

Inter-City Competition for Retail Trade: Can Tax Increment Financing Generate Incremental Tax Receipts?

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ABSTRACT

Tax increment financing (TIF) is an increasingly common form of economic development incentive used by local governments to encourage private sector investment. In this study, we focus attention on a specific TIF proposal in the City of Dallas. In the empirical section, we present a regression analysis of retail spending across North Texas cities. We estimate the extent to which the growth in retail sales in a given city can be explained by the growth in retail sales in surrounding cities. Next, we solve for the “critical” cannibalization rate for retail sales within the City of Dallas such that a proposed TIF would be in the City’s economic interest. In particular, we find that for any cannibalization rate less than 93 percent, the City of Dallas would benefit from the proposed TIF. Next, we estimate the cannibalization rate for various geographic markets containing Dallas. We find that the cannibalization rate for a geographic market that contains the City of Dallas is 34 percent—that is, 66 percent of all new sales in that area are incremental to that area. Because the cannibalization rate for Dallas must be less than the cannibalization rate for a larger geographic market that contains Dallas, and because the estimated 34 percent cannibalization rate is less than the critical level of 93 percent, the City of Dallas should endorse the proposed TIF from the standpoint of revenue maximization. . We also present a case study of a TIF used by the neighboring city of Frisco, with a special emphasis on the economic effect of that TIF on the City of Dallas.

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I. INTRODUCTION

The major empirical question for tax increment financing (TIF) in particular and tax incentives in general concerns estimation of what would have occurred in the absence of the incentive program.¹ Stated differently, projects seeking a TIF must demonstrate that “but for” the TIF, the benefits to the city in terms of sales tax revenues, property values, and job creation would be reduced. In this study, we examine the efficacy of creating a TIF in the city of Dallas to convert 33 acres of land into a mixed-use commercial and residential property. The site is currently improved with two mid-rise office structures (one of which is vacant) along with commensurate surface parking.

According to the Dallas Economic Development Department, the City of Dallas currently has seven TIF Districts.² Table 1 summarizes the seven TIFs in Dallas.

TABLE 1: TIF DISTRICTS IN DALLAS

TIF District	Year Created	Size	Uses	Original Budget	Increase in Property Value
Cedars	NA	247 acres	mixed	NA	NA
City Center	1996	NA	mixed	\$61.9 million	\$630 million
Cityplace	1992	238 acres	mixed	\$22 million	(over \$170 million has been invested)
Farmers Market	1999	55 acres	mixed	\$11.7 million	(over \$150 million in private development)
Oak Cliff Gateway	NA	350 acres	mixed	NA	NA
Sports Arena	NA	65 acres	mixed	\$25.5 million	(\$550 million in new construction)
State-Thomas	1989	NA	mixed	\$14.4 million	NA

Sources: Dallas Economic Development Department, Area Redevelopment (available at <http://www.dallas-edd.org/ardv.htm>); Texas Comptroller of Public Accounts.

As Table 1 shows, the use of TIFs in Dallas appears to have been reasonably successful, as many designated areas enjoyed large increases in property values.

The study is organized as follows. Part II reviews the existing literature on the effect that tax increment financing has on property values, job growth and tax

1. For a review of how a TIF works, see Texas Comptroller of Public Accounts, Texas Economic Development Incentives 2003, Chapter 5: Tax Increment Financing, March 2003 (available at <http://www.window.state.tx.us/specialrpt/ecodev03/08ch5.html>) [hereinafter *Texas Comptroller Study*]. For an economic analysis of the effects of TIFs on property values, see John E. Anderson, *Tax Increment Financing: Municipal Growth and Adoption*, 43 NAT'L TAX J. 155 (1990); Richard F. Dye & David F. Merriman, *The Effects of Tax Increment Financing on Economic Development*, 47 J. URBAN ECON. 306 (2000).

2. Dallas Economic Development Department, Area Redevelopment (available at <http://www.dallas-edd.org/ardv.htm>).

revenues. We argue that the success of a TIF is dependent on how much of the revenue generated from the TIF financed development is the result of new sales (that would not have occurred without the TIF financed project) and how much of the additional revenue is simply revenue that would have occurred in other parts of the municipality. Part III introduces the basic theory of cannibalization—that is, the extent to which new sales in a given locality are created at the expense of existing sales in that market. We solve for the “critical level” of cannibalization associated with the proposed TIF, and find that for any cannibalization rate less than the critical level of 93 percent, the City of Dallas would benefit from the proposed TIF. Next, we estimate the cannibalization rate for various geographic markets in North Texas. We find that the cannibalization rate for a geographic market that contains the City of Dallas is 34 percent—that is, 66 percent of all new sales in that area are incremental to that area. Because the cannibalization rate for Dallas must be less than the cannibalization rate for a larger geographic market that contains Dallas, and because the estimated 34 percent cannibalization rate for the City of Dallas is less than the critical level of 93 percent, the City of Dallas should endorse the proposed TIF from the standpoint of revenue maximization. Finally, Part IV describes a TIF used in Frisco (Collin County, Texas), which uniquely affected Dallas. We identify several real estate development projects, either completed, currently underway, or planned for the near future in Frisco, that were candidates for development in Dallas. We identify the type of project, the project’s potential location in the City of Dallas, and whether TIF (or other tax incentives) were used to sway developers to locate their project in Frisco.

II. Literature Review

Most empirical studies of tax increment financing (TIF) show that TIF increase property values and employment. It is less clear, however, whether that growth is entirely causal, or if TIF districts grow at the expense or to the benefit of adjacent areas within the municipality. For example, Professor John E. Anderson studied both the decision to adopt a TIF and the relationship between TIFs and property values.³ Professor Anderson used a sample of 255 cities in Michigan, 63 of which had established TIFs. After regressing city characteristics on property value growth in both TIF and non TIF cities, he found a structural difference between the two groups of data. In particular, he found that property value growth and TIF adoption were positively related. However, he was unable to determine whether TIF adoption caused the increase in value or if TIFs were adopted in response to the increase in property value.

In another study, Professors Richard F. Dye and David F. Merriman conducted an analysis of 235 municipalities in the Chicago metropolitan area that adopted TIF programs.⁴ Correcting for potential selection bias—that is, the increased likelihood of TIF adoption in high growth areas—the authors found that TIF adoption resulted in slower growth in property values. However, their results are

3. John E. Anderson, *Tax Increment Financing: Municipal Growth and Adoption*, 43 NAT’L TAX J. 155 (1990).

4. Richard F. Dye & David F. Merriman, *The Effects of Tax Increment Financing on Economic Development*, 47 J. URBAN ECON. 306 (2000).

not robust to changes in the specification of their regression, and, furthermore, certain results in their analysis are contradictory.

Professors Dye and Merriman found that cities that adopted TIFs experienced slower rates of municipal growth.⁵ This negative impact was not significant at a reasonable level of statistical confidence when controlling for selection bias.⁶ When the selection bias correction was removed, the authors were able to more accurately estimate a negative effect of TIFs on municipal growth, but the amount of that impact became less than one percent. In an attempt to improve their estimates, Dye and Merriman add a variable that measures the share of the municipalities equalized assessed value within the TIF district. The coefficient on this variable is positive in regressions containing all municipal property.⁷ Dye and Merriman conclude that the *existence* of a TIF reduces growth, but municipalities with larger relative TIFs experience faster growth—a result that is counterintuitive. Therefore, although Dye and Merriman attempt to estimate the causal relationship between a TIF and municipal growth, their results are not sufficiently robust to draw a decisive conclusion.

Joyce Y. Man and Mark S. Rosentraub examined property values in Indiana cities with and without TIFs.⁸ This study found that by comparing pre- and post-TIF project property values, the median owner-occupied housing values in TIF-adopting municipalities was 11 percent higher than in those not adopting TIF. In addition, they noted that the TIF programs in the sample stimulated property value growth after two years of project implementation. Regarding the effect of TIF on employment growth, Joyce Y. Man reports that Indiana cities that adopted TIF programs created four percent more jobs compared to similar cities that did not adopt TIF programs.⁹ Man's analysis controlled for municipal variation in tax revenues, municipal expenditures, industrial base, demographic composition and socioeconomic conditions. In a subsequent study, Man compared rates of job growth in Indiana cities before and after adopting TIF projects. Man concluded that "Indiana TIF programs created 2,440 more jobs, equivalent to a 11.4% employment growth relative to what the cities would have had without the programs."¹⁰ In a case study of TIF commercial projects in Barberton, Ohio, Beckett-Camarata concluded that the additional tax revenue generated by two TIF projects was more than sufficient to offset the public costs of the projects.¹¹

5. *Id.* at 320-23.

6. *Id.* at 321 tbl. 5.

7. *Id.* at 321 tbl. 5.

8. Joyce Y. Man & Mark S. Rosentraub, *Tax Increment Financing: Municipal Adoption and Effects on Property Value Growth*, 26 PUB. FIN. REV. 523-547 (1998).

9. Joyce Y. Man, *The Impact of TIF Programs on Local Economic Development*, J. of Public Budgeting, Accounting and Financial Management 11(3):417-430 (1999).

10. Joyce Y. Man, *The Effect of State and Local Tax Incentive Programs on Job Growth*, Proceeding of the National Tax Association, p. 320 (2002).

11. Jane Beckett-Camarata, *Toward a Model for Assessing the Effectiveness of Tax Increment Financing: The Ohio Experience*, Municipal Finance Journal, 22:1-10 (2001).

III. EMPIRICAL ANALYSIS OF RETAIL SPENDING PATTERNS ACROSS NORTH TEXAS CITIES

In this Part, we develop a basic theory of retail cannibalization within a geographic market and derive the critical level of cannibalization that would make the City of Dallas indifferent to the proposed TIF. We then measure how much of a hypothetical increase in retail sales (and the associated sales tax receipts) resulting from the proposed TIF would be incremental to Dallas and how much would be merely redistributed from other Dallas stores.

A. *The Critical Level of Cannibalization for the Proposed TIF*

Cannibalization is the extent to which new sales come at the expense of existing sales. For example, a car manufacturer might cannibalize existing sales of mid-sized sport utility vehicles by introducing a large sport utility vehicle. A city considering a tax incentive faces similar constraints. Define the cannibalization rate, c_i , as the percentage of new sales in geographic market i that come at the expense of existing sales within that market. The specific value that the variable c_i equals will depend on the square miles of geographic market i and economic and demographic characteristics of market i such as population, income, and the median age of area i 's citizens.

Define c_D as the cannibalization rate of Dallas and c^* as the cannibalization rate such that the benefits of the proposed TIF in Dallas exactly offset the costs of the TIF. For simplicity, assume that the city is guaranteed to recoup its investment, I , in the affected area from greater property values in the affected area. To support the TIF, the City of Dallas must be assured that the cannibalization rate for Dallas satisfies the following equation:

$$[1] \quad tG(1-c_D) - rI > 0,$$

where r is the City of Dallas' cost of capital (interest rate), t is the city sales tax rate, and G is the projected gross increase in sales in the affected area within Dallas. Put differently, the City of Dallas must be able to offset the interest payments on its investment with sales tax receipts that are truly incremental to the City. If sales within Dallas are cannibalized at a rate of c_D , and if total sales in Dallas increase by G , then $G(1-c_D)$ of those new sales were attracted from outside of Dallas. Therefore, equation [1] says that the tax revenue raised from new sales attracted from *outside* of Dallas must exceed the opportunity cost of the project for it to be in Dallas' interest to proceed with the TIF.

Define the breakeven rate c^* as the cannibalization rate such that equation [1] equals zero, which, after some simple algebra, can be expressed as

$$[2] \quad c^* = 1 - rI / tG$$

As equation [2] shows, for Dallas to benefit from the proposed TIF, it must be true that $c_D < c^*$. We proceed by calculating c^* for the benchmark scenario of expected retail sales. The sales tax rate applicable to Dallas is 1 percent, and the investment proposed under the TIF is \$21 million. The City's annual interest rate is assumed to range from 6 percent to 10 percent. The discounted stream of sales tax receipts from the proposed project is expected to begin at \$2,388,000 and grow at 2 percent

per year over the next 30 years. Table 2 shows the critical level of cannibalization for the proposed TIF associated with two possible interest rates for the City of Dallas.

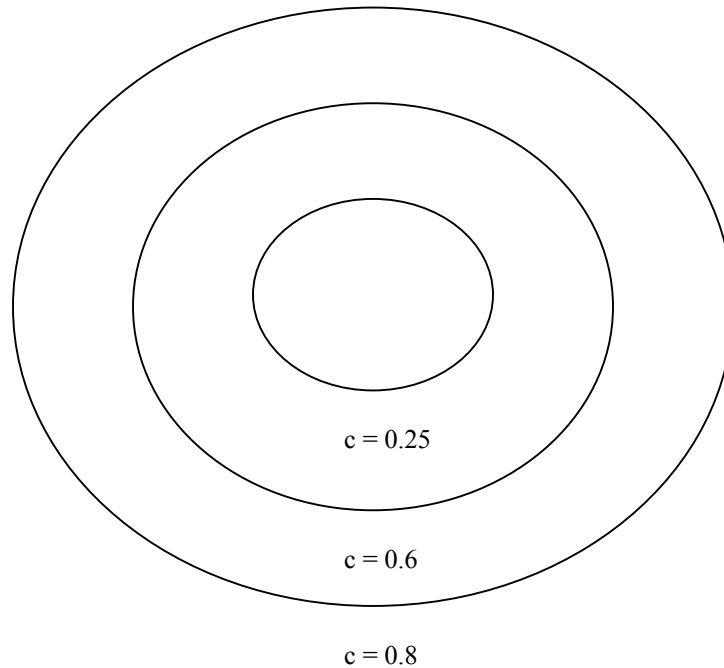
TABLE 2: CRITICAL LEVEL OF CANNIBALIZATION

Interest Rate	Critical Level of Cannibalization Rate (Incremental Sales)
6 %	0.97 (3 percent)
10 %	0.93 (7 percent)

The critical cannibalization rates for the proposed TIF are solved by using equation [2]. Under the current proposed cite plan and an interest rate of 10 percent, if the cannibalization rate in the City of Dallas is less than 0.93—that is, if at least 7 percent of retail sales in the new development are incremental to the City of Dallas—then the City of Dallas would benefit from the proposed TIF.

Fortunately, it is not *necessary* to estimate the cannibalization rate for the City of Dallas. Basic economic theory dictates that the cannibalization rate increases with the size of the market. In particular, the cannibalization rate equals 1 when a geographic market is sufficiently large such that *all* new retail dollars attracted to a specific locality must come at the expense of existing sales within that geographic market. Figure 3 shows how the cannibalization rate varies with the size of a hypothetical geographic market.

FIGURE 3: CANNIBALIZATION RATE FOR VARIOUS GEOGRAPHIC MARKETS



As Figure 3 shows, the cannibalization rate increases with the square miles of a geographic market. As the geographic area expands to include alternative retail

shopping destinations for residents of that market, it is more likely that a new retail dollar of spending will come from an existing retail dollar of spending in that geographic market. Hence, it is *sufficient* to estimate the cannibalization rate for an area that contains the City of Dallas—that is, if we know that the cannibalization rate for an area that contains Dallas is y percent, then we can infer that the cannibalization rate for the City of Dallas is strictly less than y percent. We proceed by estimating the cannibalization rate for areas that *contain* the City of Dallas.

B. Estimating the Rate of Cannibalization for an Area Larger than the City of Dallas

The net increase in retail sales in geographic regions surrounding Dallas from a specific investment project within Dallas is equal to the gross increase in retail sales resulting from the investment less the cannibalization of existing sales in the region. The rate of cannibalization is then equal to the change in gross retail sales (excluding sales in Dallas) for the entire region, divided by the increase in retail sales in Dallas. In particular, the cannibalization rate, c , is given by

$$[3] \quad c = \frac{\Delta R}{\Delta D},$$

where ΔR is the change in retail sales in the entire region (Dallas excluded), and ΔD is the change in retail sales in Dallas. As c gets close to one, then ΔR and ΔD are nearly equal. Such a finding would imply that the increase in Dallas sales is almost a pure transfer from either (1) within Dallas itself or (2) from the geographic region just outside of Dallas. However, if c is close to 0, then ΔD far exceeds ΔR , which implies that much of the increase in Dallas sales originates from the municipalities outside the region of interest.

We proceed by estimating the relationship between the growth in retail sales within a given city and the growth in retail sales in several, increasingly large, regions around that city. Whenever possible, one should control for local demographics such as the population, income, and average age within the municipality as those variables would likely help to explain growth in retail sales. Therefore, the regression equation we intend to estimate is as follows:

$$[4] \quad g_{it} = a_0 + a_1 pop_{it} + a_2 income_{it} + a_3 R_{it}^{15} + a_4 R_{it}^{15-20} + e_{it}$$

The variable g_{it} represents growth in retail sales in period t for city i . The variable R_{it}^{15} is growth in the geographic market represented by a 15-mile radius surrounding city i . Furthermore, R_{it}^{15-20} is growth in area *between* the 15-mile radius around i and the 20-mile radius around i . The variables pop and $income$ are population and average household income for city i .

For the 15-mile radius surrounding the city in question, the value of c for the geographic market defined as a fifteen mile radius around that city equals $1/a_3$. In particular, the cannibalization rate equals the change in own market sales divided by city sales. However, the coefficient a_3 equals the change in city sales relative to a change in the sales within 15 miles of that city. Therefore, it is necessary to

invert a_3 to find the appropriate cannibalization rate. To find the cannibalization rate for the area defined by a 20-mile radius around the city, one must add a_3 and a_4 and then invert that number. Specifically, the cannibalization rate for the 20-mile market is:

$$[5] \quad 1/(a_3 + a_4).$$

C. Data

To perform our statistical analysis, we used data from 286 cities within a 60-mile radius of any border of the City of Dallas. We obtained city-specific retail trade data from the Texas Comptroller of Public Accounts.¹² These data are available for all quarters and all years between 1990 and 2003. Our city specific demographic data were obtained from the U.S. Census. These demographic data, which contain such information as income, population, population growth, ethnicity, and age, were available for the years 1990 and 2000. Therefore, our analysis is limited to estimating growth for cities in Dallas for one ten-year span.

D. Regression Results

We use ordinary least-squares to estimate equation [4]. Table 3 contains the estimation results.

TABLE 3: ORDINARY LEAST-SQUARES REGRESSION RESULTS OF INTER-CITY GROWTH IN RETAIL SALES

<i>Variable</i>	<i>Coefficient</i>	<i>T-Stat</i>	<i>Coefficient</i>	<i>T-Stat</i>
Population Growth	1.06	1.02	1.05	1.02
Average Income	4.8×10^{-5}	2.80	4.8×10^{-5}	2.81
15-Mile Market Growth (R^{15})	2.92	3.34	2.92	3.36
15-20 Mile Market Growth (R^{15-20})	-.88	-1.44	-.87	-1.44
20-25 Mile Market Growth (R^{20-25})	.08	0.16	---	---
Constant	-3.22	-2.33	-3.12	-2.51
R^2	0.155		0.155	
Regression F-Stat	7.12		8.93	
Observations	200		200	

As Table 3 shows, population growth is positively correlated with retail sales growth. As expected, higher income areas experienced higher growth in sales revenues. The coefficient on the 15-mile radius variable, R^{15} , is 2.92. Inverting this number, we find that the cannibalization rate for the market defined by the 15-mile radius from the center of Dallas is 0.34, which is below the critical cannibalization rate for the proposed TIF, c^* (equal to 0.93). Furthermore, we estimated this number with a high degree of statistical accuracy. In particular, the coefficient on R^{15} is statistically significant at the 1 percent level. Hence, we conclude that for every dollar in new spending originating within a 15-mile radius of the center of Dallas, 34 cents represents cannibalization from existing retail sales, and 66 cents

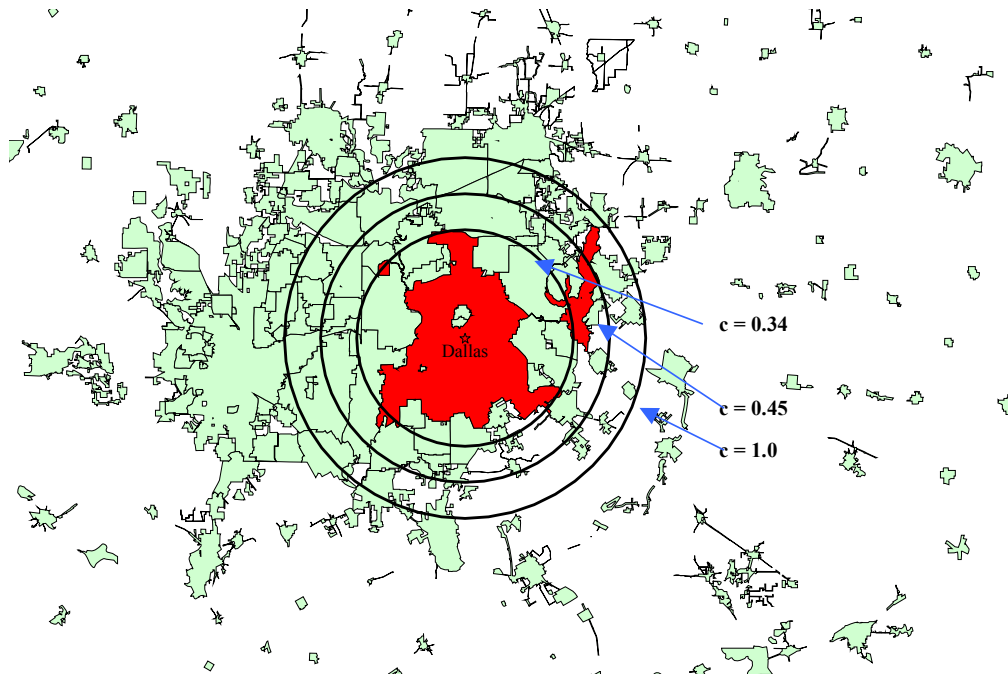
12. Texas Comptroller of Public Accounts, Quarterly Sales Tax Historical Data (available at: <http://ecpa.cpa.state.tx.us/allocation/HistSales.jsp?jsessionid=M2Y0MI5QYGFZZFUHXBBSMEA>).

represents incremental sales to that market. The primary source of that incremental spending is likely existing retail sales from cities *outside* of the 15-mile radius.

To calculate the cannibalization rate for the market defined as all sales within a 20-mile radius of the center of Dallas, we subtract 0.88 from 2.92 and invert that number. We find this cannibalization rate to be 0.49, which is also less than c^* . Consequently, our estimates show that for every dollar in new spending originating within the 20-mile radius from the center of Dallas, 49 cents represents cannibalization of existing retail sales, while 51 cents represents incremental sales for that area.

Because the T-Statistic on R^{20-25} is very close to zero, we were unable to estimate this coefficient with even a marginal degree of statistical precision. One could interpret this result to mean that somewhere between a 20-mile and 25-mile radius from the center of Dallas, the cannibalization rate is no different from 1. Figure 4 graphically displays these three radii and their associated cannibalization rates superimposed upon a map of Dallas and the surrounding municipalities in our sample.

FIGURE 4: CANNIBALIZATION MAP AROUND THE CITY OF DALLAS



As Figure 4 shows, almost the entirety of Dallas is contained within the 15-mile radius with a cannibalization rate of 0.34. All of the City's land mass is contained within the 20-mile radius with a cannibalization rate of 0.49. The long red area to the east of the City's main land mass is Lake Ray Hubbard, the interior of which is certainly void of retail activity. Because both the 15-mile and 20-mile geographic markets contain the City of Dallas and have cannibalization rates less than the critical level of 0.93, we find that the proposed TIF would benefit the City of Dallas.

E. *Decomposition of the Gross Increase in Sales Tax Revenues*

We conclude that the cannibalization rate on any new retail sales for the City of Dallas must be less than 0.34. Applying this upper bound to the project's estimated increase in sales tax receipts, we find that the proposed TIF would generate \$1.576 million (equal to 66 percent of \$2.388 million in gross retail tax receipts) in *incremental* sales tax receipts for the City of Dallas in the first year of the project and grow by 2 percent per year for each of the next thirty years.

IV. CASE STUDY: THE USE OF TAX INCREMENT FINANCING IN FRISCO, TEXAS

Frisco has aggressively pursued businesses and developments using TIFs and other incentives. In this Part, we explain how Frisco achieved its extraordinary growth in retail sales in particular and economic development in general.

A. *Companies That Located in Frisco*

The Frisco Economic Development Corporation (FEDC) is funded by a half-cent city sales tax through the city's classification as a 4A sales tax city.¹³ The FEDC uses the sales tax revenue to attract corporations by offering them tax reimbursements and funding. Through this incentive program, Frisco has been one of the most aggressive, and successful, North Texas cities in attracting companies.

One of the first companies to take advantage of Frisco's incentive program was Thousand Trails Inc., which was based in Dallas from 1994 to 2002. Thousand Trails planned to move into its new offices at Parkwood Office Center by September 2002, bringing with it over 100 jobs.¹⁴ According to the CFO of Thousand Trails, Bryan Reed, economic incentives provided by the FEDC drew the company to Frisco.¹⁵ He explained that "[t]he dollars were about the same for space in Frisco and Plano, but the offer from the Frisco EDC made it impractical to go to Plano."¹⁶ Under the agreement with the FEDC, Thousand Trails is eligible for \$125,000 in economic assistance.¹⁷

Frisco was also able to attract the Swedish retailer Ikea. Ikea is building a 310,000-square-foot store at the northeast corner of the Dallas North Tollway and State Highway 121 near Stonebriar Centre. According to the *Dallas Morning News*, Ikea will "make Frisco—already a shopping destination with more than 4 million square feet of retail space sprouting in three years—more of a ground zero for sporting shoppers."¹⁸ An Ikea spokesperson explained that Ikea had been looking for a Dallas-area location for more than a year. The store plans to employ

13. Christine Perez, *Cash lures Thousand Trails to Frisco*, DALLAS BUSINESS JOURNAL, May 27, 2002. [hereinafter *Thousand Trails to Frisco*]

14. City of Frisco, Press Releases, *Another Corporate Headquarters to Set Up "Camp" in Frisco; Thousand Trails Moves North*, May 22, 2002 (available at http://www.ci.frisco.tx.us/pio/pressreleases/thousand_trails.htm).

15. *Id.*

16. *Id.*

17. *Id.*

18. Martha Halkia & Michael Precker, *Flair and function in Frisco Local 'Ikea cult' shoppers drive to Houston for modern home furnishings at ...*, DALLAS MORNING NEWS, Jan. 21, 2004.

400 to 500 people and will be built on 25 acres that Ikea is purchasing contingent to approvals from city and private entities. The *Dallas Morning News* reports that, according to Ikea's economic development agreement with the city of Frisco, the retailer will spend a minimum of \$40 million on the project.¹⁹ The City of Frisco is giving Ikea a \$1.4 million refund for a new road and a retention pond that it will build on the property as well as a share of sales taxes collected by the store over 10 years.

Another prominent firm that has chosen to relocate to Frisco is EADS Telecom North America, the U.S. division of a Paris-based telecommunications company. EADS planned to move its 250 employees to a newly-constructed, two-story, 116,000 square-foot office building located on Internet Boulevard in November of 2003.²⁰ According to EADS president Philippe Lecat, EADS chose Frisco because of the location and "the benefits and amenities provided by the city of Frisco."²¹ In announcing the move of EADS, Mike Simpson, the Mayor of Frisco, claimed that the "net economic effect in taxes and indirect benefits for the city will exceed \$2.2 million per year."²² According to the *Dallas Morning News*, the FEDC offered EADS financial incentives of over \$1 million per year for the four years following the move.²³ The FEDC plans to recoup its investment within five and a half years through property taxes on the building and the sales tax generated by company purchases, according to Jim Gandy, president of the FEDC.²⁴

After 10 years in Dallas, Fujitsu Transaction Solutions Inc. decided to move into five floors at Hall Office Park on Network Boulevard in Frisco.²⁵ According to its President and CEO, Austen Mulinder, Fujitsu chose Frisco because of the modern environment of the office facilities, the appealing demographics, greater access to clients, and funding from the FEDC.²⁶ Jim Gandy, President of the FEDC, estimated that the relocation of EADS and Fujitsu would bring more than 550 jobs to Frisco in 2003.²⁷ Fujitsu was eligible for up to \$130,000 in tax reimbursement from the FEDC over a five-year period after the move.²⁸

Medical firms are also responding to the increased demand for medical services in the Frisco area. America Medical Office Partners and Corporate Capital and Development of Dallas have started construction on The Frisco Professional and Medical Arts Center, which plans to open in the second quarter of 2005. The new building will be located on the east side of North Preston Road and will provide 56,000 square feet of custom-designed, Class "A", professional and

19. *Id.*

20. *EADS Telecom Plans to Move to Frisco, Texas*, DALLAS MORNING NEWS, Nov. 1, 2002. [hereinafter *EADS Move to Frisco*]

21. *Id.*

22. Mike Simpson, *Mayor's Message*, FOCAL POINT NEWSLETTER, July 2002 (available at http://www.ci.frisco.tx.us/pio/focal_point/newsletter_jul02_pg1.htm).

23. *EADS Move to Frisco*, *supra* note 20.

24. *Id.*

25. Christine Perez, *Fujitsu forsaking Dallas for Frisco*, DALLAS BUSINESS JOURNAL, Aug. 16, 2002.

26. *Id.*; Fujitsu Transaction Solutions Inc., Press Releases 2002, *Fujitsu Transaction Solutions leases 89,000 square feet at Hall Office Park in Frisco, Texas for its North American corporate headquarters location*, Aug. 16, 2002 (available at <http://www.ftxs.fujitsu.com/newsarticle.asp?navid=3&newsid=473>).

27. *Id.*

28. *Id.*

medical office space.²⁹ According to the *Dallas Business Journal*, the project will cost approximately \$12.5 million with space being rented at a rate of \$175 per square foot.³⁰ Jeffrey Jones, managing partner of America Medical Office Partners, said the site was chosen because “Frisco continues to be one of the fastest-growing communities in the country, and the demand for high-quality medical and professional office space has never been greater.”³¹

Major healthcare companies, such as Tenet Healthcare Corporation, are also attracted to Frisco. After Tenet signed a lease for 55,000 square feet at Hall Office Park in 2003, Frisco became the new regional business center for the California-based healthcare corporation.³² Tenet’s director of corporate communications anticipated that 270 jobs will be created at the Frisco facility in 2004 as a result of the move.³³ Over a four-year period, Tenet will be eligible for approximately \$630,000 in tax reimbursements from the FEDC.³⁴ As of October 2003, Tenet was also building a 182-bed, full service hospital in Frisco, which had plans of being fully operational by June 2004.³⁵

Frisco is also attracting knowledge-based firms, such as IntegraSys, that are interested in relocating to the Dallas area. IntegraSys, a banking software firm, had been looking to relocate from its offices in Plano since the summer of 2003 and will move into Hall Office Park in Frisco by June 2004.³⁶ The company chose to locate in Frisco despite the fact that most of its local clients are located in the Dallas area. IntegraSys plans to make most of its future hires locally.³⁷ Other knowledge-based companies that have moved to Frisco in the last two years include BridgeSpan and General Electric Capital Company, which relocated some of its financial services divisions there.³⁸

B. Retail Sales in Frisco

Due to its proximity to Dallas, the tax increment reinvestment zone (TIRZ) in Frisco (Collin County, Texas) has the potential for a large effect on the city of Dallas. In 1997, Frisco created a TIRZ in a mixed multi-family residential and retail/commercial area. The city, community college district, and school district all contribute 100 percent of tax increment revenue raised in the zone. Collin County contributes at a rate of 50 percent. The 1,200-acre zone was established for a

29. Steve Brown, *Medical Building Going Up in Frisco*, DALLAS MORNING NEWS, May 30, 2004; Stephanie Patrick, *Frisco set for \$12.5M medical office project*, DALLAS BUSINESS JOURNAL, June 1, 2004.

30. *Id.*

31. *Id.*

32. Christine Perez and Stephanie Patrick, *Frisco grabs Tenet facility*, DALLAS BUSINESS JOURNAL, Oct. 10, 2003.

33. *Id.*

34. *Id.*

35. *Id.*

36. Steve Quinn & Ieva M. Augstums, *IntegraSys will head to Frisco Plano firm is moving to Hall Office Park by mid-June*, DALLAS MORNING NEWS, Feb. 17, 2004.

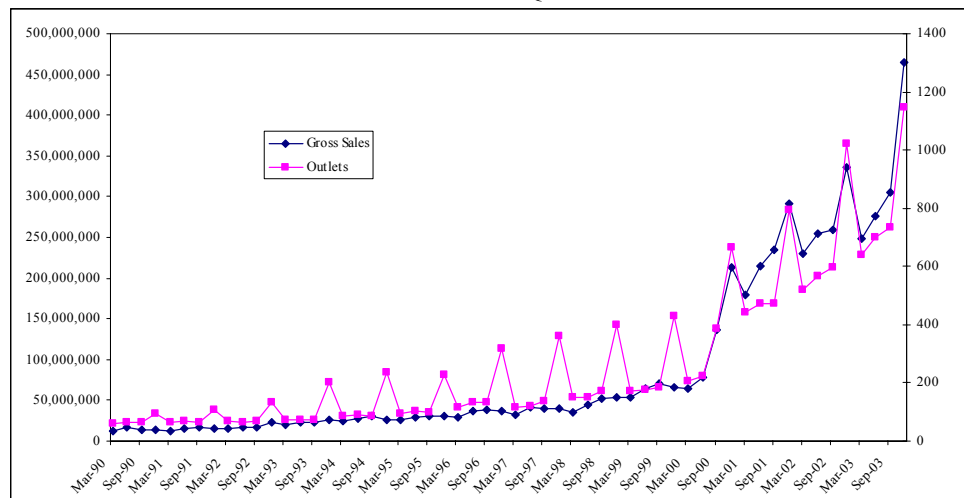
37. *Id.*

38. Steve Quinn & Ieva M. Augstums, *Firm making Frisco its home Real estate company will move headquarters from California*, DALLAS MORNING NEWS, Aug. 12, 2003; Steve Quinn & Ieva M. Augstums, *Frisco office park is building on its success*, DALLAS MORNING NEWS, Dec. 16, 2003.

duration of 31 years, and \$8.4 million of debt has been issued to pay for the improvements. The captured appraised value for this zone was \$185 million through 2001. The city reported \$5.4 million in revenue and nearly \$1.7 million in expenditures through 2001, which were used to reimburse construction costs for a new school. By March 2004, the captured appraised value for this zone increased to \$529.4 million.³⁹

The Frisco development efforts have succeeded in increasing retail sales and retail outlets through the past decade. Figure 1 shows the growth in retail sales and outlets in Frisco from 1990 through 2003.

FIGURE 1: GROWTH IN RETAIL SALES AND RETAIL OUTLETS IN FRISCO
1990-2003 BY QUARTER



Source: Texas Comptroller of Public Accounts.

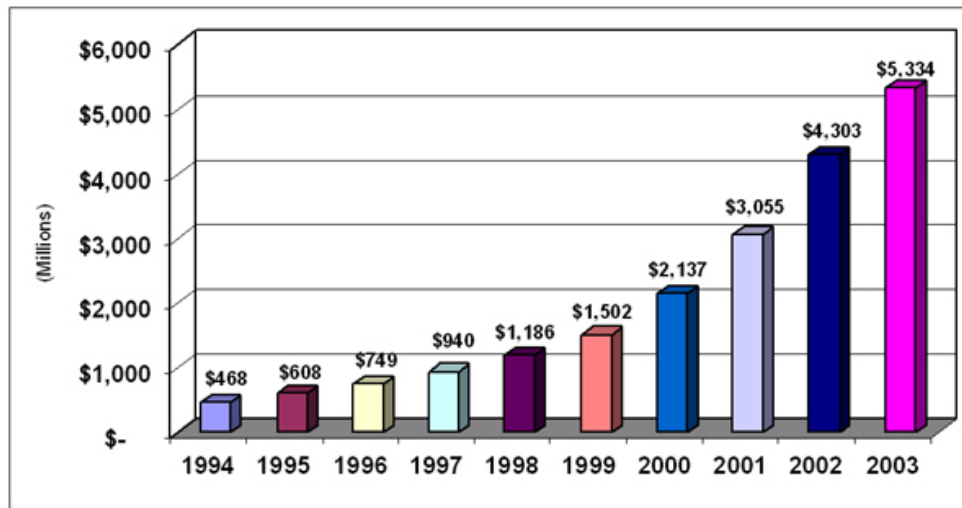
As of the third quarter of 2003, there were over 700 retail outlets in Frisco generating over \$300 million in quarterly retail sales. Retail sales in Frisco nearly doubled in 2000 (93.8 percent increase over 1999 levels) and nearly doubled again in 2001 (86.8 percent increase over 2000 levels). The average annual growth rate in retail sales in Frisco from 1990 through 2003 was 29.6 percent. By contrast, the average annual growth rate in retail sales in the City of Dallas over the same time period was 5.0 percent.

C. Taxable Value in Frisco

As a result of its success in attracting corporations, Frisco has experienced large increases in its taxable value over the past decade. Figure 2 shows the upward trend of Frisco's taxable value from 1994 to 2003.

39. June 29, 2004 email from Anita Cothran, Assistant Finance Director, City of Frisco, Texas.

FIGURE 2: FRISCO'S TAXABLE VALUE 1994-2003



Source: Frisco Economic Development Corporation (available at <http://www.friscoedc.com/incentives.asp>)

As Figure 2 shows, Frisco's taxable value increased by almost \$5 billion in the last decade, which is a total increase of 1,040 percent. On average, Frisco's taxable value more than doubled every year from 1994 to 2003, with an average annual growth rate of 116 percent. As Frisco's taxable value increases, so do the tax revenues it is able to collect, which in turn allows the FECD to provide more incentives to corporations interested in the larger Dallas area.

D. The Future of Frisco

In June 2004, Duke Realty Corporation completed the acquisition of 57 acres of land in Frisco, which it plans to develop into office and rental space.⁴⁰ The property, which can hold approximately one million square feet of space, is located immediately off the Dallas North Tollway.⁴¹ Construction is planned to commence in 2004 with the construction of five to eight office buildings.⁴² Once construction is completed, Duke plans to offer as much as 900,000 square feet of office space with another 9 acres being planned for retail development.⁴³

As of June 2004, Frisco was booming with approximately four million square feet of national retailers and restaurants located within a two-mile radius of the Dallas North Tollway and State Road 121.⁴⁴ According to *Business Wire*, Frisco is "One of the fastest growing and most desirable office areas in Texas."⁴⁵ That trend

40. *Duke Realty acquires Frisco site for office, retail development*, DALLAS BUSINESS JOURNAL, June 2, 2004; FEDC, Frisco Development Updates, *Duke Building in Frisco* (available at <http://www.friscoedc.com/whatsNew.asp>).

41. *Id.*

42. Norm Heikens, *Duke Realty enters Dallas-area market*, INDIANAPOLIS NEWS/INDIANAPOLIS STAR, June 3, 2004.

43. *Id.*

44. *Id.*

45. *Duke Realty Corporation Announces Acquisition of Land for Future Office Development in Dallas*, BUSINESS WIRE, June 2, 2004. [hereinafter *Duke Realty*]

does not seem to be abating. Office tenants should continue to be attracted to Frisco because of its location, premium office space, and incentive packages offered by the FEDC. Assuming its new construction projects are completed in a timely manner, Frisco could surpass downtown Dallas in available office space (measured in square feet) by 2004.⁴⁶ *Business Wire* sees this trend continuing: “Given that the two counties surrounding Frisco have populations totaling approximately one million, Frisco should continue to flourish as one of Texas’ fastest growing cities.”⁴⁷

In summary, Frisco’s use of TIFs and other tools has clearly served to increase its sales tax receipts at the expense of neighboring cities, a trend that will likely continue unless other cities respond with incentive plans of their own. In the next Part, we examine one potential response by the City of Dallas.

V. CONCLUSION

Using data on retail trade for cities surrounding the Dallas area, we found that the cannibalization rate for an area covering a 15-mile radius around the center of Dallas is 0.34—that is, nearly 66 percent all new sales within that geographic area are *incremental* to that area. Furthermore, the cannibalization rate for the area covering a 20-mile radius around the center of Dallas—an area that contains all of Dallas—was only 0.49. Because the cannibalization rate for geographic areas that contain Dallas is less than the project’s critical level of 0.93, Dallas would clearly benefit from the proposed TIF.

46. Christine Perez, *Pocket of Prosperity*, NATIONAL REAL ESTATE INVESTOR, Nov. 1, 2002.

47. *Duke Reality*, *supra* note 45.