

Journal of Law & Border Studies

Volume 2, 2002, Pages 37-48

Empirical Evidence Regarding El Paso Property Tax Abatements: 1988-2001

Thomas M. Fullerton, Jr.
Department of Economics & Finance
University of Texas at El Paso
El Paso, TX 79968-0543
Telephone 915-747-7747
Facsimile 915-747-6282
Email tomf@utep.edu

Acknowledgements: Partial financial support was provided by El Paso Electric Company, the UTEP Center for the Study of Western Hemispheric Trade, and the UTEP College of Business Administration. Helpful comments and suggestions were provided by Tim Roth, Steve Barracca, and two anonymous referees. Econometric research assistance was provided by Victor Aragonés.

Empirical Evidence Regarding El Paso Property Tax Abatements: 1988-2001

Abstract

Property tax abatements are commonly utilized by municipal governments as incentives for heightened levels of business investment in their respective communities. Widespread statistical evidence questions the efficacy of such policies. Many of the studies to date, however, rely upon data samples that may not adequately account for the time dependent natures of cumulative abatement effects. A 13-year sample for El Paso is examined for evidence of beneficial impacts of the city abatement program on the local market. Similar to other metropolitan areas throughout the United States, statistical results indicate that the El Paso economy has not benefited from the implementation of property tax abatements.

Introduction

Communities throughout the United States have long relied upon property tax abatements as one means by which they attempt to lure companies to invest in their jurisdictions. Because local property taxes represent such a small portion of the total costs of doing business, economic research on this particular development tool generally indicates that it is ineffective. Historical ineffectiveness does not, however, preclude the possibility that individual metropolitan economies may employ this device as a successful catalyst for increasing jobs, housing values, personal incomes, and retail sales.

This study takes advantage of a unique data set that exists for the El Paso, Texas. Estimates of the dollar amounts of property tax abatements awarded to companies operating inside the city limits have been assembled for the 14-year period between 1988 and 2001. Econometric comparisons of borderplex economic performance over time are conducted to examine whether local property tax abatements have improved business conditions in a statistically meaningful manner. The ability to conduct these tests in a dynamic context allows the study to go beyond previous efforts and is a step that has been recommended as necessary by earlier researchers.

Organization of the paper is as follows. Section two presents a brief review of the literature regarding regional economic development and tax exemption programs. A summary of the data and methodology employed is provided in the next section. The fourth section discusses empirical results. Conclusions and policy recommendations are summarized in the final portion of the paper.

Earlier Research

Municipal taxes form a small part of the cost of doing business in the United States (Stober and Falk, 1967; Mulkey and Dillman, 1976; Helms, 1985; Craig, 1995). Given this, the extent to which local property tax abatements are utilized across the country is surprising. Two basic forces appear to contribute to this state of affairs. One arises from the perception that the local economy suffers from some type of cost

disadvantage that can only be countered by offering tax breaks to selected beneficiaries (Wolkoff, 1984). For a relatively large, cosmopolitan city such as El Paso that enjoys good transportation, communication, and internet linkages to both the United States and Mexico, this argument does not seem very credible. Even if labor force quality problems are taken into account (Fullerton, 2001a), they are not the kind of disadvantage that abatements are helpful in overcoming.

The second basic force behind widespread usage of property tax abatements arises out of what has variously been referred to as an “emulation effect” (Anderson and Wassmer, 1995), or a “garbage can effect” (Rubin and Rubin, 1987). Under this set of circumstances, otherwise attractive municipalities become unnerved by the availability of abatements offered by competing jurisdictions and conclude that the only way to avoid being left behind is to introduce similar incentives. This type of copycat behavior increases during times of fiscal stress and large-scale job losses (McHone, 1987; Beck, 1993; Case, Hines, and Rosen, 1993). Political pressures during periods of high unemployment increase the likelihood of incentive measures being adopted as elected officials struggle to appease alarmed voters (Rubin, 1988). These types of conditions were observed in El Paso during the 1980s and 1990s, and potentially played important roles in the decisions to adopt and maintain abatement policies over the years.

Since taxes represent a small percentage of the costs of doing business in the United States, it would be surprising to find that property tax abatements enhance regional economic performance. Numerous empirical studies confirm this hypothesis (Due, 1961; Bridges, 1962; Morgan and Hackbart, 1974; McGuire, 1985; Marlin, 1990; Reese, 1993). In many cases, the cities that can least afford fiscal profligacy are the ones that rely most heavily on tax abatements as incentives to industry expansion (Reese, 1991). Widespread statistical evidence against property tax abatements has led to occasional calls for federal anti-abatement legislation (Morse and Farmer, 1986; Nunn, 1994).

Alternatives to federal legislation do exist. Individual communities occasionally enact local bans on the deployment of property tax abatements as development tools. Prominent examples include Austin, Texas and Fort Collins, Colorado, metropolitan economies that grew rapidly during the 1990s (Gavin, 2001). Decisions made in those cities are in line with research that indicates that property tax incentive programs do not pay for themselves, carry price tags of several thousand dollars per job “created,” and result in only one of every five new jobs actually being offered to local residents (Peretz, 1986; Bartik, 1994). While it is possible that central city decisions to eliminate tax abatement programs may only serve to accelerate suburban economic growth, the experiences of Austin and Fort Collins highlight the fact that the services available in metropolitan economies also reduce the costs of doing business (Bartik, 1991).

In Texas, property tax abatements have been legal since 1981. Their overall effectiveness has since been the subject of periodic debate. The original legislation was eventually amended to prohibit public school districts from offering abatements to businesses (Texas Comptroller of Public Accounts, 2002). That step was taken after

studies completed by the Texas Senate Economic Development Committee indicated school districts that approved abatements ended up losing money (Robbins, 1996). In spite of the latter, school superintendents frequently came under intense pressure from community leaders involved in industrial recruitment campaigns. The adoption of the statewide ban for school district abatements is reminiscent of the earlier calls for similar legislation at the federal level (Morse and Farmer, 1986; Nunn, 1994).

Given the large volumes of negative evidence to date, an obvious question arises as to the persistence of property tax abatement programs in urban economies throughout the United States. One possibility is that professional politicians are simply catering to the wishes of political action committee contributors (Wolman, 1988; Nunn, 1994). Another is that the widespread failure of property tax abatements to be cost effective does not preclude the possibility of some communities eventually designing abatement programs that can pay for themselves in the manner so frequently emphasized by municipal development departments (Mrckvcka, 2002). A third possibility is that many of the earlier studies understate the true impact of property tax abatements on local economies (McDonald, 1983). Such a possibility can arise when the analysis fails to properly account for the dynamic aspects of these municipal subsidy programs (Coomes, Olson, and Merchant, 1991; Feiock, 1991; Wassmer, 1992).

The study at hand takes the latter possibility into account by utilizing a data set assembled for El Paso, Texas between 1988 and 2001. This is the period during which property tax abatements were employed by city government in an ongoing attempt to foster better business conditions. Discussions of the data utilized, econometric methodology, and empirical results follow.

Data and Methodology

Data from the El Paso Department of Economic Development indicate that 43 individual property tax abatements were approved by the city council between 1988 and 2001. The majority of the abatements have been approved for operations that can be defined, from a strictly regional perspective, as “basic” or “export-oriented.” A small number have been approved for retail stores and hospital units. Because El Paso is a hub for the regional economy at large, a portion of local retail sales and health care services are provided to residents from beyond the immediate market area associated with the metropolitan economy (Fullerton, Torres, Barraza, and Amastae, 2002). In general, however, tax abatement effectiveness arguments propose that the subsidies be awarded only to base activities whose sales will be to client groups from outside of the local jurisdiction (Wolkoff, 1984; Craig, 1995).

Because the data for City of El Paso property tax abatements are available over a 14-year period, they permit examining the effectiveness of the program within the dynamic context identified in several research efforts published during the 1990s (Coomes, Olson, and Merchant, 1991; Feiock, 1991; Wassmer, 1992). As those studies point out, the full impact of any business investment project normally takes several months or years to reach fruition. Failure to take into account the time dependent nature

of enterprise life cycles may, therefore, risk understating the complete effect of tax abatement stimuli on local economic performance.

To examine whether property tax forgiveness efforts in El Paso obtain the results claimed by the proponents, a set of dynamic econometric tests for statistical causality are deployed (Granger, 1988). These tests utilize a sequence of linear regression estimates to examine whether the tax abatements are associated with greater levels of economic activity in El Paso. Lag structures for the equations used in the F-tests range from 1- to 4-years. Dependent variables included in the analysis included median prices for existing single-family houses, personal income, and total employment in the metropolitan economy. Historical data for all three of the left-hand-side variables are available from the border region outreach programs section of the University of Texas at El Paso web site (www.utep.edu/coba/). Level data and logarithmic specifications of each set of equations are estimated (specification details are reported in Fullerton, 2002).

Empirical Results

The F-statistics reported in Tables 1 and 2 are used to verify whether property tax abatements precede favorable changes in El Paso business conditions in statistically reliable manners. Also known as “causality tests,” these procedures rely on dynamic linear regression analysis (Pindyck and Rubinfeld, 1998). Although abatement proponent arguments frequently indicate that city performance improvements will become immediately noticeable, the extended nature of investment projects probably means that any resulting effects will likely require several years to become fully observable (Coomes, Olson, and Merchant, 1991; Feiock, 1991; Wassmer, 1992). For that reason, equation specifications include lags of 1- to 4-years for each variable.

Arguments in favor of property tax abatements indicate that, if successful, the subsidies will strengthen local tax bases and improve economic conditions. Accordingly, median prices for existing single-family houses are included in the analysis, as are personal income and total jobs. All of the data are collected at an annual frequency. Sample period coverage from 1974 to 2001 is determined by data availability. If the property tax abatements serve as catalysts to the local economy, the null hypothesis will be rejected in at least a majority of the tests that are performed (Granger, 1988; Pindyck and Rubinfeld, 1998).

Table 1 reports the test results for the data without logarithmic transformation. In all twelve cases, the null hypothesis fails to be rejected. Similar to other abatement impact studies (Due, 1961; Morgan and Hackbart, 1974; Rubin and Rubin, 1987; Bartik, 1994), Table 1 indicates that housing prices, personal income, and jobs in El Paso do not exhibit any statistically significant changes subsequent to approval of the various property tax abatement agreements. The same tests are also conducted using logarithmically transformed data in Table 2.

Results in Table 2 do not fully parallel those reported for the data in level form. In the cases of housing prices and incomes, the null hypothesis again fails to be rejected.

Those results again imply abatement impotence over the sample period in question. The results obtained in the case of employment, however, raise an intriguing possibility. As shown in Table 2, each of those test statistics is significant at the 5-percent level or better. Taken as a whole, Table 2 indicates that property tax abatements lead to improved job performance, but do not affect the tax base.

The implication of Table 2 is fairly serious. It represents a situation in which employment increases in El Paso, but the ability to finance public services is not enhanced. In fact, in relative terms, it is worsened since borderplex jobs growth is historically associated with more rapid demographic expansion (Fullerton, 2001b). As pointed out in earlier studies (Hughes and Motekat, 1988; Nunn, 1994), this represents one of the principal risks for low-income communities that look to abatements as a means for addressing weak economic performances. In particular, Wassmer (1992) has illustrated how this type of development can lead to fairly serious difficulties such as lower housing values and higher crime rates. Ironically, low-income municipalities such as El Paso are the ones that can least afford any type of tax base erosion (absolute or relative).

Policy Recommendations

Because tax burdens represent such a small component of the total cost of doing business in the United States, property tax abatements have generally been considered as unlikely candidates for improving local area economic performance. This contention has been confirmed by empirical studies for a number of municipal economies throughout the nation. Some research, however, has argued that accurate assessment of tax subsidy programs such as these require several years worth of data in order to allow for the dynamic nature of their affiliated impacts.

This study takes advantage of such a data set for El Paso, Texas, where property tax abatements have been granted since 1988. Favorable tax base impacts are not uncovered by the statistical analysis performed. Ambiguous econometric evidence is reported for total employment. If abatements do, in fact, enhance jobs creation in El Paso without simultaneously strengthening the tax base, the implications for the budgetary health of the city are not good.

Given the above, the policy implications for elected officials are fairly clear. Property tax abatements appear not to perform in the manner anticipated by their proponents. They may even lead to an intensification of the budgetary problems the abatements are purported to alleviate. A prudent course of action, therefore, is to withdraw this type of subsidy from the development toolkit of the municipality. Evidence reported herein indicates that doing so will not harm the economic health of the community and will probably improve its fiscal stance toward existing residents.

Some politicians may be concerned that the elimination of property tax abatements would signal that El Paso does not have a healthy business climate. Evidence from other regions indicates that this is not likely. Streamlining the regulatory and

permits process, greater investment in physical infrastructure, and lowering the high school drop out rate are all pressing issues that would directly improve the local business climate. As has occurred with other metropolitan economies, eliminating abatements may also send a signal that municipal government in El Paso takes care of public sector responsibilities and allows local business markets to operate efficiently.

While these results are not directly applicable to other border municipalities, they provide fairly clear evidence that other cash-strapped communities in the region should reconsider the various property tax abatement programs currently in place. At a minimum, other border region governments should develop and maintain the type of comprehensive data bank that public agencies have for El Paso. Development of such information bases would then permit abatement policy effectiveness to be examined with some degree of quantitative reliability.

Bibliography

Anderson, J.E. and R.W. Wassmer, 1995, "The Decision to 'Bid for Business': Municipal Behavior in Granting Property Tax Abatements," *Regional Science and Urban Economics* 25, 739-757.

Bartik, T.J., 1991, *Who Benefits from State and Local Economic Development Policies*, W.E. Upjohn Institute for Employment Research: Kalamazoo, MI.

Bartik, T.J., 1994, "Jobs, Productivity, and Local Economic Development," *National Tax Journal* 47, 847-861.

Beck, J.H., 1993, "Tax Abatement and Tax Rates in a System of Overlapping Revenue-Maximizing Government," *Regional Science and Urban Economics* 23, 645-665.

Bridges, B., Jr., 1962, "State and Local Inducements for Industry, Part II," *National Tax Journal* 15, 175-192.

Case, A.C., J.R. Hines, and H.S. Rosen, 1993, "Budget Spillovers and Fiscal Interdependence," *Journal of Public Economics* 52, 285-307.

Coomes, P., D. Olsen, and J. Merchant, 1991, "Using a Metropolitan-area Econometric Model to Analyze Economic Development Proposals," *Urban Studies* 28, 369-382.

Craig, S., 1995, "Property Tax Abatements: Economic Boon or Boondoggle?" University of Houston Center for Public Policy *Houston Economics* (June), 1-6.

Due, J.F., 1961, "Studies of State-Local Tax Influences on Location of Industry," *National Tax Journal* 14, 163-173.

Feiock, R.C., 1991, "The Effects of Economic Development Policy on Local Economic Growth," *American Journal of Political Science* 35, 643-655.

Fullerton, T.M., Jr., 2001a, "Educational Attainment and Border Income Performance," Federal Reserve Bank of Dallas *Economic & Financial Review* (Third Quarter), 1-10.

Fullerton, T.M., Jr., 2001b, "Specification of a Borderplex Econometric Forecasting Model," *International Regional Science Review* 24, 245-260.

Fullerton, T.M., Jr., 2002, "Empirical Evidence on the El Paso Property Tax Abatement Program," *Technical Report TX02-2*, University of Texas at El Paso Border Region Modeling Project: El Paso, TX.

Fullerton, T.M., Jr., D. Torres, M.P. Barraza, and J. Amastae, 2002, "Borderplex Economic Change," Chapter 23 in *Digame: Politics and Policy on the Border*, Edited by D. Soden, I. Coronado, and C. Brenner, Kendall Hunt: Dubuque, IA (forthcoming).

Gavin, R., 2001, "Getting a Lift," *Wall Street Journal* 237 (June 6), A1, A8.

Granger, C.W.J., 1988, "Some Recent Developments in a Concept of Causality," *Journal of Econometrics* 39, 199-211.

Helms, L.J., 1985, "The Effect of State and Local Taxes on Economic Growth," *Review of Economics and Statistics* 67, 574-582.

Hughes, J.W. and J. Motekat, 1988, "Tax Expenditures for Local Government," *Public Budgeting and Finance* 8 (Winter), 68-73.

Marlin, J.R., 1990, "The Effectiveness of Economic Development Subsidies," *Economic Development Quarterly* 4, 15-22.

McDonald, J.F., 1983, "An Economic Analysis of Local Inducements for Business," *Journal of Urban Economics* 13, 322-336.

McGuire, T., 1985, "Are Local Property Taxes Important in the Intrametropolitan Location Decisions of Firms?" *Journal of Urban Economics* 18, 226-234.

McHone, W.W., 1987, "Factors in the Adoption of Industrial Incentive Programs by States," *Applied Economics* 23, 17-29.

Morgan, W.E. and M.M. Hackbart, 1974, "An Analysis of State and Local Industrial Tax Exemption Programs," *Southern Economic Journal* 41, 200-205.

Morse, G.W. and M.C. Farmer, 1986, "Location and Investment Effects of a Tax Abatement Program," *National Tax Journal* 39, 229-236.

Mrckvka, M., 2002, "City's Recruitment Plan Leans on Zone Subsidies," *El Paso Times* (April 16), 1F, 4F.

Mulkey, D. and B.L. Dillman, 1976, "Location Effects of Local Industrial Development Subsidies," *Growth and Change* 7, 37-43.

Nunn, S., 1994, "Regulating Local Tax Abatement Policies," *Policy Studies Journal* 22, 574-588.

Peretz, P., 1986, "The Market for Industry: Where Angels Fear to Tread," *Policy Studies Review* 5, 623-633.

Pindyck, R.S. and D.L. Rubinfeld, 1998, *Econometric Models and Economic Forecasts*, Fourth Edition, Irwin McGraw-Hill: Saddlebrook, NJ.

Reese, L.A., 1991, "Municipal Fiscal Health and Tax Abatement Policy," *Economic Development Quarterly* 5, 24-32.

Reese, L.A., 1993, "Categories of Local Economic Development Techniques," *Policy Studies Journal* 21, 492-506.

Robbins, M.A., 1996, "State Senator wants to End Property Tax Abatements," *Lubbock Avalanche-Journal* (October 31), B1.

Rubin, H.J., 1988, "Shoot Anything that Flies, Claim Anything that Falls," *Economic Development Quarterly* 2, 236-251.

Rubin, I.S. and H.J. Rubin, 1987, "Economic Development Incentives: The Poor (Cities) Pay More," *Urban Affairs Quarterly* 23, 37-62.

Stober, W.J., and L.H. Falk, 1967, "Property Tax Exemption: An Inefficient Subsidy to Industry," *National Tax Journal* 20, 386-394.

Texas Comptroller of Public Accounts, 2001, "Texas Property Law Changes," www.cpa.state.tx/taxinfo/proptax/.

Wassmer, R.W., 1992, "Property Tax Abatement and the Simultaneous Determination of Local Fiscal Variables in a Metropolitan Area," *Land Economics* 68, 263-282.

Wolkoff, M.J., 1985, "Chasing a Dream: The Use of Tax Abatements to Spur Economic Development," *Urban Studies* 22, 305-315.

Wolman, H., 1988, "Local Economic Development Policy: What Explains the Divergence between Policy Analysis and Political Behavior?" *Journal of Urban Affairs* 10, 19-28.

Table 1
F-Test Statistical Results, Data in Levels

Hypothesis	Observations	F-statistic	Probability	Lags
Abatements do not precede House Prices	24	0.00135	0.97106	1
Abatements do not precede House Prices	23	0.02838	0.97206	2
Abatements do not precede House Prices	22	0.21588	0.88384	3
Abatements do not precede House Prices	21	0.27850	0.88627	4
Abatements do not precede Incomes	24	0.06760	0.79739	1
Abatements do not precede Incomes	23	0.06743	0.93503	2
Abatements do not precede Incomes	22	0.42512	0.73783	3
Abatements do not precede Incomes	21	2.17029	0.13428	4
Abatements do not precede Jobs	24	0.07694	0.78421	1
Abatements do not precede Jobs	23	0.18301	0.83429	2
Abatements do not precede Jobs	22	0.13494	0.93767	3
Abatements do not precede Jobs	21	2.00634	0.15764	4

Table 2
F-Test Statistical Results, Logarithmically Transformed Data

Hypothesis	Observations	F-Statistic	Probability	Lags
Abatements do not precede House Prices	24	0.76897	0.39046	1
Abatements do not precede House Prices	23	0.90612	0.42175	2
Abatements do not precede House Prices	22	2.03889	0.15164	3
Abatements do not precede House Prices	21	0.37982	0.81883	4
Abatements do not precede Incomes	24	0.10868	0.74492	1
Abatements do not precede Incomes	23	0.66590	0.52602	2
Abatements do not precede Incomes	22	0.77278	0.52708	3
Abatements do not precede Incomes	21	1.21601	0.35446	4
Abatements do not precede Jobs	24	9.45356	0.00575	1
Abatements do not precede Jobs	23	4.69082	0.02293	2
Abatements do not precede Jobs	22	3.69987	0.03570	3
Abatements do not precede Jobs	21	5.38638	0.01017	4

About the Author

Tom Fullerton is an Associate Professor of Economics & Finance and Fulbright Border Scholar in the College of Business Administration at the University of Texas at El Paso. In addition to conducting research on borderplex business conditions, Dr. Fullerton teaches courses in regional economics, business forecasting, Latin American political economy, and managerial economics. He holds degrees from UTEP, Iowa State University, the Wharton School of Finance at the University of Pennsylvania, and the University of Florida. His research has been published in academic journals in North America, Europe, South America, Asia, Africa, and Australia.