December 5, 2019

To All Interested Parties:

The Kansas City Public Library and the Schools, Health & Libraries Broadband (SHLB) Coalition are pleased to release the attached report called "Examining Kansas City's Progress in Addressing the Digital Divide: A Comparative Analysis". The study was conducted on behalf of the Kansas City Public Library and the SHLB Coalition by John B. Horrigan, PhD, a national expert on digital inclusion.

The report finds that Kansas City has made significant progress in addressing the digital divide. For Kansas City, Missouri and Kansas, residential broadband adoption has increased from 67.1% in 2013 to 84.1% in 2018. While this growth rate is ahead of the nationwide average and slightly ahead of some comparable cities, the report finds that several other cities have higher residential broadband adoption than Kansas City. That is particularly the case for low-income households.

This study does not attempt to assess Kansas City's efforts to address the digital divide or to compare Kansas City's work to those of other cities. A more detailed analysis and comparison of each city's digital inclusion efforts would be informative but is beyond the scope of this report. Nonetheless, this report does suggest that additional efforts to promote residential broadband adoption in Kansas City would be beneficial.

We look forward to your questions and comments.

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Examining Kansas City's Progress in Addressing the Digital Divide: A Comparative Analysis

Kansas City has made strong advances in home broadband adoption since 2013, but remains behind some comparable cities.

John B. Horrigan, PhD

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Summary

For most of this decade, Kansas City has endeavored to use digital technologies as a means for economic and social advancement in the city and region. As the nation's first Google Fiber city, Kansas City saw an opportunity to leverage a city-wide fiber optic broadband network to help prepare the city for the future. This report examines one metric of progress in Kansas City on broadband and civic life – home broadband adoption. The report analyzes home broadband adoption trends from 2013 to 2018, comparing Kansas City to a selection of other cities seen as competitors with respect to economic development. The analysis finds:

Kansas City has experienced a strong growth in home broadband adoption since 2013. Its growth rate has been slightly ahead of other cities included in the analysis and better than the entire United States. In fact, Kansas City trailed the nation in broadband adoption in 2013 but, according to 2018 data, now nearly matches the national average.

- The share of homes with broadband in Kansas City grew from 67.1% in 2013 to 84.1% in 2018. This 17.0 percentage point growth was better than the figure for all cities studied, which was 14.7. The group of 12 comparable cities saw home broadband adoption grow from 72.7% to 87.4%.
- For the United States as a whole, home broadband adoption grew from 73.4% to 85.1% from 2013 to 2018, an 11.7 percentage point increase.
- For Kansas City, Missouri, broadband adoption grew from 69.6% in 2013 to 85.1% in 2018, which equals the national figure.
- For Kansas City, Kansas, broadband adoption was 60.4% in 2013 and increased to 80.4% in 2018.

Home broadband adoption growth has increased most rapidly for low-income households, but the growth rate in Kansas City has been a bit slower than other cities examined.[1]

- For households with annual incomes of $20,000 or less in Kansas City, MO, broadband adoption grew from 41.4% in 2013 to 57.5% in 2017. This growth of 16.1 points was slightly below the figure for all cities of 18.3 points.
- For Kansas City, Kansas, broadband adoption among low-income households was 36.6% in 2013 and grew to 50.4% in 2017, an increase of 13.8 points.
- The group of 12 comparable cities saw home broadband adoption grow from 47.0% to 65.3% for homes with annual incomes under $20,000 over the 2013 to 2017 period.
- For the entire nation, home broadband adoption for households with annual incomes under $20,000 grew from 45.0% to 59.3% from 2013 to 2017, or a 14.3 percentage point increase.

[1] The analysis of broadband adoption by income extends to 2017 because the American Community Survey (ACS) has not yet released 2018 data on broadband by income at the city level. ACS has released aggregate broadband adoption data by city for 2018.

Those cities that have seen the biggest decline in poverty rates since 2013 show the fastest growth in home broadband adoption – particularly among low-income households.

Because home broadband service purchase decisions hinge greatly on income, it is no surprise that cities with high rates of poverty have low broadband adoption rates. At the same time, this gives these cities room for growth. The city with the highest poverty rate among the 12 included for analysis was Cincinnati; it nearly doubled its broadband adoption rate among low-income households – from 33.6% in 2013 to 66.6% in 2017.

The analysis also showed that other measures of civic health, such as household income or growth in well-paying jobs, had less influence on changes in broadband adoption than poverty rates (and declines in poverty from 2013 to 2017). Growth in well-paying jobs and household income in the regions where the cities studied are situated showed a small positive correlation with growth in broadband adoption. But the correlation between broadband adoption growth and cities' decline in poverty rates from 2013 to 2017 was much stronger. This suggests that initiatives to increase broadband adoption rates in cities should be integrated into poverty reduction strategies. A focus on poverty, rather than other measures of regional growth, is likely to make the greatest difference in increasing home broadband adoption.

A city strategy that focuses on low-income households and broadband can draw on research and evolving digital inclusion practice to devise initiatives that can make a difference. Specifically:

- Encourage internet service providers (ISPs) to offer and publicize discount service plans for low-income households: Non-broadband subscribers identify the monthly service cost and cost of access devices as the most important barriers to having service. Many carriers offer discounted service plans for low-income households and some offer discounts on computing devices as well. However, many eligible households may not be aware of these programs, suggesting that ISPs, in partnership with trusted community institutions, should more aggressively publicize these programs.
- Invest in training in digital skills and literacy at community anchor institutions such as libraries and neighborhood non-profits: People new to having broadband often face challenges in navigating the internet to carry out the tasks that motivated them to purchase service, such as pursuing learning or job opportunities. Having had training on using the computer and the internet pays off; it increases the likelihood that new broadband subscribers use the internet for school-work or job skills.
- Ensure that "smart city" and other city-wide tech initiatives build digital equity issues into the planning process: Many cities – and Kansas City is no exception – are undertaking smart city investments to improve delivery of municipal services. A number have made digital equity a cornerstone of the planning process to launch smart-city projects. Additionally, several cities have leveraged smart city initiatives to fund digital inclusion initiatives to help expand broadband access for low-income populations. Cities that employ such inclusive approaches do so because of strong city leadership in support of them.

Background

Since Kansas City was chosen as the first Google Fiber City in 2011, it has been a focal point about the digital future. Would a city-wide fiber optic network spark economic activity? Could it drive "smart city" applications to improve the delivery of city services and residents' quality of life? Would a city-wide fiber network result in more low-income residents subscribing to broadband than would otherwise be the case?

In Kansas City, local officials say that Google Fiber helped in the creation of start-up businesses and surge in investment capital. The presence of Google Fiber also presented an opportunity to take aim at the digital divide. Soon after Google chose Kansas City for its fiber network, the company surveyed city residents to understand broadband use and where broadband adoption was low. The company subsequently funded digital inclusion programs for local non-profits to address digital inequities. Google also partnered with the U.S. Department of Housing and Urban Development's Connect Home program to provide free internet connections to residents of low-income housing.

It is difficult to know whether the reported progress is due to the presence of Google Fiber, local efforts to address digital inclusion, or other characteristics of Kansas City's civic climate. Simply citing change within a city over time is useful to a point, but the change may not be due to Kansas City-specific interventions. Changes in broadband adoption in Kansas City may be similar to those in other cities. The programs to promote broadband adoption in Kansas City may make a difference, but broadband adoption in other cities may also benefit from public or private initiatives to spur broadband uptake. [2]

All this is to say that claims about any single initiative having specific impacts – whether it is a big one like the construction of a city-wide fiber network or more modest ones relating to digital inclusion – are risky. The other factors, either within a city or other places used for comparisons, are hard to fully take into account. For that reason, this report does not seek to make causal claims about change in Kansas City, but rather it tries to describe trends in broadband adoption in Kansas City, Missouri and Kansas City, Kansas over the 2013 to 2018 timeframe. The report will place this analysis in the context of a selection of 10 other cities and changes those cities have exhibited since 2013. This will yield a sense of how Kansas City is doing in comparison to those cities. But it will not be able to say what interventions in the past several years have (or

[2] The National Digital Inclusion Alliance has compiled a list of discounted internet offerings.

have not) had impacts on broadband adoption. The discussion that follows analyzes data from the American Community Survey (ACS) for the cities identified and does not include the metropolitan areas surrounding the cities. ACS has released 2018 data on aggregate broadband adoption in cities, but not yet on broadband adoption in cities by income category. For that reason, analysis in this report on cities' broadband adoption by income category extends from 2013 to 2017.

I. Kansas City lags a selection of competitor cities in broadband adoption.

The tables below show results for a selection of 12 cities (including Kansas City, Kansas and Kansas City, Missouri) that are seen as competitors with Kansas City when it comes to economic development. Each of the cities included for analysis are on the list of competitor cities that KC Rising, a regional economic development organization, compiles. Several cities are aspirational in the sense they have established reputations as centers for tech-based economic activity; Austin and Portland fit that. Others are regional competitors, such as St. Louis and Denver. Other cities have experienced strong population growth or attention as tech centers – Nashville and Pittsburgh are examples – while remaining cities have demographic profiles broadly similar to Kansas City. The table shows how the cities stack up on broadband adoption over the 2013 to 2018 timeframe, with cities with the highest home broadband subscription rate in 2018 at the top.

Table 1: Home broadband adoption trends, selected cities, 2013-2018

	2013	2014	2015	2016	2017	2018
Austin	80.7%	81.7%	81.8%	85.7%	89.4%	91.2%
Portland	80.3%	83.8%	82.6%	87.5%	89.7%	90.6%
Sacramento	71.8%	73.9%	78.3%	83.3%	89.5%	90.2%
Nashville	73.2%	75.7%	75.3%	84.5%	85.9%	89.7%
Denver	75.0%	77.2%	80.3%	85.6%	87.4%	88.7%
Columbus	74.7%	77.8%	78.9%	85.1%	87.5%	87.3%
Kansas City, MO	69.6%	72.0%	74.9%	79.2%	82.3%	85.1%
Pittsburgh	71.8%	72.4%	74.5%	80.1%	82.5%	83.6%
Cincinnati	60.6%	65.3%	72.8%	78.4%	81.3%	82.7%
Indianapolis	68.9%	69.8%	71.2%	79.2%	80.8%	81.2%
Kansas City, KS	60.4%	61.0%	67.2%	73.1%	74.8%	80.4%
St. Louis	60.7%	64.7%	63.5%	74.2%	78.7%	77.0%

The average home broadband adoption figure for the group of cities is 87.4% for 2018, putting both cities behind the norm for the sample; Kansas City, Kansas in fact ranks near the bottom among the twelve cities. Combining Kansas City, Missouri and Kansas City, Kansas, yields a home broadband adoption rate of 84.1%. For the entire United States, the 2018 ACS finds that 85.1% of households have broadband.

II. Kansas City has made better progress on home broadband than other cities since 2013.

Although Kansas City is behind on home broadband adoption, a question worth exploring is whether it is gaining ground. The table below shows how cities rank when it comes to growth in home broadband adoption from 2013 to 2018, displaying the percentage point growth for each city over that timeframe.

Table 2: Percentage point growth in home broadband, 2013-2018

	2013-2018
Cincinnati	22.1
Kansas City, KS	20.0
Sacramento	18.4
Nashville	16.5
St. Louis	16.3
Kansas City, MO	15.5
Denver	13.7
Columbus	12.6
Indianapolis	12.3
Pittsburgh	11.8
Portland	10.3
Austin	10.5

With a few exceptions, this table flips the first one on its head. The cities with the highest home broadband adoption in 2018 have the lowest growth since 2013, reflecting their status as places

with populations that have the income and other demographic characteristics that go along with having broadband at home. Cities lower on the broadband adoption ladder tend to exhibit higher growth rates. Pittsburgh stands out as a place in the lower half of both lists (low home broadband adoption and low growth since 2013) while Sacramento is the opposite (high home broadband adoption and rapid growth since 2013.

For this group of cities, home broadband adoption rates grew by 14.7 percentage points over the 2013 to 2018 interval. That figure is a weighted average that takes into account the size of cities and their growth in broadband adoption. This puts Kansas City, Missouri slightly better than the average, with Kansas City, Kansas well above average. Collectively, Kansas City, Missouri and Kansas experienced a 16.5 percentage point gain in home broadband adoption between 2013 and 2018.

These patterns make sense, in that places with more room to grow (in terms of broadband adoption) tend to show higher growth rates. But it invites scrutiny of the factors which influence broadband adoption in order to get a clearer picture of what is behind these findings. In general, those less likely to have broadband at home have low incomes, lower levels of educational attainment, and are older. In terms of specific reasons for not having broadband, those who do not subscribe are most likely to cite the monthly fee as the reason they do not subscribe. Household income, in other words, plays a large role in people's decision not to subscribe to broadband.

III. Progress on poverty in cities tracks with growth in home broadband adoption for low-income households.

At a city or regional level, these findings for individuals suggest that measures of income matter, and poverty is a natural metric to examine. That is in part because broadband adoption rates, nationally, fall off sharply for households whose annual incomes are $20,000 or less. For households whose annual incomes exceed $75,000, home broadband adoption stood at 95.0% in 2017. For those whose annual incomes are $20,000 or less (and that is 15% of all households), just 59.3% had broadband. That $20,000 income threshold does not perfectly track the classification for poverty, but suggests that it is a worthwhile aggregate indicator on which to focus.

The table below presents cities in order of their 2017 poverty rate and it shows a pattern by which those with the highest levels of poverty, such as Cincinnati and St. Louis (as seen in the prior table) have made the most progress in broadband adoption since 2013.

Table 3: Poverty rate, 2013 to 2017

	Poverty rate 2013	Poverty rate 2017	Change
Cincinnati	30.4%	28.7%	1.7%
St. Louis	27.4%	25.0%	2.4%
Kansas City, KS	25.2%	22.3%	2.9%
Pittsburgh	22.6%	22.0%	0.6%
Columbus	22.4%	20.8%	1.6%
Indianapolis	20.9%	20.1%	0.8%
Sacramento	21.9%	19.8%	2.1%
Kansas City, MO	19.1%	17.3%	1.8%
Nashville	18.9%	17.2%	1.7%
Portland	17.8%	16.2%	1.6%
Austin	19.1%	15.4%	3.7%
Denver	19.1%	15.1%	4.0%

For this group of cities, the collective poverty rate was 21.1% in 2013 and 18.9% in 2017. Cities with high rates of poverty had lower home broadband adoption rates in 2013, which means they had more room for growth. This occurred as more Americans – even low-income ones – have come to see that *not* having broadband at home is a major disadvantage for finding a job or getting health care information.

Since home broadband adoption is lowest among households with annual incomes below $20,000, it is worth looking at how cities fared in growth in adoption at that income threshold. The table below shows the growth in home broadband adoption among low-income households from 2013 to 2017. Only Austin, Portland, and Denver had half of low-income households with broadband in 2013, while both Kansas City, Missouri and Kansas had around 4 in 10 with broadband.

Table 4: Growth in home broadband adoption, 2013-2017, low-income households

	2013 (% of households with annual incomes below $20,000 with broadband)	2017 (% of households with annual incomes below $20,000 with broadband)	2013-2017 percentage point growth for households with annual incomes below $20,000
Cincinnati	33.6%	66.6%	33.0
Sacramento	45.0%	68.9%	23.8
Nashville	46.4%	68.6%	22.2
Pittsburgh	48.0%	67.2%	19.1
Columbus	48.5%	67.3%	18.8
Portland	52.6%	70.6%	18.0
St. Louis	36.6%	54.4%	17.9
Denver	50.3%	67.1%	16.8
Kansas City, MO	41.4%	57.5%	16.1
Austin	57.4%	72.3%	14.9
Kansas City, KS	36.6%	50.4%	13.8
Indianapolis	43.4%	55.7%	12.3

As the table shows, both Kansas City, Missouri and Kansas City, Kansas come out at the lower end of the distribution. Overall, among the cities used for this analysis, home broadband adoption increased by 18.3 percentage points between 2013 and 2017 for households with annual incomes below $20,000, meaning both cities trailed the norm. Although each city passes the 50% threshold for home broadband adoption among low-income households, such residents by 2017 are roughly where their counterparts in Austin, Denver, and Portland were in 2013.

Given the role poverty plays in city broadband adoption rates (especially for low-income households), Kansas City, Missouri's position in this table is not too surprising. Its poverty rate is a bit lower than the average for all 12 cities and its broadband growth among homes with annual incomes under $20,000 is also somewhat below the 12-city average. Kansas City, Kansas, however, looks anomalous. Its poverty rate is higher than the 12-city average, but its

growth in broadband adoption for low-income homes is lower than the rate for all cities used for this analysis.

IV. Broader regional economic indicators are less important than poverty in understanding trends in home broadband adoption.

The analysis has focused on low-income households and, as noted, there is a correlation between poverty rates in the cities discussed and home broadband adoption. Yet other factors are likely to come into play, such as regional job or income growth. The Kansas City Rising website compiles data on the regional economies of cities viewed as competitors to Kansas City, specifically on household incomes in a region, gross domestic product levels (and growth) for metropolitan areas, and job growth (for well-paying jobs, defined as those requiring a post-secondary degree or certification or that pay more than U.S. median earnings). This permits exploration of patterns in broadband adoption and other indicators of regional economic health.

Although a sample of 12 cities is small for analysis, the data at the KC Rising website, along with publicly available data on cities' poverty rates, permits analysis of a larger number of cities – this analysis used 25 cities including Kansas City. In looking at the growth in broadband adoption from 2013 to 2017 places with high rates of poverty showed strong growth in home broadband adoption. Additionally, places that showed the *sharpest declines* in poverty during that time period also saw broadband adoption rates grow.

However, other measures of the regional economy – growth in quality jobs, income, and GDP – showed *little* connection to broadband adoption growth over the 2013 to 2017 time period than changes in poverty rates. This may be an artifact of where society is on the adoption curve, as the period for analysis saw broadband adoption grow roughly from 70% to 80%. Most people with decent jobs – and the skills to get them – already have broadband at home. An increase in the number of jobs in such a region may at this point only modestly impact home broadband adoption rates. On the other hand people climbing out of poverty may, as they have more discretionary income, sign up for broadband service at home.

The implication of this finding – that growth in broadband adoption is more closely associated with poverty reduction than broader economic indicators such as job or income growth – is that efforts to expand home broadband adoption among low-income households should be part of programs to alleviate poverty. A city strategy that focuses on low-income households and broadband can draw on research and practice to devise initiatives that can make a difference. Specifically, policy-makers may want to explore the following actions:

- Encourage internet service providers (ISPs) to offer and publicize discount service plans for low-income households: Non-broadband subscribers identify the monthly service cost and cost of access devices as the most important barriers to having service. Many ISPs offer discounted service plans for low-income households and some offer discounts on computing devices as well. However, many eligible households may not be aware of these programs, which are widely available. According to the National Digital Inclusion Alliance, the nation's four largest cable providers offer discounts to low-income families – and their footprint covers over 90% of all U.S. households. But research has shown that many low-income families do not take advantage of these plans. This suggests that better publicity for these offers and easier sign-up processes might help increase participation rates.
- Invest in training in digital skills and literacy at community anchor institutions such as libraries and neighborhood non-profits: People new to having broadband (and most people without broadband have never had service at home) often face challenges in navigating the internet to carry out the tasks that motivated them to purchase service. In this regard, Kansas City's Digital Equity Strategic Plan is relevant, in that it does call for support of training and broadband access sites in the city. Training to develop digital skills, research shows, pays off in terms of increasing the likelihood that new broadband subscribers use the internet for school-work or job skills. The impact of online training, in theory, could simply reflect the kinds of people who seek training; they may be highly motivated individuals with an underlying set of digital skills. If true, it is not the online training that makes the difference, but rather the qualities of people who sign up for courses. Research on this issue, however, demonstrates that this is not the case. The "training effect" is robust even when taking into account people's levels of motivation (using survey responses on offline learning pursuits as a proxy) and self-reported pre-existing levels of digital skills.
- Ensure that "smart city" and other city-wide tech initiatives build digital equity issues into the planning process: Many cities are undertaking smart city investments to improve delivery of municipal services. A number have made digital equity a foundational part of the planning process to launch smart-city projects. Additionally, several cities have leveraged smart city initiatives to fund digital inclusion initiatives to help expand broadband access for low-income populations. But putting smart cities and digital equity together requires concerted action on the part of community stakeholders. A review of initiatives in a number of U.S. cities show that city leadership is paramount to making this happen. Promoting community buy-in for smart city projects can both hasten the rollout of smart city

applications while helping low-income neighborhoods learn how to use the internet to effectively participate in civic initiatives.

Methodology

The data used for this report come from the American Community Survey (ACS). This survey, conducted by the U.S. Census Bureau, contacts 3.5 million households per year. Households receive notices through the mail that they have been selected for the survey, and they can respond through the mail, using the internet, or by telephone. If contacted households do not respond, ACS follows up with phone calls to ask that the survey be completed. Some 90% of contacted households complete the ACS.

The large sample size of ACS allows analysis of fairly disaggregated geographic units, and, since the ACS is an ongoing survey, the Census Bureau aggregates the data in different ways. For analysis of census tracts (generally having populations of about 4,000 people though census tracts can be geographically large in rural areas), ACS aggregates data over five years, meaning some 17.5 million households are available for analysis. This report seeks to analyze year-to-year change, so it focuses on 1 year of ACS data at a time. These so-called "1-year ACS estimates" are appropriate for places with populations of 65,000 or more – which fits the descriptions of cities used in this report.

The appendix of this report contains data for each of the 12 cities studied, aggregate figures for the 12 cities, and aggregate data for the United States as a whole.

APPENDIX

Home Broadband Adoption, 2013-2017, by Household Income						
	2013	2014	2015	2016	2017	Change 13-17
Portland						
Number of Households	253,021	257,267	253,820	263,774	265,700	
HH income less than $20,000:	52.6%	59.1%	56.0%	63.9%	70.6%	18.0
HH income between $20,000 and $74,999:	79.4%	84.5%	80.9%	87.2%	88.3%	8.8
HH income over $75,000	94.8%	96.4%	95.3%	96.4%	97.8%	3.0
All	80.3%	83.8%	82.6%	87.5%	89.7%	9.4
Sacramento						
Number of Households	175,350	177,553	177,131	183,212	189,193	
HH income less than $20,000:	45.0%	50.1%	51.4%	62.8%	68.9%	23.8
HH income between $20,000 and $74,999:	71.1%	71.3%	78.0%	82.9%	91.0%	19.9
HH income over $75,000	91.5%	93.3%	93.7%	93.7%	97.3%	5.8
All	71.8%	73.9%	78.3%	83.3%	89.5%	17.8
Austin						
Number of Households	349,200	360,996	364,893	372,327	376,509	
HH income less than $20,000:	57.4%	58.8%	56.5%	63.3%	72.3%	14.9
HH income between $20,000 and $74,999:	78.7%	78.2%	77.8%	83.0%	86.1%	7.4
HH income over $75,000	93.5%	94.7%	93.9%	94.4%	97.0%	3.5
All	80.7%	81.7%	81.8%	85.7%	89.4%	8.7
Columbus						
Number of Households	329,894	339,145	344,839	349,113	355,414	
HH income less than $20,000:	48.5%	52.2%	51.5%	62.6%	67.3%	18.8
HH income between $20,000 and $74,999:	77.2%	79.0%	79.9%	87.3%	88.6%	11.5
HH income over $75,000	91.7%	95.0%	95.5%	95.9%	96.6%	5.0
All	74.7%	77.8%	78.9%	85.1%	87.5%	12.8
Denver						
Number of Households	273,050	281,928	287,074	292,003	296,938	
HH income less than $20,000:	50.3%	47.3%	54.1%	62.7%	67.1%	16.8
HH income between $20,000 and $74,999:	72.9%	75.5%	76.9%	84.1%	84.4%	11.5
HH income over $75,000	91.8%	92.9%	94.3%	95.8%	96.2%	4.4
All	75.0%	77.2%	80.3%	85.6%	87.4%	12.4

Nashville	2013	2014	2015	2016	2017	Change 13-17
Number of Households	251,718	258,263	265,002	271,680	273,111	
HH income less than $20,000:	46.4%	50.9%	45.7%	63.4%	68.6%	22.2
HH income between $20,000 and $74,999:	72.5%	76.4%	75.1%	84.0%	83.9%	11.4
HH income over $75,000	91.3%	90.8%	91.7%	94.0%	95.1%	3.8
All	73.2%	75.7%	75.3%	84.5%	85.9%	12.7
Pittsburgh						
Number of Households	130,418	131,112	131,793	136,300	137,442	
HH income less than $20,000:	48.0%	50.0%	52.9%	61.4%	67.2%	19.1
HH income between $20,000 and $74,999:	72.9%	75.1%	76.1%	81.1%	82.1%	9.2
HH income over $75,000	93.5%	91.3%	93.5%	94.7%	95.2%	1.7
All	71.8%	72.4%	74.5%	80.1%	82.5%	10.7
Kansas City, MO						
Number of Households	193,340	195,125	198,129	198,202	204,678	
HH income less than $20,000:	41.4%	42.8%	49.6%	58.4%	57.5%	16.1
HH income between $20,000 and $74,999:	70.4%	73.0%	73.3%	78.9%	83.3%	12.9
HH income over $75,000	90.5%	93.4%	93.0%	92.0%	93.8%	3.3
All	69.6%	72.0%	74.9%	79.2%	82.3%	12.6
Cincinnati						
Number of Households	133,301	137,197	137,445	135,565	140,911	
HH income less than $20,000:	33.6%	44.7%	53.3%	60.6%	66.6%	33.0
HH income between $20,000 and $74,999:	69.1%	69.0%	74.8%	81.4%	81.8%	12.7
HH income over $75,000	84.4%	91.2%	94.8%	94.5%	95.9%	11.6
All	60.6%	65.3%	72.8%	78.4%	81.3%	20.7
Indianapolis						
Number of Households	326,395	328,526	328,431	332,643	334,101	
HH income less than $20,000:	43.4%	42.8%	45.8%	56.2%	55.7%	12.3
HH income between $20,000 and $74,999:	70.4%	71.0%	72.6%	79.8%	82.6%	12.2
HH income over $75,000	91.1%	93.4%	90.7%	94.9%	94.8%	3.8
All	68.9%	69.8%	71.2%	79.2%	80.8%	11.9

St. Louis	2013	2014	2015	2016	2017	Change 13-17
Number of Households	140,536	137,784	141,312	139,021	138,513	
HH income less than $20,000:	36.6%	40.4%	35.6%	46.0%	54.4%	17.9
HH income between $20,000 and $74,999:	64.9%	70.0%	65.9%	79.4%	82.3%	17.4
HH income over $75,000	88.3%	91.6%	90.9%	94.1%	94.5%	6.2
All	60.7%	64.7%	63.5%	74.2%	78.7%	18.0
Kansas City, KS						
Number of Households	52,588	55,680	55,342	54,655	56,677	
HH income less than $20,000:	36.6%	37.2%	38.0%	47.7%	50.4%	13.8
HH income between $20,000 and $74,999:	62.7%	64.8%	70.8%	73.9%	77.6%	14.9
HH income over $75,000	84.9%	85.9%	87.6%	93.5%	88.1%	3.2
All	60.4%	61.0%	67.2%	73.1%	74.8%	14.5
All 12 Cities						
Number of Households	2,608,811	2,660,576	2,685,211	2,728,495	2,769,187	
HH income less than $20,000:	47.0%	49.7%	50.5%	60.5%	65.3%	18.3
HH income between $20,000 and $74,999:	73.4%	75.4%	76.0%	82.9%	85.2%	11.8
HH income over $75,000	91.4%	93.3%	93.3%	94.7%	95.8%	4.4
All	72.7%	75.0%	76.6%	82.8%	85.5%	12.8
Nation						
Number of Households (in millions)	115.6	116.2	116.9	117.7	118.8	
HH income less than $20,000:	45.0%	46.8%	48.8%	56.1%	59.3%	14.3
HH income between $20,000 and $74,999:	71.2%	72.8%	74.2%	79.6%	81.6%	10.4
HH income over $75,000	91.4%	92.1%	92.4%	94.3%	95.0%	3.6
All	73.4%	75.1%	76.7%	81.4%	83.5%	10.1