

Housing Cost Burden, Poverty Status, and Economic Hardship among Low-income Families

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Abstract This study examined the relative effects of housing cost burden versus poverty thresholds to explain the economic hardship of low-income families and compared the differences in these effects among White, Black, and Hispanic families with children in the United States of America. The findings from the multivariate analyses indicate that poverty status better explains variations in economic hardship than housing cost burden status. In respect to group differences, association between poverty status and economic hardship score are different between White and Black families. The results of this study raise the issues of housing cost burden and economic hardship that the country's low-income Black families disproportionately experience relative to their White and Hispanic counterparts.

Keywords Economic hardship · Housing cost · Low-income · Poverty

Background

This study contributes to the literature on poverty by looking at family economic hardship both in relation to poverty status and housing cost burden. Public programs and researchers typically use the official United States poverty thresholds to determine whether or not individuals and families face financial difficulty. This traditional poverty measure, used by the United States Census Bureau, determines poverty status based on total household income and the number of individuals in the household. The Social Security Administration developed the official thresholds in 1964, based on 1955 income data and the assumption that total income equals three times the cost of purchasing food for a minimum diet. The thresholds were adopted in 1965, and each threshold, distinguished by family size and number of related children under age 18 in the family, is adjusted annually based on changes in the average Consumer Price Index from year to year (U.S. Census Bureau 2001). Specifically, the 2005 thresholds were \$10,160 for one non-elderly adult under

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65 years of age, \$13,078 for a family of two non-elderly adults, and \$15,720 for a family of two non-elderly adults and one child (U.S. Census Bureau 2006). In this paper, *poor* refers to households whose incomes are at or below the relevant poverty threshold, while *near-poor* refers to those whose incomes are above the relevant poverty threshold and at or below 200% of that threshold. *Low-income* refers to both these family groups.

Extensive research on the measurement of poverty has noted one main weakness of the official poverty thresholds to be that they do not take variations in the cost of living by regions into consideration (Citro and Michael 1995; Iceland 2005; Ruggles 1990). For example, in the United States, where food is currently among the cheapest in the world relative to income, the prices of many other commodities have increased relative to food. Yet, poverty thresholds are still based solely on food prices. Also, housing is by far the largest expenditure category for the average household in the United States, and housing costs vary, significantly impacting the expenditures of households (Bureau of Labor Statistics 2005; Iceland 2005). Coe (1978) argued that one of the limitations of the official poverty thresholds is that it does not account for non-monetary income. For example, living in a house that is mortgage free (owned outright) means lower housing costs. Empirically, if a higher proportion of older adults own their homes outright, then the inclusion of housing costs in the poverty thresholds would reduce the percentage of elderly in poverty. One study found close to 90% of poor elderly homeowners have paid off their mortgages (U.S. Housing and Urban Development 2000). Other shortfalls of the poverty thresholds result from not taking into consideration changes in society. Such changes include work patterns within families with children, family and household composition, relative increases in per capita expenditures on medical care and health insurance coverage, increases in federal tax and Social Security tax for lower income workers, and overall improvement of the standard of living in the United States (Citro and Michael 1995).

The housing affordability standard is an alternative measure of economic well-being. The affordability standard is used by mortgage lenders to calculate the upper limit homebuyers can pay given their current income and by publicly funded housing programs to determine the applicants' rental shares. In the 1930s, the federal housing program began with a threshold of 20% of income to be spent on rent. The figure then increased to 25% between 1969 and 1971. Since 1981, the standard figure has been 30% of income. The housing affordability standards were not created based on real economic difficulties that lower income individuals and families face. However, these standards are the most widely used measure of housing cost burden on individuals and families, including low-income individuals and families (Hartman 1988). There are still advantages to using the affordable housing measure to assess families' economic well-being. For example, it adjusts partially for variations in living costs in different areas in the United States. On the other hand, adjusting for housing costs may overcorrect the general cost of living (Nord 2000). Compared to the poverty thresholds, the housing affordability standard lacks the consideration of the number of persons in the household when determining financial demand (Hartman 1988).

Housing affordability is also compounded by issues of race and ethnicity (Massey and Denton 1993; Yinger 2000), and where one lives has impacts upon opportunities such as education and labor force participation. According to Yinger (2000), there is no evidence of reduced discrimination associated with housing in the past two decades. Residential segregation of Blacks persists at a magnitude experienced by no other racial or ethnic group (Massey and Denton 1993). For example, the home ownership rate among non-Blacks in poverty is higher than that among Blacks in general (Yinger 2000). Regarding housing cost burden, families headed by both Black and White mothers had lower housing cost burden and smaller household size than those headed by Hispanic mothers (Cook and Bruin 1994).

One factor that relates to the economic well-being of families and that needs to be controlled for in analysis is human capital. According to human capital theory, individuals and families spend time in activities; such as, education, job training, or actual job experience to increase their future income and, therefore, their satisfaction. Investment in human capital can improve financial, psychological, and physical well-being of individuals throughout their lifetime (Becker 1993). Education and job experience are also forms of human capital associated with poverty experiences. Stevens (1995) found that having 12 or more years of education was associated with higher poverty exit rates and lower reentry rates. In a study comparing the poverty entry rates and exit rates among young women, Cox (1997) found that more years of education were associated with a decreased likelihood of falling into poverty for African American, Latina, and White women and with an increased likelihood of exiting from poverty for White women, when other factors were controlled. Also, studies have shown that health, another human capital factor, is associated with economic hardship and poverty. Health problems are more prevalent among lower income adults than among their higher income counterparts (Wolfe and Hill 1993), and disability has been associated with poverty and housing cost burden (White et al. 1994).

In summary, official poverty thresholds have been used widely but can be questionable. Shortfalls of the thresholds include that they do not reflect differences in inflation rates of different commodities relative to food, variations in living costs in different parts of the country, and non-monetary income not taken into account. Alternative thresholds have been proposed to better reflect economic deprivation (Citro and Michael 1995; Ruggles 1990). The housing affordability threshold or the presence of housing cost burden of spending 30% of gross income on housing may reflect low-income families' needs and local living costs, as well as racial and ethnic differences in housing opportunities (Beverly 2000; Cook and Bruin 1994; Massey and Denton 1993; Yinger 2000), better than poverty thresholds do. Lastly, one's human capital is related to economic well-being (Becker 1993; Cox 1997; Stevens 1995; White et al. 1994; Wolfe and Hill 1993) and should be taken into consideration when explaining differences.

Data and Research Methods

The data for this study came from the adult pair file, family file, household file, and social family file of the latest year of the National Survey of America's Families made available by the Urban Institute. At the time of this study, data from the 1999 survey were the most current. The "primary goal of the survey was to obtain social and economic information about children in low-income households" (Judkins et al. 2001, p. 2-1). The observation units included in the initial sample were both poor and non-poor families with children, where poverty status was determined by the official poverty thresholds. The racial and ethnic group assignments were based on adult householders. Individuals of Hispanic ethnicity may be Black, White, or another race, but Hispanics of all races were coded solely as Hispanic in this study. The data were weighted to accommodate some concerns about the survey data, such as non-response and a smaller sample size for minority families, compared to White families.¹

¹ The replicate and adult person sample weights were incorporated using the SAS's PROC SURVEY-MEANS for the descriptive statistics and PROC SURVEYREG for the General Linear Models. Specifically, in both the procedures, SITE and VARSTRAT were specified as strata variables, VARUNIT was specified as the cluster variable, where these three variables were given in the NSAF dataset. The adult pair sample weight was used as the weight variable (Brick et al. 2001).

The data were used to answer the following questions: Does the housing cost burden status reflect actual family economic hardship better than the poverty thresholds? Relative to their poverty status, do Black families experience more economic hardship than do Hispanic and White families?

Beverly (2000) explained how the National Survey of America's Families (NSAF) can be used to measure economic hardship. Specific recommendations as to which questions in different categories may be used to assess hardship conditions were also made. The categories applicable to the NSAF data set are (1) food insufficiency, (2) household crowding, (3) difficulty paying bills, (4) telephone disconnection, (5) medical needs, and (6) lack of automobile ownership. See Table 1 for more information on each of these categories.

The general linear models, where the response variable was the factor score of the six economic hardship items suggested by Beverly (2000, see Table 1), were used to answer the research questions. This factor score served as the measure of economic hardship by capturing the common essence of these items. The estimated economic hardship score was a factor score. According to Johnson and Wichern (1992), factor scores can be used for diagnostic purposes. A single factor score for each family was calculated using the nine economic hardship items listed in Table 3 and the household crowding. The housing crowding variable was calculated by dividing the number of persons in the household by

Table 1 National Survey of America's Families 1999 interview questions used to assess families' economic hardship

Categories	Questions and notes
Food insufficiency	(I/we) worried that food would run out before having money to purchase more (often true, sometimes true, or never true: p. M-5, question number M9A) The food that (I/we) bought just didn't last, and (I/we) didn't have money to get any more (often true, sometimes true, or never true: M9B) In the last 12 months, since (name of current month) of last year, did (you or other adults in your family) ever cut the size of your meals or skip meals because there wasn't enough money for food? (yes, no: M9C), frequency of it happening (almost every month, some months but not every month, or only 1 or 2 months: M9D)
Household crowding	How many bedrooms are there in your home? (M5) (Divide this by the number of persons in the household)
Difficulty paying bills	Was there a time when (you/you and your family) were not able to pay your mortgage, rent or utility bills? (yes, no: M10) Did you or your children move in with other people even for a little while because you could not afford to pay your mortgage, rent or utility bills? (yes, no: M11)
Medical need	Did (you/spouse or partner/focal child) not get or postpone getting medical care or surgery when needed it? (yes, no: F18) Was lack of insurance or money a reason why (you/spouse or partner/focal child) did not get the medical care or surgery needed? (yes, lack of insurance or money; no, some other reason: F20) (similar questions after the following, too) Did (you/spouse or partner/focal child) not get or postpone getting dental care when needed it? (F21) Did (you/spouse or partner/focal child) not fill or postpone filling a prescription for drugs when needed them? (F27)
Automobile ownership	Does anyone in your family own a car or other vehicle? (J18B)

Source: 1999 NSAF Questionnaire

Note: Most questions refer to the last 12 months before the interview date

Table 2 Weighted means and standard deviations of the continuous variables

Variables	Householder's race and ethnicity		
	White	Black	Hispanic
Economic hardship factor score estimate	−0.07 (0.02)	0.15 (0.04)	0.04 (0.02)
Monthly rent/mortgage	\$471.07 (9.24)	\$408.20 (12.35)	\$509.88 (8.41)
Total family income in 1998	\$22,886 (\$348)	\$16,516 (524)	\$19,693 (463)
Householder's age	34.51 (0.21)	34.77 (0.40)	34.26 (0.29)
Number of bedrooms in house	2.88 (0.03)	2.67 (0.04)	2.36 (0.00)
Number of persons in household	4.21 (0.03)	4.11 (0.06)	4.80 (0.07)
<i>N</i>	6,791	2,197	2,978

Note: The numbers in parentheses are the standard errors of mean

the number of bedrooms. The mean hardship score among White families was -0.07 ; it was 0.15 for Black families and -0.04 for Hispanic families (Table 2, top).

The three main explanatory variables were poverty status, defined as whether or not the family was poor as determined by the official United States poverty measure; housing cost burden status, defined by whether or not the family spent 30% or more of their income on housing; and the race and ethnicity of the householders. The poverty status was excluded in Model 1. The housing cost burden status was excluded in Model 2. Then both were included in Model 3. Other householder characteristics included as explanatory variables were gender, age, and marital status. Explanatory variables that were used as measures of human capital were educational level, employment status, and health status of the householder. Region of residence was controlled to adjust partially for differences in cost of living. Several interaction terms were assessed as well.

This analysis allowed for a number of inferences about family economic well-being. The coefficients associated with the poverty and with housing cost indicate the extent to which each of these variables was associated with economic hardship. The *difference* between these coefficients should indicate whether, in general, poverty or housing cost is a better predictor of hardship. The coefficient associated with the race and ethnicity predictor reflects the extent to which hardship is more or less prevalent among minority families compared to White families. The *interaction* between poverty and race and ethnicity reflects the extent to which poverty differentially predicts hardship as a function of race and ethnicity; the *interaction* between housing cost and race and ethnicity reflects the extent to which housing cost differentially predicts hardship as a function of race and ethnicity. Finally, the coefficient associated with each of the control variables allows an estimate of their importance in explaining economic hardship.

Sample Descriptions

A total of 11,966 White, Black, and Hispanic householders who were poor or near-poor and living with children younger than 18 were identified. Of these, about 57% were

non-Hispanic White, 18% were non-Hispanic Black, and 25% were Hispanic of different races. Tables 2 and 3 show the sample's descriptive statistics. Group means and their standard errors for each racial and ethnic group are shown for the continuous variables in Table 2. The race and ethnicity predictor in the analyses refers to the race and ethnicity of the householder. Other family members' racial and ethnic identities were not taken into consideration. Therefore, *White families* or *Black families* hereafter refer to families with non-Hispanic White householders or those with non-Hispanic Black householders.

The estimated economic hardship factor score was the highest among Blacks, meaning that they reported a higher degree of economic hardship than did White and Hispanic families. Monthly rent or mortgage payment was the highest among Hispanic families, followed by White and Black families, respectively. Total family income in 1998 was the highest among White families, followed by Hispanic and Black families, respectively. The average age of the householder was between 34 and 35 years old for all three racial and ethnicity groups. Hispanic families had the most children age five or younger. The number of bedrooms in the house and the number of persons in the household were used to calculate the housing crowding proxy. White families' homes had the most bedrooms; whereas, household size was the largest among Hispanic families.

Other variables were categorical, and Table 3 shows the percentage breakdowns within each racial and ethnic group. No statistical test was performed to compare the group differences in distributions. Using family income as a percentage of poverty threshold, White families appeared economically better off than Black and Hispanic families, the majority of whom had incomes that put them between 50% and 150% of the poverty thresholds. Regarding the housing cost burden, assessed in four categories, all racial and ethnic groups most often spent 15% or more but less than 30% of their income for rent or mortgage. Each of the family economic hardship items was experienced by different proportions of White, Black, and Hispanic families. A higher proportion of Blacks reported the following hardships than Whites or Hispanics: no phone for more than 1 day, prescription drugs postponed, often worried whether food would run out, often food bought did not last, cut or skip meals for lack of money, unable to pay rent, and no one in the broadly-defined family (including the householder's partner, who is not officially considered a family member) has a car. A higher proportion of White families postponed medical as well as dental care due to financial reasons than their Black and Hispanic counterparts.

Who were the householders? Almost all Hispanics (91%) were of White race, although some were of Asian, Black, and Native American races. Close to two thirds of White and Hispanic householders were women, while three quarters of Black householders were women. More than 60% of White and Hispanic householders were married, while there was a higher proportion of Black householders who were never married (38%) than those who were married or who had another marital status, such as widowed, separated, or divorced. Out of the three educational attainment categories, the highest proportion of householders of all three groups had less than a high school education, but the proportion was highest among Hispanics (68%), followed by Blacks (41%), and Whites (37%). Higher proportions of White householders were employed at the time of the interview than those of Black and Hispanic householders. Lastly, the most frequently selected current health status category by low-income White householders was *very good*, while health status was a rank lower, *good*, among Black and Hispanic householders. A higher proportion of Black householders had a health condition that limited work compared to White and Hispanic householders.

Table 3 Weighted frequencies of categorical variables in column percentage

Variables	Householder's race and ethnicity		
	White	Black	Hispanic
<i>Family income as percent of poverty threshold</i>			
50% and less (poor)	12.40	23.18	18.07
100% and less (and >50%) (poor)	21.25	26.20	27.95
150% and less (and >100%) (near poor)	28.01	30.90	29.75
200% and less (and >150%) (near poor)	38.34	19.72	24.23
<i>Housing cost burden percent of income spent on rent or mortgage</i>			
60% and more	12.52	20.31	20.54
30% and more (and <60%)	21.77	29.04	31.58
15% and more (and <30%)	40.65	31.03	34.80
Less than 15%	25.06	19.63	13.08
<i>Family economic hardship items</i>			
No phone more than 1 day in 1999	10.99	19.38	13.98
Medical care postponed in 1998	15.36	9.23	8.07
Dental care postponed in 1998	26.24	17.59	16.85
Prescription drugs postponed in 1998	12.24	13.67	6.14
<i>Worried whether food would run out</i>			
Often	11.94	18.08	10.66
Sometimes	29.52	35.65	36.46
Never	58.54	46.27	52.87
<i>Food bought didn't last</i>			
Often	7.74	11.63	7.35
Sometimes	24.60	36.88	32.57
Never	67.65	51.49	60.08
Cut/skip meals for lack of money	20.23	24.86	24.84
Unable to pay rent in 1998	31.05	35.41	26.12
No one in broadly-defined family own car	11.81	43.41	34.96
<i>Characteristics of the householder</i>			
<i>Race</i>			
Asian	0.00	0.00	2.11
Black	0.00	100.00	5.41
Native American	0.00	0.00	1.41
White	100.00	0.00	91.06
<i>Gender</i>			
Female	62.31	75.30	61.67
Male	37.69	24.70	38.33
<i>Marital status</i>			
Married	62.80	27.59	61.45
Never married	10.29	38.45	15.48
Other	26.91	33.96	23.08
<i>Highest educational attainment</i>			
<High school	37.12	41.27	67.67
High school	27.50	27.13	14.74

Table 3 continued

Variables	Householder's race and ethnicity		
	White	Black	Hispanic
>High school	35.38	31.60	17.51
Employed	65.42	60.10	59.87
Current health status			
Excellent	25.36	19.60	16.67
Very good	31.60	27.18	21.36
Good	26.99	28.89	32.72
Fair	11.82	17.93	24.30
Poor	4.24	6.41	4.94
Has health condition that limits work	17.73	20.27	12.02
<i>Other variables</i>			
Region of residence			
Northeast	17.03	15.95	14.12
Midwest	27.48	17.93	7.50
South	36.36	55.28	29.43
West	19.14	10.83	48.94
<i>N</i>	6,791	2,197	2,978

Where did low-income White, Black, and Hispanic families with children live? The proportion of White respondents living in the South (36%) was the greatest, followed by Midwest, West, and Northeast. More than half the Black families (55%) resided in the South, and the rest lived in the Midwest, Northeast, and West, in order of frequencies. Almost half (49%) of the Hispanics were living in the West, followed by the South, Northeast, and then Midwest.

Findings

The model that included the poverty status but not housing cost burden status (Model 2) explained variation in family economic hardship better than the model with the housing cost burden status but without poverty status (Model 1). When both these measures were included in a model (Model 3), poverty status itself explained variation in hardship, while housing cost burden did not. Also, poverty status explained variation in economic hardship differently between White and Black families. The results of these three general linear models, which compared poverty and housing cost burden's association with economic hardship, are shown in Table 4. The response variable was the estimated economic hardship score.

What follows are the findings about the householder's characteristics and their association with the economic hardship score based on Model 3. Black families experienced higher degrees of economic hardship than White families when other variables were controlled. Further, whether or not the family was in poverty differently explained the economic hardship between Black and White families. This will be explained further in the next paragraph. Families headed by women had higher economic hardship scores than those headed by married couples or men. There was a curvilinear relationship between age

Table 4 General linear model results of economic hardship score explained by poverty and housing cost burden statuses ($n = 11,966$)

Variables	Model 1	Model 2	Model 3
Intercept	-0.522** (0.191)	-0.645** (0.186)	-0.642** (0.188)
In poverty (vs. not)		0.225*** (0.045)	0.234*** (0.049)
Have housing cost burden (vs. not)	0.052 (0.277)		-0.026 (0.051)
<i>Characteristics of the householder</i>			
Race and ethnicity (baseline: non-Hispanic White)			
Black	0.053 (0.066)	0.159* (0.066)	0.113* (0.070)
Hispanic	-0.067 (0.046)	-0.061 (0.041)	-0.064 (0.047)
Female (vs. male)	0.047 (0.025)	0.048* (0.024)	0.049* (0.024)
Age	0.023* (0.010)	0.025* (0.010)	0.025* (0.010)
Age squared	-0.000** (0.000)	-0.000** (0.000)	-0.0004** (0.000)
Marital status (baseline: currently married)			
Never married	0.0186** (0.051)	0.133** (0.051)	0.135** (0.051)
Other (widowed, separated, or divorced)	0.264*** (0.263)	0.218*** (0.039)	0.218*** (0.038)
Highest educational attainment (baseline: < high school)			
High school graduate	-0.017 (0.038)	0.003 (0.039)	0.002 (0.039)
More than high school	-0.044 (0.036)	-0.022 (0.036)	-0.021 (0.036)
Employed	-0.037 (0.027)	-0.007 (0.027)	-0.006 (0.026)
Fair or poor health status	0.471*** (0.039)	0.454*** (0.038)	0.455*** (0.038)
<i>Other variables</i>			
Region of residence (baseline: South)			
Northeast	-0.108* (0.045)	-0.091* (0.043)	-0.096* (0.044)
Midwest	-0.078 (0.050)	-0.069 (0.051)	-0.073 (0.054)
West	-0.057 (0.043)	-0.040 (0.043)	-0.044 (0.043)
Poverty × Black		-0.151 (0.090)	-0.194* (0.098)

Table 4 continued

Variables	Model 1	Model 2	Model 3
Poverty × Hispanic		−0.014 (0.068)	−0.020 (0.070)
Housing cost burden × Black	0.070 (0.095)		0.139 (0.105)
Housing cost burden × Hispanic	0.018 (0.072)		0.019 (0.073)
<i>Model R-square</i>	0.088	0.096	0.097

Note: Numbers are parameter estimates, and those in parentheses are standard errors

*** $p < 0.0001$; ** $p < 0.01$; * $p < 0.05$

of the householder and economic hardship. Until around age 35, the older the householder was, the more likely the hardship score was to increase; however, after age 35, an increase in the householder's age was associated with a decreased hardship score. Families headed by those who were never married and those who were widowed, separated, or divorced had higher hardship scores than families headed by married individuals. The health condition of the householder was associated with the hardship. Low-income families with adult householders who reported fair or poor health status had much higher hardship scores than those who reported good, very good, or excellent conditions. The magnitude of the health condition variable was the greatest among all variables included in the study. Compared to those in the South, families living in the Northeast had lower hardship scores.

The interaction term of poverty status and Black (as opposed to White) was significant. Poverty status differently explained economic hardship for White and Black families.² To graphically display these associations, Figs. 1 and 2 display the least square means of the hardship score by racial and ethnic groups. The least square mean of each group takes other variables in the model into consideration and adjusts for their effects.³ Figure 1 shows the hardship scores by poverty status. The group with the highest hardship score included poor White, poor Black, and near-poor Black families. Near-poor Blacks experienced more hardship than near-poor Whites, near-poor Hispanics, and even poor-Hispanics. The middle group contained only poor Hispanics. The groups with the lowest hardship scores include near-poor Whites and near-poor Hispanics. The significant interaction effect is due to the fact that while near-poor White families had lower hardship scores than poor White families, near-poor Black families did not have lower hardship scores than poor Black families.

Similarly, Fig. 2 illustrates the differences in economic hardship scores by housing cost burden status, shown separately for White, Black, and Hispanic families. They are roughly in three or four groups. The highest degree of hardship was experienced by low-income Black families who spent 30% or more for rent or mortgage. The second highest hardship

² An additional model that included the interaction of poverty status and housing cost burden, which tested the extent to which poverty status among low-income families differentially explained hardships as a function of housing cost burden, showed no significance, while the model R-square was slightly lower than the Model 3 presented in this paper.

³ The SAS's PROC GLM, which does not incorporate the replicate weight information, was used for the estimates. Therefore, test statistics results are not presented in this paper.

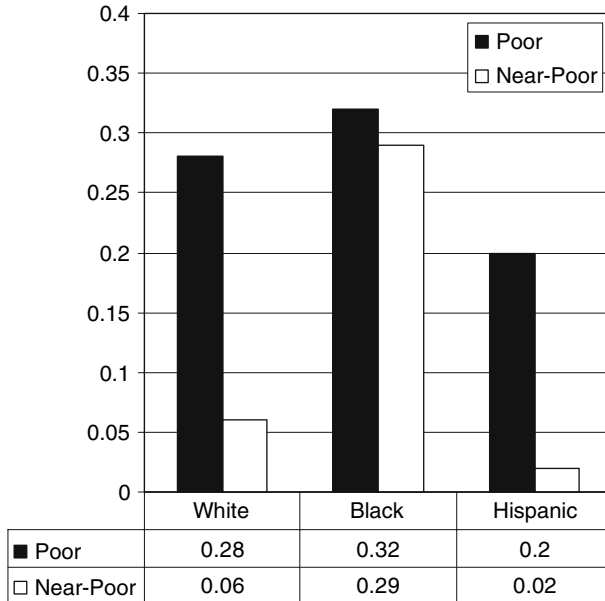


Fig. 1 Group differences in hardship scores by poverty status (Least square means from the general linear model)

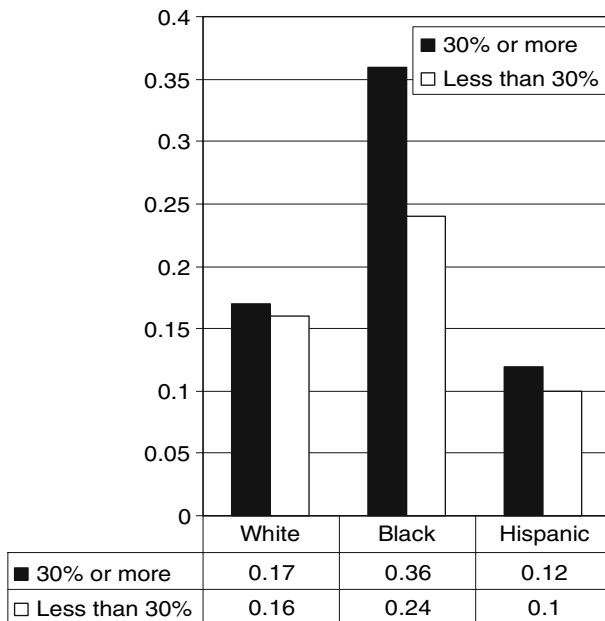


Fig. 2 Group differences in hardship scores by housing cost burden status (Least square means from the general linear model)

was experienced by low-income Black families who spent less than 30% of their total income for housing. The third group included White and Hispanic families in both housing cost burden groups.

Summary, Implications, and Future Studies

Poverty status was found to better explain the economic hardship of low-income White, Black, and Hispanic families than the housing cost burden. Also, poverty status differently explained the economic hardship of White and Black low-income families with children. There was no evidence that housing cost burden status differently explained the economic hardship among low-income White, Black, and Hispanic families with children.

In conclusion, while housing cost burden may play a part in economic hardship among low-income families, whether or not the families are in poverty is still an important variable to explain or predict their economic hardship, even after controlling for demographic and human capital factors of the householders. Regarding race and ethnicity, poverty status differently explained economic hardship for White and Black families, while no difference was observed between White and Hispanic families. It appeared that poverty status can explain variation in hardship among White families better than among Black families. This presents further economic disadvantage for the Black families. Families headed by non-Hispanic Black mothers have higher poverty reentry rates and lower poverty exit rates than those headed by non-Hispanic White mothers, controlling for the families' background and characteristics, the mothers' human capital and employment status (Mauldin and Mimura 2007).

The economic hardship that families experience is more complex than their poverty status. For instance, in addition to financial resources, overcoming hardship would require family resource management skills. Such skills further relate to the employment status of low-income mothers (Urban and Olson 2005). In addition to human capital, the families' access to social capital is important to consider as a determinant of economic hardship (Simmons et al. 2007). Nevertheless, the results of this study may give us a better picture of the economic hardship that low-income White, Black, and Hispanic families with children experience in the United States. Although to some extent families have more control over their housing costs than over their official poverty status, the findings may provide insights into appropriate policies for underprivileged Black low-income families who may or may not be in poverty. If the exact mechanisms of increasing and decreasing the hardship scores are clarified by examining family expenditure data more closely, policymakers may be more likely to target the right people for effective public policies and public assistance programs.

Ideas for future studies include disaggregating poverty status and housing cost burden variables to capture their associations with economic hardship differently. A majority of Hispanic householders are of White race; investigating the differences among Hispanic families of different races in their economic hardship experiences may give further insights on this ethnic group's economic hardship. Regarding race and ethnicity, trichotomizing families based on their adult householders' race and ethnicity may be an oversimplification. Lastly, some hardship items are subjective while others are more objective measurements; comparing the differences in how families respond to each of these measures could give an interesting picture on economic hardship experiences among low-income families in the United States.

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References

- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago: The University of Chicago Press.
- Beverly, S. G. (2000). Using measures of material hardship to assess well-being. *Focus*, 21(2), 65–69.
- Bureau of Labor Statistics (2005, November 29). Table 45. Quintiles of income before taxes: Shares of average annual expenditures and sources of income, Consumer Expenditure Survey, 2004. Retrieved March 8, 2006, from <http://www.bls.gov/cex/2004/share/quitile.pdf>.
- Brick, J. M., Broene, P., Ferraro, D., Hankins, T., Rauch, C., & Strickler, T. (2001, September). *1999 Variance Estimation. Report No. 4*. Washington: Urban Institute. Retrieved March 8, 2006, from http://www.urban.org/UploadedPDF/1999_Methodology_4.pdf.
- Citro, C. F. & Michael, R. T. (Eds.), (1995). *Measuring poverty: A new approach*. Washington: National Academy Press.
- Coe, R. D. (1978). The poverty line: Its function and limitations. *Public Welfare*, Winter, 32–36.
- Cook, C. C., & Bruin, M. J. (1994). Determinants of housing quality: A comparison of white, African-American, and Hispanic single-parent women. *Journal of Family and Economic Issues*, 15(4), 329–347.
- Cox, A. G. (1997). *The demand for labor and the dynamics of women's poverty in the U.S.* Unpublished doctoral dissertation, University of Maryland, College Park.
- Hartman, C. (1988). Affordability of housing. In E. Huttman & W. van Vliet (Eds.), *Handbook of housing and the built environment in the United States* (pp. 111–129). New York: Greenwood Press.
- Iceland, J. (2005). Adjusting the poverty measure for geographic variations: What difference would it make? *Focus*, 23(3), 31–34.
- Johnson, R. A., & Wichern, D. W. (1992). *Applied multivariate statistical analysis*, (3rd ed.). Englewood Cliffs: Prentice-Hall.
- Judkins, D., Brick, J. M., Broene, P., Ferraro, D., & Strickler, T. (2001, January). *No. 2: 1999 NSAF sample design report*. Washington: Urban Institute. Retrieved January 27, 2004, from http://www.urban.org/UploadedPDF/1999_Methodology_2.pdf.
- Mauldin, T. & Mimura, Y. (2007). Marrying, unmarried, and poverty dynamics among mothers with children living at home. *Journal of Family and Economic Issues*, 28(3), 566–582.
- Massey, D. S., & Denton, N. A. (1993). *American apartheid: Segregation and the making of the underclass*. Cambridge: Harvard University Press.
- Nord, M. (2000). Does it cost less to live in rural areas? Evidence from new data on food security and hunger. *Rural Sociology*, 65(1), 104–125.
- Ruggles, P. (1990). *Drawing the line: Alternative poverty measures and their implications for public policy*. Washington: The Urban Institute Press.
- Simmons, L. A., Braun, B., Wright, D. W., & Miller, S. R. (2007). Human capital, social support, and economic well-being among rural, low-income mothers: A latent growth curve analysis. *Journal of Family and Economic Issues*, 28(2), 635–652.
- Stevens, A. H. (1995). *Essays on income dynamics: Long-term effects of job displacement and measuring the persistence of poverty over multiple spells*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor.
- Urban, J. A., & Olson, P. N. (2005). A comprehensive employment model for low-income mothers. *Journal of Family and Economic Issues*, 26(1), 101–122.
- U.S. Census Bureau (2001, January 26). Poverty thresholds: Preliminary estimate of weighted average poverty thresholds for 2000. Retrieved July 18, 2001, from <http://www.census.gov/hhes/poverty/threshld/00prelim.html>.
- U.S. Census Bureau (2006, February 1). Poverty thresholds in 2005, by size of family and number of related children under 18 years. Retrieved April 24, 2006, from <http://www.census.gov/hhes/www/poverty/threshld/thresh05.html>.

- U.S. Housing and Urban Development (2000, December 5). HUD proposes major expansion of reverse mortgage program to help more senior citizen homeowners. Retrieved March 14, 2003, from <http://www.hud.gov/reverspr.cfm>.
- White, B. J., Peaslee, J., & LaQuatra, J. (1994). Comparing housing affordability and quality among disability households: The United States and its regions. *Journal of Family and Economic Issues*, 15(4), 367–380.
- Wolfe, B. L., & Hill, S. (1993). The health, earnings capacity, and poverty of single-mother families. In D. B. Papadimitriou & E. N. Wolff (Eds.), *Poverty and prosperity in the USA in the late twentieth century* (pp. 89–120). New York: St. Martin's Press.
- Yinger, J. (2000). Housing discrimination and residential segregation as causes of poverty. *Focus*, 21(2), 51–55.