

Briefing Paper

Economic and Fiscal Impacts of STARTech

On the City of Richardson

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Introduction

The City of Richardson's "Telecom Corridor" is one of the largest concentrations of communications and information technology companies in the United States. Sparked initially by the presence of leading technology firms such as Texas Instruments and Collins Radio, the City, along with the Richardson Chamber of Commerce, has taken an aggressive approach in promoting technology-led entrepreneurship. Over the years, entrepreneurial success in the Telecom Corridor has resulted in local business expansion and the attraction of internationally-ranked technology companies such as Cisco and National Semiconductor.

Recognizing the increasing role of entrepreneurship in technology-related economic development, the City of Richardson decided to provide a focal point for these activities more than a decade ago. In 1997, the City and Chamber supported the creation of STARTech as a business incubator and accelerator that would stimulate start-up activity in the Telecom Corridor. Also, in December 1997 the City included funding for a

facility to permanently house STARTech activities as a part of a widely-supported bond package. The following year, STARTech established a seed-stage venture capital fund to further facilitate technology-led entrepreneurship in the City of Richardson and beyond.

Funds made available through the 1997 bond issue were used to purchase and finish-out a 27,500 square foot building at 1302 Collins Boulevard in November of 2001, with expenditures totaling \$3 million.¹ A certificate of occupancy was issued on April 7, 2002, and tenants began to occupy the facility several weeks later.

The ten-year anniversary is an appropriate time to review how STARTech activities have benefited the City of Richardson and the State of Texas. In the following, we report the findings of our analysis of the economic and fiscal impacts of businesses and activities supported by STARTech. We also consider the City of Richardson's investment in STARTech and examine current and projected returns for the city from that investment.

Economic and Fiscal Impacts of STARTech Operations for the State of Texas

Since its inception, STARTech activities have supported new ventures located in the City of Richardson, the State of Texas, and beyond. In this component of our analysis we examine the economic and fiscal impacts associated with STARTech firms located in Texas. Our assessment includes estimates of direct, indirect, and induced impacts based on the IMPLAN economic input-output model developed by the Minnesota Implan Group. This model is widely used in academic and professional research to calculate direct, indirect, and induced impacts.

¹ Part of the original debt was refunded in fiscal 2004 to take advantage of lower interest rates.

Direct impacts are the result of a firm or agency procuring goods and services in the local community. For example, a software development firm purchases computer equipment, office supplies, and other goods and services from vendors. These vendors and suppliers, in turn, purchase goods and services to support their local operations, thereby creating indirect effects. Induced impacts track the economic and fiscal effects of employees of the software firm, as well as these other vendors and suppliers, spending a portion of their earnings in the local economy for goods and services. Each of these impacts is adjusted to account for local purchases. For example, the pens that the firm buys from the office supplies retailer are probably not manufactured locally; therefore the purchase of that particular good only generates secondary economic activity in the region related to transportation and the cost of selling the good at the retail location. When added together, the sum of all of the activity from direct, indirect, and induced impacts is greater than the local proportion of direct spending. This is called the “multiplier effect.”

The model estimates the total level of economic activity (transactions) supported by the base spending and resulting job and income impacts. Income impacts are categorized as labor income, which includes salaries, wages, benefits, and proprietors’ income, and other property income. Other property income includes rents, royalties, corporate profits, dividends, and other income derived from direct, indirect, or induced spending. For example, if an employee of a STARTech venture rents a house in Texas, the owner of the house realizes a portion of that rent as income that can be spent in the local economy.

Management at STARTech graciously gathered information on headcount employment for all their client and tenant firms since 1998. The IMPLAN model utilizes

employment as an input to estimate direct output. For any given industry, there are known relationships between the value of output and the number of employees it takes to support that output. These relationships are based on data gathered in the economic census conducted every five years by the US Department of Commerce.

Using employment data allowed us to overcome a significant difficulty in tracking the value of output for firms that have been clients or tenants of STARTech. Some of these firms have been acquired by other firms; and while STARTech may still hold a financial interest in the firm post-acquisition, obtaining dollar value estimates of output is problematic. However, employees of the acquired firm have often remained together as a group within the new parent. This allows an on-going accounting of the number of employees engaged in the STARTech related portion of a larger firm. Only those employees who are physically located in Texas are included in this component of our analysis.

Based on the employment headcounts provided by STARTech management, from 1998 through 2007 business activities supported by STARTech have generated almost \$1.5 billion in statewide economic activity supporting more than \$420 million in labor income (see Table 1). (All figures are expressed in inflation adjusted 2007 dollars.) In addition, this economic activity has generated more than \$120 million in property income and provided over \$54 million in state and local tax revenues. In the latest time period, STARTech operations and investments are associated with more than 900 direct, indirect, and induced jobs in the State of Texas.

Table 1
Economic Impacts of STARTech Client and Tenant Firms
State of Texas 1998-2007
(Expressed in Constant \$2007)

Description	Impact
Economic Activity 1998-2007	\$ 1,458,527,000
Labor Income 1998-2007	\$ 421,485,000
Property Income 1998-2007*	\$ 120,219,000
Indirect Business Taxes**	\$ 54,176,000
Total Employment 1998	13
Total Employment 2007	920

* Includes income from rent, royalties, dividends, and corporate profits. ** Includes revenue from property taxes, sales and use taxes, and license and permit fees. Sources: STARTech, IMPLAN, authors' estimates

Economic Impacts of STARTech Operations in the City of Richardson

Assessing the economic impacts and total tax revenue realized by the City of Richardson as a result of operations and investment of STARTech requires a multi-step process. The first step is to assess total economic and income impacts that are directly and indirectly associated with STARTech supported companies. To estimate how activities and spending by these firms flow through the local economy, we utilized the IMPLAN economic input-output model for Dallas County. Because the IMPLAN model is based on county level data, we have made substantial adjustments to the impacts so they only reflect in the City of Richardson.²

From 1998 through 2007, client and tenant firms of STARTech have generated over \$550 million in local economic activity supporting \$147 million in labor income and

² Based on relative employment levels, we conservatively estimate that the City of Richardson accounts for about five percent of all economic activity in Dallas County. Therefore, we have used this percentage as a factor-adjustment for our impact estimates.

an additional \$547,000 in property income (see Table 2).³ Total direct employment at STARTech firms has risen from eight in 1998 to more than 400 in 2007. The IMPLAN model accounts for the probability that technology firms typically operate at a loss until they grow to achieve some economies of scale.

Table 2

**Economic Impacts of STARTech Client and Tenant Firms
City of Richardson 1998-2007
(Expressed in Constant \$2007)**

Description	Impact
Direct Employment 1998	8
Direct Employment 2007	436
Total Economic Activity 1998-2007	\$ 551,618,000
Total Labor Income 1998-2007	\$ 147,158,000
Total Property Income 1998-2007	\$ 547,000

Sources: STARTech, IMPLAN, authors' estimates

Fiscal Impacts of STARTech on the City of Richardson

STARTech's impacts on municipal finances are based on debt service for the cost of acquiring and retrofitting the building and revenues realized from facility rental, liquidating assets, and sales and property tax revenues associated with STARTech-related firms and their employees. This section examines these fiscal impacts.

Tenant rental income in excess of building operating costs⁴ and the value of liquidating assets are transferred to the city on an annual basis.⁵ Through Fiscal Year 2007, excess rents and liquidation events generated about \$25,000 for the City of Richardson. STARTech management estimates that rent transfers to the city for FY 2008 (rental year 2007) will be about \$40,000. Through Fiscal Year 2008, interest and principal payments on the STARTech building bonds will total \$2.4 million. The City of

³ The property income figure is a "net" estimate.

⁴ Building operating costs include utilities, general maintenance, janitorial, and other expenses.

⁵ If building operating costs exceed rental revenues, the shortfall is STARTech's responsibility.

Richardson projects that future debt service payments—i.e. 2009 through 2020—will total about \$3.2 million. (See Table A1 at the end of this report.)

It is important to note, however, that debt service payments do not include indirect and induced local tax revenues that stem from spending by STARTech companies and their employees. Using the data from the IMPLAN model, we can estimate tax revenues associated with STARTech operations. The first component is to estimate sales and use tax receipts. The Texas Comptroller's Office estimates the tax revenue associated with a given level of economic activity based on actual tax filings. In Dallas County, less than 20 percent of all business transactions are subject to sales and use taxes. This includes retail and non-retail transactions. For example, the office supplies purchased by STARTech clients are subject to local sales taxes. In addition, a portion of employee spending in the local economy includes taxable goods and services.

The second fiscal impact component estimates property tax revenues associated with the economic activity supported by STARTech. Our assessment includes real commercial property values, business personal property value, and residential property values for those employees who likely reside in the City of Richardson. To estimate the commercial property value (real and personal), we examined the relationship between total economic activity in Dallas County and the value of all commercial property. This approach assumes that the level of property tax abatements in the City of Richardson is no higher or lower than the average of all Dallas County cities. Residential property value considers the proportion of Richardson-based employees who live in the city (20 percent) and a conservative assumption of the relationship between annual earnings and the value of residential housing (two times gross earnings).

Based on these assumptions, we estimate that STARTech clients and tenants directly or indirectly generated \$1,929,000 in tax revenues for the City of Richardson from 1998 through 2007. This does not include any licensing or permit fee revenue the city may have enjoyed and does not count the equity buildup in the STARTech building.

Because the city's fiscal year is not the same as the calendar year, which is the basis of our impact estimates, there could be some minor discrepancies in comparing city debt service expenses to the estimated tax revenues for a given time period. Furthermore, it does not include any payments made to the city for excess rents and liquidation events. Nonetheless, these revenue estimates can give us a sense of whether the City of Richardson is realizing a "positive" return on its STARTech investment.

Table 3 presents an overview of revenues versus expenses related to STARTech for the City of Richardson. As indicated, total debt service costs have exceeded rental and tax revenues by more than \$200,000 through 2007. However, as with many new ventures, STARTech has grown over time. Looking at more recent data (2003-2007), the net loss has turned to a net gain of more than \$500,000 for this five-year period. **In 2008, if we equate the fiscal year to the calendar year, the city will enjoy a surplus on its STARTech investment of about \$97,000.⁶ At that pace, the total return on the STARTech investment will turn positive in 2011, not including any future rental payments and the asset value of the building itself.**

⁶ Tax revenue estimate is based on five-year average.

Table 3

**Net Fiscal Impact Assessment of STARTech
City of Richardson**

Description	Value
Debt service expenditures 1999-2007	\$ 2,155,544
Rental & other income 1999-2007	\$ 18,599
Net expenses 1999-2007	\$ 2,136,945
Property & Sales Tax Income 1998-2007	\$ 1,929,150
Shortfall to date	\$ (207,795)
Debt service expenditures 2003-2007	\$ 964,361
Tax revenue 2003-2007	\$ 1,470,238
Surplus 2003-2007	\$ 505,877
Debt service 2008	\$ 244,086
Projected income 2008	\$ 46,075
Net expenses 2008	\$ 198,011
Projected revenue 2008 (5-yr avg)	\$ 295,048
Surplus 2008	\$ 97,037
Projected year for net gain	2011

Note: Assumes fiscal year and calendar year are same. This will result in some minor errors in calculations. Data are not adjusted for inflation. Revenue estimates do not include payments for excess rents and liquidation events beyond 2008. Sources: City of Richardson, IMPLAN, authors' estimates.

Conclusions

The City of Richardson and the Richardson Chamber of Commerce chose to aggressively pursue an economic development strategy of supporting technology-led entrepreneurship. STARTech's business accelerator and seed capital programs have served as the central feature of this strategy for the past 10 years. Over this time, the impact of STARTech operations has grown dramatically rising from supporting companies with a handful of jobs in 1998 to being associated with more than 400 direct technology jobs in 2007. Total economic activity in the City of Richardson related to

STARTech firms over the past 10 years exceeds one-half billion dollars supporting hundreds of direct, indirect, and induced jobs and almost \$150 million in labor income.

As any investor in technology-related enterprises will attest, it takes time and patience to realize a return on investment. From 1998 through 2007, we estimate that total expenses for the City of Richardson have exceeded revenues from excess rents, liquidations, and sales and property taxes associated with STARTech-supported firms by about \$208,000. However, STARTech has now passed through the start-up period of deficits between debt service and tax receipts. By the end of year 2011, city revenues over the life of STARTech will exceed total expenses, not including the equity value of the city-owned STARTech building.

More importantly, the activities at STARTech continue to be an integral component of Richardson's economic development strategy, sowing the seeds for innovation and small business development that will keep the Telecom Corridor nationally and internationally competitive.

Table A1

**City of Richardson
Schedule of STARTech Cash Flows
December 4, 2007**

Fiscal Year Ending Sept. 30	Debt Service			Rental Income ⁽¹⁾		
	Principal	Interest	Total	Annual Rents	Liquidating Events	Total
1999	\$ 20,000.00	\$ 298,749.58	\$ 318,749.58	N/A	N/A	N/A
2000	90,000.00	205,522.50	295,522.50	N/A	N/A	N/A
2001	95,000.00	196,966.25	291,966.25	N/A	N/A	N/A
2002	100,000.00	187,947.50	287,947.50	N/A	N/A	N/A
2003	110,000.00	178,235.00	288,235.00	\$ -	\$ -	\$ -
2004 ⁽²⁾	-	79,764.09	79,764.09	-	-	-
2005	22,760.00	128,021.59	150,781.59	4,484.52	-	4,484.52
2006	94,454.00	126,859.12	221,313.12	-	14,114.29	14114.29 ⁽³⁾
2007	96,730.00	124,537.31	221,267.31	-	-	-
2008	122,904.00	121,179.36	244,086.36	-	6,075.06	6075.06 ⁽⁴⁾
Subtotal Actual	\$ 751,848.00	\$ 1,647,782.30	\$ 2,399,630.30	\$ 4,484.52	\$ 20,189.35	\$ 24,673.87
2009	127,456.00	116,793.51	244,249.51	-	-	-
2010	171,700.00	111,021.57	281,721.57	-	-	-
2011	177,528.00	103,790.72	281,318.72	-	-	-
2012	183,218.00	95,714.05	278,932.05	-	-	-
2013	192,322.00	86,838.50	279,160.50	-	-	-
2014	201,426.00	76,784.27	278,210.27	-	-	-
2015	211,668.00	65,630.74	277,298.74	-	-	-
2016	221,910.00	53,924.13	275,834.13	-	-	-
2017	233,290.00	41,633.73	274,923.73	-	-	-
2018	245,808.00	28,698.08	274,506.08	-	-	-
2019	199,150.00	16,684.22	215,834.22	-	-	-
2020	290,392.00	5,653.58	215,045.58	-	-	-
Subtotal Future	\$ 2,373,868.00	\$ 803,167.11	\$ 3,177,035.11	\$ -	\$ -	\$ -
Grand Total	\$ 3,125,716.00	\$ 2,450,949.41	\$ 5,576,665.41	\$ 4,484.52	\$ 20,189.35	\$ 24,673.87

Notes:

- (1) Based on the terms of the original contract, rent was not due for the first six months after issuance of a Certificate of Occupancy for the building, which was issued on 4/17/2002. Rental income includes all payments received through December 4th, 2007.
- (2) In Fiscal Year 2004, the City refunded \$2,585,000 of debt related to STARTech and \$8,775,000 of other debt. STARTech's share of the combined new debt service is approximately 22.76% based on the percentage of debt refunded.
- (3) Sale of stake in Metreos.
- (4) Sale of stake in NimbleGen. Data are not adjusted for inflation.

Source: City of Richardson