Louisville Affordable Housing Trust Fund:

Funding and Impact Analysis

Submitted To:

Louisville Affordable Housing Trust Fund

Submitted By:

Commonwealth Economics Partners

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I. EXECUTIVE SUMMARY

The objective of this analysis is to provide the Louisville Affordable Housing Trust Fund (LAHTF) with an overview potential sources of dedicated funding and estimates regarding the annual revenues that might be generated by those sources, as well as the associated economic and fiscal impacts that may be supported by continued LAHTF operations. The estimates and information provided by this analysis are intended to be used as a guide for discussion and debate regarding the implementation of certain permanent funding mechanisms to provide continued support to Louisville's affordable housing initiative.

Potential Funding Mechanisms

Out of several different potential sources of dedicated revenue to the LAHTF, two stand out as being both the easiest to implement from Louisville Metro's perspective and most predictable/consistent regarding the amount of revenue each might generate.

Ad Valorem Real Estate Property Tax Increase

- This could be implemented by Louisville Metro without changes to any state laws or regulations and minimal additional administrative work.
- While the increase does not require additional approvals (outside of Metro), should the increase result in a net revenue gain over prior year of more than 4%, it may be subject to voter referendum.
- The extent to which this tax increase would generate additional revenue for a dedicate fund is very predictable and could easily be dedicated accordingly.
- Based on 2018 assessed real estate property values, a $0.01 per $100 in valuation increase in rate would result in an estimated additional annual revenue as follows:
    - Louisville Metro District: $6.3 million
    - Urban Services District: $1.6 million
        - Total Additional Annual Revenue: $7.9 million

Local Government Insurance Premium Tax Increase

- Louisville Metro could amend the effective rate via ordinance to generate additional revenue dedicated to LAHTF.

- This increase would not be subject to the risk of a direct voter referendum that would rescind the tax increase.
- The revenue streams that an increased rate would generate are fairly predictable. However, because taxing districts within Louisville Metro's jurisdiction are able to implement their own insurance tax, and the amount paid to those smaller districts is credited against what would be owed to Metro (and therefore not available to Metro), there is reduced control at the Metro level. Should a taxing district raise their rate to match Metro, those individuals and businesses would not be generating revenues to the LAHTF.
- Based on 2017 insurance premium information provided by the Kentucky Department of Insurance, a 1% increase across the board (to all types of insurance) would result in additional revenue, as follows:
    - Louisville Metro District: $8.4 million (does not include Health)
    - Urban Services District: $3.8 million (includes Health)
        - Total Additional Annual Revenue: $14.5 million

Economic and Fiscal Impact Estimates

Assuming only a 10:1 leverage ratio, the estimated annual economic and fiscal impacts of a $14.5 million AHTF investment and the projected incentive allocations include:

- Approximately 1,038 affordable housing opportunities can be produced *each year*.
- An estimated 1,658 jobs will be directly and indirectly supported by the trust fund investment. This includes an estimated 1,448 due to construction activity and 209 due to increased household spending.
- Economic output from related direct, indirect and induced activity will amount to an estimated $255.5 million. This estimate included $226.9 million from construction activity and $28.6 million from increased household spending.
- Construction activity, including direct, indirect, and induced impacts is estimated to result in approximately $7.3 million in tax revenue at the state and local level each year.
- Household spending activity, including direct, indirect, and induced impacts is estimated to result in approximately $1.6 million in tax revenue at the state and local level each year.

II. INTRODUCTION

Housing trust funds are dedicated sources of revenue to help low- and moderate-income people achieve affordable housing. In most cases, a government agency -- usually an existing housing agency -- administers the housing trust fund and awards grants and loans to local governments, non-profit developers, for-profit developers, and in some cases, individuals, for a variety of low and moderate-income housing activities.

Commonwealth Economics Partners, LLC ("Commonwealth Economics" or "CE") was retained to examine the projected local impacts of the Louisville Affordable Housing Trust Fund (the "LAHTF") that operates in Louisville, Kentucky. In particular, this study examines potential sources of dedicated funding and estimates the annual revenues that might be generated by those sources, as well as the associated economic and fiscal impacts that could be supported through the LAHTF. It will detail several different sources of dedicated funding and tools used across the country by affordable housing initiatives, including a discussion of the likely steps that would be necessary to implement in Louisville. The analysis will quantify the impact that the Affordable Housing Trust Fund's operations may support throughout Louisville, including effects on jobs and income, industry sectors, tax revenues, and changes in spending by households that benefit from increased access to affordable housing opportunities.

Commonwealth Economics used a number of previous reports, studies, websites, and other sources to create this study. In addition, the methodology and economic analysis used in this report relies heavily on other similar economic impact studies using IMPLAN and assumptions that are explained in detail throughout the report.[1] Additionally, it should be understood that Commonwealth Economics was not asked to quantify the demand for affordable housing in Louisville in this study or examine the qualitative societal benefits of affordable housing programs. Several studies have been conducted in recent years regarding this matter for Louisville, including the 2012 study titled "An Assessment of Affordable Housing Needs in Louisville" which includes a great deal of information regarding the shortfall and need.

[1] The results presented herein are fair and reasonable. Commonwealth Economics utilized sources deemed to be reliable but cannot guarantee their accuracy. Moreover, estimates and analysis presented in this study are based on trends and assumptions, which usually result in differences between the projected results and actual results. And because events and circumstances frequently do not occur as expected, those differences may be material.

III. REVIEW OF AHTF FUNDING MECHANISMS

This section of the analysis examines some of the funding mechanisms that have been used in other communities around the country in order to better understand how well each may fit Louisville Metro by reviewing the potential pros and cons of each. As mentioned in the previous section, while the Louisville Affordable Housing Trust Fund (AHTF) has received funding in the past, the amount of funding available and the sources from which it comes has been rather inconsistent. In Fiscal Year 2017-2018, Louisville Metro contributed nearly $9.6 million from its general fund, which was a significant increase from its prior year allocation of $2.5 million. While this seems to indicate that funding for the AHTF is trending in the right direction, the uncertainty regarding the availability of funds each year makes it difficult for the AHTF to operate strategically. Having a dedicated funding source would allow the AHTF to better plan its programming to consistently provide new affordable housing options with the goal of meeting its growing demand.

In the Commonwealth of Kentucky, state laws govern the taxing ability of cities and counties, effectively limiting the taxing power available at the local level. As such, there are limited options available at the local level to raise revenues for various purposes. The following sections provide an overview of various potential funding mechanisms or policy changes that might be considered to support the ongoing operations and goals of the AHTF.

Ad Valorem Real Estate Property Tax Assessment

The most common tax implemented by local municipalities throughout the Commonwealth is the ad valorem real estate property tax. This is often times a preferred method to raise revenue because it is viewed as having a very equal impact to the entire population within a municipality and does not act to single out any one type of business or members of the population.

KRS 132 governs the levy and assessment of property taxes within the Commonwealth, laying out the guidelines allowing municipalities to implement and raise the tax rates assessed on property located within its boundaries. The local governing bodies and taxing districts are required to establish a tax rate each year known as the "compensating tax rate", which is defined as the rate that when "applied to the current year's assessment of the property subject to taxation by a taxing district, excluding new property and personal property, produces an amount of revenue approximately equal to that produced in the preceding year from real property. However, in no event shall the compensating tax rate be a rate which, when applied to the total current year assessment of all classes of taxable property, produces an amount of revenue less than was produced in the preceding year from all classes of taxable property…" Which is to say that, taxing districts are expected to adjust their rates each year in order to maintain the amount of tax revenue generated by properties within their district, excluding any new properties.

Implementing an Increase

However, there is a process and procedure laid out by the Commonwealth, in KRS 132.027, that allows a city or urban-county government to levy a tax rate which exceeds the compensating tax rate. This allows the taxing entity to increase its revenues year over year by either increasing the rate or maintaining a rate that would, in effect, exceed the "compensating tax rate". This process requires that the government hold a public hearing to hear comments from the public regarding the proposed tax rate with proper advertisement of the hearing having occurred.

Additionally, if a portion of the tax rate levied by the governing body will produce revenue from real property, exclusive of revenue from new property, more than 4% over the amount of revenue produced by the compensating tax rate shall be subject to a recall vote or reconsideration by the taxing district (KRS 132.017). In the event that a petition is filed and gains signatures from registered and qualified voters residing in the affected jurisdiction equal to at least 10% of the total number of votes cast in the last preceding presidential election, and that petition is certified by the county clerk to be sufficient, the governing body may: 1) reconsider the ordinance to reduce the rate below the 4% threshold or 2) submit the matter to the voters of the district at the next regular election, the question as to whether the property tax rate shall be levied.

To summarize, a taxing jurisdiction, such as Louisville Metro or the Urban Services District may increase revenues generated by real estate property taxes by posting notice holding a public hearing of such intent. If that rate increase is over 4%, there may be a petition and a vote to recall (or reduce) the rate increase to yield a 4% or less increase in revenues.

Local Government Premium Tax

One of the more common tools utilized throughout Kentucky by local municipalities to generate revenue is the implementation and assessment of a Local Government Premium Tax (LGPT). The LGPT is a tax applied to the premiums paid on the various forms of insurance carried by property owners and businesses within Louisville Metro and is often referred to as the "insurance premium tax". This is also commonly viewed as having a relatively equal impact across all business types and the members of the community, in general.

The LGPT is an interesting tool to use because each smaller municipality within Louisville-Jefferson has the ability to set its own LGPT for each type of insurance, and any insurance premium taxes paid by its residents or businesses are credited against what they might owe to Louisville-Jefferson. So, if a municipality located within Louisville-Jefferson assesses an LGPT rate that is higher than that of Louisville-Jefferson, those residents and businesses would not owe any LGPT to Louisville-Jefferson. However, if a municipality within Louisville-Jefferson charges no LGPT or its rates on a given insurance type are less than that of Louisville-Jefferson, they would owe the remaining balance to Louisville-Jefferson on that insurance premium tax.

Accordingly, it is important to understand the current LGPT rates imposed by municipalities within Louisville-Jefferson in order to understand the extent to which an increase to the Louisville-Jefferson LGPT might generate additional revenues. For example, because West Buechel currently assesses an LGPT of 10% on each type of insurance and Louisville-Jefferson's current rate is only 5%, a 1% increase to the Louisville-Jefferson rate would generate no revenue from the residents and businesses located within West Buechel because they would have a credit of 10% against the 6% owed to Metro. However, most municipalities within Louisville-Jefferson currently charge the same 5% rate on all insurance premiums other than Health (which is not taxed) as does Louisville-Jefferson. So, each resident and business within those municipalities would be taxed that additional 1% and generate revenue to the Louisville-Jefferson district. Detailed estimates of the revenue that a 1% increase might generate is included in the Fiscal Impact section of this report.

It is important to understand, however, that because the municipalities within Louisville-Jefferson have the ability to raise their LGPT to match (or exceed) that of Louisville-Jefferson, they could also increase their rate so that the additional tax revenues remain in control of that municipality and would not be available to the

AHTF. While these changes would be outside of the control of Louisville Metro and could impact the level of funding available to the AHTF in future years, their fiscal impacts are relatively predictable and will be analyzed more closely in the Fiscal Impact section of this report.

Implementing an Increase

Enacting or raising the LGPT within a municipality or taxing jurisdiction is rather simple, relatively speaking. The effective rate can be amended via ordinance by the municipality/taxing entity. While constituents may voice their opinion regarding the tax increase to their representatives in local government, there is not a mechanism in place that would allow the public to strike down the ordinance that proposes and, if approved by council, implements the tax. While voters may choose to vote differently come next election, and that may influence the ability of a municipality to gain enough support from its council members to approve, they cannot directly decide whether the tax is implemented or not (unlike the recall provision of the property tax increase).

Following approval of an ordinance assessing or increasing the LGPT, the Kentucky Department of Insurance must be notified. This notification must take place prior to March 23 in order for the rate to become effective as of July 1 of that same year. This process ensures that the Department of Insurance has sufficient time to notify each insurance company engaged in business in the Commonwealth of the license fees or taxes no less than 85 days prior to the effective date (per KRS 91A.080(1)).

Rental Car Tax / Fee

One revenue-generating tool that has been implemented in other states has been the assessment of an additional tax/fee on the use of rental car services. Taxes such as this, which target out of town visitors, are often viewed by the public as being a preferred mechanism to raise revenue because it does not directly impact the community's residents. Instead, it becomes an added cost to visitors, and is not commonly viewed as an added cost that would otherwise deter visitorship.

While this type of tax/fee has been implemented in other states and communities across the country, the statutes of the Commonwealth do not appear to currently offer a method for implementing this type of tax at the local level. The Commonwealth does currently impose a tax on motor vehicle rental services of 6% known as the U-Drive-It tax. This happens to be equal to the state sales and use tax rate, but the revenues from this tax go to the state Transportation Fund, not the general fund (like sales tax revenues).

Implementing in Louisville

In short, in order for Louisville Metro to impose a similar type of tax on rental cars at the local level, legislation granting such power to local governments would need to be approved by the state legislature. While this may be a more difficult path, it could generate revenues for the AHTF that would place the bulk of the additional burden on out-of-town guests instead of citizens of Louisville. Because the U-Drive-It tax revenues generated at the state level are known, the fiscal impact section of this analysis attempts to estimate the extent to which revenues might be generated at the local level should this type of tax be enabled by state legislation and implemented by Louisville Metro.

Developer Impact Fees

For decades, municipalities around country have utilized "impact fees" to help fund certain public initiatives, including affordable housing programs. In general, impact fees are typically seen as payments that local governing bodies require from new development projects prior to their construction and are calculated based on a prescribed methodology based on the type and size of the planned development project.

Traditionally, developer impact fees have been a way to generate revenue to pay for the public infrastructure improvements and/or services that the new development will require, such as sewer service/capacity, fire protection, public safety, etc. However, many cities have expanded the concept of impact fees to include impact fees specifically used to fund affordable housing trust funds or programs, rather than the traditional public infrastructure needs for which they were originally intended. The "impact fees" imposed on projects that are used for affordable housing purposes are also commonly referred to as "linkage fees" but operate effectively the same: as a payment required of a private developer based on the size and scope of their project. Affordable housing impact fees are often based on square footage and type of the development. The fee charged to a commercial or office development may be different than the fee charged to residential projects.

Proponents of this funding mechanism argue that this type of fee helps meet a housing need that may be produced as a result of a new commercial development that will bring new employment opportunities to an area, particularly low-wage jobs that may necessitate the development of additional affordable housing options in close proximity. Depending on the exact methodology used to calculate the fee, they can also be a useful tool to incentivize increased development density in places where suitable land might be scarcer, by raising the per square foot price on single family homes (and in turn, incentivizing lower cost multi-family options).

However, there are many opponents to the use of impact or linkage fees, particularly as a mechanism to fund affordable housing programs. Opponents theorize that these additional fees raise the cost of all housing currently available in the market and of future development, inherently furthering the problem of a lack of affordable housing units by disincentivizing additional development. As opined by Henry Grabar, "This approach – making all new housing more expensive to make some housing very affordable – makes sense if you think of the housing market as permanently divided between market-rate luxury building and government-subsidized housing, with the former permanently unaffordable and the latter in perennially short supply… Most tenants simply pay more than what's technically considered 'affordable,' and when they write their checks, they may be paying for development fees, too."[2]

For these reasons, it is very important when implementing any such developer impact or linkage fee to carefully consider the mechanism for calculating the fee to be imposed. The location, type of project, and needs within the surrounding community should all be weighed against the impact that such a fee might have on the feasibility of development in the area versus the benefits that the fee might provide. The American Planning Association has issued a detailed policy guide that lays out important factors to consider when weighing the implementation of impact fees.[3] Generally, the guidelines seem to focus on identifying the need for supporting infrastructure and does not specifically recommend the use of impact fees as a preferred tool to fund initiatives such as affordable housing.

[2] https://slate.com/business/2018/03/cities-are-relying-on-development-fees-to-create-more-affordable-housing.html

[3] https://www.planning.org/policy/guides/adopted/impactfees.htm

Implementing Impact Fees in Louisville

Currently, Kentucky state law does not allow communities to implement and charge traditional impact or linkage fees on development. In order for Louisville Metro to implement an affordable housing impact fee, legislation would need to first be drafted and passed by the Commonwealth and then Metro would need to draft local ordinances detailing the methods for calculating fees to be imposed on development projects according to their location and scope.

Inclusionary Zoning

Inclusionary zoning (IZ) uses local regulation of land use to require or incentivize developers to include affordable units as a component of certain new housing developments. This requirement, for example, would typically be that a certain percentage of the units or square footage of the new development meet various definitions of affordable when compared to income levels in a given area. In some cases, inclusionary zoning programs allow developers certain incentives to help offset the added cost, such as allowing greater density than zoning would typically allow, fast-track permitting, or modified parking requirements.

According to the Furman Center, "There is tremendous diversity in the structure and goals of inclusionary zoning programs throughout the country: some IZ programs are voluntary while others are mandatory; they are triggered by different sizes and types of market-rate developments; they target the affordable units to different income levels; they have different rules about whether the affordable units must be located within the market-rate development or may be located off-site; and they impose the affordability restriction for different lengths of time."[4]

The Furman Center also notes that there are several arguments that are often made for and against the use of inclusionary zoning. Proponents appreciate that this policy requires less of direct subsidy than traditional affordable housing programs, making it more fiscally sustainable. Supporters also see value in programs that require affordable and market-rate units to be included in the same development as it also serves the purpose of promoting economic and racial integration.

[4] https://furmancenter.org/files/publications/IZPolicyBrief.pdf

Critics of inclusionary zoning believe that mandatory inclusionary zoning programs will actually act to reduce the overall development of housing stock, causing the prices of market-rate housing in an area to rise and having the undesired impact of reducing affordability.

An overview of inclusionary zoning programs across the United States published by the American Planning Association in 2016 provides some insight as to how these programs have been implanted.[5] The findings show that:

- Most IZ programs were adopted recently. Fifty-four percent of local IZ programs were adopted between 2000 and 2009, and another eight percent have been adopted since 2010.

- More than 80 percent of the IZ programs in the database are mandatory, meaning developers are required to include affordable units as part of their developments. However, many of these mandatory programs include alternative cost offsets, including pay-in-lieu fees or off-site construction.

- IZ programs target low- and moderate-income households. The majority of IZ programs (53%) target households with incomes between 51 and 80 percent of the local area median income (AMI). IZ programs generally do not target very low-income households: only two percent of IZ programs in the database target households with incomes below 50 percent of AMI.

- IZ program unit counts tend to be modest. Forty percent of IZ programs require less than 10 percent of the units be affordable, and 80 percent of the programs require less than 20 percent of the units be made affordable.

Some other key takeaways from the Furman Center that should be considered when weighing the pros and cons of implementing such a policy include:

- Many IZ policies produce affordable units, but IZ is not a panacea for solving a community's housing challenges.

- More flexible IZ policies may lead to greater production of affordable units.

[5] https://planning.org/blog/blogpost/9106689/

- In considering whether to adopt, and if so how to structure, IZ policies, the potential impacts on the price and supply of market-rate housing should be considered. IZ policies that provide meaningful and achievable density bonuses or other benefits to offset the profits lost on affordable units should be less likely to adversely impact the price and supply of market-rate housing.

Implementation in Louisville

It appears that some forms of inclusionary zoning practices could be implemented within Louisville Metro with an approved ordinance, while others may require changes in state legislation. Because zoning laws are established at the local level, Louisville Metro should be able to implement ordinances, policies, and or procedures that provide relaxed zoning requirements, such as increased density or reduced parking requirements, for projects that include an affordable housing component. In fact, one such ordinance has been presented to Metro Council previously. Additionally, as does the AHTF, projects that receive other incentives from Louisville Metro could be required to include an affordable housing component in exchange for the financial or other indirect incentive it might be requesting.

While this type of inclusionary zoning incentive could take place, it is unclear whether Louisville Metro would be able to implement requirements or assess fees on development projects that do not include an affordable housing component. This type of inclusionary zoning would likely cross the threshold of powers that are afforded to local governing bodies without state legislation having been approved that specifically allows such requirements and penalties.

Registration, Recording, or Transfer Fees

It has been suggested that potential sources of revenue to fund AHTF operations could include business registration, document recording, and/or property transfer fees. While Louisville Metro could possibly implement a variety of these types of fees, they are not likely to generate significant revenue and would likely be more inconsistent than other, more suitable options.

IV. FISCAL IMPACT ANALYSIS

As discussed in detail in the previous section, the Louisville Affordable Housing Trust Fund seeks to identify an ongoing dedicated revenue source to support its operations each year. The previous section outlined several different potential sources of revenue in the form of different taxes and/or fees that might be imposed by the governing body of Louisville Metro. While the previous section highlighted how some of these different revenue sources might function, how they might be implemented, and discussed the use of non-revenue based affordable housing incentives, this section intends to quantify a few of the potential revenue streams so that the AHTF and Louisville Metro leaders will better understand the extent to which each of these potential sources might generate revenue on an annual basis.

It should be understood that the numbers presented in this section are based on a number of assumptions and data provided by and taken from various sources. The assumptions and data sources for each proposed revenue stream are detailed within this section, and while Commonwealth Economics utilized second and third-party sources deemed to be reliable, it cannot guarantee their accuracy. Moreover, estimates and analysis presented in this report are based on trends and assumptions (as outlined within), which usually result in differences between the projected results and actual results.[6]

Real Property Tax Assessment

In order to estimate the revenue that Louisville Metro might generate through an increase to the real property tax rate, Commonwealth Economics identified the assessed value of real property within both Louisville Metro and the Urban Services District for the past three years. The revenue produced by the general Metro tax rate and the Urban Services District tax rate were also identified from the Louisville Metro Government 2018 Comprehensive Annual Financial Report.

The amounts identified in the report were then used in order to estimate the amount of additional revenue that would be generated if Louisville Metro were to increase the real property tax rate for both Metro and the Urban Services District by one penny ($0.01)

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[6] It is expressly acknowledged that Commonwealth Economics cannot guarantee and shall face no liability regarding the success of any proposed project, bond issue, loan, grant, the ability to obtain funding from any source or the accuracy of any estimated revenue stream

per $100 of assessed property value. The findings and estimated revenue streams are shown in Figure 1, below.

Figure 1

	Real Property Tax Revenue Estimates			
	2016	2017	2018	3-Year Average
Assessed Value of Real Property				
Metro Government	$56,429,647,046	$59,292,080,982	$62,578,466,025	$59,433,398,018
Urban Services District	$14,782,238,903	$15,340,003,731	$15,984,043,741	$15,368,762,125
Real Property Tax Rates *				
Metro Government	$0.125	$0.125	$0.124	
Revenue Produced	$70,537,059	$74,115,101	$77,597,298	$74,083,153
Urban Services District	$0.354	$0.354	$0.354	
Revenue Produced	$52,329,126	$54,303,613	$56,583,515	$54,405,418
Total	$122,866,185	$128,418,714	$134,180,813	$128,488,571
Potential Additional AHTF Tax *				
Metro Government	$0.010	$0.010	$0.010	
Revenue Produced	$5,642,965	$5,929,208	$6,257,847	$5,943,340
Urban Services District	$0.010	$0.010	$0.010	
Revenue Produced	$1,478,224	$1,534,000	$1,598,404	$1,536,876
Total	**$7,121,189**	**$7,463,208**	**$7,856,251**	**$7,480,216**

*Rates per $100 valuation.

As shown in Figure 1, an average of $128.5 million has been generated through real property taxes by Metro and the Urban Services District since 2016. When applying an additional penny of tax per $100 of assessed valuation in each district, an average of an additional $7.5 million would have been generated over the past three years ($5.9 million through Metro and $1.5 million through the USD). Because property values tend to increase over time, it is reasonable to believe that in 2019 the impact of a one penny increase in tax rate would generate even more than it would have in 2018, or more than $7.9 million.

Local Government Premium Tax

In order to estimate the revenue that Louisville Metro might generate through an increase to the real property tax rate, Commonwealth Economics worked with the Kentucky Department of Insurance in order to compile estimated LGPT revenues generated by Louisville-Jefferson (Metro) and all taxing districts and municipalities located within Louisville-Jefferson for the past five years. The data provided included specific tax revenues generated by each taxing district by type of insurance, including: Fire and Allied Perils, Casualty Liability Only, Vehicle, Inland Marine, Health, Life, and All Other Risk. It is important to understand that the information provided is based on reports submitted by the insurance companies operating within Louisville-Jefferson and, while it is constantly updated, may be subject to errors and omissions.

The Department of Insurance also provided the tax rates imposed by each taxing district so that the premium by tax type could be estimated such that the value of a one percent increase in rates by Louisville Metro could be quantified. As mentioned in the previous section, it is important to understand that any insurance premium taxes imposed and collected by municipalities within Louisville-Jefferson are credited against what would be owed to Louisville-Jefferson. It should be understood that this analysis focuses only on a 1% increase to the tax rate by Louisville Metro at the "Louisville-Jefferson" level and within the Urban Services District (USD). Although the credit allowed other municipalities against what is owed to Metro may prevent a one percent increase from generating any new revenue to Metro, it should be understood that some municipalities would eventually begin to generate revenues to Metro should Metro's rate increase above their current rate (assuming they were to not increase their rate locally in the future).

The following charts show the estimated additional revenues by tax type assuming a 1% increase to the Metro and USD rate, making the USD rate 6% across the board the Metro's rate 6% across the board (the impact of a Health tax at the Metro level is not estimated here).

Figure 2

Estimated Revenues Generated with a 1% Increase to Metro and USD Insurance Tax								
Premium Year Estimate	**Fire and Allied Perils**	**Casualty Liability Only**	**Vehicle**	**Inland Marine**	**Health***	**Life**	**All Other Risk**	**Estimated Additional Revenue**
2017	$2,772,544	$2,775,194	$6,015,392	$525,102	$845,701	$913,306	$699,729	**$14,546,968**
2016	$2,652,278	$2,536,750	$5,624,917	$369,058	$812,557	$728,905	$696,533	**$13,420,998**
2015	$2,652,874	$2,411,165	$5,429,005	$558,202	$759,594	$605,655	$695,198	**$13,111,694**
2014	$2,584,563	$2,311,812	$5,132,169	$490,941	$711,320	$685,192	$652,972	**$12,568,968**
2013	$2,469,838	$2,185,535	$4,969,871	$351,660	$633,922	$657,416	$624,737	**$11,892,979**

* Health estimates only include increase within USD due to available data.

Figure 3

Estimated Revenues Generated with a 1% Increase to USD Insurance Tax								
Premium Year Estimate	**Fire and Allied Perils**	**Casualty Liability Only**	**Vehicle**	**Inland Marine**	**Health**	**Life**	**All Other Risk**	**Estimated Additional Revenue**
2017	$578,448	$721,571	$1,122,586	$77,130	$845,701	$238,105	$199,849	**$3,783,390**
2016	$514,916	$667,763	$1,069,420	$53,609	$812,557	$198,560	$217,489	**$3,534,313**
2015	$529,737	$575,876	$1,002,246	$72,899	$759,594	$171,453	$211,004	**$3,322,809**
2014	$515,705	$510,961	$938,977	$47,473	$711,320	$224,316	$212,286	**$3,161,038**
2013	$463,443	$514,259	$954,073	$44,795	$633,922	$202,636	$159,012	**$2,972,140**

Figure 4

Estimated Revenues Generated with a 1% Increase to Metro Insurance Tax (Metro Only)								
Premium Year Estimate	**Fire and Allied Perils**	**Casualty Liability Only**	**Vehicle**	**Inland Marine**	**Health***	**Life**	**All Other Risk**	**Estimated Additional Revenue**
2017	$1,689,503	$1,505,184	$3,917,152	$405,738	$0	$525,205	$406,127	**$8,448,908**
2016	$1,658,811	$1,379,712	$3,652,414	$273,527	$0	$396,307	$382,948	**$7,743,719**
2015	$1,656,566	$1,357,342	$3,553,184	$450,301	$0	$321,076	$383,259	**$7,721,728**
2014	$1,610,755	$1,334,329	$3,359,715	$404,545	$0	$304,106	$339,659	**$7,353,110**
2013	$1,582,738	$1,240,026	$3,213,344	$272,143	$0	$313,254	$375,231	**$6,996,736**

* Not estimated due to lack of available data at the Louisville-Jefferson level.

Figure 5

Estimated Revenues Generated with a 1% Increase to Metro Insurance Tax (Other Munis)								
Premium Year Estimate	**Fire and Allied Perils**	**Casualty Liability Only**	**Vehicle**	**Inland Marine**	**Health***	**Life**	**All Other Risk**	**Estimated Additional Revenue**
2017	$504,593	$548,439	$975,655	$42,235	$0	$149,996	$93,752	**$2,314,670**
2016	$478,550	$489,276	$903,084	$41,922	$0	$134,038	$96,096	**$2,142,966**
2015	$466,571	$477,947	$873,575	$35,002	$0	$113,126	$100,935	**$2,067,157**
2014	$458,102	$466,522	$833,477	$38,923	$0	$156,770	$101,026	**$2,054,820**
2013	$423,657	$431,251	$802,454	$34,721	$0	$141,526	$90,495	**$1,924,104**

* Not estimated due to lack of available data at the Louisville-Jefferson level.

As shown, based on 2017 insurance premiums, a one percent increase across the board would generate approximately $14.5 million in additional revenue through Metro and the USD. This number is exclusive of revenues generated at the Metro level by any

Health premium tax assessed because there is no existing data available regarding the amount of Health premiums paid at the county level.

Additionally, the charts break out the impacts of the tax increase within the Urban Services District, by areas within Louisville-Metro but not in another taxing district within Metro, and from increases generated by municipalities within Louisville-Metro that would exceed the credit they would have (i.e. municipalities currently imposing a rate equal to or less than that of Louisville-Metro). As shown, the bulk of the increased revenues, or $8.4 million, would be generated by Louisville-Metro, another $3.8 million from the USD, and $2.3 million from other municipalities within Louisville-Metro.

It should be understood that the estimated $2.3 million generated through other municipalities could become unavailable should each choose to raise their own rate to match that of Metro. Alternatively, should Metro raise the rate by more than just the one percent, some municipalities not a part of the estimated $2.3 million increase would now be contributing, so the incremental increase of say, a five percent increase, would be even greater than five times the $2.3 million that is projected from just an additional one percent. Additionally, the impacts of a Health premium tax at the Metro/ Louisville-Jefferson level has not be included in these estimates but would likely generate significant additional revenues.

Rental Car Tax / Fee

In order to estimate the revenue that Louisville Metro might generate through the implementation of a tax on rental cars, Commonwealth Economics utilized the Supplementary Information to the Kentucky Comprehensive Annual Financial Report for the Fiscal Years of 2016 -2018 to identify the amount of tax revenues generated throughout the Commonwealth from the motor vehicle rental U-Drive-It use tax. This tax essentially functions as a six percent sales tax on rental car revenues generated state-wide. Unfortunately, this data is only available at the state level and is not broken down by county, region, etc. In order to estimate the amount of revenue that might be generated within Louisville Metro from a similar tax at the local level, Commonwealth Economics used the state-wide population estimate versus the Louisville Metro population estimate as proxy for rental car sales in the region.

It should be understood that this is a broad estimate, which may actually be conservative. It is actually likely that more rental car business takes place in Louisville per capita than other areas in the state due to the disproportionate amount of out-of-state visitors that Louisville attracts compared to other regions of the state, particularly those without major airports. Nonetheless, we felt it a reasonable estimate in order to get a general sense of the revenues that this type of tax, when applied at the local level, might generate per each additional percent. The results of the estimates are shown, below, in Figure 6.

Figure 6

	Rental Car Tax Revenue Estimates			
	2016	2017	2018	**3-Year Average**
Kentucky Rental U-Drive-It Tax Revenues	$41,964,219	$44,515,471	$44,074,247	$ 43,517,979
U-Drive-It Tax Rate	6%	6%	6%	6%
Revenues per 1% Tax Rate	$ 6,994,036	$ 7,419,245	$ 7,345,708	$ 7,252,996
Kentucky Population Estimate	4,436,974	4,454,189	4,468,402	4,453,188
Louisville-Jefferson Population Estimate	765,352	771,158	773,619	770,043
Louisville-Jefferson Percentage of KY Population	17%	17%	17%	17%
Estimated Louisville-Jefferson Revenues per 1%	**$ 1,206,430**	**$ 1,284,501**	**$ 1,271,769**	**$ 1,254,234**

As shown, the average revenues generated through the U-Drive-It tax over the last three years has averaged approximately $43.5 million across the state. When applying the population proxy to estimate the amount that might be generated within Louisville Metro, each percent would have generated an average of $1.3 million over the past three years. It may also be worth noting that, unlike the property or insurance tax revenues, this tax is the only one to experience a decrease in revenues in 2018. As businesses such as Uber and Lyft make it easier for travelers to get around without renting a car, the revenues generated by a tax or fee on rental car services may become less reliable.

V. ECONOMIC IMPACT ANALYSIS

This study also intends to estimate the annual direct, indirect, and induced economic impacts that would be supported by the spending on affordable housing programs made available to the Affordable Housing Trust Fund through the implementation of a dedicated tax levied by Louisville Metro. These impacts include various effects on employment, income, spending, industry sectors, and tax revenues. In this section, we examine the following methodology components: type of impact, duration of impact, the multiplier effects, how leverage works, and the assumptions utilized as the basis for the analysis.

TYPE OF IMPACT

Any economic activity, such as the construction or rehabilitation of housing, generates a number of different effects or impacts throughout a regional economy. Economic impacts are usually measured in terms of jobs, output, and income. Employment refers to full-time jobs, or the equivalent amount of work. For example, if two people were working 20 hours a week building a home for an entire year, the project would be considered to have created only one job. Output refers to the total value of a good or service produced. It includes the value added by the producer of the good as well as the value of all the inputs used to make the good or service. Income refers to wages and benefits paid to all employees (including those that are self-employed).

Initial economic activity creates direct impacts on the local economy. These impacts are followed by indirect and induced impacts, as described below:

- **Direct Impacts** are the jobs, output, and income associated with the industries receiving a change in final demand. For example, the construction of a new home has direct effects on the construction industry in terms of output, jobs, and wages. This initial or direct impact creates a multiplier effect throughout the economy, which is seen through both indirect and induced impacts.

- **Indirect Impacts** are jobs and income resulting from spending by directly impacted industries for goods and services provided by other businesses. For example, the construction industry will purchase materials and services (e.g. concrete, wood, electrical services, etc.) from other industry segments, resulting in employment and income impacts on those segments, and their suppliers. Such purchases occur both within and outside of Louisville. This study reports only the portion of indirect purchases within Louisville.

- **Induced Impacts** are the impacts on all local industries as a result of the expenditures of new household income generated by the direct and indirect impacts from new output and employees. Payroll expenditures by construction companies are a direct impact. Payroll expenditures by suppliers to construction companies are indirect impacts. The spending by households that receive those payroll dollars creates an induced impact, as those dollars are spent on items including housing, food, utilities, transportation, clothing, health care, entertainment, and taxes. This spending produces revenue for the businesses providing these goods and services, which in turn creates additional jobs and spending – a pattern that repeats as a diminishing ripple throughout the regional economy. This cycle diminishes due to savings and money spent outside the local economy.
- **Total Impacts** represents the sum of the direct, indirect, and induced impacts and is the measure of total economic impact.

DURATION OF IMPACT

This analysis studies the economic impacts associated with new housing trust fund investment. It does not evaluate the impacts of investment from any current equity subsidy sources. This analysis can be broken down into two types of impacts -- one-time impacts related to new housing construction and rehabilitation and on-going impacts related to changes in household spending.

- **One-time Impacts from Construction** are one-time impacts related to new housing construction and rehabilitation. The actual mix of projects will vary from year to year according to changes in market demand and investment opportunities. It is expected, in most affordable housing trust funds, that a significant portion of funding will be devoted to the construction or rehabilitation of affordable housing projects. This investment in new construction or rehabilitation activity, leveraged with other public and private funds, generates new economic activity, with corresponding direct, indirect, and induced economic impacts.

The remaining money in the fund typically goes toward the acquisition of land and various supportive services. It is generally accepted that the majority of funds used for property acquisition represent a transfer of capital rather than new economic activity. While there are some economic impacts related to property acquisition, including closing costs and real estate fees, these impacts will be minimal. In addition, the portion of funds related to supportive services can also be considered a transfer payment, which does not create any additional direct economic impacts.

- **Ongoing Economic Impacts** are changes in the local economy that continue on an annual basis after the initial change in final demand. Ongoing impacts accrue from the increase in disposable income resulting from lower rental housing costs to beneficiaries of affordable rental housing opportunities created through the housing trust fund. It is assumed that rental opportunities created through housing trust fund investment will be available only to households that are currently rent-burdened; i.e., paying more than 30 percent of their household income for housing. For all rental projects funded by the trust fund, households are estimated to average annual rent savings of approximately $2,460 --income that is freed up for alternative spending in the economy. This annual savings is multiplied by the number of rental opportunities produced through new construction and rehabilitation to develop a data input for the total increase in spending by beneficiary households.

LEVERAGE RATIO

Affordable Housing Trust Funds are most successful when they successfully use their available funding to attract additional investment from either the private sector, other public entities (i.e. the State and Federal Governments), or a combination of both. This is typically achieved by the inherent incentive that it provides private businesses or through State and Federal programs that offer to "match" the trust fund's investments in affordable housing. The estimated extent to which housing trust fund dollars would be able to leverage other public and private funds can vary greatly. The leverage ratio achieved can fluctuate significantly based on different market conditions in any given year. According to their April 2016 brochure update, Kentucky's Affordable Housing Trust Fund has been able to leverage its funding at approximately a 10:1 ratio since 1994, investing $92 million to lever an additional $1 billion in capital contribution.

Because this leveraging has been achieved at the state level, it is not unreasonable to assume that a local affordable housing trust fund in Kentucky would be able to achieve an even higher leverage ratio because the local AHTF would be able to leverage both the State and Federal programs.

In fact, the Louisville Affordable Housing Trust Fund was able to achieve an even higher leverage ratio in its fiscal year 2018, generating $164 million with under $10 million of LAHTF participation, for a ratio of approximately 17:1. This success is an improvement on its prior year performance, in which the LAHTF was able to leverage over $35 million out of a $2.5 million AHTF allocation, for a ratio of approximately 14:1.

Given the likely variance in end result, this study shows the key impacts using a 10:1 ratio and a 17:1 ratio in order to illustrate the ranges of impacts that the fund might generate depending on its ability to leverage funds according to the market in any given year.

ASSUMPTIONS

The economic impacts of housing trust fund investment on the Louisville economy are based largely on past performance and the funding guidelines outlined by the LAHTF for 2019. Based on these guidelines and the stated goals and past performance of the LAHTF, it is expected that the dedicated housing trust fund equity subsidies will be invested in a mix of housing projects and programs, including new construction, rehabilitation, land and building acquisition, and supportive services, using a variety of incentive tools to provide affordable housing opportunities to targeted income groups.

The guidelines for LAHTF allocation, as governed by Louisville Metro ordinance, dictate that all funds must serve those who earn no more than 80% of area median income and that at least half of the funds must serve households at or below 50% of area median income. Additionally, based on allocation for the past two fiscal years, it appears that allocation of trust fund dollars will fluctuate some across new construction, rehabilitation, acquisition, support programs, and administrative costs, based on needs and applications received each year. In fiscal year 2018, allocation was split almost equally between new construction support and rehab/renovation (and acquisition), while 2017 was allocated closer to 25% new construction 75% rehab/renovation/acquisition. On average over the past two years, the LAHTF has supported the addition of a new affordable housing unit for every $7,287 it participated.

For this impact analysis, it has been estimated, based on the 2018 allocations and the 2019 goals, that 46% of the total annual housing trust fund investment would go toward new rental and homeownership construction and 46% toward construction-related rehabilitation activities. The remaining 8% is also estimated to be split evenly between property acquisition and supportive services and administration (4% each). The user income categories that benefits from the AHTF spending allocations are estimated based on the requirements of Louisville Metro that the funds support those earning 80% or less area median income and that half of the funds are allocated at those below the 50% threshold.

The spending allocations, based on these factors and assuming an estimated $14.5 million annual balance (rounded based on 1% LGPT increase estimates), are summarized in Figure 7. The total funds generated by the fund using the different leverage ratio scenarios are shown in Figures 8 and 9. Note that the estimates conservatively assume that the minimum requirement of the guidelines are met and the leverage ratios are not applied to the support/admin category, as these would likely not attract significant matching funds from outside sources.

Figure 7

Louisville Affordable Housing Trust Fund
Direct Impact Assumptions- Louisville Affordable Housing Trust Fund Allocations

Trust Fund Total	New Construction Funds	Rehab Construction Fund	Total Acquisition Funds	Supportive Services & Admin
$14,500,000	**$6,670,000**	**$6,670,000**	**$580,000**	**$580,000**

*Allocation across new construction (46%), rehab (46%), acquisition(4%), and supportive services (4%) estimated based on historical allocation of AHTF dollars.

Figure 8

Louisville Affordable Housing Trust Fund					
Direct Impact Assumptions- Leveraged Funds at 10:1 Ratio					
	Levered Total	New Construction Funds	Rehab Construction Fund	Total Acquisition Funds	Supportive Services & Admin
Households at 80% - 50% AMI	$69,890,000	$33,350,000	$33,350,000	$2,900,000	$290,000
Households Below 50% AMI	$69,890,000	$33,350,000	$33,350,000	$2,900,000	$290,000
Total	**$139,780,000**	**$66,700,000**	**$66,700,000**	**$5,800,000**	**$580,000**

Figure 9

Louisville Affordable Housing Trust Fund					
Direct Impact Assumptions- Leveraged Funds at 17:1 Ratio					
	Levered Total	New Construction Funds	Rehab Construction Fund	Total Acquisition Funds	Supportive Services & Admin
Households at 80% - 50% AMI	$118,610,000	$56,695,000	$56,695,000	$4,930,000	$290,000
Households Below 50% AMI	$118,610,000	$56,695,000	$56,695,000	$4,930,000	$290,000
Total	**$237,220,000**	**$113,390,000**	**$113,390,000**	**$9,860,000**	**$580,000**

IMPACT CALCULATIONS

To calculate the economic impacts of the investments supported by Louisville Affordable Housing Trust Fund dollars, this study uses IMPLAN Pro. This regional economic model was calibrated to simulate the effects of a spending scenario on Louisville Metro’s economy. Initial spending is entered into the model in the appropriate category, and the impacts that the initial input is expected to have throughout the given region is calculated.

CONSTRUCTION IMPACTS

According to a study conducted by the National Council of State Housing Agencies (NCSHA), the cost to develop a single unit of affordable housing is approximately

$182,498, on average, across the country. When accounting for location, the average cost per unit in the East South-Central region (which includes Kentucky) is estimated at $133,382.[7] In fiscal year 2018, the LAHTF was able to generate approximately 1,306 new units with total development costs of approximately $164 million, or an average per unit cost of approximately $128,527, which is very much in line with the NCSHA estimated average for the region. Based on these average costs, at the 10:1 leverage ratio, Louisville would be able to support the provision of approximately 1,083 units per year based on the anticipated construction spending of $133.4 million.

Housing trust fund spending on new construction and housing rehabilitation activities will cause an initial direct economic impact as trust fund equity subsidies, leveraged by other public and private investment, are used to pay for labor, services, materials, and supplies associated with construction activities. Annual investment for construction activities (at the 10:1 leverage ratio) would result in $133.4 million of annual direct spending on construction activities.

This construction activity would cause a direct employment estimate of 749. As summarized in Figures 10 and 11, these direct jobs would all be in the construction industry, but jobs are created through the indirect and induced impacts as well. The annual indirect and induced effects of housing trust fund investment in construction activity include another 700 jobs.

These effects are spread over other industry segments as initial investment trickles down through the economy. For example, initial investment in housing construction stimulates indirect spending on insurance and other real estate services needed to support a newly constructed housing unit. Similarly, wages earned by construction workers are re-circulated throughout the economy for a broad range of goods and services across industry segments, all of which create jobs throughout the economy.

[7] https://www.taxcreditcoalition.org/blog/ncsha-releases-report-on-housing-credit-development-costs

Figure 10

Louisville Affordable Housing Trust Fund				
Construction Activity- Employment 10:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
Construction of new multifamily residential structures	376	-	-	376
Maintenance and repair construction of residential structures	373	-	1	374
Retail - Miscellaneous store retailers	-	40	4	44
Retail - Clothing and clothing accessories stores	-	31	4	35
Retail - Health and personal care stores	-	30	3	32
Retail - Building material and garden equipment and supplies stores	-	27	3	29
Wholesale trade	-	22	6	28
Real estate	-	14	11	25
Retail - Electronics and appliance stores	-	21	1	22
Retail - Sporting goods, hobby, musical instrument and book stores	-	19	2	21
Hospitals	-	-	20	20
Employment services	-	12	6	19
Full-service restaurants	-	3	15	18
Retail - Gasoline stores	-	16	2	18
Architectural, engineering, and related services	-	16	1	17
Other	-	161	208	369
Total	**749**	**413**	**287**	**1,448**

Figure 11

Louisville Affordable Housing Trust Fund				
Construction Activity- Employment 17:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
Construction of new multifamily residential structures	638	-	-	638
Maintenance and repair construction of residential structures	634	-	2	637
Retail - Miscellaneous store retailers	-	68	7	74
Retail - Clothing and clothing accessories stores	-	53	7	60
Retail - Health and personal care stores	-	51	4	55
Retail - Building material and garden equipment and supplies stores	-	45	5	50
Wholesale trade	-	37	11	48
Real estate	-	24	18	43
Retail - Electronics and appliance stores	-	35	2	37
Retail - Sporting goods, hobby, musical instrument and book stores	-	33	3	36
Hospitals	-	-	35	35
Employment services	-	21	11	32
Full-service restaurants	-	6	26	31
Retail - Gasoline stores	-	27	3	30
Architectural, engineering, and related services	-	28	2	29
Other	-	274	353	627
Total	**1,273**	**702**	**488**	**2,462**

Figures 12 and 13 demonstrate the overall economic output created by the initial spending in the construction industry. The direct impact of the construction and rehabilitation is estimated to account for $133.4 million in output at the 10:1 leverage ratio (the initial spending on construction and rehab) and the annual indirect and induced effects create additional output of $93.5 million.

Figure 12

Louisville Affordable Housing Trust Fund				
Construction Activity- Output 10:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
63 - Maintenance and repair construction of residential structures	$66,700,000	$24,227	$235,533	$66,959,760
60 - Construction of new multifamily residential structures	$66,700,000	$0	$0	$66,700,000
395 - Wholesale trade	$0	$5,532,679	$1,637,910	$7,170,589
440 - Real estate	$0	$3,750,728	$2,869,295	$6,620,023
441 - Owner-occupied dwellings	$0	$0	$4,294,686	$4,294,686
482 - Hospitals	$0	$0	$3,293,010	$3,293,010
399 - Retail - Building material and garden equipment and supplies st	$0	$2,882,341	$303,433	$3,185,774
401 - Retail - Health and personal care stores	$0	$2,791,092	$236,846	$3,027,938
449 - Architectural, engineering, and related services	$0	$2,644,792	$172,145	$2,816,936
403 - Retail - Clothing and clothing accessories stores	$0	$2,367,928	$290,658	$2,658,586
206 - Ready-mix concrete manufacturing	$0	$2,624,323	$10,262	$2,634,585
411 - Truck transportation	$0	$2,208,933	$344,616	$2,553,549
407 - Retail - Nonstore retailers	$0	$1,531,689	$508,836	$2,040,524
437 - Insurance carriers	$0	$458,280	$1,506,546	$1,964,826
433 - Monetary authorities and depository credit intermediation	$0	$758,471	$930,668	$1,689,139
Other	$0	$26,009,548	$23,279,086	$49,288,634
Total	**$133,400,000**	**$53,585,032**	**$39,913,529**	**$226,898,560**

Figure 13

Louisville Affordable Housing Trust Fund				
Construction Activity- Output 17:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
Maintenance and repair construction of residential structures	$113,390,000	$41,185	$400,407	$113,831,592
Construction of new multifamily residential structures	$113,390,000	$0	$0	$113,390,000
Wholesale trade	$0	$9,405,555	$2,784,446	$12,190,002
Real estate	$0	$6,376,238	$4,877,801	$11,254,039
Owner-occupied dwellings	$0	$0	$7,300,967	$7,300,967
Hospitals	$0	$0	$5,598,117	$5,598,117
Retail - Building material and garden equipment and supplies stores	$0	$4,899,980	$515,836	$5,415,815
Retail - Health and personal care stores	$0	$4,744,857	$402,638	$5,147,495
Architectural, engineering, and related services	$0	$4,496,146	$292,646	$4,788,792
Retail - Clothing and clothing accessories stores	$0	$4,025,478	$494,118	$4,519,596
Ready-mix concrete manufacturing	$0	$4,461,350	$17,445	$4,478,795
Truck transportation	$0	$3,755,186	$585,848	$4,341,034
Retail - Nonstore retailers	$0	$2,603,871	$865,020	$3,468,891
Insurance carriers	$0	$779,076	$2,561,128	$3,340,204
Monetary authorities and depository credit intermediation	$0	$1,289,401	$1,582,136	$2,871,537
Other	$0	$44,216,232	$39,574,447	$83,790,679
Total	**$226,780,000**	**$91,094,554**	**$67,852,999**	**$385,727,553**

Commonwealth Economics

Figures 14 and 15 highlight the effect construction activities have on employee compensation through direct, indirect and induced impacts. Employees throughout the area would receive an estimated total of $10.2 million in compensation as a result of 10:1 leveraged trust fund spending.

Figure 14

Louisville Affordable Housing Trust Fund				
Construction Activity- Employee Compensation 10:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
Maintenance and repair construction of residential structures	$19,128,844	$6,948	$67,548	$19,203,340
Construction of new multifamily residential structures	$19,071,238	$0	$0	$19,071,238
Wholesale trade	$0	$1,775,822	$525,719	$2,301,542
Hospitals	$0	$0	$1,564,889	$1,564,889
Retail - Health and personal care stores	$0	$1,320,672	$112,069	$1,432,741
Architectural, engineering, and related services	$0	$1,318,218	$85,800	$1,404,018
Retail - Electronics and appliance stores	$0	$1,129,410	$49,787	$1,179,197
Retail - Building material and garden equipment and supplies stores	$0	$1,061,253	$111,721	$1,172,974
Offices of physicians	$0	$0	$973,894	$973,894
Truck transportation	$0	$717,599	$111,953	$829,551
Retail - Miscellaneous store retailers	$0	$695,551	$66,937	$762,488
Retail - Clothing and clothing accessories stores	$0	$638,872	$78,420	$717,292
Management of companies and enterprises	$0	$463,124	$238,115	$701,239
Employment services	$0	$427,128	$218,263	$645,391
Monetary authorities and depository credit intermediation	$0	$271,142	$332,700	$603,842
Other	$0	$8,230,615	$8,097,076	$16,327,691
Total	**$38,200,082**	**$18,056,355**	**$12,634,891**	**$68,891,328**

Figure 15

Louisville Affordable Housing Trust Fund				
Construction Activity- Employee Compensation 17:1 Leverage				
Industry	**Direct**	**Indirect**	**Induced**	**Total**
Maintenance and repair construction of residential structures	$32,519,034	$11,812	$114,832	$32,645,678
Construction of new multifamily residential structures	$32,421,105	$0	$0	$32,421,105
Wholesale trade	$0	$3,018,898	$893,723	$3,912,621
Hospitals	$0	$0	$2,660,311	$2,660,311
Retail - Health and personal care stores	$0	$2,245,142	$190,518	$2,435,660
Architectural, engineering, and related services	$0	$2,240,971	$145,861	$2,386,831
Retail - Electronics and appliance stores	$0	$1,919,997	$84,637	$2,004,635
Retail - Building material and garden equipment and supplies stores	$0	$1,804,130	$189,926	$1,994,057
Offices of physicians	$0	$0	$1,655,620	$1,655,620
Truck transportation	$0	$1,219,918	$190,320	$1,410,237
Retail - Miscellaneous store retailers	$0	$1,182,437	$113,792	$1,296,229
Retail - Clothing and clothing accessories stores	$0	$1,086,083	$133,314	$1,219,397
Management of companies and enterprises	$0	$787,310	$404,795	$1,192,106
Employment services	$0	$726,118	$371,047	$1,097,165
Monetary authorities and depository credit intermediation	$0	$460,941	$565,590	$1,026,531
Other	$0	$13,992,046	$13,765,029	$27,757,075
Total	**$64,940,139**	**$30,695,804**	**$21,479,315**	**$117,115,257**

HOUSEHOLD SPENDING IMPACTS

As summarized in Figures 16 and 17, the additional housing opportunities created through housing trust fund investment can provide up to 1,764 new households each year. It is also important to realize that this initial investment will provide ongoing benefits to these residents. Because most low-income housing tax credit programs require at least a 15-year compliance period, this study assumes that the initial investment made by LAHTF will provide 15 years of ongoing benefits to their residents. By gaining access to housing that costs no more than 30 percent of their gross incomes, the residents of these households are estimated to save an average of $2,460 per year, based on the actual experience of beneficiary households in Colorado.[8]

Figure 16

Louisville Affordable Housing Trust Fund Impacts Study			
Households Served by Income Groups- 10:1 Leverage			
Income Groups Targeted	**Trust Fund Total**	**Average Cost to Build a Single Unit**	**#of Households served**
Households at 80% - 50% AMI	$66,700,000	$128,527	519
Households Below 50% AMI	$66,700,000	$128,527	519
Total	**$133,400,000**		**1,038**

Figure 17

Louisville Affordable Housing Trust Fund			
Households Served by Income Groups-17:1 Leverage			
Income Groups Targeted	**Trust Fund Total**	**Average Cost to Build a Single Unit**	**#of Households served**
Households at 80% - 50% AMI	$113,390,000	$128,527	882
Households Below 50% AMI	$113,390,000	$128,527	882
Total	**$226,780,000**		**1,764**

[8] Economic & Planning Systems, Inc. Colorado Housing Trust Fund Impacts Study. Colorado Housing Trust Fund Coalition. September 2002. Print.

As shown in Figures 18 and 19, this increase in the amount of household income that can be spent on non-housing related purchases will have an annual direct impact on the economy. However, when examining the Louisville Metro economy on the whole, the analysis should also account for the decrease spending power realized by all residents that are paying increased taxes to fund the LAHTF. When accounting for all of these factors, the estimated change in household spending patterns is projected to result in net support of 209 jobs and nearly $10.3 million in employee compensation at the 10:1 leverage ratio.

Figure 18

Louisville Affordable Housing Trust Fund

Economic Impacts of Change in Household Spending- 10:1 Leverage

		Impacts			
Income Groups Targeted	**Change in Spending**	**Employment**	**Compensation**	**Value Added**	**Output**
All Louisville Metro Residents	$ (14,500,000)	-111	$ (5,517,165)	$ (9,228,263)	$ (15,784,781)
Households at 80% - 50% AMI*	$ 19,149,570	141	$ 6,925,673	$ 11,784,137	$ 19,958,038
Households Below 50% AMI*	$ 19,149,570	180	$ 8,886,881	$ 14,485,348	$ 24,446,467
Total	**$ 38,299,140**	**209**	**$ 10,295,390**	**$ 17,041,223**	**$ 28,619,724**

*Spending change for households receiving benefits based on 15-year period to match life of most LIHTC programs

Figure 19

Louisville Affordable Housing Trust Fund

Economic Impacts of Change in Household Spending- 17:1 Leverage

		Impacts			
Income Groups Targeted	**Change in Spending**	**Employment**	**Compensation**	**Value Added**	**Output**
All Louisville Metro Residents	$ (14,500,000)	-111	$ (5,517,165)	$ (9,228,263)	$ (15,784,781)
Households at 80% - 50% AMI*	$ 32,554,269	239	$ 11,773,645	$ 20,033,033	$ 33,928,664
Households Below 50% AMI*	$ 32,554,269	306	$ 15,107,699	$ 24,625,092	$ 41,558,993
Total	**$ 65,108,538**	**433**	**$ 21,364,179**	**$ 35,429,863**	**$ 59,702,877**

*Spending change for households receiving benefits based on 15-year period to match life of most LIHTC programs

TAX REVENUES

The economic activity associated with housing trust fund investment and related changes in household spending creates additional public revenues from federal, state, and local taxes on property value, sales, and income due to the various direct, indirect and induced impacts described in the previous sections.

As summarized in Figures 20 and 21, investment in construction is estimated to generate tax revenues totaling $32.7 million each year at the 10:1 leverage ratio, $7.3 million of which would go to state and local jurisdictions.

Figure 20

Louisville Affordable Housing Trust Fund
Construction Activity- Tax Revenue 10:1 Leverage

	Business Taxes			Personal Taxes		
Taxing Entity	**Sales**	**Property**	**Other**	**Induced Property Taxes**	**Income Tax**	**Total**
Federal	$0	$0	$10,586,681	$0	$14,846,215	$25,432,896
State/Local	$2,552,682	$1,686,371	$642,927	$118,628	$2,262,069	$7,262,677
Total	**$2,552,682**	**$1,686,371**	**$11,229,609**	**$118,628**	**$17,108,283**	**$32,695,573**

Figure 21

Louisville Affordable Housing Trust Fund
Construction Activity- Tax Revenue- 17:1 Leverage

	Business Taxes			Personal Taxes		
Taxing Entity	**Sales**	**Property**	**Other**	**Induced Property Taxes**	**Income Tax**	**Total**
Federal	$0	$0	$10,586,681	$0	$14,846,215	$25,432,896
State/Local	$4,339,559	$2,866,831	$1,092,976	$201,668	$3,845,517	$12,346,551
Total	**$4,339,559**	**$2,866,831**	**$11,679,657**	**$201,668**	**$18,691,732**	**$37,779,447**

Changes in household spending at the 10:1 leverage ratio is estimated to generate an additional $3.6 million, of which $1.6 million would go to local and state jurisdictions. The breakdown of household spending tax impacts is shown in Figures 22 and 23.

Figure 22

Louisville Affordable Housing Trust Fund						
Net Economic Impacts of Household Income Change- Tax Revenue 10:1 Leverage						
	Business Taxes			**Personal Taxes**		
Taxing Entity	**Sales**	**Property**	**Other**	**Induced Property Taxes**	**Income Tax**	**Total**
Federal	$0	$0	$921,497	$0	$1,130,580	$2,052,077
State/Local	$687,226	$454,000	$128,775	$15,112	$283,169	$1,568,282
Total	**$687,226**	**$454,000**	**$1,050,272**	**$15,112**	**$1,413,749**	**$3,620,359**

Figure 23

Louisville Affordable Housing Trust Fund						
Net Economic Impacts of Household Income Change- Tax Revenue 17:1 Leverage						
	Business Taxes			**Personal Taxes**		
Taxing Entity	**Sales**	**Property**	**Other**	**Induced Property Taxes**	**Income Tax**	**Total**
Federal	$0	$0	$1,915,990	$0	$2,346,265	$4,262,254
State/Local	$1,436,334	$948,881	$268,626	$31,360	$587,603	$3,272,804
Total	**$1,436,334**	**$948,881**	**$2,184,616**	**$31,360**	**$2,933,868**	**$7,535,058**

SUMMARY OF IMPACTS

The projected benefits of supporting the Louisville Affordable Housing Trust Fund with a dedicated revenue source are substantial. As summarized in Figures 24 and 25, annual investment of $14.5 million is estimated to produce up to over 1,700 new housing opportunities a year, yielding significant net economic and fiscal benefits even after construction is completed.

Figure 24

Louisville Affordable Housing Trust Fund						
Summary of Impacts- 10:1 Leverage						
	Economic Impacts			**Fiscal Impacts**		
Impact Category	**Jobs**	**Employee Compensation**	**Output**	**Federal**	**State/Local**	**Total**
Construction Activity	1,448	$68,891,328	**$226,898,560**	$25,432,896	$7,262,677	**$32,695,573**
Change in Household Spending	209	$10,295,390	**$28,619,724**	$2,052,077	$1,568,282	**$3,620,359**
Total	**1,658**	**$79,186,718**	**$255,518,284**	**$27,484,973**	**$8,830,959**	**$36,315,932**

Figure 25

Louisville Affordable Housing Trust Fund						
Summary of Impacts- 17:1 Leverage						
	Economic Impacts			**Fiscal Impacts**		
Impact Category	**Jobs**	**Employee Compensation**	**Output**	**Federal**	**State/Local**	**Total**
Construction Activity	2,462	$117,115,257	**$385,727,553**	$25,432,896	$12,346,551	**$37,779,447**
Change in Household Spending	433	$21,364,179	**$59,702,877**	$4,262,254	$3,272,804	**$7,535,058**
Total	**2,896**	**$138,479,436**	**$445,430,430**	**$29,695,150**	**$15,619,355**	**$45,314,505**

VI. CONCLUSION

This analysis shows that, while Louisville has several different paths to identifying and implementing dedicated funding sources for this Affordable Housing Trust Fund, two stand out as being both the easiest to implement from Louisville Metro's perspective and most predictable/consistent regarding the amount of revenue each might generate.

An increase to the ad valorem real estate property tax rate could be implemented by Louisville Metro without changes to any state laws or regulations and minimal additional administrative work. While the increase does not require additional approvals (outside of Metro), should the increase result in a net revenue gain over prior year of more than 4%, it may be subject to voter referendum. This is a very predictable and controllable revenue stream from Metro's perspective, and a $0.01 increase per $100 in valuation would likely result in total additional annual revenue of $7.9 million.

Louisville Metro may also choose to amend the effective of its local government insurance premium tax via ordinance as a method to generate additional revenue dedicated to LAHTF. This increase would not be subject to the risk of a direct voter referendum that would rescind the tax increase, and the revenue streams that an increased rate would generate are fairly predictable. However, because taxing districts within Louisville Metro's jurisdiction are able to implement their own insurance tax, and the amount paid to those smaller districts is credited against what would be owed to Metro (and therefore not available to Metro), there is reduced control at the Metro level. Should a taxing district raise their rate to match Metro, those individuals and businesses would not be generating revenues to the LAHTF.

Based on 2017 insurance premium information provided by the Kentucky Department of Insurance, a 1% increase across the board (to all types of insurance) would result additional revenue of approximately $14.5 million (not including estimated revenue from taxing health premiums within the Louisville Metro district).

The LAHTF operations supported by a $14.5 million annual allocation would result in approximately 1,038 affordable housing opportunities can be produced *each year* if a 10:1 leverage ratio is assumed. This activity is estimated to result in 1,658 jobs and $8.9 million in tax revenues at the state and local levels.