



# City of Memphis, TN

## Deannexation Framework and Analysis

January 2017



# Table of Contents

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<b>I.</b>	<b>Executive Summary</b> .....	Page 1
<b>II.</b>	<b>Background and Task Force Objectives</b> .....	Page 5
<b>III.</b>	<b>Deannexation: Key Considerations for Decision-makers</b> .....	Page 9
<b>IV.</b>	<b>Deannexation Framework</b> .....	Page 16
	Data-Driven Model to Evaluate Potential Deannexations .....	Page 16
	Baseline and Projected Growth in Population and Development.....	Page 17
	General Fund Revenue Assumptions .....	Page 18
	General Fund Expenditure Assumptions.....	Page 19
	Opportunities for Model Refinement .....	Page 22
	How to Use the Model: Three Scenarios .....	Page 23
<b>V.</b>	<b>Process Recommendations</b> .....	Page 32
	<b>Appendix A: PFM Project Team</b> .....	Page 34



# **I. Executive Summary**

# Executive Summary

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The City of Memphis (“City”) engaged Public Financial Management (“PFM”) to provide technical assistance and support to the City and its Strategic Footprint Review Task Force. In addition to reviewing examples of deannexation in other jurisdictions and assessing best practices related to deannexation, PFM was also tasked with developing a data-driven framework for deannexation decision-making and providing examples of how the framework would be applied in Memphis and Shelby County.

A review of deannexation across the country indicates that the most common uses of deannexation are in situations where territories wish to incorporate as new cities or merge with an adjacent municipality. The PFM team was able to identify few examples of deannexations in which territory returns to the unincorporated county. The procedures by which deannexation is initiated and approved are defined by State statute; outside of Tennessee, several States have established criteria and guidance for local governments to follow when determining whether deannexation is permissible. For example, eight States specifically forbid any deannexation not adjacent to a city boundary, to preclude the formation of unincorporated “donut hole” within a municipality. Unfortunately, statutory criteria and guidance can be vague, limiting the usefulness to local government decision-makers. For example, some statutes require local decision-makers to consider “the public health and public good of the community” and determine how “the welfare of the inhabitants and property owners of both the City and area affected will be best served.”

Best practices for deannexation decision-making are those that are data-driven, consider the fiscal impact in the short- and long-term, and offer insight into the net impact of deannexation on both the City and the County. Under the right circumstances, deannexation offers an opportunity to “right-size” the city.

As requested by the City of Memphis and the Task Force, the project team constructed a quantitative template to use as a frame for considering deannexation decisions and analyzing the impact of a change in jurisdictional boundaries. This template can be populated with data specific to any potential deannexation area under consideration, regardless of whether the boundaries correspond to an area previously annexed by the City. The model identifies how the fiscal impacts would evolve over a twenty year period, to reflect potential changes in revenues and public service demand that could be spurred by growth patterns or expiring payment in lieu of taxes (PILOT) agreements.

In accordance with best practices, both the revenue and the expenditure portions of the fiscal impact model are built upon estimates of the number of households and developments currently located in the area under consideration for deannexation (“baseline estimates”) as well as projected future household counts and developments (“build-out estimates”).

The analysis of revenue impact focuses on General Fund revenue, as these sources account for both the more significant revenue streams and those most likely to be affected by deannexation.

- In accordance with national best practices, the methodology for projecting property tax revenues differentiates between residential and commercial development, as well as existing and anticipated development.
- In order to ensure that the model is able to reflect the sometimes substantial net fiscal impacts that can result from a relatively modest change in geographic boundaries, the model calls for actual sales tax revenues generated by businesses located in the area considered for deannexation. This data source was chosen for its accuracy, though the

# Executive Summary

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process for extracting such information from the state rolls can be labor intensive and cumbersome.

- The model assumes that, should the area be deannexed from the City of Memphis, any PILOT agreement would remain in force through the completion of the incentive term. Absent any agreement with the County to the contrary, the City would then not be in a position to benefit from the subsequent reassessment of the property's value. Put simply, the City would have made a sizable investment in industrial expansion through foregone tax revenues but would not enjoy the fiscal benefits of that investment.
- The model also uses revenues derived from Ambulance Transport Fees, Auto Registration Fees, and Franchise Fees, projected on a per capita basis.
- The model does not include several minor revenue sources such as business or liquor taxes.

The model also estimates General Fund expenditure cost savings:

- The model assumes that deannexation would reduce demand for Memphis Police Department (MPD) services. The extent of this reduction is determined by either estimates reported in the area's Plan of Services document, an analysis generated prior to the area's annexation, or by calls for service records if such a report is unavailable. The model assumes that MPD will redeploy these officers to tasks that would otherwise result in the expenditure of departmental overtime costs, thus resulting in a reduction in MPD overtime expenditures. The model does not assume a reduction in MPD staffing, a reduction in departmental capital costs related to police stations located outside the boundary of the area under consideration, or a reduction in the size of future cadet classes.
- Similarly, the model assumes a reduction in the area served by the Memphis Fire Department (MFD) would allow the department to reallocate Fire FTEs to tasks that would otherwise require the expenditure of overtime costs. Because the department does not staff its ambulances with permanent assignments but rather based on daily existing station personnel, the model assumes that a reduction in citywide ambulance incidents will not affect EMS staffing costs.
- Although there are no restrictions on City owning property outside of its boundaries, the model assumes that deannexation would result in the immediate cessation of labor and maintenance costs associated with parks and other facilities located in the area under consideration. The model does not assume that that the City would incur one-time revenues from the sale of properties located in the deannexation area.
- Street maintenance costs are derived from the citywide FY 2017 budgeted maintenance 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 through capital investments, and encourages the City to estimate such costs and the associated debt service if sufficient information is available to do so.
- The model includes expenditures associated with Animal Care, Neighborhood Improvement, Solid Waste Management, and Tax Collection, all projected on a per capita basis.

In situations where the area under consideration includes suburban-style developments and commercial ventures, with potential for future growth and healthy real estate values, the



## Executive Summary

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anticipated expenditure savings frequently do not outweigh foregone City revenues. In such situations, deannexation may lead to an increase in the overall regional cost of government (the combined net fiscal impact on the City and County), even as the levels of service drop. Such potential reductions in service efficiency, coupled with magnitude of the effect on both City and County finances, are important considerations as local decision makers address requests for deannexation.

There are a variety of policy tools that the City of Memphis and Shelby County could use to mitigate negative fiscal impacts in cases where deannexation is desirable for other reasons. For example, the City and County could engage in shared services, or establish a defined assessment area to ensure that the net public costs of deannexation are fairly born by the residents of the area in question.

While this data-driven model identifies risks and costs, it does not claim to determine whether deannexation is ultimately the best choice for local governments or residents. The model can elucidate the programmatic and financial consequences of deannexation on the City, the County, and the community; but it cannot weigh the social implications. Although the net fiscal impact is an important consideration, it is not the only factor, or even the most important factor, that decision makers should take into account.



## **II. Background and Task Force Objectives**

## Annexation

Prior to 2013, municipalities in Tennessee could expand city limits through annexation without the consent of the residents of the annexed area or the approval of voters. Between 1955 and 1968, annexation by ordinance was used 716 times by Tennessee cities to expand their boundaries.<sup>1</sup> By the 1970s, suburban residents and county governments started to challenge the ability of cities to grow via unilateral, nonconsensual annexation. In 1974, the Tennessee General Assembly passed Public Chapter 753, requiring municipalities to establish a plan of service for proposed annexed areas,<sup>2</sup> conduct a public hearing on the plan of service, and place the burden of reasonableness for annexation on the municipality.

Boundary growth through annexation continued to be used by cities to expand their territories. Between 1990 and 1999, there were 3,695 annexations statewide, an average of 10.7 annexations per city.<sup>3</sup> While a third of Tennessee counties reported fewer than five annexations over this decade, nine reported more than 100 annexations and Knox County reported 980 annexations.<sup>4</sup> Counties with growing metropolitan areas reported the largest amount of land being annexed into cities, and Shelby County municipalities annexed more land than those in any other county (double the amount in second-highest Sullivan County).<sup>5</sup>

The passage of Tennessee's Growth Policy Act in 1998 was an effort to control the number and size of annexations, as well as resolve incorporation and annexation disputes by requiring local governments to prepare a 20-year Growth Plan. The Growth Plan defined planned growth areas where new cities could be formed and urban growth boundaries (UGB) where existing cities could expand. From 2000 to 2009, following the adoption of the Growth Policy Act, Tennessee saw a 30 percent decrease in the average number of annexations per municipality. Nonetheless, Shelby County continued to lead the state in the amount of land annexed by cities.<sup>6</sup>

In 1970, Memphis was 217.4 square miles with a population density of 2,868 persons per square mile. By 2010 the area of the City of Memphis was 315 square miles with a population density of 2,053.3 persons per square mile.<sup>7</sup>

Cities' annexations powers changed substantially in 2013. Public Chapter 441, Acts of 2013 established an annexation moratorium through May 2014. The 108<sup>th</sup> General Assembly enacted Public Chapter 707, Acts of 2014 which strengthened the 2013 moratorium and eliminated municipalities' powers to annex without consent. The annexation process now requires the

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<sup>1</sup> Tennessee Advisory Commission on Intergovernmental Relations (TACIR). 2013. Municipal Boundary Changes and Growth Planning in Tennessee, Draft for Commission Review and Comments. Retrieved from [https://tn.gov/assets/entities/tacir/attachments/2013-10Tab6DraftReport\\_2.pdf](https://tn.gov/assets/entities/tacir/attachments/2013-10Tab6DraftReport_2.pdf)

<sup>2</sup> The plan of service was required to include elements pertaining to police and fire protection, water and electrical services, sewage and waste disposal systems, road construction and repair, and recreational facilities.

<sup>3</sup> Tennessee Advisory Commission on Intergovernmental Relations (TACIR). 2013. Municipal Boundary Changes and Growth Planning in Tennessee, Draft for Commission Review and Comments. Retrieved from [https://tn.gov/assets/entities/tacir/attachments/2013-10Tab6DraftReport\\_2.pdf](https://tn.gov/assets/entities/tacir/attachments/2013-10Tab6DraftReport_2.pdf)

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> The US Census reported a population density for Shelby County of 1,215.5 persons per square mile and an area of 763.2 square miles. Of Tennessee cities with populations of 50,000 or more, Memphis is the third most dense after Bartlett, TN with 2,167.5 persons per square mile and Murfreesboro, TN with 2,066.4 persons per square mile. In 2010 the US Census reports the area of Nashville/Davidson at 526 square miles.



municipality to obtain written consent from owners in areas designated for annexation or hold a referendum.<sup>8</sup>

## Deannexation

Under current Tennessee law, deannexation must be initiated by cities; resident participation in deannexation decisions is limited to voting in deannexation referendums. Of the 36 states with deannexation laws, Tennessee is one of only ten that do not allow residents or owners to initiate deannexation proceedings.<sup>9</sup> There are two methods by which cities in Tennessee may deannex territory: by ordinance and by referendum.

Any incorporated City or Town may pass an ordinance contracting its boundaries when such changes would be in the best interest of the affected territory.<sup>10</sup> After notice and public hearing, the deannexation must be approved by a majority of the City's legislative body. Once approved, the voters within the proposed deannexation area have 75 days to petition for a referendum. If the petition is signed by 10 percent of registered voters in the area, a referendum is held. The deannexation may not occur if it is opposed by the majority of the voters living in the area to be deannexed. If residents do not file a petition, it is presumed the deannexation is unopposed.

Under the referendum option, the election must be held under the provisions of an ordinance to be passed for the purpose of deannexation and the specific boundaries of the area for deannexation must be fully disclosed. If three-quarters of the qualified voters voting in an election assent to such contraction, deannexation is approved.

Under present law, a municipality may continue to levy and collect taxes on property in the deannexed areas to pay for the deannexed area's proportion of any debt contracted prior to the deannexation. Cities are also allowed to charge sufficient rates for utilities to pay for services provided to those areas outside their city limits.

In February 2016, Tennessee Representative Mike Carter introduced legislation (HB 779) into the House and Representative Bo Watson introduced legislation (SB749) into the Senate that would amend current deannexation procedures outlined in TCA Title 6, Chapter 51 and Title 54. Under HB779/SB749 as offered, deannexation could be initiated by city residents. The proposed legislation would allow residents to call for an election on deannexation, which would be granted when at least 10 percent of registered voters petition the County Election Commission for the election. Such election would be scheduled to coincide with the next city-wide or county-wide election that is held at least 45 days after the petitions for deannexation are filed with the commission.

In March 2016, multiple amendments to the bill were introduced into the House. The House adopted Amendments #2, #3, and #10. Amendment #2 limited the application of the deannexation provisions of HB779 to the Cities of Monteagle, Kingsport, Johnson City, Chattanooga, Knoxville, and Memphis. The amendment also specified that the deannexation provisions apply only to annexations that became effective on or after May 1, 1998. The amendment specified that the petition for deannexation must contain the ordinance that annexed the area, including the same

<sup>8</sup> Tennessee Advisory Commission on Intergovernmental Relations (TACIR). (2015). Municipal Boundaries in Tennessee: Annexation and Growth Planning Policies after Public Chapter 707. Retrieved from <https://www.tn.gov/assets/entities/tacir/attachments/2015MunicipalBoundariesInTN.pdf>

<sup>9</sup> TACIR. Deannexation: Concerns about initiation and effects. <https://www.tn.gov/tacir/article/tacir-deannexation-concerns>

<sup>10</sup> T.C.A. 6-51-201(b)



map, and that no additions or deletions from the original map used by the municipality during the original annexation process would be permitted.<sup>11</sup> This amendment further clarified that only the registered voters residing in the deannexation area may vote in the election, required a simple majority, and reduced the timing of the election to at least 30 days, not 45 days, after the petition for deannexation is filed.

Additionally, the amendment narrowed the provision that allows the City to levy and collect taxes for debt contracted prior to deannexation, allowing Cities to levy and collect taxes only for debt issued “during the annexation period.” The amendment requires the City to show that the debt arises out of public improvements made to the deannexed area in order to continue to levy and collect taxes in that area.

Amendment #3 removed Johnson City from the Cities identified in Amendment #2 after the City Council of Johnson City approved an ordinance to deannex 69 individual properties in Gray, Tennessee.<sup>12</sup> Amendment #10 clarified a reference to the municipality’s property tax base.

On March 14, 2016, the House passed HB779 as amended by a 65-25 vote and HB779 was sent to the Senate (substituting for companion SB749). On March 30, 2016, the Senate State and Local Committee voted 5-3-1 to send HB779/SB749 to Summer Study.<sup>13</sup>

## The Strategic Footprint Review Task Force

Shortly after HB779/SB749 was sent to Summer Study and changes to deannexation law were delayed until January 2017, the Memphis City Council created the Strategic Footprint Review Task Force to study the positive and negative effects of deannexation, including the potential fiscal impact and the reasonableness of deannexing areas of the City. The 11 appointed members of the committee include representatives from the City of Memphis, Shelby County, the State, and area Chamber of Commerce.

The Task Force is working to develop a governance framework for deannexation, to ensure that deannexation decisions are data-driven, include a full review of fiscal and other municipal impacts, and remain the prevue of local control. In other words, the City of Memphis and Shelby County face a unique opportunity to make data-driven decisions about “right-sizing” the City.

## PFM Role


The City of Memphis engaged Public Financial Management (PFM) to provide technical assistance and support to the City and the Strategic Footprint Review Task Force. In addition to reviewing examples of deannexation in other jurisdictions and assessing best practices related to annexation and deannexation, PFM was also tasked with developing a data-driven framework for deannexation decision-making and providing examples of how the framework would be applied in Memphis and Shelby County.

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<sup>11</sup> An exception is for any commercial or industrial properties located in the map. These may be excluded from proposed deannexation by resolution.

<sup>12</sup> Sher, Andy. (March 15, 2016). Tennessee House passes controversial de-annexation bill. *Times Free Press*. Retrieved from <http://www.johnsoncitypress.com/Local/2016/03/15/Tennessee-House-passes-controversial-de-annexation-bill>

<sup>13</sup> Baker, Jackson. (March 30, 2016). Update: De-annexation Bill Killed for Session. *Memphis Flyer*. Retrieved from <http://www.memphisflyer.com/JacksonBaker/archives/2016/03/29/de-annexation-bill-gets-modified>



# **III. Deannexation: Key Considerations for Decision-makers**

As City and County decision-makers consider the issue of deannexation, it is important to identify the potential goals for a modification in city boundaries. Deannexation should allow for the most efficient and effective provision of the services residents want and need. Deannexation should not destabilize the City's or County's finances, nor undermine the City's or County's economic competitiveness. Attention to the issue of deannexation presents an opportunity for "right-sizing" the City.

## Goals of Deannexation

Decisions about annexation and deannexation go to the tradeoffs between the amount, type, and cost of government services. The City of Memphis and Shelby County offer fundamentally different mixes of services, which in turn require substantially different funding levels from local residents. The 2016 Shelby County tax rate is \$4.37 per \$100 of assessed value for all Shelby County property owners. The 2016 tax rate for Memphis residents is an additional \$3.40 per \$100 assessed value.

The State annexation law recognizes that an annexing city has an obligation to define the additional services that will be provided in return for additional cost. According to the provisions of Tennessee Code Annotated (TCA) Section 6-51-101, Tennessee cities are required to submit and adopt a Plan of Services for any proposed annexation area. The services provided by Memphis are supported through additional property tax incurred on City residents and may include:

- **Police Services:** The City will provide patrolling, radio response to calls, and other routine services, and add the infrastructure (precincts), vehicles (cars), and personnel (officers and supervisors) required to service the area, and make available additional services offered by the City.
- **Fire Services:** The City will provide fire protection and add the infrastructure (fire stations), companies (engine, truck, etc.), and personnel required the service the area. The City will provide emergency medical services (ambulances and paramedics).
- **Sanitary Sewer System:** The City will extend additional sewer laterals as development occurs (including intercepting and trunk sewers) and construct new collectors sewers in previously developed areas as needed and in accordance with priorities set by the Capital Improvement Program. Wastewater from sewers will be treated by the City treatment plant(s).
- **Refuse Collection/Solid Waste Management Services:** The City will provide refuse collection, curbside pickup in accordance with City standards, City-provided carts, weekly recycling collection, street sweeping, weed-cutting on public right-of-ways, and collection of roadside litter.
- **Public Works Activities and Services:** The City will provide new streets and overlay of new surfaces on existing streets, traffic signals, traffic signs, street marking, and other traffic control devices as needed. The City will maintain streets and storm water drainage, make drainage improvements in previously developed areas as needed and in accordance with priorities set by the Capital Improvement Program, and install street lights.
- **Electric, Gas, and Water Services:** Memphis Light, Gas, and Water will provide services at the same rates applicable to City residents. The City will purchase lines owned by the Shelby County Board of Utilities, and new lines will be extended as needed. Additional

water lines and fire hydrants will be provided to meet the fire protection standards applicable to the City.

- **Parks and Recreation:** The City will maintain existing parks or recreation centers in the proposed annexation area, acquire and develop new parks and/or recreations centers, and provide various activities and programs currently offered to City residents;
- **Land Development Services:** The City will provide inspection services such as automobile, housing, weights and measures, and sanitation. All City administrative, health, construction codes, and similar services will apply to the proposed annexed area. (The Office of Planning and Development, the Land Use Control Board, and the Board of Adjustment serve both the City and County governments.)
- **Other Public Services:** The City will provide animal control services including dog licensing and leash laws, complaint response, rabies vaccinations, and other animal control activities.
- **Emergency Management Services:** The City will be responsible for pole mounted warning sirens as needed.

Deannexation may result in increased rates for electricity, gas, and water/sewer services for residents outside the City limits. Residents of deannexed areas will also need to negotiate trash service with a private contractor. County residents rely on the Shelby County Sheriff Department for police services. Fire protection services are provided to County residents by the Shelby County Fire Department; unlike the City, the County Fire Department is funded by a system of fees collected from residents who use the services.<sup>14</sup> Deannexation would place City-owned streets under the Shelby County Department of Public Works.

In some cases, deannexation could result in a more efficient and less costly delivery of desired services. But in other cases the reverse may be true. Decision-makers – and residents affect by the decision – should know the impact of deannexation in the same way that they are informed of the plan of services prior to annexation.

### **Fiscal Stability**

Deannexation should not unreasonably destabilize the City's or the County's finances. The contraction of City boundaries may affect the City's ability to generate property tax revenue. Deannexation would also impact the revenue that the City receives from the state-shared sales tax use tax. Revenue from the state-shared tax is distributed on a per capita basis to cities across the state.<sup>15</sup> A loss of population from deannexation would lead to a reduction in funds to the City. There may be also losses in federal funding that is based on population driven formulae. In some cases, the reduction in revenue could be offset by a reduction in cost – due to a reduced need to deliver services or make capital investment – but in other cases, the loss of revenue may exceed any reduction in cost.

The net fiscal impact of deannexation on County finances should also be explored. Although the City may experience lower costs associated with a smaller footprint, there will most likely be new or additional costs to County government for providing police, fire protection, and other services

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<sup>14</sup> Shelby County. (n.d.) Shelby County Tennessee. Retrieved from <http://www.shelbycountyttn.gov/index.aspx>

<sup>15</sup> Tennessee Advisory Commission on Intergovernmental Relations (TACIR). (March 2000). State-shared Taxes in Tennessee. Retrieved from <https://www.tn.gov/assets/entities/tacir/attachments/exec.pdf>



to the deannexed areas. Deannexation-related expansion of the unincorporated territory adds new territory and residents into the administrative and land use planning responsibility, as well as new properties, assets, and records under county management. If the deannexed area is considerably denser than the unincorporated territory, the impact is likely to be even greater. County residents already pay property tax to the County, so deannexation would not result in significant additional revenue to the County.

### **Economic Competitiveness**

The change in jurisdictional boundaries should not undermine the overall economic competitiveness of either the City or the County. Leaders of the five Tennessee cities targeted in the deannexation legislation voiced concern about the impact that deannexation may have on their ability to attract and retain businesses, especially since cities are key drivers of the Tennessee economy.<sup>16</sup> Cities play an important role in economic development by achieving localization, economies of scale, and agglomeration. Due to higher density, cities are capable of providing infrastructure and services that attract industry.

Many experts have warned that municipal fragmentation and limitations to a city's ability to expand can stifle economic development. The ability to regulate growth patterns and manage the impacts of growth is key to regional economic competitiveness. Uncoordinated and inefficient development can lead to tangible costs, such as traffic congestion and reduced public safety response time, which in turn could impact the area's desirability and market values on both sides of the city boundary.

On the other hand, deannexation could lead to the "right-sizing" of a city. "Rightsizing" refers to the process of bringing cities down to a manageable size, meaning a size proportionate to city government's ability to pay for itself.<sup>17</sup> Serving a smaller, more concentrated area may make it easier and more affordable to provide public services, allowing the City to be more competitive in the long run. In addition, a reduced physical footprint could allow a city to be more intentional about targeting neighborhood investments in the urban core instead of diluting the effects of such investments by spreading them across a larger area. These core or downtown neighborhoods are frequently regional economic engines.

Deannexation could also affect economic and social equity issues. Attention should be placed on the demographic changes caused by deannexation efforts. If left unmonitored, deannexation could contribute to segregation, affecting the racial make-up of the City and County. Decision-makers should be mindful of the unintended consequences and view deannexation activities through the lens of potentially polarizing economic and racial demographics of the City and County.

### **Best Practices for Deannexation**

Traditional sources for best practices in planning and local government finance offer little in the way of established deannexation best practices. Neither the American Planning Association nor the

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<sup>16</sup> Sher, Andy. (April 1, 2016). Bo Watson vows to return in 2017 with de-annexation bill killed by Senate. *Times Free Press*. Retrieved from <http://www.timesfreepress.com/news/local/story/2016/apr/01/watsvows-return-2017-de-annexatibill-killed-s/358212/>

<sup>17</sup> Poe, Ryan. (April 3, 2016). Memphis considers de-annex task force. *The Commercial Appeal*. Retrieved from <http://www.pressreader.com/usa/the-commercial-appeal/20160403/281509340330024>

Government Finance Officers Association provide approved guidelines on how a local jurisdiction should approach proposed deannexation. Absent such established best practices, the PFM team sought to identify emerging common practices or promising practices through an analysis of different states' approaches to both deannexation and annexation issues.

A review of nationwide practices indicates that deannexation commonly occurs so that an area might incorporate as a new city. For example, a portion of Calabash, North Carolina was deannexed and subsequently incorporated as Carolina Shores. The two municipalities now share fire and emergency services.<sup>18</sup>

Deannexations also occur in situations where an area would be better served if it were included in the boundaries of an adjacent municipality. San Diego deannexed nearly 700 acres to be annexed into the city of Chula Vista, California.<sup>19</sup> In 2001, the deannexation of 80 acres from the City of Glendale, Arizona was contingent on the annexation of the property by the City of Litchfield Park.<sup>20</sup> In 2016, residents of Oklahoma City requested deannexation in order to be annexed into the City of Mustang.<sup>21</sup> The State of Missouri approves deannexation requests on the condition that the territory is reattached to a municipality through annexation.<sup>22</sup> Likewise, New Hampshire allows for the alteration of town lines when an area moves from one town into another town.<sup>23</sup>

Cases of deannexation where the territory returns to an unincorporated area are rare. In 2015, the DeKalb County Board of Commissioners voted to approve deannexation of properties within the Doraville city limits, allowing the area to return to unincorporated status.<sup>24</sup> In March 2016, Johnson City deannexed an area of Gray when homeowners requested to leave the City after their properties were annexed in 2012.<sup>25</sup> The PFM team was not able to identify any other examples of such deannexations.

State statute identifies the procedures by which deannexation is initiated and approved. In some cases, state statute also outlines criteria and guidance for determining when deannexation is permissible. For example, eight States specifically forbid any deannexation not adjacent to a city boundary, to preclude the formation of unincorporated "donut hole" within a municipality. Unfortunately, statutory criteria and guidance can be vague, limiting their usefulness to local government decision-makers. For example, some statutes require local decision-makers to consider "the public health and public good of the community" and determine how "the welfare of the inhabitants and property owners of both the City and area affected will be best served."

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<sup>18</sup> North Carolina Digest of Municipal Law. (1998). Retrieved from <https://www.nclm.org/SiteCollectionDocuments/Programs/DigestofMunicipalLawPart21998Legislation.pdf>

<sup>19</sup> Land Use and Transportation Element. 8.0 Southwest Area Plan. (n.d.). Retrieved from <http://www.chulavistaca.gov/home/showdocument?id=748>

<sup>20</sup> City of Glendale (January 2001). Ordinance No. 2179 New Series. Retrieved from <https://www.glendaleaz.com/clerk/Ordinances/2179.pdf>

<sup>21</sup> City of Mustang. (May 2015). Resolution 15-052. Retrieved from <http://www.cityofmustang.org/ordinances/resolution-15-052-supporting-request-deannexation>

<sup>22</sup> Missouri Revised Statute 72.043.1 117.9b (n.d.). Retrieved from [www.moga.mo.gov/mostatutes/stathtml/07200004031.html](http://www.moga.mo.gov/mostatutes/stathtml/07200004031.html)

<sup>23</sup> New Hampshire Revised Statute 3.51:9. (n.d.). [www.gencourt.state.nh.us/rsa/html](http://www.gencourt.state.nh.us/rsa/html)

<sup>24</sup> Kitch, Dionne. (January 29, 2015). County approves Doraville deannexation. AJC.com Retrieved from <http://www.ajc.com/news/local/county-approves-doraville-annexation/2B1sHDr2odT5jiRLz6BcmJ/>

<sup>25</sup> Gray, Gary. (March 10, 2016). City wraps up Suncrest de-annexation. Johnson City Press. Retrieved from <http://www.johnsoncitypress.com/Local/2016/03/10/City-wraps-up-Suncrest-de-annexation>

Apparent best practices for deannexation decision-making are those that are data-driven, consider the fiscal impact in the short- and long-term, and offer insight into the net impact on both the City and the County.

Alaska provides a good example of specificity, defining the “best interest of the State” by consideration of the following:

1. The health, safety, and general welfare of the proposed remnant city and the territory after detachment;
2. The ability of the proposed remnant city to efficiently and effectively provide reasonably necessary facilities and services after detachment;
3. The reasonably anticipated potential for, and impact of, future population growth or economic development that will require local government regulation in the territory after detachment;
4. The historical pattern of cooperation and shared commitment between the people of the proposed remnant city and the people of the territory;
5. The extent to which detachment might enhance or diminish the ability of the proposed remnant city to meet the standards for incorporation of cities;
6. The effect of the proposed detachment on the long-term finances of the proposed remnant city, other municipalities, and the state;
7. Whether the proposed detachment will promote:
  - a. Maximum self-government,
  - b. A minimum number of local government units,
8. Whether the territory’s requirements for local government services will be adequately met following detachment;
9. Contemporary and historical public school enrollment data;
10. Non-confidential data from the Department of Revenue regarding applications for permanent fund dividends.<sup>26</sup>

Some states are specific and thoughtful regarding the City’s or County’s capacity to deliver municipal services. For example, Illinois allows for the deannexation of territory only if “the growth prospects and plan and zoning ordinances will not be reasonably disrupted and if disconnection does not result in substantial disruption of existing municipal service facilities.”<sup>27</sup> California requires that any request for deannexation or municipal reorganization include a plan for services that defines the services currently provided and identifies of the entity to assume responsibility of services, as well as a plan for financing those services.<sup>28</sup> New Mexico allows for deannexation if it decreases the irregularity to the area it provides service resulting in increased efficiency.<sup>29</sup>

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<sup>26</sup> Alaska Statute AS 29 Municipal Government. Article 02. Annexation and Detachment. Article 7: 3 AAC 110.257 Standards for Detachment from Cities. (n.d.). Retrieved from [www.commerce.alaska.gov/web/dcra/LocalBoundaryCommission.aspx](http://www.commerce.alaska.gov/web/dcra/LocalBoundaryCommission.aspx)

<sup>27</sup> Illinois Municipal Code 65ILCS 5/7-3-1. (n.d.). Retrieved from [www.ilga.gov/legislation/ilcs4.asp](http://www.ilga.gov/legislation/ilcs4.asp)

<sup>28</sup> California Code, Title 5, Section 56653.1. (n.d.). Retrieved from

<sup>29</sup> New Mexico Statute, 3-7-5. (n.d.). Retrieved from <http://law.justia.com/codes/new-mexico/2014/chapter-3/article-7/section-3-7-5/>



Illinois allows deannexation so long as the municipality will not be harmed through the loss of future tax revenue. Minnesota may deny deannexation if the remainder of the municipality cannot continue to carry on its functions of government without undue hardship.<sup>30</sup>

Deannexation decisions in Delaware are based on detailed findings, recommendations, and objections that include fiscal impacts.<sup>31</sup> Iowa requires that the resolution requesting deannexation provide for the equitable distribution of assets and equitable distribution and assumption of liabilities.<sup>32</sup> In Nevada, the Board of County Commissioners is authorized to levy a tax on deannexed property to cover their proportion of outstanding general obligations secured for public improvements.<sup>33</sup> In Texas, if the deannexed area owes any debts, by bond or otherwise, the area is not released from its pro rata share of indebtedness and a tax can be levied on the property until the debt is paid in full.<sup>34</sup>

Deannexation decisions in Mississippi are guided by twelve indicia of reasonableness. The Mississippi Supreme Court initially recognized a list of nine indicia of reasonableness in 1960; subsequently the list expanded to twelve factors that are used as criteria for both annexations and deannexations. The Twelve Indicia of Reasonableness include:

1. The municipality's need for expansion/contraction;
2. Whether the area is reasonably within the City's path of growth;
3. The potential health hazards from sewage and waste disposal;
4. The municipality's financial ability to make improvements and provide promised services;
5. The need for zoning and overall planning in the area;
6. The need for municipal services in the area;
7. Whether there are natural barriers between the City and the area;
8. Past performance in service provision to present residents;
9. The impact on residents or property owners in the area;
10. The impact on voting strength of protected minority groups;
11. Whether residents enjoy benefits (social or economic) without paying their fair share of taxes;
12. Any other factor that may seem reasonable.<sup>35</sup>

The various criteria outlined above provide insight into the importance of identifying standards and benchmarks for which to analyze the impact of deannexation. Decision-makers in Memphis and Shelby County have an opportunity to create and institute a strategic, data-driven framework to assess and evaluate the fiscal impacts of deannexation in an effort to "right size" the City.

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<sup>30</sup> Minnesota Statutes Chapter 414.06. (n.d.). Retrieved from [www.Codes.findlaw.com/mn/cities-organization-ch-410-414-app/mn/st/sect/414-06.html](http://www.Codes.findlaw.com/mn/cities-organization-ch-410-414-app/mn/st/sect/414-06.html)

<sup>31</sup> Delaware Code 29-11-9103. (n.d.). Retrieved from [www.delcode.delaware.gov](http://www.delcode.delaware.gov)

<sup>32</sup> Iowa Code 368.8. (n/d). Retrieved from <https://coolice.legis.iowa.gov>

<sup>33</sup> Nevada Revised Statute NRS 268-664. (n.d.). Retrieved from <https://www.leg.state.nv.us/nrs/NRS-268.html>

<sup>34</sup> Texas Code 2.43.143. (n.d.). Retrieved from <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.43.htm>

<sup>35</sup> City of Grenada v. Frank Marscala, Mike Hyneman, Bill Williams, and Joseph Lee. Supreme Court of Mississippi. No. 2002-AN-01492-SCT. (November 20, 2002). Retrieved from <https://courts.ms.gov/Images/Opinions/CO18289.pdf>



# **IV. Deannexation: Framework**

## Data-Driven Model to Evaluate Potential Deannexations

Beyond goals and criteria, decision-makers in Memphis and Shelby County need a set of specific data to review when determining whether to deannex a specific area. These metrics do not define a decision but allow decision-makers to have the information that they need in order to ensure that their decision-making achieves desired goals and meets specific criteria.

Two of the three goals suggested in this paper – efficient delivery of services and fiscal stability – can be evaluated based on the fiscal impact of a deannexation. In order to measure the fiscal impact of potential deannexations, the project team constructed a quantitative template for the Task Force to use in determining the aggregate revenues that the City would forgo and the expected cost savings that are likely to result from a change in jurisdictional boundaries. This template can be populated with data specific to any potential deannexation area under consideration, regardless of whether the boundaries correspond to an area previously annexed by the City. The model also identifies how the fiscal impacts would evolve over a twenty year period, to reflect potential changes in revenues and public service demand that could be spurred by growth patterns or expiring payment in lieu of taxes (PILOT) agreements.<sup>36</sup>


In interpreting the outputs of a fiscal impact model, decision-makers should keep in mind that a net negative result does not signify that residents and businesses in a particular area are currently paying more in taxes than is appropriate given the value of services received. For reasons described in the methodological section below, it can be impractical for local governments to make proportionate workforce reductions in response to a modest decrease in public service demands. A more likely result is that a reduction in workload will lead to partial or total personnel reassignment, which may or may not result in improved services or lower costs in other areas of local government. In economic terms, personnel costs are “sticky” and, absent a particularly sizable drop in public service demand, managers are more likely to adjust activities based on the resources available rather than lay off employees.

For these reasons, this analysis does not hypothesize how tax burdens would change for residents should deannexation occur. Depending on the significance of the net negative fiscal impact to the City and the County – particularly if multiple deannexations are undertaken -- these jurisdictions may opt to raise tax and fee levels in order to absorb the net costs incurred. It is also possible that, as discussed in Section V, decision-makers may choose to adopt new taxing structures to ensure that responsibility for legacy and debt costs are fairly allocated to the beneficiaries of deannexation, thereby resulting in a higher tax burden than elsewhere in unincorporated Shelby County. In other words, a comparison of a household or business’ theoretical tax burden in in the City of Memphis and unincorporated Shelby County using current tax rates and fee schedules has limited relevance for predicting the net fiscal impact of deannexation on individuals.

Finally, the net fiscal impact figure should not be interpreted as a “score,” whereby a positive figure indicates that a particular deannexation is sound public policy and a negative figure indicates the opposite. While important, the net costs and efficiencies in service provision are not the only factors that decision-makers should take into account. As described in Section V, there

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<sup>36</sup> The model includes a tab labeled “inputs.” Unless otherwise specified, all customization of data inputs and growth assumptions can be executed by modifying the entries in this inputs tab.



are a variety of policy tools that the City of Memphis and Shelby County could use to mitigate negative fiscal impacts in cases where deannexation is desirable for other reasons.

### **Baseline and Projected Growth in Population and Development**

Both the revenue and the expenditure portions of the fiscal impact model are built upon estimates of the number of households and developments currently located in the area under consideration for deannexation (“baseline estimates”) as well as projected future household counts and developments (“build-out estimates”).

The build-out estimates were generated based on the number of developable parcels, defined as properties with a “vacant” land use designation not located in a floodplain. The model allows users to input assumptions about the proportion of developable parcels that, by 2040, would be converted to single family, multifamily, or commercial use. The density of such future developments is assumed to be two single family homes and 25 multifamily homes per half acre, though users can modify these assumptions.

In following with best practices, the model breaks 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 assessor tax rolls. The build-out estimates assume 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 assessor tax rolls. Because the assessor data does not include detail on the number of multifamily residences per parcel, the model assumes an average density of 25 multifamily units per acre, though this assumption can be changed if warranted based on the particular characteristics of the area under review. The model assumes that growth will be linear over the course of the 20-year period.

Population: 2010-2014 American Community Survey Block Group data was used to determine the number of residents currently living in the area. Future population projections were derived from the build-out residential estimates described above, assuming a constant average household size of 2.57 persons for a single family unit and 1.57 persons in a multifamily unit. These figures reflect the Shelby County average per 2015 American Community Survey data, but can be overridden by users if warranted by the unique characteristics of the area under consideration.

Property Values: Baseline property values were sourced from the assessor tax rolls. Users should take particular care to differentiate between “appraised value” and “assessed value” when inputting data into the model, as Tennessee law applies different conversion factors to residential versus commercial properties.

The model assumes a one percent annual growth rate, per the City’s Five Year Projections. According to City staff, property value growth in newer neighborhoods removed from the urban core – those more likely to be considered for deannexation -- has been even higher. Users can change this annual property valuation growth rate assumption through the model’s “Inputs” tab or, if more fine-tuned year-by-year adjustments are warranted, through the “Area Growth” tab.



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 under consideration for deannexation. 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. In situations where neighborhood transformation is expected – where the values of future developments are expected to substantially deviate from current developments -- users may increase or decrease those future valuation assumptions as appropriate.

### **General Fund Revenue Assumptions**

The analysis of revenue impacts focused on General Fund revenue, as these sources account for both the more significant revenue impact and are most likely to be affected by deannexation.

### **Property Tax: General Fund and Debt Service**

In accordance with national best practices, the methodology for projecting property tax revenues differentiates between residential and commercial development, as well as existing and anticipated development.

Property tax revenues for both existing and anticipated new development reflect the assumption that the FY 2016 adopted property tax rate of 3.40 cents per \$100 valuation will remain constant over the 20-year period (2.312 cents per \$100 valuation for General Fund, 1.0842 cents for Debt Service, and 0.0033 for Capital Pay Go), as it has since FY2014.

Per the FY2015 actual citywide figures, the model assumes a 97.6 percent collection rate and estimates personal property valuation to be 13.5 percent of real property valuation.<sup>37</sup> If, however, users are able to obtain actual personal property valuation figures from the Assessor, such information can be input directly into the model.


### **Sales Tax**

Given the geography of sales tax revenue generation, it is not uncommon for municipalities to redraw jurisdictional boundaries so as to include commercial strips but exclude residential areas. In order to ensure that the model is able to reflect the sometimes substantial net fiscal impacts that can result from a relatively modest change in geographic boundaries, the template uses actual local option sales tax revenues generated by businesses located in the area considered for deannexation. This data source was chosen for its accuracy, though the process for extracting such information from the state rolls can be cumbersome and time consuming.

Projected sales tax growth rates assume an annual inflation rate equal to the 10-year annual average CPI for the Southeast (1.61 percent), and further incorporate anticipated revenues derived from population growth: as the number of households increase, the sales volume in the area is expected to increase. The methodology takes into account various geographic drivers, such as the disposable income of new households and their likelihood to frequent businesses within the area proposed for deannexation. The growth rates are calculated based on the median household income in area and U.S. Bureau of Labor Statistics data on the proportion of household income spent on taxable goods and services, by income level.

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<sup>37</sup> Personal property is all tangible property other than real property, such as equipment, furniture, and fixtures used for business purposes.



The model also encourages users to take a qualitative approach to selecting net leakage rate assumption, 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, in cases where area retail establishments attract large numbers of shoppers from other parts of the City or from nearby unincorporated areas, a lower net sales leakage assumption should be selected (<60 percent). Conversely, a primarily residential area with few retail options should have a higher net sales leakage assumption (>70 percent). In over 30 annexation fiscal impact models reviewed, net sales leakage assumptions typically vary between 40 percent and 80 percent.

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. In addition, the model does not account for the fact that a loss in city population from deannexation would result in a reduction in state-shared taxes collected at businesses located within the City Memphis (as a reminder, revenue from the state-shared tax is distributed on a per capita).

### **Payment in Lieu of Taxes (PILOTs)**

On a case-by-case basis, the City and County partner to provide payment in lieu of tax (PILOT) incentives to attract businesses and promote industrial expansion. Under these agreements, payments are made to the joint City-County Industrial Development Board in lieu of ad valorem property taxes. PILOT amounts typically consider only the value of the unimproved real property. Per City Council resolution, the terms of PILOT agreements cannot exceed a total of 15 years, at which time the property would be reassessed and annual property tax payments would increase accordingly.

The model assumes that, should the area be deannexed from the City of Memphis, any PILOT agreement would remain in force through the completion of the incentive term. Absent any agreement with the County to the contrary, the City would then not be in a position to benefit from the subsequent reassessment of the property's value. Put simply, the City would have made a sizable investment in industrial expansion through foregone tax revenues, but would not enjoy the fiscal benefits of that investment.

The model relies on data included in individual PILOT agreements to estimate the projected tax revenue upon expiration of the tax abatements.

### **Other Revenues**

The model also uses revenues derived from Ambulance Transport Fees, Auto Registration Fees, and Franchise Fees, projected on a per capita basis. The model replicates the City's Five Year Projections and assumes a 0 percent citywide growth rate for these revenue streams, through users can modify each of these growth rates as appropriate.

The model does not include several small scale revenue sources such as business or liquor taxes.

### **General Fund Expenditure Assumptions**

The 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**


There are two separate methodologies used for estimating the impact of a potential deannexation on the City's police department expenditures, depending on the area under consideration. In some cases where the boundaries correspond to an area that was recently annexed, the City may have a copy of the pre-annexation Plan of Services, which summarizes anticipated impacts on municipal service provision and the investments that the City anticipated would be needed at the time. These documents identify the number of additional City police officer FTEs that were determined to be needed to serve the area. The model assumes that an equivalent number of these FTEs will no longer be needed in the case of deannexation and reallocates their time and their associated patrol vehicles towards tasks that would otherwise result in the expenditure of departmental overtime costs. In addition, in accordance with current citywide MPD staffing patterns, the model assumes that one sergeant could be redeployed for each 6.5 officer FTEs redeployed, and that 1 civilian expeditor FTE could be redeployed for each 2,400 police calls redirected to the Shelby County Sheriff's office. The model does not assume a reduction in FTEs employed citywide, a reduction in departmental capital costs related to police stations located outside the boundary of the area under consideration, or a reduction in the size of future cadet classes.

In cases where a recent pre-annexation Plan of Services is not available, the model assumes that required local officer staffing levels to be proportional with citywide staffing levels, based on call volume per capita. This approach uses the number of 2015 calls per capita received by the City's computer aided dispatch ("CAD") system from the area under consideration in order to estimate the number of officer, sergeant, and civilian FTEs that would theoretically be needed to serve the area.

In both cases – whether a recent pre-annexation Plan of Services is available or not – the methodology for determining the growth rate for police department cost savings under a deannexation scenario assumes that future call volume will increase proportionally with population growth. It is further assumed the City police officers not needed to meet these service demands would be allocated towards activities that would otherwise reduce overtime. The model assumes that, absent any deannexation activity, MPD overall overtime expenditures are likely to grow by 2.4 percent annually, an assumption that users can modify as appropriate. Other cost savings drivers include anticipated growth in salary and benefit costs by rank, which users can modify in the "Police" tab.

## **Fire**

As with the police cost savings estimates, there are two separate calculation methodologies depending on whether data from a recent pre-annexation Plan of Services is available for the area under consideration for deannexation. The Plan of Services estimates the number of new engines and trucks that were added to the department's budget upon annexation. The model assumes that an equivalent number of these FTEs will no longer be needed in the case of deannexation and reallocates their time towards tasks that would otherwise result in the expenditure of departmental overtime costs. Because the department does not staff its ambulances with permanent assignments but rather based on daily existing station personnel, the model does not factor in how a reduction in annual ambulance incidents will affect staffing costs. As with the police estimates, the model does not assume a reduction in FTEs employed citywide, a reduction in departmental capital costs related to fire stations located outside the boundary of the area under consideration, or a reduction in the size of future training classes.



In cases where pre-annexation Plan of Services are not available, it will be necessary for the fire department to determine on a case by case basis how a change in city boundaries will affect staffing needs, including the number of firefighter, drivers, and lieutenants. These estimates should be driven by the locations of existing fire stations, how significantly a potential deannexation would reduce each station's service area, and the allocation of staff needed to deploy services within the citywide average response time.

Because the area's size and geography is the primary determinant of staffing needs, not development or population, the number of Fire FTEs needed to serve the area is assumed to remain constant. Growth in cost savings is driven solely by anticipated growth in salary and benefit costs by rank, which users can modify in the "Fire" tab.

### **Public Facilities Maintenance**

The City owns and maintains several public facilities located in potential deannexation areas, from parks to fire stations to animal shelters and inspecting stations. Although deannexation does not preclude the City from owning property outside of its boundaries, the change in city limits would like lead to a transferal of use and maintenance responsibility to either the County or to a private entity (such as a neighborhood-level park conservancy or assessment district formed for the purpose of maintaining a local-serving park). Historically, County-owned parks located in annexation areas became City property upon annexation, it is therefore assumed that land ownership would transfer back to the County upon deannexation. In other words, the model assumes that deannexation would result in the immediate cessation of labor and maintenance costs associated with parks located in the area under consideration.

Since 1998, there has been three instances where the City of Memphis annexed an area that included a Shelby County Fire Department facility: the annexations of Countrywood-Eads, Wolfchase, and Hickory Hill. These facilities have remained the property of Shelby County, but are currently used and maintained by the City of Memphis. Based on this historic precedent, the model assumes that the City of Memphis would retain ownership of any public buildings located in a deannexation area, though would no longer incur maintenance costs associated with these buildings. In cases where the buildings host City functions that benefit areas that remain within the City limits (such as the newly renovated Public Works office in Hickory Hill), it is assumed that those functions would transfer to another facility within City limits. Should the City assume that it would continue to use a City building once it falls outside the City boundaries, users should not include the associated annual maintenance costs when inputting data into the model. This might be an appropriate course of action for such facilities as the Memphis Animal Shelter, which is located in Hillshire.

### **Maintenance of Streets, Traffic Signals, Signs, and Markings**

Maintenance costs are derived from the citywide FY 2017 budgeted cost per centerline mile, supplemented by a 2.5 percent annual average inflation rate. In order to determine supplemental costs prompted by growth, the model multiplies the projected number of single family homes by the current average citywide ratio of single family homes per centerline mile. The model assumes that supplementary street maintenance and infrastructure projects such as sidewalks and repaving would be funded out through capital investments.

### **Other Expenditures: Trash Collection, Animal Care, Code Enforcement, Tax Collection**

The City's fiscal model also includes net expenditures associated with Animal Care, Solid Waste Collection, and Tax Collection, all projected on a per capita basis. Net expenditures associated with Neighborhood Improvement costs are projected on a per centerline mile basis. Users can



modify the individual expected growth rates for these expenditure areas, either universally through the “inputs” tab or on a year-by-year basis on the “Misc Expenditures” tab. The default is a 2.5 percent growth rate for each expenditure area.

### **Costs not included in the model**

The model does not take into account potential changes in cost associated with enterprise funds, such as sewer or storm water. Should a potential deannexation reduce future the need for City-funded enterprise capital expenditures, the City maintains the flexibility to forestall fee increases as appropriate given the corresponding reduction in debt service. Changes in debt service cost would ultimately be passed through to residents through fee rates, and would not otherwise affect the City’s fiscal sustainability.

One of the most important cost implications for the City and County will be the shift in responsibility for future capital investment funded through General Fund or Special Fund monies, including road repaving, road expansion, sidewalk construction, streetlight installation, and maintenance costs for all new capital construction. 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 road investments. To the extent possible, the City is encouraged to produce estimates of such future capital investments, along with the likely dates and corresponding debt service, and add these cost savings to those estimated by the model.

Finally, the model does not include expenditures that operate on a fee-for-service basis, such as development services, as the City maintains the flexibility to adjust fees as needed to based on demand for services.

### **Opportunities for Model Refinement**

The model generates reasonable predictions of the City revenues that would be foregone and the expenditure savings that would result from a potential deannexation. The design seeks to balance the advantages of replicability and ease of use, with more precise data that reflect the unique needs and attributes of individual areas under consideration. If timing and data availability allow, users could increase accuracy by supplementing the model with additional calculations and assumptions:

- Estimates of future capital investments and associated debt service. As described above, these figures should not include investments to be funded through enterprise funds.
- Potential sale of City buildings located within a deannexation area. Depending on future use patterns, the City may determine that it is desirable to transfer ownership of City-owned properties to the County or decommission a facility for private sale. For example, given lower standard response time goals, the Shelby County Sheriff’s office or Fire Department may not have a need for the same number of facilities as those necessary for the delivery of City services. In those cases, the City may wish to estimate the potential one-time revenues that could be derived from a sale of the property, as well as an estimate of future property taxes should the property be transferred to a private owner and used for a non-exempt purpose.
- Reduction in capital costs corresponding to the reduction in citywide fire engines and fire trucks. It could be assumed that, if in good condition and not due for replacement shortly

after 2020, the newly underutilized vehicles could replace whatever comparable vehicle is due to be retired shortly after 2020. As such, the deannexation would delay the department's capital expenditures by a few years. In order to incorporate such estimates into the model, the department would need to identify the likely timeline for replacing the vehicles in question – to determine the number of usable years remaining – as well as the likely cost of eventual replacement. The cost savings would be equal to the compound interest associated with vehicle cost.

### How to Use the Model: Three Scenarios

To demonstrate how the model functions and how to interpret the outputs, the project team generated results for three areas located on the outer edge of the City of Memphis, using hypothetical data in line with actuals provided by City departments:

#### Hypothetical Scenario 1: Net Negative Fiscal Impact

In this example, the area under consideration for deannexation includes a healthy commercial component, a recent business investment with a PILOT agreement in place, notable projected residential growth, and average single family home values around \$150,000. The table below summarizes the likely population and development trends that will take place in the designated area between 2020 and 2040.

#### *Hypothetical Scenario 1: Area Population and Growth Projections*

Year	Total Estimated Population	# Residential Single-Family Homes	# Residential Multi-Family Units	Commercial Acres	Average SFR Valuation	Average MF Acre Valuation	Acres with Residential Development Potential	Calls for Police Service
2020	22,345	3,986	12,676	239	\$157,888	\$135,211	1,047	2,581
2021	22,524	4,042	12,702	240	\$159,467	\$136,563	1,004	2,602
2022	22,705	4,098	12,727	241	\$161,062	\$137,929	962	2,623
2023	22,887	4,156	12,753	242	\$162,672	\$139,308	922	2,644
2024	23,071	4,214	12,779	243	\$164,299	\$140,701	883	2,665
2025	23,256	4,272	12,804	244	\$165,942	\$142,108	846	2,686
2026	23,443	4,332	12,830	245	\$167,601	\$143,529	811	2,708
2027	23,631	4,393	12,856	246	\$169,277	\$144,964	777	2,730
2028	23,820	4,454	12,882	247	\$170,970	\$146,414	745	2,752
2029	24,011	4,516	12,908	248	\$172,680	\$147,878	714	2,774
2030	24,204	4,579	12,933	249	\$174,407	\$149,357	684	2,796
2031	24,398	4,643	12,959	250	\$176,151	\$150,851	656	2,818
2032	24,594	4,708	12,986	251	\$177,912	\$152,359	628	2,841
2033	24,791	4,774	13,012	252	\$179,691	\$153,883	602	2,864
2034	24,990	4,841	13,038	253	\$181,488	\$155,421	577	2,887
2035	25,191	4,908	13,064	254	\$183,303	\$156,976	553	2,910
2036	25,393	4,977	13,090	256	\$185,136	\$158,545	530	2,933
2037	25,597	5,046	13,117	257	\$186,987	\$160,131	508	2,957
2038	25,802	5,117	13,143	258	\$188,857	\$161,732	487	2,981
2039	26,009	5,188	13,169	259	\$190,746	\$163,349	466	3,004
2040	26,218	5,261	13,196	260	\$192,653	\$164,983	447	3,029

Based on the above population and development projections, the model estimates that the City would forego \$10.9 million in revenues if the area were to be deannexed in 2020. The significant majority of these revenues are associated with the sales tax revenues associated with the commercial businesses located within the deannexation area, underscoring the importance of commercial developments in driving net fiscal impact calculations. By 2040, the model predicts that the City's annual foregone revenues would triple due to a combination of population growth, inflation, valuation growth, and – most importantly -- the sunseting PILOT agreement in 2027.

*Hypothetical Scenario 1: Projected Foregone Revenues*

Year	Property Tax	Sales Tax (State and Local Option)	PILOTs	Other Revenues	Total Foregone Revenues
FY 2020	\$782,692	\$9,010,055	\$0	\$1,182,213	\$10,974,960
FY 2021	\$794,262	\$9,255,904	\$0	\$1,191,699	\$11,241,865
FY 2022	\$806,020	\$9,508,380	\$0	\$1,201,261	\$11,515,662
FY 2023	\$817,971	\$9,767,664	\$0	\$1,210,899	\$11,796,534
FY 2024	\$830,116	\$10,033,942	\$0	\$1,220,615	\$12,084,673
FY 2025	\$842,461	\$10,307,403	\$0	\$1,230,409	\$12,380,272
FY 2026	\$855,008	\$10,588,244	\$0	\$1,240,281	\$12,683,533
FY 2027	\$867,761	\$10,876,667	\$8,215,976	\$1,250,233	\$21,210,637
FY 2028	\$880,725	\$11,172,878	\$15,567,112	\$1,260,264	\$28,880,979
FY 2029	\$893,902	\$11,477,091	\$15,567,112	\$1,270,376	\$29,208,481
FY 2030	\$907,297	\$11,789,524	\$15,567,112	\$1,280,569	\$29,544,503
FY 2031	\$920,915	\$12,110,403	\$15,567,112	\$1,290,844	\$29,889,274
FY 2032	\$934,758	\$12,439,958	\$15,567,112	\$1,301,201	\$30,243,029
FY 2033	\$948,831	\$12,778,428	\$15,567,112	\$1,311,641	\$30,606,012
FY 2034	\$963,139	\$13,126,056	\$15,567,112	\$1,322,165	\$30,978,472
FY 2035	\$977,685	\$13,483,094	\$15,567,112	\$1,332,774	\$31,360,666
FY 2036	\$992,475	\$13,849,800	\$15,567,112	\$1,343,468	\$31,752,855
FY 2037	\$1,007,513	\$14,226,439	\$15,567,112	\$1,354,247	\$32,155,311
FY 2038	\$1,022,803	\$14,613,285	\$15,567,112	\$1,365,113	\$32,568,313
FY 2039	\$1,038,350	\$15,010,617	\$15,567,112	\$1,376,066	\$32,992,145
FY 2040	\$1,054,159	\$15,418,725	\$15,567,112	\$1,387,107	\$33,427,103

In this scenario, deannexation would allow the City to redeploy Police and Fire FTEs no longer needed to serve the area, saving \$2.0 million in public safety overtime spending in the first year of deannexation. The City could also discontinue the maintenance of streets, parks, and public facilities, and would not incur a variety of other smaller scale expenditures associated in the area. Without making any assumptions about future capital investments or one-time revenues derived from the sale of public property, the City would save approximately \$2.8 million in the first year of deannexation. The model anticipates that these annual savings would grow to \$5.0 million by 2040.

*Hypothetical Scenario 1: Projected Expenditure Savings*

Year	Police	Fire	Infrastructure Maintenance	Misc Expenses	Total Expenses Savings
FY 2020	\$953,042	\$1,195,646	\$169,430	\$456,368	\$2,774,486
FY 2021	\$980,939	\$1,228,527	\$176,078	\$473,269	\$2,858,813
FY 2022	\$1,009,664	\$1,262,311	\$182,987	\$490,798	\$2,945,761
FY 2023	\$1,039,242	\$1,297,025	\$190,168	\$508,980	\$3,035,414
FY 2024	\$1,069,697	\$1,332,693	\$197,631	\$527,839	\$3,127,859
FY 2025	\$1,101,058	\$1,369,342	\$205,386	\$547,399	\$3,223,185
FY 2026	\$1,133,350	\$1,406,999	\$213,447	\$567,689	\$3,321,484
FY 2027	\$1,166,602	\$1,445,691	\$221,823	\$588,734	\$3,422,850
FY 2028	\$1,200,843	\$1,485,448	\$230,529	\$610,563	\$3,527,382
FY 2029	\$1,236,103	\$1,526,298	\$239,577	\$633,205	\$3,635,182
FY 2030	\$1,272,412	\$1,568,271	\$248,980	\$656,690	\$3,746,353
FY 2031	\$1,309,803	\$1,611,398	\$258,752	\$681,051	\$3,861,004
FY 2032	\$1,348,308	\$1,655,712	\$268,908	\$706,319	\$3,979,247
FY 2033	\$1,387,960	\$1,701,244	\$279,463	\$732,529	\$4,101,197
FY 2034	\$1,428,795	\$1,748,028	\$290,433	\$759,717	\$4,226,973
FY 2035	\$1,470,849	\$1,796,099	\$301,833	\$787,917	\$4,356,698
FY 2036	\$1,514,157	\$1,845,491	\$313,681	\$817,169	\$4,490,499
FY 2037	\$1,558,759	\$1,896,242	\$325,995	\$847,512	\$4,628,508
FY 2038	\$1,604,693	\$1,948,389	\$338,792	\$878,987	\$4,770,860
FY 2039	\$1,651,999	\$2,001,970	\$352,092	\$911,635	\$4,917,696
FY 2040	\$1,700,721	\$2,057,024	\$365,914	\$945,501	\$5,069,160

These projections indicate that, should the City of Memphis opt to deannex this particular area as of January 1, 2020, the City would incur a net loss of \$8.2 million in the first year. In FY 2027, the year that the PILOT agreement sunsets, these net annual losses would almost double. By FY 2040, the net losses would exceed \$28 million per year. As discussed in the next section of this report, there are several measures that the City could take to mitigate these anticipated losses should it opt to move forward with deannexation in this scenario.

*Hypothetical Scenario 1: Summary of Net Fiscal Impact*

Year	Total Foregone Revenues	Total Expenses Savings	Net Fiscal Impact Positive/(Negative)
FY 2020	10,974,960	2,774,486	(8,200,474)
FY 2021	11,241,865	2,858,813	(8,383,052)
FY 2022	11,515,662	2,945,761	(8,569,901)
FY 2023	11,796,534	3,035,414	(8,761,120)
FY 2024	12,084,673	3,127,859	(8,956,813)
FY 2025	12,380,272	3,223,185	(9,157,087)
FY 2026	12,683,533	3,321,484	(9,362,049)
FY 2027	21,210,637	3,422,850	(17,787,786)
FY 2028	28,880,979	3,527,382	(25,353,597)
FY 2029	29,208,481	3,635,182	(25,573,299)
FY 2030	29,544,503	3,746,353	(25,798,150)
FY 2031	29,889,274	3,861,004	(26,028,269)
FY 2032	30,243,029	3,979,247	(26,263,782)
FY 2033	30,606,012	4,101,197	(26,504,816)
FY 2034	30,978,472	4,226,973	(26,751,500)
FY 2035	31,360,666	4,356,698	(27,003,968)
FY 2036	31,752,855	4,490,499	(27,262,356)
FY 2037	32,155,311	4,628,508	(27,526,803)
FY 2038	32,568,313	4,770,860	(27,797,453)
FY 2039	32,992,145	4,917,696	(28,074,450)
FY 2040	33,427,103	5,069,160	(28,357,943)

## **Hypothetical Example 2: Net Positive Fiscal Impact**

In this example, the area under consideration for deannexation is predominantly residential with little current or anticipated commercial development. The area is large but development is sparse, property values are low, and there is little market interest in more intensive development patterns (either due to geographic restrictions or a weak real estate market). The table below summarizes the likely population and development trends that will take place in the designated area between 2020 and 2040.

### *Hypothetical Scenario 2: Area Population and Growth Projections*

Year	Total Estimated Population	# Residential Single-Family Homes	# Residential Multi-Family Units	Commercial Acres	Average SFR Valuation	Average MF Acre Valuation	Acres with Residential Development Potential	Calls for Police Service
2020	2,083	806	31	60	\$78,826	\$135,211	127	521
2021	2,104	813	33	61	\$79,614	\$136,563	121	526
2022	2,125	820	35	61	\$80,410	\$137,929	116	531
2023	2,147	827	37	61	\$81,214	\$139,308	111	537
2024	2,169	834	40	61	\$82,026	\$140,701	107	542
2025	2,191	841	42	61	\$82,847	\$142,108	102	548
2026	2,213	849	45	61	\$83,675	\$143,529	98	553
2027	2,236	856	47	61	\$84,512	\$144,964	94	559
2028	2,258	864	50	61	\$85,357	\$146,414	90	565
2029	2,281	871	53	62	\$86,211	\$147,878	86	570
2030	2,305	879	56	62	\$87,073	\$149,357	83	576
2031	2,328	886	59	62	\$87,943	\$150,851	79	582
2032	2,352	894	63	62	\$88,823	\$152,359	76	588
2033	2,376	902	67	62	\$89,711	\$153,883	73	594
2034	2,400	910	71	62	\$90,608	\$155,421	70	600
2035	2,424	918	75	62	\$91,514	\$156,976	67	606
2036	2,449	926	79	62	\$92,429	\$158,545	64	612
2037	2,474	934	84	63	\$93,354	\$160,131	61	618
2038	2,499	942	89	63	\$94,287	\$161,732	59	625
2039	2,525	950	94	63	\$95,230	\$163,349	56	631
2040	2,550	958	100	63	\$96,182	\$164,983	54	638

Due to the relatively low property values, the lack of significant commercial activity, and the modest projections for future development, the City's foregone revenues would be relatively small should deannexation be approved. In the first year of deannexation, the City would forego approximately \$800,000 in revenues, over half of which would be in foregone property taxes.

*Hypothetical Scenario 2: Projected Foregone Revenues*

Year	Property Tax	Sales Tax (State and Local Option)	PILOTs	Other Revenues	Total Foregone Revenues
FY 2020	\$431,173	\$257,270	\$0	\$110,189	\$798,632
FY 2021	\$435,751	\$273,135	\$0	\$111,311	\$820,196
FY 2022	\$440,384	\$289,674	\$0	\$112,444	\$842,501
FY 2023	\$445,073	\$306,920	\$0	\$113,588	\$865,581
FY 2024	\$449,820	\$324,904	\$0	\$114,744	\$889,469
FY 2025	\$454,625	\$343,663	\$0	\$115,912	\$914,201
FY 2026	\$459,490	\$363,233	\$0	\$117,092	\$939,815
FY 2027	\$464,416	\$383,651	\$0	\$118,284	\$966,352
FY 2028	\$469,405	\$404,961	\$0	\$119,488	\$993,853
FY 2029	\$474,457	\$427,204	\$0	\$120,704	\$1,022,365
FY 2030	\$479,574	\$450,427	\$0	\$121,933	\$1,051,934
FY 2031	\$484,758	\$474,680	\$0	\$123,174	\$1,082,612
FY 2032	\$490,010	\$500,013	\$0	\$124,428	\$1,114,451
FY 2033	\$495,332	\$526,483	\$0	\$125,694	\$1,147,509
FY 2034	\$500,725	\$554,146	\$0	\$126,974	\$1,181,845
FY 2035	\$506,193	\$583,066	\$0	\$128,266	\$1,217,525
FY 2036	\$511,735	\$613,308	\$0	\$129,572	\$1,254,615
FY 2037	\$517,355	\$644,942	\$0	\$130,891	\$1,293,188
FY 2038	\$523,055	\$678,043	\$0	\$132,223	\$1,333,321
FY 2039	\$528,836	\$712,690	\$0	\$133,569	\$1,375,095
FY 2040	\$534,702	\$748,967	\$0	\$134,928	\$1,418,597

However, once the City no longer needs to provide fire service or street maintenance to this hypothetically large geographic area, the cost savings could be substantial. The effect on the MPD deployment would likely be modest, as relatively few calls for service originate from the sparsely populated area. Overall, the model predicts that the the City would save approximately \$1.7 million in the first year of deannexation, without accounting for future road repaving needs or any commitment to extend sewer service. The model anticipates that these annual savings would grow to \$3.0 million by 2040.

*Hypothetical Scenario 2: Projected Expenditure Savings*

Year	Police	Fire	Infrastructure Maintenance	Misc Expenses	Total Expenses Savings
FY 2020	\$41,321	\$1,195,646	\$208,046	\$303,645	\$1,748,658
FY 2021	\$42,890	\$1,228,527	\$213,551	\$311,861	\$1,796,829
FY 2022	\$44,518	\$1,262,311	\$219,204	\$320,306	\$1,846,339
FY 2023	\$46,208	\$1,297,025	\$225,009	\$328,986	\$1,897,227
FY 2024	\$47,962	\$1,332,693	\$230,970	\$337,907	\$1,949,532
FY 2025	\$49,782	\$1,369,342	\$237,092	\$347,077	\$2,003,293
FY 2026	\$51,672	\$1,406,999	\$243,378	\$356,503	\$2,058,552
FY 2027	\$53,633	\$1,445,691	\$249,834	\$366,192	\$2,115,350
FY 2028	\$55,669	\$1,485,448	\$256,464	\$376,152	\$2,173,732
FY 2029	\$57,782	\$1,526,298	\$263,272	\$386,389	\$2,233,741
FY 2030	\$59,976	\$1,568,271	\$270,264	\$396,914	\$2,295,424
FY 2031	\$62,252	\$1,611,398	\$277,445	\$407,732	\$2,358,828
FY 2032	\$64,615	\$1,655,712	\$284,820	\$418,854	\$2,424,001
FY 2033	\$67,068	\$1,701,244	\$292,394	\$430,288	\$2,490,993
FY 2034	\$69,614	\$1,748,028	\$300,173	\$442,042	\$2,559,856
FY 2035	\$72,256	\$1,796,099	\$308,162	\$454,126	\$2,630,643
FY 2036	\$74,999	\$1,845,491	\$316,367	\$466,550	\$2,703,407
FY 2037	\$77,846	\$1,896,242	\$324,795	\$479,323	\$2,778,206
FY 2038	\$80,801	\$1,948,389	\$333,450	\$492,455	\$2,855,095
FY 2039	\$83,868	\$2,001,970	\$342,341	\$505,957	\$2,934,136
FY 2040	\$87,051	\$2,057,024	\$351,472	\$519,840	\$3,015,387



These projections indicate that the deannexation of this low density area would likely result in a net positive impact for the City of Memphis, saving the City almost \$1 million net in the first year of deannexation. These savings would grow modestly to almost \$1.6 million by 2040.

*Hypothetical Scenario 2: Summary of Net Fiscal Impact*

Year	Total Foregone Revenues	Total Expenses Savings	Net Fiscal Impact Positive/(Negative)
FY 2020	798,632	1,748,658	950,026
FY 2021	820,196	1,796,829	976,633
FY 2022	842,501	1,846,339	1,003,837
FY 2023	865,581	1,897,227	1,031,646
FY 2024	889,469	1,949,532	1,060,063
FY 2025	914,201	2,003,293	1,089,092
FY 2026	939,815	2,058,552	1,118,737
FY 2027	966,352	2,115,350	1,148,999
FY 2028	993,853	2,173,732	1,179,879
FY 2029	1,022,365	2,233,741	1,211,376
FY 2030	1,051,934	2,295,424	1,243,490
FY 2031	1,082,612	2,358,828	1,276,216
FY 2032	1,114,451	2,424,001	1,309,550
FY 2033	1,147,509	2,490,993	1,343,484
FY 2034	1,181,845	2,559,856	1,378,011
FY 2035	1,217,525	2,630,643	1,413,118
FY 2036	1,254,615	2,703,407	1,448,792
FY 2037	1,293,188	2,778,206	1,485,017
FY 2038	1,333,321	2,855,095	1,521,774
FY 2039	1,375,095	2,934,136	1,559,041
FY 2040	1,418,597	3,015,387	1,596,790

To more thoroughly understand how a potential deannexation is likely to affect the balance of public services, decision-makers may wish to compare the above results with the anticipated net fiscal impact on the County. Because Shelby County’s calculations do not use the same methodology as the ones employed by the PFM model, such a comparison will per force be approximate. Further, because the county’s cost impact calculations do not project fiscal impacts over time, the figures below do not reflect the impacts of any change in PILOT payments or growth patterns. Even with these limitations, the quantitative results for each of the three scenarios predict a concerning rise in the public cost burdens should these areas be deannexed.

In the above scenarios, deannexation may significantly increase the County’s expenditures without resulting in a proportionate decrease in the City’s expenditures. In other words, the overall cost of government may increase even as the levels of service drop. Moreover, in each case, the cost savings to the City are less than the loss of revenue. Thus, the drop in efficiency, coupled with magnitude of the effect on both City and County finances are important disadvantages that local decision-makers should consider before approving the deannexation of these areas.



# V. Process Recommendations

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Deannexation is ultimately a public policy decision. Public policy decisions are most effective when guided by a systemic understanding of the constraints and opportunities. Decisions of annexation and deannexation require strategic focus, as well as sensitivity to the political considerations and community preferences. A successful data-driven model illustrates the tradeoffs and can help the public better understand the issues and implications associated with deannexation decisions.

Data-driven model outputs identify risks and costs; however, they do not determine whether deannexation is ultimately the best choice for local governments or residents. The model serves as a framework. The quantitative analysis helps predict the likely impact of deannexation, including the fiscal impact, and estimates the programmatic and financial consequences for the City, the County, and the community, but does not weigh the social implications. City and County decision-makers are advised to use the model as a tool to advance information and support decisions. The model does not provide a “score” that indicates if or when deannexation is a sound political option.

In other words, although the net fiscal impact is an important consideration, it is not the only factor -- or even the most important factor -- that decision-makers should take into account.

Should decision-makers opt to move forward with deannexation despite higher costs identified in the model, there are a variety of policy tools that the City of Memphis and Shelby County could use to mitigate negative fiscal impacts in cases where deannexation is desirable for other reasons.

**Special assessment districts** can be established to repay legacy and sunk capital costs. Tennessee Code 69-5-801 (2015) allows local governments to levy and collect special assessments from property to recover the cost of providing public facilities or benefits equal to the proportionate share of the benefits received. This includes the costs associated with public facilities, as well as costs associated with public services. Special assessments districts are established by ordinance. In particular, the City may wish to consider whether a special assessment district could be a mechanism to confer proportionate responsibility for City legacy costs to the residents of a deannexed area.

In addition, the City and County can enter into **shared service agreements** to offset costs of public facility maintenance and usage, the provision of public safety services, and other services to limit unreasonable costs or inefficiencies. City-County interlocal agreements are common when the City and County agree that it is in the best interests of the general public to coordinate. Tennessee Code 12-9-104 (2010) provides political subdivisions the power to enter into joint or cooperative agreements.

Increased use of **impact fees** could help to reduce the taxpayer burden associated with capital expenses in the new growth area near the city limits.

The City of Memphis and Shelby County can enter into an **agreement to share revenues** upon the expiration of the PILOTs that were awarded prior to deannexation. Memphis and Shelby County implemented the PILOT program in 1988 to attract and retain businesses to the area, promote high quality development in all parts of Memphis and Shelby County, and improve the quality of life for its residents. The Industrial Development Board of the City of Memphis and

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County of Shelby, Tennessee (IDB) was established by City and County governments to assist in the financing of new business and industry and to promote local industrial expansion.

The IDB holds the title to the real and personal property associated with the PILOT and leases the property to the business. Under the PILOT agreement, payments are made to the IDB in lieu of ad valorem taxes on the property. The PILOT payment includes at minimum 25% of Shelby County taxes that would otherwise be due on the property, and 10% of City of Memphis taxes otherwise due if the property is located in the City of Memphis.

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## Appendix A: PFM Project Team

**David Eichenenthal** 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. Eichenenthal 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. Eichenenthal 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. Eichenenthal 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. Eichenenthal chaired the Downtown Redevelopment Corporation, the Regional Interagency Council on Homelessness and the General Pension Plan Board of Directors.

In New York, Mr. Eichenenthal 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. Eichenenthal 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.

**Nina Bennett** is a Senior Consulting Manager 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

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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.

**Debra Vaughan** is a Senior Consulting Manager in PFM's Management and Budget Consulting practice in the New Orleans office, where she works on operational efficiency studies for cities across the county along with multiple engagements for the National Resource Network to develop and deliver innovative solutions to American cities to help address their toughest economic challenges.

Prior to joining PFM, Ms. Vaughan was the owner of D Vaughan Consulting LLC where she contracted with nonprofit organizations, education agencies, and local governments to develop metrics, evaluate programs, conduct research and policy analysis, support strategic development efforts, and plan effective and efficient organizational growth.

Ms. Vaughan held the position of Director of Research at Cowen Institute for Public Education Initiatives at Tulane University where she developed and implemented a research agenda chronicling the changes in public education and providing insight into the impact of policies on children, families, and schools; create and published reports that support the improved operations of the system of schools in New Orleans, as well as appeal to a national audience; conducted surveys to gauge public opinion; and used research findings to advocate for changes in policies, practices, and legislation that support equity and excellence in public education.

Ms. Vaughan also held the position of Director of Research and Evaluation for the Public Education Foundation of Chattanooga, Tennessee where she conducted research, survey analysis, and evaluation of whole school reform efforts in public schools and provided professional development to district and school leaders, literacy and numeracy instructional coaches, and guidance counselors aimed at improving outcomes for all students. Ms. Vaughan served as a Professor of Economics at the University of Tennessee, Chattanooga for many years where she taught undergraduate and graduate courses in micro, macro, and managerial economics, as well as graduate courses in grant writing and fundraising.

Ms. Vaughan holds a Master's in Public Administration from the University of Tennessee, Chattanooga where her focus was in Urban History, Sustainable Growth, and Community and Economic Development. She also holds Bachelor's degrees in Economics from the University of Tennessee, Chattanooga and Political Science from the University of Southern Indiana.