A Study of Metro Nashville/Davidson County Finances

Conducted for
Nashville Area Chamber of Commerce
and Greater Nashville REALTORS®
by Elliott Davis

Table of Contents

Executive Summary from Nashville Area Chamber of Commerce and the Greater Nashville REALTORS®

Report Sections

Study Overview 3

Peer Cities Selection 4

Financial Position and Trends 6

Financial Forecast 20

OPEB 26

Tax and Fee Burden 31

Transit 33

Affordable Housing 35

Technology Investment Opportunities and Challenges 37

Observations 41

Appendix A 45

Appendix B 46

Executive Summary

Prepared by the Nashville Area Chamber of Commerce and the Greater Nashville REALTORS®

The Boards of Directors of the Nashville Area Chamber of Commerce and Greater Nashville REALTORS® (collectively “the boards”) engaged Elliott Davis, an independent consultant group, to conduct a study of the finances of Metro Nashville/Davidson County government. The primary objective of the study was to provide information to the boards for their consideration in shaping boards’ response to budgeting and financial decisions of Metro Nashville.

The study is based on an evaluation of publicly available financial information including Nashville’s recent Comprehensive Annual Financial Reports (CAFRs) and annual budgets. This study analyzed funding issues, identified trends in financial results and compared the city’s overall financial condition to other peer cities.

The consultants approached this study by assisting with the following:

- Understanding historical financial information as reported in recently issued Comprehensive Annual Financial Reports (CAFRs) of Nashville.
- Assessing the overall financial condition of Nashville based on information presented in the CAFRs.
- Comparing certain historical information of Nashville to that of select peer cities.
- Forecasting general fund revenues and expenditures of Nashville based on historical trends and the application of specific assumptions.

Study Components

Financial Position and Trends **-** Financial information as reported in Nashville’s CAFRs was analyzed to highlight funding and expense issues, identify trends in financial results, and to compare the City’s overall financial position to that of its peers.

Financial Forecast - The Study includes a forecast of general fund revenues and expenditures of Nashville for a five-year period and presents several scenarios for potential increases in revenue as required to fund certain investment initiatives and to achieve assumed fund balance goals.

Tax and Fee Burden **-** The Study also includes an overview of taxes and fees incurred by residents of Nashville with a comparison to that of the Peer Cities. To facilitate comparability, various rates and assessments for the respective municipalities were applied to a representative Nashville household having certain characteristics related to home prices, annual income and spending, and utility consumption.

Other Areas **-** Finally, the Study considers three of the most significant challenges currently faced by growing municipalities across the US: 1.) availability of affordable housing; 2.) developing and maintaining an effective transit system; and 3.) navigating the opportunities and risks presented by technology and automation.

Peer Cities - Six municipal governments were identified as “Peer Cities” of Nashville for the purpose of comparing certain financial metrics including debt levels, the status or fund balance and trends in revenues and expenses. The comparison also considered the implementation of major initiatives such as those related to transit systems, affordable housing and the use of technology to improve efficiency in government.

This executive summary was prepared by staff of the boards. The remainder of the report is the original work of Elliott Davis.

Study Overview

The Study is based on the evaluation of certain publicly available financial information including Nashville's recent CAFR's and annual budgets. We also evaluated planning studies and committee reports available on Nashville's website, as well as media accounts discussing Nashville's recent budgeting decisions and financial condition. In conducting the Study we did not have access to Nashville's finance team or other members of Nashville's management. As a result, we were not able to conduct interviews and inquiries with current City personnel for the purpose of corroborating and adding context to our observations and recommendations.

Six municipal governments were identified as "Peer Cities" of Nashville for the purpose of comparing certain financial metrics including debt levels, the status of fund balance, and trends in revenues and expenses. The comparison also considered the implementation of major initiatives such as those related to transit systems and affordable housing.

In evaluating Nashville's financial position and performance trends, we analyzed elements of the government-wide financial statements as reported in the CAFR's of Nashville and the Peer Cities for the fiscal years from 2009 through 2018. For purposes of comparability among municipalities, we deemed the government-wide financial statements to be more effective than fund financial statements as they alleviate the need to mix and match different fund structures and funding approaches. In addition, government-wide financial statements largely reduce the effect of transfers between funds, as they are limited to the less significant transactions occurring between governmental and business-type activities. *While Nashville's 2019 CAFR became available to us as the Study was being completed, it was only utilized for certain portions of the Study as the 2019 CAFR's were not yet published for most of the Peer Cities. Therefore, analysis involving the Peer Cities is limited to information obtained from CAFR's issued for fiscal year 2018.*

The Study included the development of a five-year financial forecast of Nashville's general fund. The objective of the forecast is to estimate the future trajectory of Nashville's available fund balance based on certain assumptions and historical trends in revenues and expenditures ranging from five to ten years. Assumptions incorporated into the forecast include growth rates for major revenue categories, and inflation factors for major costs such as healthcare benefits, capital spending, and professional services. The forecast also presents several scenarios reflecting potential increases in revenue as required to fund certain investment initiatives and to achieve assumed fund balance goals.

An overview of taxes and fees incurred by residents of Nashville and the Peer Cities was developed to illustrate a significant portion of the average household's burden to fund operations of state and local government. To facilitate comparability, various rates and assessments for the respective municipalities were applied to a representative Nashville-household having certain characteristics related to home price, annual income and spending, and utility consumption.

The Study also considers three of the most significant challenges currently faced by growing municipalities across the US: 1.) availability of affordable housing; 2.) developing and maintaining an effective transit system; and 3.) navigating the opportunities and risks presented by technology and automation. This section includes initiatives being developed and implemented by several US cities, and strategies for funding these initiatives.

The final section of the Study identifies best practices to enhance Nashville's processes surrounding financial operations and budgetary decision-making.

Peer Cities Selection

The Peer Cities that were selected for the Study were deemed to be similar to Nashville in terms of current population, growth rate, and organizational structure. The Boards initially identified nine such municipalities, several of which also possessed certain characteristics considered desirable by the Boards in terms of future objectives for Nashville. This list of cities included:

- Atlanta
- Charlotte
- Raleigh
- Austin
- Louisville
- Jacksonville
- Indianapolis
- Salt Lake City
- Denver

From the above list of nine cities, six were considered to be most beneficial for inclusion in the analysis. The following criteria were applied to arrive at the final list:

- Having a similar population to Nashville as reported in the respective 2018 CAFR of each city
- Being the dominant city in the area, making up most of the urban region
- Having a consolidated city/county government
- Being a state capital
- Being a growing city with a healthy economy

Based on the above criteria, the following six cities were selected with the major factors weighing in favor of their selection as described below:

Charlotte - A growing city, dominant in its area with a similar population to Nashville (859,035) and while not a consolidated city, sharing many services with its county.

Louisville - A consolidated city/county government with a similar population (771,158) and status as the main city in the region, an expanding population, and strong economic growth.

Jacksonville - Consolidated with Duval County, the city has a comparable population (952,861) and a healthy economy.

Indianapolis - Another city with a consolidated government, it is also the state capital, dominant in its region, and has a growing population (867,125).

Austin – As the state capital, the city dominates its immediate region and is growing in population (963,797) and economic influence.

Denver - This is another consolidated city/county government that is a state capital and is expanding both in terms of population (716,492) and economic growth.
Not selected were:

Raleigh - While this city is growing and is a state capital, it is much smaller than Nashville (469,298) and makes up a much smaller part of the regional area as the Cities of Durham, Cary and Chapel Hill exert major influence on the Research Triangle area.

Atlanta - This city is also similar to Raleigh as a state capital but with a smaller population (486,290) relative to the Nashville area.

Salt Lake City - This city is a state capital, but it is smaller in population (200,544) and is not a consolidated city/county government.

Certain financial aspects of the selected cities were compared, including financial health as measured by fund balance reserves, bond ratings, debt service requirements, OPEB costs, and the level of taxes and fees imposed.

Financial Position and Trends

Debt and Fund Balance Metrics

Figure 1 below presents metrics which highlight the overall financial position of Nashville in comparison to the Peer Cities with an emphasis on the amount of governmental debt, the level of unrestricted general fund reserves (fund balance), and the credit rating applied to its general obligation bonds. While Nashville utilizes multiple funds, our consideration of unrestricted fund balance in the table below focuses on the general fund only as it typically generates over 40% of the City's total revenues in any given fiscal year and reports the largest portion of its available fund balance.

Sources of information for this comparison were drawn primarily from the 2018 CAFR's, budget documents, and other publicly available financial reports of the respective Peer Cities:

***Debt and Fund Balance Metrics* - Fig. 1**

		Peer Cities					
Metric	Nashville	Austin	Charlotte	Denver	Indianapolis	Jacksonville	Louisville
Population	692,587	963,797	875,318	716,492	867,125	952,861	771,158
Bond ratings (Moody's, S&P)	Aa2, AA	Aaa, AAA	Aaa, AAA	Aaa, AAA	Aaa, AA+	A2, AA	Aa1, AA+
Governmental fund debt	$2.8 billion	$1.5 billion	$0.8 billion	$1.4 billion	$124 million	$2.2 billion	$0.5 billion
Governmental fund debt per capita	$ 4,104	$ 1,587	$ 880	$ 2,003	$ 126	$ 2,267	$ 697
Debt service ratio	10.0%	12.5%	16.8%	10.7%	12.9%	12.1%	9.5%
Combined debt (Governmental and Proprietary funds)	$3.9 billion	$6.5 billion	$4.6 billion	$8.1 billion	$1.3 billion	$2.6 billion	$0.5 billion
Combined debt per capita	$ 5,644	$ 6,761	$ 5,293	$ 11,328	$ 1,455	$ 2,689	$ 732
General fund - unrestricted fund balance	$75.8 million	$210.9 million	$120.4 million	$304.2 million	$188.6 million	$260.4 million	$101.8 million
General fund - months of expenditures in fund balance	0.95	2.51	2.38	2.92	3.16	3.24	1.91

According to the 2018 CAFR, Nashville has governmental fund debt outstanding of $2.8 billion. At $4,104 per capita, this represents a higher governmental debt per capita than the Peer Cities. When both governmental and proprietary fund indebtedness are combined, Nashville compares more favorably with its peers. This in part reflects major enterprise activities being undertaken in the Peer Cities (e.g., Denver Airport). However, it also reflects the deferral of capital improvements to Nashville's water and sewer infrastructure.

Another significant metric for evaluating a government's debt burden is the debt service ratio - the percentage of governmental fund expenditures attributable to debt service. In Nashville's case, while a debt service ratio of 10% compares favorably with that of the Peer Cities, it also reflects Nashville's overall growth in non-debt service general fund expenditures.

In terms of financial credit ratings, Nashville has relatively strong ratings of Aa2 (Moody's) and AA (S&P) which may be attributed to a robust economy and a very modest property tax rate. However, Nashville's ratings are the lowest among the Peer Cities except for Jacksonville which lags slightly behind Nashville with ratings of A2 (Moody's) and AA (S&P). While a number of factors can affect a government's credit rating, Nashville's lower ratings compared to its peers are likely due in part to a significant long-term decrease in net position (see *Figure 3* at page 13) and a rapidly growing OPEB liability.

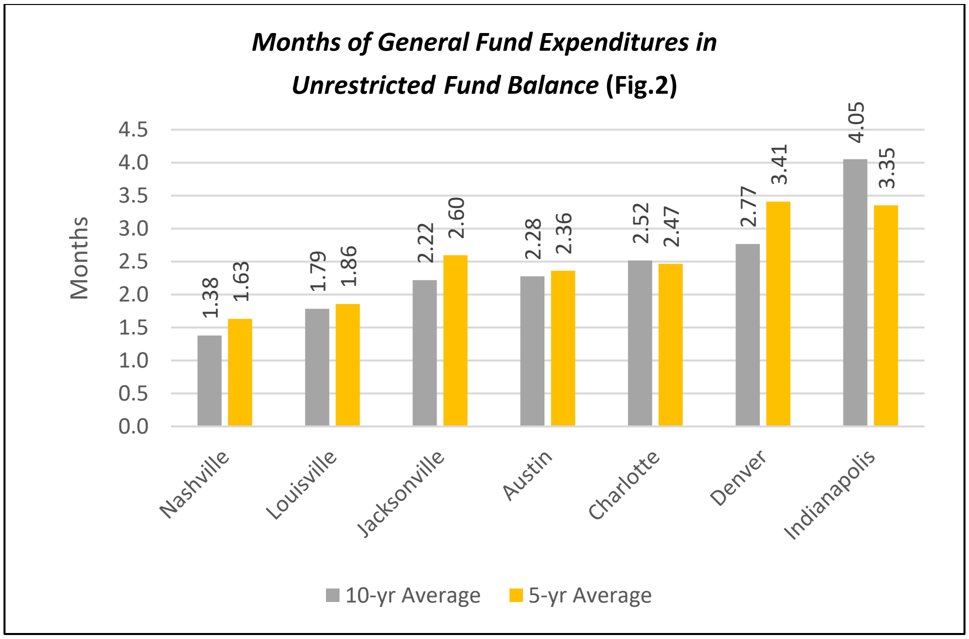
For the 2018 fiscal year Nashville reported an unrestricted balance in the general fund of approximately $75.8 million. Unrestricted fund balance represents the portion of fund balance that is spendable and has not been restricted by externally imposed requirements such as those reflected in debt agreements or enabling legislation. Unrestricted fund balance is calculated by taking the sum of the fund balance amounts reported in the financial statements as "committed", "assigned", and "unassigned".

As a result, it generally serves as a reserve to be used for any other legal purpose as required for the continued operation of the government.

According to the *Government Finance Officers Association* (the GFOA): "*It is essential that governments maintain adequate levels of fund balance to mitigate current and future risks (e.g., revenue shortfalls and unanticipated expenditures) and to ensure stable tax rates*." The GFOA recommends that at a minimum, a general purpose government should maintain in their general fund an unrestricted fund balance of no less than two months of regular general fund operating revenues or regular general fund operating expenditures. However, the GFOA stipulates that this should only be considered a general "rule of thumb" and further recommends the following:

> "The adequacy of unrestricted fund balance in the general fund should take into account each government's own unique circumstances. For example, governments that may be vulnerable to natural disasters, more dependent on a volatile revenue source, or potentially subject to cuts in state aid and/or federal grants may need to maintain a higher level in the unrestricted fund balance. Furthermore, *a government's particular situation often may require a level of unrestricted fund balance in the general fund significantly in excess of this recommended minimum leve*l. In any case, such measures should be applied within the context of long-term forecasting, thereby avoiding the risk of placing too much emphasis upon the level of unrestricted fund balance in the general fund at any one time."

As reflected in *Figure 1*, as of the end of the 2018 fiscal year, Nashville maintained less than one month of general fund expenditures in unrestricted fund balance. This is significantly less than both the GFOA-recommended minimum of two months and the range of 1.91 months to 3.24 months for the Peer Cities. *Figure 2* below presents a further comparison of months of expenditures in unrestricted fund balance. In computing 10-year and 5-year averages, Nashville trails all of the Peer Cities in the number of months of expenditures held as reserves in unrestricted fund balance.



<u>Government-wide Analysis</u>

We also considered Nashville's overall financial position and performance as indicated by its *government-wide* financial statements, including a comparison of certain metrics to those of the Peer Cities. The government-wide financial statements are designed to provide readers with a broad overview of the Government's finances, in a manner similar to a private-sector business. The two government-wide financial statements are, as follows:

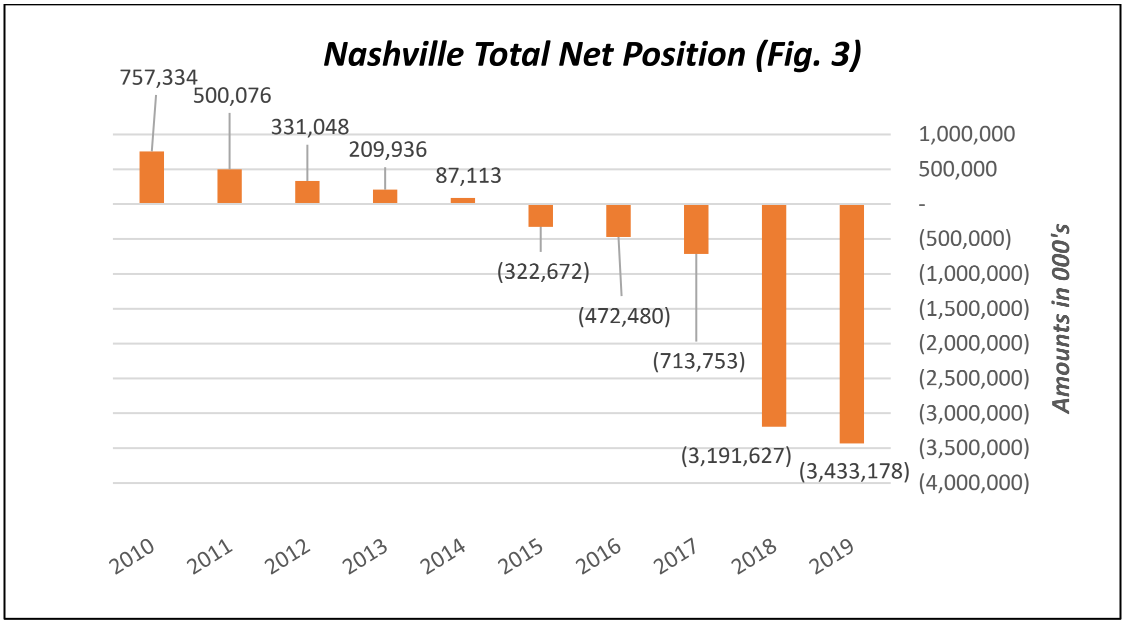
> The *Statement of Net Position* presents information on all of the Government's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the difference reported as net position. In short, government's net position reflects the amount by which its assets (or financial resources) exceed or fall short of its liabilities (or financial obligations) at the end of any given fiscal year. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Government is improving or deteriorating.
>
> The *Statement of Activities* presents information showing how the Government's net position changed during the most recent fiscal year. All changes in net position are reported on an accrual basis as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes, compensated absences, etc.).

Both of the government-wide financial statements distinguish functions of the government that are principally supported by taxes and intergovernmental revenues (governmental activities) from other functions that are intended to recover all or a significant portion of their costs through user fees and charges (business-type activities).

The governmental activities of a municipality typically include categories such as general government; administration; public safety; community development; public health and welfare;

culture and recreation; and public works. Nashville's governmental activities also include a significant allocation to education.

Nashville's Net Position – As reported in its annual audited statement of net position, over the ten-year period from 2010 through 2019, Nashville's total net position has steadily declined to the point that beginning in fiscal year 2015, liabilities began to significantly exceed assets.



Noteworthy in *Figure 3* is the pronounced reduction that occurred in fiscal year 2018. This drop was largely driven by the implementation of Government Accounting Standard No. 75 *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75), which required governments to report their total unfunded liability related to retiree health care.

However, despite the implementation of GASB 75, *Figure 3* illustrates that Nashville's total net position had begun to deteriorate at a rapid pace well before the total unfunded obligation for other post-employment benefits (OPEB) was required to be recognized as a liability in the financial statements.

As reported in this latest CAFR, net position decreased by an additional $242 million to a deficit position of $3.433 billion. This decrease was driven in large part by a $673 million increase in Nashville's OPEB liability from $3.889 billion in 2018 to $4.562 billion in 2019. A significant portion of the increase in 2019 was the result of a change in assumptions as applied by the City's actuary.

Total net position as presented above is comprised of three categories:

- *Net investment in capital assets* consists of capital assets, net of accumulated depreciation and reduced by outstanding debt that is attributable to the acquisition, construction and improvement of those assets. Nashville's capital assets include all of its property and equipment, land, infrastructure, and major construction projects in progress. The *net investment* in these assets is essentially calculated as their total cost, less:

    - the cumulative amount that the assets have depreciated since being put in service, and
    - the outstanding debt that was incurred to finance their acquisition and construction.

  The *net investment* amount should also be increased for debt proceeds on hand that have not yet been spent on acquisition or construction.

- *Restricted net position* consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. The restricted category is typically the result of externally imposed factors such as debt covenants or enabling legislation that requires the government to maintain certain reserves. Examples of such restrictions include:

    - Debt agreements that may require that a government hold a specific amount of future principal and interest payments in reserve.

    - Legislation adopted by states that require local governments to maintain reserves for the stabilization of tax or utility rates in the event of volatile economic conditions or catastrophic events.

- *Unrestricted net position* consists of net position which does not meet the definition of the two preceding categories. As such, the unrestricted category is a primary indicator of the extent to which the government's financial strength is fortified in excess of resources that have been either invested in capital assets or are required for compliance with externally imposed restrictions.

While Nashville managed to maintain a positive *total* net position during the fiscal years from 2010 through 2014, a positive *unrestricted* net position has not been reported since prior to fiscal year 2009 as reflected in *Figure 4* below:

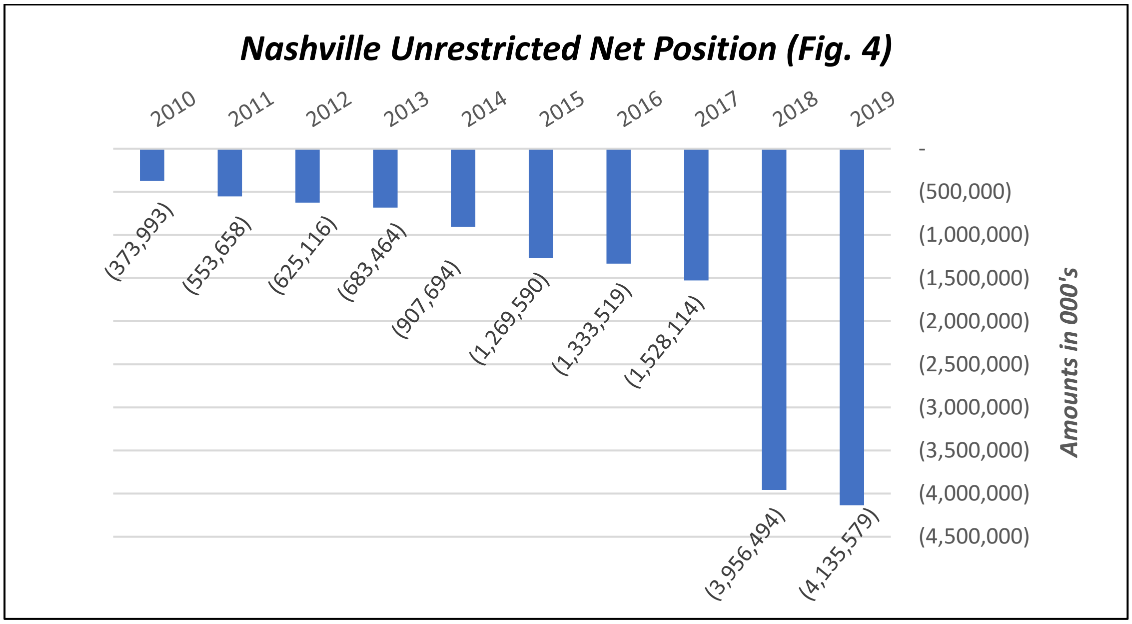


Figure 4 illustrates that by excluding those portions of total net position that have been invested in capital assets or that must be maintained by externally imposed requirements, unrestricted net position has decreased at an average of over $179 million annually prior to a $2.4 billion drop in 2018.

The ability of a government to sustain itself is dependent on the extent to which it can generate revenues in the form of taxes, fees, grants, and contributions to fund the cost of efficiently providing required services and performing essential functions. Because the primary motive of government is sustainability for the purpose of serving constituents versus profitability, maximizing the excess of revenues over expenses is not a priority. However, generating sufficient revenues to at least cover the expense of operations is imperative.

As reflected in *Figure 5* below, Nashville's expenses have exceeded its revenues for each of the fiscal years for the period from 2010 through 2019. This recurring deficiency in revenues compared to expenses has driven the decreases in total and unrestricted net positions described above.

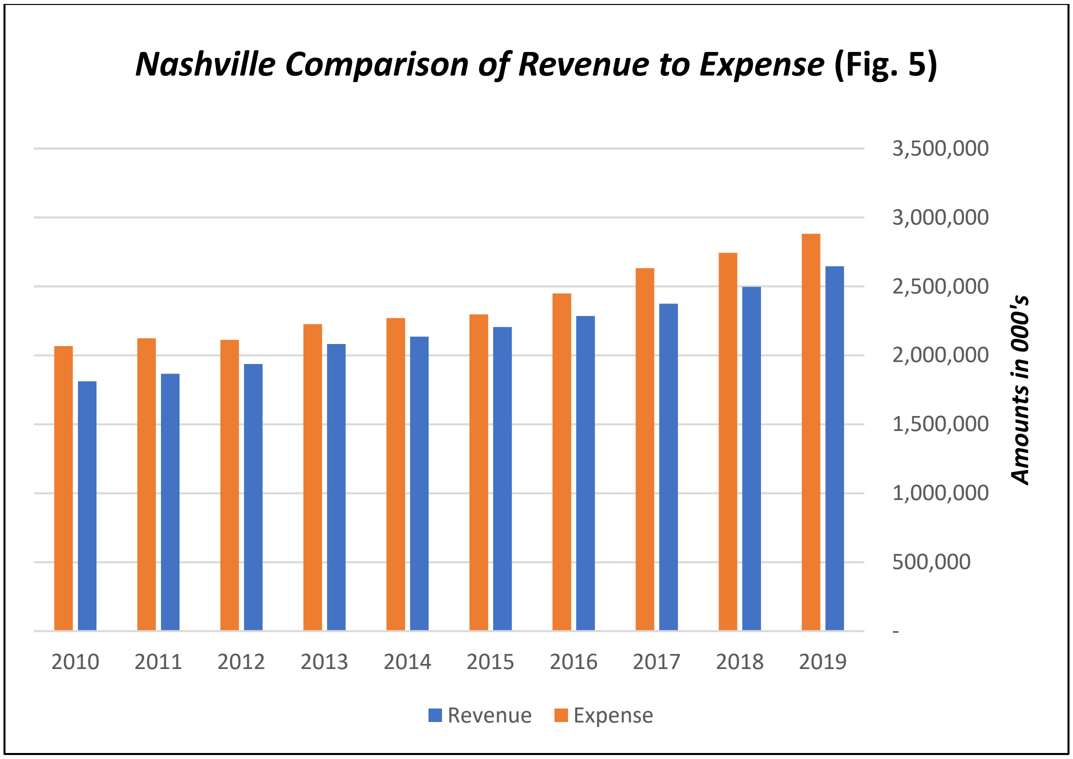


Figure 6 below presents a comparison of the average change in total net position as a percent of total revenues among Nashville and the Peer Cities for the ten-year period from 2009 through 2018. As a result of Nashville incurring expenses in excess of revenues for each of the ten years in the period, it has reported an average *decrease* in total position as a percent of total revenues of 9%. This exceeds the average decreases of the other three Peer Cities with negative averages, and reflects significant underperformance compared to those Peer Cities reporting positive changes in total net position.

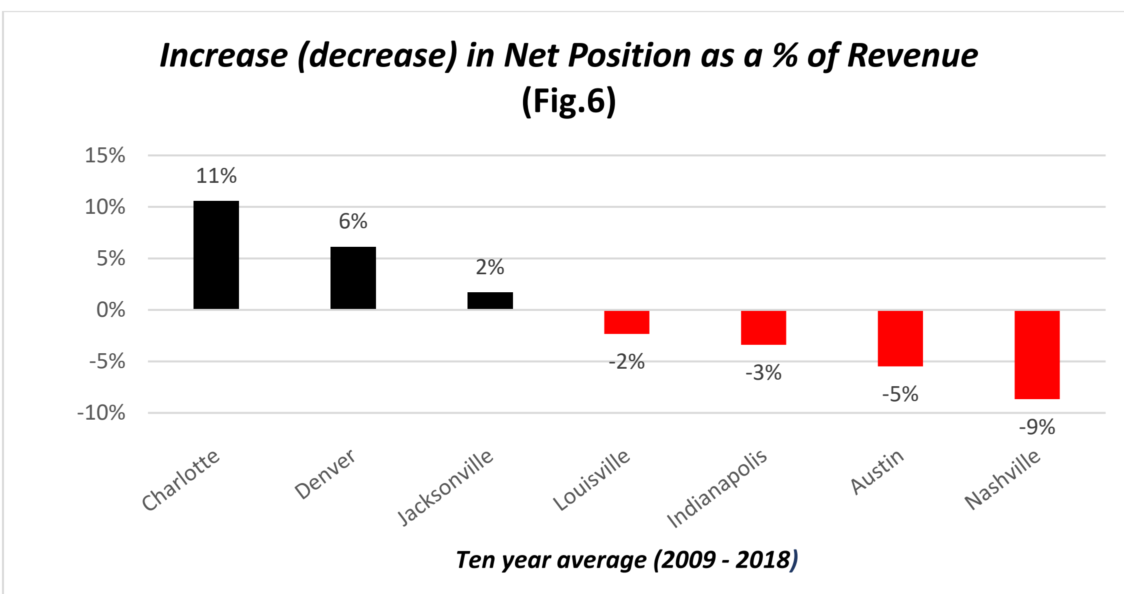
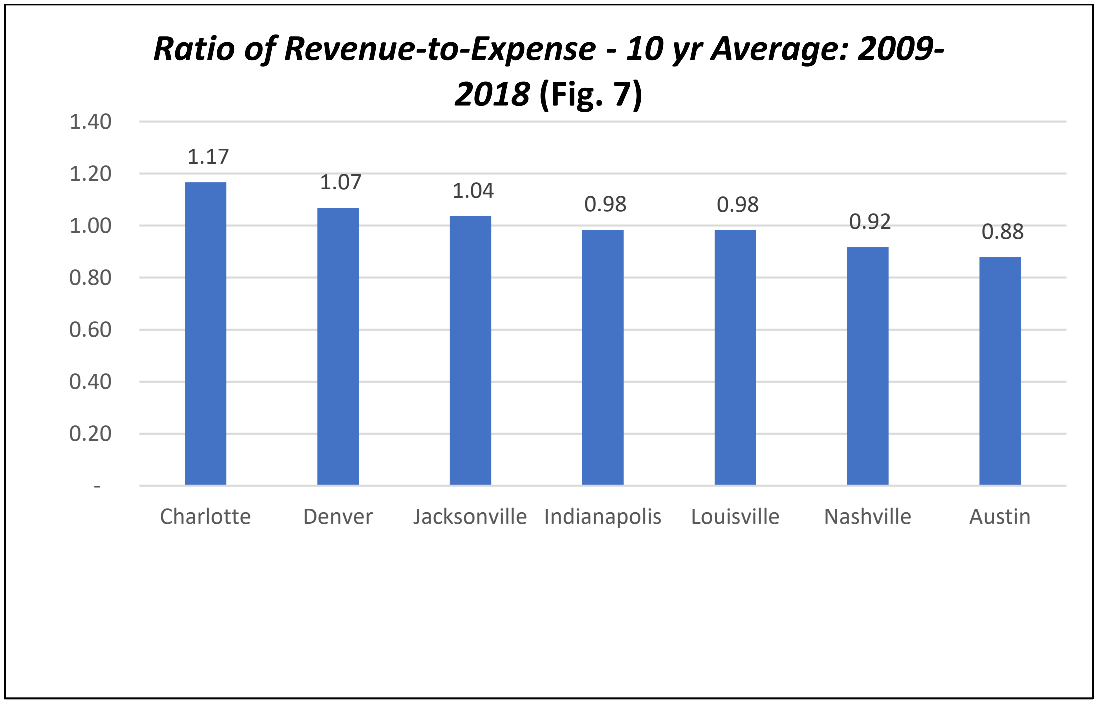


Figure 7 below presents a comparison of the average ratio of revenues-to-expenses among Nashville and the Peer Cities for the same ten-year period. As would be expected, Nashville and those Peer Cities reporting average decreases in total net position as reflected in *Figure 6* are the same entities for which the ratio of revenue-to-expenses are less than 1.0.



Tax Revenue

While strong growth in sales taxes, accommodations taxes and hospitality taxes reflect the significant expansion in Nashville's tourism industry, these sources are a relatively small portion of City's overall revenue mix. Property tax, the City's largest revenue source, has grown more modestly especially in comparison to the growth in property values. This is in large part because the property tax rate has not been increased since 2012.

Property Taxes - Property taxes comprise the largest source of revenue within the general fund, accounting for approximately 53% of total general fund revenues for fiscal year 2018. Other major revenue sources within the general fund and their percent of total general fund revenue for fiscal year 2018 include:

- Local option sales tax (13.2%)
- Other taxes, licenses and permits (15.0%)
- Revenues from other governmental agencies (11.6%)

Within the general fund, property tax revenues and total revenues have grown at average rates of 2.83% and 4.47%, respectively during the five-year period from 2014 through 2018.

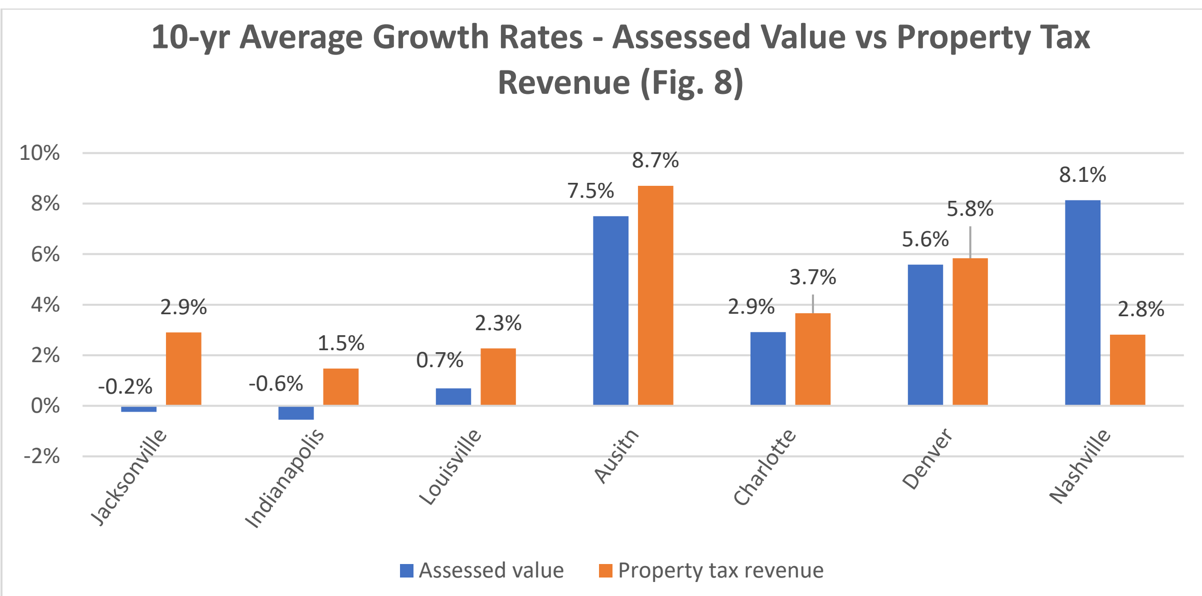
Property tax growth has not kept pace with property values, particularly in recent fiscal years. From 2016 to 2018, the estimated actual value of the General Services District (GSD) taxable property increased by over 47%. Despite a reassessment that resulted in a comparable increase in total assessed values, property tax rates were rolled back for the Urban Services District (USD) and the GSD as follows:

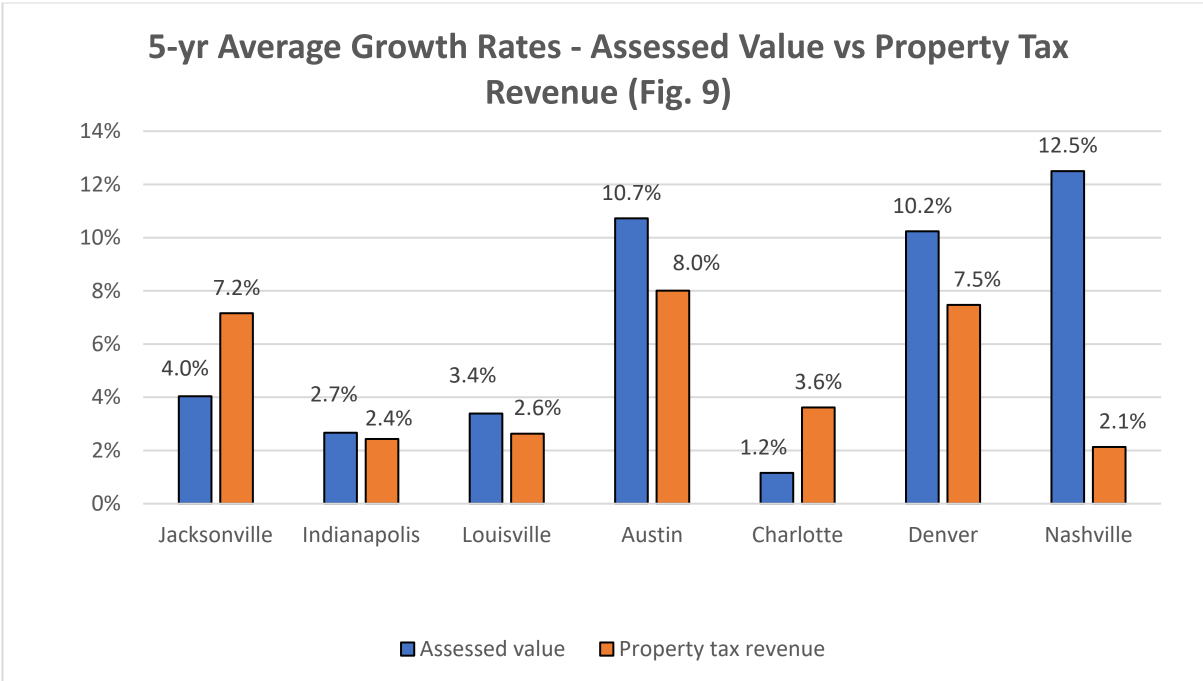
- USD – rates were rolled back from $4.516 per $100 of assessed value in 2017 to $3.155 per $100 of assessed value in 2018

- GSD - rates were rolled back from $3.294 per $100 of assessed value in 2017 to $2.755 per $100 of assessed value in 2018

While the above rollbacks were intended to result in a state-required revenue-neutral effect on property taxes, Nashville did not anticipate extensive taxpayer appeals. As a result, despite unprecedented increases in assessed values, property taxes for 2018 increased by less than 3% and fell short of budgeted amounts.

Figures 8 and *9* below present comparisons of growth rates in assessed values to growth rates in property tax revenue for each of the Peer Cities. The growth rates reflect 10-year averages for the period from 2009 through 2018 and 5-year averages for the period from 2014 through 2018. For the 10-year averages, growth in property tax revenues have exceeded the growth in assessed values for each of the Peer Cities. However, Nashville's property tax revenue growth of 2.8% has significantly trailed the City's 8.1% increase in assessed values. In the 5-year presentation, recent robust economic conditions resulted in assessed values outpacing revenues for all the cities except for Jacksonville and Charlotte. Nashville's lag in revenue growth compared to assessed values is much more pronounced compared to the 10-year presentation as the thriving economy combines with Nashville's 2017 rollback to widen the gap by an additional 5 percentage points.





It is noteworthy that Tennessee law requires local governments that undergo a reassessment to calculate a revenue neutral rate or "Certified Tax Rate". However, a higher rate may be adopted if Council takes the following required actions: 1) hold a public hearing regarding the "Certified Tax Rate" versus the higher rate, and 2) adopt an ordinance or resolution establishing a tax rate that exceeds the "Certified Tax Rate". There is precedent for adopting a higher rate in cases where a revenue neutral rate would produce an unbalanced budget due to expenditures out-pacing revenue growth. According to web page of Nashville's Property Assessor: "to date, this was done (5) five times, but not during the prior three 2009, 2013 and 2017 reappraisals." The last increase in the property tax was in 2012 when the tax rate was increased $.53 or about 13%. Reluctance to take such action was likely a contributing factor in diminishing Nashville's unrestricted fund balance significantly below those balances reported by the Peer Cities and the level recommended by the GFOA.

Tax Growth Factors - In addition to property taxes, Nashville generates sales taxes, accommodations taxes, and hospitality taxes as major revenue sources. These three categories of tax revenue grew at the following average rates during the period from 2015 through 2019:

- Sales taxes 7.38%
- Accommodations taxes 12.53%
- Hospitality taxes 10.18%

Growth rates for these taxes have been driven largely by significant increases in population, tourism, and overall spending.

According to the US Census Bureau, Nashville's population grew by 10.9% during the period from 2010 to 2018, adding more than 60,000 people.

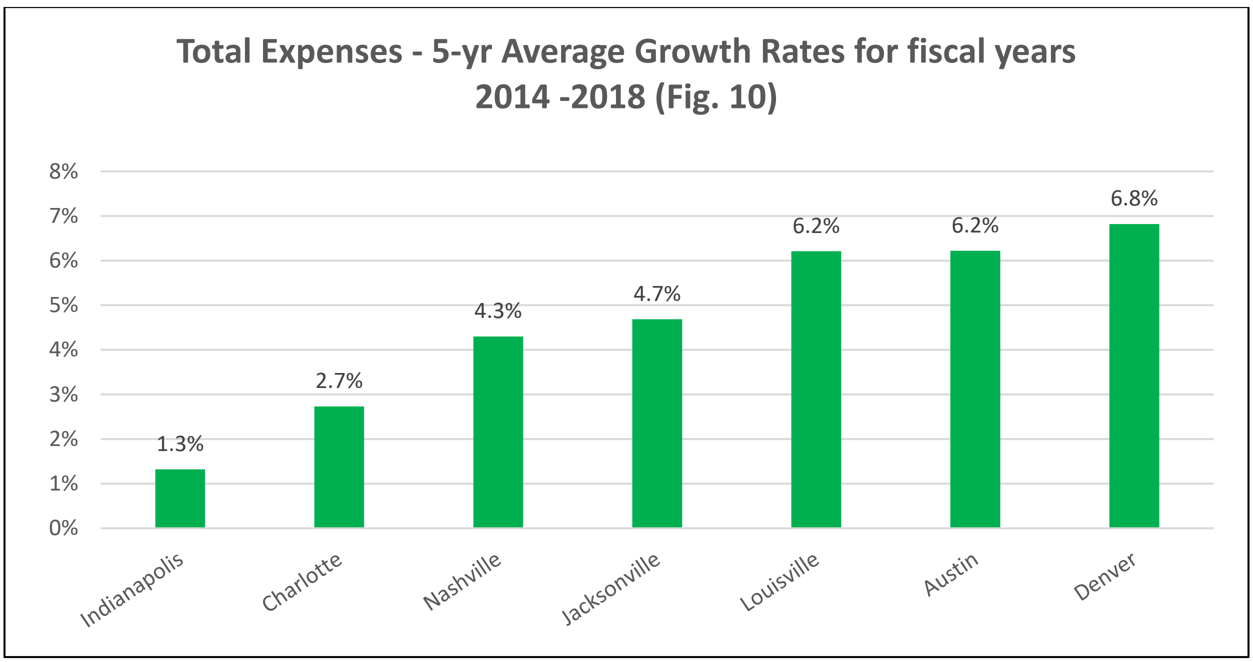
The Nashville Convention and Visitors Corporation (CVC), has reported that the number of visitors to the City grew from 14.5 million in 2017 to 15.2 million in 2018, and increased to 16.1 million in 2019. The CVC also estimates that direct spending by visitors for the City's New Year's Eve event increased from $22.3 million in 2017 to $23 million in 2018, and generated $23 million again in 2019.

Accommodations and hospitality tax revenues specifically have grown as a result of the City recently adding hotels and restaurants at a rapid pace. The CVC reports that for the period from 2013 to 2018 the number of hotel rooms increased by 16.6% from 26,175 to 30,509. At the time of this report, it was estimated that an additional 20 hotels were expected to open in 2019. The CVC also reports that the City added 113 new restaurants in 2017 and 133 in 2018.

Expense Analysis

This portion of the expense analysis compares growth rates in total expenses among Nashville and the Peer Cities for the period from 2014 through 2018. It also evaluates expense trends for Nashville during the period from 2015 through 2019 using the most recently issued 2019 CAFR.

Figure 10 below reflects 5-year average growth rates in total expenses for Nashville and the Peer Cities ranging from 1.3% for Indianapolis, to 6.8% for Denver. At 4.3%, Nashville's average rate of growth in total expenses falls squarely in the median of the respective average growth rates for the Peer Cities. These growth rates refer to expenses as reported on the full accrual basis in the government-wide section of the respective CAFR's of each city. Therefore, they largely consist of operating costs and do not include investments in infrastructure or other capital expenditures.



The table below summarizes total expenses for the primary government including both governmental and business-type activities. Total expenses grew from $2.553 billion in 2015 to $3.167 billion in 2019, a 24% increase. Over the five-year period, growth rates for education, law enforcement, fire department and code regulation and inspection expenditures were similar to the overall growth rate. Public Works and Water and Sewer Services grew at significantly different rates; Public Works expenditures grew at a much higher rate of 47.4% and Water and Sewer expenditures grew at a much slower rate of 12.3%.

Expense Growth 2015 - 2019 (Fig. 11)				
			Increase	
(amounts in 000's)	2015	2019	$	%
Education - MNPS	$ 907,504	$ 1,124,977	$ 217,473	23.96%
Law enforcement - MNPD	353,933	421,429	67,496	19.07%
Fire - MNFD	152,045	183,783	31,738	20.87%
Public works	191,499	282,226	90,727	47.38%
Regulation and Inspection	11,216	13,878	2,662	23.73%
Water and sewer	213,926	240,195	26,269	12.28%
All other categories	722,817	900,017	177,200	24.52%
Total primary government	$ 2,552,940	$ 3,166,505	$ 613,565	24.03%

During the period from 2015 to 2019, an expansion in Public Works led to an increase in full time employees (FTE's) from 388 to 434, a growth rate of 12%. Water and Sewer employment grew at a much more modest rate of 2%. Other line items were kept in check due to revenue constraints. The expenditure trends are depicted in the following table:

Employment Growth 2015 - 2019 (Fig. 12)				
			Increase	
(amounts in FTE's)	2015	2019	#	%
Education - MNPS	9,294	9,854	560	6.03%
Law enforcement - MNPD	2,898	3,067	169	5.83%
Fire - MNFD	1,206	1,252	46	3.81%
Public works	388	434	46	11.86%
Internal services				
Fleet	95	106	11	11.58%
Technology	130	148	18	13.85%
Regulation and Inspection	111	118	7	6.31%
Water and sewer	713	727	14	1.96%
All other categories	3,459	3,644	185	5.35%
Total primary government	18,294	19,350	1,056	5.77%

A major contributing factor to the growth in primary government expenses was the annual budgetary practice of allocating funds for pay raises for Nashville employees. Consistently, pay raises were allocated in annual budgets for cost of living adjustments, as well as range and step increases. Since municipal government operations are labor intensive, particularly for the largest departments (education and public safety functions), the annual pay adjustments are a significant inflation factor on the total budget.

The other major contributing factor in the growth was the opening of new facilities, primarily schools, and the expansion of services and programs. In order to staff the new facilities and expand services from 2015 through 2019, a total of 1,056 new FTE's were added to the Nashville workforce. This represents a 5.87% increase in total FTE's.

The following table highlights the driving factors for service increases for the period from 2015 through 2019:

Summary of Explanations for Expense Growth by Fiscal Year (Fig. 13)					
	2015	**2016**	**2017**	**2018**	**2019**
Education - MNPS	Operating costs associated with three new charter schools and additional pre-K classrooms	Operating cost associated with seven new charter schools and two new district schools, 100 new employees, and investments in "Reading Recovery" the literacy program	Operating costs associated with one new charter school and two new district schools, start-up costs for English language and literacy initiatives, and 250 new positions, including teachers, bus monitors, and special education bus drivers	Further expansion of the literacy and English language programs	
Law enforcement - MNPD	Operating costs associated with a new Midtown Hills Precinct, special events policing, accreditation of the crime laboratory, and another $1 million for the domestic violence program	Additional special events funding and full year funding of the accredited crime lab	Six new officers for domestic violence programming and seven additional employees for crime lab, special events and youth services	$3.7 million for seventy new officers	Two new positions for the secondary employment unit.
Fire - MNFD			Four additional paramedics	$1.9 million for fourteen new fire and inspection positions	
Public works			$1.3 million for an expansion of cleaning crews	$1.7 million increase, including additional transportation planning and the glass recycling initiative	$2.3 million to extend services to areas of Davidson County annexed into the Urban Service District
Regulation and Inspection			Three new positions added		

As is the case with each of the Peer Cities, Nashville dedicates a significant portion of the City's budget to public safety and law enforcement. The FBI compiles an annual survey of local law enforcement staffing metrics for US cities with jurisdictions exceeding 500,000 citizens. Based on the survey conducted for 2016, *Figure 14* below reflects a comparison of the number of police officers and other department personnel comprising the police department staffs of Nashville and each of the Peer Cities. The metrics are presented on a per capita basis of staff per 10,000 citizens. The comparison excludes Louisville as they did not submit a response to the survey.

As indicated by the table, the number of police officers and total personnel for Nashville is consistent with the national median for all jurisdictions with over 500,000 people. It is also fairly consistent with the Peer Cities. The somewhat lower numbers of officers per capita in Indianapolis and Austin is likely driven by the specific demographics, income, and education levels existing within those cities.

Law Enforcement Personnel per 10,000 Citizens (Fig. 14)

	Officers	**Total personnel**
Nashville	20.9	25.5
Denver	21.9	25.7
Indianapolis	18.6	20.8
Jacksonville	20.0	33.5
Charlotte	19.4	25.7
Austin	18.9	24.7
Median for Cities >500K People	**20.7**	**26.8**

It should be noted that recruiting officers is typically a challenge for medium to large U.S. cities. A 2019 article in *The Tennessean* described Nashville having experienced this issue based on a Grand Jury study in which only 1,380 law enforcement positions were filled out of 1,511 that were authorized.

Financial Forecast

Overview

This portion of the Study illustrates potential options for Nashville to generate additional property tax and/or sales tax revenues for the purpose of decreasing City's future reliance on one-time revenues, while also building adequate fund balance reserves.

As a fiscal management tool, a well-developed forecast presents estimates of revenues, expenditures and fund balances based upon past, current, and projected financial conditions. Financial forecasts help identify trends such as structural imbalances between revenue and expenditure growth, over-reliance on non-recurring revenues, and retention of reserves (fund balance) within desired parameters. An effective forecast contributes to improved budgeting, fiscal discipline and enhanced delivery of essential services.

Financial forecasting is an acknowledged best practice by the GFOA which recommends "*that governments at all levels forecast major revenues and expenditures. The forecast, along with its underlying assumptions and methodology, should be clearly stated and made available to stakeholders in the budget process. It should also be concisely presented in the final budget document. The forecast should be regularly monitored and periodically updated.*"

The Study incorporates a hybrid method of forecasting involving extrapolation and regression/econometrics. Extrapolation uses historical data to predict future outcomes by projecting historical outcomes forward, while regression/econometrics assumes a linear relationship between independent variables such as cost drivers or inflationary factors and future expenditures. A five-year forecast was developed, projecting forward from actual revenues, expenditures, and changes in fund balance as reported in fiscal year 2019 CAFR.

Forecast Assumptions

The forecast estimates five years of general fund revenues, expenditures, and fund balances. The forecast does not include Nashville's other governmental funds, proprietary funds (e.g. enterprise funds and internal service funds), fiduciary funds (e.g. pension trust funds), or the funds of component units (e.g. Sports Authority Fund).

Revenues – Forecasted revenues are based on a five-year historical trend as reported for the fiscal years from 2015 through 2019. Historical average growth rates by major revenue category were applied to future periods to estimate revenues for fiscal years 2020 through 2024. Major revenue categories include property taxes, sales tax, other taxes, license and permits, intergovernmental revenues, and charges for current services.

Nashville's recently announced amendments for the fiscal year 2020 budget include revenue expected to be generated in the form of payments in lieu of taxes (PILOT) from the following sources: 1.) water and sewer services and 2.) convention and tourism revenue. These revenue estimates were not available at the time of the Study, and therefore are not included in the forecasted revenues. Also, while Nashville has scheduled a property reassessment to occur in 2021, the baseline estimates presented in the forecast assumes no significant revenue changes will occur (i.e. a revenue neutral tax rate is assumed).

Expenditures - Assumptions for future growth in spending categories were based on 1.) five-year historical growth trends or 2.) common cost drivers such as health care trend rates, and cost of living adjustments as measured by the *consumer price index*. The estimated rate of growth assumed for each of the major expenditure categories is provided in *Figure 15* below:

***Expenditure Assumed Growth Rates (* Fig. 15)**	
Personal services	4.50%
Utilities	2.50%
Professional services	2.50%
Travel, tuition, dues	2.50%
Communications	5.00%
Repairs and maintenance	4.50%
Internal service fees	4.50%
Other expenses	3.25%
Retiree benefits	9.00%
Miscellaneous	6.27%
Capital spending	4.00%

Net transfers from the general fund of $109 million accounted for a significant portion of the reduction in fund balance in 2019. Transfers represent amounts that a government may move from one fund to another typically to cover expenditures in excess of revenues for a given fund. For the 10-year period from 2010 through 2019, net transfers from the general fund increased annually at an average rate of 14.7%. However, due to the extent that management controls transfers, for purposes of the forecast, net transfers from the general fund were assumed to remain unchanged for each of the five forecasted periods.

Recurring cost impact from projects included in the Capital Spending Plan for fiscal years 2020 and 2021 were added to the expenditure forecasts and estimated to grow by 4% in fiscal years 2022-2024.

General Fund Forecast

The results of the five-year forecast of Nashville's General Fund revenues and expenditures are summarized in *Figure 16* below.

***Forecasted General Fund Condensed Statement of Revenues, Expenditures, and Changes in Fund Balance for the Years ended June 30,* (Fig. 16)**

Amounts in millions	Actual	Forecasted				
	2019	2020	2021	2022	2023	2024
Revenues	$ 1,075	$ 1,122	$ 1,162	$ 1,215	$ 1,272	$ 1,331
Expenditures	951	1,009	1,070	1,124	1,181	1,240
Revenues over (under) expenditures	124	113	92	91	91	91
Net transfers out	(109)	(109)	(109)	(109)	(109)	(109)
Net change in fund balance	15	4	(17)	(18)	(18)	(18)
Beginning fund balance	76	91	95	78	60	42
Ending fund balance	$ 91	$ 95	$ 78	$ 60	$ 42	$ 24

Growth rates for property taxes and sales taxes, as driven by recent trends in economic development, are assumed to continue as they have in the previous five fiscal years. However, as reflected in historical trends, forecasted expenditure growth is assumed to out-pace the forecasted growth in revenue. Key pressures on recurring expenditures include employee compensation, pension, OPEB, debt service requirements, and operating costs associated with the completion of capital improvements. The above forecast anticipates a fundamental structural imbalance between recurring revenues and recurring expenses, and it indicates the need for policy steps to protect and strengthen fund balance reserves in the general fund.

Forecast Scenarios

Three scenarios are presented below which incorporate certain assumptions as applied to the "baseline" forecast reflected in *Figure 16* above. An underlying assumption common to all three scenarios is that Nashville's anticipated decrease in fund balance beginning in fiscal year 2021 is driven primarily by the need for additional revenues versus a significant reduction in expenditures. And further, that the source of additional revenue is in the form of increased property taxes and/or sales taxes.

The following scenarios illustrate the potential impact of property tax and/or sales tax increases required to 1.) achieve targeted "unrestricted fund balance" reserves (as defined by the GFOA and calculated as a percentage of estimated annual expenditures), 2.) provide additional funding for affordable housing initiatives, and 3.) prevent future decreases in fund balance. For purposes of the scenarios, the unrestricted fund balance percentages are based on the GFOA's recommended minimum of two months of expenditures in unrestricted fund balance:

- *Scenario One*– Determine the level of property tax increase required to:
    - Eliminate the forecasted negative "net change in fund balance" as reflected in *Figure 16* above for each of the four years 2021, 2022, 2023, and 2024, and
    - Implement a property tax rate increase as required to achieve an unrestricted fund balance reserve of 10% of expenditures in 2021, 12% in 2022, 14% in 2023, and 16.7% in 2024.

As reflected in the baseline forecast at *Figure 16*, the excess of expenditures and net transfers over revenues depletes fund balance to $24 million by 2024. Scenario One (*Figure 17*) assumes that property tax rates are adopted which increase revenues compared to the amounts reflected in the baseline forecast by 5%; 7.5%; 7.5%; and 9% for the respective fiscal years 2021; 2022; 2023; and 2024[1]. This increase in property taxes serves to eliminate the annual negative change in fund balance and reach the targeted fund balance percentages.

[1] These percentages are not property rate increases, but represent increases in property tax revenue generated from an assumed increase in rates.

Scenario One - Forecasted General Fund Condensed Statement of Revenues, Expenditures, and Changes in Fund Balance for the Years ended June 30, (Fig. 17)						
Amounts in millions	Actual		Forecasted			
	2019	2020	**2021**	**2022**	**2023**	**2024**
Revenues (as originally forecasted)	$ 1,075	$ 1,122	$ 1,162	$ 1,215	$ 1,272	$ 1,331
Property tax increase	-	-	30	45	48	59
Adjusted revenues	1,075	1,122	1,192	1,260	1,320	1,390
Expenditures	951	1,009	1,070	1,124	1,181	1,240
Revenues over (under) expenditures	124	113	122	136	139	150
Net transfers out	(109)	(109)	(109)	(109)	(109)	(109)
Net change in fund balance	15	4	13	27	30	41
Beginning fund balance	77	92	96	109	136	166
Ending total fund balance	$ 92	$ 96	$ 109	$ 136	$ 166	$ 207

- *Scenario Two* – Reflect the impact of the following:
  - Implement a quarter cent sales tax increase to be allocated between the General Fund and Metro Nashville Public Schools (MNPS), and
  - Implement a property tax rate increase as required to achieve the same unrestricted fund balance reserve of 10% of expenditures in 2021, 12% in 2022, 14% in 2023, and 16.7% in 2024.

Under Scenario Two (*Figure 18*) a quarter-cent sales tax rate increase is assumed to be effective beginning in fiscal year 2021. Proceeds from the increased sales tax would be divided equally between the General fund and MNPS. Also assumed is the adoption of property tax rates to increase annual revenues compared to the amounts reflected in the baseline forecast by 0.5%; 2.5%; 2.5%; and 4%, for the respective fiscal years 2021; 2022; 2023; and 2024[1].[2] The combined increases in rates for property tax and sales tax serve to eliminate the annual negative change in fund balance and reach the targeted fund balance percentages.

[1] These percentages are not property rate increases, but represent increases in property tax revenue generated from an assumed increase in rates.

Scenario Two - Forecasted General Fund Condensed Statement of Revenues, Expenditures, and Changes in Fund Balance for the Years ended June 30, (**Fig. 18)**						
Amounts in millions	Actual		Forecasted			
	2019	2020	**2021**	***2022***	***2023***	***2024***
Revenues (as originally forecasted)	$ 1,075	$ 1,122	$ 1,162	$ 1,215	$ 1,272	$ 1,331
Sales tax increase	-	-	28	30	32	34
Property tax increase	-	-	2	15	16	25
Adjusted revenues	1,075	1,122	1,192	1,260	1,320	1,390
Expenditures	951	1,009	1,070	1,124	1,181	1,240
Revenues over (under) expenditures	124	113	122	136	139	150
Net transfers out	(109)	(109)	(109)	(109)	(109)	(109)
Net change in fund balance	15	4	13	27	30	41
Beginning fund balance	77	92	96	109	136	166
Ending fund balance	$ 92	$ 96	$ 109	$ 136	$ 166	$ 207

- *Scenario Three* – Reflect the impact of the following:
    - Implement a quarter cent sales tax increase to be allocated between the general fund and MNPS,
    - Appropriate an additional $10 million for affordable housing, and
    - Implement a property tax rate increase as required to achieve the same unrestricted fund balance reserve of 10% of expenditures in 2021, 12% in 2022, 14% in 2023, and 16.7% in 2024.

Under Scenario Three (*Figure 19*) a quarter-cent sales tax rate increase continues to be assumed with proceeds divided equally between the general fund and MNPS as required by State law. Also assumed is the adoption of property tax rates to increase annual revenues compared to the amounts reflected in the baseline forecast by 2%; 4%; 4%; and 5.5%, for the respective fiscal years 2021; 2022; 2023; and 2024[13].Finally, Scenario Three assumes an annual $10 million appropriation for affordable housing, which has been reflected as an increase in expenditures in *Figure 19*. The increases in rates for property tax and sales tax combined provide the additional $10 million in appropriations, eliminate the annual negative change in fund balance, and reach the targeted fund balance percentages.

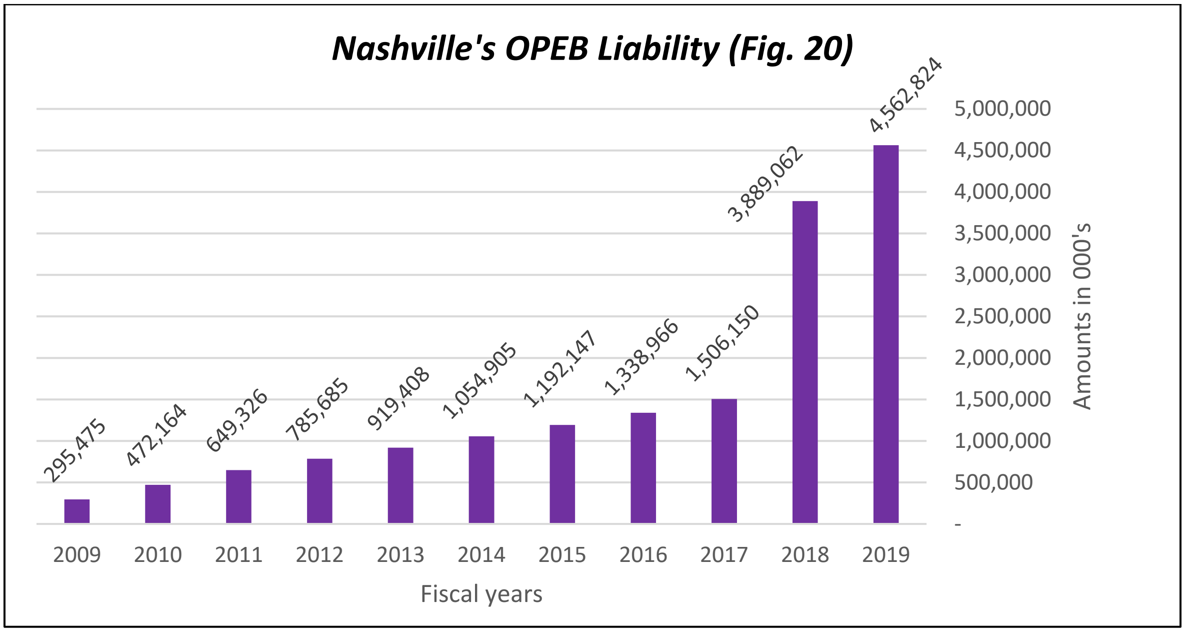
[1] These percentages are not property rate increases, but represent increases in property tax revenue generated from an assumed increase in rates.

***Scenario Three - Forecasted General Fund Condensed Statement of Revenues, Expenditures, and Changes in Fund Balance for the Years ended June 30,* (Fig. 19)**

Amounts in millions	Actual		Forecasted			
	2019	2020	2021	***2022***	***2023***	***2024***
Revenues (as originally forecasted)	$ 1,075	$ 1,122	$ 1,162	$ 1,215	$ 1,272	$ 1,331
Sales tax increase	-	-	28	30	32	34
Property tax increase	-	-	13	26	26	35
Adjusted revenues	1,075	1,122	1,203	1,271	1,330	1,400
Expenditures	951	1,009	1,080	1,134	1,191	1,250
Revenues over (under) expenditures	124	113	123	137	139	150
Net transfers out	(109)	(109)	(109)	(109)	(109)	(109)
Net change in fund balance	15	4	14	28	30	41
Beginning fund balance	77	92	96	110	138	168
Ending fund balance	$ 92	$ 96	$ 110	$ 138	$ 168	$ 209

Other Post-Employment Benefits

As reflected in *Figure 20* below, as of June 30, 2019, Nashville carried an OPEB liability of approximately $4.6 billion which is an increase of $673 million over 2018. While new accounting requirements (as summarized in the next section) resulted in a spike in fiscal year 2018, the City's OPEB liability had already been growing at an average annual rate of 34% from 2009 through 2017.



<u>GASB 75</u>

Beginning in the fiscal year ending June 30, 2018, a new accounting and reporting standard became effective that required municipalities sponsoring OPEB plans to recognize the unfunded liabilities of those plans in their statements of net position. OPEB plans provide retirement benefits other than pensions, and usually consist of health coverage, but may also include life insurance or other benefits.

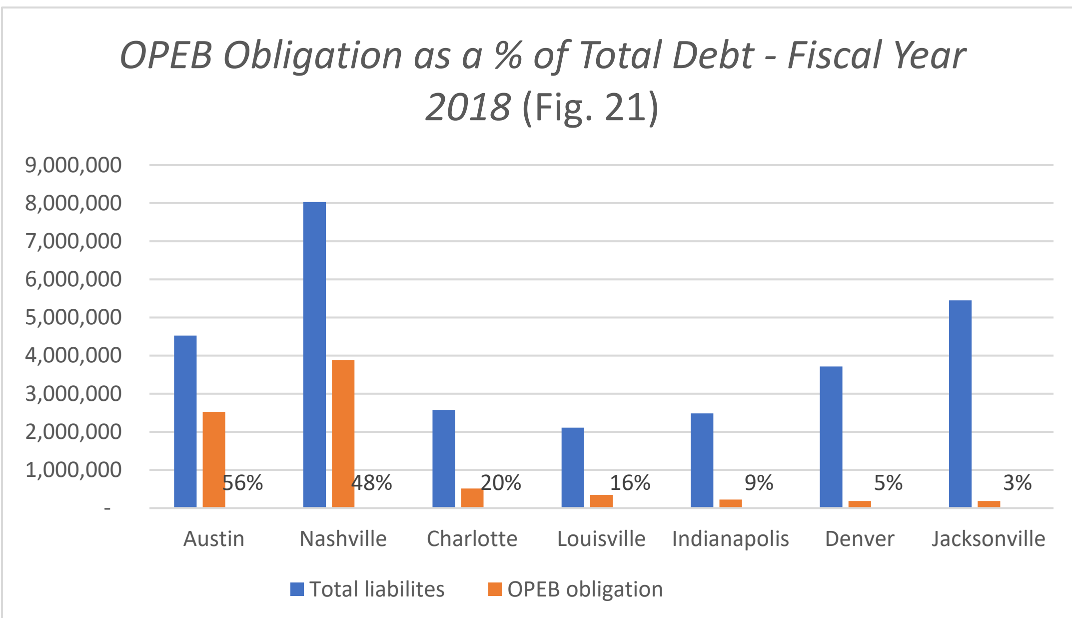
The new reporting requirements were established by *Statement Number 75* of the *Government Accounting Standards Board* (GASB 75). Prior to 2018 and the implementation of GASB 75, rather than reporting the full unfunded obligation related to their OPEB plans, municipalities were only required to report a liability to the extent that it did not fulfill its *annual required contribution* (ARC) as calculated by an actuary. In other words, in comparing the OPEB obligation to a mortgage, the reported liability was basically limited to the total of any missed mortgage payments versus the full outstanding mortgage balance.

GASB 75 significantly changed how the OPEB liability is calculated and reported, as municipalities now must report the entire unfunded liability in their statements of net position. This change has driven drastic increases in OPEB liabilities being reported in the statements of net position for nearly all municipalities sponsoring defined benefit retiree health plans. As a result, the unrestricted net position for many municipalities has been substantially decreased if not reduced to a negative balance. The effect for Nashville was even more pronounced as it had been reporting negative unrestricted net position for each of the nine years preceding implementing of GASB 75 (see *Figure 4* at page 15).

It should be noted that GASB 75 applies only to an entity's government-wide financial statements and not to the governmental fund financial statements. As such, while the OPEB liability reduces *net position* it does not directly affect *fund balance* beyond annual payments that are reported in the governmental funds to cover benefits that have come due, or as assets placed in trust to fund future benefits.

Funding

Figure 21 below presents a comparison of OPEB liabilities among Nashville and the Peer Cities. As of June 30, 2018, Nashville's OPEB liability amounted to 48% of total liabilities reported in its governmental activities, exceeded only by Austin at 56%. Compared to the other five Peer Cities, the OPEB liabilities of Austin and Nashville are significantly greater in terms of both in dollar amount and as a percentage of total liabilities.



While there are a number of factors that affect the size and growth of an entity's OPEB obligation, the decision of whether or not to pre-fund the liability by setting assets aside for the payment of *future* benefits is key. GASB 75 does not require that a municipality fund its OPEB liability. However, it does stipulate that in terms of funding OPEB costs the liability as reported can only be reduced through assets that are placed in a qualified trust established strictly for the purpose of paying future benefits. As a result, once placed in the trust, assets are required to be used for the payment of future benefits and cannot be accessed for any other purpose.

Nashville does not currently pre-fund its OPEB liability but rather uses the pay-as-you-go (or "pay-go") option in which benefits are only paid when they become due, versus as they are earned. While most municipalities continue to use the pay-go method, a growing number are beginning to contribute assets to qualified trusts in an effort to manage their OPEB liabilities. This is largely driven by the fact that the ongoing use of the pay-go method results in continued rapid growth of an entity's OPEB liability. Ever-increasing OPEB obligations have caused great concern among stakeholders including taxpayers, investors, and unions. Unions for example, are highly protective of their members' retirement benefits, and therefore have a distinct interest in a government's ability as an employer to pay those benefits well into the future. Most notably, large OPEB liabilities that are not being adequately managed have become a point of emphasis for stakeholders including each of the credit rating agencies. As municipalities have become increasingly aware of this, developing and implementing a plan to reduce their OPEB liabilities has become a priority in order to mitigate the risk of a credit downgrade and the resulting increase in the cost of borrowed funds.

Comparison of Peer City Liabilities and Benefits

The difference in the level of OPEB liabilities among Nashville and the Peer Cities is the result several factors including funding methods, benefits provided, and required employee contributions. *Figure 22* below reflects key metrics for Nashville and each of the Peer Cities.

OPEB Metrics Comparison (**Fig. 22)**

		Peer Cities					
	Nashville	Austin	Charlotte	Denver	Indianapolis	Jacksonville	Louisville
Total OPEB liability	$3.889 billion	$2.525 billion	$605 million	$285 million	$233 million	$188 million	$345 million
Fiduciary net position	$ -	$ -	$89.3 million	$73.8 million	$11.9 million	$ -	$ -
Net OPEB Liability	$3.889 billion	$2.525 billion	$516 million	$211 million	$221 million	$188 million	$345 million
Covered payroll	$878 million	$968 million	$402 million	$542 million	$312 million	$379 million	$305 million
Annual OPEB expense	$243 million	$213 million	$26 million	$16 million	$18 million	$9.8 million	$47 million
Net OPEB liability as a % of covered-employee payroll	443%	261%	134%	39%	71%	49%	113%

For fiscal year 2018, three of the Peer Cities (Charlotte, Denver, and Indianapolis) had established an irrevocable trust for purposes of pre-funding their respective OPEB liabilities. This is indicated by the reporting of a "fiduciary net position" which serves to offset the total OPEB obligation and results in a reduced "net" liability. As would be expected based on the size of their liabilities, Nashville and Austin incurred the greatest annual expense of $243 million and $213 million, respectively.

The total liability for each municipality is also presented relative to its "covered payroll" which represents the compensation paid to employees who are active in the plan. At 443%, Nashville's net liability is over four times its covered payroll. This far exceeds Austin's 261%, which itself is significantly greater than the percentages of the other five Peer Cities. This is further pronounced by the fact that both Nashville and Austin report traditional compensation paid to covered employees that is roughly 2 to 3 times that of the other Peer Cities.

Noteworthy is the significantly reduced annual expense reported by the other five Peer Cities compared to that of Nashville and Austin. While the decision to pre-fund future benefits on the part of Charlotte, Denver, and Indianapolis contributes in part to this difference, it is also largely due to the variance in benefits offered, and the extent to which employee contributions are required. The following is a summary of the primary characteristics of each municipality's respective plans:

Nashville - Nashville provides insurance to both retirees and eligible family members. Those retirees who were hired prior to 2013, can participate in the Medical, Dental and Vision programs with the same subsidized premium rates as offered to employees (the City contributes 75% and the retiree contributes 25%). The plan for those over 65 requires that the employee must apply for Medicare which acts as the primary insurer with the Nashville insurance secondary.

Those retirees hired after 2013 can also participate in the insurance program but have a sliding scale for medical premiums as described below. A survivor of a service pensioner or active employee with less than 10 years of service are not eligible to participate

- 10 years, but less than 15 years Nashville 25%, Retiree 75%
- Between 15 – 16 years Nashville 50%, Retiree 50%
- Between 16 – 17 years Nashville 55%, Retiree 45%
- Between 17 – 18 years Nashville 60%, Retiree 40%
- Between 18 – 19 years Nashville 65%, Retiree 35%
- Between 19 – 20 years Nashville 70%, Retiree 30%
- 20 years or more Nashville 75%, Retiree 25%

While Nashville's benefits are provided on a sliding scale, the percentages are more favorable to employees than those of the Peer Cities. In addition, Nashville has based required employee contributions on projected "pay-go" financing requirements which means contributions are at a level sufficient only to cover benefits as they come due. Therefore Nashville's liability continues to grow at a rapid pace as employees accrue service time at a much faster rate than they contribute.

Louisville – Louisville participates in a cost sharing plan operated by the State of Kentucky Retirement System (KRS). All employees are eligible to participate, and membership may be extended to certain beneficiaries under specific circumstances. Health plan benefits are determined by length of service and the type of retirement system in which the employee is enrolled. There is a sliding scale for the portion paid by KRS. The scale ranges from 100% for over 20 years of service to zero for less than 4 years of service in the case of those individuals who enter after 2003. The City contributes 4.7% for each employee in the plan. Plan members are required to contribute 1% of salary for the retirement insurance.

Louisville's plan costs are significantly less than Nashville due largely to the fact that it is participating in a cost-sharing plan in which the State funds much of the benefits.

Indianapolis -The City offers the retirees the option of enrolling in the City's medical plan but the retiree must pay both the employee and City share of the premium. While there is no direct subsidy of the insurance premium, there is an implicit subsidy since the older population would have a higher cost to provide health care.

Because Indianapolis requires the employees to fund 100% of premiums, the City's obligation is limited to an implicit rate subsidy which results in a significantly smaller liability then if traditional employer contributions were required.

Charlotte - The City has established an Employee Benefit Trust Plan in which employees are offered a health plan with a sliding scale for premiums. A 20 year employee pays nothing for a pre-Medicare policy and $176 for a Medicare supplement plan. However the sliding scale results in employee premiums that increase significantly as individuals are further from reaching 20 years of service.

Charlotte's smaller liability compared to Nashville is driven primarily by a less-generous sliding scale and the decision to fund future benefits by placing assets in trust.

Austin - As a matter of policy, the City Council determines the OPEB Benefits annually. There is an Employee Benefit Fund that pays for any benefits provided. Retirees have access to medical, Dental and Vision Insurance. For retirees under the age of 65 with 20 years of services, the City pays the following:

- 80% of the retirees medical premium plus 80% for a Medicare supplement
- 50% of the premiums for retiree dependents, and
- 70% for surviving spouses.

There is a sliding scale of premium rates depending on years of service, with those of less than 5 years of service receiving a 16% subsidy.

Like Nashville, Austin reports a covered payroll amount that is much greater than the Peer Cities, indicating a larger city workforce and significantly more individuals receiving benefits. In addition, the City's plan is generous in its coverage of dependents and surviving spouses.

Jacksonville - The City has a self-insured health plan in which a retiree pays $593 per month for health insurance and a retiree and spouse pay $1,219 per month.

Jacksonville has maintained the smallest liability compared to other Peer Cities due primarily to high employee premiums that are comparable to those paid in private employer health plans.

Denver - The City provides a health plan for retirees. The City's monthly contribution on behalf of the employee for the plan is $6.25 per year of service for Medicare-eligible members ($125/month for a 20-year employee) and $12.50 per year of service for members who are not yet Medicare-eligible ($250/month for a 20-year employee) .

Denver's OPEB program includes multiple employers which share the cost of administering several plans with the City, each with varying limits for entrants after specified dates. In addition the City has begun placing assets in trust to offset the growth in its OPEB liability.

Tax and Fee Burden

This portion of the Study considers the estimated total cost of taxes and fees paid by residents for key services and functions provided by state and local governments. Each of the Peer Cities funds its operations differently depending on their individual structures and relationships to their respective state governments. For example, some cities rely more heavily on property taxes versus sales taxes that are often collected and disbursed by the states. In addition, the extent to which charges for services are imposed to supplement tax revenues varies from city to city. Therefore, in order to facilitate comparability of tax and fee burdens by city the various rates and assessments imposed by each of the Peer Cities were applied to a representative Nashville household having the following assumed characteristics:

- A two-person household in a $250,000 house (Based on data from Clear Capital and reported by Kiplinger)
- Household income of $64,000 (Avg. Nashville household income per 2018 *American Community Survey*)
- Annual spending on food, clothing and other items subject to sales tax, $25,000 (Estimate derived from *US Bureau of Labor Statistics*)
- Consumption of water, 9000 gallons per month (Based on *USGS* website - average per person consumption of 100 gallons per day and outside use of 100 gallons per day)
- Sewer use of 9000 gallons or sewer per month (based on water usage above)
- Electricity, 800 kWh per month (According to the *US Energy Information Administration*)
- Solid waste service (Based on standard residential service)
- Wastewater (Based on one equivalent residential unit)

Total taxes and fees per household were estimated for each municipality as reflected in the table below. The taxes and fees selected for comparison were limited to those imposed by state and local governments with the exception of certain electrical utilities operated by co-ops or other privately owned entities. Under the above assumptions, Nashville's combined burden for the above taxes and fees ranges from 16% to 53% less than all of the Peer Cities. This suggests that Nashville would not be at a competitive disadvantage with the Peer Cities, even if one or more of these taxes or fees were to substantially increase.

***Combined Tax and Fee Burden Comparison* (Fig. 23)**

		Peer Cities					
Tax/fee	Nashville	Austin	Charlotte	Denver	Indianapolis	Jacksonville	Louisville
Property tax	$ 1,972	$ 5,508	$ 2,413	$ 1,393	$ 7,772	$ 4,466	$ 3,540
Income tax (1)	-	-	3,360	2,969	1,293	-	4,608
Sales tax (1), (2)	2,313	2,063	1,853	2,238	1,830	1,830	1,540
Water (3)	497	1,120	772	636	635	472	490
Wastewater (3)	1,282	1,353	1,032	698	1,008	819	597
Solid Waste	149	176	58	144	204	152	93
Electricity (3)	1,249	680	1,005	792	1,169	1,219	1,053
Total	$ 7,462	$ 10,900	$ 10,493	$ 8,870	$ 13,911	$ 8,958	$ 11,921
(1) -	Includes both state and local taxes						
(2) -	Includes hospitality taxes						
(3) -	Includes both base and volume charges						

The primary inputs to estimate the amounts reflected in *Figure 23* consist of individual rates, fees and charges imposed by each of the Peer Cities and/or their respective state governments. A summary of these inputs is presented in *Appendix A*.

Transit

An overview of the funding for Nashville's transit system was performed to include a comparison to transit funding of the Peer Cities. As an in-depth assessment of Nashville's transit system was beyond the scope of this Study, the focus was on the level and sources of funding, and the nature of the transit services provided by the respective systems.

Nashville's current transit system is comprised primarily of a basic network of bus routes and one commuter rail line. In 2018 a major transit plan was presented via referendum. The plan envisioned a major expansion of bus service, a light rail system and commuter rail routes. However, the referendum was rejected by voters. The plan would have cost approximately $5.4 billion and would have funded five light rail lines, bus rapid transit lines, commuter rail and more than a dozen transit centers. The plan was to be funded by dedicated sources, including an expansion of the local option sales tax, an additional levy of hotel/motel tax, an increase in the tax on rental cars and a surcharge on an existing business and excise tax. Geographically, the plan focused on the urban core area of the County. Support in the central part of the County was the strongest but the suburban areas were heavily opposed to the plan.

It is common for transit referendums in US cities to fail multiple times prior to being adopted. For example, transit funding referendums introduced by the City of Seattle failed in 1968, 1970 and 1995, before passing in 1996 and 2016. The 2016 plan, which upon completion will cost in excess of $50 billion, includes the largest rail building program in the country. It will encompass approximately 116 miles of light rail, in addition to commuter rail and bus rapid transit lines. The delay in starting the light rail building program increased costs due to both the inflation in construction costs and a rise in land values brought on by more intense development.

In recent years there has been a relatively high level of success for transit referendums in the United States. A study entitled, *Successful Transit Tax Referendums* (Leadership APTA Class of 2014), reported that of 144 transit tax referendums introduced in 25 states between 2009 and 2014, 76% were successful.

While there are many considerations for effective transit funding, establishing a dedicated funding source enhances the probability of a successful program. Noteworthy is that unlike Nashville, each of the Peer Cities has a dedicated funding source for investment in their respective transit systems. The most common dedicated source of funding is a local option sales tax. Other sources include a portion of an existing gas tax or a tax on wages. These sources will generally require a voter referendum. Voter approval appears to be more likely with a planned system of transit enhancements that appeals to a broad demographic and geographic spectrum within the community. In addition, galvanizing the support and engagement of a wide array of interest groups is beneficial for the campaign.

Development and implementation of transit system initiatives for the Peer Cities are summarized as follows:

> *Charlotte* - Transit service is provided in Charlotte by the Charlotte Area Transit System (CATS), which is a department within the City of Charlotte. CATS was created in 2000 after a successful public referendum in 1998 to fund the program from passenger fares and local, state and federal grants. The North Carolina General Assembly passed enabling legislation in 1998 to allow the citizens of Mecklenburg County to enact a local sales tax dedicated to public transit. In 1998,

the citizens voted by a margin of 58 percent to 42 percent to enact a half-cent sales tax dedicated to funding public transit initiatives. The citizens reaffirmed this dedicated tax in November 2007 by a 70 percent to 30 percent margin on a referendum that generates in excess of $70 million annually. In addition to funding an expanded bus service, Charlotte has built a light rail system.

Indianapolis - The City/County governing Indianapolis has instituted a .25% income tax to fund transit. This is projected to raise $54 million per year. It will fund bus system operations including a relatively aggressive Bus Rapid Transit System for the county.

Jacksonville - Duval County has a ½ cent sales tax and a local option gas tax of which a portion is dedicated to specific transit initiatives including a bus system and the downtown monorail "people mover", *The Skyway.* The County is planning a transition of *The Skyway* into what they call the *Ultimate Urban Circulator*, an autonomous vehicle network which will serve an expanded area. An extended bus rapid transit system is also in operation with more miles of service planned.

Denver - Denver voters in an eight-county area approved a .4% increase in sales tax to fund commuter rail, light rail and express bus service. This system was expected to generate $4.7 billion, but revenues dropped to $4.1 billion and the initial cost increased to $6.5 billion. Thus far 58.5 miles of light rail and 40 miles of commuter rail has been built, among other projects.

Louisville – A *Local Occupational Tax* provides more than 60% of the transit funding for a region that includes Louisville. The tax is levied on business income generated in Nashville Louisville at a rate of 2.2%. A portion of the tax is designated for the *Transit Authority of River City* and is typically in excess of $50 million annually.

Austin - Capital Metro is the regional transit agency serving the Austin area. It is funded primarily by a 1% sales tax that generates approximately $250 million annually. The agency is currently in the planning process for a major transit system expansion which would include a light rail network. The expansion is estimated to cost close to $10 billion is likely to go before voters in the spring of 2020.

Affordable Housing

Nashville's success in economic development has driven sustained population growth and significant increases in home prices and rents. It is commonly cited that housing costs for any given household should be limited to no more than 30% of individual household income. The *Housing Nashville* report finalized in May 2017 indicates that nearly 25% of all homeowners are using more than 30% of household income on housing costs. The report also states that the rate of Nashville households using more than 30% of income for housing costs jumps to almost 50% for renters.

This challenge is not unique to Nashville as many U.S. cities are facing shortages in affordable housing. The issue will become more severe for Nashville as it continues to experience strong population growth. The *Housing Nashville* report states that from 2005 to 2015, Nashville's population increased by almost 25% while housing stocks increased by only 5% during the same period. Moreover, the report states that since the year 2000 Nashville has lost more than 20% of housing units deemed "affordable". The report also states that in 2015 Nashville's shortage in affordable rental homes was at 18,000 units, and it anticipates that this shortage will increase to approximately 31,000 units by 2025.

US cities have implemented a number of different strategies to address affordable housing shortages including tapping state and federal grant funds, implementing public-private partnerships, utilizing tax credits and PILOT programs, and leveraging debt funding. The 2018 report *Housing Charlotte: A Framework for Building and Expanding Access to Opportunity through Housing Investments* details the use of such strategies to increase the availability of affordable housing. Metropolitan Housing and Development Agency (MHDA) and the Tennessee Housing Development Agency (THDA) as well as non-profits and for-profit housing builders have been engaged in a number of such efforts including the following:

- $25 million general obligation bonds to construct and maintain affordable units
- A tax abatement program for assisting with affordable housing
- The Veterans Assisted Supportive Housing (VASH) vouchers
- Emergency Shelter Grants (ESG)
- Housing Opportunities for Persons with AIDS (HOPWA)
- Low Income Housing Tax Credits (LIHTC)
- Payment in lieu of taxes (PILOT) for LIHTC developments
- Property Tax Freeze Relief Program
- Barnes Fund for Affordable Housing
- Providing Nashville infill lots
- HOME Investment Partnership (HOME) for acquisition, rehabilitation and new construction
- Using Community Development Block Grants (CDBG) for housing rehabilitation
- Using the Community Investment Tax Credit (CITC)
- Housing Incentives Pilot Program (HIPP)

Other initiatives available to Nashville to increase the supply of affordable housing include the following:

- Increasing funding for the Barnes Fund for Housing, along with changes in the scope of the effort

- Expanding the Housing Incentives Pilot Program
- Work with State and Federal agencies to maximize the use of available funding

The *Housing Nashville* report describes the following funding initiatives under which Nashville could add 1,750 affordable housing units per year with an annual investment of approximately $10 million beyond what Nashville is currently spending:

- Barnes Fund – Increase annual funding by $5 million to $15 million to generate approximately 750 additional units per year. This annual growth in the number of units would also require increasing the capacity of those entities constructing the additional units as well as expanding the targeted group of constituents to be served by the new units.

- PILOT program for income tax credits – Increase annual amount of reduction in property tax allowed from $2.5 million to $5 million to generate approximately 1,000 additional units per year. This would require a ramping up of the number of units produced by developers.

- Housing Incentives Pilot Program – Increase annual funding by $2.5 million to $3.0 million to generate approximately 500 additional units. Since this is an annual subsidy, it would not produce an additional 500 units each year.

These expanded initiatives would create the opportunity to increase the amount of affordable housing by 2,250 units in the first year and 1,750 units per year after that. While these initiatives alone will not solve Nashville's affordable housing shortage, the increased investments would allow for substantive progress towards meeting the need of 31,000 additional units by 2025 and would serve as a significant supplement to other ongoing affordable housing programs.

Technology Investment
Opportunities and Challenges

Background

Similar to public transportation, health insurance, and public utilities, technology in public infrastructure has recently developed as a separate sector credit factor within the municipal bond market. The current *top eight tech categories* are helping local governments advance in major functions, including financial transparency, mobility, public safety and overall public engagement. The top eight tech categories are hardware, software, data, systems, apps, sensors, blockchain and fiber optic broadband. Each of these categories can be seen enhancing operations and improving services provided by local governments in all major US cities.

Technological solutions on the part of local governments are crucial in forming and implementing public policy to address rapidly developing economic, demographic, environmental and technological changes. They lay the groundwork to be ready for next-generation infrastructure, ensure better educational outcomes, offer greater economic opportunity and output, and provide improved healthcare. Local governments that fail to embrace technology are at risk of facing weakened financial performance, declining credit quality, increased borrowing costs, and potential diminished access to financing.

The Study includes a review of Nashville's strategy for implementing digital transformation and applying technology and innovation to solve local challenges, as described in the 2018 *Connected Nashville* plan. The plan reports the results of an eighteen-month, inclusive public/private process to research best practices in education, transportation, environment, governance, livability and economy. Coincidently, three of the Peer Cities included in the Study (Austin, Denver, and Indianapolis), were also recognized for best practices in the *Connected Nashville* plan. The Study also considers available ITS Strategic roadmaps with action plans through fiscal year 2020 and compares the action plans with benchmark information available from the Peer Cities.

In summary, Nashville has engaged in planning efforts to investigate best practices and to devise local strategies, thereby positioning itself to make significant strides in the future. However, substantive implementation of such plans has not occurred. Converting plans to sound technology investments is crucial for any local government, and typically requires sustained cultural changes within the organization as well as the adjustment of spending priorities in upcoming annual budgets.

Best Practices

The 2018 *Digital Cities* competition, of which three of the Peer Cities - Louisville, Denver, and Charlotte – placed in the top five of organizations serving populations of 500,000 or more, offers best practices in the following categories:

- Expedited plan review and inspections
- Mobility Investments
- Transparency and civic technology
- Data management and cloud migration

Expedited Plan Review and Inspections – Development activity is at an all-time high in Nashville, both in terms of the number of permits and the dollar value of the permits. Efficiently processing development plan review and inspection requests, without compromising quality and safety standards, can shorten development timetables and hasten occupancy. This in turn accelerates growth of the tax rolls, job growth and overall economic impact.

An example of such an approach is ***Austin Smart Start*,** a partnership between Austin's Economic Development Services and Economic Development agencies. The partnership helps new small business owners navigate development review, permitting and inspections. Smart Start is a municipal application that guides users through each of the major steps in the development process, answering questions along the way, informing them about regulations and connecting them with resources.

Nashville's fast-paced development warrants considering the investment required for the additional staff and modernization to implement such an approach, thus allowing for the automation of plan submittals, permit tracking and inspection scheduling. Increased plan and permit fees could serve as a dedicated funding source to cover additional operating costs. Expediting the permitting and inspection process would accelerate growth in Nashville's tax base and enhance its five-year financial outlook. It should also be noted that annual development fees generated by Nashville appear to be more than twice the amount spent each year on staff processing and development.

Mobility Investments - The *Annual Urban Mobility Scorecard* and *TRIP Report* analyze the time and resources forfeited by Nashville and other municipalities due to traffic congestion. Effectively addressing mobility issues requires the use of state-of-the-art technology. Nashville should consider the following technology-based practices and investments that have been implemented by other cities to improve transportation corridors and overall mobility:

> The *Indianapolis Smart Corridors* initiative includes automation of bus rapid transit and car share routes, intelligent infrastructure and traffic management systems, and real-time data and dynamic modeling to manage travel demand. The city has also established a set of multi-modal corridor and space design guidelines to enable digital planning.
>
> *Go Denver* as cited in the *Connected Nashville* report is an application for mobile phones that allows users to select preferred transport, plan trips, compare results and track trips over time. The application is also designed to accumulate insights based on user preferences and activities in order to improve the design of Denver's transportation system. While *Go Denver* as an application is most beneficial to the transit rider, it also demonstrates how technological innovation can be used to better serve the citizenry, improve mobility, and produce a better return for capital investment in the transportation infrastructure.
>
> San Francisco's *SFpark* system was also identified as a best practice in the *Connected Nashville* plan. Smart parking strategies facilitate more efficient use of limited public parking in Central Business Districts including serving as a platform for mobile applications that allow drivers to find available parking and reserve it in-real time.

Transparency/Civic Technology – Nashville has invested in a program to enhance its efficiency and responsiveness in providing non-emergency services and information to the ever-growing tech-savvy population. Nashville's *Citizen Relationship Management* program (CRM) is based on the popular *Salesforce* platform. It facilitates timely, two-way communication between citizens and their local government, as well as between departments and agencies engaged in delivering services. However, the significant influx of new residents will continue to put a strain on the City's ability to deliver services with the same number of staff. A forward-thinking technology program with an emphasis on innovation should be central to Nashville's efforts to bridge the gap. Recent initiatives by the Peer City of Louisville should be considered for implementation by Nashville.

Louisville's Department of Information Technology (DoIT) and the Office of Civic Innovation (OCI) have worked with City leadership to ensure that technology is sufficiently addressed in the City's 20-year plan. The plan emphasizes resident input consistent with Louisville's strong digital inclusion efforts. To address the digital divide, DoIT and OCI have strived to:

- Sign up low-income residents for low-cost Internet,
- Add Wi-Fi hot spots throughout the city, and
- Build more than 100 miles of new fiber-optic backbone for smart city technologies.

Louisville's goal is to be a truly smart city by the end of 2022, which includes plans to build a new smart transportation corridor over the next couple of years. The City has an array of civic engagement offerings, including an ever-evolving website and 131 social media accounts. Additionally, Louisville launched a new online portal for citizen reporting. In terms of cybersecurity, Louisville has adopted a hybrid cloud approach that gives staff protections beyond City premises. In a single month more than 9 million threats were identified and blocked. And in an aggressive move to solve IT workforce issues, DoIT added a position to the agency dedicated to working on recruitment, retention and training.

Data Management and Cloud Migration – Nashville is expanding on the data available on the Open Data Portal, and now offers Wi-Fi internet at a growing number of facilities including primarily public libraries. In addition, the hubNashville mobile application is now available for making non-emergency service requests. Nashville has also emphasized securing the governmental systems from data breaches.

Planning for police body-worn cameras is ongoing, with major capital and recurring operating expenses anticipated, but currently unfunded. Nashville ITS appears to recognize the widespread acceptance of cloud services that employees and citizens use every day, along with the potential for positive financial impact and increasingly effective cloud vendor security. As such cloud services appear to be a viable future direction. The 2020 action plan of Nashville ITS includes a 12-month study of best practices for cloud database administration, to be submitted to the Executive Leadership Team. Also, the 2021 action plan includes a study of options for a cloud-based ERP full functionality to avoid continual multi-million-dollar upgrade cycles.

Initiatives and programs implemented by the Peer Cities regarding data management and cloud migration include the following:

> ***Denver*** has recently deployed an *Enterprise Data Management* (EDM) system, which collects real-time information on weather, environmental health, transportation and freight, giving the City baseline data it can use to test tech-driven innovations. More than half of Denver's organization-wide applications are now in the cloud. This was made possible by recent investments in platforms from Microsoft, Workday, Accela and Salesforce. These investments were realized as the result of a dedicated funding stream for technology innovations. As a result,

an increasing number of the City's workforce can now do their jobs from the field, saving the time and expense of more manual workflows. At the same time, digital access to citizen services is expanded thus providing residents and business owners with many of the same conveniences afforded to members of the City workforce.

Charlotte's Innovation and Technology Department has brought a data-focused mindset to many of the City's initiatives. One example is the North End Smart District project, which has incorporated citizen feedback into efforts to improve the northern part of the city. Residents have lowered utility bills using weatherization and smart home technology, and the City has gathered data from those efforts to demonstrate cost savings. The Office of Data and Analytics (ODA) has improved its open data portal by increasing the number of data sets from 48 to 121, and creating a function that allows departments to tell stories using their data. ODA has set up 15 peer-led training courses for other city employees to learn how to use data, and the City's IT staff has built a dynamic, smart cybersecurity paradigm. Artificial intelligence engines scan traffic for threats in ways that used to require staff. An outside vendor will perform audits, compliance checks and penetration tests regularly. In addition, an effort underway is to set up geographically dispersed servers to render denial-of-service attacks ineffective.

Austin Body Camera Implementation – Austin police began issuing body-worn cameras to officers in 2016, starting with those working in the downtown area. As of April 2019, cameras have been issued to nearly all of the roughly 1,900 Austin police officers, and about 2 million videos have been recorded. Officers are required to use the cameras when they are responding to calls or making arrests. The cameras automatically activate via Bluetooth when officers exit a vehicle. It is up to the officers to deactivate the cameras when an incident has finished or when they go off duty. When videos are uploaded, officers are expected to properly categorize them. The first city audit of the Austin bodycam program found several shortcomings in how the Police Department reviews and keeps track of footage. However, Austin leadership were generally pleased with the relatively few number of issues which resulted primarily from human error. According to a 2018 report by the Department of Justice, 47% of the more than 15,000 law enforcement agencies in the country had implemented bodycam programs in 2016. Many of those agencies, including the Austin Police Department, have relied upon federal funding to implement these programs.

Observations

Affordable Housing

Nashville's shortage in affordable housing will require a combination of forward-thinking solutions as strong population growth is expected to continue. The *Housing Nashville* report puts forth a number of initiatives similar to those that have been effective across the US and in the Peer Cities including the following:

- Increasing funding for the Barnes Fund for Housing
- Expanding the payment in lieu of taxes (PILOT) program for low income tax credits
- Further developing and implementing the Housing Incentives Pilot Program (HIPP)
- Work with State and Federal agencies to maximize the use of available funding

Transit

Nashville's rapid growth will also require increased commitment to investment in public transit. Each of the Peer Cities have developed robust transit systems supported by a dedicated funding source. The lack of a dedicated funding source presents an obstacle for the development of an effective transit system that will keep pace with Nashville's growth. Local sales taxes have been the most frequently used source of dedicated funding for the capital investment and operating budget required to develop and sustain a comprehensive transit system.

While successful transit referendums have been a challenge in municipalities across the country, a number of communities have overcome opposition by presenting a plan and funding package that addresses overall mobility, thus capturing a broader public acceptance of investment in transit.

Investment in Technology

Many of the challenges discussed in the Study will need to be addressed either directly or indirectly by significant advancements in technology and automation. Cyber threats alone pose a huge challenge, as they have become commonplace and leave local governments vulnerable to significant risk of loss in terms of financial resources and public confidence. As constituents observe and experience the benefits of technology and innovation in the private sector and in their personal lives, there is a growing expectation that government will incorporate similar advancements in executing major functions and providing key services. This will require continued investment in technology-based initiatives including:

- Automating paper-based functions
- Enhancing the use of cloud services including data base management and security measures
- Acquiring and implementing body cameras for police officers
- Expanding online services for citizens and businesses
- Investing in state-of-the-art traffic management and improving management of public rights of way
- Assessing risk of vulnerability to cyber-attacks and development and execution of a plan to sufficiently mitigate such risks.

Financial Best Practices

Cash Management - Well run local governments benefit from formal cash management plans that clearly lay out the cash flow requirements for operations and debt service and identify the timed availability of funds to meet those obligations. The GFOA recommends that local governments adopt a formal process for forecasting cash sources and uses with the following characteristics:

- Ongoing forecasting to ensure sufficient liquidity to meet disbursement requirements and limit idle cash. The cash forecast period should be at least a 12-month rolling period, as opposed to a fiscal year basis. The forecast within this rolling period should be divided up in at least monthly sections for most governments, or weekly or daily for larger and more complex governments. Nashville should consider monthly postings of reports on-line within thirty days after each month end.

- The forecast should be based on conservative assumptions about both the cash receipts and disbursement portions of the analysis. These assumptions should be reviewed and updated regularly, as well as after any major changes in operations (e.g., a new debt issuance, new taxes, etc.).

- An appropriate tool for conducting the cash forecast should be selected; most governments can complete a forecast using simple spreadsheet software, while organizations that require more complex modeling can use commercially available analytic or business intelligence systems, or modules found within common enterprise resource planning (ERP) or financial management systems.

- Finally, the forecast should be updated periodically by staff to ensure sufficient liquidity and actual cash flow results should be compared with the cash forecast projections. The cash forecast report should be frequently reviewed by finance management and a summarized report could be included in the periodic investment report.

Financial Transparency – Nashville should consider enhancing the clarity of financial information displayed on its website to where it can be more readily understood by the general public. This can be achieved by developing a straight-forward presentation of revenues and expenditures that allows constituents to review and understand major revenue and expenditure amounts such as property taxes and personnel costs. Proposed actions to eliminate deficits and strengthen Nashville's overall financial position should also be summarized in a concise manner.

Financial Planning – Nashville's financial planning process should include a long-range assessment that incorporates assumptions for investments and funding strategies over multiple fiscal years. Development of a five-year financial forecast to include operating revenues and expenditures as well as anticipated capital expenditures and debt service requirements should be considered. Forecasted amounts would be based on historical trends of revenues and expenditures adjusted for known factors that will increase or decrease those trend lines. Such a forecast would estimate the future impact of planned capital improvement projects or expected employee costs and would complement the recent proposal - acted upon by the Metro Nashville Council - to require detailed estimates for proposed capital projects.

Financial Reporting – Based on publicly available information, it is not evident that Nashville provides regular financial reports to the Council. To enhance transparency and ensure that the legislative body is well-informed regarding all of Nashville's major financial transactions, trends, and initiatives, a fiscal report to Council is recommended on at least a quarterly basis. The report should include a summarized presentation of revenues and expenditures for all major funds and a comparison of budget to actual with explanations for significant variances. The report should also include a budget-to-actual update for all major capital projects, and the status of respective funding sources for each project such as debt balances, the collection of special assessment taxes, or remaining committed/restricted internal reserves.

Performance Measurement - Nashville should consider developing a set of measurements that provides the public an insight into the results of its key services and functions. This is often achieved by establishing *an outcome-based performance measurement system* that would allow Nashville to assess the progress of its initiatives against pre-set goals and expectations. Such a system typically involves defining key performance indicators (KPIs) and setting targets to measure desired outcomes. The KPIs should be developed in consultation with major stakeholders to ensure overall alignment. In addition, each major department within the local government should provide input for defining KPI's that are relevant to department-specific objectives. These objectives would then be aggregated on the local government level. In an effort to enhance transparency measurement results can be reported on a monthly or quarterly basis via the government's website.

APPENDIX A

	Nashville	Austin	Charlotte	Denver	Indianapolis	Jacksonville	Louisville
Taxes							
Total tax burden by state	6.28%	8.18%	8.38%	8.15%	8.22%	6.56%	8.77%
Property tax rate (Per $100 of assessed value)	$ 3.15500	$ 2.20320	$ 0.96500	$ 7.73650	$ 3.10890	$ 1.78653	$ 1.41600
Property tax, ratio of assessment to market value - Personal	25.00%	100.00%	100.00%	7.20%	100.00%	100.00%	100.00%
Property tax, ratio of assessment to market value - Commercial	40.00%	100.00%	100.00%	29.00%	100.00%	100.00%	100.00%
Effective PT Personal	0.789%	2.203%	0.965%	0.557%	3.109%	1.787%	1.416%
Effective PT Commercial	1.262%	2.203%	0.965%	2.244%	3.109%	1.787%	1.416%
Property tax, county average	$1,764.00	$4,505.00	$2,256.00	$1,662.00	$ 1,307.00	$ 1,519.00	$1,478.00
Income tax - State	0.00%	0.00%	5.25%	4.63%	3.23%	0.00%	5.00%
Income Tax - Local	0.00%	0.00%	0.00%	$ 5.75	2.02%	0.00%	2.20%
Sales Tax-State	7.00%	6.25%	4.75%	2.90%	7.00%	7.00%	6.00%
Sales Tax-Local	2.25%	2.00%	2.50%	5.41%	0.00%	0.00%	0.00%
Sales Tax - State and Local	9.25%	8.25%	7.25%	8.31%	7.00%	7.00%	6.00%
Hospitality tax	0.00%	0.00%	1.00%	4.00%	2.00%	2.00%	1.00%
Hotel/motel tax	6.00%	6.75%	8.00%	7.44%	10.00%	6.00%	8.50%
Water							
Water Base Charge	$ -	$ 1.25	$ 4.73	$ 15.94	$ 8.68	$ 12.60	$ 18.99
Water Volume Charge	$ 3.13	$ 8.34	$ 4.85	$ 4.12	$ 3.67	$ 2.97	$ 5.47
Water Impact/Capacity Fee Charge	$ 250.00	$4,700.00	$4,006.00	$3,030.00	$ 1,485.00	$ 339.50	$1,650.00
Water Any Bulk Rate (Tap Fee)	$ 430.00	$ 292.89		$ 690.00	$ 200.00		
Wastewater							
Sewer Base Charge	10%	$ 10.30	$ 4.73	$ 12.32	$ 21.25	$ 14.10	$ 9.34
Sewer Volume Charge	$ 7.62	$ 9.94	$ 4.99	$ 4.51	$ 7.98	$ 6.39	$ 4.82
Sewer Impact/Capacity Fee	$ 750.00	$2,500.00	$7,576.00		$ 2,739.00	$ 1,274.00	$ 3.03
Sewer Any Bulk Rate (Tap Fee)	$ 860.00						
Stormwater (Monthly)	$ 1.50	17.29	7.57	$ 57.20	$ 2.60	$ 5.00	$ 10.58
Solid Waste							
Solid Waste Base Charge	12.455	$ 14.70	$ 4.84	$ 11.99	$ 0.10	$ 12.65	$ 7.74
Solid Waste Volume Charge		$ 0.16					
Electricity							
Residential - Base Charge	$ 23.11	$ 10.00	$ 14.00	$ 7.71	$ 17.00	$ 5.50	$ 13.50
Residential - Average	$ 0.10	$ 0.06	$ 0.09	$ 0.06	$ 0.11	$ 0.10	$ 0.09
Commercial - Base Charge	$ 28.00	Range	$ 19.39	$ 10.41	$ 18.50	$ 9.25	$ 32.24
Commercial - Average	$ 10.32	$ 8.75	$ 7.96	$ 9.16	$ 10.08	$ 12.85	$ 8.34
Specific Millages (per $100 of assessed value)							
Schools	0.994	1.192			1.5032	0.615	0.736
Parks					0.0509		
Police			0.1781		0.1117		
Fire			0.0667		0.2931		
Debt metrics							
Debt Per Capita	$4,104.00	$6,761.00	$5,293.00	$ 960.00	$ 1,455.00	$ 2,347.00	$ 666.00
GO Bond Rating as of **12/2/2019**	Aa2	Aaa	Aaa	Aaa	Aaa	A2	Aa1

Note: The above represents raw data gathered to serve as input for a comprehensive analysis. The rates, percentages, and fees were scheduled per various state and local government websites and other online sources. The correctness of this data is limited to the accuracy of those respective sources and should be independently verified by anyone using this table. Each of the above municipalites are subject to differing state and local tax, fee, and rate structures. Therefore, the data is not comparable among the municipalities without further analysis.

APPENDIX B - GLOSSARY OF KEY ACRONYMS

AICPA - American Institute of Certified Public Accountants
APTA – America Public Transit Association
ARC – Annual Required Contribution
CAFR - Comprehensive Annual Financial Report
CRM – Citizen Relationship Management
EDM – Enterprise Data Management
ERP – Enterprise Resource Planning
FTE – Full Time Employees
GASB – Governmental Accounting Standards Board
GFOA – Government Finance Officers Association
GO Bond – General Obligation Bond
GSD – General Service District
ITS – Information Technology Services
KPI – Key Performance Indicator
MNFD – Metro Nashville Fire Department
MNPD – Metro Nashville Police Department
MNPS – Metro Nashville Public Schools
NCVC – Nashville Convention and Visitors Corporation
NHDA – Nashville Housing and Development Agency
OPEB - Other Post-Employment Benefits
PILOT – Payment in Lieu of Taxes
SSARS - Statements on Standards for Accounting and Review Services
THDA – Tennessee Housing and Development Agency
TIF – Tax Increment Financing
TRIP – A National Transportation Research Nonprofit
USD – Urban Service District
USGS – United States Geological Survey