

# Louisville Affordable Housing Trust Fund: Economic Impact

---

## **An Urban Studies Institute Research Report**

by

**Janet M. Kelly, Ph.D., Executive Director**  
**Barry Kornstein, Research Manager**  
and  
**Bridget Kelley, Graduate Research Assistant**  
**Kelli Woodard, Graduate Intern**

**Urban Studies Institute**  
**University of Louisville**  
**426 West Bloom Street**  
**Louisville KY 40208**  
**[usi.louisville.edu](http://usi.louisville.edu)**

The authors are grateful to Sarah Ehresman, Research Manager, Kentucky State Data Center for her help in retrieving the data for this report.

## Table of Contents

Executive Summary	3
Introduction	6
Affordable Housing Trust Funds	7
The Local Government Premium Tax (LGPT)	9
Incidence Analysis – Incorporated Areas	10
LGPT Revenue in the Urban Service District and Unincorporated Areas	12
Scenario: One Percent Increase Dedicated for LAHTF	13
Economic Impact Analysis	14
State Studies	14
Municipal Studies	16
Metro Economic Impact Estimation	18
Assumptions Underlying the Economic Impact Analysis	18
Phased Implementation	19
Sources of Economic Impacts	21
Summary of Impacts	22
Cost Avoidance	24
Education	24
Health	25
Safety	26
Transportation	27
Conclusion	28
References	29

## Executive Summary

The Louisville Affordable Housing Trust Fund (LAHTF) seeks a dedicated source of revenue to support their mission of making grants and loans to nonprofit and private developers to increase the stock of affordable housing in Metro Louisville. Of the Affordable Housing Trust Funds in Louisville's 17 peer cities, seven have a municipal AFHT and three of them have a dedicated revenue source. LAHTF seeks a 1% increase in the local government premium tax (LGPT) as a permanent source of revenue.

The LGPT is applied to premiums paid by Metro residents on various types of insurance. As a condition of the 2003 merger, municipalities in Metro Louisville could continue to tax insurance premiums and use the revenue to support their general purposes. Five municipalities do not impose the LGPT and residents of the remaining 78 municipalities pay rates between 5% and 10% on their premiums. Residents of the urban services districts and the unincorporated areas of the Metro pay 5%.

An incidence analysis of the tax burden was performed with the household as a unit of analysis. Households in municipalities with current LGPT rates above 6% would face no additional tax burden if the base rate were increased to 6%. Average households in the municipalities currently taxing at below 6% would face additional burdens that range from \$1.55 to \$318.44. Households in the urban services district would face an average additional burden of \$30.30, while an average household in the unincorporated area would face an additional burden of \$53.80. The total revenue provided as a result of a 1% increase in the LGPT amounts to roughly \$13 million.

Using a customized input-output model, the Urban Studies Institute (USI) estimated the economic impacts associated with a \$13 million revenue source that grows at about 3% per year. Based on a five year phased implementation and allocation plan provided by the LAHTF board, USI identified several sources of economic impacts. First, there is an impact associated with the loss of spending power experienced by households as a result of the tax increase. Second, there is an increase in spending power from families who would spend less on rent as a result of an affordable home. Third, loans to developers are usually bundled with federal funding, so there is a leverage of federal dollars into the local economy. Finally, there is an increase certain sectors of the local economy associated with the construction of new housing and the rehabilitation of existing housing.

Using a leverage ratio of 5:1, which is supported by other state and national studies, USI estimated the five year impacts as shown the table below:

**Economic Impact of a 1% Increase in the Insurance Premium Tax  
Hypothetical Initial Five-Year Ramp-Up Scenario, Leverage Ratio of 5:1**

Year	Tax Receipts	Loans	Jobs	Value Added	Payroll Estimate	Occupational Taxes	Occupational Tax, JCPS	Impact Source
1	\$13,000,000	\$650,000	19	1,372,485	746,861	11,818	3,448	Construction
			0	32,992	16,650	263	77	Lower Housing Costs
			(40)	(2,672,691)	(1,353,798)	(21,422)	(6,249)	Tax Increase
<b>Total Impact Year 1</b>			<b>(20)</b>	<b>(1,267,214)</b>	<b>(590,287)</b>	<b>(9,340)</b>	<b>(2,725)</b>	
2	\$13,390,000	\$4,017,000	136	9,854,439	5,362,461	84,853	24,753	Construction
			4	269,875	136,196	2,155	629	Lower Housing Costs
			(40)	(2,723,792)	(1,379,682)	(21,832)	(6,369)	Tax Increase
<b>Total Impact Year 2</b>			<b>100</b>	<b>7,400,522</b>	<b>4,118,976</b>	<b>65,177</b>	<b>19,013</b>	
3	\$13,791,700	\$7,585,435	338	24,498,712	13,331,392	210,950	61,538	Construction
			13	858,780	433,396	6,858	2,001	Lower Housing Costs
			(41)	(2,775,869)	(1,406,060)	(22,249)	(6,490)	Tax Increase
<b>Total Impact Year 3</b>			<b>310</b>	<b>22,581,623</b>	<b>12,358,728</b>	<b>195,559</b>	<b>57,048</b>	
4	\$14,205,451	\$9,943,816	511	37,013,270	20,141,403	318,709	92,973	Construction
			26	1,748,512	882,412	13,963	4,073	Lower Housing Costs
			(41)	(2,828,942)	(1,432,944)	(22,674)	(6,615)	Tax Increase
<b>Total Impact Year 4</b>			<b>495</b>	<b>35,932,840</b>	<b>19,590,871</b>	<b>309,998</b>	<b>90,432</b>	
5	\$14,631,615	\$10,242,130	588	42,622,921	23,193,990	367,012	107,064	Construction
			41	2,773,090	1,399,480	22,145	6,460	Lower Housing Costs
			(41)	(2,883,030)	(1,460,341)	(23,108)	(6,741)	Tax Increase
<b>Total Impact Year 5</b>			<b>587</b>	<b>42,512,981</b>	<b>23,133,129</b>	<b>366,049</b>	<b>106,783</b>	

Source: Customized IMPLAN (IMpacts for PLANing), version 3.1, model of Jefferson County, using 2013 economic data.

During the first year, when just \$325,000 is assumed to be used for construction of affordable housing, the negative effect of the tax increase is greater than the two positive impacts resulting in a small net loss of 20 jobs countywide. The effect of the tax increase remains fairly constant, only increasing incrementally with inflation. In general, the 1% insurance premium tax increase is expected to dampen demand in Jefferson County enough to lose about 40 jobs, with \$2.7 million of value added and \$1.4 million in payroll. This will reduce occupational taxes to governments by roughly \$22,000 and to schools by about \$6,500 annually.

But the positive impact of construction is much larger. By the second year the construction positive impact is three to four times larger than the negative tax impact. By the fifth year affordable housing construction is adding almost 600 jobs to the county's economy, with value added of \$42.6 million and payroll of \$23.2 million. That payroll is providing occupational tax receipts to local governments and schools of about \$367,000 and \$107,000, respectively.

Although the impacts derived from the housing costs savings of the families occupying the new housing units is comparatively small (only about 15 jobs with a payroll of roughly \$500,000 for each \$10m in loans, or 500 units of affordable housing), because they recur year-to-year the impacts are cumulative. By the end of the fifth year the cumulative effects of the new housing situations is almost exactly offsetting the annual impact of the premium tax increase.

The report concludes with a discussion of some cost avoidance impacts associated with affordable housing based on published research from reputable sources. No attempt is made to monetize these impacts for Louisville Metro, but improvements to education, health, safety and transportation have been attributed to an increased availability of affordable housing and the impact it has on the economic and physical well-being of residents who benefit from it.

## Introduction

The Louisville Affordable Housing Trust Fund (LAHTF) was created by Louisville Metro Council in 2008 (LMCO 40.41-40.45) to “receive monies and disburse monies to organizations dedicated to addressing the affordable housing needs of individuals and families of low- and moderate-income households by promoting, preserving and producing long-term affordable housing and providing housing-related services to low- and moderate-income households.” LAHTF is a private, nonprofit agency overseen by a 13 member mayor-appointed board. It was capitalized with an initial investment of \$1 million. In 2011, LAHTF was allocated an additional \$100,000. LAHTF also accepts private gifts and donations.

LAHTF makes grants and loans to nonprofit and private developers to increase the stock of affordable housing in the Metro by leveraging private dollars. Developers, especially private developers, are not inclined to rehabilitate or build affordable units because the rate of return on their investment is higher for market-rate properties. Federal, state and local governments often make grants and low-interest loans available in order to encourage investment in affordable housing. When developers secure funds from other public sources and combine them with private investment, a housing venture that would not have been attractive to private developers can become a good investment. LAHTF, like other housing trust funds, leverages dollars from inside and outside the local economy to support affordable housing.

A 2012 needs assessment (LAHTF, 2012) established the need for affordable housing in Louisville Metro and set priorities for project selection based on those needs. The report concluded that a dedicated public revenue source was essential in addressing the needs and fulfilling the founding mission of LAHTF. In February 2013 an ordinance to increase the local government premium tax (LGPT) from 5% to 6% was introduced to Metro Council. The ordinance would have dedicated the proceeds from the additional 1% to provide a dedicated revenue source for LAHTF activities for five years.

LAHTF contracted with the Urban Studies Institute (USI) to estimate the economic impacts of the investments leveraged by LAHTF for rehabilitation of existing housing and construction of new affordable housing should a 1% increase in the LGPT be approved and dedicated to LAHTF. LAHTF also requested USI to estimate the incidence of the increase in the LGPT on Louisville residents.

This report begins with a summary of how city/county affordable housing trust funds are funded in those cities identified as Louisville’s peers (Urban Studies Institute, 2014). Then the LGPT is examined in some detail and 2015 revenue estimates are presented, along with average household cost based on location (within the urban services district, in unincorporated areas, or in one of the 83 municipalities within Jefferson County).

The economic impact section begins with a short review of economic impact studies done in other cities, specifically to establish the reasonableness of the leverage ratio used to estimate the magnitude of the impact on the local economy. That section includes changes to local output, jobs created, and tax revenues generated. The report concludes with a discussion of how cost-avoidance considerations of affordable housing on education, health, safety and transportation have been treated in scholarly studies. Estimating the dollar value of cost avoidance associated with increased affordable housing is imprecise, at best, so other credible attempts to assess the nature and relative magnitude of cost avoidance is described. Finally, the three economic issues (LGPT, economic impact, cost avoidance) are summarized in the conclusion.

### **Affordable Housing Trust Funds**

Affordable Housing Trust Funds (AHTF) are typically independent, not-for-profit lenders. Monies for the trust funds sometimes come from dedicated sources of ongoing public revenue from the city, county or state government. Other AHFTFs are funded by general appropriation of the government, which means that they compete with other programs for scarce public monies each budget cycle. Most accept donations, though donated funds are typically a very small part of the AHTF budget.

Though they differ in their stage of development, all of Louisville’s 17 peer cities have an AHTF, either at the state or city level. Six peer cities fund AHTFs at the city and/or county level, as shown in Table 1. Nashville and Knoxville rely on general fund appropriations, but the remaining four have some sort of dedicated revenue source, occasionally in conjunction with a general appropriation.

**Table 1. Affordable Housing Trust Funds in Peer Cities/Metro Area Funded by the City/Metro.**

<b>Peer City</b>	<b>Housing Trust Fund</b>	<b>Year Established</b>	<b>How Funds are Raised</b>
Charlotte, NC	Housing Trust Fund	2002	Housing bond revenues
Columbus, OH	The Affordable Housing Trust for Columbus and Franklin County	2001	Hotel tax, real estate transfer fee, general Fund
Indianapolis, IN	Housing Trust Fund	2000	Electronic filing fees, document recording fees, foundation funding
Knoxville, TN	Affordable Housing Trust Fund	1993	General fund

Louisville, KY	Affordable Housing Trust Fund	2007	General fund – one time
Nashville, TN	Barnes Fund for Affordable Housing	2013	General Fund – One Time
St Louis, MO	Affordable Housing Trust Fund	2001	Special use tax on major purchases outside city limits

The Charlotte Housing Trust Fund was established in 2001 and is funded by voter approved housing bonds. Since that time, 4,375 new and rehabilitated affordable housing units have been financed through the HTF. The HTF has also received a commitment of \$86 million from the City of Charlotte (website address).

The City of Columbus teamed up with the Franklin County Board of Commissioners in 2001 to fund AHTF for Columbus and Franklin County. It is funded in portion by the City of Columbus’s hotel tax and a portion of Franklin County’s real estate transfer fee. In 2012, the Trust’s investments preserved/produced 158 units (The Affordable Housing Trust for Columbus and Franklin County).

The Indianapolis Low Income Housing Trust Fund was established in 2000. It is funded by revenues from electronic filing fees associated with property sales disclosure forms, and document recording fees. These sources of funding have been matched by The Central Indiana Community Foundation. In 2013, the overall funding for the HTF was \$1.4 million, and the HTF rehabilitated four units and gave emergency assistance with rent and utility costs for 1,800 households (Indianapolis Low Income Housing Trust Fund 2014).

Knoxville’s HTF is run through a private foundation. The East Tennessee Foundation’s AHTF was established in 1993. It was established with contributions from the City of Knoxville and Knoxville’s Community Development Corporation. The HTF continues to receive annual appropriations from the City of Knoxville (Affordable Housing Trust Fund).

The Nashville Housing Trust Fund began in 2013 targeting households making 80% AMI or less. It received \$3 million in initial funding from the Mayor. Like Louisville, it is also in the process of securing an ongoing dedicated source of public funding (Housing Trust Fund).

Since it first received funding in 2002, the St. Louis AHTF has provided more than \$65,400,000 in programming and construction of affordable housing. Funding is derived from a special use tax on major purchases from outside the city limits. In 2012, the HTF assisted in building 17 new homes, 108 accessibility-related home modifications for senior citizens and people with disabilities, and transitional housing for 816 individuals (Affordable Housing).



A running theme through housing trusts in Louisville's peer cities is the need for a stable financing source other than a general appropriation. Revenue from special taxes and from electronic real estate document filing fees are the two most popular sources of funding. LAHTF seeks a stable funding source from a 1% increase on the insurance premium tax dedicated to fund affordable housing.

### **The Local Government Premium Tax (LGPT)**

KRS 91A.080 authorizes local governments to collect license fees on insurance companies for the "privilege of engaging in the business of insurance." The tax is applied to premiums paid by the insured for casualty, automobile, inland marine, fire and allied perils, health, and life insurance policies. The insurance company remits the tax directly to the government to which the tax is owed rather than to a centralized state authority. The Kentucky Department of Insurance publishes instructions and tax schedules for insurers and requires each insurer to file an annual report for the tax paid the previous year.

Local governments face no restrictions on the use of the tax revenues; they are considered general fund revenues and may be spent for any appropriate purpose. For some smaller local governments in Louisville Metro, the LGPT is a critical revenue source to fund basic operations.

As a condition of the 2003 merger of Jefferson County and the City of Louisville, incorporated municipalities were permitted to continue to levy taxes and fees to provide for services within their jurisdictions. They can do so by local ordinance. Most municipalities tax fire, casualty/liability and vehicle/boat insurance. Thirty-eight municipalities tax health insurance premiums, and 76 tax life insurance premiums. Appendix A presents the rates and bases for the municipalities.

Wildasin (2008) noted that Kentucky municipalities enjoy a high degree of autonomy with respect to the LGPT. Some municipalities tax at relatively high rates, others do not tax at all. Households in the five municipalities that do not impose a LGPT pay the countywide base rate of 5%. Households in the other 78 municipalities pay a rate between 10% and 5%. There is no requirement for any municipality to enact the LGPT and no limitations on rates.

Section 12 of KRS 91A.080 permits counties to enact a LGPT so long as they credit the cities in that that county for the LGPT paid by city residents. That is, the LGPT does not "stack." If a county passes a 5% LGPT, then any city in the county currently imposes a 5% or higher tax rate is unaffected. If a city in that same county currently imposes a 4% LGPT, the city retains the proceeds from the 4% tax and the county receives 1% of the tax. In other words, the household pays the base rate of 5% and only the difference between the municipal rate and the base rate is remitted to the county.

Appendix B shows the 2015 LGPT rates for municipalities in Jefferson County under a scenario where Louisville Metro raises the base rate countywide from 5% to 6%. Residents of many municipalities would find their rates increased by 1%, as 5% tends to be the most common rate levied by municipalities. Some residents would find their rates unaffected as their current rate is already 6% or higher. Again, households in the five municipalities that do not impose the LGPT would pay the new 6% Metro rate.

### **Incidence Analysis – Incorporated Areas**

The LGPT is faced by households, not individuals, so the unit of incidence analysis is the household. The last Census data available for number of households that includes all the incorporated places in Jefferson County was 2010.

LGPT revenues were derived from Uniform Financial Information Reports (UFIR) submitted to the Department of Local Government by each municipality and collected by the Kentucky League of Cities for research purposes. The last year available was fiscal 2013, and there were five municipalities in Jefferson County that had not yet filed for 2013.

The last column of Appendix B shows the effective rate of a proposed 6% LGPT imposed by Louisville Metro. Under this scenario, based on the last year of LGPT tax revenues available (2013) and applying the additional rate, nearly \$13 million could be raised from a 1% increase as shown in Appendix B.

A few assumptions were necessary to complete Appendix B. Nine municipalities did not file a Uniform Financial Information Report for 2013. In those cases, 2013 revenues were estimated from UFIR filings from 2011 and 2012.

Next, the five municipalities that do not impose the LGPT (shaded) were added to the base of the unincorporated area. That permitted calculation of the average LGPT payment per household in the unincorporated area (\$257), which was then multiplied by the number of households in the municipality to estimate the tax revenue generated and the tax burden per household. Since these are estimated from the same base, all the households in these no-tax municipalities will have the same per household burden of a 1% increase (\$51.40).

Eleven municipalities currently have LGPT rates higher than 6% and face no additional tax burden attributable to the increase. Another nine face increases of under \$10. Table 3 presents the municipalities whose households face an additional tax amount of more than \$50.

**Table 2. Municipalities with Increased Tax Burdens over \$50 after 1% Increase in LGPT**

<b>Municipality</b>	<b>Tax Burden per Household of 1% Increase</b>
Goose Creek	\$318.44
Glenview	\$215.91
Forest Hills	\$159.91
Manor Creek	\$145.72
Anchorage	\$113.83
Norbourne Estates	\$111.05
Hurstbourne Acres	\$84.21
Maryhill Estates	\$82.45
Riverwood	\$79.50
Broeck Pointe	\$65.71
Indian Hills	\$62.58
Hills and Dales	\$58.60
Louisville Unincorporated	\$53.80
Seneca Gardens	\$52.65
Meadowbrook Farm	\$51.68
Mockingbird Valley	\$51.40
Moorland	\$51.40
Poplar Hills	\$51.40
Hollyvilla	\$51.40
South Park View	\$51.40
Spring Mill	\$51.40
Saint Matthews	\$51.26
Glenview Hills	\$50.70

In general, this analysis might be regarded as the best available, though not a precise, estimate of incidence. The number of households likely increased in the fast growing suburbs since 2010, but not as much in the USD and some close suburbs that are built out. In other words, very few new households will have been added to Audubon Park because the subdivision has not expanded nor have new homes been added. The consequence would be that some faster growing suburban places, especially in eastern Jefferson County, might be paying less than the estimate as the number of household increase. The households estimate might be relatively accurate in the near suburbs.

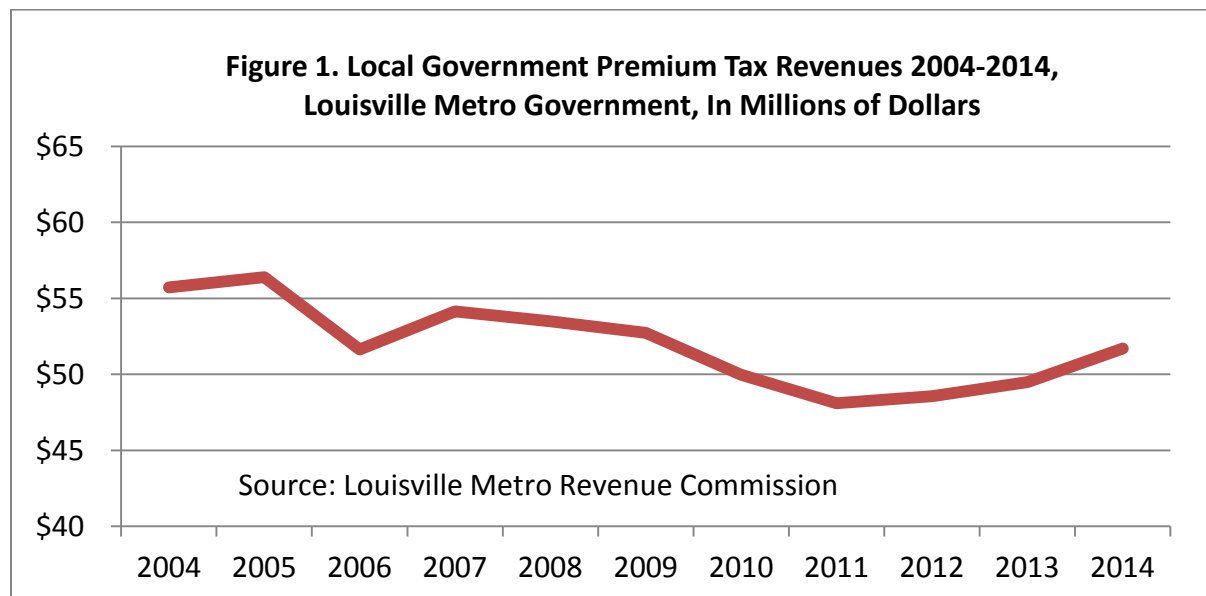
Finally, this analysis assumes that the 78 that currently impose the LGPT municipalities will not amend their current ordinances to increase or decrease the rate or change the base. Louisville

Metro has no statutory authority to prevent a municipality from enacting an ordinance imposing the LGPT (if it does not currently) or amending the existing ordinance with regard to rates or bases. Since it is unclear whether those municipalities that currently tax at 5% will retain that rate or raise their local rate to 6% should the additional 1% be enacted, a more reliable revenue estimate from the increase might be drawn from the USD and unincorporated areas.

### **LGPT Revenue in the Urban Service District and Unincorporated Areas**

In fiscal 2014, Louisville Metro received approximately \$52.3 million in LGPT revenues from taxes on residents of the USD and unincorporated areas of the Metro. Like the other municipalities, Louisville Metro uses proceeds from the LGPT for general purposes.

Louisville Metro Code of Ordinances (LMCO) 122 established a rate of 5% on all types of premiums, but LMCO 38.64 exempts health insurance premiums for those outside the urban services district (the former city limits). The Louisville Metro Revenue Commission reports LGPT receipts monthly. A review of ten years' data shows that LGPT revenues are sensitive to changes in the economy, but relatively stable over time (Figure 1).



LGPT revenue grew at roughly 2% from 2011-2012, about 4% from 2012-2013 and about 3% from 2013-2014.

An open records request produced some more detail regarding Metro LGPT revenues. Since health insurance premiums are taxed in the USD but not in the unincorporated areas, a list of revenues by carrier for the USD for 2013 allowed LGPT revenues to be split between the two areas, improving the quality of a revenue estimate. The result was an almost perfect 70/30

revenue split between the unincorporated areas and the urban services district. The ratio and the growth rates permitted estimation of LGPT revenue for 2015 under a 6% rate.

### Scenario: One Percent Increase Dedicated for LAHTF

LAHTF proposes a one percent increase in the LGPT dedicated to fund affordable housing in Louisville Metro. To arrive at an estimate of total revenue and increased cost per household, the number of households in the USD and unincorporated areas had to be determined.

To estimate the number of households in the Urban Services District (USD) the Kentucky State Data Center retrieved block group data in a configuration that closely approximated, but did not perfectly align, with UDS boundaries. The unincorporated areas were estimated as the balance between the 83 municipalities, the estimated USD and the household county for the county. According to the delineation per the 2010 Census, there were 139,955 households in the unincorporated areas and 106,483 households in the USD. Applying household estimates to revenue numbers produced the tax per household estimates.

The next task was to use the 2015 revenue estimate to predict the additional amount that a 1% increase in the existing 5% LGPT rate would yield, and what the impact would be on households. Again, it was critical to distinguish between the unincorporated areas and the USD because health insurance premiums are only taxed in the USD.

**Table 3. Incidence of 1% Increase in LGPT, Unincorporated Area and USD**

	Louisville Unincorporated	Louisville USD
Number of Households 2010 SF1	139,955	106,483
Add Households in 5 Municipalities with No LGPT	713	-
Total Households	140,668	106,483
2014 Insurance Premium Tax Revenue*	36,586,321	15,679,852
Estimated 2014 Tax Per Household	\$260	\$147
Average Revenue Growth	2.90%	2.90%
Estimated 2015 Insurance Premium Tax Revenue	\$37,647,324	\$16,134,568
Estimated 2015 Tax Per Household	\$268	\$152
Estimated 2015 Insurance Premium Tax Revenue with 1% Dedicated Increase	\$45,176,789	\$19,361,481
LAHTF Revenue from 1% Dedicated Increase	\$7,529,465	\$3,226,914
Estimated Additional Tax Burden per Household of 1% Dedicated Increase	\$53.80	\$30.30

A 1% increase in the LGPT dedicated to LAHTF would have produced approximately \$10,756,378 had it been on place at the beginning of fiscal year 2015. The average cost for a household in the unincorporated area would be about \$54 and a household in the USD would pay about \$30.

The estimated LGPT rate of growth for 2015 (2.9%) could be understated or overstated, but the trend line in Figure 5 and the prevailing state to the economic recovery both suggest that a growth rate slightly lower than 3% is reasonable.

## **Economic Impact Analysis**

Most the economic impact studies of AHTFs have been done at the state level because, as the earlier section indicated, most are state entities and funded by state revenues. However, since the purpose of the review is to establish the nature of the impacts and the set a context for examining the reasonableness of any LAHTF economic impact results, the state level studies are useful.

### **State Studies**

Arizona's AHTF was funded from a dedicated revenue source; however their experience suggests that even dedicated revenue sources are subject to economic downturns. Funded by 55% of proceeds from unclaimed property (usually arising from owner's death with no claimed beneficiary, AHTF revenues amounted to about \$30 million annually until 2010, when the recession and state budgetary constraints capped the fund at \$2.5 million. An impact analysis of their program published in 2014 was limited to new apartment construction and all related tax and fees. For the average \$30 million invested in new affordable housing, the economic output was \$151.4 million (a ratio of a little over 5 to 1). About 1300 new jobs were supported annually with wages of about \$57.5 million. Approximately \$19 million in taxes were generated annually (Arizona Department of Housing, 2014).

Colorado's economic impact study was prospective, with an anticipated \$26.5 million annual funding base of which with nearly \$16 million invested in now construction and rehabilitation (with the balance invested in other programs not creating new impacts.). They estimated that every dollar invested in the housing trust fund would leverage \$10 in private economic activity. That economic activity was expected to generate about \$26 million in annual tax revenues (Colorado Housing Trust Fund Coalition, 2002). Colorado ultimately dedicated \$13 million of its \$51 million National Mortgage Settlement fund to create the Colorado Housing Investment Fund, a revolving loan fund for affordable rental housing.

The Ohio Housing Trust Fund was created in 1991 and was initially funded by revenues from unclaimed funds, then subsequent years it was funded from two temporary sources of state

revenue. In the 2004-2005 budget year (biennium) the Ohio legislature increased real estate conveyance fee (generally paid at closing by the seller) collected at the county level. Using a rather expansive definition of impacts, including homeless programs, special projects, technical and business assistance and home ownership assistance, the economic impact ratio was estimated at about 14.4 to 1. However, if only housing development is considered over the period 2006-2009, the ratio was 9.5 to 1 (Ohio Housing Trust Fund).

The Pennsylvania Housing Affordability and rehabilitation Enhancement Program (PHARE) was signed into law in 2011 but without a funding source. In 2012 a portion of the Marcellus Shale Impact Fee (on new and existing drilling companies) was dedicated to PHARE. The fees are imposed at the county level at the option of each county where drilling takes place. The fee changes from year to year. In 2013, 22 counties collected a total of \$8,497 million in revenues. A 2009 prospective economic impact report limited to just new single family and multi-family construction and rehabilitation estimated that for every \$10 million invested in the Pennsylvania Housing Trust Fund, \$23 million would be generated in economic impact. (Housing Alliance of Pennsylvania, 2009).

Tennessee's Housing Trust Fund was established in 2006 to serve very low income, elderly and special needs citizens. It is funded primarily by the Tennessee Housing Development Agency, and is focused on low income households in rural areas. State appropriations for the fund ended in FY 2009 but the Tennessee Housing Development Agency continued to fund the program at \$6 million per year through 2012. Though the focus is dissimilar, two items of interest from the Tennessee report are useful to consider. First, for every \$1 in funds expended, the trust fund has been able to raise \$1.28 in matching funds from grants and other sources. Second, they concluded for the Housing Trust Fund's Competitive Grant program alone, every dollar invested leveraged approximately \$4 in personal and business revenue. The study also estimated that the program also contributed approximately \$2 million in tax revenue over the five year period.

The Virginia Housing Trust Fund was created in 2012 and funded by \$7 million of the \$66 million National Mortgage Settlement funds received by Virginia. The legislation provides that at least 80% of the funds are to be used to provide low-interest loans to qualified organizations. The principal and interest earnings are paid to the fund, which can retain its balances over multiple budget years. This study was instructive in that their results were spread over a ten year time frame. The long run perspective assumed that the payments from the low-interest loans would be added to the annual appropriation. In short, the report finds the average annual economic impact to be approximately 9 to 1 or \$9 million in economic activity for every \$1 million in program revenue. The report also estimated approximately \$90 million in tax revenue over the

period from associated construction and ongoing operations (Campaign for A Virginia Housing Trust Fund, 2011).

## **Municipal Studies**

The Center for Community Change ([housingtrustfundproject.org](http://housingtrustfundproject.org)) estimates that there are 73 municipal housing trust funds in 27 states. California alone had 24 of them. About half of them were created since 2000. California AHTFs overwhelmingly relied on development impact fees for their funding. Of the remaining cities outside California, eight relied on general fund revenues, six relied on property, sales or use tax revenue, and the remainder had fees related to property sales, developer fees or other earmarked revenue (casino revenues, bond revenues). Seventeen of the cities received one-time funds to capitalize the trust before revenues began to accumulate, such as Louisville's initial \$1 million appropriation.

The most important finding from the study of city housing trust funds is the leverage amounts. The leverage amount is the amount of public and private dollars raised for every dollar invested in the trust fund. The average leverage for state housing trust funds was 7 to 1. For county and multi-county trust funds it was 10 to 1. The average leverage amount for cities was \$6.50 to 1 (Center for Community Change, 2007, p. 20). This number is important because it suggests how much an investment in a housing trust fund will benefit the city. For example, for every dollar raised through the LGPT, Louisville might expect to leverage \$6.50 in public and private dollars to devote to affordable housing. This is not the same as the economic impact of the housing trust fund.

Only those dollars leveraged from outside the economic geography – in this case Jefferson County – are counted in the economic impact model. For example, if \$10 million is raised through a 1% increase in the LGPT, that \$10 million is not available for households to spend or invest. When a portion of that \$10 million re-enters the economy through the construction and rehabilitation of housing, there has simply been a shift from household consumption to certain affected economic sectors. However, when funds from the federal government and private developers outside the region to support AHTF activities, a multiplier effect created by spending of that “outside” money through successive rounds creates positive economic impacts.

Relatively few city economic impact reports have been published, likely because they are expensive and not particularly useful unless the city is seeking new or expanded revenues or has existing revenues threatened. Of those available to review, several specifications of city economic impacts treated the revenue raised from local sources as an injection into the local economy and assumed that the leverage ratio would be realized immediately. It is much more reasonable to assume that the leverage ratio will increase up to the national average for cities



over a period of several years as the revenues are loaned to developers for new construction and rehabilitation.

The most relevant municipal study available for review was one recently conducted at the direction of the Affordable Housing Trust Fund Task Force of Lexington/Fayette Urban County Government (2010) to estimate the effects on job, income, industry sector, tax revenues and household spending arising from increased access to affordable housing. The Lexington study also examined the revenue produced by a quarter, half, three quarter and one percentage point increase in the LGPT. They estimated annual revenue of \$4,449,120 at 1% with an impact per household of \$35. The study estimated both one-time impacts from construction and ongoing economic impacts attributable to average annual rent savings of \$2,460 per household.

Historically the Kentucky Affordable Housing Trust Fund has been able to leverage federal, state and private funds at a 4:1 ratio. This is slightly lower than the average for all states and for other municipal housing trust funds. The Task force decided to use several leverage ratios for comparison; 5:1, 8:1 and 10:1 to account for reduced lending activity in some years and increased lending activity in other years. The Lexington study assumed that 40% of revenues would go toward rental construction and 30% to rehabilitation. The remaining 30% would be split between land acquisition and support services.

Assuming that 40% of the 1% increase was devoted to new construction, \$1,779,646 would be available to leverage \$8.9 million at 5:1. The Task Force study used a \$4 million annual balance as the basis for estimating direct impacts. Of the \$4 million, \$1.6 million would be spent on new construction, \$1.2 million on rehabilitation and the remainder on acquisitions and other services. It is unclear from the report how new acquisitions were treated for analysis purposes, but most likely they were disregarded as the funds used for acquisition and the benefit to the owner would both occur within the designated geography. However, the total economic impact from construction activity was estimated at \$6.4 million at the 5:1 leverage ratio.

The report also treated increases in the amount of household income arising from rents saved by affordable housing with various leverage ratios. At a 5:1 ratio the total impact was \$3.845 million and the creation of 37 jobs. Sales, property and income taxes arising from construction activity were also estimated for businesses and individuals. The total taxes generated assuming a 5:1 leverage ratio was approximately \$2.27 million. Taxes arising from change in household income were approximately \$500,000.

There are several issues that may affect the economic impact estimates of their report. First, it is unclear how rehabilitation spending entered into the analysis. It was not included as a part of construction costs, but would certainly create economic multipliers if funded by public or

private sources outside the county. The report may assume, though it does not say, that these impacts are likely to be negligible.

Finally, the report does not indicate if the amount of the increased premiums were removed from the total annual funding of \$4 million. As indicated previously, the amount raised through the LGPT is a withdrawal from the economy. Also, any leveraged funds coming from inside the county should also be excluded from the direct impacts. Both amount to redistributions within the local economy as opposed to injections from outside. The impact analysis that follows makes both adjustments.

### **Metro Economic Impact Estimation**

Economic impacts arise when funds flow from outside the study geography into the study geography. In our case, the geography is Jefferson County. When funds flow within Jefferson County (from one business to another or from a business to a wage earner) there is a redistribution of dollars with no additional impact. However, when dollars flow from outside the economy they are spent in rounds (from business to business, from business to employee, from employer to other businesses and from employee and business to government in the form of taxes). These rounds have multiplier effects, which mean that the value of the initial dollar injection from outside the county will be greater when it is circulated within the county economy.

We use a customized input-output model of the local economy to investigate the linkages between the industries affected by renovation of existing housing and construction of new housing. The Minnesota IMPLAN Group (also known as MIG, Inc.), a nationally recognized company which is the sole-source provider of the IMPLAN economic impact modeling system, developed the multipliers used in this study. Our IMPLAN model has details on 536 industries, and can predict how much each industry buys from every other industry in the county, as well as how much must be imported from outside the county to support a given level of business activity. Output in one industry lifts output in supporting industries, which in turn raises output in industries that support them. Generally speaking, the more an industry purchases in the county the larger the spinoff impacts of that industry's activity. The more it imports raw materials and services, the smaller the local impact.

### **Assumptions Underlying the Economic Impact Analysis**

A number of difficulties arise when preparing a prospective economic impact analysis. Though it is done every day, especially when states and local governments deliberate incentive offers to business and industry for location in their area, it has to be grounded on what the principals assert that they will do rather than what they have done.

For the purposes of this analysis, we will assume that LAHTF receives \$13 million in LGPT revenues the first year after enactment and that the revenue stream grows by 3% per year. The analysis of the LGPT in the preceding section was the basis for the revenue assumptions. The spending assumptions are not nearly so straightforward.

The usual approach to a prospective analysis is to interview the principals to ascertain their intentions and use existing information from that industry or a related business to gauge their reasonableness. The LAHTF board prepared an allocation plan for the disbursement of the prospective \$13 million. The timetable for disbursement was drawn from the experience of Columbus Ohio AHTF, which was given a new dedicated revenue source. Like LAHTF, Columbus used a portion of their revenues to fund grants and programs, a portion for fund new construction and a portion to fund rehabilitation of existing structures. They also used the interest from the accumulated revenue (not given or loaned) to fund administration of the program.

Columbus retained a significant portion of new revenues to build a corpus from which to pay for administrative expenses and to ensure a steady stream of future income to devote to programs and services. LAHTF cannot grant or loan the entirety of the revenue the first year, nor would they desire to. Like Columbus, LAHTF envisions a five year implementation period to full capacity. As years pass, the volume of loan activity increases and interest payments from those loans flow back into the revenue stream.

### **Phased Implementation**

Table 5 provides a working scenario for the distribution of funds, again, modeled roughly on the Columbus AHTF experience where during the early years of the program a significant portion of the revenue was retained to be invested (the corpus) while an ambitious loan program was being developed. The rationale was that the interest on the corpus could eventually offset direct expenditures for administrative cost and allow the entire revenue stream to be used for grants, programs and loans in the sixth year.

The scenario in Table 5 begins with retention of revenues at 75% the first year and sets target operating costs at 10% of revenue. The LAHTF Board identified operating costs as including monitoring, compliance, inspections, legal, staff, accounting and auditing services.

**Table 5. Five Year Revenue Flow Scenario for Illustration Purposes Only**

	<b>LGPT @ 3% Annual Growth</b>	<b>Distribution of Revenue</b>			<b>Retained</b>	<b>Loaned</b>	<b>Running Balance</b>
Year 1	\$13,000,000	Retained (Corpus)	75%	\$9,750,000	\$9,750,000		\$9,750,000
		Operations	10%	\$1,300,000			
		Grants and Programs	10%	\$1,300,000			
		Loans	5%	\$650,000		\$650,000	
Year 2	\$13,390,000	Retained (Corpus)	50%	\$6,695,000	\$6,695,000		\$16,445,000
		Operations	10%	\$1,339,000			
		Grants and Programs	10%	\$1,339,000			
		Loans	30%	\$4,017,000		\$4,017,000	
		Interest - Loans (2%)		\$13,000	\$13,000		\$16,458,000
		Interest - Corpus (1%)		\$97,500	\$97,500		\$16,555,500
Year 3	\$13,791,700	Retained (Corpus)	25%	\$3,447,925	\$3,447,925		\$20,003,425
		Operations	10%	\$1,379,170			
		Grants and Programs	10%	\$1,379,170			
		Loans	55%	\$7,585,435		\$7,585,435	
		Interest - Loans (2%)		\$93,340	\$93,340		\$20,096,765
		Interest - Corpus (1.5%)		\$248,333	\$248,333		\$20,345,098
Year 4	\$14,205,451	Retained (Corpus)	10%	\$1,420,545	\$1,420,545		\$21,765,643
		Operations	10%	\$1,420,545			
		Grants and Programs	10%	\$1,420,545			
		Loans	70%	\$9,943,815		\$9,943,816	
		Interest - Loans (2%)		\$232,049	\$232,049		\$21,997,691
		Interest - Corpus (1.5%)		\$305,176	\$305,176		\$22,302,868
Year 5	\$14,631,615	Retained (Corpus)	10%	\$1,463,161	\$1,463,161		\$23,766,029
		Operations	10%	\$1,463,161			
		Grants and Programs	10%	\$1,463,161			
		Loans	70%	\$10,242,130		\$10,242,130	
		Interest - Loans (2%)		\$350,585	\$350,585		\$24,116,614
		Interest - Corpus (1.5%)		\$334,543	\$334,543		\$24,451,157

Revenue from grants and programs can be disseminated much more quickly than loans, so 10% of revenue is given as loans or grants in the first and all subsequent years. These are identified by the LAHTF Board as services that connect people to housing and keep them stably housed, such as homeownership counseling, foreclosure prevention services, services tied to permanent supportive housing for people with severe disabilities, and services to help people age in place.

Loans rise quickly to 30% in the second year, to 55% in the third year and stabilizing at 70% in year 4 and thereafter. The interest rates used in the analysis are simple interest based on prevailing rates. No attempt was made to amortize the schedule over the duration of the loan as most loans are relatively short term. A minor increase in interest rates on the corpus (1% to 1.5%) was performed in year 3 based on expected short term economic conditions.

### **Sources of Economic Impacts**

The economic impact of the LAHTF comes in three parts. First there is the impact of the actual construction and rehabilitation of apartments and houses. Second, is the impact that occurs because families who had previously been paying more than 30 percent of their incomes are now paying less than that and have more money to spend on other things. And third, there is a negative impact deriving from the 1% increase in the LGPT. We analyzed each of these separately.

Some additional assumptions needed to be made in order to carry out the analyses. For the construction impact we assumed a 3 to 1 ratio of rehabilitation to new construction based upon correspondence with the LAHTF. For the impact based on the reallocation of spending by the families served we needed to estimate how much would be saved on average by families in various income groups. The LAHTF provided us with the percentage of funds it expects to use serving families with incomes below 50% AMI and families between 50% and 80% AMI. We used census data on gross rents by household income to estimate the number of families spending more than 30% of income on housing in various income categories, the average they pay, and how much they are likely to save annually. We estimate that families served with incomes below 50% AMI will save \$2,800 per year, and families with incomes between 50% and 80% AMI will save \$2,700 annually, on average. We assume that the families served have many unmet needs and will spend this money in the local economy.

We also needed to estimate the number of housing units that could be provided with a given level of loans. We had information from housing trust fund annual reports in Columbus, Milwaukee, Philadelphia, Austin, and Tennessee on loan amounts, the number and type of units financed, and total development costs. Based upon this information a figure of \$20,000 per unit appeared to be a reasonable estimate for the buying power of a housing trust fund loan given

typical leverage situations. We used that figure to estimate the number of families that could be served.

For the negative impact of the tax itself we used IMPLAN's estimates of household demand for insurance by income category to estimate how much of the tax would be paid by various household income groups. Seventy-five percent of the tax would be paid by households with annual incomes above \$50,000. We examined recent economics papers on the marginal propensity to consume in order to have a reasonable estimate of how much spending would be reduced. Based on the literature we applied marginal rates between 0.2 and 0.4 based on income levels (lower for higher incomes). This resulted in our estimate of an overall drop in disposable income spending of roughly \$4 million due to the tax increase.

### Summary of Impacts

The impacts are summarized in Table 6. The table is based upon a conservative 5:1 leverage ratio for the loan portfolio. We assume the loans will be used for construction over a two year period, with equal amounts spent each year. The table gives the three separate impacts (from construction, housing costs savings, and reduced spending due to the tax increase) for each of the five years depicted in the initial ramp up scenario of Table 5. While the impacts from construction and the tax are annual, the impact from lower housing costs for the families served is cumulative. Families served reap the benefits of the costs savings each succeeding year, so all prior impacts carry over and are added to impacts for the current year. It is important to note that since input-output models are linear, changing the loan amount by X% would also change the construction and costs savings impacts by X%, and changing the tax receipts by X% would also change the negative impact from the tax increase by X%. In this way Table 6 can be used as a guide to the impact of alternative scenarios for the first five years of funding.

Table 6 shows the impacts in terms of jobs, value added, payroll, and occupational tax collections of governments and schools in Jefferson County. Value added is a measure of output minus the value of all purchased inputs, so summed over all businesses in the county it equals the total value of all work performed within the county. The government occupational tax collections are summed across all the jurisdictions levying such a tax and based on historical levels of wages and salaries in each jurisdiction. School occupational tax collections are based upon historical percentages of county workers who also live in the county.

During the first year, when just \$325,000 is assumed to be used for construction of affordable housing, the negative effect of the tax increase is greater than the two positive impacts resulting in a small net loss of 20 jobs countywide. The effect of the tax increase remains fairly constant, only increasing incrementally with inflation. In general, the 1% insurance premium tax increase is expected to dampen demand in Jefferson County enough lose about 40 jobs, with

\$2.7 million of value added and \$1.4 million in payroll. This will reduce occupational taxes to governments by roughly \$22,000 and to schools by about \$6,500 annually. But the positive impact of construction is much larger. By the second year the construction positive impact is three to four times larger than the negative tax impact. By the fifth year affordable housing construction is adding almost 600 jobs to the county's economy, with value added of \$42.6 million and payroll of \$23.2 million. That payroll is providing occupational tax receipts to local governments and schools of about \$367,000 and \$107,000, respectively.

**Table 6. Economic Impact of a 1% Increase in the Insurance Premium Tax  
Hypothetical Initial Five-Year Ramp-Up Scenario, Leverage Ratio of 5:1**

Year	Tax Receipts	Loans	Jobs	Value Added	Payroll Estimate	Occupational Taxes	Occupational Tax, JCPS	Impact Source
1	\$13,000,000	\$650,000	19	\$1,372,485	\$746,861	\$11,818	\$3,448	Construction
			0	\$32,992	\$16,650	\$263	\$77	Lower Housing Costs
			(40)	(\$2,672,691)	(\$1,353,798)	(\$21,422)	(\$6,249)	Tax Increase
<b>Total Impact Year 1</b>			<b>(20)</b>	<b>(\$1,267,214)</b>	<b>(\$590,287)</b>	<b>(\$9,340)</b>	<b>(\$2,725)</b>	
2	\$13,390,000	\$4,017,000	136	\$9,854,439	\$5,362,461	\$84,853	\$24,753	Construction
			4	\$269,875	\$136,196	\$2,155	\$629	Lower Housing Costs
			(40)	(\$2,723,792)	(\$1,379,682)	(\$21,832)	(\$6,369)	Tax Increase
<b>Total Impact Year 2</b>			<b>100</b>	<b>\$7,400,522</b>	<b>\$4,118,976</b>	<b>\$65,177</b>	<b>\$19,013</b>	
3	\$13,791,700	\$7,585,435	338	\$24,498,712	\$13,331,392	\$210,950	\$61,538	Construction
			13	\$858,780	\$433,396	\$6,858	\$2,001	Lower Housing Costs
			(41)	(\$2,775,869)	(\$1,406,060)	(\$22,249)	(\$6,490)	Tax Increase
<b>Total Impact Year 3</b>			<b>310</b>	<b>\$22,581,623</b>	<b>\$12,358,728</b>	<b>\$195,559</b>	<b>\$57,048</b>	
4	\$14,205,451	\$9,943,816	511	\$37,013,270	\$20,141,403	\$318,709	\$92,973	Construction
			26	\$1,748,512	\$882,412	\$13,963	\$4,073	Lower Housing Costs
			(41)	(\$2,828,942)	(\$1,432,944)	(\$22,674)	(\$6,615)	Tax Increase
<b>Total Impact Year 4</b>			<b>495</b>	<b>\$35,932,840</b>	<b>\$19,590,871</b>	<b>\$309,998</b>	<b>\$90,432</b>	
5	\$14,631,615	\$10,242,130	588	\$42,622,921	\$23,193,990	\$367,012	\$107,064	Construction
			41	\$2,773,090	\$1,399,480	\$22,145	\$6,460	Lower Housing Costs
			(41)	(\$2,883,030)	(\$1,460,341)	(\$23,108)	(\$6,741)	Tax Increase
<b>Total Impact Year 5</b>			<b>587</b>	<b>\$42,512,981</b>	<b>\$23,133,129</b>	<b>\$366,049</b>	<b>\$106,783</b>	

Source: Customized IMPLAN (IMpacts for PLANing), version 3.1, model of Jefferson County, using 2013 economic data.

Note: Since input-output models are linear, changing the loan amount by X% would also change the construction and costs savings impacts by X%, and changing the tax receipts by X% would also change the negative impact from the tax increase by X%.

Although the impacts derived from the housing costs savings of the families occupying the new housing units is comparatively small (only about 15 jobs with a payroll of roughly \$500,000 for each \$10m in loans, or 500 units of affordable housing), because they recur year-to-year the impacts are cumulative. By the end of the fifth year the cumulative effects of the new housing situations is almost exactly offsetting the annual impact of the premium tax increase. Different assumptions could have been made regarding the marginal propensity to consume for both

those paying the LGPT and those benefitting from housing cost relief resulting in a different time horizon for the point at which those impacts offset each other. However, it is safe to say that the long term benefits of the LAHTF loan program would balance out its costs sometime in the first ten years.

## **Cost Avoidance**

Many advocates for affordable housing contend that the costs avoided when families have access to stable and affordable housing may surpass any simulative effects of new construction or rehabilitation of existing structures.

Newman (2008) opined that affordable housing should be thought of as a “housing bundle” made up of linked, yet independent, dimensions, including factors such as neighborhood location, housing affordability, housing stability, and the quality of housing stock. The perspective that the bundle of affordable housing has positive spillover effects with real economic consequences justifies an exploration of those effects and consequences, even if they cannot be quantified.

## **Education**

Health issues related to living in sub-standard, aging, dilapidated housing affect a child’s ability to succeed in school. Conditions such as insects, vermin, and mold are commonplace in both low-cost and public housing, and can lead to high asthma rates (Howell, Harris, and Popkin 2005). Health issues like asthma lead to absenteeism, which, in turn, leads to poor school performance. Further, lead poisoning, contracted from exposure to lead paint and other sources found in low-quality housing, is directly linked with developmental delays in children (Moonie et al. 2008). These delays have an obvious effect on a child’s educational attainment.

Housing instability is another factor that has negative outcomes on children’s educational success. High rates of absence and school changes are frequent among low-income families in unstable residential situations. One study found that students who frequently change schools were behind their peers by a year or more in reading and math, (Garriss-Hardy and Vrooman, 2005). Frequent school changes force the child to adapt to a new curriculum and new teacher, and often require make up schoolwork (Cunningham and MacDonald, 2012). Further, housing instability is associated with stress, disruptions of peer networks (for older children) and difficulty forming close, personal relationships (for younger children) (Brennan, 2007).

Cunningham and MacDonald (2012) point out that the effects of housing instability affects the entire classroom as review and catch-up work become the norms and new lessons are stalled. Several studies found that this dynamic affects teacher turnover rates, classes lagging behind in



curriculum by a full year or more and poor performance on standardized tests (Rhodes, 2006; Kerbow et al., 2003; Kaase, 2005).

Location matters. Schwarz (2009) found that low-income children who are enrolled in schools with middle-and upper-class children had better school performance. However, this could be associated with parent awareness and choice behaviors. In a 2008 study of the Moving to Opportunity Demonstration (MTO), researchers found that low-income families did not make choices about schools the same way middle-class families do, and that families in the MTO program often kept their children in the same schools, even when they had the opportunity to put their children in higher-performing schools (Ferryman et. al, 2008).

Finally, families that have to make difficult choices between housing and other necessities sometimes overcrowd, such as multiple families in a single family dwelling. Conley (2001) found that children who grow up in overcrowded housing situations end up completing fewer years of education. Brennan (2007) found that that crowded living conditions may create noise and chaos that interfere with children's ability to study and do homework.

Children that experience homelessness are more likely than their low-income peers to drop out of school, repeat a grade, perform poorly on tests and suffer from learning disabilities and behavior problems (Brennan, 2007). Sometimes homelessness results in loss of vital records necessary to enroll a child in school, creating delays that could result in a grade year loss.

## Health

Poor quality rental housing has an impact on residents' mental and physical health. Asthma, respiratory conditions, lead poisoning and infectious diseases can all be associated with inadequate housing (Krieger and Higgins, 2002). The United State Center for Disease Control (CDC) reports that lead- based paint is the leading reason for elevated blood lead levels in children. In the home, lead poisoning occurs either when a child eats paint chips or simply when house dust or soil that contains remnants of the lead-based paint is breathed in (Jacobs, et al., 2002). In 2012, the CDC lowered the limit for what is considered a high blood lead level from 10µg/dL to 5µg/dL. At this level, children are at risk for developmental delays and behavioral deficits, hearing and speech problems, and damage to the brain (Centers for Disease Control, 2013). Though paint before 1950 had the highest lead content, lead based paint was used in homes until 1978. In Jefferson County, approximately 70% of all rental units were built before 1980 (Louisville Metropolitan Housing Coalition, 2013).

Some health problems, such as asthma, can be improved by moving from older housing to renovated and new construction homes. Takaro et al. (2011) tracked low-income children and adolescents with asthma from old homes into new construction homes. After one year of living there, the children and adolescents experienced an increase of asthma free days from 8.6 days

per 2 weeks to 12.4 days per 2 weeks. Asthma-related clinical visits also decreased from 62% to 21%.

Health effects are not limited to children. Pollak et al. (2010) found that adults living in unaffordable housing are more likely to self-report fair or poor general health and report of prescription and healthcare non-adherence than similar people living in affordable housing. The financial burden of unaffordable housing may limit how much a family will spend on food, a key factor in physical health. Fletcher, et al. (2009) found that a \$500 increase in yearly rental costs was associated with a 10% increase in food insecurity rates.

It is important to note that studies have compared the effects of housing on low-income families in both *affordable* and *unaffordable* housing, as well as in both good living conditions and poor living conditions. The results of these studies conclude that better housing situations have positive results on the health of low-income children. Children in affordable housing are in better health, achieve better grades, and are positively affected by medical and dental care (Harkness and Newman, 2005). March (2009) found that low-income children living in affordable housing, compared to children on a wait list for subsidized housing have a 35% greater chance of being classified as a “well” child, a 28% lower risk of being seriously underweight, and a 19% lower risk of being food insecure.

Mental health is also a consideration. Liu et al. (2014) found that housing insecurity is related to prolonged psychological distress and depressive symptoms. This study determined that adults who worry about paying rent are three times more likely to suffer from mental distress and 50% more likely to have trouble sleeping. Gilman et al. (2003) found that high levels of residential instability during childhood are related to a higher risk of depression later in life.

One of the most compelling studies of the cost avoidance associated with affordable housing tracked Medicaid costs in Portland, Oregon. The study concluded that Medicaid costs dropped significantly for residents after moving into stable, affordable housing. The year before the study residents moved in, each resident averaged a yearly cost of \$2,006 per year of health care costs. After one year of living in stable housing, they averaged only \$899 per year. The Medicaid cost for each resident decreased an average of \$13,284 in annual claims. (Center for Outcomes Research and Education, 2014). Much of the savings were driven by less frequent visits to the emergency room and reduced inpatient hospital costs.

## Safety

LAHTF has a current focus on rehabilitating vacant and abandoned properties for affordable housing, (LAHTF, 2014). Vacant and abandoned properties are a burden because they are costly to maintain and they also pose safety hazards to the community

Vacant and abandoned properties tend to increase the risks of fire, vandalism and crime in urban neighborhoods, all which undermines neighborhood economic value (Accordino and Johnson, 2000). A related study in Louisville's peer city, Indianapolis, concluded that foreclosures have a consistently positive relationship with property and violent crimes, including rape, assault, and burglary (2014). Cui (2010) found that there was a 15% increase in violent crime rates in areas within 250 feet of vacant properties compared to areas 250 to 350 feet away.

Arson is also commonly reported in connection to vacant and abandoned properties. In 2010, the U.S. Fire Administration reported that an estimated 28,000 vacant residential fires occurred annually between 2006 and 2008, resulting in an estimated total of 45 deaths, 225 injuries, and approximately \$900 million in property loss each year.

A 2010 report by the Penn Institute for Urban Research gathered data on the 40,000 vacant lots in the Philadelphia area. This study estimated that these vacant lands cost the city and its residents \$3.6 Billion in lost household wealth, over \$20 million in city maintenance costs, and over \$2 million in uncollected property tax. This same report, estimated that building new units on these lots could bring in \$35 million in tax revenues in five years through property tax, wage tax, and sales tax revenues (Econsult Corporation, 2010).

## **Transportation**

The Center for Transit-Oriented Development found that working families (those that make \$20,000 to \$50,000 each year) who move farther away from work to save on housing costs end up spending more on transportation. The Center for Housing Policy found that for every dollar a family saves on housing, they must spend 77 cents more on transportation. Having affordable housing near public transit or within walking distance of jobs can reduce these costs and encourage job retention.

Holzer and Wissoker (2001) concluded that suburban employers not accessible by public transit experience greater difficulties with absenteeism of low income workers than those located in central cities nearer to transit. Welfare recipients are much more likely to be hired in establishments located near public transit (Holtzer and Stoll, 2001) and absenteeism rates in establishments located near public transit are 20% lower among welfare recipients than those not located near public transit. Louisville's jobs are not located near low income housing, and transportation to those suburban jobs can be a challenge, a trend consistent nationwide. A Brookings Institute of 50 metro areas found that jobs have shifted away from the city center, but the poor have been unable to follow the jobs to the suburbs (Raphael and Stoll, 2010).

Though public transportation may be available, it may not be efficient for the user. Another Brookings Institute study looked at 100-metro and found that on average, only 30% of jobs in

the metro area can be accessed by a 90-minute transit (Tomer, et al., 2011). Moreover, while one third of high-skill industry jobs are accessible with a 90 minute transit, only one-quarter of low- and middle- skill industry jobs are accessible via a 90-minute transit. Louisville was included in this 100 city study. The study reports that only 6% of available jobs in Louisville are reachable in a 45 minute, one-way, public transit. In a 90 minute, one- way transit, only 33% of available jobs in the area are reachable (Tomer, et al., 2011).

## **Conclusion**

LAHTF seeks a dependable revenue source to fund operations in the future. A 1% increase in the LGPT meets the criteria as it is disbursed directly to the locality imposing it and grows at a rate just under 3% per year. All taxes decrease disposable income of the taxpayer. The incidence of a 1% increase in the LGPT would affect households differently based both on where they live and the value of the property they insure and whether health insurance premiums are included. The increase would raise about \$13 million in new revenue that could be earmarked for affordable housing.

This analysis has been prospective and *ceteris paribus*. It is prospective in that it was driven by the implementation plan and the allocation plan provided by the LAHTF board. A different implementation plan or allocation plan would change the results. It is *ceteris paribus* (a Latin phrase that translates approximately to "holding other things constant") in that it assumes that economic conditions in the Metro captured as trade flows by the input-output model remain relatively constant as they were in 2013, the last year for which those coefficients are available. Further, the analysis assumes that the 3% growth in LGPT revenues remains constant and that the independent municipalities do not change their tax rates in response to the increase.

While cost avoidance associated with an increased stock of affordable housing is real, it is impossible to capture the avoided costs with any precision. Therefore, the impacts were described based on reputable attempt to either isolate the costs avoided or to estimate in them other jurisdictions.

## REFERENCES

- Accordino, J., & Johnson, G. T. (2000). Addressing the vacant and abandoned property problem. *Journal of Urban Affairs*, 22(3), 301-315.
- Accordino, J., Galster, G., & Tatian, P. (2005). *The impacts of targeted public and nonprofit investment on neighborhood development*. Richmond: The Federal Reserve Bank of Richmond.
- Affordable Housing. *St. Louis, MO Government*. Retrieved October 10, 2014, from <https://www.stlouis-mo.gov/government/departments/affordable-housing/>
- Affordable Housing Trust Fund. *East Tennessee Foundation*. Retrieved October 10, 2014, from [http://www.easttennesseefoundation.org/receive/grants/affordable\\_housing\\_trust\\_fund.aspx](http://www.easttennesseefoundation.org/receive/grants/affordable_housing_trust_fund.aspx)
- Affordable Housing Trust Fund Task Force, Lexington/Fayette County Government (2010). Lexington/Fayette Affordable Housing Trust Fund Fiscal, Economic and Social Impact study. <http://lexingtonky.gov/Modules/ShowDocument.aspx?documentid=15469>. Accessed 25 August 2014.
- Arizona department of housing (2014). Arizona low income housing tax credit and housing trust fund economic and fiscal impact report. [http://www.azhousing.gov/azcms/uploads/PUBLICATIONS/Arizona%20LIHTC%20EF\\_FIN\\_AL.pdf](http://www.azhousing.gov/azcms/uploads/PUBLICATIONS/Arizona%20LIHTC%20EF_FIN_AL.pdf). Accessed 27 August 2014.
- Brennan, M. (2007). *The positive impacts of affordable housing on education: a research summary*. Washington, DC: Center for housing policy.
- Campaign for a Virginia housing trust fund (2011). The economic impact of a housing trust fund on the Virginia economy. <http://www.theplanningcouncil.org/images/RTF/7/TheEconomicImpactofaHousingTrustFund.pdf>. Accessed 10 September 2014.
- Cardoso, M. R., Cousens, S. N., de Goes Siqueira, L. F., Alves, F. M., & D'Angelo, L. A. (2004). Crowding: risk factor or protective factor for lower respiratory disease in young children? *BMC Public Health*, 4(1), 19-26.

- Carroll, C., Slacalek, J., Tokuoka, K., & White, N. (2015) The Distribution of Wealth and the Marginal Propensity to Consume. Working Paper.
- Chapman, C., Laird, J., & KewalRamani, A. (2010). *Trends in high school dropout and completion rates in the United States: 1972-2008*. Washington, DC: U.S. Department of Education
- Charlotte-Mecklenburg coalition for housing. *City of Charlotte*. Retrieved October 10, 2014, from <http://charmec.org/city/charlotte/nbs/housing/housingcoalition/Pages/default.aspx>
- Colorado housing trust fund coalition (2002). Colorado housing trust fund impacts study. <http://housingtrustfundproject.org/wp-content/uploads/2011/10/CO.12817impactsrpt.9.242.pdf>. Accessed 27 August 2014.
- Conley, D. (2001). A room with a view or a room of one's own? Housing and social stratification. *Sociological Forum*, 16(2), 263-280.
- Cui, L. (2010). *Foreclosure, vacancy, and crime*. Pittsburgh: Department of Economics, University of Pittsburgh.
- Cunningham, M., & MacDonald, G. (2012). *Housing as a platform for improving education outcomes among low-income children*. Washington, DC: Urban institute.
- Cutts, D., Meyers, A., et al. (2011). Housing insecurity and the health of very young children. *American Journal of Public Health*, 101(8), 1508-1514.
- Ferryman, K., Briggs, X. d., Popkin, S. J., & Rendon, M. (2008). *Do better neighborhoods for MTO families mean better schools? Three-city study of moving to opportunity brief 3*. Washington, DC: Urban institute.
- Fletcher, J. M., Andreyeva, T., & Busch, S. H. (2009, September 9). Assessing the effect of increasing housing costs on food insecurity. *SSRN Scholarly Paper*. Retrieved October 10, 2014, from <http://papers.ssrn.com/abstract=1503043>
- Galster, G., Tatian, P., & Accordino, J. (2006). Targeting investments for neighborhood revitalization. *Journal of the American Planning Association*, 72(4), 457-474.
- Garriss-Hardy, B., & Vrooman, C. (2005). *School stability and school performance*. Greensboro: National center for homeless education, SERVE center, the University of North Carolina at Greensboro.

- Gilman, S., Kawachi, I., Fitzmaurice, G., & Buka, S. (2003). Socio-economic status, family disruption and residential stability in childhood: relation to onset, recurrence and remission of major depression. *Psychological Medicine*, 33(8), 1341-1355.
- Harkness, J., & Newman, S. J. (2005). Housing affordability and children's well-being: evidence from the national survey of America's families. *Housing Policy Debate*, 16(2), 223-255.
- Holzer, H. and Stoll, M.A. (2001). *Employers and welfare recipients: the effects of welfare reform in the workplace*. San Francisco: public policy institute of California. Retrieved October 20, 2014, from [http://www.ppic.org/content/pubs/report/R\\_101HHR.pdf](http://www.ppic.org/content/pubs/report/R_101HHR.pdf)
- Holzer, H. and Stoll, M.A. (2001). Job performance and retention among welfare recipients. *Assessing the new federalism*. Discussion Paper 01-06. Washington, DC: the urban institute. Retrieved October 20, 2014 from <http://www.irp.wisc.edu/publications/dps/pdfs/dp123701.pdf>
- Holzer, H., Wissoker, D.A. (2001). How can we encourage job retention and advancement for welfare recipients? Retrieved October 20, 2014, from <http://www.urban.org/publications/310360.html#n10>
- Hope VI. *Louisville metro housing authority*. Retrieved October 10, 2014, from [http://www.lmha1.org/hope\\_vi/index.php](http://www.lmha1.org/hope_vi/index.php)
- Housing alliance of Pennsylvania (2009). Potential economic impacts of the Pennsylvania housing trust fund. <http://www.housingalliancepa.org/sites/default/files/resources/Economic%20Impact%20Study%20%28FINAL%20-%202009-04-24%29.pdf>. Accessed 27 August 2014.
- Housing choice vouchers fact sheet. HUD. Retrieved October 10, 2014, from [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/public\\_indian\\_housing/programs/hcv/about/fact\\_sheet](http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/about/fact_sheet)
- Housing trust fund. *Tennessee housing development agency*. Retrieved October 10, 2014, from <http://www.thda.org/index.aspx?nid=131>
- Housing trust fund project. *Center for community change*. Retrieved October 10, 2014, from <http://housingtrustfundproject.org/our-project/>
- HUD data sets. HUD. Retrieved October 10, 2014, from

- [http://www.huduser.org/portal/pdrdatas\\_landing.html](http://www.huduser.org/portal/pdrdatas_landing.html)
- Indianapolis low income housing trust fund. (2014, April 10). *National low income housing coalition*. Retrieved October 10, 2014, from <http://nlihc.org/rental-programs/catalog/indianapolis-low-income-housing-trust-fund>
- Jacobs, D. E., Clickner, R. P., Zhou, J. Y., Viet, S. M., Marker, D. A., Rogers, J. W., et al. (2002). The prevalence of lead-based paint hazards in U.S. housing. *Environmental Health Perspectives, 110*(10), a599-a606.
- Kaase, K. (2005). The impact of mobility on academic achievement: a review of the literature. *Research Watch, 39*(4).
- Kerbow, D., Azcoitia, C., & Buell, B. (2003). Student mobility and local school improvement in Chicago. *Journal of Negro Education, 72*(1), 158-64.
- Krieger, J., & Higgins, D. L. (2002). Housing and health: time again for public health action. *American Journal of Public Health, 92*(5), 758-68.
- Lacour, Misty, & Tissington, L.D. (2011). The effects of poverty on academic achievement. *Educational research and reviews, 6*(7), 522-27
- Liu, Y., Njai, R., Greenlund, K., Chapman, D., & Croft, J. Relationships between housing and food insecurity, frequent mental distress, and insufficient sleep among adults in 12 U.S. states, 2009. *Preventing Chronic Disease, 2014*. Retrieved October 21, 2014, from [http://www.cdc.gov/pcd/issues/2014/13\\_0334.htm](http://www.cdc.gov/pcd/issues/2014/13_0334.htm)
- Louisville affordable housing trust fund. (2012). An assessment of affordable housing needs in Louisville. Retrieved October 20, 2014, from [http://services.louisvilleky.gov/media/lahtf/2012\\_lahtf\\_needs\\_assessment.pdf](http://services.louisvilleky.gov/media/lahtf/2012_lahtf_needs_assessment.pdf).  
[Accessed 16 September 2014](#)
- Louisville metro human relations commission. (2013). Making Louisville home for us all: a 20-year action plan for fair housing.
- March, E., Rx for hunger: affordable housing. *Children's Health-Watch*. Retrieved October 10, 2014, from <http://www.childrenshealth-watch.org/page.php?id=206>



- National Center for Education Statistics. (2011a). *The nation's report card: mathematics 2011 (NCES 2012-458)*. Washington, DC: US Department of Education, Institute of Education Sciences.
- National Center for Education Statistics. (2011b). *The nation's report card: reading 2011 (NCES 2012-458)*. Washington, DC: US Department of Education, Institute of Education Sciences.
- Newman, S.J. (2008). Does housing matter for poor families? A critical summary of research and issues still to be resolved. *Journal of Policy Analysis and Management*, 27(4). 895-925.
- Ohio housing trust fund (2011). Economic and job Creation Impact Study.  
<https://www.cohio.org/files/Economic%20Impact%20Study%20Vogt%20Santer.pdf>.  
 Accessed 60September 2014.
- Pollack, C. E., Griffin, B. A., & Lynch, J. (2010). Housing affordability and health among homeowners and renters. *American Journal of Preventive Medicine*, 39(6), 515-521.
- Project based vouchers - frequently asked questions. HUD. Retrieved October 10, 2014, from [http://portal.hud.gov/hudportal/documents/huddoc?id=DOC\\_9157.pdf](http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_9157.pdf)
- Raphael, S. and Stoll, M.A. (2010). Job sprawl and the suburbanization of poverty. *Brookings Institute*. Retrieved October 20, 2014, from [http://www.brookings.edu/~media/research/files/reports/2010/3/30%20job%20sprawl%20stoll%20raphael/0330\\_job\\_sprawl\\_stoll\\_raphael.pdf](http://www.brookings.edu/~media/research/files/reports/2010/3/30%20job%20sprawl%20stoll%20raphael/0330_job_sprawl_stoll_raphael.pdf)
- Reconnecting America. Mixed-income housing near transit: increasing affordability with location efficiency. *Center for transit-oriented development*. Retrieved October 20, 2014, from <http://www.reconnectingamerica.org/assets/Uploads/09103ra201mixedhousefinal.pdf>
- Rhodes, V. L. (2006). Kids on the move: the effects of student mobility on NCLB school accountability ratings. *Peen GSE Perspectives in Urban Education*, 3(3).
- RKG. (2012). *Vacant and abandoned property neighborhood revitalization study*. Alexandria: RKG.
- Rog, D. J., Holupka, C. S., & Patton, L. C. Characteristics and dynamics of homeless families with children. *Office of the Assistant Secretary for Planning and Evaluation*. Retrieved

October 10, 2014, from <http://aspe.hhs.gov/hsp/homelessness/im-proving-data08/apa.htm>

Schwartz, H. (2009). *Housing policy is school policy: economically integrative housing promotes academic success in Montgomery County, Maryland*. New York: Century Foundation.

Takaro, T. K., Krieger, J., Song, L., Sharify, D., & Beaudet, N. (2011). The breathe-easy home: the impact of asthma-friendly home construction on clinical outcomes and trigger exposure. *American Journal of Public Health, 101*(1), 55-62.

Tennessee Housing Development Agency (2011). Tennessee's housing trust fund: the first five years. <http://www.thda.org/DocumentCenter/Home/View/126>. Accessed 12 September 2014.

The affordable housing trust for Columbus and Franklin County. *The affordable housing trust for Columbus and Franklin County*. Retrieved October 10, 2014, from <http://www.hztrust.org/>

Tomer, A., Kneebone, E., Puentes, R., & Berube, A. (2011). Missed opportunity: transit and jobs in metropolitan America. *Brookings institute*. Retrieved October 20, 2014, from [http://www.brookings.edu/~media/research/files/reports/2011/5/12%20jobs%20and%20transit/0512\\_jobs\\_transit.pdf](http://www.brookings.edu/~media/research/files/reports/2011/5/12%20jobs%20and%20transit/0512_jobs_transit.pdf)

US Fire Administration. *FEMA*. Retrieved October 10, 2014, from [http://www.usfa.fema.gov/Vacant\\_land\\_management\\_in\\_Philadelphia:\\_the\\_costs\\_of\\_the\\_current\\_system\\_and\\_benefits\\_of\\_reform](http://www.usfa.fema.gov/Vacant_land_management_in_Philadelphia:_the_costs_of_the_current_system_and_benefits_of_reform). (2010). Philadelphia: Econsult Corporation.

Vacant residential building fires. *Topical Fire Report Series, 11*(3) (2010), 1.

Walker, C. Affordable housing for families and neighborhoods: the value of low-income housing tax credits in New York City. *Enterprise Community Partners, Inc. and Local Initiatives Support Corporation, Inc. 2010*. Retrieved October 10, 2014, from <http://www.lisc.org/files/ResearchReport.Final.05.pdf>

Urban Studies Institute (2014). Louisville's Peer Cities Revisited. <http://usi.louisville.edu/wp-content/uploads/2014/12/Final-Version-Peer-Cities-Report.pdf>

Wildasin, David E. (2008). Kentucky local government insurance premium taxation: opportunities for reform.

<http://iiky.org/issues/Kentucky%20Local%20Government%20Insurance%20Premium%20Taxation.pdf>. Accessed on October 13, 2014.

**Appendix A. 2014 LGPT Rates, Jefferson County Municipalities, with Additional Rate Scenario**

City	Fire and Allied Perils	Casualty Liability	Vehicle	Inland Marine	Health	Life	All Other Risks	Percent Increase
Anchorage	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Audubon Park	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	8.25%	0.00%
Bancroft	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Barbourmeade	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Beechwood Village	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Bellemeade	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Bellewood	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Blue Ridge Manor	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Briarwood	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Broeck Pointe	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Brownsboro Farm	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Brownsboro Village	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Cambridge	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Coldstream	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Creekside	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%	0.20%
Crossgate	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Douglass Hills	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Druid Hills	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Fincastle	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Forest Hills	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Glenview	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Glenview Hills	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Glenview Manor	5.00%	5.00%	5.00%	5.00%	-	-	-	1.00%
Goose Creek	8.00%	8.00%	8.00%	8.00%	-	8.00%	8.00%	0.00%
Graymoor-Devondale	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Green Spring	5.75%	5.75%	5.75%	5.75%	-	5.75%	5.75%	0.25%
Heritage Creek	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Hickory Hill	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Hills and Dales	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Hollow Creek	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Hollyvilla	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Houston Acres	7.00%	7.00%	7.00%	7.00%	-	7.00%	7.00%	0.00%
Hurstbourne	8.00%	8.00%	8.00%	8.00%	-	8.00%	8.00%	0.00%
Hurstbourne Acres	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%

Indian Hills	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Jeffersontown	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Kingsley	5.00%	5.00%	5.00%	5.00%	5.00%	-	5.00%	1.00%
Langdon Place	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Lincolnshire	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Lyndon	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Lynnview	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Manor Creek	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Maryhill Estates	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	0.25%
Meadow Vale	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Meadowbrook Farm	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Meadowview Estates	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Middletown	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Moorland	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Murray Hill	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Norbourne Estates	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Northfield	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Norwood	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Old Brownsboro Place	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Parkway Village	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Plantation	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Poplar Hills	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Prospect	7.00%	7.00%	7.00%	7.00%	7.00%	5.00%	7.00%	0.00%
Richlawn	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Riverwood	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Rolling Fields	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Rolling Hills	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Saint Matthews	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Saint Regis Park	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Seneca Gardens	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Shively	10.00%	10.00%	10.00%	10.00%	-	10.00%	10.00%	0.00%
South Park View	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Spring Mill	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Spring Valley	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Strathmoor Manor	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%
Strathmoor Village	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
Sycamore	8.00%	8.00%	8.00%	8.00%	-	8.00%	8.00%	0.00%
Ten Broeck	5.00%	5.00%	5.00%	5.00%	-	-	-	1.00%
Thornhill	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Watterson Park	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%

Wellington	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	1.00%
West Buechel	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	0.00%
Westwood	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	0.00%
Wildwood	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Windy Hills	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Woodland Hills	8.00%	8.00%	8.00%	8.00%	-	8.00%	8.00%	0.00%
Woodlawn Park	5.00%	5.00%	5.00%	5.00%	-	5.00%	5.00%	1.00%
Worthington Hills	6.00%	6.00%	6.00%	6.00%	6.00%	-	6.00%	0.00%

Source: Kentucky League of Cities

Note: Shaded municipalities do not impose the local government premium tax. Residents pay the same 5% rate as residents of the unincorporated areas of Jefferson County and the revenues go instead to Louisville Metro Government.

**Appendix B. Estimated LGPT Revenues with 6% County-Wide Rate, with Per Household Increase.**

City	Number of Households 2010 SF1	Estimated 2015 Insurance Premium Tax Revenue	Percent Increase	Old Rate	New Rate	Total Revenue after 1% Increase	Revenue Dedicated at 1% Increase	Tax Burden per Household of 1% Increase
Anchorage	754	\$429,150	1.00%	5.00%	6.00%	\$514,980.22	\$85,830	\$113.83
Audubon Park	601	\$288,177	0.00%	8.25%	8.25%	\$0	\$0	\$0.00
Bancroft	195	\$41,333	1.00%	5.00%	6.00%	\$49,600	\$8,267	\$42.39
Barbourmeade	507	\$83,952	1.00%	5.00%	6.00%	\$100,742	\$16,790	\$33.12
Beechwood Village	588	\$79,350	1.00%	5.00%	6.00%	\$95,219	\$15,870	\$26.99
Bellemeade	422	\$66,530	1.00%	5.00%	6.00%	\$79,836	\$13,306	\$31.53
Bellewood	130	\$26,149	1.00%	5.00%	6.00%	\$31,379	\$5,230	\$40.23
Blue Ridge Manor	414	\$50,310	1.00%	5.00%	6.00%	\$60,372	\$10,062	\$24.30
Briarwood	229	\$42,629	1.00%	5.00%	6.00%	\$51,155	\$8,526	\$37.23
Broeck Pointe	96	\$31,540	1.00%	5.00%	6.00%	\$37,848	\$6,308	\$65.71
Brownsboro Farm	236	\$48,036	1.00%	5.00%	6.00%	\$57,644	\$9,607	\$40.71
Brownsboro Village	186	\$44,914	1.00%	5.00%	6.00%	\$53,896	\$8,983	\$48.29
Cambridge	82	\$16,565	1.00%	5.00%	6.00%	\$19,878	\$3,313	\$40.40
Coldstream	419	\$47,249	1.00%	5.00%	6.00%	\$56,699	\$9,450	\$22.55
Creekside	123	\$13,166	0.20%	5.80%	0.20%	\$15,799	\$2,633	\$21.41
Crossgate	94	\$19,107	1.00%	5.00%	6.00%	\$22,928	\$3,821	\$40.65
Douglass Hills	2,359	\$346,248	1.00%	5.00%	6.00%	\$415,498	\$69,250	\$29.36
Druid Hills	138	\$28,008	1.00%	5.00%	6.00%	\$33,609	\$5,602	\$40.59
Fincastle	292	\$48,066	1.00%	5.00%	6.00%	\$57,679	\$9,613	\$32.92
Forest Hills	173	\$138,325	1.00%	5.00%	6.00%	\$165,990	\$27,665	\$159.91
Glenview	226	\$243,978	1.00%	5.00%	6.00%	\$292,774	\$48,796	\$215.91
Glenview Hills	129	\$32,700	1.00%	5.00%	6.00%	\$39,241	\$6,540	\$50.70

Glenview Manor	73	\$17,182	1.00%	5.00%	6.00%	\$20,618	\$3,436	\$47.07
Goose Creek	114	\$181,510	0.00%	5.00%	6.00%	\$217,812	\$36,302	\$318.44
Graymoor-Devondale	1,159	\$220,913	1.00%	5.00%	6.00%	\$265,096	\$44,183	\$38.12
Green Spring	263	\$56,096	0.25%	5.75%	0.25%	\$67,315	\$11,219	\$42.66
Heritage Creek	417	\$58,367	1.00%	5.00%	6.00%	\$70,040	\$11,673	\$27.99
Hickory Hill	53	\$9,453	1.00%	5.00%	6.00%	\$11,343	\$1,891	\$35.67
Hills and Dales	59	\$17,287	1.00%	5.00%	6.00%	\$20,744	\$3,457	\$58.60
Hollow Creek	308	\$40,960	1.00%	5.00%	6.00%	\$49,152	\$8,192	\$26.60
Hollyvilla	212	\$54,484	1.00%	5.00%	6.00%	\$65,381	\$10,897	\$51.40
Houston Acres	228	\$40,752	0%	7.00%	7.00%	\$40,752	\$0	\$0.00
Hurstbourne	1,871	\$747,655	0%	8.00%	8.00%	\$747,655	\$0	\$0.00
Hurstbourne Acres	228	\$96,000	1.00%	5.00%	6.00%	\$115,200	\$19,200	\$84.21
Indian Hills	1,113	\$348,268	1.00%	5.00%	6.00%	\$417,922	\$69,654	\$62.58
Jeffersontown	11,065	\$2,749,536	1.00%	5.00%	6.00%	\$3,299,443	\$549,907	\$49.70
Kingsley	173	\$36,163	1.00%	5.00%	6.00%	\$43,395	\$7,233	\$41.81
Langdon Place	352	\$78,289	1.00%	5.00%	6.00%	\$93,947	\$15,658	\$44.48
Lincolnshire	62	\$10,574	1.00%	5.00%	6.00%	\$12,689	\$2,115	\$34.11
Louisville Unincorporated	139,955	\$37,647,324	1.00%	5.00%	6.00%	\$45,176,789	\$7,529,465	\$53.80
Louisville USD	106,483	\$16,134,568	1.00%	5.00%	6.00%	\$19,361,481	\$3,226,914	\$30.30
Lyndon	5,374	\$820,913	1.00%	5.00%	6.00%	\$985,095	\$164,183	\$30.55
Lynnview	412	\$54,509	1.00%	5.00%	6.00%	\$65,410	\$10,902	\$26.46
Manor Creek	53	\$38,617	1.00%	5.00%	0.06%	\$46,340	\$7,723	\$145.72
Maryhill Estates	62	\$25,559	0.25%	5.75%	6.00%	\$30,671	\$5,112	\$82.45
Meadow Vale	277	\$43,018	1.00%	5.00%	6.00%	\$51,622	\$8,604	\$31.06
Meadowbrook Farm	43	\$11,111	1.00%	5.00%	6.00%	\$13,333	\$2,222	\$51.68
Meadowview Estates	202	\$19,826	1.00%	5.00%	6.00%	\$23,791	\$3,965	\$19.63
Middletown	3,292	\$691,401	1.00%	5.00%	6.00%	\$829,681	\$138,280	\$42.00
Mockingbird Valley*	68	\$17,476	1.00%	5.00%	6.00%	\$20,971	\$3,495	\$51.40
Moorland	195	\$50,115	1.00%	5.00%	6.00%	\$60,138	\$10,023	\$51.40



Murray Hill	297	\$35,992	1.00%	5.00%	6.00%	\$43,190	\$7,198	\$24.24
Norbourne Estates	168	\$93,286	1.00%	5.00%	6.00%	\$111,943	\$18,657	\$111.05
Northfield	413	\$96,636	1.00%	5.00%	6.00%	\$115,963	\$19,327	\$46.80
Norwood	155	\$30,525	1.00%	5.00%	6.00%	\$36,630	\$6,105	\$39.39
Old Brownsboro Place	147	\$24,373	1.00%	5.00%	6.00%	\$29,248	\$4,875	\$33.16
Parkway Village	293	\$48,482	1.00%	5.00%	6.00%	\$58,178	\$9,696	\$33.09
Plantation	347	\$47,918	1.00%	5.00%	6.00%	\$57,501	\$9,584	\$27.62
Poplar Hills	195	\$50,115	1.00%	5.00%	6.00%	\$60,138	\$10,023	\$51.40
Prospect	1,857	\$2,023,485	0.00%	7.00%	7.00%	\$2,023,485	\$0	\$0.00
Richlawn	188	\$10,775	1.00%	5.00%	6.00%	\$12,930	\$2,155	\$11.46
Riverwood	174	\$69,169	1.00%	5.00%	6.00%	\$83,002	\$13,834	\$79.50
Rolling Fields	245	\$44,362	1.00%	5.00%	6.00%	\$53,234	\$8,872	\$36.21
Rolling Hills	406	\$70,687	1.00%	5.00%	6.00%	\$84,824	\$14,137	\$34.82
Saint Matthews	8,725	\$2,236,423	1.00%	5.00%	6.00%	\$2,683,708	\$447,285	\$51.26
Saint Regis Park	596	\$94,558	1.00%	5.00%	6.00%	\$113,470	\$18,912	\$31.73
Seneca Gardens	292	\$76,863	1.00%	5.00%	6.00%	\$92,236	\$15,373	\$52.65
Shively	6,404	\$2,016,987	0.00%	10.00%	10.00%	\$2,016,987	\$0	\$0.00
South Park View	4	\$1,028	1.00%	5.00%	6.00%	\$1,234	\$206	\$51.40
Spring Mill	107	\$27,499	1.00%	5.00%	6.00%	\$32,999	\$5,500	\$51.40
Spring Valley	235	\$78,076	1.00%	5.00%	6.00%	\$79,013	\$937	\$3.99
Strathmoor Manor	136	\$36,749	0.00%	7.00%	7.00%	\$36,749	\$0	\$0.00
Strathmoor Village	266	\$55,705	1.00%	5.00%	6.00%	\$56,373	\$668	\$2.51
Sycamore	88	\$25,281	0.00%	8.00%	8.00%	\$25,281	\$0	\$0.00
Ten Broeck	44	\$10,774	1.00%	5.00%	6.00%	\$10,904	\$129	\$2.94
Thornhill	68	\$11,971	1.00%	5.00%	6.00%	\$12,115	\$144	\$2.11
Watterson Park	487	\$361,067	1.00%	5.00%	6.00%	\$365,400	\$4,333	\$8.90
Wellington	253	\$32,702	1.00%	5.00%	6.00%	\$33,095	\$392	\$1.55
West Buechel	552	\$699,078	0.00%	10.00%	10.00%	\$699,078	\$0	\$0.00
Westwood	218	\$87,937	0.00%	6.00%	6.00%	\$87,937	\$0	\$0.00

Wildwood	113	\$24,198	1.00%	5.00%	6.00%	\$24,489	\$290	\$2.57
Windy Hills	1,097	\$225,765	1.00%	5.00%	6.00%	\$228,475	\$2,709	\$2.47
Woodland Hills	282	\$72,384	0.00%	8.00%	8.00%	\$72,384	\$0	\$0.00
Woodlawn Park	421	\$59,571	1.00%	5.00%	6.00%	\$60,285	\$715	\$1.70
Worthington Hills	595	\$86,792	0.00%	6.00%	6.00%	\$86,792	\$0	\$0.00
<b>Total</b>	<b>308,427</b>	<b>\$71,450,622</b>				<b>\$84,065,865</b>	<b>\$12,903,421</b>	

Sources: US Census Bureau, SF1 2010, Kentucky League of Cities