MEDICAL OUT OF POCKET EXPENDITURES & POVERTY: A CROSS-COUNTRY ANALYSIS

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Abstract

Recently, the Census Bureau introduced the Supplemental Poverty Measure (SPM), which, following NAS recommendations, subtracts Medical-Out-Of-Pocket Expenditures (MOOP) from income, under the assumption that MOOP expenditures are non-discretionary. However, MOOP expenditures may be partly discretionary, so subtracting MOOP from income may classify people with unmeasured wealth or strong preferences for medical care as poor, particularly the elderly, raising validity concerns (Korenman and Remler, 2013).

In this paper, I extend the SPM practice of subtracting MOOP from income to countries with universal health care systems using data for Canada and France (LIS), and the USA (CPS). I hypothesize that, if MOOP is largely non-discretionary, then in countries with universal health systems, MOOP expenditures should be lower and more responsive to economic variables. Preliminary results show that MOOP is highly sensitive to income in all countries and that the elderly are most affected. Future analyses will include the UK, Italy and Switzerland.

1 Introduction

In 2011 the Census Bureau introduced the Supplemental Poverty Measure (SPM), which was intended to address the weaknesses in the Official Poverty Measure (OPM).

The OPM consists of a set of thresholds for families of different sizes and are compared to before tax cash income to determine the family's poverty status. At the time they were developed the official poverty thresholds represented the cost of a minimum diet multiplied by three (to allow for expenditures on other goods and services).

However, the OPM does not account for in-kind government programs that were designed to assist low-income families. Therefore the US Census Bureau introduced the SPM to better reflect contemporary social and economic realities as well as government policy.

One of the main differences is that the SPM includes the value of some near-cash in-kind government benefits (e.g., SNAP (food assistance), housing assistance, home energy assistance), besides cash income, but

subtracts necessary expenses such as taxes, work-related expenses, child support payments, and Medical Out-of-Pocket (MOOP) expenditures.

However the SPM does NOT include value of health insurance benefits as a resource.

The justification for separating non-medical from medical needs and resources is the view that medical need and therefore medical expenditures including MOOP is non-discretionary. The idea is that health needs take precedence; what is left over after health expenditure is what is available to meet other basic needs, therefore MOOP should be subtracted from resources to determine poverty. However, as I will discuss in section 2, the literature has argued that MOOP is not necessarily non-discretionary and that the practice of subtracting MOOP skews people into poverty that have a taste for medical expenditures (and wealth). This raises the question whether subtracting MOOP from resources is valid for the calculation of poverty measures.

From a policy perspective the National Academy of Sciences, that brought forward the recommendations that led to the adoption of the SPM, argues that this measure is only meant as a supplement. However, opponents of the SPM argue that since the SPM is officially published, it might be only a matter of time until policy makers will adopt the SPM as an official policy tool. Korenman & Remler (2013) argue that if MOOP is discretionary, and skews people with a taste for health expenditures into poverty, using SPM as a policy tool could lead to policy measures to people that do not actually need it. Therefore, it is important that the practice of subtraction of MOOP is valid.

Ideally, I would like to calculate SPM measures and compare them across countries using the data from the Luxembourg Income Study; unfortunately, this is not possible because the dataset does not collect the values of in-kind transfers. However, I am able to focus on an important and controversial component of the SPM measure: how poverty rates are affected by subtraction of MOOP, and who the people are that become poor when MOOP is subtracted across different countries with different health care systems. By comparing the MOOP and the effect of the subtraction of MOOP on poverty rates in US, which has a 'multi-payer' payer health care system, dominated by private insurance, to countries that have universal health care like Canada and France, I attempt to shed some light on the nature of MOOP. Presumably, (most of the) the non-discretionary need for MOOP-expenditures are covered by the universal health care in Canada and France, and any additional MOOP expenditures would be incurred voluntarily. Moreover, it creates a better

understanding of who the people are that are moved into poverty by the subtraction of MOOP and how they differ across countries. I hypothesize that, if MOOP is largely non-discretionary, then in countries with universal health systems, MOOP expenditures should be lower and more responsive to economic variables. To my knowledge, no study has looked at MOOP expenditures across different countries in relationship to poverty rates.

Doing so will shed light on the question(s): How does subtracting MOOP affect poverty rates in the US, Canada and France? How do differences in these poverty rates compare across these countries? Who become poor when MOOP is subtracted? What are the potential mechanisms behind poverty due to MOOP. Is it valid to subtract MOOP from resources when calculating poverty rates?

In Section 2, I will discuss the existing Literature. Section 3 describes the data, Section 4 gives an overview of methods, Section 5 discusses the results and Section 8 concludes this paper.

2 Literature Review

There is an extensive literature on poverty measures. I will focus on papers that specifically focus on the differences between SPM and OPM and the validity of subtracting Medical Out-of-Pocket (MOOP) expenditures from resources.

Korenman & Remler (2013), find that even though the SPM adds several good improvements compared to the OPM, the SPM has one major validity pitfall: The subtraction of MOOP from Income (and more generally, the separation of health poverty from "material" poverty).
The authors focus on how the Supplemental Poverty Measure nearly doubles the elderly poverty rate compared to the Official poverty measure.
They write that neither the SPM nor the OPM count health benefits or assets as resources, while some elderly use their assets to fund MOOP.

Even though the National Academy of Sciences that recommended the approaches adopted for SPM considered inclusion of health care or insurance into poverty measurement, they encountered many issues

that led to their recommendation to leave it out and only subtract MOOP from resources. They described MOOP as consisting largely of expenditures caused by health shocks, suggesting that the expenditures are purely non-discretionary. In this case, subtracting MOOP from resources in a poverty measure would make conceptual sense.

The authors show that empirically this is not the case. They conduct validation studies and show that subtracting MOOP from resources worsens a poverty measure's predictive validity. Their results show that subtracting MOOP reduces the (adjusted) correlation between poverty rates and material hardship. They also present evidence that many of the elderly classified as poor by the MOOP subtraction are not poorly insured persons with incomes near the poverty line, but well-insured persons with incomes well above the poverty line.

The authors argue for a Health-Inclusive Poverty Measure (HIPM). They write that a HIPM is now feasible if health needs are conceptualized as a need for health insurance, and if plans with non-risk-rated premiums and caps on MOOP are universally available, a condition that is largely met by the Affordable Care Act.

Meyer & Sullivan (2012), examine the properties of three measures of poverty: The Official Poverty Measure, The Supplemental Poverty Measure and a consumption-based measure of poverty. They focus on how well these measures perform in identifying the most disadvantaged and to assess changes over time in disadvantage and compare these measures of poverty and look at the demographic and economic circumstances of those that are defined poor by these measures.

The authors write that different measures of poverty can include people of overlapping but different groups. They argue that looking at the characteristics of those that are determined to be poor by a poverty measure, or non-poor, could provide evidence on whether a measure does a better job of capturing the disadvantaged.

The authors point out that construction of a measure of deprivation is difficult, and that the SPM has some conceptual advantages over the OPM. But when they compare the people that are included or excluded in the group of impoverished by the alternative measures to the OPM, they find that the SPM adds people with

higher consumption levels, and a greater likelihood to be in college, to own a home and a car, to live in larger housing and to have other more favorable characteristics than those who are not considered to be in poverty.

They find that the consumption-based poverty measure adds individuals who are more disadvantaged to the impoverished group compared to the OPM or the SPM.

They point out that the SPM skews the population 'in poverty' towards the families that spend more on health care. However, even if the SPM did not subtract MOOP from income, it would perform slightly worse than the OPM and much worse than the consumption-based measure of poverty, in terms of identifying the disadvantaged. Their results suggest that a consumption-based poverty measure is preferable to both the official income-based poverty measure and to the Supplemental Poverty Measure for determining who are the most disadvantaged (although a consumption based poverty measure is not practical for some uses, e.g., determination of eligibility for public assistance).

Burtless & Siegel (2001) start out their paper by pointing out that medical spending has risen from 5% in 1960 to 13 percent in 1999 and that medical care now represents a large fraction of all consumption, and many observers believe it has become as necessary as food and shelter. They write that if poverty measure would take full account of medical expenditures that poverty rates of the elderly and the disabled would be greatly affected because of their heavy spending on medical care.

This paper looks at the effects of three basic methods of including expenditures on health care in the measurement of poverty. The first method is based on the OPM. The other two are based on recommendations of the National Academy of Sciences Panel on Poverty and Family Assistance.

The authors write that there are no simple approaches to incorporating medical spending in poverty measurement that would be supported widely by economists and policy analysts. And that the difficulty lies in the heterogeneous medical needs of individuals[1].

The authors conclude that the inclusion of medical spending in the poverty definition has a large effect on the level and composition of poverty. When taking account of medical spending, groups that are heavy users of medical care, such as the elderly and disabled, appear to suffer relatively worse poverty; Groups with high MOOP appear to suffer worse poverty rates than indicated by OPM.

[1] Korenman and Remler solve this problem by shifting the focus from needs for medical care to needs for health insurance.)

Short (2012) presents updated estimates of the prevalence of poverty in the United States using both the OPM and the SPM. The author writes that comparing the two measures sheds light on the effects of in-kind benefits, taxes and other nondiscretionary expenses on measured economic well-being. The report shows that the share of people 65 years of age and over in poverty was higher when using the SPM versus the OPM

All these papers emphasize that the SPM measure adds new improvements that were important flaws that the OPM suffered from. The inclusion on the value of in-kind government programs in resources, the consideration of taxes and tax credits are among the many great improvements.

However, the authors of the papers point out the difficulty of including health care and health insurance into the poverty measure.

Korenman & Remler extensively discuss the many considerations that were listed in the report written by the National Academy of Sciences that provided the basis for the calculation of the SPM. Burtless & Siegel also cover the difficulty of including health care in the poverty measure.

Meyer & Sullivan and Korenman & Remler show that subtracting MOOP from resources greatly inflates poverty rates of the elderly population, regardless of their Medicare (and Medicaid) coverage

Overall, the literature understands the difficulties that the NAS tried to overcome when they suggested the subtraction of MOOP from resources. Conceptually, all health care expenses, including those on health insurance premiums, could be treated as an unexpected shock caused by an unexpected shock in health. In this way the expenditures could be treated as a "tax" on incomes, as they would be non-discretionary.

However, the literature shows that this is not true empirically. Subtracting MOOP without including the value of health care or health insurance to resources or accounting for health care in the threshold skews the individuals with a greater taste for medical spending into poverty. Moreover, their results suggest that these individuals are not the people who are experiencing the most material hardship and are not asset-poor. In fact it is these assets from which they can fund their medical expenditures.

In this paper, I intend to explore the effects of subtracting MOOP on the poverty rates across the US and two countries that have national health care, to shed light on the discretionary nature of MOOP. Moreover, I will explore the demographics of the subpopulations that get selected into poverty by the subtraction of MOOP. By comparing this across the US and countries with national health care, this paper tries to develop an understanding of the nature of MOOP spending for the different groups across the different countries.

3 Data

I use data from the Luxembourg Income Study Database, which is a harmonized micro dataset consisting of household- and person-level data on market and government income, demography, employment, and expenditures from high- and middle-income countries around the world.

For this study I will use wave 6, which corresponds to 2004 in Canada and 2005 in France. Unfortunately, data on Medical Expenditures, the main variable of interest, is not complete for the United States[2]. Therefore, I use data from the 2004 data Current Population Survey (CPS) for my United States Analyses, which are the source data for the US micro dataset in LIS.

I use the poverty thresholds for 2003 as provided by the US Census Bureau.

All my analyses are focused on households that consist of 4 members or less.

4 Methods

4.1 Official Poverty Rates with and without MOOP

To study the effect of the subtraction of MOOP, I start by calculating Official Poverty rates for all three countries. For each country, I take the 2003 US OPM thresholds, and convert them to the national currencies. The OPM uses household income before taxes and transfers as the resource measure. A household is considered to be poor if the household's income falls below the OPM threshold for its household size.

[2] It will be added to the LIS database in the next months.

To understand the effects of the subtraction of MOOP, I subtract household MOOP from Household Income and calculate new poverty rates[3].

4.2 Relative Poverty Rates with and without MOOP

The OPM is an absolute poverty measure. To also study the effect of MOOP on relative poverty measures, I also calculate poverty measures based on 40% of the median household income as a poverty threshold.

For this exercise, I base the relative poverty threshold on the national median household income, bottom coded at 0, and top coded at 10 times the median.

On the resources side, I equivalize top and bottom coded household income, using the square-root equivalence scale.

To understand the effects of the subtraction of MOOP, I subtract household MOOP from resources to calculate new poverty rates.

4.3 Characteristics of MOOP-Poor Households

To get a better understanding of which households are moved into poverty by the subtraction of MOOP, I describe households that become poor after MOOP, based on the OPM and compare them to households that are poor, based on OPM, whether or not MOOP is subtracted, and to households that are not poor even after MOOP is subtracted.

4.4 Empirical Models

Finally, I estimate the following model:

$$Y_i = \alpha + X_i'\beta + \varepsilon_i$$

[3] For future analyses, I will re-calibrate poverty thresholds after subtracting MOOP so the overall rate of poverty is the same in each country to the rate pre-MOOP subtraction. This allows one to see how purely the composition of the population will change and without it be influenced by the proportion of the population that has income just above the poverty line.

where the dependent variable, Y_i, is a dichotomous variable indicating, whether the household becomes poor after subtraction of MOOP or not.

X_i is a vector of time-invariant characteristics for person i, including controls for

number persons in the household, number of kids in the household, the age of the household head, a dummy indicating whether the household head is 65 or older,

Head 65+, controls for the type of household (single household, single parent, couple with kids, other family type. The omitted category is a couple without kids), education, Household Income (before tax& transfers) and MOOP.

I will estimate the models separately for each country using OLS and robust standard errors to correct for potential heteroskedasticity in the error terms. In addition, to the descriptive analysis where I study the unadjusted means, this linear probability model aims to deepen the understanding about the characteristics of people that are moved into poverty by MOOP.

I will also estimate a similar OLS model, where MOOP expenditures are the dependent variable to shed some light on the characteristics that are associated with MOOP expenditures across the different countries.

5 Results

5.1 Results: Canada

I start with comparing how poverty rates change when MOOP is subtracted in Canada using both the OPM and the relative poverty measure, where the 40% of the median income is chosen as the poverty line. In table 3, we see that relative poverty rates are greater than the poverty rates using the OPM. We see that Canada has less poverty in the age group above 65%. To achieve the most straightforward cross-country comparability, I'm looking at before tax and transfer income, therefore this does not take the Canadian social system into account, which effectively reduces poverty.

As we would expect subtracting MOOP increases poverty rates. We see that subtracting MOOP increases poverty by half a percentage point for the 21-64 age group, using either poverty measure. For the

65 and older, poverty rates increased only by 0.3 percentage points when using OPM, but by 1.5% when using the relative poverty rate.

Looking at different family types we see, in figure 2, that among the 21-64 year olds the single households, and single-parent households are the poorest. In figure 3, we see that the 65+ are a lot less poor than the young category. Within this age group it's the single adults that are the poorest.

When looking at the characteristics of the people who become poor by subtracting MOOP, in table 4, we see that the households are more likely to be headed by females and have fewer kids in those households compared to those that are always poor and those that are never poor. Furthermore, the household head tends to be older. We also see that there is a much higher proportion of 65+ in the households that are moved into poverty, than there are in the households that are always poor.

The main difference between the households that are moved into poverty and the other households is the size of MOOP[4]. In Canada, those that have large MOOP are older, female headed households and are more likely to be living alone, but are they are not the oldest.

But the composition is not very different from the never poor group, except that they earn much less, however have larger MOOP. Considering the fact that Canada has national health care, which should cover all the needed health expenditures, this suggests that MOOP could be high by choice.

5.2 Results: France

Looking at France, we see that relative poverty rates are slightly greater than the poverty rates using the OPM. We see in table 5, that poverty in the age group above 65 is lower than the rate for 21-64 year olds in France. We see that subtracting MOOP increases poverty rates, most for the 65+ group (about 2 percentage points, or by 40 to 50%). This suggests either that there are many elderly that are just above the poverty threshold or that they have substantial MOOP expenditures, or both.

[4] The standard deviations on MOOP and Income are quite large, suggesting that there are outliers. For future analyses, I will look at median MOOP and Household income.

Subdividing across different family types we see, in figure 4, that among the 21-64 year olds the single households, and single parent households are the poorest. We see in figure, 5 that the 65+ are much less poor than working-age category. Within each age group, the single adults are the poorest.

When we look at the descriptives for France, in table 6, we see that the households that are moved into poverty are more likely to be headed by females than the never poor and that there are fewer kids in those households compared to those in the never poor group. Moreover, the head of the household is significantly older than the other groups, and more likely to be older (65+) and most of them are single households.

The main difference is that the group that is moved into poverty is that they are older and the size of MOOP[5].

We see that those that become poor due to subtraction of MOOP are older and single person households. The fact that medical expenditures are higher for the elderly, suggests that it concerns necessary expenditures, caused by health shocks that are somehow not covered by the French national health care or that are incurred by choosing more expensive treatments than covered by their insurance[6].

5.3 Results: United States

In table 7 we see that relative poverty rates are greater than the poverty rates using the OPM in the United States, similar to Canada and France. We see that subtracting MOOP increases poverty rates, with much larger differences than Canada and France.

Subdividing across different family types we see, in figure 6, that among the 21-64 year olds the single households, and single parent households are poorest. The 65+ are a little less poor than the young category, in figure 7. Within this age group it's the single adults that are the poorest.

[6] I plan to add more background on the French Health care system to get a better understanding of the situation.

In table 8, we see that those that become poor due to MOOP in the US are older, and more likely to be female and single. We see that 52% of those that become poor due to subtraction of MOOP are older than 65, suggesting that even though this group is covered by Medicare, they still have large out of pocket health expenditures. Moreover, we see that a very large proportion of those that are moved into poverty are insured. This is interesting, as insurance protects against non-discretionary health shocks. Unfortunately, I don't have any detailed information on what the MOOP expenditures are spent on, because it would be interesting to get an understanding about what proportion of these MOOP expenditures are spent on health insurance premiums or on co-pays.

5.4 Results: Comparing Canada, France and the USA

When I compare poverty rates across the three countries in figure 8, we see that the US has the highest poverty rates. Subtracting MOOP has a negligible effect on Canadian poverty rates, when I compare it to the United States and France. For the households with household heads younger than 65 the impact is similar for France and the US, but the greatest impact is experienced by the 65+ in the United States.

Moreover, a preliminary comparison of unadjusted means across countries suggest that MOOP expenditures in Canada are similar to the United States across all households, while for France MOOP expenditures are only lower for the households that are never poor.

5.5 Results: Linear Probability Model & OLS models

To get a better understanding of the mechanisms that behind why a household becomes poor after subtracting MOOP, I ran linear probability models separately for each country and separately for US-insured and uninsured people. Table 9 shows the coefficients from these analyses.

The preliminary results show that for both the US and France the likelihood of becoming poor due to the subtraction of MOOP is increased significantly if the head is above 65. The likelihood is increased by 9.1 percentage points in the United States, compared to an increase of 3.6 percentage points in France. However, having a household head over 65 does not affect Canadian households.

We see that for all countries the coefficient on "female head" is positive, although it's only significant for the United States.

Unsurprisingly, having higher income reduces the likelihood of being moved into poverty by MOOP.

Table 10 shows the preliminary results from the analyses of the OLS models where MOOP is the dependent variable. I ran separate models for each country and ran them separately for the poor uninsured (that earned less than twice the OPM threshold), the richer uninsured (that earn more than twice the OPM threshold), the poor insured, the richer insured and those older than 65.

The results show that in the group of 65 and older, American households with female heads spend less on MOOP, while their French counterparts tend to spend more than the omitted category (couples without kids). We see that education increases MOOP for almost all groups in all countries. This is in line with the Grossman health model, which predicts that education increases the demand for health and health care (Grossman, 1972a; 1972b; and 1999).

Finally we see that income is strongly positively associated with MOOP for all of the insured in the United States, France and Canada, although not for the Canadian non poor. As MOOP includes expenditures on premiums, this positive association is likely partly driven by premium payments. However if income increases the size of MOOP by increasing premium payments, this is suggestive of households with higher incomes choosing more expensive plans, which would not be purely non-discretionary. Moreover, it's likely that the positive association is not only driven by premium payments, but potentially also by a greater taste for health care and better quality of health care as incomes go up. In this case, these results could be suggestive MOOP being discretionary.

6 Preliminary Conclusions

In this paper I sought to understand how the subtraction of MOOP affects poverty rates, to contribute to the discussion of the discretionary nature of medical expenditures and the literature on the treatment of

these expenditures in poverty rates. To my knowledge this is the first paper that uses empirical data across several countries with different health care regimes to study how MOOP affects poverty rates, which subpopulations are affected by MOOP and how demographics affect MOOP expenditures.

My preliminary results suggest that the population who's poverty rates are most affected by MOOP in all countries are the 65+. We also see that the overall poverty rates are the most affected for the elderly, especially in the US. The regression analyses confirm that the elderly are the most likely to be moved into poverty in both the US and France, which is in line with the literature.

I also find that female headed households in the US are more likely to be moved into poverty by the subtraction of MOOP.

The results also show that income is positively associated with MOOP for the insured in all countries. This is suggestive of discretionary medical spending, as it suggests that as income goes up demand for medical care and quality of medical care goes up. Particularly, the positive association between income and MOOP in France suggests that MOOP is discretionary, as their National Health Care should presumably cover all the necessary health care in case of a health shock. If this is the case, MOOP should not be subtracted from resources in poverty measures.

In these models, I did not control for health. Unfortunately, health data is not available for all countries. For future analyses I plan to include health and disability data for the countries for which it is available. This would shed some light on the nature of the medical treatments on which MOOP was spent.

For future analyses, I plan to include data from the United Kingdom, Italy and Switzerland, which are all countries that have universal health care.

Further research is necessary to determine the validity of MOOP subtraction from resources when calculating poverty rates.

7 References

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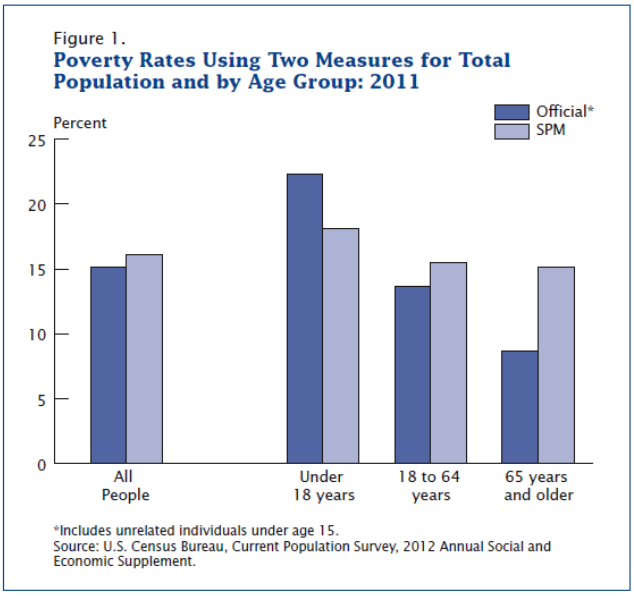
Figure 1: Poverty Rates Using Two Measures for Total Population and by Age Group: 2011



Source: Short(2011)

Figure 2: Canadian Poverty Rates with and without MOOP, age group: 21-64

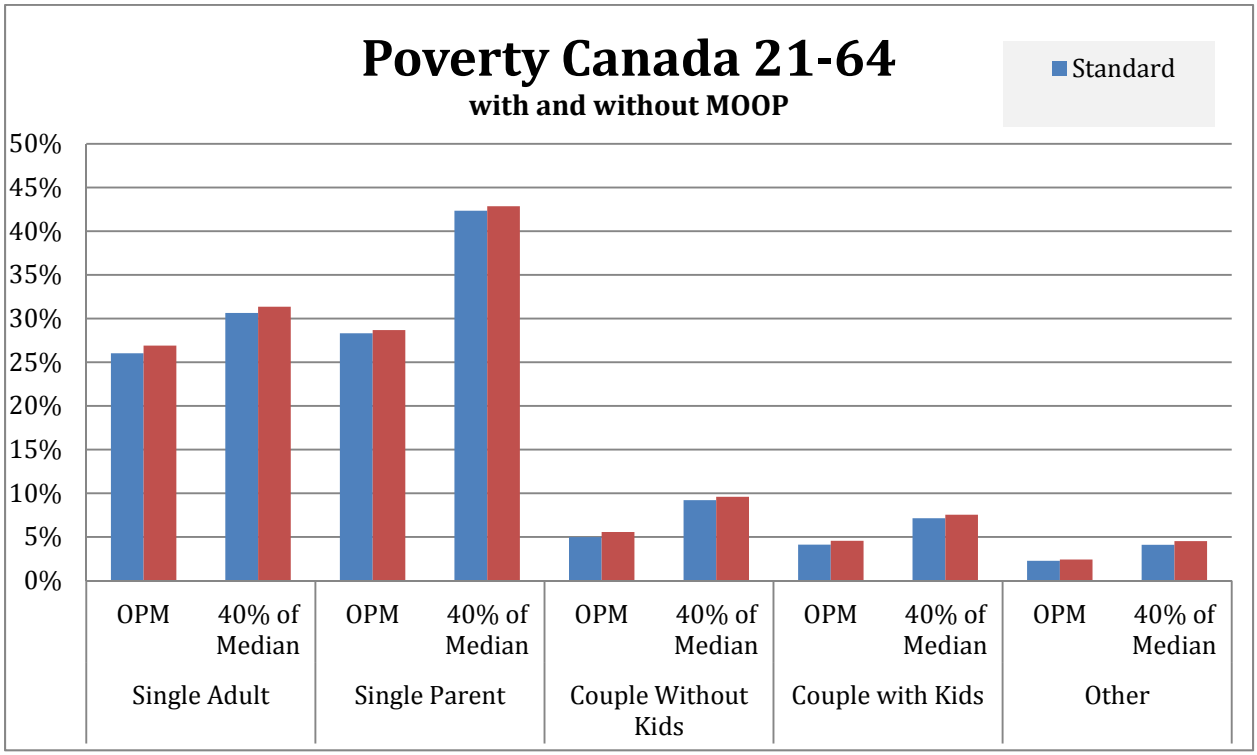


Figure 3: Canadian Poverty Rates with and without MOOP, age group: 65+

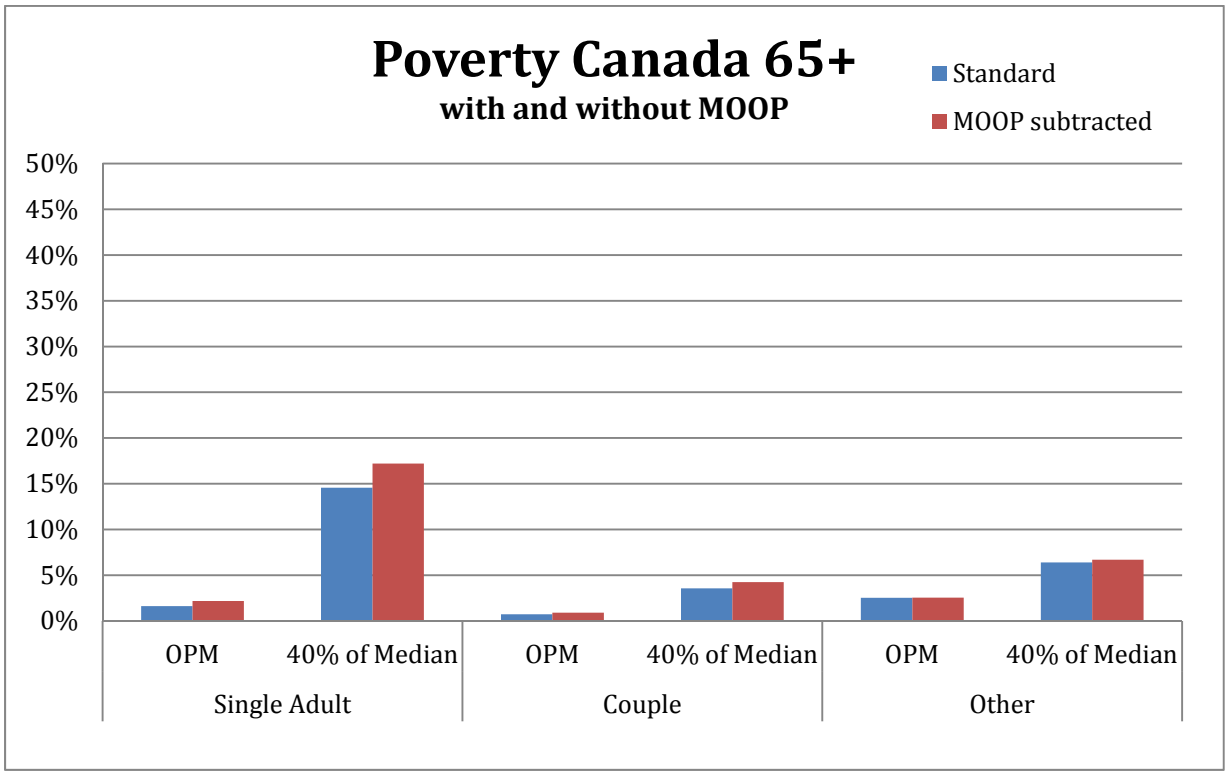


Figure 4: French Poverty Rates with and without MOOP, age group: 21-64

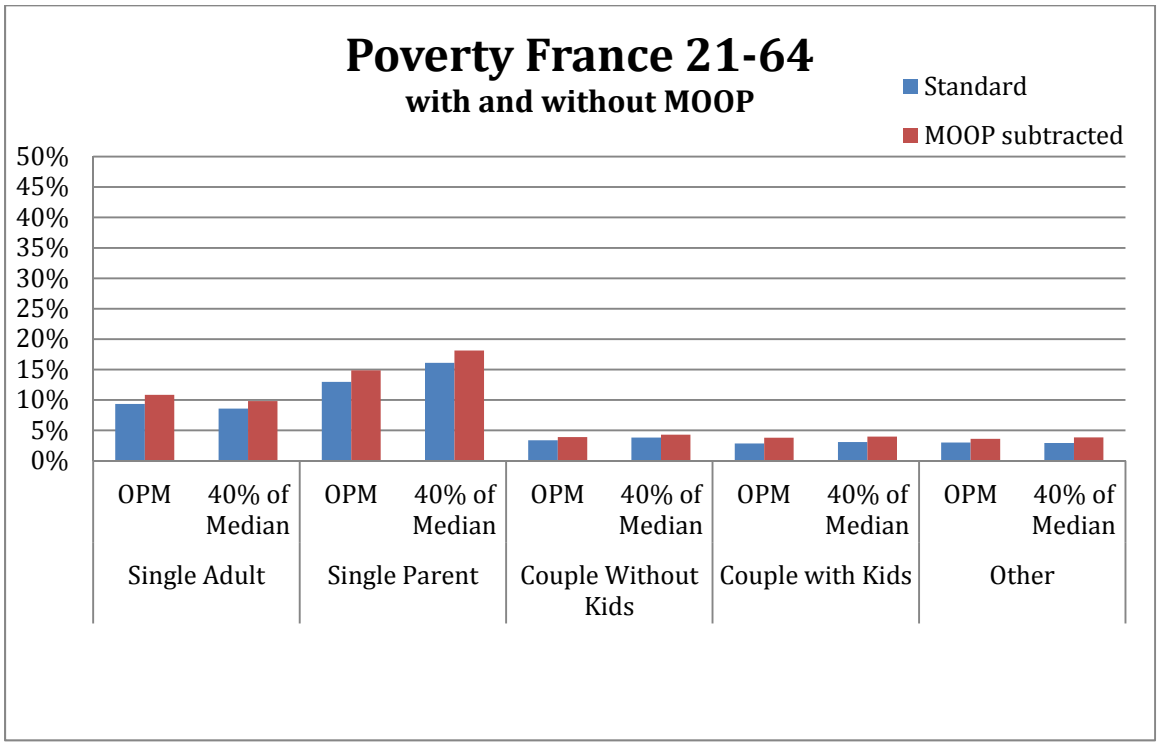


Figure 5: French Poverty Rates with and without MOOP, age group: 65+

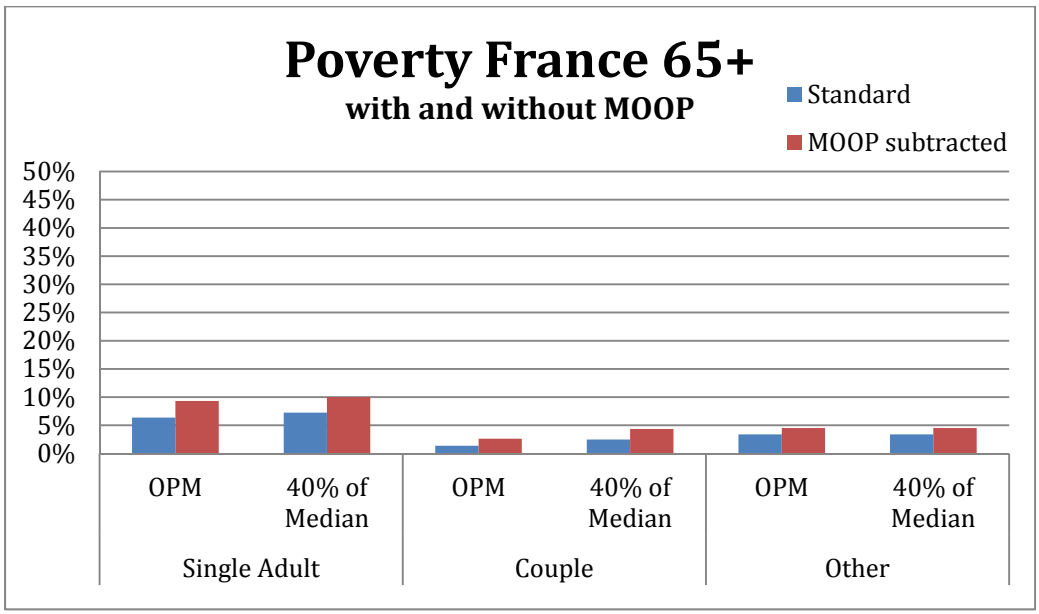


Figure 6: U.S. Poverty Rates with and without MOOP, age group: 21-64

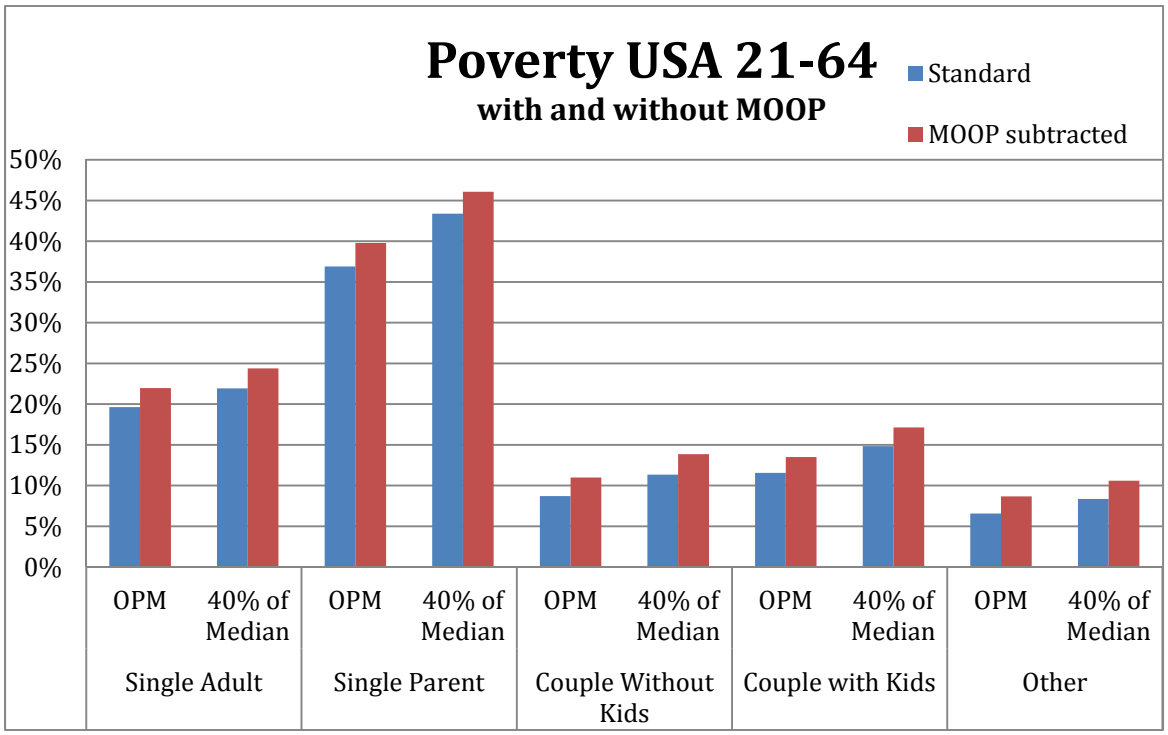


Figure 7: U.S. Poverty Rates with and without MOOP, age group: 65+

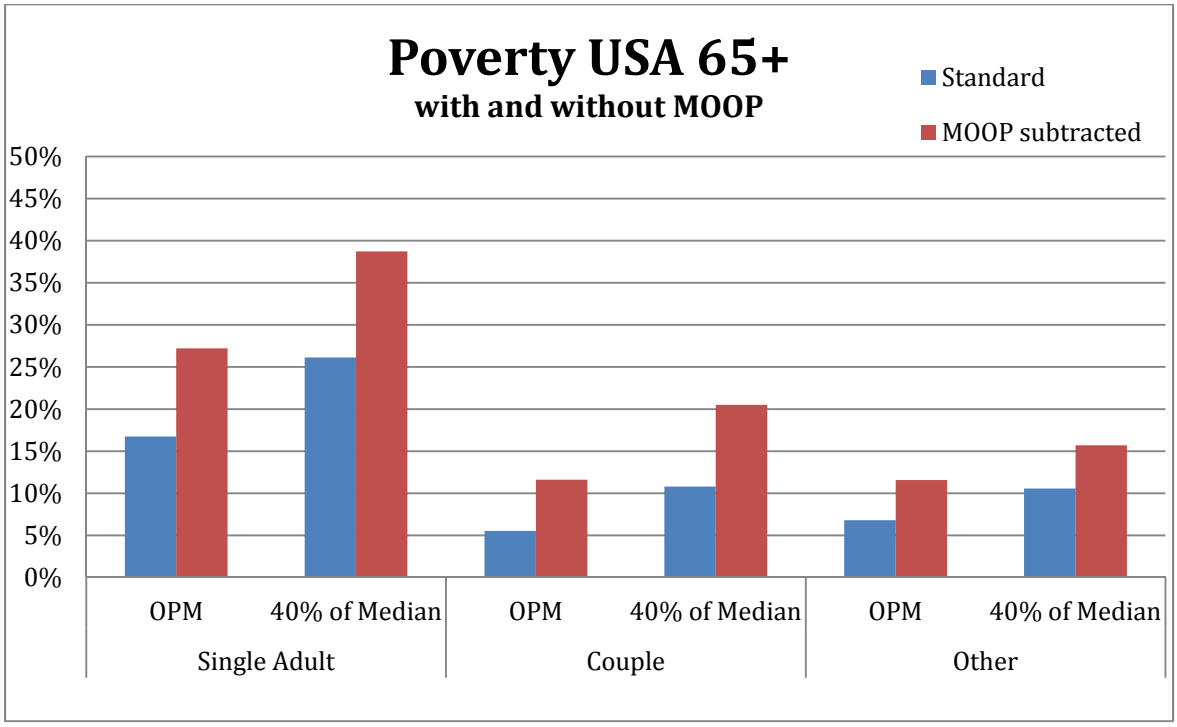
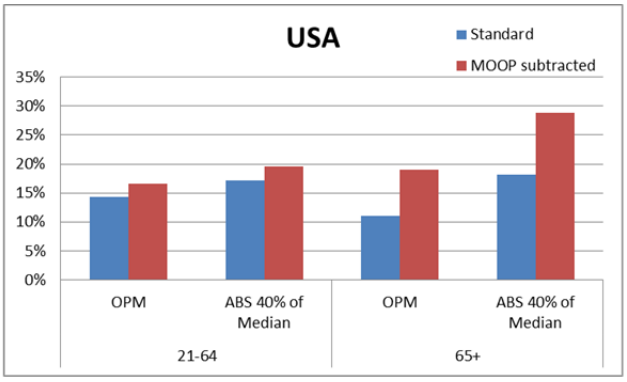
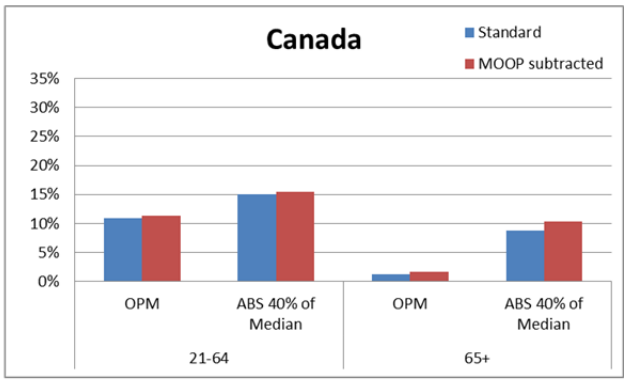


Figure 8: Poverty Rates with and without MOOP across three countries





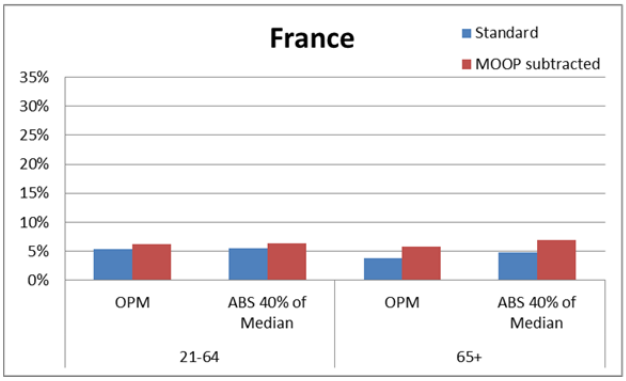


Table 1: Official and Supplemental Poverty Rates (%), 2010

	ALL	*<18*	*18-64*	*65+*
OPM	15.1	22.0	13.7	9.0
SPM	16.0	18.2	15.2	15.9
SPM, not subtracting MOOP	12.7	15.4	12.4	8.6

Source: Official: Census 2011, Table 4. Supplemental: Short 2011, Table 3a.

Table 2: Poverty Thresholds 2003

(Use landscape & legal printer options to print this table)

Poverty Thresholds for 2003 by Size of Family and Number of Related Children Under 18 Years (Dollars)

Size of family unit	Weighted Average Thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual).....	9,393									
Under 65 years.....	9,573	9,573								
65 years and over.....	8,825	8,825								
Two persons.....	12,015									
Householder under 65 years.....	12,384	12,321	12,682							
Householder 65 years and over.....	11,133	11,122	12,634							
Three persons.....	14,680	14,393	14,810	14,824						
Four persons.....	18,810	18,979	19,289	18,660	18,725					
Five persons.....	22,245	22,887	23,220	22,509	21,959	21,623				
Six persons.....	25,122	26,324	26,429	25,884	25,362	24,586	24,126			
Seven persons.....	28,544	30,289	30,479	29,827	29,372	28,526	27,538	26,454		
Eight persons.....	31,589	33,876	34,175	33,560	33,021	32,256	31,286	30,275	30,019	
Nine persons or more.....	37,656	40,751	40,948	40,404	39,947	39,196	38,163	37,229	36,998	35,572

Source: http://www.census.gov/hhes/www/poverty/data/threshld/thresh03.html

Table 3: Canadian Poverty Rates with and without MOOP

		Standard	MOOP	Difference
21-64	**OPM**	10.9%	11.4%	0.5%
	RPM: 40% of Median	15.1%	15.5%	0.5%
65+	**OPM**	1.3%	1.6%	0.3%
	RPM: 40% of Median	8.7%	10.3%	1.5%

Table 4: Descriptives of Movers and Non-Movers in Canada

	Always Poor		Moved into poverty by MOOP		Never Poor	
	Mean	Sdev	Mean	Sdev	Mean	Sdev
Female Head	0.557	0.497	0.611	0.490	0.365	0.481
Number Persons	1.702	0.992	1.821	0.897	2.281	1.034
Number Kids	0.391	0.779	0.265	0.562	0.382	0.708
Age Head	44.431	13.136	50.176	14.785	50.017	16.473
Head 65+	0.030	0.172	0.141	0.349	0.228	0.420
Single Adult	0.595	0.491	0.450	0.500	0.259	0.438
Single Parent	0.141	0.348	0.032	0.178	0.035	0.183
Couple No Kids	0.141	0.348	0.318	0.468	0.357	0.479
Couple With Kids	0.085	0.279	0.160	0.369	0.191	0.393
Other Fam Type	0.038	0.192	0.039	0.195	0.158	0.365
Income (before tax& transfers)	$9,855.76	$5,210.43	$16,484.65	$4,182.87	$66,713.20	$52,236.46
MOOP	$275.66	$445.87	$2,232.72	$4,878.77	$841.86	$1,657.91
Education of head (low-medium-high;1-3)	2.140	0.811	2.033	0.873	2.338	0.799
N	**1,674**		**106**		**23,223**	

Table 5: French Poverty Rates with and without MOOP

		Standard	MOOP	Difference
21-64	**OPM**	5.3%	6.3%	1.0%
	RPM: 40% of Median	5.5%	6.4%	0.9%
		Standard	**MOOP**	**Difference**
65+	**OPM**	3.8%	5.8%	2.0%
	RPM: 40% of Median	4.8%	7.0%	2.2%

Table 6: Descriptives of Movers and Non-Movers in France

	Always poor		Moved into poverty by MOOP		Never poor	
	Mean	Sdev	Mean	Sdev	Mean	Sdev
Female Head	0.529	0.500	0.539	0.501	0.354	0.478
Number Persons	1.827	1.041	1.810	1.018	2.189	1.043
Number Kids	0.396	0.747	0.335	0.634	0.404	0.716
Age Head	50.885	18.427	59.280	18.444	53.507	17.240
Head 65+	0.232	0.422	0.459	0.501	0.296	0.456
Single Adult	0.532	0.500	0.520	0.502	0.306	0.461
Single Parent	0.116	0.320	0.062	0.242	0.039	0.193
Couple No Kids	0.168	0.375	0.213	0.412	0.338	0.473
Couple With Kids	0.116	0.321	0.148	0.357	0.206	0.405
Other Fam Type	0.068	0.252	0.057	0.232	0.111	0.314
Income (before tax& transfers)	$7,024.62	$2,928.86	$13,563.07	$6,714.95	$31,441.30	$20,913.90
MOOP	$452.15	$1,373.29	$8,486.45	$10,449.86	$897.13	$2,064.66
Education of head (low-medium-high;1-3)	1.540	0.707	1.510	0.680	1.784	0.761
N	**409**		**108**		**8,701**	

Table 7: U.S. Poverty Rates with and without MOOP (Year)

		Standard	MOOP	Difference
21-64	**OPM**	14.3%	16.6%	2.2%
	RPM: 40% of Median	17.2%	19.6%	2.4%
		Standard	**MOOP**	**Difference**
65+	**OPM**	11.1%	19.1%	8.0%
	RPM: 40% of Median	18.1%	28.8%	10.7%

Table 8: Descriptives of Movers and Non-Movers in the USA

	Always poor		Moved into poverty by MOOP		Never poor	
	Mean	**Sdev**	**Mean**	**Sdev**	**Mean**	**Sdev**
Female Head	0.620	0.485	0.612	0.612	0.468	0.499
Number Persons	1.974	1.078	1.828	1.828	2.164	1.022
Number Kids	0.525	0.843	0.250	0.250	0.368	0.688
Age Head	48.568	17.753	62.408	62.408	51.644	16.425
Head 65+	0.194	0.396	0.525	0.525	0.231	0.422
Single Adult	0.455	0.498	0.461	0.461	0.304	0.460
Single Parent	0.157	0.364	0.045	0.045	0.042	0.200
Couple No Kids	0.187	0.390	0.322	0.322	0.353	0.478
Couple With Kids	0.149	0.356	0.098	0.098	0.182	0.386
Other Fam Type	0.053	0.223	0.075	0.075	0.119	0.323
Income (before tax& transfers)	$6,329.21	$4,443.67	$15,270.41	$15,270.41	$60,015.09	$51,079.65
MOOP	$1,370.33	$3,433.90	$8,202.34	$8,202.34	$3,233.08	$3,813.93
Education of head (low-medium-high;1-3)	1.928	0.676	2.051	2.051	2.379	0.627
Insured	.666	.472	.896	.305	.885	.319
N	**8,854**		**2,185**		**53,844**	

Table 9: Coefficients from Linear Probability Model[7]
Dependent Variable = Dummy indicating "Moved into Poverty by MOOP"

	United States Uninsured	Insured	Canada	France
Female Head	0.007*	0.008***	0.004	0.005
	(0.00)	(0.00)	(0.00)	(0.00)
Number Persons in HH	0.015	0.002	0.000	-0.004
	(0.02)	(0.01)	(0.00)	(0.00)
Number Kids	-0.013	0.007	-0.002	0.005
	(0.02)	(0.01)	(0.00)	(0.01)
Head 65+		0.091***	0.000	0.036**
		(0.01)	(0.01)	(0.02)
Single Adult	-0.004	0.005	0.000	0.001
	(0.02)	(0.01)	(0.00)	(0.00)
Single Parent	-0.008	-0.011*	-0.003	0.003
	(0.02)	(0.01)	(0.00)	(0.01)
Couple w/ Kids	0.001	-0.002	0.004	0.010
	(0.01)	(0.00)	(0.00)	(0.01)
Other Fam Type	-0.012	0.001	-0.002	0.011*
	(0.02)	(0.01)	(0.00)	(0.01)
Education	0.004	-0.005***	-0.002	0.001
	(0.00)	(0.00)	(0.00)	(0.00)
Income (before tax& transfers) in 2003 USD 1k	-0.038***	-0.045***	-0.008***	-0.045***
	(0.00)	(0.00)	(0.00)	(0.01)
Constant	0.01	0.032**	0.010	0.020
	-0.041	-0.013	(0.01)	(0.01)
R^2	0.01	0.04	0.013	0.022
N	9,214	55,477	24,931	9,214

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

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[7] All models include dummies for all ages of the household head.

Table 10: Coefficients from OLS Models[8]
Dependent Variable = MOOP expenditures in USD 1,000

	United States					Canada			France		
	<65 uninsured poor	<65 uninsured non-poor	<65 insured poor	<65 insured non-poor	65+ insured	<65 insured poor	<65 insured non-poor	65+ insured	<65 insured poor	<65 insured non-poor	65+ insured
Female Head	0.157	-0.534	-0.132	0.011	-0.265**	-0.013	0.045	0.035	0.006	0.227***	0.257**
	(0.10)	(0.61)	(0.09)	(0.06)	(0.13)	(0.03)	(0.03)	(0.14)	(0.08)	(0.09)	(0.12)
Number Persons in HH	0.469	-1.311	-0.458	0.167	-0.242	0.104	0.238**	-0.718***	-0.858*	-0.238	0.619
	(0.68)	(2.51)	(0.43)	(0.24)	(0.52)	(0.19)	(0.10)	(0.27)	(0.47)	(0.26)	(0.80)
Number Kids	-0.371	0.75	0.627	0.143	1.008	-0.082	-0.223**	0.173	0.546	0.525**	-0.710
	(0.68)	(1.86)	(0.43)	(0.23)	(0.63)	(0.20)	(0.10)	(0.43)	(0.37)	(0.26)	(0.88)
Single Adult	-0.275	-1.586	-1.527***	-1.267***	-2.698***	-0.133	-0.130	-1.333***	-0.726*	-0.620**	0.118
	(0.70)	(2.60)	(0.45)	(0.24)	(0.53)	(0.20)	(0.11)	(0.29)	(0.42)	(0.28)	(0.81)
Single Parent	-0.338	-0.698	-1.541***	-0.467	-3.761***	-0.164	-0.019	-0.395	-0.207	-0.490	0.993
	(0.70)	(1.38)	(0.45)	(0.29)	(0.76)	(0.20)	(0.13)	(0.51)	(0.33)	(0.37)	(0.97)
Couple w/ Kids	-0.088	1.299	-0.243	0.374**	-1.492**	-0.069	0.066	-0.097	0.750**	-0.272	-0.239
	(0.16)	(1.19)	(0.22)	(0.18)	(0.68)	(0.07)	(0.08)	(0.49)	(0.34)	(0.18)	(1.03)
Other Fam Type	-0.223	3.816	0.798	0.623*	0.528	-0.005	-0.088	0.637	1.346*	0.332	-0.926
	(0.76)	(4.36)	(0.61)	(0.33)	(0.76)	(0.24)	(0.13)	(0.45)	(0.79)	(0.37)	(0.90)
Education	0.172***	-0.17	0.593***	0.271***	0.776***	0.033**	0.093***	0.191***	0.179**	0.215***	0.216**
	(0.06)	(0.20)	(0.07)	(0.06)	(0.15)	(0.02)	(0.02)	(0.06)	(0.07)	(0.06)	(0.10)
Income (before tax& transfers)	-0.177	0.22	4.847***	0.776***	1.447***	1.377***	0.131	1.729***	4.846***	0.953***	1.911***
in 2003 USD 1k	(0.57)	(0.35)	(0.58)	(0.09)	(0.24)	(0.17)	(0.09)	(0.41)	(1.24)	(0.24)	(0.47)
Constant	-0.536	3.525	0.904	0.975*	3.182***	-0.136	-0.324	1.702***	0.981	0.102	-0.921
	(1.40)	(5.00)	(0.91)	(0.51)	(1.10)	(0.41)	(0.20)	(0.61)	(0.85)	(0.54)	(1.62)
R^2	0.03	0.02	0.07	0.07	0.05	0.13	0.07	0.09	0.04	0.03	0.06
N	5,750	3,464	9,990	31,960	13,684	4,500	14,286	6,145	1,989	4,916	2,309

* $p<0.1$; ** $p<0.05$; *** $p<0.01$
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[8] All models include dummies for all ages of the household head.