

Impact of Wal-Mart Supercenters on Taxable Retail Sales

A Critique of the December 2008 Study by
Navigant Consulting

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Wal-Mart Supercenters do not provide economic benefits, in the form of increased taxable retail sales, for the cities in which they are located. The conclusion reached by Navigant consulting—that Supercenters result in an increase in the rate of growth in taxable retail sales—was based on a flawed methodology that failed to take account of population growth rates in the cities included in the study.

Summary

Wal-Mart Supercenters do not increase the rate of growth in taxable retail sales in the cities in which they are located. The 2008 study completed by Navigant Consulting improperly concluded that, “the presence of Wal-Mart Supercenters in any California community enhances as it relates to local revenues and business development”. That incorrect conclusion was based on flawed study methodology that failed to account for differences in population growth in the communities studied.¹ In fact, if the rates of growth in taxable retail sales for the cities included in the report are adjusted for population growth, the rate of increase is not significantly different from those of cities without new Supercenters. The implication—one consistent with the claims of opponents of new Supercenters—is that any taxable retail sales captured by Wal-Mart are at the expense of other new or existing area retail outlets. The addition of a Supercenter to a city’s retail economy generates no growth in taxable sales over and above what would result from the addition of any other retail outlet. And, if taxable sales are not growing, the Supercenter will reduce the sales of existing retailers.

Conclusions of the Navigant Study

The following quote from page vi Of the Executive Summary sums up the claims of the Navigant study:

Based upon our analysis of the available data and information, we believe the presence of Wal-Mart Supercenters across California has provided various positive economic benefits to their local economies. City-wide *Taxable Retail Sales* have increased, often dramatically, in every California community where Wal-Mart has opened a Supercenter. In addition, these increases in *Taxable Retail Sales* were not solely the result of Wal-Marts presence, but also the result of other new businesses opening in the same communities. Furthermore, the opening of Wal-Mart Supercenters also enhanced the taxable sales of *Other Retail Outlets* such as restaurants, auto dealers, and service stations. Thus, increased retail traffic brought on by the opening of Wal-Mart Supercenters appears to have resulted in sizable sales gains for other related service providers.²

¹ Perhaps this is too mild a statement, since the researchers at Navigant must be aware that this has not been the pattern since 2000. On page vi Of the executive summary the authors state that, “Central Valley and Imperial Valley communities, where economic growth is historically the slowest in the state, experienced strong city-wide *Taxable Retail Sales* gains after the opening of Wal-Mart Supercenters”. While this may have been true of area population growth prior to the year 2000, it has not been the case in recent years. Between 2000 and 2007 the average annual rate of population growth in the cities where new Supercenters were sited was 3.41 percent, more than double the state average. Obviously, from a marketing standpoint, Wal-Mart chooses those locations where local demographics indicate that consumer demand is likely to rise. The rate of population growth is an important consideration in those location decisions. It is, at best, disingenuous for Navigant to imply that Supercenters were located in areas with relatively slow population growth, implying that opening the facilities in those areas was the cause of extraordinary growth in taxable retail sales.

² Although not consistent with our findings, it would not be surprising to find that cities with new Supercenters experience stronger than average growth in taxable retail sales. One must assume that Wal-Mart staff is skilled at

Testing the Claims of Navigant Consulting and Wal-Mart

Methodology

Navigant's conclusions can be tested by comparing the rate of growth in total taxable retail sales in cities with new Supercenters with a control sample, with similar population growth rates, but no new Supercenters. This is a relatively simple approach that Navigant chose not to utilize in its report. Instead, Navigant simply examined the rates of growth in taxable retail sales for the cities with new Supercenters, utilizing no control group.

Population Growth and Growth in Taxable Retail Sales

In a regression analysis of a random sample of cities without new Supercenters, it was determined that population growth (for the years 2000-07) explains nearly 80% of the growth in taxable retail sales (for the years 2003-06) for sampled cities. For cities with very high population growth (more than 4 times the state average), taxable retail sales grew at 1.64 times average annual population growth. For cities with moderately high population growth (2-4 times the state average) taxable retail sales grew at 1.92 times the population growth rate, while for cities with slightly above average population growth, taxable retail sales grew at a rate 3.7 times the population growth rate. Overall, for all cities in the sample, retail sales grew at a rate twice that of population.

Population Growth in Cities with New Supercenters

For those cities adding new Wal-Mart Supercenters between 2004 and 2006, the average rate of population growth was well in excess of the average for the state as a whole. Supercenters opened in 2004 were located in cities with average annual population growth rates of 4.33 percent. Those outlets opened in 2005 were in cities with annual population growth of 2.42 percent, while the Supercenters opened in 2006 were in cities with population growth that averaged 3.90 percent annually.

Control Group

The control group is composed of three stratified random samples: eight cities with population growth rates at least four times the state average; nine cities with population growth rates of between two and four times the state average; and nine cities with population growth rates between one and two times the state average (Appendix A).³ Table 1 compares the annual growth rate of taxable retail sales (for 2003-2006) for the high, medium, and low population growth control group cities with the annual average (2-year period) for the cities in the corresponding groups with new Supercenters.

selecting locations for their new Superstores, and would tend to choose those locations with strong retail growth potential.

³ While this approach represents a significant improvement over that employed by Navigant Consulting, the analysis is still incomplete. There are a number of factors, in addition to population growth, that explain the extent of growth in taxable retail sales in any particular city. Some cities serve as retail centers for surrounding towns and rural areas. Population and income growth in the area serviced by those cities are important determinants of retail spending growth in the cities. The years used for comparison of the control and those with new Supercenters are also important. Taxable retail sales grew very rapidly between 2003 and 2005 as the California economy recovered from a recession. In many cities sales growth slowed substantially in 2006, and even fell in some areas in 2007. A methodologically complete study would take these and some additional factors into account in determining the extent of differences in growth rates for taxable retail sales in any two groups of cities.

Table 1: Comparison of Growth in Taxable Retail Sales for the Three Control Groups and Three Groups with New Supercenters

Population Growth Rate	Annual % Growth Rate in Taxable Retail Sales	
	Cities with New Supercenters	Cities in the Control Group
More than 4X the State Average	14.10%	16.40%
2X to 4X the State Average	6.68%	8.59%
1X to 2X the State Average	4.81%	8.36%

For each of the groupings—high, medium, and low population growth cities—retail sales grew at a greater annual rate in cities without new Wal-Mart Supercenters than in those with them.

Year the New Supercenter Opened: The Effect on Taxable Retail Sales Growth

Based on 2-year retail sales growth, the average annual growth rate for taxable retail sales for cities with Wal-Mart Superstores varied with the year the store opened. Strong growth in retail sales between 2003 and 2005 resulted in a high rate of growth for those stores opened in 2004. The rate of growth slowed somewhat in 2006 and 2007. The slowing of spending growth reduced the growth rate of taxable retail sales for all cities where Supercenters opened after 2004. Table 2 shows that the average annual growth rate for taxable retail sales in cities with Supercenters opening in 2004 was 16.38 percent, while for those where they opened in 2005 and 2006; annual sales growth was 6.4 percent and 6.45 percent, respectively.

Table 2: Two-Year and Annual Average Growth in Taxable Retail Sales for Cities with New Supercenters: By Year Opened

Year Opened	2004	2005	2006
2-year	35.44%	13.20%	13.32%
Annual Average	16.38%	6.40%	6.45%

Adjusted Control Group

By eliminating the cities with particularly rapid population growth rates, population growth in the control group better matches the average for cities with new Wal-Mart Supercenters. In Table 3 the rate of growth in taxable retail sales for the cities in the control group is compared to the rate of growth for cities with new Supercenters. The comparison is done for all cities with Supercenters.

Table 3: Ratio of Annual Growth in Taxable Retail Sales to Annual Population Growth: Cities with New Supercenters and Cities in the Control Group

Cities	Annual Growth in Taxable Retail Sales	Annual Rate of City Population Growth (2000-07)	Ratio: Retail Sales Growth to Population Growth
Control Group (18 cities)	8.47%	3.37%	2.52
Wal-Mart (All 21 cities)	7.91%	3.41%	2.32

As can be seen in the last column of Table 3, the ratios of growth in taxable retail sales to population growth are higher for the control group than for the cities with new Wal-Mart Supercenters. The inference is that the addition of Supercenters does not increase the rate of growth in taxable sales over what would be expected from examining population growth rates alone. Although the difference is not statistically significant, the data implies that the opening of new Supercenters actually reduces the rate of growth in a city's taxable sales.⁴

That point is further reinforced by accounting for the year the Supercenter opened. In the three cities where Supercenters opened in 2004, (of the 21 in the Navigant study) annual growth in taxable retail sales was very strong, with the annual average for the two-year period (from the year before opening to the year after) equal to 16.38 percent, and a ratio of sales growth to population growth of 3.79. Although that ratio is much greater than that of the control group, it is limited to the three cities with Supercenters opening in 2004. For the seven cities with Supercenters opening in 2005, the ratio falls to 2.64 (slightly higher than that of the control group), and for the eleven cities where the stores opened in 2006 the ratio is only 1.65.

Table 3: Ratio of Annual Growth in Taxable Retail Sales to Annual Population Growth: Cities with New Supercenters by Year Opened

Year Supercenter Opened	2004	2005	2006
2-Year Growth in Taxable Retail Sales	35.44%	13.20%	13.32%
Number of Supercenters	3	7	11
Average Population Growth Rate of Cities with New Supercenters	4.33%	2.42%	3.90%
Annual Average Growth Rate in Taxable Retail Sales	16.38%	6.40%	6.45%
Ratio: Annual Taxable Retail Sales Growth to Annual Population Growth	3.79	2.64	1.65

Conclusion

Wal-Mart Supercenters do not increase the rate of growth in taxable retail sales in the cities in which they are located. Navigant Consulting and Wal-Mart Stores, Inc. erroneously claimed that Superstores increase economic activity in the communities in which they are sited. This incorrect conclusion was based on flawed study methodology that failed to account for differences in population growth in the cities in which new Supercenters were located. As demonstrated in this report, if rates of taxable retail sales growth are adjusted for population growth rates, the rates of increase for cities with and without Supercenters are not significantly different. The implication—one consistent with the claims of opponents of new Supercenters—is that any taxable retail sales captured by Wal-Mart are at the expense of other area retail outlets.

⁴ Among the cities in the control sample there is considerable variation in the ratio of the growth rates of taxable retail sales and population. Because of the variance within the sample, statistical significance requires that the difference in the mean ratios for the control group and cities with new Supercenters needs to be larger than what was found in this study.

Appendix A

Cities in the Control Group: Annual Growth Rates for Taxable Retail Sales and Population

City	County	Annual % Change in Taxable Retail Sales (2003-06)	Annual % Change in Population (2000- 07)
High Population Growth			
Brentwood	Contra Costa County	20.76%	11.09%
Kerman	Fresno County	10.69%	6.39%
Imperial	Imperial County	19.54%	6.47%
American Canyon	Napa County	9.59%	7.19%
Lincoln	Placer County	23.31%	18.66%
Coachella	Riverside County	20.52%	7.80%
Murrieta	Riverside County	16.91%	11.86%
Twenty-Nine Palms	San Bernardino County	9.92%	10.41%
	<u>Averages</u>	16.40%	9.98%
Moderately High Population Growth			
Chico	Butte County	5.99%	4.86%
Williams	Colusa County	8.33%	5.03%
San Ramon	Contra Costa County	6.36%	4.16%
Clovis	Fresno County	9.61%	4.21%
McFarland	Kern County	13.55%	3.68%
Madera	Madera County	10.81%	3.58%
Los Banos	Merced County	6.85%	4.41%
Irvine	Orange County	5.88%	4.87%
Rocklin	Placer County	9.96%	5.34%
	<u>Averages</u>	8.59%	4.46%
Above Average Population Growth			
Kingsburg	Fresno County	6.81%	2.75%
Tehachapi	Kern County	12.96%	2.28%
Corcoran	Kings County	8.48%	2.87%
El Paso Robles	San Luis Obispo	10.03%	2.87%
Morgan Hill	Santa Clara County	13.69%	1.86%
Redding	Shasta County	6.36%	1.47%
Windsor	Sonoma County	8.21%	2.08%
Oakdale	Stanislaus County	3.25%	2.56%
Oxnard	Ventura County	5.43%	1.71%
	<u>Averages</u>	8.36%	2.27%
	<u>Average: All Cities</u>	11.35%	5.62%

Taxable retail sales: <http://www.boe.ca.gov/news/tsalescont.htm>

Population growth estimates: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-4/2001-09/>