City of San Antonio, TX

Review of Annexation Financial Analysis and Best Practices

January 2016

The PFM Group
Financial & Investment Advisors

Table of Contents

I. Executive Summary

Executive Summary

The City of San Antonio ("City") engaged Public Financial Management ("PFM") to conduct an independent review of the calculations and assumptions underlying the City's assessment of the potential financial impacts of the proposed annexation of three areas known as IH-10 West, 281 North, and IH-10 East. In addition to reviewing the assessment and its underlying assumptions, PFM was also tasked with evaluating the City's annexation policy and program in light of national best practices.

Based on a detailed evaluation of official City documents and calculations, as well as a review of current best practices research and 30 annexation models produced by municipalities across the country, the following findings reflect PFM's independent, professional judgment regarding the City's assessment and annexation policy approach:

- San Antonio's fiscal impact model conforms with most of the best practices identified in the literature and its methodologies are among the more robust of all the models reviewed. Though under no statutory obligation to develop a long-term fiscal impact model prior to Limited Purpose Annexation, the City's policy to do so is both prudent and strategic. Whereever possible, the City's growth assumptions align with its Annual Budget, its Debt Plan, or other financial planning documents. The level of detail reflected in the City's public safety expenditure projections was among the more thorough of all the models reviewed. Though the City has access to less granular economic and planning data than municipalities in other states, conscientious efforts were made to overcome these limitations.

- PFM recommends that the City modify its fiscal impact assessment by:
    - Introducing both a "high growth scenario" and a "low growth scenario" to reflect the possibility that that future build-out could be substantially higher or lower than projected. Scenarios would be based on different rates of projected residential and commercial development.
    - Updating model assumptions to reflect the delay in adoption of the annexation plan.
    - Working with the State Comptroller to obtain actual data on sales and sales tax collection in the proposed annexation areas.
    - Modifying the sales tax revenue methodology to incorporate actual sales data from the State Comptroller and a modified demand-side approach to revenue growth calculations.
    - Removing SAWS and CPS revenue from the model, as it is unlikely that annexation will have an impact on these revenue streams.
    - Using annual net operating impact figures to report fiscal impact, rather than cumulative effects over a twenty year period.

- As part of its overall analysis, the City should also assess the cost of not proceeding with annexation. In the case of the areas proposed for annexation, the expectation is that the projected growth in these areas would likely occur with or without annexation. Absent annexation, the City – and the County – have limited ability to manage or regulate growth and its impacts. As a result, absent annexation, the City is likely to bear costs related to uncoordinated and inefficient development – such as traffic congestion – and will have no ability to manage development patterns that could reduce investment in

the City's urban core and reduce the market value of City neighborhoods abutting the annexation area. At the same time, absent annexation, the City would have limited ability to capture much of the revenue opportunity associated with projected growth. In other words, the potential costs of a decision not to annex would be very real and there would be little to no offset in additional revenue.

- Annexation is a required first step to ensure that future development in the annexation areas will occur in a way that supports San Antonio's broader goals for economic vitality and fiscal sustainability. Sound future growth patterns will also depend on the adoption of intentional, policy-driven land use plans, zoning maps, and regulations governing greenfield development. In recent years, the City has adopted Sector Plans to provide guidance on desired future land use intensity and to establish expectations for ETJ development; these Plans have served as the foundation for the proposed zoning maps developed for the three areas in the event that the City proceeds with Limited Purpose Annexation.

II. Project Overview and Approach

Project Overview and Approach

The City of San Antonio ("City") engaged Public Financial Management ("PFM") to conduct an independent review of the calculations and assumptions underlying the City's assessment of the potential financial impacts of the proposed annexation of three areas known as IH-10 West, 281 North, and IH-10 East.[1] PFM's review included both the assessment, the October 2015 *Annexation 360 Fiscal Impact Study*, and a supporting budget model developed by the City's Office of Management & Budget in coordination with the Planning, Finance, and public safety departments. In addition to reviewing the study and budget model, PFM was also tasked with evaluating the City's annexation policy and program in light of national best practices.

To conduct the evaluation, PFM reviewed official source documents such as the City's 2013 Annexation Policy, State of Texas statutes regarding local annexation powers, and local ordinances and processes regarding developer responsibilities for infrastructure improvements.[2] For each targeted area, PFM studied the limited purpose annexation plans, current land use maps, anticipated future zoning maps, and Master Development Plans currently on file with the Development Services Department. PFM also examined City staff presentations to Council and to the Planning Commission for information regarding development agreements and proposed future land uses in potential annexation areas.

In addition, PFM reviewed the December 2014 *Unincorporated Area Study* conducted by TischlerBise for Bexar County, which assessed the County's legislative authority relative to that of the City of San Antonio, the effects of the City's annexation policy on development patterns in unincorporated Bexar County, and the financial impacts of annexation versus incorporation for growing Bexar communities.

In November 2015, PFM interviewed City staff from the Budget, Finance, Planning, Legal, and Police departments and submitted additional data and documentation requests based on those conversations.[3]

In order to evaluate the City's fiscal impact model assumptions relative to those commonly employed by other municipalities nationwide, PFM compared the City's methodology and data sources to those of 30 municipalities in 12 states. The extent of the alignment between San Antonio's approach to annexation and nationally recognized best practices was determined based on cross-jurisdictional policy studies produced by such entities as the Lincoln Institute for Land Use Policy, Brookings Institution, regional planning commissions, and SmartGrowth America.[4]

The resulting findings reflect our professional judgment, based on the research and due diligence outlined above.

[1] The PFM team was led by David Eichenthal, a Managing Director with the firm. Mr. Eichenthal previously served in senior management positions with both the City of New York and the City of Chattanooga, Tennessee. In Chattanooga, Mr. Eichenthal was the City Finance Officer and chaired the Chattanooga Downtown Redevelopment Corporation. He also previously served as a Nonresident Senior Fellow with the Brookings Institution Metropolitan Policy Program. A full description of Mr. Eichenthal's background and experience and that of other members of the PFM team can be found in Appendix A.

[2] Although the PFM team reviewed both local ordinances and state statutes, the PFM team cannot and does not offer any legal opinion or legal interpretation of statute or ordinance.

[3] A full list of interviews can be found in Appendix B.

[4] A bibliography of studies and documents consulted can be found in Appendix C.

III. Review of the Annexation Fiscal Impact Model

Review of the Annexation Fiscal Impact Model

This section reviews the data sources, calculation methodologies, and growth assumptions incorporated into the City's October 2015 annexation fiscal impact model. The model was developed by the City's Office of Management & Budget in coordination with the Planning, Finance, and public safety departments, with the goal of informing City Council regarding the decision on whether to proceed with a limited purpose annexation of three areas known as IH-10 West, 281 North, and IH-10 East. The City also modeled the projected fiscal impact of potential annexations in two additional areas known as US 90/1604 and HWY 151, as well as the potential annexation of the commercial corridor that transects the 281 North Area; review of these three additional annexation studies was not included in the scope for this analysis because the City has currently placed annexation plans for these areas on hold.

The model examined potential new revenue for the City and potential expenses associated with service provision to the newly annexed areas over a twenty year time horizon. Per the City's 2013 Annexation Policy and state law, should Council opt to move forward with a limited purpose annexation, City staff would then develop detailed service plans for each area under consideration and incorporate these plans into more comprehensive financial analyses.

Baseline and Projected Growth in Population and Development

Most annexation fiscal impact models reviewed, San Antonio's included, are built upon estimates of the number of households and developments that would be incorporated into the City following annexation ("baseline estimates") as well as projected future household counts and developments in the area studied ("build-out estimates").

The build-out estimates used in San Antonio's fiscal impact model assume that future development activity will be associated with the execution of all Master Development Plans ("MDPs") currently on file with the City's Development Services Department. MDPs are conceptual development plans that are required of all property subdivision projects within the City or its Extraterritorial Jurisdiction (ETJ); these flexible plans offer a proposed project outline and demonstrate compliance with City regulations, but can be amended upon request prior to platting. The model's build-out estimates assume that all MDPs on file will be fully built out as planned and that no additional development will occur on vacant parcels not currently included in an MDP.

As shown in the table on the next page, by excluding non-MDP parcels, the model's build-out estimates assume no further development activity on 57.0 percent of all acres in IH 10 West, 53.4 percent in IH 10 East, and 18.3 percent of all acres in 281 North. Outside of the MDPs, several parcels are in active use as agricultural or grazing lands and the owners have already taken the preliminary steps to seek non-annexation development agreements with the City on those grounds; these properties are unlikely to be developed in the medium-term but may be developed in the longer-term time horizon.[5] Other properties outside the MDPs lie partially or principally in the floodplain and are unlikely to be substantially developed. Finally, between 10 percent and 41 percent of non-MDP properties already have building construction in place –

[5] Texas State law requires municipalities to offer a development agreement to areas appraised by the tax roll as agriculture, wildlife management, or timber management. If the landowner consents to the agreement, the City excludes the property from annexation for the duration of the agreement. Annexation may proceed if land owners decline to enter into an agreement or if at any time the landowner files a subdivision plat or related development document for the property.

these parcels may be good candidates for development intensification, but can no longer be considered "greenfields."

As reported in the table below, between 2,240 acres and 3,820 acres in the annexation areas may be considered vacant or underutilized, or between 30 percent and 40 percent of the total land. The majority of this vacant or underutilized land is located within an MDP: 60 percent in the IH 10 West area, 72.6 percent in the IH 10 East area, and 98.4 percent in the 281 North Area. Thus, as long as development activity is relatively limited outside of the MDPs, MDP build-out projections are a reasonable substitute for a more detailed estimate of the area's future population and development.

Parcels in Potential Annexation Areas by MDP categorization and level of existing development

	IH 10 West		IH 10 East		281 North	
Types of Parcels in the Annexation Areas	**Acres**	**%**	**Acres**	**%**	**Acres**	**%**
A. MDP Parcels: Fully built-out (1)	1,821	19.1%	1,875	25.0%	3,859	50.7%
B. MDP Parcels: Vacant or Underutilized (1)	2,286	23.9%	1,627	21.7%	2,410	31.7%
C. Non-MDP Parcels: Signed Development Agreements (2)	632	6.6%	273	3.6%	582	7.6%
D. Non-MDP Parcels: Developed Parcels (3)	3,274	34.3%	3,127	41.6%	772	10.1%
E. Non-MDP Parcels: Vacant or underutilized (4)	1,534	16.1%	613	8.2%	39	0.5%
Total	***9,547***	***100%***	***7,515***	***100%***	***7,612***	***100%***
Total Vacant or Underutilized parcels (B + E)	3,820	40.0%	2,240	29.8%	2,449	32.2%
% Located within an MDP	*59.8%*		*72.6%*		*98.4%*	

Notes:

(1) Based on an analysis of aerial imagery conducting by the City Planning Department.

(2) Council adoption of the Non-Annexation Development Agreements to occur at the time of Limited Purpose Annexation.

(3) A parcel is categorized as "developed" if it has improvements valued at $10,000 or greater according to the County Assessor . Such parcels may be able to accommodate additional development, but are no longer considered to be "greenfield" sites.

(4) Includes non-MDP properties with less than $10,000 in improvements, properties under agricultural or grazing use where the property owner had not returned to signed Development Agreement as of October 2015, and properties where at least some portion of the parcel lies within the foodplain and is therefore not developable.

Source: City of San Antonio Planning Department.

The model's buildout estimates may prove inaccurate, however, if owners of agricultural or otherwise underutilized land choose to pursue property subdivisions and development during the model's 20-year time frame, or if evolving market conditions prompt developers to modify the residential or commercial density of MDPs on file. Moreover, it is also possible that, should San Antonio proceed with annexation, City leadership may choose to adopt land use policies designed to encourage an intensification or dispersion of development relative to the projected growth that would have occurred had the area remained unincorporated. In the State of Texas, where Counties have no zoning powers, annexation represents an important regional tool to either incentivize or disincentivize growth in a particular area, in order to accomplish broader regional goals such as investment in the urban core, housing affordability, environmental preservation, or the retention of agricultural, industrial, or military uses.

In following with best practices, the City has broken out the baseline and build-out estimates by type of development, which yields more robust population and property value estimates:

*Single Family Residences***:** The baseline count of single family residences currently located in the areas targeted for annexation was sourced from the 2015 Bexar County Appraisal District ("BCAD") tax rolls. The build-out estimates reflect the full execution of MDPs on file, as described above, assuming one single family residence per subdivided single family parcel. The model assumes that growth will be linear over the course of the 20-year period.

Multifamily Residences: The baseline estimates for multifamily residences are also derived from the 2015 BCAD tax rolls. Because BCAD tax rolls do not include data on the number of multifamily residences per parcel, the model assumes an average density of 25 multifamily units per acre. According to Planning staff, typical multifamily unit density in San Antonio ranges between 20 and 30 units per acre. Build-out estimates reflect the full execution of MDPs on file, with the assumption that density will average 25 units per acre unless otherwise specified in the MDP. The model assumes that growth will be linear over the course of the 20-year period.

Population: 2010 Census Block Group data was used to determine the number of residents currently living in the areas targeted for annexation. The City has chosen not to incorporate any estimates of population growth that have occurred since 2010 into its baseline. Future population projections were derived from the build-out residential estimates described above, assuming a constant average household size of 2.6 persons for a single family unit and 1.3 persons in a multifamily unit.

Commercial Acres: The baseline count for the commercial acres was sourced from the 2015 BCAD tax rolls. Because BCAD tax rolls do not include data on building square footage or categorize parcels by retail use versus industrial use, the City has assumed that, on average, 20 percent of commercial acres are dedicated to retail use, an additional 25 percent are dedicated to non-retail commercial use, and the remainder is dedicated to non-building use (parking lots, landscaping, etc). Build-out estimates reflect the full execution of MDPs on file; since most MDPs do not incude detail on anticipated commercial building square footage or use, the model applies its baseline use assumptions to its growth projections as well. The model assumes that growth will be linear over the course of the 20-year period.

Property Values: Baseline property values were sourced from the 2015 BCAD tax rolls. The model incorporates the annual growth rate assumptions used by the City's Debt Plan, as follows:

- FY 2017: 6.5 percent year-over-year growth
- FY 2018: 4.0 percent year-over-year growth
- Thereafter: 3.0 percent year-over-year growth

These are likely conservative estimates, as the 10-year annual average citywide property value growth rate was 4.9 percent, and the 20-year average was 5.9 percent. According to Budget staff, property value growth in newer neighborhoods removed from the urban core – similar to those in the proposed annexation areas -- has been even higher.

The model assumes that new developments will have property values equivalent to the median lot value (for single family homes) or the median acre value (for commercial and multifamily properties) in the area targeted for annexation. These median values are projected to increase by the same growth rates as existing properties. In other words, the model does not project any substantial changes from existing development patterns or market demand.

Recommendations

Other municipalities have been able to develop more precise baseline estimates of multifamily residential units, retail square footage, and industrial square footage thanks to the availability of more detailed Assessor data, which in turn improves the accuracy of revenue and expenditure projections. Based on available data, the City's baseline estimates, build-out estimates, and other associated assumptions appear to be reasonable.

Still, in order to account for the possibility that future build-out could be substantially higher or lower than projected in these estimates, PFM recommends incorporating "high growth" and "low growth" scenarios into the model's residential and commercial build-out estimates.

The goal of the "high growth" scenario would be to approximate a situation where both residential and commercial densities increase and development occurs on all agricultural land under signed development agreements as well as on all portions of parcels categorized as vacant or underutilized but not located in a floodplain. Conversly, the goal of a "low growth" scenario would be to approximate a situation where both residential and commercial densities are lower and no development occurs outside of the MDPs.

Though a refined development patterns analysis could incorporate such assumptions when the City develops more comprehensive financial projections during the Limited Purpose Annexation phase, a 20 percent increase or decrease in the number of housing units and the number of commercial developments expected at build-out will serve as a reasonable approximation at this time. In other words, for each annexation area under consideration, PFM recommends that the City produce fiscal models that analyze impacts under three scenarios:

- The current scenario, as modified by recommendations in this report
- A "high growth" scenario that incorporates assumptions that both the number of housing units and the number of commercial developments on a year by year basis will equal 120 percent of the current scenario
- A "low growth" scenario that incorporates assumptions that both the number of housing units and the number of commercial developments on a year by year basis will equal 80 percent of the current scenario

General Fund Revenue Assumptions

The analysis of revenue impacts in the City's fiscal model focused on General Fund revenue and those sources that account for both the greatest amount of revenue to the City and where there would most likely be an impact that would result from annexation.

Property Tax: In accordance with national best practices, the City's methodology for projecting property tax revenues differentiates between residential and commercial development, existing and anticipated development, and personal and real property.

The model assumes that limited purpose annexation would take place before December 31, 2015 (FY 2016) and that full purpose annexation would occur by December 31, 2018 (FY 2019). This schedule would prompt a January 2019 assessment of property values in the newly annexed area and lead to new property tax revenues to the City beginning early in FY 2020. Property tax revenues for both existing and anticipated new development reflect the assumption that the FY 2016 adopted City property tax rate will remain constant over the 20-year period

(34.677 cents per 100 valuation for Maintenance & Operations and 21.150 cents for Debt Service, though the latter is not included in the model). Over the last ten years, the City has reduced its Maintenance & Operations property tax rate four times, as illustrated below. In FY2008 and FY2016, rapidly rising property values led to rollback rate reductions of 1.7 percent and 2.1 percent, respectively. The City has not increased property tax rates in the last 20 years.

City of San Antonio Property Tax Rate, FY2007 - FY2016

Rate Component	FY 2007	FY 2008[a]	FY 2009[b]	FY 2010[b]	FY 2016[a]
Maintenance & Operations	36.704	36.08	35.564	35.419	34.677
Debt Service	21.15	21.15	21.15	21.15	21.15
Total	**57.854**	**57.23**	**56.714**	**56.569**	**55.827**

Notes:
[a] Decrease to the rollback rate
[b] Decrease to reflect the transition of health clinics to the University Health System (UHS). UHS tax rate increase was commensurtate with the reduction in the City's tax rate.

The model assumes a 98 percent collection rate, per the citywide FY2016 Budget assumption, and estimates personal property valuation to be 11.8 percent of real property valuation, per FY 2015 actual citywide figures.[6] Average homestead exemptions on future residential developments are assumed to equal 14 percent of total residential valuation, per FY 2015 actual citywide figures.[7] Note that the Citywide average differs substantially from the average homestead exemption in the areas under consideration for annexation (7.26 percent in IH10 West; 5.84 percent in 281 North; 16.98 percent in IH10 East). In other words, the model anticipates that the new residents moving into the targeted areas will more closely resemble the citywide demographic profile rather than the area's current demographic profile. PFM has reviewed these assumptions and finds them to be reasonable and appropriate.

Sales Tax: The difficulties in forecasting future sales tax revenues associated with proposed new developments or annexations is generally acknowledged in other annexation studies and in the best practices literature.[8] Most annexation fiscal impact models reviewed by PFM calculate projected sales tax revenues based either on growth in retail square footage (supply side analysis) or growth in population (demand side analysis). The City of San Antonio's methodology is unique in combining both the supply-side and the demand-side approach in its growth projections. In general, the choice of methodology is dictated by the quality of data

[6] Personal property is all tangible property other than real property, such as equipment, furniture, and fixtures used for business purposes.
[7] Homestead exemptions are offered to residents who occupy a housing unit as their principal place of residence, to property owners over the age of 65, to surviving spouses of property owners who were over the age of 65 at the time of death, and disabled individuals.
[8] See for example: New York Office of the State Comptroller Division of Local Government and School Accountability. March 2015. Local Government Sales Taxes in New York State: 2015 Update.

available and whether the resulting projected growth rate aligns with historic trends and local knowledge of area development and business patterns.

The San Antonio model's baseline and growth estimates for sales tax revenues are calculated using the supply-side methodology; these growth estimates are then supplemented by a demand-driven approach to account for incremental growth in area sales derived from local population growth. As such, projected sales tax revenues are the product of four separate growth rate assumptions:

- Citywide year-over-year sales growth of 4.5 percent in FY17 and FY18; 3.5 percent in FY19; and 3.0 percent in FY20.
- Citywide population growth of 1.7 percent throughout the period of study.
- Growth in the number of retail establishments within the annexation area, per the development assumptions.
- Growth in the number of residents living within the annexation area, per the development assumptions.

As illustrated in the table below, the model's assumptions regarding citywide year-over-year sales growth are conservative compared to historic trends. Over the last ten fiscal years, the citywide average annual growth rate for sales tax revenues was 5.35 percent; over the last five years, it was 5.79 percent. However, when anticipated future retail development and population growth in the annexation areas are factored in, the projected growth rates for the annexation areas consistently surpass the historic citywide trend. Some surfeit is to be expected, particularly given that population growth in the annexation areas is likely to significantly surpass the citywide average. However, even when adjusted for population, the annexation model

Average Annual Sales Tax Revenue Growth Rate

	5-Year	10-Year	15-Year
Citywide Actual (Historic)			
Total	5.79%	5.35%	5.12%
Per Capita	4.72%	4.31%	3.48%
IH 10 W (Projected)			
Total	7.21%	6.68%	6.36%
Per Capita	4.28%	3.77%	3.45%
US 281 N (Projected)			
Total	13.17%	11.55%	10.53%
Per Capita	9.48%	7.91%	6.92%
IH 10 E (Projected)			
Total	6.16%	5.71%	5.45%
Per Capita	5.34%	4.90%	4.64%

Note: Calculations use FY2014 as the base year for historic annual averages; FY2019 as the base year for projected annual averages. The annexation model assumes that the City will begin to receive sales tax revenues in January 2019, and therefore incorporates only 9 months of revenues for FY2019. For the purposes of this analysis, projected FY2019 revenues have been annualized.

Sources: City of San Antonio Budget Department (for historic sales tax revenues); City of San Antonio Comprehensive Annual Financial Reports from FY2014, FY2004, and FY2003 (for historic population data); City of San Antonio Annexation Model (for all projections)

projects significantly higher annual average growth rates in the US 281 North area, moderately higher growth rates in the IH 10 East area, and comparable or slightly lower rates in the IH 10 West area. While the current and anticipated development patterns in these areas may warrant variance from the citywide average, it nonetheless raises questions about whether the methodological approach used is best suited to the local conditions and data available.

Unlike municipalities in other states, San Antonio does not have ready access to actual sales tax collection data from prior years or current retail establishment data for the potential annexation areas, and must instead rely on several approximations and assumptions to produce baseline estimates. In order to estimate the total number of retail establishments in the area targeted for annexation, the model assumes that 66 percent of all parcels designated as commercial in the 2015 BCAD tax rolls are retail uses, with an average of one retail establishment per retail parcel. These figures are then multiplied by the citywide average volume of sales per establishment, sourced from the 2007 Economic Census and grown to the 2016 baseline at an annual rate of 4.5 percent, in order to estimate the baseline value of sales in the targeted area. The model also incorporates the assumption that 59 percent of sales values are not subject to retail tax, per annual average Texas State Comptroller data for the City of San Antonio between 2002 and 2012. The City receives one percent of all sales subject to tax.

Other municipalities have used actual data on either the number of retail establishments or the number of built square feet devoted to retail use to develop supply-side sales tax revenue estimates. Typically, this data is available from a County Assessor, County business license records, or private data vendors such as Dun & Bradstreet. In some states, municipalities are able to obtain actual sales tax collection data for the area targeted for annexation. Such data would greatly improve the accuracy of the model's baseline estimate of sales tax revenues, as the methodology outlined above does not factor in variance in retail real estate density or target market size, which can result in sales volumes than differ substantially from the citywide average.

The City reported that it has attempted to obtain some of this data without success. Following our meetings with City staff in November, they had further communications with the State Comptroller and determined that it would be possible to obtain business establishment addresses from the Texas State Comptroller's office, which could be geocoded to confirm a presence in the target annexation area and then resubmitted to the State Comptroller in order to obtain an aggregate retail sales figure for the most recent fiscal year. This actual data could then be substituted for the baseline estimate currently used by the model.

As noted earlier, the City's annexation model calculates projected growth in sales tax revenues by aggregating the results of both supply-side and demand-side calculations. Both calculation methodologies factor in citywide sales growth projections, the former to estimate the growing volume of sales per establishment, the latter to estimate the growing volume of sales per capita. It should be noted that growth in citywide sales volume is likely attributable to a combination of population growth, household income growth, shifts in consumer spending behavior, expansion of retail offerings in the City, and inflation. Further, in order to accurately project the citywide sales per capita ratio in future years, the use of citywide sales growth assumptions in the demand-side calculations leads to the inclusion of a citywide population growth assumption – as a result, citywide population growth is a particularly important input in the model's results.

Simply put, San Antonio's annexation model assumes that establishment and particularly population growth in other portions of the city will result in increased sales in the proposed annexation area. While citywide population growth could lead to increased local sales at region-serving retail establishments or at neighborhood-serving establishments directly adjacent to underserved city neighborhoods, it is possible that the use of these citywide growth assumptions leads to an overstatement of projected sales growth within the annexation area. Of all the annexation models reviewed, San Antonio's was the only one to include citywide growth rates in its sales tax revenue projections; other models used a constant sales per capita ratio, constant dollars, or a constant inflation rate that varied between 2.0 and 3.0 percent. Such inflation assumptions are consistent with national historic trends; according to the U.S. Bureau of Labor statistics, annual inflation has consistently averaged 2.3 percent over the last 10, 15, and 20 years.

The City's approach to its demand-side calculations is unlike the methodologies used by other multi-year annexation models reviewed. San Antonio's model multiplies the citywide sales per capita ratio by the number of new residents anticipated per the target area population projections. As noted earlier, the sales per capita ratio assumes citywide population growth rates of 1.7 percent and citywide sales growth rates of 4.5 percent in FY2017 and FY2018, 3.5 percent in FY2019, and 3.0 percent thereafter.

Other demand-driven models attempt to distinguish the income profile of the annexation area from the citywide average, to reflect that the annexation of a moderate income neighborhood may yield more in sales tax revenues than the annexation of a distressed neighborhood. This approach relies on estimates of household income and assumptions regarding the percentage of income that area households spend on taxable goods and services. Some models use Census data to estimate average household income in the target annexation area; others, such as the study prepared for Adelanto CA, calculate average household income from estimated annual housing costs (including a 30-year mortgage, property taxes, property insurance, and HOA fees) associated with the average sales price of a dwelling unit in the annexation area.[9] The more robust models vary their assumptions regarding the portions of household income spent on retail goods based on the distribution of household incomes in the annexation area. For example, the model will assume that households earning less than $30,000 per year will spent a greater portion of their household income on retail goods than households earning over $100,000 per year. Implicitly or explicitly, all models reviewed that use the demand-driven approach include assumptions regarding sales leakage to internet purchases and to business establishments already located within city limits; some also account for sales derived from residents living in nearby unincorporated areas who choose to shop in the annexation area.

Revenue from CPS Energy (CPS) and San Antonio Water System (SAWS): The City currently collects 14 percent of all CPS gas and electric customer gross revenue as payment in lieu of taxes, as well as 2.7 percent of SAWS gross revenue.

The City's fiscal model for annexation includes the incremental increase in CPS and SAWS revenue that would result from new residential and commercial customers in the proposed annexation areas who would be served by SAWS and CPS. Projected additional revenue is based on the 2013 average monthly bill for single family residences, multifamily residences, and

[9] The Natelson Dale Group, Inc. August 27, 2008. Fiscal Impact Analysis City of Adelanto South Annexation Area 1A. Prepared for Hogle-Ireland, Inc.

commercial properties, inflated to 2017 dollars, with a subsequent annual growth rate between 2.3 percent and 3 percent.

All three of the proposed annexation areas are already served by SAWS and CPS and would continue to be served by both utilities whether the areas were annexed or not.

Other Revenues: The model also includes revenues derived from Emergency Medical Service (EMS) Transport Fees and Home Security Alarm Renewal Permit Fees, both projected on a per capita basis and expected to grow by 3 percent annually. PFM believes the City's methodology for calculating these smaller scale revenue sources to be reasonable and consistent with commonly adopted practices.

The model does not include several small scale revenue sources such as business and franchise fees or liquor taxes, which represent 2.8 percent and 0.7 percent of FY16 budgeted revenues respectively. The City may include these revenues in the more comprehensive financial analysis to be developed during the period of Limited Purpose Annexation.

Because the model focuses on the fiscal impacts of annexation on the City's General Fund, it does not include sales tax revenues associated with special revenue funds, such as the Edwards Aquifer and the Advanced Transportation District. PFM believes these exclusions to be reasonable because, though it would be straightforward to estimate the incremental increase in revenues to these two funds as a result of annexation activity, accurately capturing the impact on expenditures would be unduly complicated given fund spending parameters. State law stipulates that the City's Edwards Aquifer fund must be used to develop creek ways and to maintain the aquifer, and the fund is capped at $45 million. Incremental revenues resulting from annexation would allow the City to reach the cap more quickly, and the City may or may not opt to invest in projects within the annexation area. Funds from the Advanced Transportation District are used to mitigate congestion, maintain traffic signals, build bike lanes and sidewalks, and to improve public transportation infrastructure. Revenues are allocated based on levels of need, not geography.

Finally, the model reports but does not incorporate revenue from the debt service portion of the City property tax rate, approximately 38 percent of total property tax revenues. The model includes a report of projected revenue for debt service but, with the exception of immediate capital needs related to public safety operations, does not provide a full projection of capital spending over the twenty year period. This is discussed in detail in the section on projected expenditures.

Recommendations

The City's methodological approach risks overestimating the growth in sales activity spurred by anticipated future development. To develop a more accurate baseline figure, PFM recommends that the City work with the State Comptroller to obtain actual data on sales and sales tax collection in the areas targeted for annexation. The model should assume that the City receives one percent of all taxable sales recorded by the Comptroller in the annexation area, and substitute the resulting figure for the model's current baseline figure.

PFM also recommends that the City change its methodology for calculating growth in sales tax revenues attributable to annexation. Given the level of granularity in the various data sources available to the City, as well as the possible current undersupply of commercial business in some of the potential annexation areas, PFM recommends that the City use a modified version

of the demand-side methodology commonly used in other annexation models. This approach will require four inputs:

1. An estimate of average household income in the annexation area. The most straightforward approach would be to obtain an average household income estimate from the 2010 U.S. Census Block Group data and inflate that figure using a reasonable inflation factor in line with historic CPI trends.
2. An assumption regarding the percentage of income that area households spend on taxable goods and services. Assumptions selected by other models reviewed by PFM vary between 30 percent and 35 percent.
3. An assumption regarding net sales leakage. The selection of an appropriate net leakage assumption rate should be a qualitative process, based on the size of the annexation area, ease of travel to retail businesses elsewhere, the presence of region-serving retail amenities, and the supply and variety of neighborhood-serving retail offerings in the annexation area compared to adjacent neighborhoods both within city limits and in the unincorporated County. For example, if the City anticipates that current or anticipated retail establishments within an annexation area may attract substantially larger numbers of shoppers from other parts of the City or from nearby unincorporated areas in the future, it should select a lower net sales leakage assumption. Conversely, if the City expects that the annexation area will develop primarily as a bedroom community with few retail options, the net sales leakage assumption should be higher. The net sales leakage assumptions selected by the other annexation models reviewed vary between 40 percent and 80 percent.
4. An assumption regarding percentage of retail sales subject to retail tax. The model currently assumes that 59 percent of sales values are not subject to retail tax, per the annual average of Texas State Comptroller data for the City of San Antonio between 2002 and 2012. PFM finds this assumption to be reasonable.

The calculations should be constructed such that, as the number of households increase, the sales volume in the annexation area will increase.

In addition, in order to account for situations where existing retail development has not yet caught up to current population levels, the City should perform the following calculation:

[anticipated taxable sales volume calculated using the demand-driven approach in the first year of full purpose annexation] – [actual taxable sales volume sourced from the State Comptroller and inflated to the first year of full purpose annexation]

If the result from this calculation is a positive figure, the City should add this number to the annexation area's projected future sales volume, distributing it evenly over the course of the first 10 years in the model. In other words, in cases where there is a current undersupply of retail establishments in the annexation area, the model should assume that retail development will "catch up" with local demand over the course of ten years following annexation.

Finally, in order to project annual sales tax revenues through the 20-year period, the model should grow its baseline figure using the year over year growth rate drived from demand-driven approach described above.

One of the benefits of the above approach is that, in situations where an annexation area includes significant regional retail attractions that draw shoppers from the city and from other unincorporated area – such as IH 10 West – the actual sales data will capture the existing inflow while anticipated future increases in outside shoppers can be accounted for in the net leakage assumption.

An acknowledged weakness of the above approach is that it assumes that the income profile of the area will remain stable over time, precluding the possibility of substantive neighborhood disinvestment or neighborhood redevelopment.

PFM recommends that the City remove revenue from SAWS and CPS from the fiscal model. Because the development build-out estimates assume a continuation of the targeted area's existing land use patterns and levels of density, annexation is not expected to substantially change the area's development trajectory. The areas subject to annexation are already being served by CPS and SAWS, so it is unlikely that annexation will have an impact on total revenue.

Finally, PFM recommends that the City update the model assumptions to reflect the delay in adoption of the annexation plan.

General Fund Expenditures Assumptions

The City's fiscal model focuses on operational expenditures in the General Fund. It includes those departments most likely to be affected by operations and that account for the highest percentage of overall General Fund expenditures.

Police: In order to deploy services on the first day of full-purpose annexation, the model includes Police costs beginning in FY2018, two years before the City anticipates generating property tax revenue. The initial costs to the Police Department include cadet training, equipment, and additional personnel.

The model's estimates for policing staff and immediate capital needs are driven by the number of 2014 calls per capita received by the computer aided dispatch ("CAD") system at the Bexar County Sheriff's Office from residents in the area targeted for annexation, as well as the distance between the area's center and the nearest existing substation. Call volume is expected to increase proportionally with population growth.

The Police Department expects local officer staffing levels to be proportional with citywide staffing levels, based on call volume per capita, with the addition of a multiplier to account for longer travel times from the nearest substation. Per Departmental policy, one Detective would be hired for every three additional officers, one Sergeant for every nine officers, and one civilian expediter for every ten officers. Personnel costs for these FTEs include direct compensation, overtime and other premium pay, pension contributions, and active and retiree health insurance.

The model also includes capital and maintenance costs associated with two patrol vehicles for every five officers, and one administrative vehicle for every nine officers. The Police Department used its Resource Allocation Model to determine that the annexation areas would not require the construction of an additional substation.

The City's detailed, demand-driven methodology for calculating of policing costs is consistent with best practices and among the more robust of all fiscal impact models reviewed. Should the City move forward with Limited Purpose Annexation, it will have the opportunity to develop a more comprehensive service plan, which could assess the current call volume and further refine the model based on whether the area calls warrant higher or lower levels of officer response than the citywide average. It is also possible that annexation may lead to higher call volumes as additional ordinances become applicable in the area and as residents become aware of the City's higher response times.

Fire and EMS: As with Police costs, the City's fiscal model includes costs for the Fire Department and EMS beginning in 2018, including training, equipment, capital expenditures for interim stations, and additional personnel.

The estimates for Fire & EMS staff and capital needs are driven by the locations of existing fire stations, potential locations for new stations, and the allocation of staff needed to deploy services throughout the area targeted for annexation within the citywide average response time. The Fire Department determined that the IH 10 East, IH10 West, and US 281 areas will each require an interim fire station, an engine crew, and three EMS units for a total of 96 uniformed positions. The number of FTEs and capital needs are expected to remain constant throughout the 20-year period, with costs increasing by an annual average growth rate of 3 percent. Personnel costs for these FTEs include direct compensation, overtime and other premium pay, pension contributions, and active and retiree health insurance.

PFM has reviewed the City's estimated costs for extending Fire and EMS services to the annexation areas and found them to be reasonable. Should the City move forward with Limited Purpose Annexation, it will have the opportunity to develop a more comprehensive service plan, which could assess the potential for increased activity over the 20-year period that might warrant a projected future increase in staffing and capital costs. A more detailed analysis for the service plan could, however, also find that the City could meet its obligation to provide comparable service in the annexation areas at lower cost.

Maintenance of Streets, Traffic Signals, Signs, and Markings: In order to estimate the number of streets in need of maintenance in the annexation areas, the model multiplies the projected number of single family homes by the current average citywide ratio of single family homes per centerline mile. Maintenance costs are derived from the FY 2016 budgeted cost per centerline mile, supplemented by a 2.5 percent annual average inflation rate. The model assumes that supplementary street maintenance and infrastructure projects such as sidewalks would be funded out of the debt service portion of the City's property tax rate.

PFM reviewed the assumptions used to estimate the street and traffic maintenance costs and found them to be reasonable. Should the City move forward with Limited Purpose Annexation and develop a more comprehensive service plan, a more robust assessment of street quality and infrastructure needs will become necessary, particularly as the County's road construction requirements are less exacting than those of the City.

Other Expenditures: The City's fiscal model also includes expenditures associated with Animal Care, Code Enforcement, Health, 311/Customer Service, and Tax Collection, all projected on a per capita basis and expected to grow by 3 percent annually. PFM believes the City's methodology for calculating these smaller scale expenditures is reasonable and consistent with commonly adopted practices.

The model does not include expenditures that operate on a fee-for-service basis, such as solid waste, storm water, or development services, as the City maintains the flexibility to increase fees as needed to offset additional expenditures.

The model also does not include estimates of the capital infrastructure needs in the individual annexation areas beyond initial capital investments required for Police and Fire operations, assuming instead that other capital needs can be fully covered by the debt service portion of the City property tax rate. Possible capital needs – both existing and over the 20-yr period – may include land assembly and construction costs for parks and libraries, roadway expansion to accommodate increasing traffic derived from population growth, sidewalk construction, streetlight installation, and maintenance costs for all investments. Capital needs will vary substantially based on the final build-out scenario and levels of population growth that occur in nearby unincorporated areas – heavier traffic patterns and higher population counts will result higher demands for City investments.

To the extent that much of the anticipated development occurs under the umbrella of an MDP or another large-scale project, the City may share some of the infrastructure costs with developers. Per City ordinance, developers undertaking sizable projects must bear a portion of the cost of municipal infrastructure improvements that is roughly proportionate to the impacts of the proposed development. Proposed developments expected to generate 76 or more peak hour trips are typically required to bear at least some traffic mitigation costs, such as signalizing intersections. Similarly, at the platting stage, developers are required to set aside one acre of parkland per 70 residential units, or pay fees in lieu of building an on-site storm water detetion site. However, because these developer requirements do not apply to smaller-scale projects, capital costs will largely be born by the City in areas characterized by infill opportunities or a patchwork of multiple owners, more common along principal roadways or in established neighborhoods.

Estimating future capital costs is a known challenge for annexation fiscal impact models. In states where counties bear greater responsibility than in Texas for long-term planning and capital investments, municipalities are able rely on county assessments of future capital needs in the area targeted for annexation. In situations where the proposed annexation area consists largely of a single proposed development – such as a potential future airport or single subdivision – municipalities use the capital needs assessments developed as part of those project plans. Some models estimate the cost of parks infrastructure investment based on citywide service levels or city policy, acknowledging that land acquisition cost varies substantially by neighborhood and is difficult to estimate accurately. Other municipalities develop fiscal impact models only after producing service plans for the annexation area, and therefore have more detailed information on the capital investments needed and the timing of such investments (such as the frequency and timing of slurry seal treatments for roads; the number of miles of roadways that lack sidewalks; etc). It is PFM's understanding that the City of San Antonio will conduct such an assessment during the Limited Purpose Annexation period, and will develop a more detailed fiscal assessment at that time.

Recommendations

PFM has no specific recommendations related to the General Fund Expenditures assumptions in the City's fiscal model.

20-Year Net Cumulative Impact

In its October 2015 Annexation 360 Report, City staff summarized the model's results in the form of 3-year and 20-year cumulative net operating impact figures for each potential annexation area. These cumulative figures do not discount future cash flows and therefore may overstate the projected impact of annexation decisions on the City's budget. Simply stated, due to inflation and lost opportunities for alternate investment, a $1,000 of net positive revenue in 2037 is less valuable to the City than $1,000 in year 2017.

Few multi-year annexation studies reviewed by PFM take into account the discounted value of future net revenues. Some studies address the issue by using constant current year dollars, which has the advantage of eliminating speculation on future inflation rates. However, by effectively assuming that inflation across all revenue and expenditure categories is zero, this approach does not take into account that salaries, property values, and retail sales are likely to inflate at different rates, a reality that can have a serious impact on municipal finances and is already captured San Antonio's growth assumptions. Further, this approach effectively posits that the return on any alternate investment opportunity would be equivalent to inflation, likely an inaccurate assumption that overvalues cash flows in future years.

Other multi-year annexation studies incorporated inflationary assumptions but presented the model's findings only in the form of annual net operating impacts, without any cumulative aggregation of the results. The elimination of any cumulative multi-year figure not only rendered moot the question of whether to discount future cash flows, but downplayed the apparent importance of whether the annexation in question would be net negative or net positive fiscally over a given period of years. Given that an annexation, once approved, will likely be in force beyond the 20-year period, the annual fiscal impacts on the general fund – and how those vary in the short-, medium-, and long-term – are arguably more relevant considerations to policy-makers.

Recommendations

PFM recommends that the City report annual fiscal impacts over the twenty year period, but no longer report cumulative impacts over a twenty year period.

PFM also recommends that the City report the annual fiscal impacts for each of the prospective annexation areas separately. Any aggregation would obscure the differences between the three areas, which – due to differences in size and development patterns – will require different levels of City investment and lead to different effects on City revenue streams.

IV. Annexation and National Best Practices

Best Practices for Modeling the Fiscal Impact of a Proposed Annexation

In order to evaluate the City's fiscal impact model assumptions relative to those commonly employed by other municipalities nationwide, PFM compared the City's methodology and data sources to those of 30 municipalities in 12 states. The extent of the alignment between San Antonio's approach to annexation and nationally recognized best practices was determined based on cross-jurisdictional policy studies produced by such entities as the Lincoln Institute for Land Use Policy, Brookings Institute, regional planning commissions, and SmartGrowth America. A complete list of documents and studies reviewed can be found in Appendix C.

Differences in methodologies were usually tied to specific state statutory requirements governing annexation procedures, or to data sources commonly available in one state but not another. Best practices included:

- Providing a multiyear analysis to determine the long-term trends in revenues and expenditures
- Adopting different growth assumptions for single family, multifamily, and commercial properties, based on actual and current data
- Using conceptually rigorous demand-driven or supply-driven methods to project growth in sales tax revenue, based on actual and current sales or business establishment data
- Conducting a detailed marginal expenditure analysis for major cost drivers, such as public safety, in lieu of cost projections based on per capita estimates
- Including pension contributions, active and retiree health insurance, overtime and other premium pay when estimating salary-related expenditures
- Streamlining projections for minor revenues and expenditures by using per capita estimates

San Antonio's fiscal impact model conforms with most of the best practices identified in the literature and its methodologies are among the more robust of all the models reviewed. Though under no statutory obligation to develop a long-term fiscal impact model prior to Limited Purpose Annexation, the City's policy to do so is both prudent and strategic. Whereever possible, the City's growth assumptions align with its Annual Budget, its Debt Plan, or other financial planning documents. The level of detail reflected in the City's public safety expenditure projections was among the more thorough of all the models reviewed. Though the City has access to less granular economic and planning data than municipalities in other states, conscientious efforts were made to overcome these limits. Should Council opt to move forward with a limited purpose annexation, City staff will be able to incorporate more detailed data on operational and capital needs into the model after developing detailed service plans, as required by the City's 2013 Annexation Policy and state law.

Cost of a No Annexation Scenario

Like most fiscal analyses related to annexation, the City's fiscal impact study is a comparison of revenues and expenditures between two periods – current or pre-annexation and future or post-

annexation. Another useful analysis, however, would compare revenue and expenditures after annexation with a future scenario without annexation.

The limited powers allocated to county governments in Texas make it important to consider the cost of not annexing. Unlike in many other states, Texas counties do not have planning or zoning authority and can require cetain building standards only through subdivision regulation.[10] Texas counties cannot pass general ordinances to regulate basic problems such as trash accumulation, noise, and wild animals.[11] Though areas under consideration for annexation are located in San Antonio's Extraterritorial Jurisdiction (ETJ) and therefore already subject to select development standards, neither Bexar County nor the City of San Antonio has the authority to apply zoning controls in these areas.

As noted previously in this report and in the City's planning studies for each target area, the level of development captured in the model's build-out scenarios is likely to occur even if the City opts not to move forward with annexation. The areas targeted are significant gateways into the City, adjacent to a variety of amenities and regional employers, and are currently benefiting from over $300 million in transportation improvements. However, should the areas remain unincorporated and therefore exempt from most City development standards and planning policies, the anticipated growth in these areas will likely led to development patterns that are uncoordinated and inefficient. Historically, greenfield development unconstrained by planning policies has generally resulted in discontinuous construction that "leapfrogs" over vacant lots to reach less expensive lots futher out, unbroken strip or ribbon development along major corridors, and continuous low-density development.[12] Discontinuous planned communities like those anticipated by the MDPs might be well-planned internally but might not be well-integrated with adjacent areas, support an efficient use of public infrastructure, or conform with the needs of regionally-important military uses.

Likely Costs of a No Annexation Scenario for the City and its Residents

According to an extensive literature review on the fiscal and social implications of development patterns, unplanned growth in these areas at the levels anticipated would likely result in significant costs to the City and its residents.

An increase in traffic congestion on the city's edge may indirectly affect property values and increase demand for City public safety services in adjacent San Antonio neighborhoods. Road construction and maintenance costs are influenced by the location, density, and design of development; increasing costs has been tied to larger lot sizes and broader streets. A Houston study found that, unless well-coordinated, a wide proliferation of MDPs increases road maintenance costs because developers are required only to connect their developments with main arterials and not with other developments, leading to a decrease in connectivity and unsustainable levels of traffic congestion.[13] A study conducted by the Minnesota Department of Agriculture found that, as the population increases in previously undeveloped areas, increased traffic on roads not initially designed for such traffic flows leads to an increase in per capita

[10] Section 232 of the Local Government Code.
[11] City of San Antonio v. City of Boerne, 111 S.W.3d 22, 28 (Tex. 2003).
[12] Heim, Carol E. January 2001. Leapfrogging, Urban Sprawl, and Growth Management: Phoenix, 1950-2000. Prepared for the American Journal of Economics and Sociology.
[13] Peiser, Richard B. "Does it Pay to Plan Suburban Growth?" Journal of the American Planning Association. 50.4 (1984): 419-433.

maintenance costs of almost 50 percent.[14] As noted earlier, developer impact fee regulations currently applicable in the ETJ recoup only some of the upfront construction costs related to increased road usage. Under a no-annexation scenario, neither the County nor the subdivision neighborhood associations would likely have the financial capacity to cover the increase in road costs arising from unplanned or uncoordinated development, which in turn may lead to an increase in traffic accidents, neighborhood disinventment, and a drop in property values both in the annexation area and in in adjacent neighborhoods located within the city limits. A study into development patterns in Phoenix AZ found that poorly planned developments on or beyond the edge of City limits were indeed connected to unstable property values within the City itself.[15]

A no annexation scenario may also lead to property devaluation due to the higher costs of and lower capacity for basic service delivery. In the unincorporated County, responsibility for basic neighborhood services delivery like streetlight maintenance and garbage pickup falls to volunteer Neighborhood Associations. As anticipated development growth occurs over the next 20 years, the capacity of such associations may wane, new developments may choose not to form such associations, and existing neighborhoods that currently lack such organizations will suffer from the long-term effects or poor or non-existant service provision. Similarly, existing Emergency Services Districts (ESDs) covering the annexation areas are unlikely to be able meet the increasing costs of service provision rising from both population growth and unplanned development patterns. A study conducted by Smart Growth America found that poorly planned development increases the cost of police, fire and ambulance services by an average of 10 percent, largely due to poor street configuration and increased traffic.[16] A study focused on the Chicago suburbs found that average public safety response times in poorly planned suburban settings was 50 percent higher for fire service and 230 percent higher for police service compared to areas with more compact development patterns.[17] The lack of a systemic and reliable approach to service delivery can gradually lead to blight and property devaluation in these areas as well as in immediately adjacent neighborhoods, including neighborhoods already within city limits. In addition, the increasingly limited capacity of the ESDs to meet the needs of the local community will likely lead to an increase in mutual assistance calls met by City of San Antonio public safety departments.

Under a no annexation scenario, the resulting development patterns would likely also incurr less easily quantifiable costs to both the City and its residents. If the annexation area develops primarily as a bedroom community to San Antonio with a poor jobs/housing balance, the result will be greater traffic congestion, longer commutes for City workers, increased maintenance costs on City roads, and an increased risk for traffic accidents within the City limits. A study conducted by the Natural Resources Defense Council found that low density growth patterns in greenfield locations could lead to a 20 to 40 percent in vehicle emissions compared to more compact growth patterns, raising concerns about regional air quality.[18] In addition, insofar as developers and residents in the unincorporated area are not required to cover the full incremental cost of public service provision but merely the average cost, market interest in new

[14] Duncan Associates. 1999. Cost of Public Services Study. Minnesota: Minnesota Department of Agriculture.
[15] Heim, Carol E. January 2001. Leapfrogging, Urban Sprawl, and Growth Management: Phoenix, 1950-2000. Prepared for the American Journal of Economics and Sociology.
[16] Smart Growth America. May 2013. Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development.
[17] Esseks, J. Dixon, Harvey E. Schmidt, and Kimberly L. Sullivan. 1999. Living on the Edge: Fiscal Costs and Public Safety Risks of Low-Density Residential Development on Farmland. Washington DC: American Farmland Trust, Center for Agriculture and the Environment.
[18] Natural Resources Defense Council. 2008. Paving Paradise: Sprawl and the Environment.

development on the urban boundary may be artificially high and could discourage investment into the City's urban core.

Given the statutory limitations to County authority, a decision to annex allows a Texas municipality to better control its fiscal future, leveraging land use management tools to ward off inefficient development patterns that would serve as a drain on public resources and on the regional quality of life. In other words, absent annexation, the potential costs to the City of San Antonio would be very real and there would be little to no offset in additional revenue.

How to Model the Costs of a No Annexation Scenario

If the City chooses to compare revenues and expenditures after annexation with a future scenario without annexation, it would need to develop a fiscal impact model separate and apart from the annexation fiscal impact model analyzed as part of this assessment. The goal of the analysis would be to clarify the effects of a decision not to annex on future development patterns and highlight any City capital costs, increased demands for City services, or risks to General Fund revenue streams likely to arise from the policy decision.

A "no annexation" model will depend on a careful analysis of potential future development patterns absent planning oversight, based on existing building improvements, physical and legal barriers to development in the ETJ (such as Edwards Acquifer regulations and the location of floodplains), and market demand patterns evidenced in comparable urban boundary areas in the region and nationwide. The projections should yield reasonable estimates of projected density, street connectivity, and jobs/housing balance, which in turn will allow for an estimate of traffic flows into and out of San Antonio from the annexation area. The model should also be grounded in a more detailed analysis of unincorporated neighborhoods adjacent to the city limits – such as the presence or absence of HOAs, the age of existing residences, and current household income levels – so as to reach a well-informed assessment of the likelihood that crime and blight would become issues that spill over into the City of San Antonio.

A decision not to annex would limit the City's ability to capture much of the revenue opportunity associated with projected growth in the annexation areas. The model may wish to incorporate an estimate of net retail leakage, in order to account for any loss in retail dollars to new region-serving developments in the unincorporated area, or any increase in sales tax capture from residents' shopping activities within city limits (such as in neighborhoods adjacent to the annexation area or near their workplace in the urban core). The likelihood of any future reduction or tempered growth in property values in neighborhoods adjacent to the annexation areas should be reflected in projected revenues, along with any likely reduction in projected development in the urban core. The model should seek to quantify possible increases in road maintenance expenditures and public safety calls – arising from mutual aid requests, increased demand from neighborhoods adjacent to the annexation area, and increased traffic accidents on the principal arteries connecting the annexation area to the urban core. The inputs for the model will likely be selected based on a case study approach, using historic experiences with unincorporated but adjacent neighborhoods elsewhere in San Antonio's ETJ, and supplemented by data from comparable peer cities.

Though PFM recommends that the City not include SAWS and CPS revenues in its annexation model, the "no annexation" model may choose to quantify the potential incremental increase in SAWS and CPS expenditures that may arise directly from unplanned development patterns. Since these incremental costs may exceed the current per household cost of service provision,

the City may choose to calculate the cost that San Antonio households would bear in order to extend services to the annexation area under a "no annexation" scenario.

Consistent with other alternate development pattern models, such as the statewide model developed by the New Hampshire Office of Energy and Planning,[19] the methodology and process described above would not incude social and environmental costs, such as time lost to vehicular congestion, potential endangerment of military uses, increased pollution, increased energy consumption, or the conversion of natural resources. A recent national study sought to quantify the total costs associated with poorly planned greenfield development; the results point to annual average costs of $4,556 per capita, of which over 40 percent is born by individuals who do not live in the development in question.[20]

Best Practices in Cost-Efficient Government Service Provision: Consolidation

In its December 2014 fiscal impact analysis of eight unincorporated Bexar County communities, TishlerBise found that annexation would result in less costly service provision to residents and businesses in unincorporated areas than in the case of the incorporation of new cities.[21] In a sense, annexation by the City of San Antonio of these and other areas is a means of achieving a form of government consolidation whereby a greater share of County residents and businesses are all subject to a single taxing authority that can also provide basic services. In most cases, this form of consolidation allows for both more efficient service delivery and a more coherent approach to serving a regional economy.

For example, one analysis of consolidation of government and the economies of scale for local public services found that, "establishing a more extensive shared service agreements, and consolidating public services districts such as libraries, police, fire, parks, public parking, water, sewer, and garbage pick-up, has the potential to decrease overall municipal expenditures by achieving greater economies of scale in service provision."[22]

The Federal Reserve Bank of Boston has found that regional consolidation of governments has the greatest potential for cost reductions in capital and technology-based services, and noted that service quality tends to improve when provided on a regional rather than a local basis.[23] This finding was echoed by the New Jersey State Commission on Local Unit Alignment, Reorganization, and Consolidation, which also noted that the benefits of consolidation include improved response times, equity of service delivery, and improved fiscal ability to restore deteriorating infrastructure.[24]

---

[19] New Hampshire Office of Energy and Planning. June 2012. Evaluating Fiscal Impacts of Development – Part I: Final Report and User's Manual.
[20] Litman, Todd. March 2015. Analysis of Public Policies That Unintentionally Encourage and Subsidize Urban Sprawl. Prepared for The Global Commission on the Economy and Climate.
[21] TishlerBise. December 2014. "Phase II: Fiscal Impact Analysis of Annexation and Incorporation." Fiscal Impact Analysis Report. Prepared for Bexar County, Texas.
[22] HR&A Advisors. February 10, 2015. "Long Island's Future: Economic Implications of Today's Choices." Prepared for the Long Island Index.
[23] Kodrzycki, Yolanda. February 2013. "The Quest for Cost-Efficient Local Government in New England: What Role for Regional Consolidation?," Federal Reserve Bank of Boston. New England Public Policy Center, Research Report 13-1.
[24] Holzer, Marc et al. May 6, 2009. Literature Review and Analysis Related to Municipal Government Consolidation. Rutgers Newark School of Public Affairs and Administration. Prepared for the Local Unit Alignment, Reorganization, and Consolidation Commission.

Short of a State expansion of county government statutory authority, residents living in unincorporated Bexar County will continue to receive lower levels of public services, delivered at a higher cost per capita by a broad range of low-capacity special funding districts (including independent ESDs, Fire Control Districts, Library Districts, etc). Annexation represents an opportunity to increase cost-efficiency and improve service quality through government consolidation.

Land Use Policy Questions to be Considered Independently from Annexation Decisions

Regardless of the net cumulative impact on the City's General Fund, annexation is an important tool for Texas municipalities seeking to achieve long-term cost-efficiencies by retaining control of economic and residential development patterns. However, the decision to annex does not automatically result in compatible real estate investments or resourceful public service provision; such outcomes depend on the adoption of intentional, policy-driven land use maps, long-range plans, and other planning tools.

The City of San Antonio Planning Department has already put several policy instruments and regulations in place to encourage efficient land use in the ETJ and in newly annexed areas. The City's Sector Plans, adopted as part of the City's Comprehensive Master Plan, are designed to guide future growth and land use in ETJ areas as well as in city limits. The North Sector Plan, which includes the IH 10 West area and the 281 North area, was the first Sector Plan to be adopted in 2010. Though the Sector Plans are not enforceable within the ETJ, they do provide guidance on desired future land use intensity and establish expectations for MDP development, encouraging optimally efficient densities and uses that would be compatible with future development guidelines should the area eventually be annexed. In developing the proposed zoning maps for the three annexation areas, the City sought to reflect the land use intensity goals set forth in the Sector Plans, with modifications based on input from local property owners. Amendments to the Sector Plans based on annexation-related research and outreach were presented to the Planning Commission and City Council in Fall of 2015; several of the proposed amendments would allow for increased density in targeted locations. Should the City proceed with annexation, the Planning Department would have additional opportunities at the platting stage to encourage higher development on MDP properties and prospective agriculatural development agreement properties.

In another example of how the City's planning regulations aim to encourage efficient land use in newly annexed areas, City properties located in the Edwards Acquifer Recharge Zone (EARZ) are permitted to develop to a higher density than that allowed by unincorporated properties. ETJ properties in the EARZ are restricted to 15 percent gross impervious cover; City properties can expand impervious cover to 30 percent for single family residential, 50 percent for mulitifamily residential, and 65 percent for commercial. These policies encourage higher density levels and are accompanied by strict requirements regarding water disposal, requirements which would not have been enforceable in the ETJ.

Appendix A: PFM Project Team

David Eichenthal is a Managing Director with the PFM Group's Management and Budget Consulting practice. He works on projects nationwide to help improve the efficiency and effectiveness of municipal government clients. Mr. Eichenthal serves as Executive Director of the National Resource Network, a federally funded initiative to provide comprehensive technical assistance to more than 40 economically challenged cities.

Prior to joining PFM, Mr. Eichenthal served as President and CEO of a non-profit policy research institute that worked with local governments, foundations and non-profit organizations in the Southeast and across the nation. He was also a Nonresident Senior Fellow with the Brookings Institution Metropolitan Policy Program.

Mr. Eichenthal served in a series of senior positions in local government over fifteen years in both Chattanooga and New York. As City Finance Officer and Director of Performance Review for the City of Chattanooga, he oversaw implementation of one of the nation's first 311 systems and creation of a citywide performance management initiative. Mr. Eichenthal chaired the Downtown Redevelopment Corporation, the Regional Interagency Council on Homelessness and the General Pension Plan Board of Directors.

In New York, Mr. Eichenthal was Chief of Staff to the Public Advocate, the city's second highest elected official. He also held senior positions with the School Construction Authority and the City Comptroller's office.

Mr. Eichenthal is the co-author of The Art of the Watchdog: Fighting Fraud, Waste, Abuse and Corruption in Government (SUNY Excelsior Press, 2014), cited by The New York Times as "required reading for any government executive." He received his J.D. at the New York University School of Law and a B.A. degree from the University of Chicago in Public Policy Studies, cum laude.

Russ Branson is a Senior Managing Consultant with PFM's Management and Budget Consulting practice in the San Francisco office. Mr. Branson's primary focus is supporting PFM clients with performance optimization and helping them to ensure financial health. His key service areas include long-range financial plans, agency reviews, and quantitative support for collective bargaining.

A veteran finance professional, Mr. Branson spent 13 years with the City of Roseville, California in leadership positions, most recently as Assistant City Manager and Treasurer overseeing Finance and Administrative Services. Before joining the City of Roseville, he was a partner with an urban economics consultancy, where he spent more than a decade advising public agencies. He spent the early years of his career with the Sacramento Area Council of Governments.

In addition, Mr. Branson has been active on a statewide basis on several boards related to public finance and teaches at UC Davis Extension on the financial aspects of planning. In 2012, the Sacramento Business Journal honored him as public agency CFO of the Year and in 2013 he received the award of excellence in public finance by the California Public Securities Association.

Mr. Branson holds an MBA from California State University.

Nina Bennett is a Senior Analyst in PFM's Management and Budget Consulting practice in the Boston office. She manages assessment activities for the National Resource Network, a federally funded initiative that provides customized technical assistance to more than 40 economically challenged cities nationwide.

Before joining PFM, Ms. Bennett worked at an economic development consulting firm serving cities and counties throughout northern California. Her focus was on the intersection between urban economics, land use, and strategic planning: she helped municipalities develop long-range economic development strategies, created innovative transit-oriented development plans for low-density cities, and assessed the financial feasibility of publicly-funded projects, from affordable housing to public gathering places. In 2014, the American Planning Association's Sacramento Chapter awarded its Excellence in Economic Development and Planning Award to her downtown revitalization plan for Oroville, CA, praising the plan as both practicable and transformative.

Previously, Ms. Bennett served as a Research Fellow at the University of California Berkeley's Center for Community Innovation, and worked on a campaign to create a Property-Based Downtown Business Improvement District (PBID) in the City of Berkeley, CA. She began her career at the U.S. Department of Health and Human Services, analyzing innovative ways to redesign federally-funded programs so as to better meet the needs of rural communities.

Ms. Bennett holds a Masters in City Planning with a concentration in Economic Development from the University of California Berkeley and a B.A. degree in Public Policy Studies with high honors from the University of Chicago.

Ian Tyson is an Analyst in PFM's Management and Budget Consulting practice in the Philadelphia office, where he provides quantitative research and analytical support for client engagements.

Mr. Tyson has supported projects involving operational efficiency, public employee compensation evaluation, and full cost analysis. He has worked with the State of Oregon to conduct a performance study of enterprise IT services and with a major urban School District to develop a cost comparison of alternatives for delivering custodial services. Prior to joining PFM, Mr. Tyson worked in the nonprofit sector in volunteer coordination.

Mr. Tyson graduated Summa Cum Laude from Rowan University with a Bachelor's degree in History. He is currently pursuing his Master of Public Administration degree at the University of Pennsylvania, Fels Institute of Government.

Appendix B: List of Interviews

Villagomez, Maria and Chad Tustison. Interview with PFM Project Team on Model Concerns Arising from the November 20, 2015 Annexatoin Workgroup Meeting. Personal interview. San Antonio, November 23, 2015.

Nixon-Mendez, Nina and Chad Tustison. Interview with PFM Project Team on Zoning and Growth Assumptions. Personal interview. San Antonio, November 23, 2015.

Tustison, Chad. Interview with PFM Project Team on Revenue and Expenditure Assumptions. Personal interview. San Antonio, November 23, 2015.

Friedland, L. Eric and Chad Tustison. Interview with PFM Project Team on Legal Requirements of Annexation Activity. Personal interview. San Antonio, November 24, 2015.

Nivin, Steve and Chad Tustison. Interview with PFM Project Team on Sales Tax Revenue Assumptions. Personal interview. San Antonio, November 24, 2015.

Rosenberry, Dennis and Chad Tustison. Interview with PFM Project Team on Policing Expenditure Assumptions. Personal interview. San Antonio, November 24, 2015.

Villagomez, Maria and Chad Tustison. Interview with PFM Project Team on Fire & EMS and Capital Expenditure Assumptions. Personal interview. San Antonio, November 24, 2015.

Duggan, John. Interview with PFM Project Team on the Proposed Zoning Maps for the Proposed Annexation Areas. Personal Interview conducted by phone. January 7, 2016.

Appendix C: Bibliography

Fiscal Impact Models and Assessments

Applied Development Economics, Inc. October 3, 2014. Fiscal Impact Analysis of the Wren Investors Urban Services Area Amendment to the City of Gilroy and the County of Santa Clara. Prepared for the City of Gilroy, CA.

Applied Economics. May 2013. Fiscal Impacts of the West Aiport Triangle Annexation Area on the City of Prescott. Prepared for the City of Prescott, AZ.

BBC Research & Consulting. May 8, 2014. The Fiscal Impact of the Ruby Placer Annexation on the Town of Blue River. Prepared for the Town of Blue River, CO.

Berk & Associates. May 19, 2014. Fiscal Analysis of GORST UGA Annexation: Revised Final Report. Prepared for the City of Bremerton, WA.

Berks & Associates. June 2009. Annexation Fiscal Impacts Update: Summary of Draft Findings. Prepared for the City of Mukilteo, WA.

Berk & Associates. February 2009. Fiscal Impacts of Annexation: Discussion Draft. Prepared for the City of Enumclaw, WA.

Berk & Associates. February 2007. Fiscal Impacts of Proposed Annexation of Properties West of the City of Tumwater, WA. Prepared for Beaver Creek Acquisition Company, LLC.

City of Marion, Indiana. Annexation Fiscal Plan. Prepared for the City of Marion, IN.

Cooper Group, Inc. July 2011. Town of Drayton Valley Boundary Change Application Report: Application Area – Phase 2. Prepared for the Town of Drayton Valley, CA.

Dahl, Erik C. August 2009. The Fiscal Impact of Annexation on Laketown Township. University of Minnesota, Community Growth Options (U-CGO). Prepared for Laketown Township, MN.

Deutsch, David J. May 14, 2015. Annexation of the Karington Property. Prepared for the City Council of Bowie, MD.

The Edwin G. Michaelian Institute for Public Policy & Management, Dyson College, Pace University. May 2007. Annexation and Village/Town Options for Rye Neck: Fiscal and Operational Implications for the Village of Mamaroneck. Prepared for the Village of Mamaroneck

Emlen, Bill. May 31, 2007. UC Davis West Village New Neighborhood/Annexation or Not. Prepared for the City Council of Davis, CA.

Goodwin Consulting Group. June 3, 2013. Propose Arambel Business Park/KDN Retail Center Project: Analysis of Fiscal Impacts to Stanislaus County Assuming Annexation to Patterson. Prepared for the City of Patterson, CA.

H.J. Umbaugh & Associates. April 23, 2014. Annexation Fiscal Plan for the Town of Battle Ground, Indiana Shawnee Ridge Annexation. Prepared for the Town of Battle Ground, IN.

H.J. Umbaugh & Associates. July 23, 2012. Annexation Fiscal Plan for the City of Washington, Indiana Eastside Annexation Area. Prepared for the City of Washington, IN.

The Natelson Dale Group, Inc. August 27, 2008. Fiscal Impact Analysis City of Adelanto South Annexation Area 1A. Prepared for Hogle-Ireland, Inc.

Orton, Rob. September 9, 2011. Fiscal Impact Issues: Mill Planning Area Annexation. Prepared for the Snoqualmie, WA.

Perteet, Inc. Bellingham Airport Annexation Study. Prepared for the City of Bellingham, WA.

Ralph Andersen & Associates. December 9, 2013. Chapman, Mulberry and Stewart Avenue Annexation Study. Prepared for Butte County/City of Chico, CO.

Rosenow Spevacek Group, Inc. August 12, 2009. Annexation Study: Bolsa Chica Lowlands. Prepared for the City of Huntington Beach, CA.

Stanley R. Hoffman Associates. January 10, 2013. Temescal Canyon Annexation Area Fiscal Impact Analysis City of Corona and County of Riverside. Prepared for the City of Corona, CA.

Stanley R. Hoffman Associates. August 17, 2007. Sphere of Influence Fiscal Impact Analysis City of Temecula. Prepared for the City of Temecula, CA.

Strategic Economics. April 2013. Fiscal Impact Analysis of Three Development Scenarios in Nashville-Davidson County, TN. Prepared for Nashville-Davidson County, TN.

Tischler Bise. December 2014. Phase II: Fiscal Impact Analysis of Annexation and Incorporation. Prepared for Bexar County, TX.

Town of Fishers, IN. Fiscal Plan for the Annexation of Real Estate Contiguous to the Town of Fishers, Indiana. Prepared for the Town of Fishers, IN.

Wabash Scientific, Inc. March 11, 2013. Annexation Fiscal Plan. Prepared for the City of Logansport, IN.

Wabash Scientific, Inc. April 1, 2011. Fiscal Plan for Multiple Small Annexation Areas. Prepared for the City of Seymour, IN.

Zions Bank Public Finance. May 2014. Annexation Feasibility Study: Olympus Hills. Prepared for the Salt Lake County, UT, Boundary Commission.

Annexation in Texas: State Statutes and Other Municipal Policies

Bojorquez, Alan. December 5, 2014. Municipal Annexation. Prepared for the 26th Annual Election Law Seminar.

City of Fort Worth, TX. Annexation Policy

City of Fort Worth, TX, Planning and Development Department. October 11, 2012. Annexation Policy, Program, and Plan Presentation. Prepared for the Lake Worth Regional Coordination Committee.

City of Kaufman, TX. 2011. Annexation Plan

City of Nacogdoches, TX. Comprehensive Plan Update.

Houston, Scott. 2013. Municipal Annexation in Texas: Is it Really that Complicated? Texas Municipal League.

Houston, Scott. March 2012. Municipal Annexation in Texas: The Basics. Texas Municipal League.

Luckens, Ben. 2013. Annexation and the ETJ. Prepared for the American Planning Association Texas Chapter

Nichols, Jackson, Dillard, Hager & Smith, LLP. 2012. Annexation and Disannexation. Prepared for the CLE International Land Use Law Conference.

Olson, William A. September 2005. Annexation Procedures and Pitfalls. Prepared for CLE International Land Use Law Conference.

Sparks, Chance. SB 1639 and HB 2221 Talking Points. Prepared for the American Planning Association Texas Chapter

The Texas State Constitution. Article 3. Retrieved November 18, 2015.

Welch, Terrence S. March 2011. Annexation and the ETJ: Expanding and Defending Municipal Annexations. Prepared for the 2011 Land Use Planning Conference.

Best Practices Research: Annexation Fiscal Impact Analysis

Atlanta Regional Commission. Conducting a Fiscal Impact Analysis.

Edwards, Mary M. and Jack R. Huddleston. 2010. Prospects and Perils of Fiscal Impact Analysis. American Planning Association. Journal of the American Planning Association 76.1 (Winter 2010). P. 25-41.

Fields, Jess and James Quintero. July 2015. Ending Forced Annexation in Texas. Prepared for the Texas Public Policy Foundation.

Gross, Randall. August 2, 2004. Understanding the Fiscal Impacts of Land Use in Ohio. Prepared for ACP – Visioning and Planning, Ltd. and the Mid-Ohio Regional Planning Commission.

Jakubiak, Christopher, et al. April 2005. Report of the Annexation Work Group. Prepared for the Mayor of the City of Annapolis, MD.

Kotval, Zenia and John Mullin. September 2006. Fiscal Impact Analysis: Methods, Cases, and Intellectual Debate.

New York Office of the State Comptroller Division of Local Government and School Accountability. March 2015. Local Government Sales Taxes in New York State: 2015 Update.

The Perryman Group. April 2003. The Impact of Overly Restrictive Annexation Policy on Economic Activity in Texas and Its Metropolitan Regions. Prepared for the Texas Municipal League.

Rusk, David. August 2006. Annexation and the Fiscal Fate of Cities. Prepared for the Brookings Institution Metropolitan Policy Program.

Tyson, Christopher J. 2012. Annexation and the Mid-Size Metropolis: New Insights in the Age of Mobile Capital. Prepared for the University of Pittsburgh Law Review.

Wheeler, Laura and Jasmine Campbell. July 16, 2014. A Report on the Laws of Incorporation and Annexation of Municipalities in Georgia. Prepared for the DeKalb County, GA, Operations Task Force, 2014

Best Practices Research: Cost of Inefficient Development Patterns

Burchwell, Robert W and Sahan Mukherji. May 8, 2003. "Conventional Development Versus Managed Growth: The Costs of Sprawl." American Journal of Public Health. 93 (9), 1534-1540.

Burge, Gregory S., Trey L. Trosper, Arthur C. Nelson, Julian C Jurgensmeyer, and James C. Nicholas. April 2014. Can Development Impact Fees Help Mitigate Urban Sprawl? Prepared for the Journal of the American Planning Association.

Coyne, William. December 2003. The Fiscal Cost of Sprawl: How Sprawl Contributes to Local Governments' Budget Woes. Environment Colorado Research and Policy Center.

Government Finance Officers Association. September 2013. Evaluating Data and Financial Assumptions in Development Proposals.

Gurwitt, Rob. October 2000. Not-So-Smart Growth. Prepared for Governing Magazine.

Heim, Carol E. January 2001. Leapfrogging, Urban Sprawl, and Growth Management: Phoenix, 1950-2000. Prepared for the American Journal of Economics and Sociology.

Heimlich, Ralph E. and William D. Anderson. June 2001. "Chapter IV: The Costs of Growth." Development at the Urban Fringe and Beyond: Impacts on Agriculture and Rural Land. United States Department of Agriculture, Economic Research Service.

Litman, Todd. March 2015. Analysis of Public Policies That Unintentionally Encourage and Subsidize Urban Sprawl. NCE Cities – Sprawl Subsidy Report. The Global Commission on the Economy and Climate, The New Climate Economy.

Marlow, Josef E. July 2008. Economic and Fiscal Impacts of Smart Growth Policies. Prepared for the Lincoln Institute of Land Policy and the Sonoran Institute.

Mix, Troy and Rachael Hurley. July 2008. Fiscal Impacts of Development: Literature Review and Discussion. University of Delaware Institute for Public Administration.

National Resources Defense Council. 1998. Part II: Geographically Sensitive User Rates: The Cleveland Experience, excerpt from Another Cost of Sprawl: The Effects of Land Use on Wastewater Utility Costs.

RKG Associates, Inc., Placeways, LLC., and Urban Interactive Studio, LLC. July 2012. Evaluating the Fiscal Impacts of Development: A Cost of Sprawl Model for New Hampshire. Prepared for the New Hampshire Office of Energy and Planning.

Smart Growth America. May 2013. Building Better Budgets: A National Examination of the Fiscal Benefits of Smart Growth Development.

Thompson, David. October 2013. Suburban Sprawl: Exposing Hidden Costs, Identifying Innovations. Prepared for the University of Ottowa, Sustainable Prosperity Network.

Best Practices Research: Public Services Consolidation

Caprio, Raphael J. and Marc Pfeiffer. November 2014. Size May Not Be the Issue: An Analysis of the Cost of Local Government and Municipal Size in New Jersey. Prepared for the Bloustein Local Government Research Center.

Holzer, Marc, et al. May 6, 2009. Literature Review and Analysis Related to Municipal Government Consolidation. Prepared for the New Jersey Local Unit Alignment, Reorganization, and Consolidation Commission.

HR&A Advisors, Inc. February 10. 2015. Long Island's Future: Economic Implications of Today's Choices. Prepared for the Long Island Index.

Lynch, Patrick and Christopher Zimmerman. October 2015. Land Use and Municipal Budgets. Prepared for the Government Finance Review.