INCOME POVERTY AND MATERIAL HARDSHIP AMONG U.S. WOMEN WITH DISABILITIES

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Prepared for the UNC Center on Poverty, Work & Opportunity

December 21, 2006
INTRODUCTION

Women with disabilities are among the poorest adults in U.S. society. Although the specific underpinnings of this status have not been determined, some scholars have speculated it results from an intersecting gender-based and disability-based discrimination. Regardless of the causes, these women have the lowest employment rates of any population subgroup, are more reliant on Supplemental Security Income (i.e., disability-based welfare payments), experience high costs of living with impairments, and are less likely to marry, which in turn gives them less access to the resources of a spouse. The costs of disablement are high in the United States because government benefit programs and private insurance typically do not cover all impairment-related expenses.

What remains unclear in the existing research is whether the federal poverty level, used by the U.S. government to determine eligibility for most welfare and health insurance benefits, adequately measures the extent of material hardship and deprivation among women with disabilities. Some scholars have argued that a single, absolute income-based metric does not provide sufficient information about the actual existence of deprivation among U.S. families.

The confluence of existing evidence attesting to the high rates of income poverty among women with disabilities, the high costs of living associated with their impairments, and their reduced employment begs the question of how these women are actually faring. The objective of this study was to consider the extent of material hardship among U.S. women with disabilities, a heretofore unexamined topic.

These factors led to the focus of the present study that addressed four research questions: (a) What is the extent of income poverty for women with disabilities, and how does it differ by marital status? (b) How does hardship differ for U.S. women with and without disabilities? (c)
How well does the federal poverty measure employed by the U. S. government capture the extent of material hardship among women with and without disabilities? (d) Among women with disabilities, how does material hardship differ by family structure?

**Summary of Findings**

The following section briefly summarizes the findings for analyses using data for a sample of 5,533 women with disabilities and 32,254 nondisabled women from the National Survey of America's Families.

Women with disabilities were much more likely to be living below the federal poverty level as compared with nondisabled women. Single women with disabilities fared the worst, and 32% had income poverty while an additional 26% had income between 1 and 2 times the federal poverty level (i.e., so-called near-poor households). Similarly, cohabiting (unmarried but living with a partner) and married women with disabilities had higher rates of income poverty than nondisabled women with the same marital status.

Furthermore, even when marital status was controlled in these analyses, women with disabilities were much more likely to experience material hardship and deprivation than nondisabled women. Among all women with disabilities, single women were most likely to experience material hardship, which is typically defined as lacking sufficient means to live at an acceptable standard. In this study, I measured material hardship with indicators of food insecurity, housing insecurity, access and use of health care, and loss of telephone services.

Although rates of severe hardship declined as income rose for both disabled and nondisabled women, women with disabilities had worse outcomes at every income level. At every income level (i.e., below poverty, near poverty, and 2 to 3 times the federal poverty level,
and 3 or more times the federal poverty level), disabled women were significantly more likely to have experienced severe hardship.

The federal poverty level was not accurate in capturing women’s experiences of material hardship, and these discrepancies were much worse among women with disabilities. Over half of near-poor women with disabilities experienced severe hardship. Even among women whose family income was between 2 and 3 times the federal poverty level (e.g., household income of $55,000 for a family of four) more than one fourth of these women with disabilities experienced severe hardship.

The present study supports previous research (e.g., Boushey, Brocht, Gunderson & Bernstein, 2001; Citro & Michael, 1995; Renwick & Bergmann, 1993) that has argued that the federal poverty level does not provide a complete picture of financial well-being among U.S. families. Furthermore, based on the findings of the current study, it appears that the gap between a family’s actual financial well-being and the information provided by the federal poverty level is particularly limited for women with disabilities. Policymakers would be advised to consider alternatives to the federal poverty level, particularly when establishing eligibility for disability-related social welfare programs in the United States.

**Literature Review**

*Defining poverty*

Currently, the federal poverty level compares the pretax income of a household with a threshold based on the number of individuals living in the household. Households with income below this threshold are deemed to be poor.

Originally implemented in 1963, the federal poverty level was based on triple the cost of a minimal food budget (adjusted for family size and age of the householders) because, for that
era, food represented one third of families’ spending (Orshansky, 1965/1988). Since then, the federal poverty level has been adjusted annually for inflation, but it has not been wholly recalculated to reflect major changes in family spending patterns (Fisher, 1992). Compared with American families of the 1950’s, today’s families spend a smaller proportion of their income on food, and a greater proportion on housing and health care (Porter, 1999). Furthermore, the federal poverty level fails to account for regional variability in the cost of living, the receipt of noncash benefits, and the costs of necessities like child care and transportation. Therefore, the ability of this guideline to adequately identify those individuals whose basic needs are unmet is widely disputed (Boushey et al, 2001; Citro & Michael, 1995; Renwick & Bergmann, 1993).

In response to these and other concerns, Congress authorized a panel of the National Research Council to evaluate how the federal poverty measure could be improved (Citro & Michael, 1995). This panel ultimately recommended changing how families’ needs were determined, based on current costs of food, shelter, and clothing, along with a small additional allowance for personal needs and household necessities (Citro & Michael, 1995). However, this new measure has not been implemented, and research to examine its efficacy and its policy impact is ongoing.

It is noteworthy that the limitations of the federal poverty level, as first identified by economist Mollie Orshansky in her 1965 paper describing how the original threshold was established, are the same problems defined in the current debate: (a) the standard is somewhat arbitrary; (b) it is difficult to define how much income is “enough” because poverty cannot be reduced to income; and (c) living standards change over time such that “yesterday’s luxuries become tomorrow’s necessities” (p. 5/27). Indeed, Orshansky’s argument was essentially the same point concluded by the National Research Council panel in 1995: poverty standards must
examine not just income, but also consumption and actual needs. Despite her forewarnings, the basis for determining the federal poverty level has not been altered since its introduction.

Traditionally, two types of measures have dominated international economic comparisons: absolute and relative income poverty. In contrast to the absolute income standard used in the United States, most other developed countries use a relative poverty standard, which is often considered a proxy for income inequality (Smeeding, 2006). Relative poverty measures are typically based on the average level of well-being within a given country, and are often defined as those families whose incomes fall below a specified percentage of the country’s median income (Blackburn, 1998). For example, the European Union typically uses 60% of a nation’s median income as its poverty threshold (Glennerster, 2002).

However, mounting evidence indicates that the traditional income poverty threshold alone does not provide a clear picture of family well-being. Scholars have recently considered alternative measures such as asset poverty (Grinstein-Weiss & Sherraden, 2006) and indicators of material hardship or deprivation in order to understand families’ true ability to function within society and to maintain a decent standard of living (Renwick & Bergmann, 1993; Beresford, 1996; Boushey et al., 2001). Hardship research examines access to housing and health insurance, adequacy of the food supply, transportation, child care, and families’ ability to purchase other necessary items, such as personal care products and diapers.

When researchers applied a basic needs budget to account for the range of necessary goods and services, they found the official poverty rate of 48% for children living in single-parent families underestimated the actual rate of hardship. Instead, a figure of 56% more accurately captured the number of single-parent families living in poverty during 1989 (Renwick & Bergmann, 1993). Findings such as these suggest current poverty measures are inadequate to
truly define minimum living standards. Alternative measures that examine material hardship may be useful because they not only describe the experiences of people who are forced to forgo necessities, but also provide another dimension to understanding this experience and the potential role of policy in improving peoples’ lives.

Women with disabilities and poverty

When disability is defined as having functional limitations in daily living activities, approximately 21% of the population of women and girls has disabilities (Jans & Stoddard, 1999). The population of women with disabilities is heterogeneous because disabling conditions include sensory impairments (e.g., blindness and deafness), developmental disabilities (e.g., mental retardation and autism), mental illness, and mobility impairments (e.g., spinal cord injuries). This considerable range of impairments means that disabled women often have very different needs and experiences. For example, women with intellectual limitations or mental illnesses may need supervision and support to function in everyday living, while women with spinal cord injuries may only require devices to increase their mobility.

Women with disabilities are disproportionately overrepresented among those living in poverty (Haveman, Holden, Wolfe, Smith, & Wilson, 2000). Jans and Stoddard (1999) found that over one third of women with disabilities, and 41% of women with severe disabilities lived in poverty, which were among the highest rates for any group. Women with disabilities are likely to be more vulnerable to poverty for three primary reasons: they are faced with high costs of living with impairments; they have reduced employment; and they are less likely to be married (and thus have less access to the resources of a wage-earning spouse). Although disabilities clearly contribute to the increased likelihood of living in poverty in the United States, poverty also increases the risk of disability. Being born in poor families elevates the risk that a child will
have impairments (Fujiura & Yamaki, 2000), most likely because of reduced access to adequate and appropriate health care (both prenatally and throughout childhood); reduced access to sufficient nutrition; and the array of environmental risks that accompany poverty.

When compared to nondisabled women, women with disabilities face additional living expenses related to their impairments. These added expenses include increased therapy costs, additional costs for accessible transportation, costs related to adapting the home environment, costs of assistive technology, and elevated health care costs. Public and private health insurance programs offer limited coverage of impairment-related expenses, which means that the burden of these costs falls on the women and their families.

The burden of impairment-related expenses is compounded by the reduced rates of employment found in this population. As compared with other adults in the workforce, women with disabilities have reduced employment and reduced wages, which are generally related to both discrimination in the workforce and decreased levels of education. One analysis of national data produced results consistent with previous research that demonstrated these reduced employment levels: As contrasted with 75% of nondisabled women, only 68% of women with nonsevere disabilities and 25% of women with severe disabilities were employed (Jans & Stoddard, 1999). In addition, there is compelling evidence that women with disabilities are doubly disadvantaged in the workforce because they face discrimination based both on their gender and on their impairments. Research has shown that women with disabilities experienced considerable gender- and disability-based wage discrimination, which existed after individual productivity was accounted for (Baldwin & Johnson, 1995; O’Hara, 2004).

In the United States, marriage is perceived to offer a woman access to the additional resources that a spouse contributes to a household. As such, marriage for women is associated
with reduced poverty (U.S. Census Bureau, 2006). Approximately 50% of women with disabilities are married, a rate somewhat lower than the 64% rate of marriage among nondisabled women (Jans & Stoddard, 1999). Although the reasons why women with disabilities have lower marriage rates are not clear, this status may be related to a choice forced by the substantial penalties associated with certain disability and welfare benefits (e.g., Supplemental Security Income, Medicaid) that reduce resource allowances before benefits are forfeited. Given the high costs of living with impairments, it is plausible that such penalties coerce these women to choose single parenthood or cohabiting rather than marriage.

The number of single parent and cohabiting households increased substantially between 1990 and 2000 (Hobbs, 2005). Single-parent families, particularly families headed by single mothers, and cohabiting partner families have consistently been found to be at increased risk for experiencing poverty and hardship as compared with families headed by two married partners (Manning & Lichter, 1996; Boushey et al., 2001; Berger, 2004). Cohabiting partner families may have an economic advantage over single-parent families when the cohabiting partner's income is combined with family resources. However, the number of women with disabilities who are living in cohabiting partner relationships is unknown. Furthermore, the poverty rates for women with disabilities differentiated by their family structure are not known.

The issues that underpin why single mothers, as compared to other families, are at markedly increased economic disadvantage remain in contention. The disparities in financial well-being are often attributed to single parents being forced to choose between employment and the quality and type of caregiving they provide their children (Berger, 2004; Renwick & Bergmann, 1993), as well as the lower incomes that are inherent to single-mother and one worker households (Jagannathan, 2004). Some researchers have argued that the causes are
related to entrenched gender-based employment discrimination that leads to limited job opportunities for women and wages that are nearly 25% below those of men (Werschkul & Williams, 2004). Regardless of the underlying causes that drive these disparities, it is clear that understanding family structure and poverty among women with disabilities is critical to ensure that policymakers can efficiently target resources to the populations most in need of support.

Previous research has failed to fully address the interplay of family structure and material hardship among women with disabilities. Although the statistical data provided by these efforts focus on prevalence rates and family economic indicators, they say little about more comprehensive measures of poverty. On balance, very few studies have examined material hardship and deprivation among women with disabilities, or the relationship between poverty and family structure in families raising children with disabilities. Given the dearth of research in this area, the objective of the present study was to explore material hardship and family structure among women with disabilities. Therefore, the following four research questions were addressed: (a) What is the extent of income poverty for women with disabilities, and how does it differ by marital status? (b) How does hardship differ for U.S. women with and without disabilities? (c) How well does the federal poverty level employed by the U.S. government describe material hardship among women with and without disabilities? (d) Among women with disabilities, how does material hardship differ by family structure?

**Method**

*Data Source*

This study was conducted using data from the 2002 wave of the National Survey of America's Families (NSAF). The NSAF is a cross-sectional telephone and area survey of approximately 42,000 U.S. households. It is nationally representative of the civilian,
noninstitutionalized population of children and adults under age 65 and employed a stratified cluster design, within which random sampling occurred (Safir, Scheuren & Wang, 2000). The NSAF had two distinct procedures: a random-digit dialed telephone survey of households with telephones, and an area sample for households without telephones (Judkins, Brick, Broene, Ferraro, & Strickler, 2000). In the area sample, respondents in households without telephones were lent cell phones for the telephone interviews. The area sample was used to ensure full population coverage because approximately 20% of poor families do not have telephones (Giesbrecht, Kulp, & Starer, 1996). Another strength of the NSAF for the purposes of the present study is that it oversampled minority populations, who are disproportionately represented in poverty in the United States. Data collected for the NSAF included a range of factors and characteristics related to the health, economic, and social well-being of children and adults, demographic and socioeconomic data, and information related to material hardship (Safir et al., 2000).

Sample

The NSAF subsample for this study included U.S. women aged 18 to 65 years. All women in the NSAF were included in the study sample. Women’s disability status was determined from the question, “Does the person have a physical, mental, or other health condition that limits the kind or amount of work she/you do?” For reports of “yes,” women were considered to have a disability; for reports of “no,” women were considered to be nondisabled. The present study sample included 5,533 women with disabilities and 32,254 nondisabled women. When weighted, the samples represented 13.3 million women with disabilities and 76.0 million nondisabled women.
The demographic characteristics of the sample are presented in Table 1, along with tests of significant differences between the two groups of women. Statistically significant differences were found between the groups of women in all descriptive characteristics. As compared to the nondisabled women, the women with disabilities were more likely to be Black, more likely to be single, more likely to be less educated, more likely to live in households with lower income, more likely to be older, and more likely to have smaller families (defined as the total number of children and adults living in the family).

Table 1 – Sample Description, U.S. Women With and Without Disabilities, 2002
Measures

*Outcome measures.* Several binary (yes/no) measures were used to describe whether a woman experienced material hardship. Outcome measures of material hardship included four indicators of food insecurity: worried whether food would run out, food bought did not last, cut/skipped meals for lack of money, and received emergency food. Two outcomes were related to housing: unable to pay rent in past year or moved in with others in the past year. One hardship measure was related to a utility: loss of telephone service for more than one day in the past year. Four hardship outcomes were related to health care.
including both the potential for obtaining appropriate health care services, and the realization, or actual use of such services (Aday & Anderson, 1981; 1984). Two of the health-related outcomes addressed potential access to health care: confidence in obtaining health care when needed and having health insurance. Two additional outcomes measured the woman’s realized access to care, or receipt of care when it was needed: needed medical care was postponed during the past year, and needed dental care was postponed during the past year.

All of these dependent measures of hardship were asked of respondents related to the previous 12-month period. A dichotomous measure of severe deprivation was computed from the sum of these 11 indicators. Individuals reporting four or more of these hardship indicators were determined to have experienced severe deprivation. Sensitivity analyses were conducted using different cut points for severe hardship (e.g., three, five, and six hardship indicators). The direction and relative effects were consistent regardless of which cut point was chosen.

**Income poverty measures.** The NSAF provided variables that described household income in relation to the federal poverty level. As mentioned previously, the U. S. federal poverty level is based on the number of individuals living in the household, and the aggregate, pretax household income from all sources. The income poverty thresholds are constant across the United States, except for slight increases in Hawaii and Alaska (U.S. Department of Health and Human Services [U.S. DHHS], 2006). For our purposes, women were stratified into four groups by income relative to the federal poverty level: (a) less than 100% of the federal poverty level (officially poor); and three other groups above the federal poverty guideline: (b) 100% to 199% of the poverty level; (c) 200% to 299% of the poverty level; and (d) 300% or more of the federal poverty level. For example, the 2006 federal poverty level for a family of four is $20,000 (U.S. DHHS, 2006); therefore, a woman living in a family of four with total household income of
$30,000 would be determined to be living at 150% of the federal poverty level, and stratified into the second group. The NSAF household income amounts included earned income and income from transfer programs (e.g., Supplemental Security Income, Disability Insurance, and Temporary Assistance to Needy Families).

**Analyses**

SUDAAN survey software was used for the analyses because the NSAF is a stratified sample, and SUDAAN is able to correct standard errors and allow for the calculation of more accurate inferential statistics. SUDAAN uses Taylor-series linearization to appropriately estimate variance with survey data derived from complex sampling designs (Research Triangle Institute, 2001) such as the NSAF (Safir et al., 2000). Multivariate logistic regression was selected as the primary analytic strategy because all dependent measures were binary. Indicators of statistically significant group contrasts are presented in Tables 2 and 3.

The analyses were conducted in two stages. First, material hardship among women was compared based on their disability status. Second, women with disabilities were compared based on the structure of their families: married, cohabiting, or single.

To facilitate interpretation of the regression estimates, the results are reported as odds ratios and 95% confidence intervals (CIs) for each group of women. Odds ratios are transformations of the coefficient estimates obtained from logistic regression models and indicate, for example, the likelihood (odds) of disabled women having a particular outcome relative to nondisabled women. An odds ratio of less than 1 indicates that disabled women are less likely to have a particular measure of health care access as compared to nondisabled women. An odds ratio greater than 1 indicates the opposite; that disabled women are more likely to have the specific measure of health care access in contrast with nondisabled women. The difference
above (or below) 1.00 represents the percent increased (or reduced, respectively) likelihood of an outcome occurring. For instance, if an odds ratio equals 0.94, then women with disabilities have a 6% reduced odds of experiencing the outcome. If an odds ratio equals 1.18, then women with disabilities have an 18% increased odds of experiencing the outcome. The 95% confidence intervals indicate the range within which there is a 95% probability that the actual population estimate for the odds ratio exists.

In addition, predicted probabilities are used to further illustrate some findings. Predicted probabilities show the likelihood of event occurrence for women with different disability states and marital status, controlling all covariates. These values ranged from zero to one and were obtained by solving the logit equation for the probability of experiencing severe hardship for a woman with disabilities by her marital status, holding all other covariates at their sample means.

In the first stage of the analysis, models were estimated for women with and without disabilities controlling for the woman’s age, race, years of education, marital status, and the number of people living in the household. In the second stage of the analysis, the models compared women with disabilities by their marital status, controlling for the women’s race, age, education, and the number of people living in the family.

Data and the results presented are weighted to reflect nonresponse and undercoverage, each respondent’s probability of selection, as well as the gender, age, and ethnic or racial distribution of the U.S. Census estimates for the respondent. The present results can be generalized to the noninstitutionalized population of women with and without disabilities living in the United States in 2002.
RESULTS AND DISCUSSION

The first research question was related to the distribution of income poverty among disabled and nondisabled U.S. women stratified by marital status. The results of this question are presented in Figure 1 and Figure 2.

Figure 1 - Percent of U.S. Women by Marital & Disability Status in Poverty (2002)

Figure 1 delineates the percent of disabled and nondisabled women who are officially deemed to be living in poverty, or below the federal poverty level. The percent depicted is out of the entire population of women with a given disability and marital status. For example, 32% of single women with disabilities lived in households with income below the federal poverty level in 2002. Nearly the same proportion of disabled women who were cohabiting and married lived in poverty in 2002: 16% and 15%, respectively. As is evident from the figure, disabled women were substantially more likely than nondisabled women to be living in poverty, regardless of their marital status.
Figure 2 illustrates the percent of the population who are considered near-poor, or living in households with income between 1 and 2 times the federal poverty level. As noted previously, during 2006 this threshold represents household income of $20,000-$40,000 for a family of four (U.S. DHHS, 2006).

Similar trends to those noted for poor women are also evident among the near-poor disabled and nondisabled women. In all three types of family structures, disabled women were more likely to be near-poor than nondisabled women. In addition, a greater proportion of single women with disabilities were represented in this income group than any other subgroup of women.

Analytic results related to the second research question (i.e., how does material hardship differ among women with and without disabilities) are presented in Table 2. Models presented in Table 2 controlled for the woman’s age, race, education, marital status, and the number of individuals living in the family (covariate data are not presented but are available upon request).
The first research question compared women with and without disabilities in terms of their likelihood of experiencing any one of 11 separate measures of material hardship as described in Table 2.

### Table 2 – Material Hardship of U.S. Women with Disabilities compared with Nondisabled Women, 2002

<table>
<thead>
<tr>
<th>Measure</th>
<th>Women with Disabilities² n= 5,533</th>
<th>Odds Ratios (95% CI)</th>
<th>Wald F³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worried whether food would run out</td>
<td>2.68 (2.37, 3.04)</td>
<td>237.2**</td>
<td></td>
</tr>
<tr>
<td>Food bought didn't last</td>
<td>2.80 (2.45, 3.20)</td>
<td>226.9**</td>
<td></td>
</tr>
<tr>
<td>Cut/skip meals for lack of money</td>
<td>2.70 (2.32, 3.14)</td>
<td>168.2**</td>
<td></td>
</tr>
<tr>
<td>Did get emergency food past year</td>
<td>4.57, (3.80, 5.51)</td>
<td>258.1**</td>
<td></td>
</tr>
<tr>
<td>Unable to pay rent in last year</td>
<td>2.50 (2.17, 2.89)</td>
<td>158.8**</td>
<td></td>
</tr>
<tr>
<td>Moved in with others past year</td>
<td>2.90 (1.90, 4.42)</td>
<td>24.63**</td>
<td></td>
</tr>
<tr>
<td>No phone more than one day in last year</td>
<td>2.31 (1.87, 2.86)</td>
<td>60.0**</td>
<td></td>
</tr>
<tr>
<td>Confident can get medical care</td>
<td>1.56 (1.36, 1.80)</td>
<td>38.5**</td>
<td></td>
</tr>
<tr>
<td>Any past year uninsurance</td>
<td>1.06 (0.89, 1.26)</td>
<td>0.49 NS</td>
<td></td>
</tr>
<tr>
<td>Medical care postponed last year</td>
<td>2.75 (2.34, 3.23)</td>
<td>152.78**</td>
<td></td>
</tr>
<tr>
<td>Dental care postponed last year</td>
<td>1.92 (1.69, 2.17)</td>
<td>107.19**</td>
<td></td>
</tr>
</tbody>
</table>

** statistically significant difference at the p<.01 level

¹ All models controlled for woman's age, race, education, marital status and number of people living in family (covariate data not shown)

² Nondisabled women were the referents (n= 32,254)

³ Wald F is reported for the independent effect of disability status, not the full model

As previously mentioned, odds ratios represent the likelihood of the women with disabilities having a particular outcome as compared with the nondisabled women (whose odds are set equal to 1). Therefore, if women with disabilities have an odds ratio of 1.92 (e.g., as they do for the postponement of dental care; see table 2), they are 92% more likely to have postponed dental care than nondisabled women (because the difference between the disabled women’s odds ratio and 1 = 92%).
Women with disabilities fared substantially worse than nondisabled women on all 11 measures of material hardship except in terms of potential health care access (measured here as having any uninsured spells in the past year). Women with disabilities were significantly more likely to have experienced food insecurity in the past year, and they had nearly a threefold greater likelihood of reporting three of the four indicators of food insecurity: worried that food would run out, food bought did not last, cut or skipped meals for money. Moreover, the odds ratios ranged from 2.68 to 2.80 ($p < .01$) for all indicators. In addition, women with disabilities were more than 4 times as likely as nondisabled women to have received emergency food in the past 12 months (odds ratio $[OR] = 4.57, p < .01$).

In terms of housing insecurity, women with disabilities were 2.5 times as likely as nondisabled women to have been unable to pay their rent in the past year ($OR = 2.50, p < .01$), and were nearly 3 times as likely as nondisabled women to have moved in with others over the past 12 months ($OR = 2.90, p < .01$). Women with disabilities were significantly more likely to have been without telephone service for more than one day in the past year as contrasted with nondisabled women ($OR = 2.30, p < .01$).

Similar to previous research, women with disabilities had similar or better outcomes than nondisabled women related to potential health care access (e.g., Altman & Taylor, 2001; Parish & Saville, 2006), a finding that is related to the increased use of Medicaid and Medicare by women with disabilities as compared with nondisabled women. No differences were found between the women with disabilities and the nondisabled women in terms of their likelihood of having been uninsured in the previous 12 months. Women with disabilities were 56% more likely to have reported confidence that they could access medical care when it was needed ($OR = 1.56, p < .01$).
However, despite having better potential health care access, women with disabilities had markedly worse realized health care (i.e., receipt of care) when it was needed. Women with disabilities were nearly 3 times as likely to have postponed receipt of medical care within the previous year, and were nearly 2 times as likely as nondisabled women to have postponed needed dental care ($OR = 1.92, p < .01$). Because women with disabilities typically have greater health care needs than nondisabled women, these latter two models were estimated again, controlling for the number of times the women had visited a health care provider. These analyses were conducted with the assumption that women who need health care more often will have more opportunities to delay care. When the number of visits to a health care provider was controlled, the results proved robust and consistent with previous research: Women with disabilities were significantly more likely to have postponed medical care ($OR = 2.42, 95\% CI = 2.02-2.90, F = 93.90, p < .01$) and dental care ($OR = 1.78, 95\% CI = 1.53-2.07, F = 56.25, p < .01$) than nondisabled women.

Table 3 – Severe Material Hardship of U.S. Women with Disabilities Compared to Nondisabled Women, 2002

<table>
<thead>
<tr>
<th>Family’s Total Income Relative to the FPL²</th>
<th>Women with Disabilities³</th>
<th>Wald F⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n= 5,533 Odds Ratios (95% CI)</td>
<td></td>
</tr>
<tr>
<td>&lt;100% FPL</td>
<td>2.16 (1.66, 2.80)</td>
<td>33.8**</td>
</tr>
<tr>
<td>100-199% FPL</td>
<td>2.40 (2.02, 2.86)</td>
<td>98.0**</td>
</tr>
<tr>
<td>200-299% FPL</td>
<td>2.38 (1.75, 3.23)</td>
<td>31.1**</td>
</tr>
<tr>
<td>&gt;299% FPL</td>
<td>2.74 (1.80, 4.16)</td>
<td>22.1**</td>
</tr>
</tbody>
</table>

† p<.10, * p<.05, ** p<.01
1 All models controlled for woman’s age, race, education, marital status and number of people living in family (covariate data not shown)
2 FPL is the federal poverty level (e.g., $20,000 for a family of 4 in 2006)
3 Nondisabled women were the referents (n= 32,254)
4 Wald F is reported for the main effect of disability (not the full model)
Table 3 delineates findings related to the extent that women with disabilities reported experiencing severe hardship as compared with nondisabled women. For example, when women with disabilities have an odds ratio of 2.16 (as they do for severe hardship when living below the federal poverty level; see table 3), they are 116% more likely (e.g., more than twice as likely) to have experienced severe hardship as compared to nondisabled women living below poverty (because the difference between the disabled women’s odds ratio and 1 equal 116%).

Table 3 illustrates the odds ratios, 95% confidence intervals, and statistically significant contrasts of experiencing severe material hardship for women with disabilities as compared with nondisabled women. The women were stratified into four groups according to their family’s total household income relative to the federal poverty level.

Compared with nondisabled women, women with disabilities experienced severe hardship at substantially elevated rates across all income groups. Women with disabilities had more than a twofold likelihood of experiencing severe hardship across all four income groups, with odds ratios ranging from 2.16 ($p < .01$) for women living below the federal poverty level to 2.74 ($p < .01$) among women with the highest income (above 300% of the federal poverty level).

The second research question asked how well the U.S. federal poverty level describes material hardship among women with and without disabilities. Figure 3 illustrates the predicted probability of experiencing severe hardship differentiated by the woman’s disability status. These predicted probabilities are the likelihood of a woman experiencing severe hardship, controlling demographic characteristics (thus with all covariates in the model: age, race, education, marital status, and the number of people living in the family. The women were stratified into the four income groups so that a more nuanced description could be presented of
how the experience of material hardship changes as household income increases.

As shown in Figure 3, the overall trend in experiencing severe hardship for both women with and without disabilities declines as income increases. Furthermore, hardship declines at approximately the same rate among both groups of women as income increases. Women who live in poverty are most likely to experience severe hardship. Among women with disabilities, over half (53%) living in poverty reported severe hardship, which was a significantly higher rate than that reported for nondisabled women (35%) living in poverty.

But how well does the federal poverty level employed in the United States capture the extent of material deprivation? Severe hardship does not significantly decline for women with or without disabilities when they “escape” poverty and have household income of up to twice the federal poverty level. Fifty-one percent of women with disabilities who are near-poor—living in
households with income up to twice the federal poverty level—experienced severe material hardship. This is considerably greater than the rate of severe deprivation among nondisabled women (31%) in this household income level.

Furthermore, the high prevalence of severe hardship among disabled women whose income is above twice the federal poverty level is notable. In 2006, this represents income between $40,000 and $60,000 for a family of four (U.S. DHHS, 2006). Slightly more than one fourth of women with disabilities whose incomes fell in this range also experienced severe hardship, which was a substantially higher percentage than the 14% of nondisabled women in this income level who experienced severe hardship. In addition, a substantial portion of women whose income was well above the official poverty line also experienced severe hardship. Thus, the federal poverty level does not appear to capture the full extent of true hardship for women either with or without disabilities. However, this gap between the federal income poverty measure and material well-being is widest for the women with disabilities.

The final research question asked how material hardship differed by marital status among women with disabilities. Because of smaller sample sizes, only two income groups were created for these analyses: those living in households below twice the federal poverty level (including women whose incomes were below poverty); and those with incomes 2 or more times the federal poverty level. Table 4 delineates the odds ratios, 95% confidence intervals, and indicators of statistically significant contrasts for experiencing severe deprivation among women with disabilities. In this table, women living with a cohabiting partner and single women are compared with married women, who served as the reference group.
As illustrated by Table 4, statistically significant differences were not found among the low-income single and cohabiting women in terms of their likelihoods of experiencing severe hardship (as contrasted with low-income married women). However, among the women living in households with income that exceeded 2 times the federal poverty level, single and cohabiting women were much more likely to have experienced severe hardship. Single women, as compared with married women with disabilities, were more than twice as likely to have reported experiencing four or more measures of material hardship (OR = 2.10, p<.01). Disabled women cohabiting with a partner and with household income at least 2 times the federal poverty level were nearly 3 times as likely as married women with disabilities to have experienced severe hardship (OR = 2.73, p<.01).

**CONCLUSION**

This study comprises the first nationally representative inquiry into material hardship experienced by U.S. women with disabilities. Furthermore, this study’s reliance on a national...
probability sample that included households without telephones—a significant subset of the poor typically excluded from national surveys—is an important strength. These women with disabilities were shown significantly more likely than nondisabled women not only to experience income poverty, but also to endure markedly greater levels of material hardship. Women with disabilities are at substantially elevated risk for severe deprivation. Although this risk declines as family income increases, a substantial proportion of middle-class women with disabilities experience material hardship. Among women with disabilities, single women experience the greatest degree of severe hardship.

Further research is warranted to address three limitations of the present study. First, it was not possible to ascertain or analyze the severity of the woman’s impairments and the impact the severity might have on material well-being. It is reasonable to assume that the elevated costs associated with women’s impairments are likely to be highest among women with the most severe conditions, as has been shown for children with disabilities (e.g., Kuhlthau, Hill, Yucel, & Perrin, 2005). However, the NSAF did not collect impairment severity data and therefore this issue could not be analyzed. Further research in this area would aid policymakers and practitioners by providing a comprehensive understanding of the challenges faced by women based on the severity of their conditions.

A second limitation in the study is the likely under reporting of disability within the sample. The NSAF employed a fairly gross measure of impairment: conditions which limited employment. Although this definition is commonly employed in survey research in the United States, future research using a more nuanced definition of disability that considers limitations in activities of daily living would be helpful.
A final important direction for future research is to examine the role of disability and welfare policies in mitigating the hardship borne by women with disabilities. A number of current policies support women with disabilities, including Supplemental Security Income (income transfers for poor elderly and people with disabilities) and Medicaid (health insurance for the poor and people with disabilities). Understanding how these programs do or do not reduce material deprivation is an important objective for future investigation; however, such inquiry was beyond the scope of the current analysis.

Future research could also fruitfully be directed at understanding the specific ways in which material hardship is manifested in the lives of women with disabilities. For example, Medicaid protects some low-income women with disabilities by providing them with health care access. Extending the present inquiry to examine how hardship is related to receipt of Medicaid, and how particular hardship experiences (e.g., housing insecurity, food insecurity, health care) change as income increases would inform policymakers about the ways in which policy could efficiently address women’s real needs. Although such an analysis was beyond the scope of the present paper, such a future direction will be important to policy makers, advocates and practitioners interested in improving the wellbeing of women with disabilities.

This paper presents new evidence that women with disabilities are substantially more likely to live in conditions of hardship and deprivation, as contrasted with nondisabled women. A disturbing proportion of women with disabilities experience material hardship and deprivation. In particular, the high rates of deprivation among single women with disabilities are alarming. Such deprivation far exceeds the supposed boundaries of who is technically defined as poor because substantial deprivation and material hardship continue to be experienced by women,
both disabled and nondisabled, whose household incomes are well beyond the poverty parameters established by the U.S. government.

Findings from this study highlight the limitations of the current federal poverty threshold to accurately represent the full magnitude of deprivation in the United States. Such deficits in the federal poverty level support previous research and experts’ recommendations (e.g., Citro & Michael, 1995) for the development of a more comprehensive understanding of poverty and family outcomes to inform policymakers if they are to craft responsive, effective policies.

The federal poverty level is used to determine eligibility for most government programs that provide income, health, food, and disability-related benefits. However, the federal poverty level is not accurately capturing the range of women who are experiencing material hardship and who could potentially benefit from these programs. At a minimum, policymakers should consider adjusting the federal poverty level standards as they are applied to women with disabilities, particularly in the areas of Supplemental Security Income and Medicaid.

**ACKNOWLEDGMENTS**

I appreciate the assistance of Roderick Rose, School of Social Work, University of North Carolina at Chapel Hill, in the preparation of the dataset. I also thank Megan Andrews, MSW student at the UNC School of Social Work for her research assistance. I also appreciate the comments Megan O’Neil (World Institute on Disability), Glenn T. Fujiura, PhD, (Department of Disability and Human Development, University of Illinois at Chicago) and Diane Wyant (UNC Chapel Hill School of Social Work) for their invaluable comments on an earlier draft.


