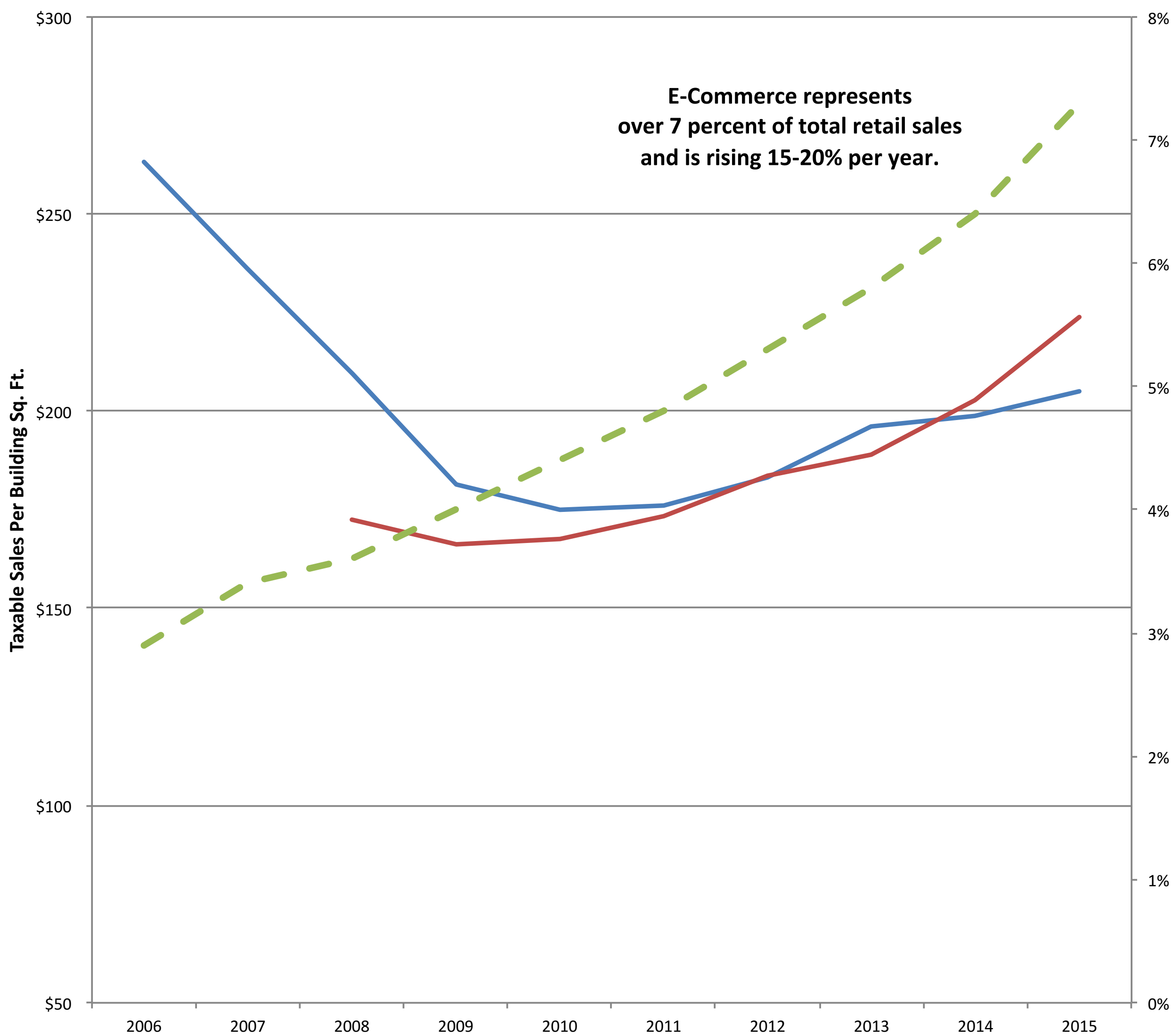




[1] Based on 5 case studies of established retail centers and nearby single-family subdivision, as well as 4 case studies of new retail centers and nearby single-family subdivisions throughout Sacramento County.

[2] Some portion of residential increases likely associated with recovery from Proposition 8 reductions during recession.

1.6 *Retail Taxable Sales Trends (2006-2015) [1]*
Case Study Approach



[1] Based on an analysis of 8 established retail centers, (2 strip centers, 2 neighborhood centers, and 4 power centers) and 8 new retail centers (2 strip centers, 4 neighborhood centers, and 2 mixed-use/lifestyle centers) in Placer County. Figures shown in real 2015$.

Established Retail Centers (Sales $, Adjusted For Inflation) New Retail Centers (Sales $, Adjusted For Inflation)
On-Line Retail (as % of Total Retail Sales)

Prepared by New Economics September 2016