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### **A Comparison of Income Poverty and Multidimensional Deprivation: Lessons Learned from the United States**

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# **A Comparison of Income Poverty and Multidimensional Deprivation: Lessons Learned from the United States**

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## **Abstract**

This paper analyzes the relation between the income poverty and multidimensional deprivation in the United States. The paper is the first to provide changes in the incidence of multidimensional deprivation among the poor in the United States over the last decade. Using data from one of the largest household surveys in the United States, namely the American Community Survey, we estimate poverty and deprivation in six indicators, between 2008 and 2017, separately for different income classes and racial/ethnic groups in the society. We estimate that about 40 percent of the poor were deprived in a multidimensional sense. Deprivation levels were especially high among poor Hispanic and poor Asian population. Overall, nearly 50 percent of the poor experienced severe housing burden and 25 percent did not have high-school education. The Affordable Care Act helped reduce the proportion of poor without health insurance, though in recent years, that progress has stagnated. Important from a policy perspective, we find that deprivation was lower among the extremely poor population compared to the rest of the poor population.

## Introduction

Estimates of poverty from high-income countries are typically not included in global poverty estimates. However, the Atkinson Commission Report on Global Poverty (2017) argues that the adoption of a truly global approach to poverty measurement certainly implies that high-income countries should come within the scope of inquiry. The report further proposes that measures of global poverty should also include a portfolio of non-monetary complementary indicators reflecting a person's quality of life. In this paper, we analyze the overlap of income poverty and multidimensional deprivation in the United States, and how it has evolved over the last decade.

We estimate poverty and multidimensional deprivation using data between 2008 and 2017 from the Census Bureau's American Community Survey (ACS). The Atkinson Commission Report (2017) emphasizes the need to complement income poverty measures with estimates of multidimensional deprivation incorporating nonmonetary dimensions. The ACS collects data on demographic, social, economic, and housing characteristics of the sample population. We include indicators to measure deprivation in following dimensions: i) Health, ii) Education, iii) Housing, iv) Economic Security, and v) Social Connections. We use both a dashboard approach as well as compute a multidimensional deprivation index based on the methodology proposed by Alkire and Foster (2011).

A central theme of the paper is to measure the extent to which income poverty and multidimensional deprivation overlaps and how this overlap changed over time. If most of the multidimensional deprived were also income poor, then the need to measure multidimensional deprivation separately is less imperative. We estimate that between 9 to 10 percent of the non-

poor were deprived in a multidimensional sense, throughout the decade. Thus, it is evident, that even in high-income countries such as the United States poverty measured in terms of income fails to capture deprivation in other aspects of well-being. We analyze whether this overlap varies for different demographic groups. Given the significant variation in income poverty and multidimensional deprivation estimates, say among the Whites, Blacks and the Hispanics (Dhongde et al 2019), it is important for policy purposes to find out whether the overlap between income poverty and multidimensional deprivation was high for some groups compared with other groups.

Finally, the paper discusses some of the advantages and disadvantages realized from using Census Survey data. We share lessons learned from our analysis and suggest ways in which data collection in low and middle-income countries can be improved. On the other hand, we also recognize the limitations of the United States Census data, especially in terms of the limited non-monetary indicators included in the survey questionnaire when compared with datasets in other high-income countries.

The rest of the paper is structured as follows. In Section 2, we provide details on the data and list indicators we choose to measure multidimensional deprivation. In Section 3, we analyze the overlap between poverty and deprivation over time and among individuals belonging to different income classes. In Section 4, we analyze this overlap among individuals belonging to different races/ethnicity. In Section 5, we conclude by discussing some of the advantages and limitations of using Census data, and provide lessons learned from conducting this exercise.

## II. Data

The ACS is the largest household survey conducted by the Census Bureau and has more than 3 million individual records every year, compared to the Current Population Survey (CPS) annual sample of about 100,000. The survey randomly selects households every month. Survey data is pooled and made available as 1-year and 5-year estimates. The 1-year estimates, which we use in this paper, are available for areas with population 65,000 and above whereas the 5-years estimates cover the entire geography. We compile data on all individuals and their households, except those individuals living in group quarters.<sup>1</sup> An important feature of the ACS for our purpose is that for each individual, the survey collects information on income as well as non-monetary indicators such as education levels, disabilities, employment, health insurance and so on. Thus, we can estimate both income poverty as well as multidimensional deprivation using the same survey.

### *II. A. Measuring Poverty*

The ACS collects data on income from the previous 12 months. All income data in the ACS are adjusted for inflation using the national consumer price index for the last year in the series. The ACS estimates income-to-poverty ratio for each individual using data on family income and the official poverty threshold published by the Census Bureau. These official poverty thresholds are used to estimate the poverty levels in the United States and are based on the basic needs

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<sup>1</sup> The group quarters (GQs) include places such as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories. Survey values for individuals in GQs are often imputed and are more likely to suffer from measurement error. We lose about 5 percent of the sample in the ACS by excluding individuals living in GQs.

approach.<sup>2</sup> The thresholds do not take into account differential costs of living across regions but they vary by family size. For instance, in 2017, the poverty threshold for a non-elderly adult individual was equal to \$12,752, whereas the threshold for a family with two adults and two children was equal to \$24,858 (see Appendix Table A1 for different thresholds).

In addition to using the official poverty threshold, we also estimate poverty in the U.S. by using the recent global poverty threshold for high-income countries. This threshold is set at \$21.70 per day for these countries. Jolliffe and Prydz (2016) proposed this threshold by using comparable national poverty lines closest to 2011 PPP reference period. They include data on poverty rates in 29 high-income countries.

## *II. B. Multidimensional Deprivation*

Since the focus of the paper is to measure the overlap between income poverty and deprivation, we do not propose a new analytical framework to measure deprivation<sup>3</sup> but use the Alkire and Foster (2011) framework to measure the proportion of multidimensional deprived. In terms of indicators, too, we follow the previous literature (Dhongde and Haveman, 2019, 2017), which has used the ACS data. The indicators are chosen based on the recommendations made by the Atkinson Commission Report and the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz et al. 2009). These reports identify key dimensions that should be taken into account simultaneously to define well-being

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<sup>2</sup> These thresholds were developed by Orshansky (1965), who took as her starting point the estimates of minimum food expenditure by the U.S. Department of Agriculture, examined the proportion of income spent on food in households of different types, and then multiplied up the food spending by the reciprocal of this proportion.

<sup>3</sup> For new measures of multidimensional well-being and deprivation with an application to the United States, see Dhongde, Pattanaik and Xu (2019).

in a multidimensional fashion in high-income countries. Table 1 below lists the indicators, their thresholds and the percent of population below the threshold (this does not include the GQ population).

An individual is deprived if she experiences deprivation in any two of the six indicators. All indicators are assigned equal weights. We estimate the proportion of multidimensional deprived as a percent of total population. For children below age 18, we assign the average years of schooling of all adults in the same household. Since disability data is missing for a majority of children, so we assign the highest disability score among adults in the same household.

**Table 1: Indicators of Multidimensional Deprivation**

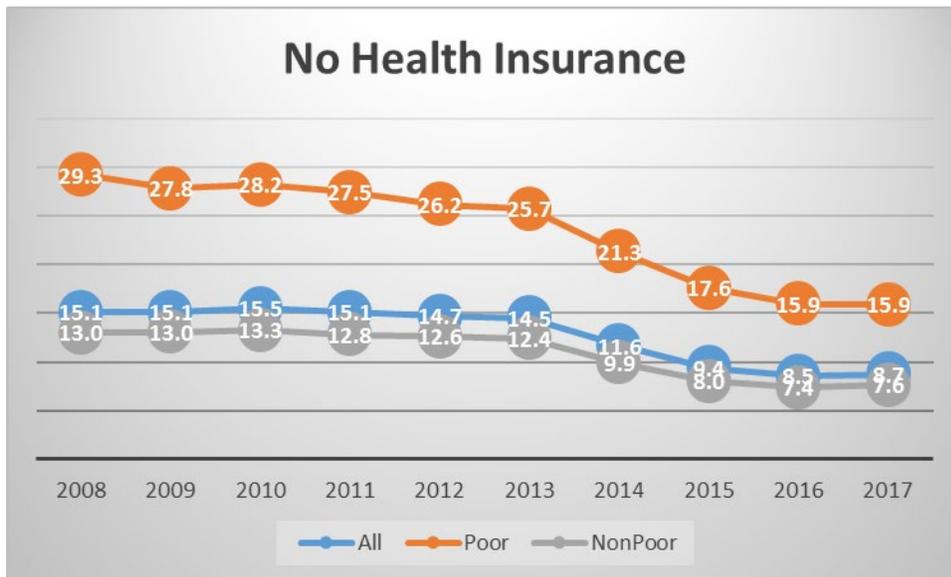
<b>Indicator</b>	<b>Type</b>	<b>Threshold</b>	<b>Average % of pop. below threshold</b>
Health insurance	Individual	Lack of any type of health insurance; public or private	12.8
High school education	Individual	Not having received at least a high school diploma	12.2
Disability	Individual	Two or more out of six disabilities: hearing, vision, cognition, ambulation, serious difficulty with self-care, or performing independent tasks	5.7
Housing costs	Household	Severe housing burden: monthly owner costs or gross rent in excess of 50% of household income	13.6
English fluency	Household	Live in a household where no person, 14 and over, speaks English only or speaks a language other than English at home and speaks English very well	5.0
Number of persons per room in a housing unit	Household	Overcrowding: unit has more than one occupant per room	7.4

Note: Average percentage is calculated as the average over 10 years.

### II.C. Indicators of Deprivation among the Poor and the non-Poor

The Atkinson Commission Report (2017) recommended using a dashboard approach to assessing deprivation beyond income. We find that in Table 1, that on average, a higher proportion of population was deprived in three of the six indicators, namely health insurance, housing costs and education. In Figures 1, 2 and 3 below, we analyze deprivation in these three indicators in further details. We plot trends in deprivation in each of these indicators, among the general population, among the poor by the official poverty threshold and among the non-poor.

**Figure 1: Proportion of population without Health Insurance**

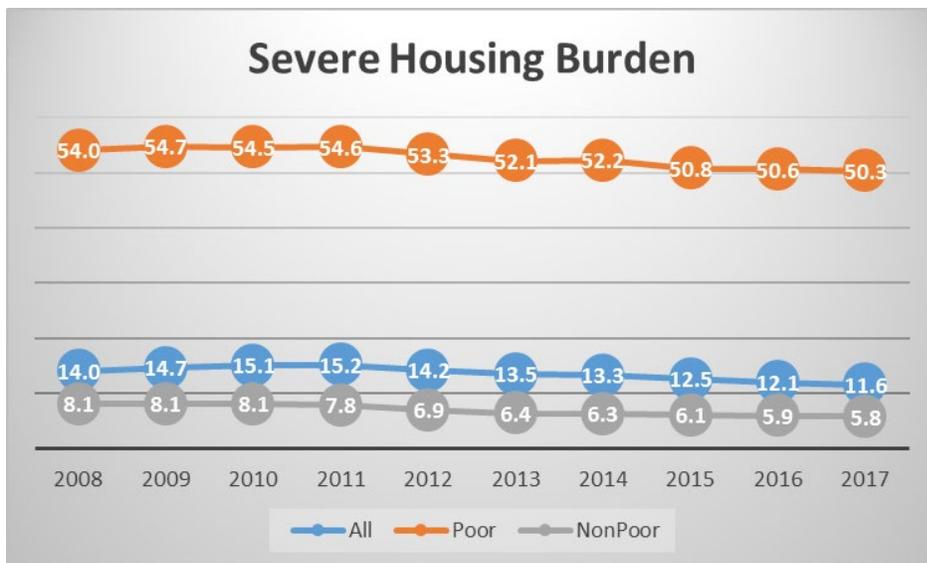


Note: Figure shows the percentage of population deprived in the indicator based on ACS data

Over the years, on average, 13 percent of the population in the United States, did not have any health insurance, public or private. The proportion of income poor without any health insurance was about 23.5 percent whereas that among the non-poor was 11 percent. As seen in

Figure 1, the proportion of uninsured was high during the recession (15 percent in 2008-2011). Since 2014, when most provisions of the Affordable Care Act (ACA) were implemented, there was a significant decline in the proportion of population without any health insurance. The ACA extended Medicaid coverage, and offered subsidies and tax credit to low-income individuals. As a result, there was a significant decline in the proportion of population without health insurance from 2013 to 2016. This decline was significant, especially among the poor (25.7 to 17.6 percent). However, we find that in the last couple of years, between 2016 and 2017, the proportion of the uninsured has slightly increased. The Kaiser Family Foundation (2018) report notes that in 2016-2017, the uninsured rate in states that did not expand Medicaid increased significantly. In fact, the largest increases in the uninsured rates in non-expansion states were among those living above poverty. In Figure 1, we see that the proportion of uninsured among individuals above poverty threshold increased from 7.4 percent in 2016 to 7.6 percent in 2017.

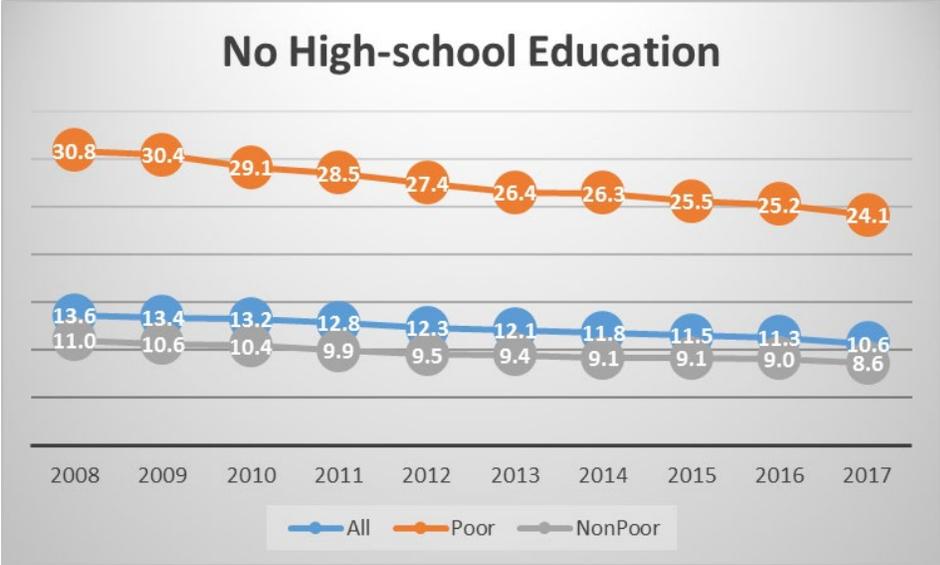
**Figure 2: Proportion of population with Severe Housing Burden**



Note: Figure shows the percentage of population deprived in the indicator based on ACS data

Individuals with severe housing burden were those whose monthly owner costs (mortgage payments, taxes, insurance, utilities, fuel costs and gross rent) were in excess of 50% of household income. As seen in Figure 2, compared with the rest of the population, the poor were disproportionately facing severe housing burden. During the entire decade, on average, 53 percent of individuals living in poverty experienced severe housing burden, compared with 7 percent of individuals not living in poverty. Severe housing burden among the poor has remained remarkably high and stable over the last decade. Housing costs, including median rent and the cost of fuels and utilities increased at a faster rate than average incomes. Unlike the ACA, no landmark policy was introduced to help reduce the housing burden of the poor during the recovery period following the Great Recession. Desmond and Bell (2015) argued that housing assistance covers but a fraction of the need: for every family in possession of a housing voucher or subsidized housing unit, there are three who qualify but receive nothing.

**Figure 3: Proportion of population without High-school Education**



Note: Figure shows the percentage of population deprived in the indicator based on ACS data

A third indicator where deprivation incidence is high is the incompleteness of high school. On average, 27 percent of the poor population and 10 percent of the non-poor population did not complete high school. There has been a steady decline in the percent of high school drop-outs over time.

### III. Income Poverty and Multidimensional Deprivation

Table 2 shows estimates of the proportion of income poor using official poverty thresholds and multidimensional deprived in the United States over the last decade, from 2008 to 2017.<sup>4</sup> Both, the incidence of poverty and deprivation peaked during the Great Recession 2010-2011 and have declined since then. However, unlike income poverty levels, which remained remarkably stagnant during the recovery period (2011-2013), deprivation levels steadily decreased. A similar declining trend in deprivation has been observed in the previous literature as well.<sup>5</sup>

**Table 2: Income Poverty and Multidimensional Deprivation**

	<b>Av.</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Poor	<b>14.5</b>	12.9	14.0	15.1	15.6	15.6	15.6	15.2	14.5	13.8	13.1
Deprived	<b>14.0</b>	15.3	15.5	15.8	15.5	14.8	14.4	13.3	12.3	11.8	11.3
Deprived among Poor	<b>41.6</b>	46.1	45.8	45.3	44.6	43.1	41.7	40.1	37.4	36.4	35.6
Deprived among Non-Poor	<b>9.3</b>	10.8	10.6	10.6	10.1	9.5	9.3	8.5	8.0	7.8	7.6

Note: Includes all persons in ACS, not living in GQs.

On average, the percent of population, which was income poor, was similar in size to the percent of population, which was multidimensional deprived (14 percent). However, we are

<sup>4</sup> Note that our estimates of poverty are close but not exactly equal to the official poverty estimate, since we use the ACS, whereas the official estimates are based on the CPS.

<sup>5</sup> See Dhongde and Haveman, (2017, 2019) and Mitra and Brucker, (2019)

interested in finding the overlap between these two groups. We estimate that among the income poor, on average, 42 percent of individuals were also multidimensional deprived. During the Great Recession, when deprivation levels peaked, more than 45 percent of income poor were also multidimensional deprived. However, in the last few years, this percent has declined and was equal to 35 percent in 2017. Interestingly, this implies that 58 percent of the income poor were not deprived in a multidimensional sense. That is, they had incomes below the poverty threshold, yet they did not experience two or more of the six deprivations simultaneously. On the other hand, an average 9 percent of population was not income poor but was multidimensional deprived. Despite having incomes above poverty threshold, these individuals experienced two or more deprivations simultaneously.

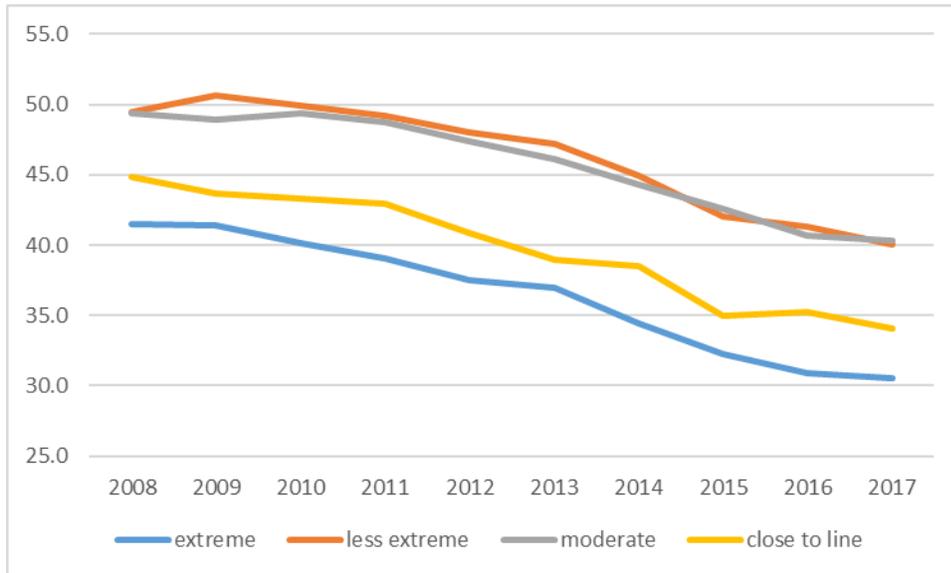
In order to understand how the incidence of deprivation differs by income, we further refine the poor and non-poor classification by dividing these groups into sub-groups using the income-to-poverty threshold ratio ( $R$ ). In Table 3, we divide the 14.5 percent poor in four classes, depending on how far below their incomes lie below the threshold. Thus the extreme poor are those whose incomes are less than one-quarters of the threshold, whereas those with incomes more than three-quarters of the threshold are close to the poverty line. Similarly, we divide the non-poor in five different categories. Individuals just above the poverty line have incomes less than two times the threshold. The ones away from the poverty line have incomes more than five times the threshold.

**Table 3: Income Classes using Poverty Thresholds**

<b>Income Classes</b>	<b>Ratio R: Income-to-Poverty Threshold</b>	<b>Percent of Population averaged over time</b>
Groups among Poor		
Extreme Poor	$R < 1/4$	3.8
Less extreme Poor	$1/4 \leq R < 1/2$	2.6
Moderately Poor	$1/2 \leq R < 3/4$	3.7
Poor close to the poverty line	$3/4 \leq R < 1$	4.4
<b>Total Poor</b>	$R < 1$	14.5
Groups among non-Poor		
Incomes just above poverty line	$1 \leq R < 2$	18.4
Very low incomes	$2 \leq R < 3$	16.6
Low incomes	$3 \leq R < 4$	13.5
Moderate incomes	$4 \leq R < 5$	10.3
All others	$R \geq 5$	26.6
<b>Total Non-Poor</b>	$R \geq 1$	85.5

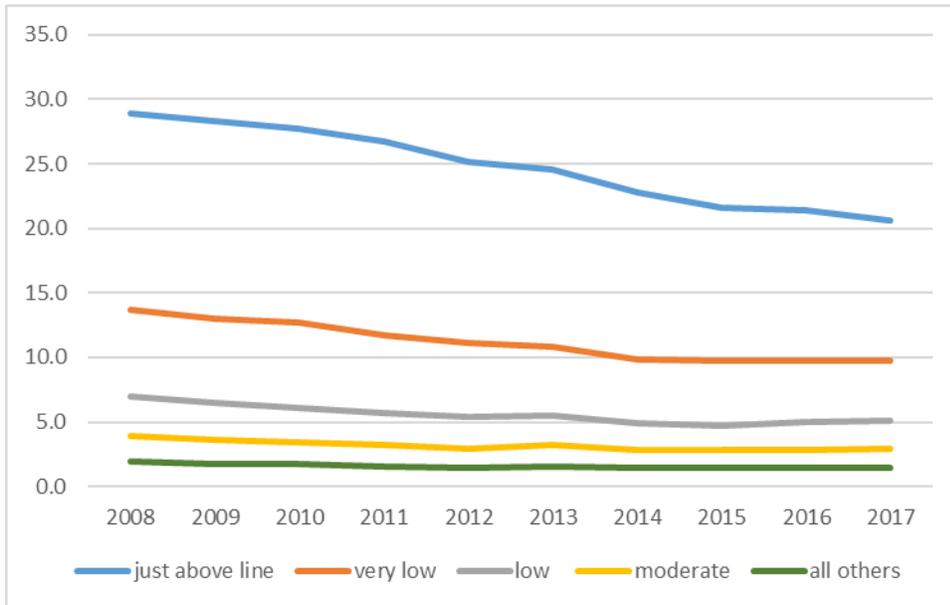
In Figure 4, we plot deprivation trends among the poor. Interestingly, we find that deprivation was relatively low among the extreme poor (36 percent on average) compared with deprivation among less extreme poor and moderately poor (46 percent on average). This suggests that policies such as Medicaid and/or housing vouchers were helping the extreme poor but not those who were moderately poor. Average deprivation among individuals close to the poverty line, too was high, (about 40 percent) compared to deprivation among the extreme poor.

**Figure 4: Deprivation among the Poor**



Similarly, we plot deprivation trends among the non-poor in Figure 5. We find that deprivation was relatively high especially among individuals with incomes just above the poverty threshold. About one in four (or 25 percent) individuals with incomes between 100 to 200 percent of poverty were multidimensional deprived. Around 11 percent of individuals with incomes between 200 to 300 percent of poverty were also multidimensional deprived over the decade. This high incidence of deprivation above poverty threshold underscores the importance of measuring quality of life using indicators besides incomes in high-income countries like the United States. The very low percentage of deprivation among individuals with incomes between 400 to 500 percent (3.2 percent deprived) and those with incomes more than 500 percent of poverty (1.6 percent deprived) also underscores the usefulness of chosen deprivation indicators. Even if we argued that individuals could afford but “voluntarily” chose to remain deprived in two or more indicators (say, refusing to purchase health insurance and choosing to have severe housing burden), the proportion of these individuals is quite small.

**Figure 5: Deprivation among the non-Poor**



#### **IV. Poverty and Deprivation by Race and Ethnicity**

In Section 4, we showed how the overlap between income poverty and multidimensional deprivation varied across individuals with different income levels. In this Section, we change the lens and see how the overlap varied across individuals belonging to different race and ethnicity. In Table 4 below, we consider four broad classes by race/ethnicity and compare estimates for these classes with the overall population. All estimates are averaged over the 10 year period. Compared with the overall poverty rate of 14.5 percent, poverty rates were high among Blacks and Hispanics (25 percent) compared to Whites and Asian (11 percent). However, deprivation rate was much higher among the Hispanics (27 percent) compared with Asians (19 percent) or Blacks (16 percent). Interestingly, whereas 42 percent of the poor were also deprived in the overall population, more than 50 percent of the poor Asians and 48 percent of poor Hispanics

were multidimensional deprived. Incidence of deprivation was also high among non-poor Asians and Hispanics.

Dhongde and Haveman (2017) explained the reason for high deprivation percentages among these two groups. Nearly 20 percent of non-elderly, adult Hispanic and Asian population lived in households without any member (14 years or above) having English fluency. Lack of fluency in English is not surprising among immigrant population. However, language was not the only disadvantage faced by these individuals. Compared with the overall population, almost twice the proportion of Hispanics did not have any kind of health insurance. Almost 30 percent of the Hispanics failed to obtain high school diploma. Asians had double the prevalence of burdensome housing costs and overcrowded housing than the overall population.

**Table 4: Average Income Poverty and Multidimensional Deprivation by Race/Ethnicity**

	Whites	Blacks	Hispanic	Asian	Overall Population
Poor	11.9	25.5	25.3	11.9	14.5
Deprived	11.2	16.0	26.9	19.3	14.0
Deprived among Poor	39.2	36.6	48.4	51.1	41.6
Deprived among Non-Poor	7.5	8.9	19.5	15.0	9.3

Note: Values show percentages that are averaged over 10 years

## V. Conclusions

In this paper, we analyzed the incidence of income poverty and multidimensional deprivation in the United States over the last decade. Needless to say, we were able to estimate income shortfall as well as deprivation, because of the availability of survey data collected by the United States census. The Atkinson Commission Report (2017) notes that the United States

Census is carried out to the highest professional standards. Below we discuss broadly, some of the advantages and limitations of this data source.

The first major advantage of the United States Census data is its ease of access. The Census not only focuses on decennial data collection but also conducts annual surveys such as the ACS and monthly surveys such as the CPS. Anonymous data from Census surveys is made publicly available and free of cost. Any user of the United States Census data will attest to the fact that it is easy to download, comes in a clean and is consistently compiled over time. Data is available at micro level (e.g. individuals and households) as well as at aggregate level (e.g. counties and states). This is a huge advantage which many datasets, especially in low and middle income countries lack.

Relatedly, a second advantage of the Census survey data is its geographic coverage and survey design. As noted previously, the ACS is the largest household survey in the United States. Its annual estimates are collected from around 3 million households and are available for areas with populations of 65,000 or more. The five-year averages cover the entire geography and provide estimates for census tracts/block groups. Though the CPS is much smaller in coverage than the ACS, with an annual sample size of about 100,000 households, it has a novel sample design. The monthly CPS is a rotating panel design; households are interviewed for four consecutive months, are not in the sample for the next eight months, and then are interviewed for four more consecutive months. This unique feature of the CPS allows researchers, for instance, to assess the impact of a policy change on households over a period of time. Other countries can adopt this rotating panel design while compiling data.

A third advantage of the Census data is its emphasis on precision. The United States Census Bureau has long been engaged in measures to improve coverage and accuracy of data collection. The Census goes to great lengths in documenting details about survey design, how to use population weights, how to measure standard errors and calculate confidence intervals. Any small or large change in survey design is documented and guidelines are provided about comparing survey estimates over time. Researchers working on global poverty are acutely aware of the lack of such detailed documentation and will benefit immensely if survey agencies in other countries start providing thorough documentation of the data collection process and guidelines on how to use and more importantly, how not to use the compiled data.

Finally, another plus of the Census data is its efforts at conducting different surveys with different foci. For example, the ACS collects social, economic, and housing data. The income questions in the ACS cover only major income sources. On the other hand, the CPS Annual Social and Economic Supplement (ASEC) contains income questions which are much more detailed and provide more comprehensive coverage of more than 50 potential income sources.

Despite these benefits, a major limitation of the United States Census data is that it has not yet designed any large scale survey like the ACS or the CPS with the exclusive purpose of gathering data on the quality of life indicators. For example, the European Union Statistics on Income and Living Conditions (EU-SILC), in addition to income, collects data on variables measuring social exclusion and living conditions. Neither the ACS nor the CPS collects any data on multiple dimensions affecting well-being, such as the environment, individual's rights, political voice, social connections, job opportunities or transportation facilities available in a neighborhood and so on. Data is severely limited even on a basic dimension such as individual's health. The

only data on health collected by the ACS, is whether an individual is disabled or not, in one of the six functions (see Table 1). In addition to disability data, the CPS ASEC collects information on self-assessed health status. Apart from these indicators, there is no detailed data on health in either of the two surveys. There is a growing interest in measuring multidimensional deprivation in the United States, but most of these studies are limited in their choice of indicators by the availability of data.<sup>6</sup> The United States Census needs to take this concern into account and launch a new survey, with the explicit goal of collecting data on quality of life.

To conclude, given the available data, this paper highlighted the different subsets of population in the United States identified as income poor or multidimensional deprived during the Great Recession and the subsequent recovery period. We used the official poverty threshold in our estimates. Going forward, in addition to using the official poverty threshold, we plan to estimate poverty in the U.S. by using a relative poverty threshold (e.g. incomes below 60 percent of median income) and the recent global poverty threshold for high-income countries. Jolliffe and Prydz (2016) proposed a threshold at \$21.70 per day by using comparable national poverty lines closest to 2011 PPP reference period. We would like to estimate how deprivation compared with poverty when we use these alternate thresholds.

High-income countries are typically omitted from discussions on global poverty. By providing estimates of income poverty, multidimensional deprivation and their overlap in the United States, the paper aims to provide meaningful insights to the debate on global poverty estimates.

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<sup>6</sup> See Dhongde and Haveman (2017, 2019), Dhongde et al (2019), Glassman (2019), Mitra and Brucker (2019)

## References

Alkire, S., and Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics*, 95(7–8), 476–487

Atkinson Commission on Global Poverty (2017):

<http://www.worldbank.org/en/programs/commission-on-global-poverty>

Desmond, M. and M. Bell (2015). Housing, Poverty, and the Law. *Annual Review of Law and Social Science* 11 (1), 15-35

Dhongde, S. and Haveman R. (2017). Multi-dimensional Poverty in the U.S. *Social Indicators Research*, 133(2), 477-500

Dhongde, S. and Haveman R. (2019). A Decade-Long View of Multidimensional Poverty in the United States, Institute of Research on Poverty, Working Paper, 1440-19, 1-24

Dhongde, S., P. Pattanaik, and Xu Y. (2019). Well-being, Poverty, and the Great Recession in the U.S.: A Study in a Multidimensional Framework. *Review of Income and Wealth*, forthcoming

Glassman, B. (2019). Multidimensional Deprivation in the United States: 2017. *American Community Survey Reports, ACS-40*, U.S. Census Bureau, Washington, D.C.

Jolliffe, D. and Prydz, E. (2016). Estimating international poverty lines from comparable national thresholds. *Journal of Economic Inequality* 14(2), 185-198

Kaiser Family Foundation (2018). Key Facts about the Uninsured Population.

<https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/>

Mitra, S., and Brucker, D. (2019). Monitoring Multidimensional Poverty in the United States. *Economics Bulletin* 39(2), 1272-1293

Orshansky, M. (1965). Counting the Poor: Another Look at the Poverty Profile. *Social Security Bulletin* 28, 3–29

Stiglitz, J., Sen, A., & Fitoussi, J. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress, Paris

## Appendix

**Table A1: Poverty Thresholds for 2017 by Size of Family and Number of Related Children Under 18 Years**

Size of family unit	Wt. Av. Thresholds	Related children under 18 years				
		0	1	2	3	4
One person (unrelated individual):	12,488					
Under age 65.....	12,752	12,752				
Aged 65 and older.....	11,756	11,756				
Two people:	15,877					
Householder under age 65.....	16,493	16,414	16,895			
Householder aged 65 and older.....	14,828	14,816	16,831			
Three people.....	19,515	19,173	19,730	19,749		
Four people.....	25,094	25,283	25,696	24,858	24,944	
Five people.....	29,714	30,490	30,933	29,986	29,253	28,805
Six people.....	33,618	35,069	35,208	34,482	33,787	32,753
Seven people.....	38,173	40,351	40,603	39,734	39,129	38,001
Eight people.....	42,684	45,129	45,528	44,708	43,990	42,971
Nine people or more.....	50,681	54,287	54,550	53,825	53,216	52,216

Source: U.S. Census Bureau.

Size of family unit	Wt. Av. Thresholds	Related children under 18 years			
		5	6	7	8=<
One person (unrelated individual):	12,488				
Under age 65.....	12,752				
Aged 65 and older.....	11,756				
Two people:	15,877				
Householder under age 65.....	16,493				
Householder aged 65 and older.....	14,828				
Three people.....	19,515				
Four people.....	25,094				
Five people.....	29,714				
Six people.....	33,618	32,140			
Seven people.....	38,173	36,685	35,242		
Eight people.....	42,684	41,678	40,332	39,990	
Nine people or more.....	50,681	50,840	49,595	49,287	47,389

Source: U.S. Census Bureau.