TRANSPORTATION REFORM SERIES FOR THE METROPOLITAN POLICY PROGRAM AT BROOKINGS

Commuting to Opportunity: The Working Poor and Commuting in the United States

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Findings

An analysis of the commuting and housing expenses of the working poor finds that compared with other workers:

- The working poor spend a much higher portion of their income on commuting. The cost burden of commuting for the working poor is 6.1 percent compared with 3.8 percent for other workers. The working poor who drive to work spend the most: 8.4 percent.
- The combined costs of commuting and housing make up a larger portion of the household budgets of the working poor than other households. For working-poor homeowners, nearly 25 percent of their household income is consumed by housing and commuting expenses compared with just 15.3 percent for other households. For those who rent, the disparities between the working poor (32.4 percent) and other households (19.7 percent) are even greater.
- The cost burden of commuting for the working poor is greater than the national median in eight of the 12 largest metropolitan areas. Six of these—Boston, Los Angeles, Miami, New York, Philadelphia, and Washington, D.C.—also have a higher cost burden of housing than the national median for the working poor.

Transportation is necessary to nearly every aspect of daily life. It enhances both physical and economic mobility and is a key factor in workers' ability to find and retain employment. This survey offers a better understanding of transportation and its costs by focusing on one of its components, commuting.

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I. Introduction

he landscape of metropolitan America is changing. Population and jobs are increasingly decentralized, commuting from one suburb to another and "reverse commuting" from cities to suburbs are more common, and commuters are driving alone to work now more than ever. The effects of these trends on the average American household are profound. Commuting is a growing component of workers' daily transportation. Even though commuting

accounts for only about one-sixth of daily trips, it merits detailed study because it enables access to employment, a key feature of financial self-sufficiency. Workers are also devoting greater time and money to their daily commutes. Among household expenses, transportation generally ranks second, surpassed only by housing. Households generally spend as much on transportation as they do on the combined expenses of food and health care.

This paper examines workers' commuting costs and travel modes, the relationship between housing and commuting costs, and how workers' commuting and housing characteristics vary in the 12 largest U.S. metropolitan areas. The focus of the analysis is on the working poor, but the discussion frequently

draws on the experiences of all workers. The key findings rely on data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP).

The nature and complexity of commuting differ widely from place to place, and patterns are not easily generalized. The most that can be hoped for in this broad view of commuting is to contribute to a growing understanding of the commuting and related expenses of the working poor. Although this paper offers no policy recommendations, it does note some of the strategies used to provide workers with commuting assistance.

II. Background

A. Workers' Commuting and Housing Characteristics

Workers travel longer distances for work and spend more time commuting than ever before.² The U.S. Census Bureau reports that the average commute time was 24 minutes each way in 2003. The prevalence of workers commuting more than 25 minutes each way is on the rise, while those traveling fewer than 20 minutes continues to decline.³ Media regularly profile stories of "extreme commuting"—workers traveling from rural West Virginia into Washington, DC, for example.

Nationally, about one in five workers faces a commute of at least 40 minutes, and between 2 percent and 3 percent of workers face extreme commutes to work (spending at least 90 minutes traveling each way to their jobs).⁴

The lion's share of workers nationwide lives and works in the suburbs. From 1990 to 2000, the percentage of workers who live in the central city decreased from 28.0 percent to 26.8 percent, while the percentage in the suburbs increased from 49.9 percent to 50.4 percent. Within metropolitan areas, suburb-to-suburb commuting is common, with four in ten metropolitan workers living and working in the suburbs. Reverse commutes—from center cities to suburbs—now make up nearly 10 percent of all metropolitan work trips.⁵ According to the U.S. Census Bureau, reverse commutes are so pronounced that cites such as Detroit lose population during the day.⁶ Both "traditional commuting," from suburbs to the central city, and within-city commuting declined slightly from 1990 to 2000 (from 20 percent to 19 percent for traditional commutes, and 28 percent to 26 percent for within-city commutes). However, with 45 percent of metropolitan workers commuting to or within the central city, the urban core still draws a substantial proportion of workers.⁷

In addition to consuming time, commuting is also expensive. Along with expenses such as payroll taxes, work clothes, and child care, commuting costs are a necessary byproduct of having a job. Such costs are less burdensome for some workers, but for the working poor, these costs consume a large portion of their earnings.⁸ Working-poor households—those with incomes less than twice the federal poverty threshold—represented 20.9 percent of all households in the United States in 2003 and about 24 million workers. Working-poor households had a median income of \$20,280 in 2003, while the median income of other households was \$62,340.

Housing also carries a high comparative cost burden for working-poor households, particularly for renters. In no metropolitan area nationwide can a family earning full-time minimum wage buy a modest two-bedroom rental and still limit their housing costs to less than 30 percent of household income—which is the accepted standard for affordable housing. More than 5.4 million renter households spend more than one-half of their income for housing or live in severely distressed housing. In cities with high-cost housing, households would need a full-time wage of more than \$25 an hour to afford a two-bedroom apartment at HUD's 2003 fair market rent.

As Table 1 shows, the rate of homeownership is lower for working-poor households than for other households. Other households are far more likely to be homeowners than renters, while working poorhouseholds are split almost evenly between renters and owners. Homeownership rates may be lower for working-poor households because a disproportionate share of their income is spent on sustenance, making it more difficult to save enough to acquire assets, such as a home. In addition, working-poor households are often faced with higher credit costs than other households.

Table 1. Households by Type of Residence, 2003

	Working Poor	Other Households	All Households
Type of Residence	(%)	(%)	(%)
Owned or being purchased	47.4	74.8	69.1
Rented	46.8	22.9	27.9
Occupied without payment of cash rent	5.8	2.3	3.0

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation Note: The hypothesis of independence is rejected at p < .0001

B. Trade-Offs in Housing and Transportation Costs

Housing and transportation are the two largest expenses for most households. Together, they account for more than one-half of all household spending. Recent studies have explored household transportation expenses, trade-offs in housing and transportation costs, and the impact of residential location on commuting characteristics.

Households make trade-offs in housing and transportation expenses, spending more for housing located near jobs or choosing more affordable housing farther from jobs with higher transportation costs, including long and expensive commutes. A recent study by the Center for Housing Policy (CHP) finds that this trade-off between housing and transportation is disappearing for many; finding housing that a working family can afford—those that earn between the minimum wage and 120 percent of area median income—means commuting long distances to work.¹⁵ The study finds that for every dollar a working family saves on housing, it spends \$0.77 more on transportation. However, once a commute has surpassed 12–15 miles, the increase in transportation costs usually outweighs the savings on housing. Therefore, in the search for affordability, some working families may instead see their expenses rise.

A 2006 Brookings study by the Center for Neighborhood Technology (CNT) and Center for Transit Oriented Development (CTOD) developed a housing and transportation affordability index. ¹⁶ Rather than setting the threshold for housing affordability at 30 percent of household income, the traditional standard, the index incorporates the interaction of housing and transportation costs into the index to provide a more comprehensive measure of affordability based on location. The affordability index draws on research from previous studies, which found that transportation costs are determined by both neighborhood and socioeconomic characteristics. The measure uses detailed neighborhood-level data and is therefore sensitive to local housing and transportation dynamics.

With the affordability index, CNT and CTOD have found that transportation demand and costs are highly correlated with the characteristics of a neighborhood, even among wealthy households, which typically spend more on transportation, in real terms, than other households. The neighborhoods they label "location efficient" feature convenient access to shopping, services, and jobs, and offer low-cost transportation alternatives to cars. A unique feature of the affordability index allows individuals to compare trade-offs in housing and transportation options in various neighborhoods and evaluate the financial impact of location decisions.

The Center for Housing Policy recently commissioned two studies on trade-offs in housing and transportation spending, one jointly from CNT and Virginia Tech and a second from the Institute for Transportation Studies (ITS) at the University of California, Berkley.¹⁷ The first study by CNT and Virginia Tech analyzed the key factors contributing to housing and transportation costs, while ITS examined the impact of families' location decisions on their commute times and costs. The studies used detailed census tract information on neighborhoods within 28 metropolitan areas.

The CNT and Virginia Tech study found location to be a major factor in the cost of housing and transportation, and in particular the distance between neighborhoods and employment centers. Housing costs are higher and transportation costs lower in densely developed neighborhoods near jobs, but total housing and transportation costs increase with commuting distances, despite the lower housing costs farther from jobs. The higher costs arise from the increased time and cost of transportation for households in these locations.

Table 2. Housing and Transportation Choices and Burdens for Select Metro Areas

	Affordable Housing	Type of Residence Transportation Choice	Expenditures of Households Earning \$20,000 to <\$49,999		
Metro Area	Shortage	(Rail Transit System Size)	%Housing	%Transportation	%Combined
Atlanta, GA MSA	Medium	Medium Rail	32	24	55
Boston, MA CMSA	Medium	Extensive Rail	27	29	56
Chicago, IL CMSA	Medium	Extensive Rail	35	27	63
Dallas, TX CMSA	Medium	Medium Rail	24	31	56
Detroit, MI CMSA	Low	No Rail	26	31	57
Houston, TX CMSA	Medium	Small Expanding Rail	24	31	56
Los Angeles, CA CMSA	High	Large Rail	24	32	56
Miami, FL CMSA	High	Medium Rail	28	27	55
New York, NY CMSA	High	Extensive Rail	29	32	61
Philadelphia, PA CMSA	Medium	Extensive Rail	31	28	59
San Francisco, CA CMSA	High	Extensive Rail	31	30	60
Washington, DC PMSA	Medium	Large Rail	27	29	56
Baltimore, MD PMSA	Low	Medium Rail	23	32	55

Source: Peter M. Haas and others, "Housing and Transportation Cost Trade-Offs and Burdens of Working Households in 28 Metros" (Chicago and Blacksburg, VA: Center for Neighborhood Technology and Virginia Tech, 2006).

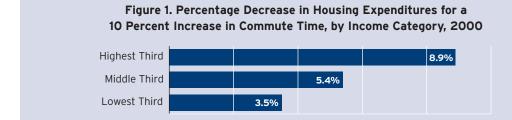
Note: Results are listed for only 13 of the 28 metro areas in the CNT/VT study. Selection was based on congruence with metro areas included in this study.

Working households—those with incomes between \$20,000 and \$50,000—in 28 metropolitan areas spend an average of 28 percent of their income on housing (\$9,700) annually, on average, and nearly 30 percent on transportation (\$10,400). In 17 of the 28 metro areas, working-class households' transportation expenses were higher than their housing costs. As Table 2 shows, the average combined housing and transportation cost burdens vary only slightly between the metro areas.

Among the key factors that contribute to the housing and transportation burdens of working-class households are limited affordable housing, few transit options, and few employment centers near or in residential neighborhoods. These factors burdened families with high costs of housing and transportation if they chose to live near jobs, pushed them farther from the urban core to find better or more affordable housing, or left them in neighborhoods with lower-quality housing, high unemployment rates, concentrated poverty, and little accessibility to jobs and other daily necessities.

The ITS study focused on working families earning between the minimum wage and 120 percent of area median income in seven metropolitan areas and how their location decisions affected their commute times and costs. The study confirmed that choice in housing and commuting is largely a function of income; lower-income households have fewer choices than wealthier ones. However, the ability to make trade-offs also depends on the availability of affordable options. Similar to the CNT and Virginia Tech study, ITS found that where there are few affordable transportation options and few alternatives to expensive housing, some families compensate by living in crowded or lower-quality housing, driving long distances to work, spending several hours commuting on public transportation, or forgoing other necessities.

Comparing households in the upper and lower one-third of the income distribution, Figure 1 shows that every 10 percent increase in average commute time for those in the highest income category was associated with an 8.9 percent decrease in housing expenditures, holding other factors constant. Every 10 percent increase in commuting time for those in the lowest income category was associated with a 3.5 percent reduction in housing expenditures. The disparity in results indicates the degree of choice experienced by households. Households with higher incomes have a larger range of options for maximizing trade-offs.



Source: Robert Cervero and others, "Making Do: How Working Families in Seven U.S. Metropolitan Areas Trade Off Housing Costs and Commuting Times" (Berkeley, CA: Institute for Transportation Studies, 2006).

The nature of trade-offs in commuting and housing varies widely between metropolitan areas. Overall, ITS found that working families choose locations because of affordable housing. In the cases of the New York, Chicago, Los Angeles, and Washington-Baltimore areas, the neighborhoods with more affordable housing are also well served by public transit. In contrast, working-class families in Atlanta and Dallas-Ft. Worth have been pushed to the outer suburbs where housing is costly and transit service rarely operates, often because that is where jobs are located. In San Francisco, working-class families live in neighborhoods well served by public transportation but face some of the nation's least affordable housing.

Both studies found that the combined costs of housing and transportation, including commuting, can be burdensome for households. However, there are also benefits to commuting.

C. Commuting and Workers' Employment Outcomes

Workers often take on longer commutes because of the location of available jobs or as a trade-off for better or more affordable housing. Households are also motivated by quality-of-life incentives, including access to better public services and schools, closer proximity to family and friends, or shorter commute times for a spouse. Ideally, the time and money spent on commuting should be offset by lower household expenses, an improvement in quality-of-life, or higher earnings.

Researchers describe the increased distance between home and work as a "spatial mismatch." John Kain first introduced the idea of a spatial mismatch with his hypothesis that high unemployment rates among lower-skilled blacks living in central cities is explained in part by the movement of low-skilled jobs to suburban areas, thus making it harder to learn about and hold such jobs. Similarly, William Julius Wilson later argued that a decline in manufacturing jobs had left many inner-city neighborhoods without employers, while the concurrent rise in service-sector employment has occurred mainly in the suburbs.

The mismatch between workers and jobs is no longer solely a city-suburb phenomenon. In many metropolitan areas, such as Atlanta, workers frequently commute from suburbs on one side of the region to jobs on the other.²² Although research varies on the extent (or presence) of a spatial mismatch and which population groups are affected, generally cited symptoms of a mismatch include: higher rates of unemployment, higher cost burden of commuting, longer travel times to work, fewer job opportunities located near affordable housing, and limited commuting options to reach jobs.²³ Factors that are believed to contribute to spatial mismatch include: segregation and discrimination in the housing market, job market discrimination, low levels of education, a lack of transit availability, and increasing decentralization of employment across metropolitan areas.²⁴ The availability of affordable commuting options improves workers' ability to overcome the distance between home and work and increases short- and long-term earnings.²⁵

Employment requires mobility. Workers need transportation to jobs and child care centers and other services that make work possible. Unreliable transportation can have grave consequences for the working poor, including added expenses for chronic car repairs or late fees for child care, lower earnings owing to delays getting to work, and possibly job loss. Studies have found that the longer the commute, the less likely someone is to be employed, and increasing job accessibility could increase employment.²⁶ The bottom line is that many workers have the education and experience to fill available jobs throughout the region but are limited by their options to reach them.

To overcome the separation between the working poor and jobs, two strategies are frequently discussed: improving public transit services and increasing access to vehicles. Public transit is a less expensive commuting option than driving and is particularly effective for intra-urban travel.²⁷ However, commuting by transit is typically more time-consuming than driving (about 15 to 20 minutes longer, depending on the region) and existing routes may not provide service to jobs in low-density suburban areas.²⁸ Car ownership and car-sharing programs have been effective for workers not well served by public transit.²⁹ However, driving imposes other costs in addition operating expenses, including air pollution, traffic congestion, and increased oil dependence.

Research has also suggested that moving the poor out of inner-city neighborhoods of concentrated poverty and few jobs would lead to better employment and earnings.³⁰ This theory was the basis for the U.S. Department of Housing and Urban Development's "Moving to Opportunity" (MTO) housing voucher demonstration program and the HOPE VI program for low-income households in the 1990s.³¹ Evaluations of both programs (MTO was a random assignment, controlled evaluation) found positive outcomes associated with the move to low-poverty suburban neighborhoods, such as lower crime and improved health, but have not yet found significant increases in economic self-sufficiency.³² Studies have identified transportation as one of the barriers to employment for both MTO and HOPE VI participants.³³ An example of such barriers is evident in suburbs with low-density commercial development, such as in the Miami region, where many jobs are not easily accessed by public transportation and even many short-distance commutes require a car.³⁴

Given the relationship between neighborhood-specific housing and transportation characteristics and the associated trade-offs in costs, the working poor often benefit from the coordination of housing and transportation options.³⁵ Given that access to affordable transportation options increases workers' short and long-term earnings, the working poor can *commute* to opportunity.³⁶ The remainder of this paper analyzes the cost burdens of commuting and housing, inlcuding an analysis of the working poor in 12 major metropolitan areas.

III. Methodology

he analysis relies on data from the U.S. Census Bureau's Survey of Income and Program Participation (SIPP).³⁷ The SIPP data set provides accurate and comprehensive information about the incomes and participation in social welfare programs of individuals and households in the United States. Data were collected from SIPP respondents every four months for three years (that is, in nine waves). This analysis uses wave nine of the 2001 SIPP panel, which contains data from the 2003 calendar year.

A NOTE ON THE NUMBERS: Data and results are not comparable with those in other reports examining cost burdens of housing and transportation. Other analyses use data from sources such as Census 2000, which are not comparable with SIPP data. For example, this analysis does not include spending on utilities (such as electricity, gas, and water) or property and homeowners insurance in the amount for housing costs. Also, this paper presents only the costs of commuting, not all transportation expenses incurred by a household. It also uses an income definition for the working poor that may not be shared by other studies. Readers should focus instead on the differences between the working poor and other households, and the differences among metro areas.

The study includes only workers aged 15 or older with a paid job during the reference period. In addition, the study included only households with at least one worker. Inclusion criteria were identified to limit the study to only individuals who traveled fewer than 3,000 miles per week by car; spent \$300 or less in parking fees and tolls per week; spent \$1,000 or less on commuting fees and fares per week; and individuals or households whose percentage of income spent on commuting, housing, out-of-pocket medical expenses, or child care expenses was less than or equal to 100 percent . The final sample included 30,239 workers and 18,643 households.³⁸

Personal and household income are measured as gross income. The working poor are defined as households or individuals whose household income is less than twice the federal poverty threshold based on their household characteristics (size of family, number of related children under 18 years, and the age of the householder). The poverty thresholds used by the government do not vary geographically but are adjusted annually for inflation. In general, the thresholds are intended for use as a statistical yardstick, not as a complete description of what people and households need to live. In 2003, the poverty threshold for a family of four (including two related children under age 18) was \$18,660.³⁹ Twice the poverty threshold for this family would be \$37,320.⁴⁰ House-

Workers' commuting expense for those who do not drive to work includes the total cost of traveling by bus, train, or subway, for example. For those who drive, it includes the total of mileage expenses, parking fees, and tolls. For workers who drove in combination with another mode, we added the totals together. We calculated mileage expenses from self-reported weekly commuting miles multiplied by the Internal Revenue Service's standard mileage rate for 2003 (\$0.36 per mile). The standard mileage rate is based on an annual study of the fixed and variable costs of operating an automobile, and is sensitive to fluctuations in the price of fuel.⁴¹ All other commuting expenses were self-reported. The SIPP data do not include the number of commuting trips taken by workers, so it is impossible to determine how much workers spend per trip or if those who work fewer hours take a different number of trips than those who work more hours.

holds and individuals whose household income is more than twice the federal poverty

threshold are defined as "other households" or "other workers."

Households' housing expense includes monthly rent or mortgage payments, plus any condominium or association fees, but excludes any government subsidies for public housing or government subsidized rent . By contrast, housing costs defined in the U.S. Department of Housing and Urban Development's American Housing Survey (AHS) also include utilities (such as electricity, gas, fuel oil and other fuels, water, sewer, and trash), property and homeowner's insurance, and other common household expenses. For this reason, SIPP figures may be lower than AHS figures for the same year.

Cost burden is defined as the percentage of personal or household income spent on a particular expense (commuting, housing, etc.). This study uses the median (typical) rather than the mean (average) values owing to extreme values that skew the distribution. The median is considered to be more robust for such data.

Owing to different statistical inferential methods, results in this report may differ from those reported in the March 2003 Bureau of Transportation Statistics issue brief released.⁴² For instance, rather than using household income and 200 percent of the federal poverty threshold to define income groups, the 2003 study used personal income and six income cut-offs. In addition data analyzed for the earlier study were from 1999 and used different inclusion criteria.

IV. Findings

A. The working poor spend a much higher portion of their income on commuting (6.1 percent) than other workers (3.8 percent). The working poor who drive to work spend the most: 8.4 percent.

The majority of all commuters drive to work. As Table 3 shows, there is some variation by income, with 71.8 percent of the working poor driving compared with 83.5 percent of other workers. The working poor use alternative commuting modes of public transit, carpooling, biking, and walking more frequently than other workers.

"Overall, although the working poor are less likely than other workers to own a vehicle, when they have access to a car, they tend to drive to work at similar rates as other workers."

Table 3. How Workers Commute, 2003

	Working Poor	Other Workers	All Workers
Commuting Mode	(%)	(%)	(%)
Drive a Vehicle	71.8	83.5	81.4
Car/Van Pool	8.8	4.1	4.9
Public Transit	5.9	3.2	3.7
Bike/Walk	6.2	2.8	3.4
Other Single Mode	5.5	5.0	5.1
Combination of Modes	1.8	1.6	1.6

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation Note: The hypothesis of independence is rejected at p < .0001

The working poor tend to live in households with one vehicle while other workers generally live in households with two vehicles. As Table 4 shows, the working poor also more frequently live in households with no automobiles: 17.6 percent versus 7.1 percent for other workers. Some of these workers in households with no car have access to a vehicle other than their own that they use to commute. Other research has similarly found that modal choice is highly correlated with whether a household owns a vehicle. Overall, although the working poor are less likely than other workers to own a vehicle, when they have access to a car, they tend to drive to work at similar rates as other workers.

Table 4. Share of Workers Who Drive to Work by Vehicle Ownership, 2003

Number of	Workin	g Poor	Other Workers		
Household	Percentage of	Percentage of Percentage Who		Percentage Who	
Vehicles	Workers	Drive to Work	Workers	Drive to Work	
None	17.6	31.5	7.1	59.6	
1	38.8	77.2	22.5	78.5	
2	31.0	82.1	41.9	87.0	
3 or more	12.6	86.5	28.4	88.1	

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation Note: The hypothesis of independence is rejected at p < .0001

Table 5 shows that the cost burden of commuting for the working poor is 6.1 percent, nearly two-thirds more than other workers. Other workers generally spend about \$350 more than the working poor on commuting expenses each year, but the outlay accounts for a much smaller share of their income. Whether the working poor drive, take public transit, or use a combination of modes, they spend less but bear a higher cost burden than other workers. However, there are important differences in commuting expense and cost burden between the different modes of transportation.

Driving to work is the most expensive commuting option for all workers and also imparts the highest cost burden for workers. Among the working poor, those who drive to work have a higher cost burden of commuting (8.4 percent) than the working poor who use public transit (5.8 percent). Both figures exceed the cost burden for other workers who drive (4.5 percent of income) or take public transit (2.9 percent of income).

Table 5. Workers' Yearly Commuting Expense and Cost Burden by Commuting Mode, 2003

		Commuting Expense	Cost Burden of Commuting
Income Group	Commuting Mode	(Median)	(Median)
All Workers	Drive a vehicle	\$1,555	5.0%
	Public transit	\$1,020	3.5
	Combination of modes	\$1,080	3.8
	All modes	\$1,102	4.1
Working Poor	Drive a vehicle	\$1,166	8.4
	Public transit	\$810	5.8
	Combination of modes	\$551	5.5
	All modes	\$918	6.1
Other Workers	Drive a vehicle	\$1,652	4.5
	Public transit	\$1,020	2.9
	Combination of modes	\$1,377	3.3
	All modes	\$1,264	3.8

Note: "Car/van pool," "bike/walk," and "other single mode" categories were removed from the table because workers using these modes reported no commuting expenses; these categories represent 13 percent of all workers.

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation

As noted in Table 3, a relatively substantial proportion (28.2 percent) of the working poor use less expensive options to commute. In particular, the working poor car- or vanpool, use public transit, and bike or walk about twice as much as other workers. The pattern of cost burden and mode of transportation among the working poor may indicate that their commuting costs represent the minimum expense required to travel to and from work. However, as already stated, the working poor incur a higher cost burden of commuting than other workers, leaving less income available for other expenses.

B. The combined costs of commuting and housing make up a larger portion of the household budgets of the working poor than other households.

Working-poor households have a higher cost burden of commuting and housing than other households, but in absolute terms they spend less on these expenses each year. As Table 6 shows, when controlling for homeownership, working-poor households that rent spent less on commuting but more on housing than working-poor households that are homeowners. In contrast, all other renting households spent less on commuting and less on housing than all other homeowners.

For both income groups, renters have a lower cost burden of commuting and higher cost burden of housing than homeowners. These results suggest that renters are trading lower commuting costs for higher housing costs. The previously mentioned CHP studies found similar trade-offs among renters and owners.⁴⁵

Table 6. Households' Yearly Expense and Cost Burden of Commuting and Housing by Type of Residence, 2003

						Combined
						Cost Burden
		Commuting	Housing	Cost Burden	Cost Burden	of Housing
		Expense	Expense	of Commuting	of Housing	and Commuting
Type of Residence	Income Group	(Median)	(Median)	(Median)	(Median)	(Median)
Owned or being	Working poor	\$1,469	\$4,380	6.5%	18.3%	24.8%
purchased	Other households	2,754	8,412	3.7	11.6	15.3
	All households	2,448	7,800	4.0	11.9	15.9
Rented	Working poor	972	5,400	5.1	27.3	32.4
	Other households	1,836	7,800	3.6	16.1	19.7
	All households	1,377	6,900	4.0	19.1	23.1

Note: The category "occupied without payment of cash rent" was removed from the table; this category represents 3 percent of all households. Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation

As Table 6 shows, for working-poor homeowners, nearly 25 percent of their household income is consumed by housing and commuting expenses. This proportion increases to nearly one-third of the income of working-poor renters. These figures represent household spending before other major expenses are taken into account, including all other transportation expenses. Transportation expenses are the second largest household expense. Combined, the costs of housing, transportation, and food consume an average of 65 cents of every dollar spent (34 cents for housing, 18 cents for transportation, and 13 cents for food). For households in the lowest one-fifth of the income distribution, spending on housing, transportation, and food jumps to 71 cents of every dollar (40, 15, and 16 cents, respectively). As household income rises, housing costs account for a smaller share of spending, and transportation costs account for a greater share.

C. The cost burden of commuting for the working poor is greater than the national median in 8 of the 12 largest metropolitan areas.

In addition to national differences between working-poor households and other households, there are also unique differences among the 12 largest metropolitan areas in the United States. Of the 12 largest metros areas, three are in the Northeast, five in the South, two in the West, and two in the Midwest, and these 12 account for one-third of the nation's population.

Within the 12 largest metropolitan areas, the differences in mode of commuting and vehicle ownership between the working poor and other workers follow similar patterns as in national trends. However, as a comparison of Tables 4 and 7 reveals, the rates of driving to work are somewhat lower for workers in the large metropolitan areas, and the percentage of working poor who do not own a car is substantially higher (17.6 percent for the nation, and 27 percent for the 12 metro areas). As highlighted in the CHP studies, metro areas such as Boston, Chicago, New York, Philadelphia, San Francisco, and Washington, DC, have extensive public transit systems.⁴⁷ However, even where public transit use is high, many households own vehicles for errands, weekend trips, or commuting for another worker in the household.

As shown in Table 8, in Boston, Detroit, Houston, Los Angeles, Miami, New York, Philadelphia, and Washington, DC, the cost burden of commuting for the working poor is greater than the national median for the working poor. Houston has the highest cost burden of commuting for the working poor, and it is also much higher than the national median for the working poor. One-half of the working poor in the Houston metro area are spending more than 9.1 percent of their income just to commute to work. The rates of driving to work in the Houston metropolitan area are similar to the national figure, but the working poor who drive are commuting farther, which can increase costs significantly. Long commutes are likely related to "job sprawl" within the region, that is, low-density, geographically spread-out patterns of employment growth.⁴⁸

Table 7. Share of Workers Who Drive to Work by Vehicle Ownership in the 12 Largest Metropolitan Areas, 2003

Number of	Workin	Working Poor		Workers
Household	Percentage of	Percentage of Percentage Who		Percentage Who
Vehicles	Workers	Drive to Work	Workers	Drive to Work
None	27.0	23.7	11.4	52.4
1	36.8	71.8	25.7	72.8
2	26.7	80.2	39.0	84.9
3 or More	9.6	79.8	23.8	88.4

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation. Note: The hypothesis of independence is rejected at p < .0001

While nationally the working poor use alternative transportation modes at modestly higher rates than other workers, these differences are magnified in Atlanta, New York, Philadelphia, and Washington, DC. In those metro areas, the rates of using alternative modes are more than 25 percent higher among the working poor. It is not surprising that the New York metro area has the lowest prevalence of commuting by car given that public transit use in the region accounts for 38.2 percent of all transit use nationwide. However, the working poor are still disproportionately burdened by commuting expenses compared with other workers. In neighborhoods within the New York area, the CHP studies revealed that the greatest share of transit service is located in neighborhoods with above average housing costs. The working poor are more likely to live in neighborhoods with more affordable housing, such as secondary central cities and older suburbs, where the quality of transit service is not as high and workers' commutes are longer and more costly.

In the Miami-Fort Lauderdale metro area, the cost burden of both commuting and housing for working poor and other households is well above the national median and is among the highest of the 12 metro areas. The Miami region is becoming increasingly decentralized, resulting in a growing distance between workers and jobs. ⁵²By 2000, only one in six residents lived in the central city, and a majority of workers now begin and end their commutes in the suburbs.⁵³ The region has worked to improve transit service by developing a multimodal system, but increases in transit service have not kept pace with travel demand, and driving alone to work remains the dominant commuting mode. As in other metro areas, suburban development in the Miami region encourages or necessitates a private vehicle. Households do not live and work in the same communities, and office complexes are isolated, surrounded by parking lots, and sidewalks and crosswalks are limited.⁵⁴ This makes commuting particularly burdensome for the working poor who cannot afford to live near available jobs in the suburbs or do not have access to a vehicle. Working-poor households in the Miami region struggle to pay for basic necessities, with one-half paying more than 43.7 percent of their income on housing and commuting.

In five of the 12 metropolitan areas, the median cost burden of housing for the working poor was above 30 percent, the traditional standard for affordable housing. In other words, a majority of the working poor in the metro areas of Atlanta, Boston, Los Angeles, Miami, and New York are paying rents or mortgages that are considered unaffordable and place a strain on their household budgets. To compound the problem, these households also experience a cost burden of commuting at or above the national median for the working poor.

Table 8. Households' Cost Burden of Commuting and Housing and Share of Workers in the 12 Largest Metro Areas Who Drive to Work and Their Commuting Distance, 2003

Makuan alikan Ausa	In come Crown	Cost Burden of Commuting (Median)	Cost Burden of Housing	Workers Who Drive to Work	Weekly Miles Driven to Work (Median)
Metropolitan Area All of U.S.	Income Group Working poor	5.6%	(Median) 22.5%	(Percentage) 71.8%	(Median) 60
All OI U.S.	Other households	3.7	12.5%	83.5	80
Atlanta CA		5.6	33.3	60.9	100
Atlanta, GA	Working poor Other households	4.1	33.3 14.8	87.2	100
Docton Wareacter Lawrence		6.2			100
Boston-Worcester-Lawrence,	Working poor		32.7	76.9	
MA-NH-ME-CT	Other households	3.7	14.6	81.8	100
Chicago-Gary-Kenosha, IL-IN-WI	Working poor	5.2	27.7	64.0	50
D. II. E. I.W. II. TV	Other households	3.3	14.6	79.4	75
Dallas-Fort Worth, TX	Working poor	3.5	24.2	70.8	50
	Other households	4.0	13.9	89.3	100
Detroit-Ann Arbor-Flint, MI	Working poor	6.4	11.9	76.3	50
	Other households	3.4	12.7	90.0	75
Houston-Galveston-Brazoria, TX	Working poor	9.1	22.5	73.6	100
	Other households	5.0	11.4	83.8	100
Los Angeles-Riverside-Orange County, CA	Working poor	6.0	35.1	67.6	80
	Other households	3.7	16.9	84.4	100
Miami-Fort Lauderdale, FL	Working poor	6.7	37.0	73.7	55
	Other households	4.2	15.0	82.9	84
New York-Northern New Jersey-	Working poor	5.8	30.1	39.1	60
Long Island, NY-NJ-CT-PA	Other households	2.8	13.7	64.6	75
Philadelphia-Wilmington-Atlantic City,	Working poor	5.8	25.7	53.6	70
PA-NJ-DE-MD	Other households	3.2	13.0	82.6	80
San Francisco-Oakland-San Jose, CA	Working poor	5.3	26.2	64.4	60
	Other households	2.9	17.2	79.1	100
Washington-Baltimore, DC-MD-VA-WV	Working poor	7.7	26.4	45.6	100
	Other households	2.7	15.8	76.4	100

Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation.

Note: Respondents who drove their car to work were asked to report their weekly commuting distance, and they may have estimated their mileage with a round number. Because the mileage in the table is a median (the middle value in a distribution), it is a worker's actual response to the question, whether they provided a round or precise number.

From a regional perspective, Figure 2 shows that the working poor living in the three largest metropolitan areas of the Northeast (Boston, New York, and Philadelphia) and Washington, DC, have a higher cost burden of both commuting and housing than the national median for the working poor. In contrast, Figure 3 shows that other households in these metropolitan areas have a cost burden of commuting that is less than or equal to the national median for other households, but a higher cost burden of housing.

The greatest disparity between the working poor and other households is in the Washington, DC, metro area, where the cost burden of commuting for working-poor households is nearly three times that of other households. The Washington, DC, metro area is second only to New York City in rates of commuting by modes other than driving but, compared with the nation, the working poor in the DC metro area travel much longer distances. According to Census 2000 data, the populations of Washington and Baltimore, the two major cities within the region, have decentralized. Populations in the central cities declined as the suburbs grew by 20 percent in Washington and 35 percent in Baltimore in the 1990s. Employment is also moving out of the central city. In Washington, nearly 60 percent of workers commute between homes and jobs in the suburbs, and in Baltimore, only 29 percent of work-

Figure 2. Working-Poor Households' Cost Burden of Commuting and Housing in the 12 Largest Metro Areas Compared with the National Median for Working-Poor Households, 2003

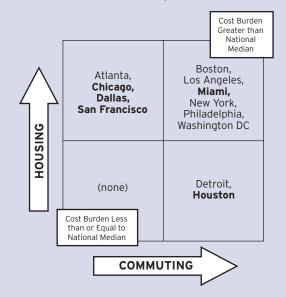
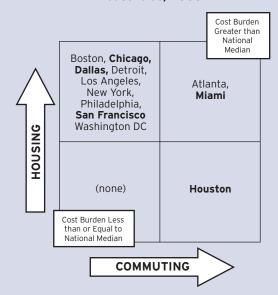


Figure 3. Other Households' Cost Burden of Commuting and Housing in the 12 Largest Metro Areas Compared with the National Median for Other Households, 2003



Note: Metro Areas in **bold** are in the same category for both working-poor households (Figure 2) and other households (Figure 3). Source: Author's analysis of U.S. Census Bureau data from the Survey of Income and Program Participation.

ers are employed in the central city.⁵⁶ The working poor are more likely than other workers to live in central city and in inner suburban neighborhoods where housing costs are somewhat lower, but the distance to jobs is greater.⁵⁷

Cost burdens in the Los Angeles metropolitan area follow the same overall trend as in the Northeast. This heavy commuting burden on the working poor is also likely related to job sprawl throughout the region. The Los Angeles and the adjacent Riverside metropolitan areas both have among the highest rates of job sprawl of any large metropolitan area. Drivers are faced with heavily congested roads, and the working poor who use public transit spend 70 to 75 percent more time commuting than those who commute by car. The working-poor households in the Los Angeles region also incur one of the highest cost burdens of housing within the 12 largest metropolitan areas, second only to Miami.

V. Implications

he working poor surveyed in this study spend a disproportionate share of their income on commuting, despite using less expensive commuting modes at a greater frequency than other workers. In addition, working-poor households bear a higher cost burden for housing than other households.

Absorbing the expense of commuting into a household budget can be burdensome, particularly for the working poor. This burden is critical given that the ability of the working poor to access employment throughout a region leads to better employment opportunities and increased earnings. ⁵⁰ Put simply, access to affordable commuting options is a key factor in the economic mobility of the working poor.

A small number of employers offer commuter benefits, including car and van pools, commuter buses, subsidized transit assistance, telework programs, and shuttles to link transportation modes. According to the Bureau of Labor Statistics' Employee Benefits Survey, 5 percent of workers in private industry had access to subsidized commuting in 2003. The data show that white-collar workers receive subsidies more frequently than blue-collar workers (7 percent and 4 percent, respectively).

The primary federal program designed to address accessibility and affordability of commuting is the Job Access and Reverse Commute (JARC) program. JARC is administered by the U.S. Department of Transportation's Federal Transit Administration (FTA) and provides grants to states and localities to improve the mobility of welfare recipients and low-income individuals, including access to employment and related services such as child care and training. JARC funds are used for a variety of purposes, including expanding public transit routes, lengthening service hours, and providing other transportation options. Recent federal legislation emphasizes coordination among transportation and human service agencies. Coordination and flexibility in the way localities use JARC funds may be key in the programs' success meeting the varied transportation needs of the working poor.

VI. Conclusion

his study focused on the costs of commuting and other transportation, trade-offs between transportation and housing, and benefits associated with access to affordable commuting options. The commuting burden experienced by the working poor has been shown to be a symptom of larger local and regional trends, including development and land use patterns, residential segregation, and changing local economies. The outcomes of such trends can be seen in metropolitan areas across the United States where workers commute longer and farther between affordable housing and employment opportunities.

Commuting provides a key link to economic mobility for the working poor. With access to affordable transportation options, the working poor are able to *commute* to opportunity–find better jobs, lower household expenses, and increase their earnings.

"Put simply, access to affordable commuting options is a key factor in the economic mobility of the working poor."

Endnotes

- Elizabeth Roberto is a research analyst with the Bureau of Transportation Statistics in the Research and Innovative Technology Administration at the U.S. Department of Transportation. The views, opinions, and statements contained in this article are solely those of the author and do not represent the official policy or position of the Department of Transportation, the Research and Innovative Technology Administration, or the Bureau of Transportation Statistics.
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