

Do City Tax Rates Matter? Preliminary Evidence Using The Case Of Los Angeles

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Abstract

There is relatively little research on whether city tax structures either attract or repel business activity. Using a unique database obtained from the City of Los Angeles, the economic impacts of two previous tax cuts in Los Angeles are examined. Results indicate these cuts resulted in growth in both the number of jobs and firms. The results have important policy implications.

Key words: city taxes; tax policy; economic development

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1. Introduction

Although there is considerable evidence on the effectiveness of state tax policies in terms of attracting business, there is little evidence on such tax policy at the municipal level. The issue is important since firms locate in cities—not states. Since job growth is important to cities, but at the same time cities face budget shortfalls, the question naturally arises as to whether reductions in taxes can effectively increase economic activity.

To examine this issue, I examine two reductions in business taxes made by the City of Los Angeles. Using a dataset obtained from the City, I found that such tax cuts were in fact effective in stimulating firm and job growth in terms of aggregate numbers.

2. Los Angeles Business Taxes

This study examines cuts in the Los Angeles business/gross receipt tax in 2001 and in 2007. The City of Los Angeles gross receipts tax is projected to bring in \$424 million in revenue in FY2010-2011, representing approximately 10% of the City's revenues. Most for-profit industries are taxed, with rates ranging up to \$ 5.07/thousand of gross receipts (sales¹), depending on industry. Exceptions to taxation exist for certain small businesses. When examining the impact of any potential change to the business tax, it is important to put such changes in perspective vis-à-vis other taxes which the City collects. These taxes are discussed next.

2.1 Overview of City of Los Angeles Tax Revenues

More than 70 percent of City of Los General Fund revenue is from seven major taxes: property, utility, business, sales, hotel, documentary and parking. Projected collections, for fiscal year 2010-11, by major source are shown in Table 1. Property tax includes all categories of the City allocation of one percent property tax collections, such as secured, unsecured, state replacement, redemptions and penalties, supplemental

¹ Throughout this report the term “sales” is sometimes used, and “gross receipts” is also sometimes used. Both relate to the revenues which a company generates.

receipts and other adjustments, and is net of refunds and County charges. Also included are property taxes remitted to the City as replacement revenue for both vehicle license fees and sales and use taxes. Major tax revenue is typically received by the City some time after an economic event; the property tax is collected more than a year after valuations are determined and business tax collections are dependent on business activity in the prior year. Sales tax collections trail economic activity by three to six months and utility and documentary tax receipts follow the economy by one to two months.

A 10 year history of the business tax is shown in Table 2. To show how such taxes are driven by sales, sales taxes² collected during this period are also shown.³

2.2 Business (Gross Receipts) Taxes

The City imposes a tax upon businesses located within the City or doing business therein. The City's business tax is typically based on gross receipts; it is not an income tax. The applicable tax rate varies from \$1.01 per \$1,000 to \$5.07 per \$1,000 of gross receipts depending on which classifications are applicable to each business. Taxpayers apportion gross receipts between jurisdictions in cases in which they operate or make sales both inside and outside the City. Business tax reform to date includes a 15% tax rate reduction, a small business exemption, a start-up incentive, a bad debt deduction, entertainment industry tax relief, tax simplification through consolidation of business tax classes, Internet tax relief and the recently-approved film production tax credit. The 2011-12 estimate includes \$15.2 million of economic growth; after adjusting for the film production tax credit, this is 4% above estimated 2010-11 renewal revenue.

Because the tax is based on gross receipts, it is not "neutral" in the sense that an income tax can be. In such a structure certain disincentives can be created, The economic impact of the tax is strongest on firms having the lowest profit margins, as shown in the following three examples. In these examples I use a tax rate of .4% (or \$4 per \$1,000) to illustrate this economic impact.

² The city collects a 1% sales tax on taxable retail sales of tangible personal property. According to City data; the majority of taxable sales are from the following categories: apparel stores; auto dealers and auto supplies; general merchandise stores; service stations; food and drug stores; other retail stores; eating and drinking establishments; retail stores; home furnishings and appliances; all other outlets; building materials and farm implements

³ For a breakout of the relative sales taxes related to each category, the reader is referred to: Supplement to Mayor's Proposed Budget 2011-12. Los Angeles City Administrative Officer, April, 2011

Example 1. Suppose a Los Angeles company has \$1 million in sales (gross receipts) in Los Angeles, and has \$900,000 of expenses before the business tax. Its after tax profit is:

Sales	\$1,000,000
Less: Expenses Before Tax	- <u>900,000</u>
Profit Margin Before Tax	<u>\$100,000</u>
Less: Business Tax at .4% of Sales	- <u>4,000</u>
After Tax Profit	\$96,000

Here, the .4% business tax is the equivalent of a 4% income tax (or \$4,000/\$100,000).

If instead of the 10% margin in the above example, the firm has a 1% margin, the tax reduces profits by 40%, as shown in the next example.

Example 2. Suppose a Los Angeles company has \$1 million in sales (gross receipts) in Los Angeles, and has \$990,000 of expenses before the business tax. Its after tax profit is:

Sales	\$1,000,000
Less: Expenses Before Tax	- <u>990,000</u>
Profit Margin Before Tax	<u>\$10,000</u>
Less: Business Tax at .4% of Sales	- <u>4,000</u>
After Tax Profit	\$6,000

Here, the .4% business tax is the equivalent of a 40% income tax (or \$4,000/\$10,000).

Because new/startup businesses often operate initially at a loss, the effect of the tax is particularly strong for them. This is shown in the next example.

Example 3. Suppose a Los Angeles company has \$1 million in sales (gross receipts) in Los Angeles, and has \$1,090,000 of expenses before the business tax. Its after tax profit is:

Sales	\$1,000,000
Less: Expenses Before Tax	<u>1,090,000</u>
Profit Margin Before Tax	<u>-\$90,000</u>

Less: Business Tax at .4% of Sales	- <u>4,000</u>
After Tax Loss	-\$94,000

Here, the .4% business tax is the equivalent of an infinite income tax. Moreover, if the company's expenses are cash basis, it may have to pay the tax out of either accumulated cash reserves or borrowing.

2.3 Tax Rates in Cities Bordering Los Angeles

Relatively few U.S. cities have significant gross receipts or income taxes. The few cities which have such taxes are located primarily in the Northeast and in Ohio. In California, city income taxes are not allowed under the State's constitution, and relatively few cities (e.g., Culver City, Los Angeles, and Santa Monica) have *significant* city gross receipts taxes. Other California cities have gross receipts taxes, but at lower rates. Table 3 shows gross receipts tax rates for major Southern California cities. Top, median, and low rates are shown.⁴ The Table also lists cities, in Los Angeles County⁵, which have taxes based on employment, for the sake of completeness. As can be seen, gross receipt rates for Los Angeles are considerably higher than those of most of other cities. As such, rate reductions in City taxes might act as an incentive to encourage economic development.

Since a city tax represents a cost of doing business, cities having such a tax have a clear competitive disadvantage over cities which do not. For example, a company which desires to locate in a very large U.S. city could potentially choose Dallas over Los Angeles (holding all other factors constant) since Dallas does not have a city-based income or gross receipts tax. Similarly, a company desiring to locate in Southern California might choose an Orange County or San Bernardino County locations, since cities in these counties do not have significant gross receipts taxes. As a final example, a local entrepreneur might decide to locate just outside of the Los Angeles border (e.g., Burbank, Glendale, or Pasadena) since they are lower taxed jurisdiction.

⁴ Source: 2009 Kosmont-Rose *Institute of Doing Business*. Note that taxes on real estate (based on square footage), payroll, etc., taxes are not shown.

⁵ For taxes imposed on businesses outside of LA County, the reader is referred to the 2009 Kosmont-Rose *Institute of Doing Business*.

3. Prior Research

A long line of economics research has indicated that taxes can affect the behavior of companies. The basic idea is as follows. Taxes are a cost of doing business, which firms consider in their ongoing and planned operations. Tax cuts can affect: 1. decisions on whether to move to (or expand operations into) a new city; 2. if a firm already is in a city, how the tax reductions are spent and whether to expand in the city; and 3. if a firm is considering moving out of a city, whether the tax reductions are sufficient to keep it there.

If a firm is *considering opening a new facility in, or moving an existing facility to, a new city*, tax costs in that city are a consideration. Holding all other factors constant, a firm would locate in the city with the lowest taxes. Of course, transactions costs (a term in economics used to describe other costs of changing behavior) come into play. For example, if a firm is considering moving to either City A or City B, and City A has a much lower tax rate, but the cost of moving to City A is much higher than moving to City B, the firm may choose City B. While it is somewhat straightforward to identify the potential tax savings of firms in general by comparing city tax structures, transaction costs are idiosyncratic to each firm and difficult to estimate. Accordingly, how effective a tax rate reduction will be in a city is in part an empirical question; that is, examining past data to see if prior tax cuts seemed to be enough to overcome transactions costs and induce firms to move. Certainly, the larger the tax reduction, the more likely the tax savings would exceed transactions costs. The net result is if the firm moves into the city, new jobs and additional tax revenues will be created in that city, which will be enhanced through the “multiplier effect” (see discussion in next two sections).

For firms *already operating in a city which **are not** considering moving*, and there is a tax reduction, there is an income effect. Essentially, the firm has more spendable cash. If the owners can earn a higher return outside the firm, they are less likely to reinvest it. For example, a small firm owner could put the money in a savings account. Or, a publicly-traded company could pay a dividend to shareholders. In most cases, firms can actually earn a higher return by instead reinvesting that cash into the business, through increased assets, payroll, supplies, etc. Certainly, some of that would be spent in the local city which, through the multiplier effect, results in increased employment and tax revenues for the city.

For firms *already operating in a city which **are** considering moving*, and there is a tax reduction, the reduction may be sufficient to keep operating costs comparable, or

lower than, operating costs of other cities to which the firm might locate. Here, the firm has already calculated that tax savings (before any tax reduction) would make up for transaction costs of moving. It is then a question about whether the tax reduction now makes it more economical for the firm to stay. Certainly, the larger the tax reduction, the more likely a firm is to remain in that city. If the firm stays, the city would avoid loss of jobs and tax revenues, both of which would be magnified by the multiplier effect.

In terms of prior research, there is a considerable economics literature which indicates that appropriately-structured *state* tax incentives can attract business (c.f., Bartik, 1991). On a more localized scale, Ham, Swenson, and Imrohorglu (2011) find that state-sponsored enterprise zones (which give tax breaks to businesses located in very tightly defined areas throughout states and within cities) are also effective in spurring economic growth and job creation.

There is less evidence on the effectiveness of *city* tax incentives. Although there are a large number of anecdotal cases illustrating the effectiveness of *negotiated municipal incentives* (reduced sales and property taxes, low interest financing, fast tracking of permits, etc.), there is less published research on *statutory municipal tax benefits*. Bartik (1991) gives a broad examination of previous empirical work measuring the effectiveness of local fiscal variables on economic development. His conclusion is that the general results of these studies indicate that local expenditures and taxes result in a statistically significant impact on economic development. Anderson (1990) found that Michigan areas which offered tax increment financing (TIF) experienced higher growth than areas which did not. Wasmer (1994) found ambiguous results of the effects of local incentives in the Detroit area. Luce (1994) found that local taxes had a statistically significant influence on location of firms in the Philadelphia area. Dardia (1998) found that TIF increased assessed values within a California city. Wasmer and Anderson (2001) examined 112 Detroit area cities and found that some forms of incentives affect the local value of commercial and manufacturing property.

Surveying the literature, Wasmer and Anderson (2001, p.133) write: "We conclude that there are both theoretical and empirical reasons to believe that local fiscal variables and development incentives can alter the intra-metropolitan location of business firms."

4. Testing the Effects of Previous Los Angeles Business Tax Holidays

To calibrate potential changes to employment and tax revenues resulting from proposed changes to the business tax, actual observed effects resulting from prior changes to the LA business tax are useful. Reductions in the LA business tax reduce operating costs. For firms already operating in LA, such cost reductions should result in increased investment, which results in increased sales and employment. For firms considering moving out of, or downsizing operations, lowered taxes should likewise result in increased sales and employment. Finally, subject to transaction costs, a lowered tax burden should result in firms moving to LA. Although the above literature suggests elasticities of approximately .21 for city tax reductions, estimating such elasticity for LA is useful for more specific calibration here.

There have been no previous empirical studies testing the impacts of city gross receipts tax holidays. Fortunately, LA enacted two relatively significant tax holidays in the last decade which we can use as “natural experiments.” Effective January 1, 2001, a “new business” holiday was made effective for all firms with gross receipts of less than \$500,000. The holiday applies only in the first two years of operations. In July 2006 (effective January 1, 2007) the small business tax exemption was doubled to \$100,000 of annual gross receipts. If these measures were effective, we would expect to see the number of LA firms, and related employment, increase after enactment.

It is important to note that LA also enacted a number of other tax reforms which are more problematic to test. For example, tax reductions to certain industries (e.g., motion pictures) may or may not be generalizable to all LA firms. Also, gradual 15% reductions in tax rates starting in 2006 are relatively small and more importantly, because they occurred in succession, analyzing the effects of rates of change from one year to the next is more difficult to isolate. Also, there is not yet enough data to test very recent law changes (e.g., the three-year new business exemption).

4.1 Data

To test the effectiveness of these law changes, I use two databases: the LATAX data from the City of Los Angeles, and the 2009 National Establishment Time-Series (NETS) Database. The LATAX database contains firm-specific data on all taxes paid to the City from 2001 to 2010, and also includes firm specific information⁶ such as name,

address, taxable gross receipts, etc. This data was provided to me on a confidential basis by the City. The NETS database is a unique, firm specific database derived from the Dun & Bradstreet data, the latter of which is used commercially. This data set became available to academics in 2007. The 2008 NETS Database includes an annual time-series of information on over 36.5 million U.S. establishments from January 1990 to January 2010. Since the current Database is based on annual "snapshots" taken every January of the Dun and Bradstreet data, it reflects the economic activity of the previous years. The Database is as close to an annual census of American business as exists.

Unlike other program-readable annual firm databases (such as Standard and Poor's Compustat), NETS reports exact geographic locations of the firm and of its subsidiaries. Also, it shows dates of location move (and where moved to) so we can examine location choices of firms both before and after SSF is adopted in a state. One valuable aspect of the NETS Database is the 8-digit SIC classification system (over 18,500 industries) that allows the researcher to "drill down" to specific sectors of interest (well below the 4-digit SICs). A number of academic papers have begun to use this database.⁷ The reliability of Dun and Bradstreet data, which underlies the NETS data, is considered high since this database has been in existence for many years.

This data allows me to identify Los Angeles firms, versus other California firms, the number of such firms, their employment, sales, and other firm-specific information. I examine only businesses with employees, since some (a relatively small percent) of businesses are simply "paper" entities.

4.2 Differences Between LATAx and NETS Databases

There are significant differences between the two databases. LATAx has information on firms which pay business taxes to LA, whereas NETS is a national database. NETS is based in part on voluntary participation by firms to a mailed Dun &

⁶ To preserve confidentiality the database provided by the City did not include Social Security numbers or Federal Employment Identification (FEIN) numbers. A confidentiality agreement is in place between myself and the City.

⁷ See C. Swenson (June, 2010) "On the Effectiveness of Single Sales Factor Apportionment For State Taxation" (click on my website under "research" at <http://www.marshall.usc.edu/faculty/directory/cswenson>) See also Nancy Wallace (UC Berkeley) "Agglomeration Economies and the HiTech Computer Sector": <http://repositories.cdlib.org/iber/fcreue/fcwp/292> and "The Role of Job Creation and Job Destruction Dynamics" in Glaeser & Quigley, *Housing Markets and the Economy* (2009). Also see Kolko and Neumark (2010) "Do Enterprise Zone Create Jobs? Evidence from California's Program" *Journal of Urban Economics*.

Bradstreet survey and, accordingly, participation is much smaller for very small firms (this is apparent later as the number of firms with sales under \$100,000 is much smaller than under LATAx). NETS also allows use of establishment level data. An advantage of data at this level is that it can capture expansion or contraction of a firm which adds or closes a location, which is not easily captured using firm-level data. As a practical matter, many small firms have only a single establishment, so this drill-down level of data becomes more meaningful at larger firm sizes. Both LATAx and NETS have exact location, name, revenue, and SIC/NAICS code data, but only NETS has employment data. The differences allow for “triangulation” in the sense that we can use both to estimate potential economic impacts of LA business tax changes. Also, LATAx data includes establishments which pay taxes to Los Angeles but are outside of the City limits. In contrast, NETS data allows me to precisely identify only establishments within the City of Los Angeles borders, potentially allowing a more precise impact analysis of LA tax policies on only LA-based firms.

4.3 Method Of Analysis

For both the 2001 and 2007 tax reductions, I examine aggregate firm (or establishment-level) data. Specifically, I look at differences in trends in Los Angeles firms before and after the tax change, and compare that difference in trend to the calculated difference in trends for a control group. The difference-in-the-difference in trends between the Los Angeles firms, and the control group, is assumed to be the result of the tax change. This “differences in differences” (DID) approach is widely used in economics⁸.

4.4 The 2001 New Business Exemption

To examine the impact of this law change, I look at the economic impact immediately before and after the law change. Both LATAx and NETS data are used.

⁸ See my work with Ham and Imrohorglu (2011) cited in the references. Note that under the DID method, as with this study, we examine the shortest interval feasible after the change. For example, in examining the impact of a 2001 tax change, we examine 2001 but do not examine later years since they may be tainted by other economic effects having little to do with the tax change.

4.4.1 Using NETS Data

Data, using the NETS database, for firms under \$500k in sales (i.e., firms affected by the policy), are shown in Table 4. To evaluate the employment growth for LA based firms subject to the new business exemption, we compare such firms' growth to control groups. To control for trends we compare changes in changes to the affected LA firms versus changes in changes to the control group. One such group would be other LA firms, i.e., LA firms with sales in excess of \$500,000. Data for this group of larger LA based firms is shown in Table 5.

Prior to the exemption (from 1999-2000), LA firms with sales under \$500k experienced a 6.7% employment growth. After the exemption, they experienced a 9.37% employment growth. Thus, the change, after controlling for the previous year's trend, was a 2.67% job increase. Prior to the exemption (from 1999-2000), LA firms with sales over \$500k experienced a 7.97% employment growth. After the exemption, they experienced a 2.0% employment growth. Thus, the change, after controlling for the previous year's trend, was a 5.97% job decrease. Thus, comparing the two groups of LA firms, the firms with sales under \$500k experienced an 8.64% job increase (or 2.67% minus -5.97%).

If, instead of employment, we use number of establishments, we get the following. Prior to the exemption (from 1999-2000), LA firms with sales under \$500k experienced a 7.48% growth in the number of establishments. After the exemption, they experienced an 8.76% growth in firms. Thus, the change, after controlling for the previous year's trend, was a 1.28% increase. Prior to the exemption (from 1999-2000), LA firms with sales over \$500k experienced a 6.88% growth in the number of establishments. After the exemption, they experienced a 2.85% growth in the number of establishments. Thus, the change, after controlling for the previous year's trend, was a 4.03% decrease. Thus, comparing the two groups of LA firms, the firms with sales under \$500k experienced an 5.31% increase (or 1.28% minus -4.03%).

If we use instead other California firms, not based in LA, but based in other Metropolitan Statistical Areas (MSAs) and with sales of under \$500k, we get the following. As shown in Table 6, these firms experienced 7.71% and 7.31% growth in employment from 1999-2000 and 2000-2001, respectively. Thus there was a .4% decline, after controlling for trend, after 2000. Comparing them to the LA-based firms with sales of under \$500k, we see the latter experienced a relative growth of 3.07% after the exemption.

Averaging the above two comparisons, the new exemption was associated with a 5.86% direct job growth in firms with sales of under \$500k. There were 93,033 establishments, and a 5.86% job growth translates into 8,450 jobs associated with the change. Since the average RIMS Type II multiplier associated with such firms is an average of 2.35, and the rippled through job growth is estimated to be 19,858. Although not used as a comparison group, data for large, non-LA based firms is not without interest, and is shown in Table 7.

A major strength of examining the change in *all firms* with sales under \$500,000, as opposed to examining only new firms with sales under \$500,000 which started business after the tax holiday, is that we control for potential crowding out effects. That is, if the net number of firms increased, any effects of crowding out must be small. However, we can re-analyze the data examining only new firms (with sales under \$500,000) starting in Los Angeles before and after the law change. Table 4a replicates Tables 4, except it only includes firms new to Los Angeles. Table 4a shows that for new LA firms, the relative change in employment growth was 21.6% after the exemption, or 61.34%-39.73%. Table 6a replicates Table 6, except it only includes NEW firms in other California MSAs.

Table 6a shows that for new non LA firms, the relative change in employment growth in 2001 was a decline of 7.85%, or 28.5%-36.35%. Comparing LA firms to non-LA firms, we see that LA-based firms' change in 2001 employment growth was thus 29.46% higher. These results show a much more dramatic effect of the 2001 tax holiday than shown in Tables 4-6, but again, the reader is cautioned that these do not measure whether some crowding out of existing firms may also have occurred. It is worth noting that we cannot compare 2001 employment growth for LA firms with sales over \$500,000, since according to the NETS data, there were no new establishments created by these firms in 2001.

4.4.3 Using LATAX Data

Although LATAX data does not have employment data, we can use it to examine growth in the number of firms affected by the new policy. Table 8 shows data for firms affected by the policy, and Table 9 shows data for larger LA firms. To control for trends we compare changes in changes to the affected LA firms versus changes in changes to the control group. Taxable gross receipts and taxes paid should be interpreted with caution, since both would be expected to decline after the exemption, which is what we

observe. Prior to the exemption (from 1999-2000), the number of LA firms with sales under \$500k experienced a 2.42% growth. After the exemption, there was a 9.34% sales growth. Thus, the change, after controlling for the previous year's trend, was a 6.92% increase in the number of firms. Prior to the exemption (from 1999-2000), the number of LA firms with sales over \$500k grew 4.18%. After the exemption, there was a 11.11% growth. Thus, the change, after controlling for the previous year's trend, was a 6.93% increase. Thus, comparing the two groups of LA firms, the number of firms with sales under \$500k experienced no increase.

It is important to note that starting in 2001, the Los Angeles Office of Finance (which administers the tax) increased compliance (partly as a result of AB 63) through discovery measures. Tables 8a and 9a replicate Tables 8 and 9, except they only include firms which were not part of the discovery process. From 2000 to 2001 these firms had no growth in gross receipts. On the other hand, the number of firms in this category grew, after controlling for trend, by 3.68%. From 2000 to 2001 these firms had 1.7% growth in gross receipts after controlling for trend. Clearly, they grew more than the under-\$500k firms in terms of gross receipts. On the other hand, the number of firms in this category grew, after controlling for trend, by .31%. By comparison, (controlling for trend) growth in the under \$500k firms was 3.35% higher.

4.6 Overall Analysis

The 2001 new business exemption appears to have created economic growth, although the two databases provide different pictures. The NETS database indicates average employment and number of establishment growths of 5.86% and 4.135%, respectively. The LATX data shows no growth in the gross receipts but positive growth in the number of firms. Elasticities are as follows. First, if we assume a 10-year investment horizon, then (ignoring the time value of money) a one-year tax exemption is equivalent to a 10% tax decrease (note that the law change allowed a two-year exemption, but because we are examining a single year only, this is equivalent to a 10% change). For employment, since employment increased 5.86%, we get a labor elasticity (with respect to each percent change in tax) of .586. After taking into account industry multipliers, this results in an overall elasticity of 1.35. For number of establishments, if we simply average results for NETS and LATA, growth is 2.07%, which implies an elasticity of .207.

4.7 The 2007 Small Business Exemption Increase

Effective January 1, 2007 the small business exemption was doubled to \$100,000⁹. It is important to recall that our most recent recession started in late 2007, so we would expect a drop-off in economic activity (number of firms, sales, and employment) in 2007 in general.

4.7.1 Using NETS Data

To evaluate the employment growth for LA based firms subject to the small business exemption, we compare such firms' growth to control groups. To control for trends we compare changes in changes to the affected LA firms versus changes in changes to the control group. It is important to recall that 2007 was the start of the Great Recession so we would expect to see economic decline in general. Table 10 shows data for firms affected by the new policy, i.e, those having sales below \$100,000.

One control group would be other LA firms, i.e., LA firms with sales in excess of \$100,000. Data for these firms is shown in Table 11. Prior to the exemption (from 2005-2006), LA firms with sales under \$100k experienced a 11.61% employment growth. After the exemption, they experienced an 8.0% employment growth. Thus, the change, after controlling for the previous year's trend, was a 3.61% job decrease. Prior to the exemption (from 2005-2006), LA firms with sales over \$100k experienced a -.26% employment decline. After the exemption, they experienced a 2.07% employment growth. Thus, the change, after controlling for the previous year's trend, was a 2.33% job increase. Thus, comparing the two groups of LA firms, the firms with sales under \$100k experienced a 5.94% job decrease (or 3.61% plus 2.33%).

If we use instead, as a control group, other California firms, not based in LA, but based in other MSAs and with sales of under \$100k, we get the following. Data for these firms is shown in Table 12. These firms experienced 9.49% and 6.72% growths in employment from 2005-2006 and 2006-2007, respectively. Thus there was a 2.77% decline, after controlling for trend, after 2006. Comparing them to the LA based firms with sales of under \$100k, we see the latter experienced a relative decline of .84% after the exemption.

Averaging the above two comparisons, the small business exemption was not associated with any detectible job retention/creation. When we use the number of establishments, instead of employment, we find more encouraging results, with a net

⁹ It applies to companies having global sales of under \$100k.

growth of 5.76% (comparing small firm growth to larger firm growth). Although not serving as a control group here, data on all other larger California firms is not without interest, and is shown in Table 13.

4.7.2 Using LATAx Data

Data for affected firms, using LATAx data, is shown in Table 14. To evaluate the sales and number of firm growth for LA based firms subject to the new business exemption, we compare such firms' growth to control groups. To control for trends we compare changes in changes to the affected LA firms versus changes in changes to the control group; here, the control group is LA firms with sales in excess of \$100,000. Data for these firms is shown in Table 15.

Since we would expect taxable gross receipts and tax collections to go down for the small firms, data for these two variables are shown for general information only. A more meaningful statistic is the number of firms. The number of firms shows no measureable growth. Prior to the exemption (from 2005-2006), the number of LA firms with sales under \$100k experienced a 6.23% growth. After the exemption, there was a 1.82% sales growth. Thus, the change, after controlling for the previous year's trend, was a 4.41% decrease in the number of firms. Prior to the exemption (from 2005-2006), the number of LA firms with sales over \$100k increased 7.27%. After the exemption, there was a 5.13% growth. Thus, the change, after controlling for the previous year's trend, was a 2.14% decrease. Thus, comparing the two groups of LA firms, the number of firms with sales under \$100k experienced a 2.27% decrease (or 4.41% minus 2.14%).

4.8 Overall Analysis

The 2007 new business exemption appears to have had little measureable impact on job creation in the City. It is important to remember that the Great Recession began in late 2007 and may have had a disproportionate effect on small firms. It is also important to realize that during this same time, overall City tax rates were falling, so any comparisons to other LA based firms may have been misleading. Tax rates were reduced by 3.1% in 2006, and 4% in 2007. Also, the firms affected by the 2007 exemption were very small, primarily composed of sole proprietorships which historically have a high birth and death rate, relative to other firms. Further, sole proprietors' location choice decisions are often primarily driven by proximity to where they live.

On the other hand, there is some evidence of growth in the number of firms. Averaging the LATAX and NETS result, we get a 2.88% growth rate. Estimating the elasticity associated with this is not straightforward. If we assume that any particular firm never has more than \$100,000 in gross receipts, this amounts to a 100% tax cut, in which case the elasticity is $-.0288$. However, it is more likely that an average firm would eventually grow such that they would no longer be subject to the exemption, in which case the tax reduction is less than 100%. Accordingly, the elasticity estimate of $-.0288$ would certainly increase.

4.9 Overall Discussion of 2001 and 2007 Law Changes

The fact that the 2001 tax holiday created LA businesses and jobs is encouraging given that the benefits were really quite modest, i.e. applying to new business for a single year¹⁰. By comparison, the proposed new business tax reductions would apply for a number of years. As discussed above, the 2001 holiday is probably more representative of an expected response (at least, until data from more recent changes becomes available) than the 2007 change for a number of reasons, including the large impact of the Great Recession.

The average result across the two tax cuts seem in line with what little evidence there is on municipal tax cuts. To recap, the 2001 changes, which affected a very broad set of firms, resulted in a direct labor elasticity (with respect to each percent change in tax) of $-.586$. For number of firms, there was a direct elasticity of $-.207$. Recall that previous studies of municipal tax changes found an average direct elasticity of about $-.21$.

5. Conclusion

Using a unique database obtained from the City of Los Angeles, the economic impacts of two previous tax cuts in Los Angeles are examined. Results indicate these cuts resulted in growth in both the number of jobs and number of firms. From a policy perspective, the question arises as to whether such cuts, independent of job growth, are desirable from a revenue perspective. That is, after multiplier effects are taken into

¹⁰ The 2001 exemption applied to the first two years of operations, but here we examine just its first year effect.

account, do increases in other City taxes, due to expansion of the tax base, make up for potentially lost business taxes.

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Table 1
Los Angeles City Revenue Summary¹¹
Projections for Fiscal Year 2010-11
(Thousands of Dollars)

<u>Revenue Source</u>	<u>Amount</u>
Property Tax	\$1,424,143
Licenses, Permits, Fees and Fines	710,068
Utility Users' Tax	624,898
Business Tax	424,036
Sales Tax	291,656
Power Revenue Transfer	258,815
Parking Fines	133,500
Transient Occupancy Tax	127,193
Documentary Transfer Tax	100,000
Real Property Transfer Tax – Corporate	2,000
Parking Users' Tax	84,000
Franchise Income	46,700
Interest	14,890
State Motor Vehicle License Fees	13,792
Tobacco Settlement	9,500
Grant Receipts	12,198
Transfers from Telecommunications Development Account	7,650
Residential Development Tax	1,500
Special Parking Revenue Transfer	10,000
Reserve Fund Transfer	<u>3,617</u>
Total General Fund Receipts	\$4,300,156

¹¹ Source: Supplement to Mayor's Proposed Budget 2011-12. Los Angeles City Administrative Officer (CAO), April, 2011

Table 2

City of Los Angeles Sales and Business Tax Collections from 2000-2011¹²

(in \$millions)

Year	Sales Taxes	Business Taxes		Year	Sales Taxes	Business Taxes
2000-1	357.2	344.6		2006-07	333.9	464.3
2001-02	351.1	360.3		2007-08	335.6	467.0
2002-03	363.8	356.0		2008-9	311.9	451.5
2003-04	377.9	373.2		2009-10	280.1	424.8
2004-05	316.6	396.8		2010-11	296.6	424.0
2005-06	323.6	434.5				

¹² Sources: CAO (but 2010-1 business taxes provided by Office of Finance). Note: 2010-11 data are preliminary.

Table 3

Gross Receipts Tax Rates for Nearby Los Angeles County Cities

Rate per \$1000 of Gross Receipts, As of 2009

City	Highest Rate	Median Rate	Lowest Rate
Alhambra	.19	.19	.19
Arcadia	Employee based	Employee based	Employee based
Azusa	.96	.16	.16
Baldwin Park	Employee based	Employee based	Employee based
Bell	.44	.44	.44
Bell Gardens	Employee based	Employee based	Employee based
Bellflower	Employee based	Employee based	Employee based
Beverly Hills	Mixture of gross receipts and Employee based; for certain industries subject to gross receipts taxes, highest rate is \$23.89 (commercial property rental only)	Mixture of gross receipts and Employee based; for certain industries subject to gross receipts taxes, median rate is \$1.27	Mixture of gross receipts and Employee based; for certain industries subject to gross receipts taxes, lowest rate is \$1.27
Burbank	Employee based	Employee based	Employee based
Calabasas	0	0	0
Claremont	1.10	.31	.04
Compton	1.07	.29	.29
Culver City	3.01	1.01	1.01
Table 3 (Continued)			
Diamond Bar	0	0	0
El Monte	1.47	.21	.21
Gardena	1.01	.55	.51
Glendale	0	0	0
Hawthorne	1.00	1.00	1.00

Huntington Park	.4	.4	.4
Inglewood	1.65	1.10	1.10
Irwindale	.33	.33	.33
La Puente	Employee based	Employee based	Employee based
La Verne	.21	.21	0
Lawndale	Employee based	Employee based	Employee based
Lomita	.85	.85	.85
Long Beach	Employee based	Employee based	Employee based
Los Angeles¹³	5.07	2.55/1.27	1.01
Manhattan Beach	1.79	1.79	1.79
Monterey Park	Employee based	Employee based	Employee based
Palmdale	.56	.13	.06
Pasadena	Either no tax or employee based tax, depending on industry	Either no tax or employee based tax, depending on industry	Either no tax or employee based tax, depending on industry
Pico Rivera	.31	.31	.31
Table 3 (Continued)			
Pomona	1.16	.96	.08
San Fernando	1.47	.21	.21
San Gabriel	Employee based	Employee based	Employee based
Santa Monica	5.03	1.28	1.28

¹³ The data is all from 2009 as shown in the *2009 Kosmont-Rose Institute of Doing Business*. The top rates for Los Angeles are the most recent and may not be strictly comparable to other cities' rates which are reported by *Kosmont* for prior years. Note: medians are the middle of the categories of taxation, listed in the *Kosmont* publication.

Temple City	Employee based	Employee based	Employee based
Torrance	Employee based	Employee based	Employee based
West Hollywood	.01	0	0

Table 4**Los Angeles Companies With Sales Under \$500,000¹⁴**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
1999	243,882		86,560	
2000	260,220	6.70%	93,037	7.48%
2001	284,605	9.37%	101,187	8.76%
2002	341,025	19.82%	123,387	21.94%

Table 5**Los Angeles Companies With Sales Over \$500,000¹⁵**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
1999	1,066,773		36,667	
2000	1,151,759	7.97%	39,191	6.88%
2001	1,174,548	2.00%	40,308	2.85%
2002	1,189,401	1.26%	40,783	1.18%

Table 6**All Other California Companies (located in MSAs) With Sales Under \$500,000¹⁶**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
1999	1,248,360		447,614	
2000	1,344,552	7.71%	486,325	8.65%
2001	1,442,837	7.31%	520,204	6.97%
2002	1,695,783	17.53%	615,837	18.39%

¹⁴ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data. These firms may have had some reported sales outside of Los Angeles. In that case, their Los Angeles sales are clearly under \$500k, qualifying them for the exemption.

¹⁵ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

¹⁶ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

Table 7**All Other California Companies (located in MSAs) With Sales Over \$500,000¹⁷**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
1999	5,639,995		191,606	
2000	6,117,615	8.47%	206,645	7.85%
2001	6,336,846	3.58%	211,614	2.41%
2002	6,434,782	1.55%	215,287	1.74%

Table 4a**NEW Los Angeles Companies With Sales Under \$500,000¹⁸**

Year	Total Employment of New Firms in First Year of Operations	% Change Over Prior Year
1999	71,566	
2000	99,999	39.73%
2001	161,341	61.34%

Table 6a**All Other NEW California Companies (located in MSAs) With Sales Under \$500,000¹⁹**

Year	Total Employment of New Firms in First Year of Operations	% Change Over Prior Year
1999	421,387	
2000	574,562	36.35%
2001	738,294	28.50%

¹⁷ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

¹⁸ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

¹⁹ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

Table 8**Companies With Taxable Gross Receipts Under \$500,000**

Year	Gross Receipts	% Change Over Prior Year	Tax Paid	% Change Over Prior Year	Number of Companies Filing²⁰	% Change Over Prior Year
1999	\$15,040,238,451		\$54,969,796		192,279	
2000	\$16,387,128,720	8.96%	\$59,485,513	8.21%	196,924	2.42%
2001	\$16,083,228,926	-1.87%	\$56,140,440	-5.62%	215,316	9.34%
2002	\$17,417,628,125	8.30%	\$57,773,598	2.91%	249,001	15.64%

Table 9**Companies With Taxable Gross Receipts Over \$500,000**

Year	Gross Receipts	% Change Over Prior Year	Tax Paid	% Change Over Prior Year	Number of Companies Filing²¹	% Change Over Prior Year
1999	\$94,034,376,187		\$231,044,675		28,749	
2000	\$98,923,937,959	5.20%	\$248,388,341	7.51%	29,951	4.18%
2001	\$108,396,461,836	9.58%	\$272,579,760	9.74%	33,281	11.11%
2002	\$114,925,863,066	6.02%	\$278,511,063	2.18%	33,935	2.00%

²⁰ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

²¹ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

Table 8a**Companies With Taxable Gross Receipts Under \$500,000****Firms NOT as a Result of Discovery**

Year	Gross Receipts	% Change Over Prior Year	Tax Paid	% Change Over Prior Year	Number of Companies Filing²²	% Change Over Prior Year
1999	\$14,645,651,945		\$52,762,075		186,460	
2000	\$14,920,217,971	1.88%	\$56,183,325	6.48%	186,423	-.01%
2001	\$15,120,390,211	1.34%	\$51,096,932	-9.51%	193,262	3.67%
2002	\$15,880,253,292	5.00%	\$50,970,753	-.21%	209,155	8.29%

Table 9a**Companies With Taxable Gross Receipts Over \$500,000****Firms NOT as a Result of Discovery**

Year	Gross Receipts	% Change Over Prior Year	Tax Paid	% Change Over Prior Year	Number of Companies Filing²³	% Change Over Prior Year
1999	\$91,604,856,248		\$221,484,245		28,010	
2000	\$97,214,141,384	6.55%	\$238,987,899	8.15%	29,124	4.00%
2001	\$105,432,421,924	8.25%	\$260,039,868	8.79%	30,378	4.31%
2002	\$110,697,912,667	5.71%	\$264,369,986	1.54%	31,516	3.75%

²² Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

²³ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

Table 10**Los Angeles Companies With Sales Under \$100,000²⁴**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
2005	87,667		63,726	
2006	97,847	11.61%	72,063	13.08%
2007	105,654	8.00%	76,386	6.00%
2008	120,034	13.61%	88,125	15.37%
2009	134,543	12.09%	98,624	11.91%

Table 11**Los Angeles Companies With Sales Over \$100,000²⁵**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
2005	1,404,225		135,299	
2006	1,400,613	-.26%	139,812	3.34%
2007	1,429,657	2.07%	144,159	3.11%
2008	1,414,663	-1.05%	154,335	7.06%
2009	1,430,485	1.12%	169,501	9.83%

Table 12**All Other California Companies (located in MSAs) With Sales Under \$100,000²⁶**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
2005	432,775		323,122	
2006	473,863	9.49%	356,916	10.46%
2007	505,727	6.72%	372,742	4.43%
2008	561,236	10.98%	418,229	12.20%
2009	632,072	12.62%	475,594	13.72%

²⁴ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

²⁵ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

²⁶ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

Table 13**All Other California Companies (located in MSAs) With Sales Over \$100,000²⁷**

Year	Total Employment	% Change Over Prior Year	Number of Establishments	% Change Over Prior Year
2005	7,310,623		658,447	
2006	7,364,327	.73%	680,797	3.39%
2007	7,378,538	.19%	696,081	2.25%
2008	7,374,663	-.01%	739,180	6.91%
2009	7,369,214	0.0%	813,959	10.11%

Table 14**Companies With Gross Receipts Under \$100,000²⁸**

Year	Gross Receipts	% Change Over Prior Year	Tax Paid²⁹	% Change Over Prior Year	Number of Companies Filing³⁰	% Change Over Prior Year
2005	\$6,434,533,390		\$26,765,944		311,255	
2006	\$6,680,098,710	3.82%	\$25,486,724	-4.78%	330,671	6.23%
2007	\$6,979,040,365	4.48%	\$16,023,454	-37.13%	336,688	1.82%
2008	\$6,959,625,453	-.28%	\$11,130,533	-30.54%	326,750	-2.95%
2009	\$6,990,375,702	.44%	\$9,744,993	-12.45%	317,099	-2.95%

²⁷ Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.

²⁸ See above note. Note also that, unlike for firms with sales under \$500k, I did not have access for firms over \$100k versus under \$100k in terms of those based on discovery versus non-discovery.

²⁹ Tax paid does not include interest and penalties.

³⁰ See Note 33.

Table 15
Companies With Gross Receipts Over \$100,000

Year	Gross Receipts	% Change Over Prior Year	Tax Paid³¹	% Change Over Prior Year	Number of Comp- anies Filing³²	% Change Over Prior Year
2005	\$162,569,631,851		\$372,618,303		121,643	
2006	\$175,727,718,188	8.09%	\$395,518,584	6.15%	130,481	7.27%
2007	\$194,430,753,689	10.64%	\$411,071,954	3.93%	137,181	5.13%
2008	\$206,561,747,814	6.24%	\$417,585,328	1.58%	141,181	2.92%
2009	\$212,417,857,838	2.84%	\$396,325,299	5.09%	143,529	1.66%

³¹ Tax paid does not include interest and penalties.

³² Note that a number of observations were lost because of restricting the sample to only those companies which reported sales data.