In the aftermath of widespread and substantial public investments to build facilities used by professional sports teams in the USA (Zimbalist and Long, 2006), academic studies and other policy analysts had three sets of concerns (Baade, 1996; Coates and Humphreys, 2000):

• Sports facilities were frequently built using public funds and leased to teams under very generous terms.
• After new facilities opened, the inclusion of luxury seating and other revenue-generating amenities increased teams’ earnings, suggesting that a principal outcome from public investments was enhanced earnings for team owners (Rosentraub, 1997; Cagan, and De Mause, 1998).
• Given the reliance on sales, consumption, and gaming (or other sumptuary) taxes, there was also concern that the use of regressive instruments disproportionately shifted the burden for the public sector’s investments to lower income households (Siegfried and Zimbalist, 2000). This negative effect would be amplified if higher taxes for sports led to diminished support for levies that provided public services needed by lower income families (Clotfelter and Cook, 1988).

Much of the protest against public support for facilities results from political power inequalities that have seemingly offset a focus on community development and the concerns of many residents, underscoring issues outlined by Wildavsky (1973).

With so many different jurisdictions making investments in facilities used by professional teams, it is not surprising that different financing programmes were used responding to local political pressures and institutional relationships between central cities, suburban areas, and counties. Some local governments have used a combination of tax instruments while others relied on one of their primary taxing tools—property, sales, or income taxes. As long noted by Mills (2000), however, where economic activity occurs is as important to individual cities as is regional growth. Humphreys and Feng (2008) noted that a sports facility anchored to extensive real estate development did lead to elevated property values in a revitalized neighborhood in Columbus. Some studies have found that some regional economic activity can be redirected when sports facilities were integrated into a downtown redevelopment strategy (Florida, 2002; Clark, 2004; Joo and Rosentraub, 2009; Rosentraub, 2010). Nelson (2007) also observed that the placement of sports facilities in downtown areas could move sufficient regional economic activity to become effective policy tools responding to blighted conditions. There...
have been many instances, however, when the new tax revenues generated were less than the public sector’s investment. Zimbalist and Long (2006) noted that the complexity of agreements between the public sector and private owners increased during the first decade of the new millennium, leading to a need to assess individual financing plans because each had unique characteristics related to the investing city.

In this vein, there has been a wide set of intergovernmental financing strategies for a sport facility involving a state and one or more local governments to offset intra-regional disparities. These plans are especially pertinent in areas where central city residents have migrated to suburban areas creating a level of segregation related to socioeconomic status. Due to these individual characteristics, Wildavsky (1973) notes that once the planning objectives are determined, a subdivision of the cost (benefit) analysis must focus on the specific goals of the investing government.

We addressed this by evaluating the policy effects of the financing programmes through an assessment of who actually pays the collected taxes (the direct implications of the policy); the indirect cost of lost economic exchanges due to the implementation of the tax (behavioural incentives of tax changes); and which communities receive additional tax revenues as a result of a facility’s location (resources for investment). Irrespective of any regressive nature of an initial tax payment structure, if the distributional outcomes support or advance public policies, there could be net positive effects from public investment. The public sector must focus on its desired goals and objectives, as well as the public’s preferences for fairness or progressivity, and the effects of any tax should be considered relative to these specific public policy goals and the characteristics of the area where they are implemented. For example, the use of a temporary sales tax increase could be regressive. But the overall effect could change if a city is home to a large regional mall with a concentration of retail venues that attract the commerce of higher income shoppers from neighbouring cities, exporting a substantial portion of the direct tax burden for a facility to what are likely higher income households. This paper addresses this scenario in the context of Arlington, Texas and their financing of a ballpark and stadium. We specifically examine the tax collections and behavioural impacts to identify the tangible fiscal outcomes in Arlington, a research question common in the general tax policy literature (Kopczuk and Slemrod, 2003; Mikesell, 2010; Hyman, 2011), but often left aside when analysing sport subsidies. If these net fiscal outcomes are negative, then added attention to the extent of the existence and value of the intangible benefits is required to determine whether the public’s investment was nothing more than a generous subsidy for owners (Dean, 1980). If the goal is an improved image, or the intangible benefits that accrue to residents from a team’s presence and success, a contingent valuation survey could permit an assessment of the value placed by different groups on those assets (Johnson et al., 2001; Rosentraub et al., 2009).

**Policy objectives in Arlington, Texas**

Voters in Arlington twice voted to support a sales tax increase to pay for a portion of two facilities: a ballpark for the Texas Rangers baseball team and a stadium for the Dallas Cowboys football team. (To finance the Cowboys’ stadium, voters also approved an increase in the city's hotel occupancy tax by 2% and a car rental tax by 5%. We address only the sales tax here, but note that similar analysis on these funding strategies would be just as interesting.)

The direct cost to the public sector for retaining the Rangers was $135 million ($210 million in 2009 dollars). The Arlington Sports Facilities Development Authority issued floating rate notes in 1992 ($70 million, with a 4.35% initial interest rate) and in 1993—$60 million with an initial rate of 4.30% (see Arlington Sports Facilities Development Authority, 1992). After the bonds for the Ballpark were retired several years ahead of schedule, voters extended the small sales tax increase to sustain a $325 million public investment in the $1.3 billion stadium built by Jerry Jones for the Dallas Cowboys.*

Arlington’s leaders and voters preferred a sales tax increase given the presence of several retail centres. The value of place marketing and image is extensively discussed by Kotler et al. (1993). This was the strategy undertaken by Arlington in their financing plans. The city has two major shopping malls, each surrounded by

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*The sales tax increase authorized to repay the bonds for the ballpark and stadium is eliminated once the bonds are repaid. Arlington can continue to collect the sales tax allowed for under state law (1%) for general government operations and services. Separate sales tax increases are permitted by the State of Texas for mass transportation and other services just as a 0.5% increase was allowed for sport facilities, convention centres, and other select cultural amenities.
several smaller streets, two other regional entertainment venues, and numerous restaurants. The presence of so many retail venues, restaurants, and amusement parks in Arlington, relative to the surrounding areas, offers the opportunity for the city to export a large portion of the cost for its investments in sport facilities. Given the density of higher end retail operations relative to the resident population in Arlington as compared to other regional communities (US Census, 2010), it is likely that a substantial portion of the sales taxes were being paid by individuals from higher income households outside the city.

The concentration of retail outlets that cater to higher income households, however, does not change the regressive characteristic of a sales tax. The tax still captures smaller portions of a payer’s income as their income increases. Higher income households attracted from other cities to Arlington, however, could be absorbing an important burden relative to retiring the debt used to build the facilities. Additionally, if the stadium increases visitors to the area and improves well-being of those lower income households, the net benefit for those within the city could result in a more progressive redistribution. While it is possible that a tax increase can push some consumers to lower taxed retail centres, the extensive selection and mix of stores might create a unique environment that shoppers may value despite a slightly higher cost. The ability to make a single trip for most purchases could outweigh the slight tax advantage outside the Arlington limits. Therefore, understanding the consumer impacts that a sales tax has had on Arlington retail sales is a primary goal of this analysis. Our concern is not with the use of the excess income or if the public’s investment was warranted relative to public goods benefits produced by teams. Rather, we estimate the net fiscal outcome related to tax exporting and consumer incentives influenced by the sales tax increase in Arlington.

Methodology

We began by evaluating the impact of sales and use tax changes in Arlington on the total taxable expenditures within the city limits. Taxable expenditure data were calculated using monthly sales tax allocation data for the city of Arlington from 1989 through 2009, resulting in 252 monthly observations (Texas State Government, 2010). We estimated a regression model using ordinary least squares with yearly and monthly fixed effects and White’s robust standard errors. The dependent variable of interest was the logged monthly tax revenue allocation to Arlington. Taxable expenditure changes were directly calculated from the changes in allocation and the analogous changes in sales and use tax rates. We included median income, the number of households, and monthly Houston per-household expenditures. This last control ensured that any changes in spending due to economic conditions over the time series in Texas were not attributed to changes in the tax rate. Houston did not experience any changes in its local tax rate during the time period analysed in this paper. Additionally, Houston is far enough from the Arlington area to avoid any real spillover effects if a city-level tax increase were to incentivize residents to substitute their spending on retail items elsewhere.

The secondary goal was to evaluate the propensity for exporting of stadium costs using the sales tax increase. For this portion of the assessment, we used the annual Consumer Expenditure Survey (CES) and census data. With these data, we estimated the expected spending by Arlington residents based on population and household income distributions from 1989 to 2009. The remaining amount of tax collections were assumed to be from purchases from those living outside Arlington’s city limits. A number of assumptions were made for this portion of our assessment, which are noted in an appendix available from the authors upon request.

The sales tax increase and consumer spending

We did not address the elasticity of demand or supply for retail products in this portion of the analysis. It is possible that prices may change due to taxes, which can shift overall consumption from retail areas within Arlington. Because specific price and total sales data for retail products were unavailable, it would be unclear whether the burden of the tax falls more on the consumer or on the retailer. However, with a time series of consumer spending data both before and after the tax was instituted, there was sufficient data to evaluate the possibility of a shift in spending to areas outside Arlington—or outside the taxed retail sector, but still within the city limits—in the presence of the higher local tax rate. Using these data, we estimated a regression for total tax allocations for Arlington (see table 1).*
Our regression estimates indicated that an increase in the sales and use tax of 0.5%—a 40 to 50% change in the local rate, depending on the year—generated roughly 35 to 45% more local revenue through the monthly sales and use tax collections. This coincides with the elasticity point estimate in table 1 of 0.893. Additionally, the regression does not indicate any significant effect of the state level tax rate. Because the state rate would also apply in areas near Arlington—and the city is well distanced from the Texas state boundaries—substitution of the higher rate in other areas at a lower rate would not be possible. Additionally, revenues from state tax increases do not go toward the allocation to the specific municipality, and therefore should not affect these collections other than through avoidance behavior.

Considering the overall taxable expenditures analogous to the relative changes in the tax rate and tax revenues, the results of this regression highlight the importance of understanding distortions due to the tax. Based on the point estimate in table 1, total taxable expenditures would have had to decrease by 3.5 to 4.3% in order for local tax collections to increase by only 45% with the 0.5% local tax increase. This estimate was significantly different from one with a one-tailed test \( p = 0.026 \). Given fixed disposable income, a tax increase would necessarily require a decrease in taxable expenditures (pre-tax), as the increased tax rate would require a larger proportion of the consumer-retailer exchange to go to the government. From this point of view, an increase in the tax rate could not result in an increase in taxable spending. Only if consumers increased the amount they spent on taxable goods would the elasticity estimate in our regression be greater than one.

This is the direct reduction in economic exchange between the customer and retailer or service provider. With respect to total expenditures after taxes by local residents, it is clear that only some of this loss was a transfer to the local government. Based on these figures, after-tax total spending within Arlington would have had to decrease by approximately 3.1 to 3.8% during the increase used for stadium financing. The difference in overall spending implies substitution spending either to investments and purchases not subject to a tax increase, or on similar retail goods outside the municipal boundaries of Arlington. Paired with the results regarding the state tax rate—indicating a lack of change in overall spending with a change in the state rate—the difference in overall spending from the local rate increase implies that this economic activity was lost to similar retail locations in bordering areas, rather than substituted with non-taxed spending or investment.

Based on our elasticity estimates and average allocations in years that the tax increase was not present, monthly tax revenues increased by approximately $1.7 million. This estimate implies that taxable expenditures decreased by about $15 million, with total spending decreasing by nearly $13.6 million. At the yearly level, this amounts to approximately $20 million, $180 million, and $163 million for allocations, taxable spending, and total spending, respectively. Given this result, even if much of the direct costs of stadium construction could be attributed to the increased tax on spending by non-residents of Arlington, the loss of overall economic activity within the city’s retail sector could outweigh this transfer. While it seems likely that not all of this spending left the city limits—as residents could have shifted spending to other goods not subject to the tax increase—these figures are large enough to question the net economic outcome for the city’s financing of the Ballpark in Arlington. Ultimately, the city and its residents need to decide whether

<table>
<thead>
<tr>
<th>Coefficient estimate</th>
<th>Standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-10.400</td>
</tr>
<tr>
<td>ln (local rate)</td>
<td>0.895***</td>
</tr>
<tr>
<td>ln (state rate)</td>
<td>1.391*</td>
</tr>
<tr>
<td>MSA median household income ($000s)</td>
<td>0.351*</td>
</tr>
<tr>
<td>Arlington households (000s)</td>
<td>0.177**</td>
</tr>
<tr>
<td>Income x households</td>
<td>-0.005*</td>
</tr>
<tr>
<td>ln (Houston per household spending)</td>
<td>0.701</td>
</tr>
<tr>
<td>Ballpark in operation</td>
<td>-0.004</td>
</tr>
<tr>
<td>February</td>
<td>0.004</td>
</tr>
<tr>
<td>March</td>
<td>0.247***</td>
</tr>
<tr>
<td>April</td>
<td>0.054***</td>
</tr>
<tr>
<td>May</td>
<td>0.050***</td>
</tr>
<tr>
<td>June</td>
<td>0.265***</td>
</tr>
<tr>
<td>July</td>
<td>0.110***</td>
</tr>
<tr>
<td>August</td>
<td>0.095***</td>
</tr>
<tr>
<td>September</td>
<td>0.240***</td>
</tr>
<tr>
<td>October</td>
<td>0.010</td>
</tr>
<tr>
<td>November</td>
<td>-0.013</td>
</tr>
<tr>
<td>December</td>
<td>0.250***</td>
</tr>
<tr>
<td>R^2</td>
<td>0.983</td>
</tr>
</tbody>
</table>

* *, ** and *** refer to significance at the 90%, 95% and 99% confidence levels, respectively.

1The state rate changed only once during the time of our data set.

*Estimates for allocations, taxable expenditures, and total spending are $5.93 million, $356.2 million, and $360.2 million, respectively. In this case, we calculated the product of each of these totals with our analogous percentage changes from previous calculations.
the intangible benefits of the stadium, if any exist, are worth these changes in retail activity.

**Tax exporting**

Data for 1989 through 2009 (in constant 2009 dollars) appear in tables 2 and 3. The numbers reported in table 3 include a calculation of the expected spending by Arlington residents on taxable goods and the expected tax exported to non-residents. From 1992 through 2000 (years in which the 0.5% sales tax increase was in effect for the entire year), Arlington collected approximately $164 million through 2001. Arlington implemented a 0.5% tax increase for funding of Cowboys Stadium in April of 2005.

### Summary comparison

We revisited the assessment of substitution spending and weighed this against the exportation of the tax increase in Arlington. We restricted our observation only to those years in which the initial increase—for funding of the Ballpark in Arlington—was in place (July 1991 to November 2001). Under the assumption of 80% local resident spending, we estimated that approximately $164 million was exported to non-residents directly through the tax increase (table 3). Additionally, the Rangers have paid a yearly rent (beginning in 1994) of $3.5 million, which in total through 2001 is $67.2 million—again in 2009 dollars—helping to offset interest charges. (The team under its current lease is also responsible for the facility’s maintenance and operation.)

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**Table 2. Taxable spending in Arlington, 1989 to 2009 (dollar amounts in year end 2009 dollars).**

<table>
<thead>
<tr>
<th>Year</th>
<th>State rate1</th>
<th>Arlington rate1</th>
<th>Total rate1</th>
<th>Median MSA income of households</th>
<th>Estimated No. of households</th>
<th>Taxable expenditure within Arlington</th>
<th>Total spending within Arlington</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>6.00%</td>
<td>1.00%</td>
<td>7.00%</td>
<td>$57,128</td>
<td>99,777</td>
<td>$3,654,162,158</td>
<td>$3,690,703,760</td>
</tr>
<tr>
<td>1990</td>
<td>6.13%</td>
<td>1.00%</td>
<td>7.13%</td>
<td>$56,712</td>
<td>102,155</td>
<td>$3,791,314,332</td>
<td>$3,829,227,475</td>
</tr>
<tr>
<td>1991</td>
<td>6.25%</td>
<td>1.25%2</td>
<td>7.50%</td>
<td>$56,806</td>
<td>104,534</td>
<td>$3,802,665,125</td>
<td>$3,850,405,764</td>
</tr>
<tr>
<td>1992</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$57,408</td>
<td>106,913</td>
<td>$3,864,850,150</td>
<td>$3,922,322,903</td>
</tr>
<tr>
<td>1993</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$58,087</td>
<td>109,291</td>
<td>$3,906,864,321</td>
<td>$3,978,319,472</td>
</tr>
<tr>
<td>1994</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$58,819</td>
<td>111,670</td>
<td>$3,966,680,320</td>
<td>$4,047,130,525</td>
</tr>
<tr>
<td>1995</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$59,363</td>
<td>114,049</td>
<td>$4,061,064,321</td>
<td>$4,129,480,286</td>
</tr>
<tr>
<td>1996</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$59,759</td>
<td>116,427</td>
<td>$4,093,763,027</td>
<td>$4,197,319,472</td>
</tr>
<tr>
<td>1997</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$60,432</td>
<td>118,806</td>
<td>$4,142,252,114</td>
<td>$4,216,385,896</td>
</tr>
<tr>
<td>1998</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$61,157</td>
<td>121,185</td>
<td>$4,237,477,656</td>
<td>$4,320,329,801</td>
</tr>
<tr>
<td>1999</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$62,165</td>
<td>123,564</td>
<td>$4,250,668,286</td>
<td>$4,329,428,310</td>
</tr>
<tr>
<td>2000</td>
<td>6.25%</td>
<td>1.50%</td>
<td>7.75%</td>
<td>$60,396</td>
<td>125,164</td>
<td>$4,363,573,313</td>
<td>$4,545,526,912</td>
</tr>
<tr>
<td>2001</td>
<td>6.25%</td>
<td>1.46%4</td>
<td>7.71%</td>
<td>$59,107</td>
<td>125,846</td>
<td>$4,399,531,518</td>
<td>$4,517,435,341</td>
</tr>
<tr>
<td>2002</td>
<td>6.25%</td>
<td>1.00%</td>
<td>7.25%</td>
<td>$58,556</td>
<td>126,528</td>
<td>$4,714,445,601</td>
<td>$4,761,590,037</td>
</tr>
<tr>
<td>2003</td>
<td>6.25%</td>
<td>1.25%2</td>
<td>7.50%</td>
<td>$57,616</td>
<td>127,209</td>
<td>$4,577,461,246</td>
<td>$4,634,679,512</td>
</tr>
<tr>
<td>2004</td>
<td>6.25%</td>
<td>1.25%</td>
<td>7.50%</td>
<td>$56,468</td>
<td>127,891</td>
<td>$4,520,387,500</td>
<td>$4,576,892,435</td>
</tr>
<tr>
<td>2005</td>
<td>6.25%</td>
<td>1.63%4</td>
<td>7.88%</td>
<td>$54,959</td>
<td>128,572</td>
<td>$4,514,490,467</td>
<td>$4,588,086,657</td>
</tr>
<tr>
<td>2006</td>
<td>6.25%</td>
<td>1.75%</td>
<td>8.00%</td>
<td>$53,567</td>
<td>129,254</td>
<td>$4,845,795,810</td>
<td>$4,930,595,201</td>
</tr>
<tr>
<td>2007</td>
<td>6.25%</td>
<td>1.75%</td>
<td>8.00%</td>
<td>$52,405</td>
<td>129,936</td>
<td>$4,747,730,994</td>
<td>$4,830,816,194</td>
</tr>
<tr>
<td>2008</td>
<td>6.25%</td>
<td>1.75%</td>
<td>8.00%</td>
<td>$50,781</td>
<td>130,617</td>
<td>$4,660,675,069</td>
<td>$4,742,236,883</td>
</tr>
<tr>
<td>2009</td>
<td>6.25%</td>
<td>1.75%</td>
<td>8.00%</td>
<td>$51,263</td>
<td>131,299</td>
<td>$4,607,466,145</td>
<td>$4,688,096,802</td>
</tr>
</tbody>
</table>

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1. Averaged for each year if rate changes took place mid-year. 2. Texas state rate increased from 6.00% to 6.25% in July of 1990. 3. Increase of 0.5% in Arlington rate in July of 1991 for funding of the Ballpark in Arlington. 4. Entertainment tax for Arlington removed in December of 2001. 5. Arlington rate increase of 0.25% for road maintenance implemented in January of 2003. 6. Arlington implements 0.50% tax increase for funding of Cowboys Stadium in April of 2005.
approximately $37 million in 2009 inflation-adjusted dollars. Taken as net positive revenue stream for the city’s public sector, this amounted to $201 million.

However, based on our estimates presented in table 1, spending shifted away from retail sales at a rate of nearly $180 million per year. Taking into account the mid-year tax changes in 1991 and 2001, the loss of exchange to retailers amounted to nearly $1.9 billion. While we are unable to determine whether this spending shifted outside the city limits or simply to another sector not subject to the tax increase within Arlington, at the very least this comparison makes clear the non-negligible negative impact that these policies had for Arlington’s retail sector, despite a small increase in the tax.

Concluding observations
A number of scholars and social critics have been justifiably concerned that public investments in sport facilities had substantial potential to create little or no public benefit and if hastily or improperly planned, would be unworthy of any public support. Citing reports of increasing team values and escalating player salaries after new facilities were built with public subsidies, many suggested the best course of action for local governments was to separate themselves and their tax dollars from sports facilities and leave the issue of new arenas, ballparks, and stadia to teams and their fans. Without questioning the possibility that an investment in a sports facility could generate valuable intangible and image benefits, this analysis focused on other public policy goals pursued by and for Arlington. Namely, we address the ability for a city to fund a large portion of a facility through access to those likely to consume this sports product (those in surrounding areas). To address that question in any scenario, public officials and financial managers need to understand both the net resident payments through a tax, as well as the negative impacts of the tax on the industry where they are levied.

Increasing the city’s sales tax by 0.5% to support an investment in a ballpark and stadium transferred additional regional tax revenue to the city. Some of those tax dollars are merely relocated from other communities. Arlington’s aggressive development strategies have resulted in the city’s ability to export tax revenues used for its investment. When that investment is repaid, further taxes generated by fans attending games could produce revenue gains that the city can use to enhance public services or enhance educational opportunities in the city, though we find little indication of additional tax revenues related to the opening of the Ballpark. Of course, the benefit of any additional revenues are subject to other increased costs not evaluated here, such as property tax.

Table 3. Arlington sales and use tax from residents. (All dollar amounts are in year end 2009 dollars. Percentages refer to the proportion of income that Arlington residents spent within the Arlington city limits on taxable items.)

<table>
<thead>
<tr>
<th>Year</th>
<th>Allocation to Arlington from state</th>
<th>Expected resident tax revenue (80%)</th>
<th>Tax revenue exported (80%)</th>
<th>Exported (80%)</th>
<th>Expected non-resident tax revenue (100%)</th>
<th>Tax revenue exported (100%)</th>
<th>Exported (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>$36,541,621</td>
<td>$14,297,330</td>
<td>$22,244,291</td>
<td>N/A</td>
<td>$17,871,663</td>
<td>$18,669,958</td>
<td>N/A</td>
</tr>
<tr>
<td>1990</td>
<td>$37,913,145</td>
<td>$14,477,545</td>
<td>$23,465,598</td>
<td>$14,188,288</td>
<td>$19,480,931</td>
<td>$20,053,712</td>
<td>N/A</td>
</tr>
<tr>
<td>1992</td>
<td>$62,472,752</td>
<td>$22,709,150</td>
<td>$39,763,594</td>
<td>$19,254,531</td>
<td>$28,386,448</td>
<td>$34,086,304</td>
<td>N/A</td>
</tr>
<tr>
<td>1993</td>
<td>$65,864,468</td>
<td>$23,299,605</td>
<td>$42,564,863</td>
<td>$14,188,288</td>
<td>$29,124,506</td>
<td>$36,793,962</td>
<td>N/A</td>
</tr>
<tr>
<td>1994</td>
<td>$70,450,205</td>
<td>$23,912,850</td>
<td>$46,537,355</td>
<td>$15,312,452</td>
<td>$29,891,063</td>
<td>$37,848,610</td>
<td>N/A</td>
</tr>
<tr>
<td>1995</td>
<td>$68,415,965</td>
<td>$24,517,464</td>
<td>$48,638,981</td>
<td>$16,212,994</td>
<td>$31,146,830</td>
<td>$42,409,615</td>
<td>N/A</td>
</tr>
<tr>
<td>1996</td>
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$1,417,101,343 | $484,191,427 | $932,910,116 | $239,357,249 | $605,239,284 | $811,802,259 | $219,729,641
exemptions on the stadium property or increased police presence at large gatherings like a baseball or football game.

The attempt at exporting much of the cost of the stadium(s), however, came at an additional cost to citizens and business owners in Arlington. The net positive economic outcome for the area is less clear than the simple change in tax revenues. While sales tax revenues increased with the tax rate increases, economic activity—at least within the retail and service sector—decreased within Arlington. While the city attempted to leverage its role as a retail centre for the region, there seems to be a plethora of substitutes in nearby areas for similar retail products creating distortions in the retail market. Arlington’s residents could pay more for goods and possibly reduce their consumption of these goods as a result of the tax, or must absorb higher transportation costs to travel to retail centres where the extra sales tax is not charged. In addition, local retailers may well have suffered from lower revenues had the additional tax not existed and price increases were not feasible. Lower levels of revenues—due to more transfers to the public sector—also could imply fewer retail jobs in Arlington. If individuals had to commute to other malls to find jobs, they too may have suffered real economic losses. If data allows, further research is suggested in order to fully evaluate whether the retailers and producers or the consumers of these taxed products have borne the higher proportion of costs.

Regardless, the data indicate that Arlington’s experience with sport facilities identifies an instance where positive fiscal outcomes from a public investment for some cities could exist, but the economic impact on the private sector and/or consumers within the city as a whole was less desirable. This provides additional guidance for cities that might look to sports to enhance their image while minimizing their financial exposure. Some cities can and have avoided the overt subsidies that leave one to ponder whether or not the intangible benefits are worth the investment. But fully understanding the individual characteristics of the specific area is crucial to implementing any fiscally successful funding strategy once it has been decided that funding is appropriate in the first place, based on the goals of the public sector and the locale in question. When leveraging a specific industry sector—such as the retail sector in Arlington—municipalities must be aware of the ease of avoidance or spending substitution due to tax increases based on the boundaries of their implementation.

The financing lessons learned here are likely applicable to any tax increase implementation for facilities with temporary tenants or any other publicly-funded project as well. The United Kingdom recently spent billions in preparing for the most recent Olympic Games, while Rio de Janeiro has faced substantial hurdles in preparing for both the 2014 World Cup and 2016 Summer Olympic Games. Larger events like the World Cup and the Olympic Games may be subject to tax funding strategies at the national level, which could alleviate some avoidance impacts in those sectors where tax increases are implemented. We stress that both direct revenue generation, as well as any possible negative tax distortions resultant from funding strategies, should be weighed against one another before a final decision is made.

References


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Texas State Government (2010), See https://ourcpa.cpa.state.tx.us/allocation/AllocHisResults.jsp

US Census (2010), See www.census.gov
