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American Exceptionalism in Market Income Inequality: An Analysis Based on Microdata from the Luxembourg Income Study (LIS) Database

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from the Luxembourg Income Study (LIS) Database**

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Abstract

Earlier work has established that the US has exceptionally high inequality of disposable household income (i.e., income after accounting for taxes and transfers). Recent work by Gornick and Milanovic (2015) established that, among working-age households, a major contributor to that exceptional inequality is a high level of inequality in market income (i.e., income before taxes and transfers), paired with a moderate level of redistribution. In this paper, we look more deeply at market income inequality, focusing on its main component – labor income – across a group of 24 OECD countries. We disaggregate the working-age population into household types, defined by the number and gender of the household's earners and the partnership and parenting status of its members. We conclude that within-group inequality of labor incomes in the US is, in almost all groups, high by OECD standards.

JEL Codes: D31, D33

Key words: Wage distribution, earnings distributions, income inequality

1. Introduction

Background.

It has been known for at least two decades that disposable income – income after accounting for transfers and taxes – is more unequally distributed in the United States than in comparable rich economies (see, e.g., Brandolini and Smeeding 2006; Piketty and Saez 2006; OECD 2011). Broadly speaking, there are two possible underlying explanations. First, market income inequality (i.e., income before direct taxes and transfers are taken into account) may be similar in the US as elsewhere, but US taxes and transfers are less redistributive, either because the overall size of the welfare state is smaller or because the redistribution is less progressive. Second, market income inequality may itself be higher in the US than in many other countries, and thus driving up the high level of inequality even after redistribution is taken into account. The first explanation has generally held sway because market income inequality calculated across households – importantly, households of all ages – is not especially exceptional, across the OECD countries, while disposable income inequality is substantially greater.

Recent work, however, by Gornick and Milanovic (2015) shifted that conclusion about the market income inequality in the US, in comparative perspective. They began with the insight that market income inequality, when calculated across households of all ages, may be depressed – especially relative to many European countries – because Americans tend to stay in the labor market until later in life, compared with their counterparts elsewhere. Because the market income in pensioners' households is often very small or zero, the existence of a developed system of social protection paradoxically exaggerates *market* income inequality (among older households) in other OECD countries and brings the overall market income inequality in line with that reported in the US. Thus, the comparatively high level of US market income inequality – net of older households – is obscured. Gornick and Milanovic's main conclusion was that, for persons under 60 years of age, weaker US redistribution is not the main cause of greater inequality at the disposable income stage. The "problem" is that the distribution of "original" labor and capital incomes is substantially more unequal in the US than elsewhere, and government redistribution, at the average OECD level, does not compensate for the inequality generated in the market.

Gornick and Milanovic's (2015) analysis had precursors in the work of scholars of earnings distributions, who argued that weaker redistribution in the US could not alone explain the entire disposable income inequality gap between the US and the rest of the OECD countries. Mishel (2015), for example, argued that the underlying market income distribution, most importantly the earnings distribution, in the US, is highly unequal in cross-national terms. He and others pointed to, on the bottom end of the earnings distribution, the low US minimum wage and the high prevalence of low-paid jobs, and, on the upper end, the extremely high earnings of managers, doctors, lawyers, CEOs and the financial sector in general. The exceptionally large gap between CEOs' salaries in the US and in the rest of OECD countries is well-documented (see Piketty, 2014; Mishel and Davies 2015; Gabaix and Landler 2008). Indeed, the findings in Gornick and Milanovic (2015) confirm that market income inequality is a major explanation for comparatively high levels of disposable income inequality in the US, among working-age households.

This paper.

The objective of this paper is to further investigate the nature of the high level of market income inequality found among US working-age households, compared to their counterparts in several other affluent countries. Because the major component of market income is labor income, we focus

exclusively on it – disregarding income from capital, which is a relatively minor component in the market income package of working-age households in these countries.¹

Our main analytic strategy is to disaggregate working-age households – in the US and in the comparison countries – into household subgroups. These subgroups are distinguished by the number and gender of earners in the household, and (subsequently) by the partnership and parenting status of the household. Clearly, a household’s labor income is shaped by the number of earners present. The logic of further disaggregating by gender, partnership, and parenting is rooted in the labor economics literature, which has long established that individuals’ earnings (gross and net of other worker- and job-level characteristics) are affected by their gender, and whether they have partners and/or children (for a review, see Blau and Winkler 2017).

We assess inequality that exists both within and between various household types and we compare the results for the US with those in other OECD countries. Our objective is to establish whether the greater underlying US market income inequality is the result of (a) higher earnings inequality within each of the relevant groups, (b) an unusual composition (for example, a high share of groups where earnings inequality is either high or low), or (c) large gaps between groups in mean earnings.²

To carry out our analyses, we use microdata, drawn from household surveys, contained in the LIS Database Wave VIII, which is centered on the year 2010.³ We include 24 OECD countries⁴: Australia, Canada, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Iceland, Ireland, Israel, Italy, Luxembourg, Netherlands, Norway, Poland, Russia, Slovakia, Slovenia, Spain, the UK, and the US.⁵ In all cases, but one, the data are from the year 2010; the exception is Hungary, for which we have 2009 data. Annex 1 reports the list of countries and datasets used.

Our analysis is conducted across households whose members are all below age 60 *and* which have at least one member reporting labor income. To assess labor income, we use LIS’ harmonized variable *hil* (that is, household income from labor). This variable includes: (1) cash wage and salary income, and the value of non-monetary goods and services received as a substitute for cash; (2) monetary supplements to the basic wage and the value of non-monetary supplements; (3) cash wage and salary income, and the value of non-monetary goods and services, received by directors of own enterprise; (4) monetary payments and the value of non-monetary goods and services received from casual/irregular/occasional dependent employment; and (5) profits/losses from self-employment activities.

¹ Among the working-age population, and in the countries (and LIS datasets) included here, income from labor accounts, on average, for 97 percent of total market income. In no country is the labor income share of market income less than 93 percent.

² In this paper, we use the terms “labor income”, “earnings”, and “wages” interchangeably.

³ This means that the datasets report income earned in the year 2010; the surveys may have been fielded in the subsequent year.

⁴ Russia is not officially an OECD member state, but a “roadmap to accession” has been approved. For convenience, when we use the term “OECD countries” in this paper, we include Russia.

⁵ The LIS data are available from LIS, the cross-national data center in Luxembourg. Extensive documentation is available on the website: www.lisdatacenter.org.

Because one of our motivating interests is the relationship, at the household-level, between earnings inequality and disposable income inequality, our unit of observation is not an individual worker (earner) but the household. Total household earnings are adjusted for household size; they are summed and expressed in equivalent units where the equivalence scale parameter is set at 0.5. In other words, total household earnings are divided by the square root of the number of household members.⁶ Thus, we arrive at a variable that measures potential individual welfare (assuming equal division of earnings within the households) derived from labor income.

As our measure of inequality, we use the Gini coefficient. The Gini is preferred largely because it enables us to easily relate our results about inequality within different demographic subgroups to the well-known Gini values of market and disposable income inequality seen in the US and elsewhere.

2. Labor income inequality across various household types

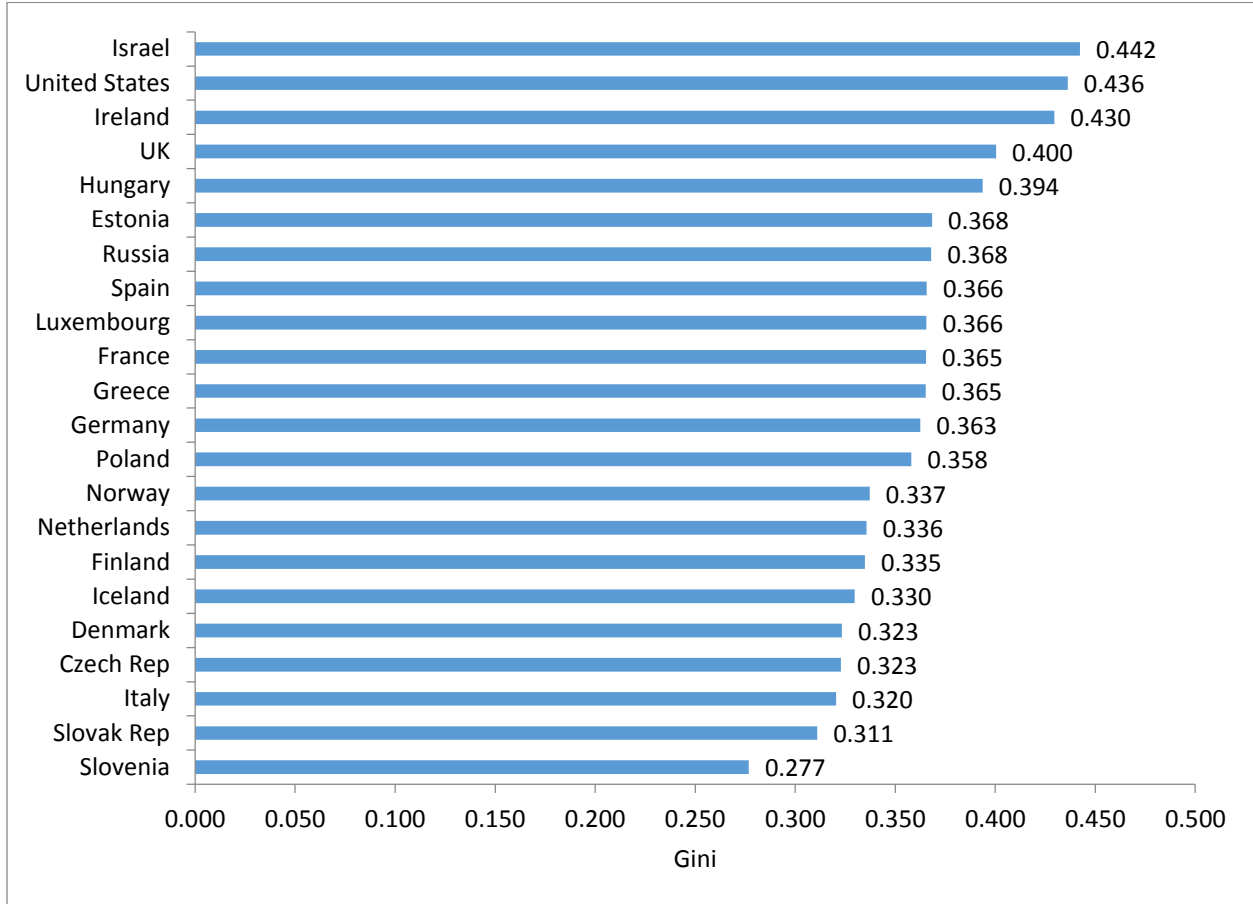
In Figure 1, we report inequality, across households, of labor incomes. (The values reported in this figure correspond to column 1 in Annex 2). We find the English-speaking countries and Israel report noticeably higher inequality than in the rest of these OECD countries. The five countries with the most unequal earnings distributions (at the household level) are Israel and four Anglophone countries; the US is ranked second highest. These labor income Ginis range from between 0.28-0.31 for the highly egalitarian Slovakia and Slovenia to 0.44 in the US and Israel. The median and mean labor income Gini is about 0.36. Thus, we establish immediately that labor income inequality in the US is, relative to other OECD countries, on the high end.

What lies behind this comparatively high level of earnings inequality among US households? Our central analytical approach in this paper is to disaggregate working-age households into several demographic groups (defined below) and to assess labor income inequality within each of them.

As is well-known, the Gini decomposition when the population is divided into different groups is composed of three terms: a weighted-sum of within-group inequalities (narrowly-defined within inequality), inequality that is the result of differences in mean incomes between the groups, and an overlap (residual) terms that reflects the homogeneity of the underlying populations. To understand the meaning of the latter, note that when incomes of the groups into which we have divided the population are so different that there is absolutely no overlap (e.g., all individuals from a mean-richer group have higher incomes than all individuals from a mean-poorer group), the overlap term becomes zero. It increases as there is more overlap between the incomes of individuals belonging to different groups. The overlap terms moves together with the narrowly defined within-inequality, and we shall treat them together.

⁶ This assumes economies of scale midway between perfect economies of scale (parameter = 0) and no economies of scale (parameter = 1).

Figure 1. Inequality of labor income across working-age households, in 24 OECD countries



Note: Ginis based on equivalized labor income.

We can write the Gini decomposition across recipients belonging to groups i (1, 2,... r) as

$$G = \frac{1}{\mu} \sum_{i=1}^r \sum_{j>i}^r (\bar{y}_j - \bar{y}_i) p_i p_j + \sum_{i=1}^r p_i s_i G_i + L \quad (1)$$

where μ = overall mean income, \bar{y}_i = mean income of i -th group, p_i = population share of i -th group, s_i = share of i -th group in total income, and L = the overlap term. The first term in (1) is the between-group inequality, the second term, the narrowly-defined within-group inequality, the third, the overlap term. The second and third terms are in the further text considered as “within-group inequality”.

We can now see that higher overall US labor income Gini (G) may be the result of greater group Ginis (G_i), or greater share (s_i) of groups that have higher inequality of earnings, or finally, may be due to large mean income gaps between the groups (that is, to the between-component).

In Annex 2, we show a formal decomposition of US earnings inequality against earnings inequality of the other 23 countries.

Disaggregating into household types – based on the number and gender of earners.

In all of study countries, we first divide the population into six main groups, based on the number and the gender of the earners in these households: households that contain (1) one female earner, (2) one male earner, (3) one male and one female earner, (4) two female earners, (5) two male earners and, finally, (6) three or more earners. Groups (1), (2), and (3) will be further subdivided into demographic groups, based on partnership and parenting status. (Note that, throughout this paper, results are presented at the person level – albeit drawing on their household characteristics. When we refer to various household types, either their prevalence or their outcomes, we are reporting results about the persons who live in those household types).

Diagram 1 summarizes our typology of households. Earners are defined as people who report having received non-zero labor income during the year. Table 1 reports the composition of the working-age population, across the six household types, in these study countries. (Bear in mind that the typology presented in Table 1 takes no account of partnership status. For example, in households with a single female earner (column 1) those female earners may or may not have partners. Later in the paper, we will integrate partnership and parenting status.)

As can be expected, three household types (based on earnings configurations) dominate to the extent that they include more than 80 percent of all persons in all countries – except for Hungary, Ireland and Russia.⁷ The three dominant groups are: the “traditional”⁸ two-earner households composed of one female and one male earner (with a cross-country average share of more than 46 percent), one-male-earner households with an average share of 21 percent, and households with three or more earners, with 16.6 percent. The other three groups are less prevalent, although households with only one female earner (cross-country average share of 12 percent) do play, as we shall see below, an important role.

⁷ In all three countries, the reason is a relatively high presence of one-female-earner households.

⁸ When referring to two-earner households, we use the term “traditional” to denote that one of these earners is male and one is female (as opposed to two earners of the same gender).

Diagram 1. Typology of household types based on number and gender of earners, further disaggregated by demographic groups based on partnership and parenting status

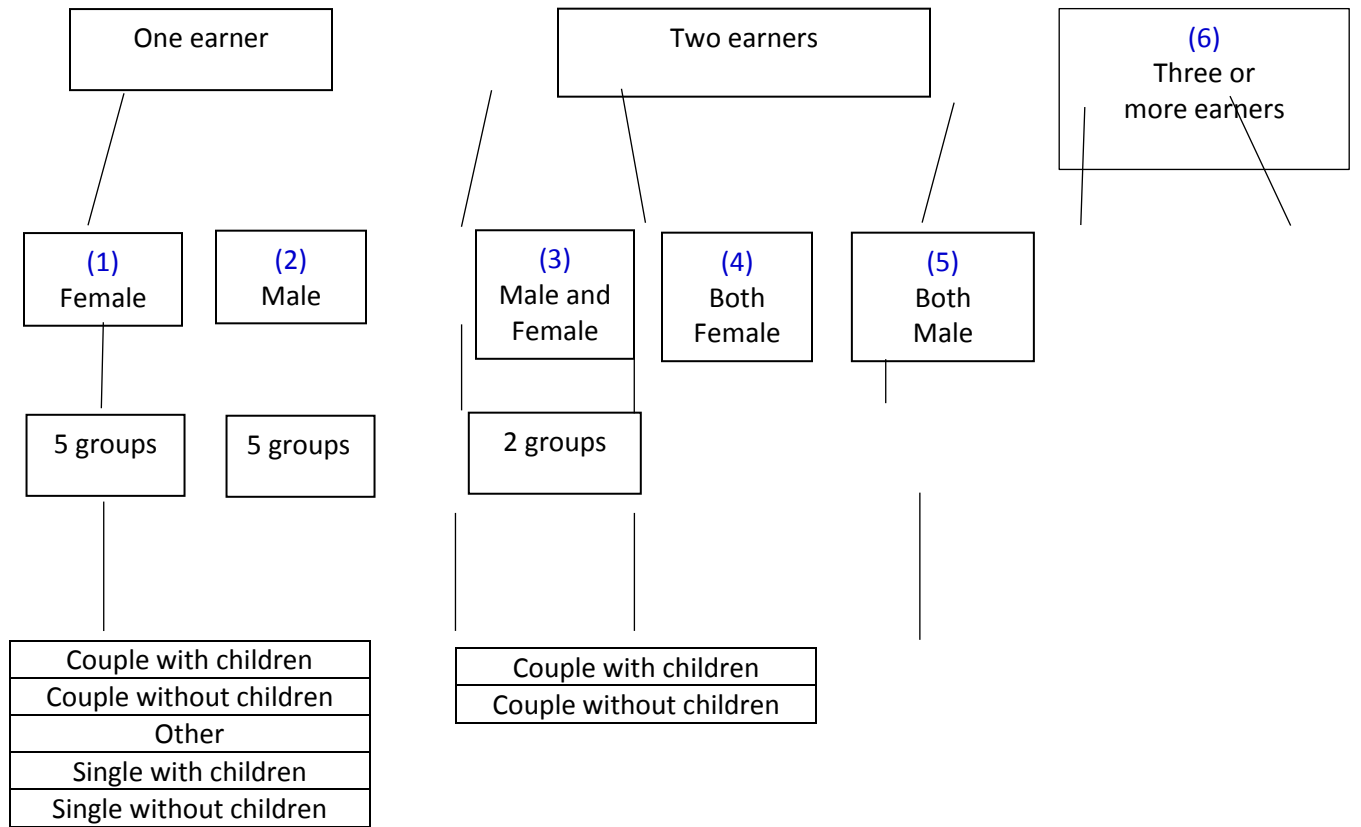
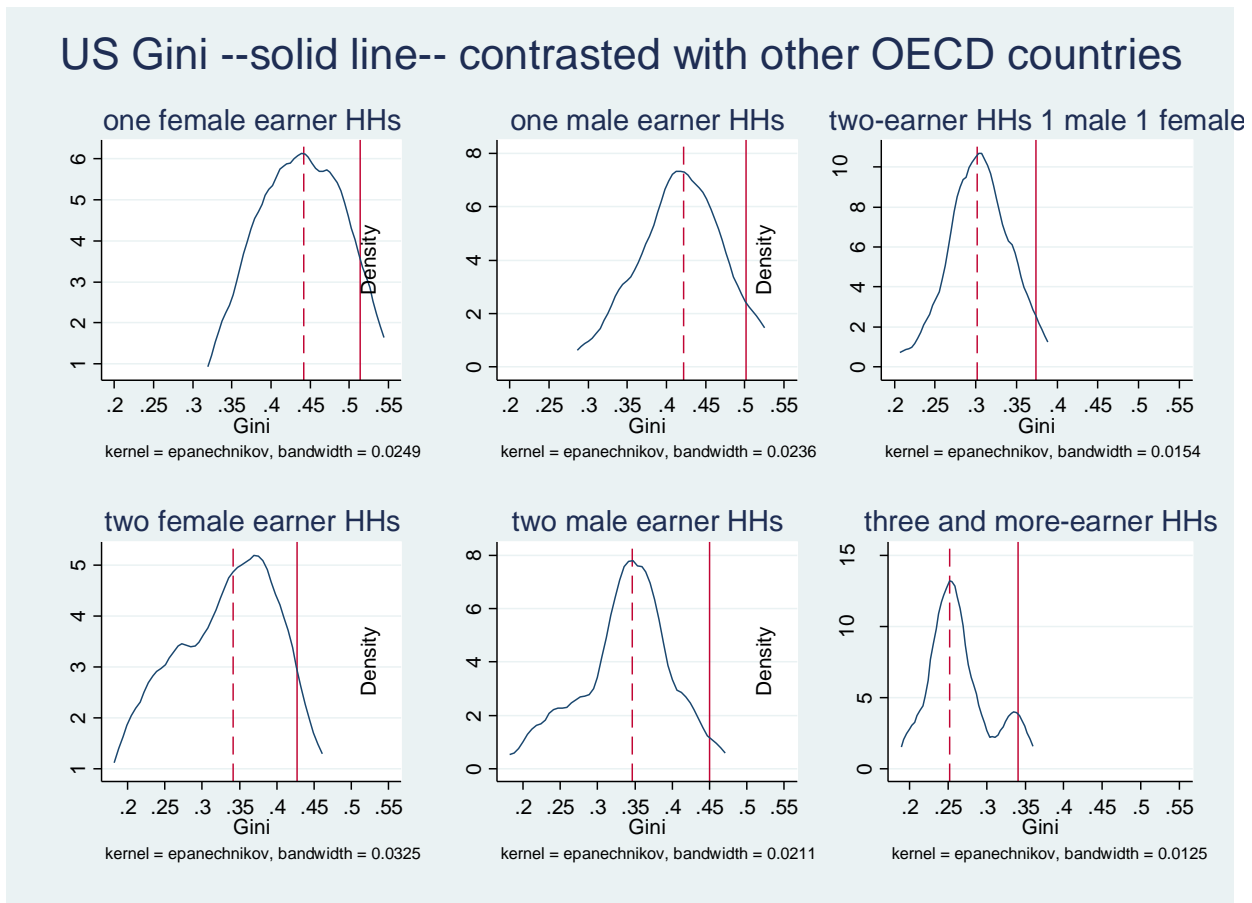


Table 1. Composition of working-age population, across six main household types
(where household types are based on the number and gender of earners)

	1	2	3	4	5	6	7
Country	1 Female Earner	1 Male Earner	1 Male, 1 Female Earner	2 Female Earners	2 Male Earners	3+ Earners	Sum of columns 2+3+6
Australia	9.2	21.6	39.7	2.3	3.6	22.7	83.9
Canada	9.5	14.7	43.5	2.5	3.2	25.5	83.8
Czech Republic	8.6	23.3	47.7	1.5	2.2	16.8	87.7
Denmark	11.8	13.4	47.8	2.1	2.1	22.1	83.3
Estonia	16.0	20.3	47.4	2.7	1.3	12.3	79.9
Finland	12.0	15.5	53.1	1.4	0.7	17.2	85.8
France	14.7	19.7	55.8	1.1	1.4	6.8	82.3
Germany	14.0	19.7	48.6	1.0	1.7	15.0	83.3
Greece	8.2	30.9	48.6	0.9	2.3	7.3	86.8
Hungary	17.6	24.7	39.6	1.6	0.7	9.1	73.4
Iceland	10.1	11.1	45.3	2.1	1.0	30.4	86.8
Ireland	18.2	23.6	41.1	2.2	3.9	11.0	75.7
Israel	10.7	24.1	40.8	1.9	3.1	19.2	84.1
Italy	10.1	34.0	44.8	0.8	4.0	6.3	85.1
Luxembourg	10.7	25.0	51.5	0.7	2.3	9.7	86.2
Netherlands	9.3	15.6	51.7	1.3	2.2	18.8	86.1
Norway	12.0	15.0	48.3	1.4	1.5	20.2	83.5
Poland	14.0	28.7	42.3	1.5	3.3	10.2	81.2
Russia	16.9	17.3	39.6	2.9	2.6	20.7	77.6
Slovak Republic	8.3	14.4	43.4	1.4	1.9	30.5	88.3
Slovenia	9.3	15.8	50.6	1.4	1.9	21.1	87.4
Spain	10.8	25.7	46.6	1.5	2.9	10.0	82.3
United Kingdom	13.2	21.2	46.6	1.8	2.2	14.7	82.5
United States	14.8	22.1	42.2	2.3	3.0	15.3	79.6
<i>Unweighted means</i>	<i>12.1</i>	<i>20.7</i>	<i>46.1</i>	<i>1.7</i>	<i>2.3</i>	<i>16.4</i>	<i>83.2</i>

In Figure 2, we take a first look at US labor income inequality within each of these household types in comparative context. For each type, the figure indicates the distribution of Gini coefficients across 24 countries, the position of the US Gini within that distribution (the solid line) and the median cross-country Gini (the dashed line). For example, the Gini for one-female-earner households ranges from about 0.35 in Slovenia and Italy (country names not shown) to just under 0.52 in the US and Canada (see leftmost graph in the upper row). The US Gini, at slightly under 0.52, is close to the maximum level of inequality that exists for such households in OECD (i.e., it is second to Canada).

Figure 2. Inequality in six main household types, (where household types are based on the number and gender of earners)



Note: Each graph shows the distribution of Gini coefficients for a given household type across 24 OECD countries. The distribution (density) function is a smoothed histogram. The unweighted country median Gini for 24 countries is shown by the dashed line. US Gini is shown by the solid line. The interpretation is as follows: if the US line is to the right of the dashed line, this means that the US displays (for that particular household type) higher inequality than is usual for OECD countries. The more the US line is to the right the higher US inequality is compared to the rest of the comparison countries. The opposite, of course, would be true if the US line were to the left of the dashed line.

The interpretation is the same for other graphs. The closer the solid line, giving the position of the US Gini, to the end of the distribution, the more of an outlier is the US level of inequality. Another way to look at it is to compare the solid line to the dashed line, giving the median Gini calculated across countries for a given type of household). For three household types (one-male-earner, one male and one female earner, and two male earners), the US has the most unequal distribution of all countries; for the other three household types, the US distribution is the second most unequal.⁹ In no case, as can be readily seen in Figure 2, is the US Gini even close to the median Gini for a given household type, much less lower than it.

Therefore, breaking the overall labor earnings distribution into household types reinforces our previous finding: US labor income is very unequally distributed, not only in the aggregate, but *within* each household type we select.

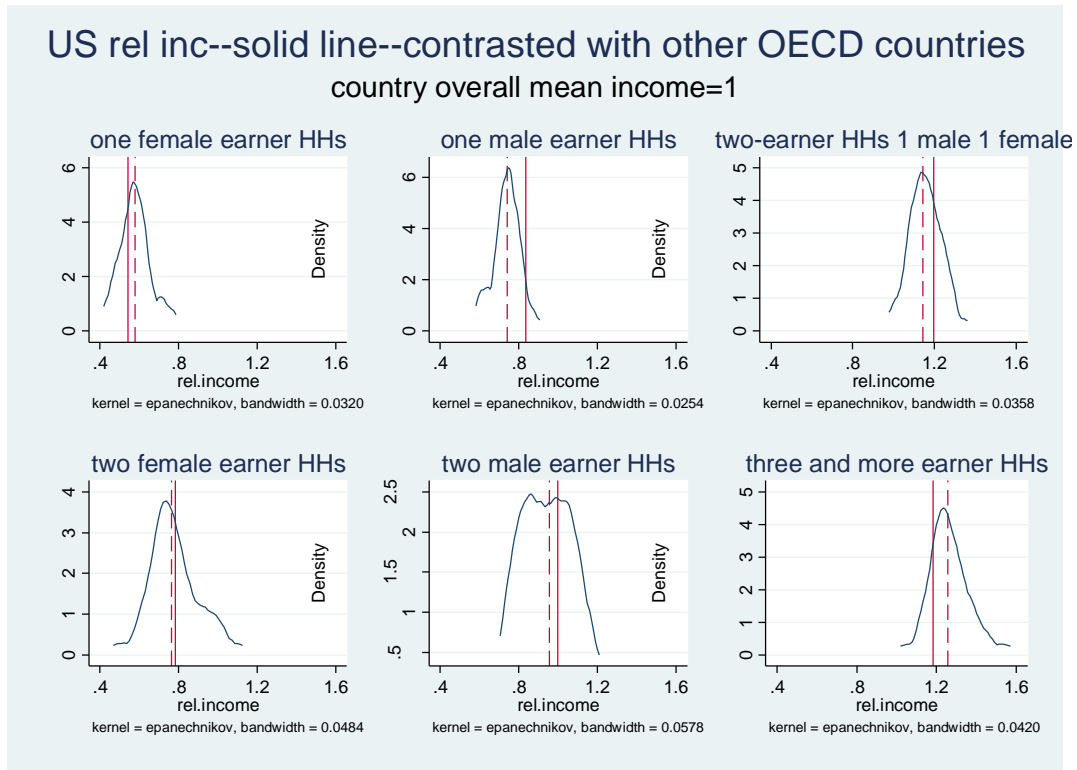
To fully confirm this finding, we need to also look at *between*-group inequality (that is, between the six household types). Consider now Figure 3 which is constructed similarly to Figure 2 but where we look at the distributions of relative earning levels for a given household type. For example, one-female-earner households' mean earnings¹⁰ range from only 45 percent of the country mean (in Israel) to 75 percent of the country mean (in Hungary). The dashed line, as before, shows the median value for the 24 countries (e.g., for one-female-earner households, it is 58 percent), and, again, as before, the solid line shows the position of the US. Just a glance is sufficient to establish that relative group mean earnings in the US are very similar to the median values for the 24 countries (with the exception of one-male-earner households whose US relative earnings are the second highest of all countries).

In other words, when it comes to the relative earnings of various demographic groups, the US is far from being a cross-national outlier: groups' relative earning levels track closely to other rich countries' relative earnings levels. This in turn implies that the origin of high labor income inequality in the US is not to be found in unusually high earnings of some demographic groups, and unusually low earnings of others, but in systematically high earnings inequalities *within* each individual household type.

⁹ Note that the Ginis of these various household types differ substantially in these countries. Labor income inequality among "traditional" two-earner households is within a rather narrow range between 0.2 and 0.4 whereas, for example, one-female-earner and one-male-earner households display much greater ranges of inequality. However, this is not the topic with which we are concerned here. Our objective here is find the sources of differences between the US and comparable countries.

¹⁰ Note that this is household-size-adjusted (equivalent) labor income.

Figure 3. Relative income of six main household types



Note: US value: solid line. Median for 24 countries: dashed line.

We confirm this conclusion by analyzing Figure 4 and Figure 5, which report between- and within-group inequalities when within-country data for 24 countries are decomposed into the six main household types. (The values in Figures 4 and 5 are reported in column 5 and 2 of Annex 2, respectively).

In Figure 4, countries are ranked by their within-group inequality (terms (2) and (3) from equation 1), and the US is far by the most unequal. The Gini value of 0.311 for the US implies that if mean earnings of the six household types were exactly equal, the overall labor income inequality would be 0.311. Adding between-group inequality does, of course, increase that inequality, but, as Figure 5 shows, the US is far from exceptional: its between-group inequality – .125 – is almost exactly the same as the mean for the 24 countries.

We have thus established that US labor income inequality is, together with Israel's, the highest among all of these OECD countries, and that the source of that inequality is not to be found in vastly different mean labor incomes across different household types, but in the consistently higher inequality with which labor incomes are distributed within each household type. We now continue with our investigation by looking in greater detail into three household types: one-female-earner households, one-male-earner households, and two-earner "traditional" households (which contain one female and one male earner).

Figure 4. Within-group inequality (in Gini points)

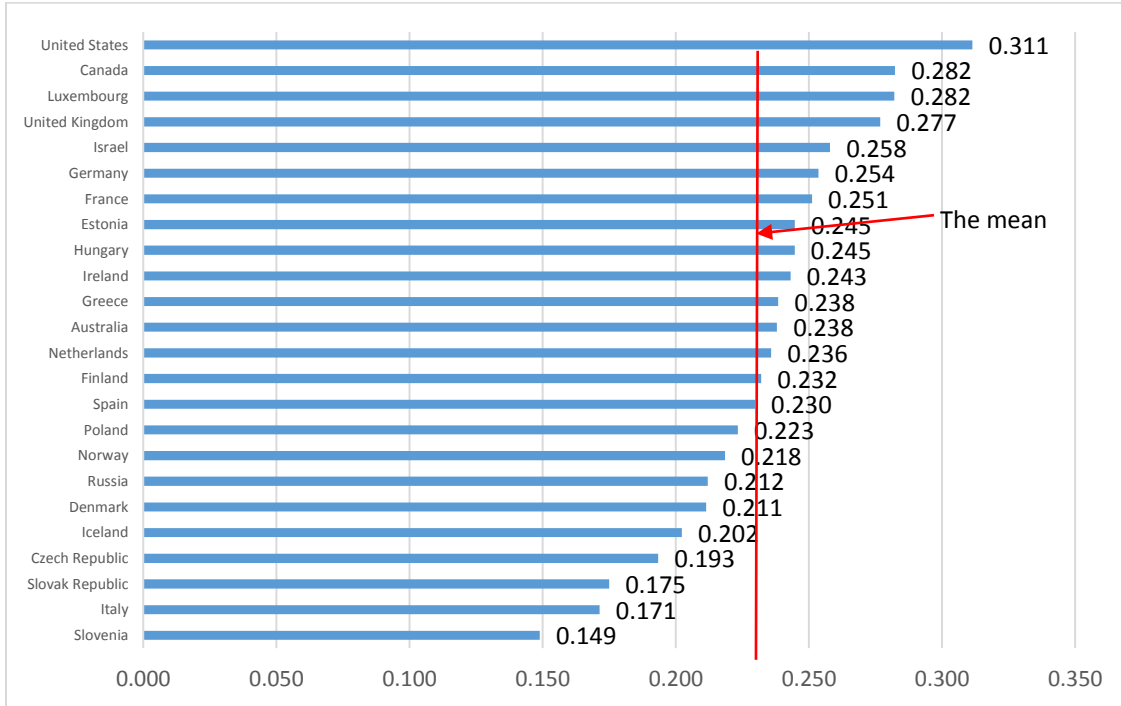
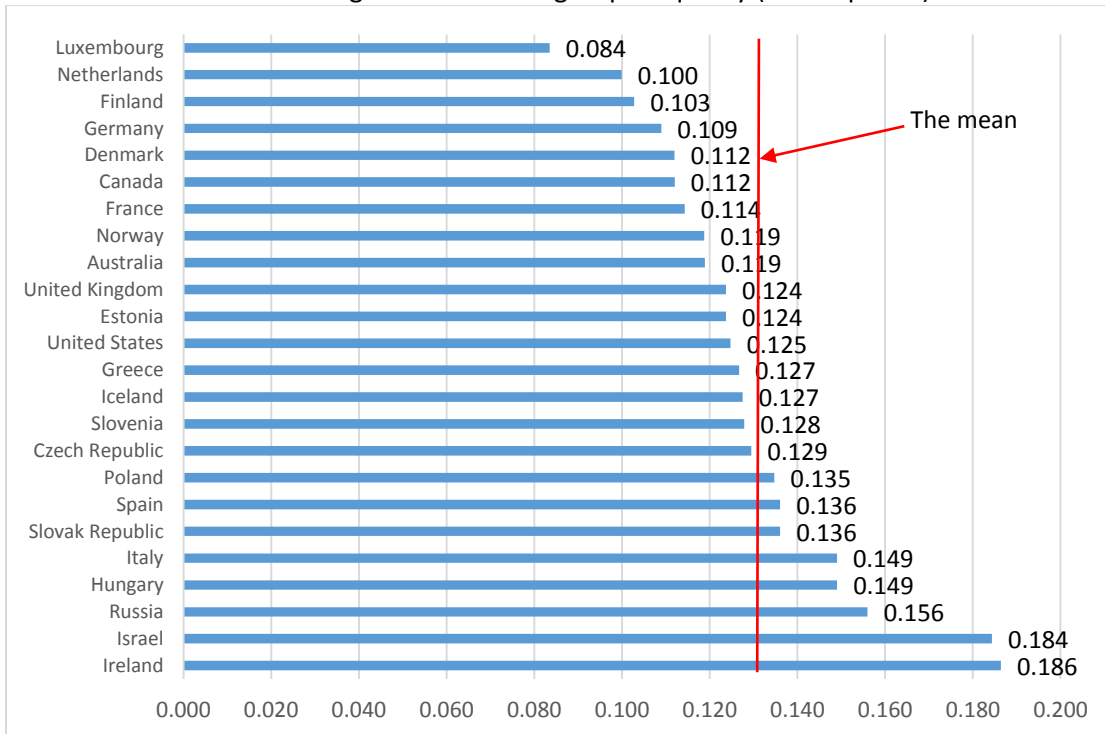


Figure 5. Between-group inequality (in Gini points)



3. Earnings inequality within one-earner and “traditional” households: Further disaggregation by partnership and parenting status

One-female-earner households.

We begin by looking at households that contain only one earner – one who is female. The prevalence of these household across the countries included here is very uneven: at the low end are Greece, Slovakia, and the Czech Republic where fewer than 9 percent of households contain only one earner, who is female. At the other end are Estonia and (as mentioned earlier) Hungary, Ireland, and Russia, which each contain more than 16 percent of households of this type. The US falls in the upper range, with the share of one-female-earner households being 15 percent.

In our next analysis, we divide one-female-earner households into five demographic subgroups, corresponding to the households in which they live: couple-headed households with one or more children, couple-headed households without children, single-headed¹¹ households with children, single-headed household without children, and others.¹² The most common type among one-female-earner households in the US, and across these 24 countries, is a household headed by a single woman with children. The next most prevalent types are couple-headed households with children (where, by definition, a female is the only earner), and single-female-headed households without children. In the US, these three household types comprise over 80 percent one-female-earner households.

But is the distribution of labor income in such American households more unequal than in the other countries? Figure 6, with the same interpretation as Figure 2 above, provides an answer. In all cases, US inequality is greater than the median inequality among 24 countries, and for single-headed one-female-earner households with and without children, the US' inequality ranking is fourth from the top. Particularly interesting is the situation of single-headed one-female-earner households with children where the US Gini is (a high) 0.48, nearly the same as Germany's and Ireland's and is overtaken only by Canada's Gini of 0.56. (The mean Gini across countries, for this type of household, is 0.40). Very high inequality among single-headed one-female-earner households, both with and without children, in the US, clearly implies that they are economically and socially diverse. We find similar high heterogeneity among single one-male-earner households without children.

Next we look at relative incomes (see Figure 7). The situation here is familiar: US relative subgroup mean relative incomes are not dissimilar from the median relative incomes across the 24 countries. The differences are minimal (e.g., for a couple with a child, the average labor income is 41 percent of US overall mean vs. 45 percent across the 24 countries). The only exception is the low income level of one-female-earner households with children (that is, single mothers): their relative income in the US is 40

¹¹ We use the word “single” to mean, exclusively, a person who is not married/partnered. We do not use it to refer to the number of earners or persons in a household.

¹² Throughout the paper, households are defined as “coupled” if the head reports having a partner in the household and there are no other adults in the household; likewise, households are defined as “single” if the head reports having no partner in the household and there are no other adults in the household. Households are further coded as having “children” if they contain children (under age 18) who are the children of the household head. Households – with or without children – are classified as “other” if the household contains adults who are not the head or the head's partner (for example, the head's parent or sibling, or a roommate).

percent of the overall mean while the countries' average is 50 percent. An ethnic/racial component may be important here, as we find (not shown in the graphs) that these households, when headed by Hispanics and African-Americans, have mean labor incomes that are only about 30 percent of overall US mean.

One-male-earner households.

We now move to one-male-earner households, where we keep the same household classification as for one-female-earner households. The prevalence of these households varies markedly across these countries. At the low end, in Iceland, Denmark, Canada, and Slovakia, their share is less than 15 percent. But at the high end, Italy and Greece – with comparatively low levels of female employment – have more than 30 percent of one-male-earner households. The US result (22 percent) falls the near cross-national mean (21 percent).¹³

The results for inequality are familiar (see Figure 8): US households have a much greater labor income inequality than in the rest of the study countries, and for two groups in particular (couple-headed households with and without children) US inequality is the highest of all. But it is among the highest in the other three types of one-male-earner households as well.

Figure 9 indicates the results for relative income. Here again, US relative mean incomes by household/demographic type are similar to what we find in other countries with the exception of one-male-earner couple-headed households whose relative income is greater than the overall US, while in the rest of the countries it is, on the average, some 20 percent below the country mean. In effect, the US and Luxembourg have the highest relative income for this particular group.

“Traditional households”.

“Traditional” (one male earner and one female earner) households comprise the largest share of all households, from 40 percent in Australia, Hungary, and Russia to 56 percent in France. (The US with 42 percent is on the low side here, modestly below the unweighted mean of 46 percent). Here, we look at only two subgroups: “traditional” households with, and without, children.

US inequality is again very high (see Figure 10). US inequality is the highest of all countries, for couples with children – with a Gini of 0.37 compared to the cross-country median Gini of just less than 0.3. US inequality is second highest, for couples without children.

When it comes to relative incomes (see Figure 11), US relative labor income for two-earner households with children is almost exactly the same as the median for the 24 countries; it is higher than the cross-country median, however, for couples without children.

¹³ Note that the share of one-female-earner households across these OECD countries ranges from 8 to 18 percent. The share of one-male-earner households varies from 15 to 30 percent. The corresponding US values are 15 and 22 percent. Thus, neither US value is especially exceptional.

Figure 6. Inequality of 5 subgroups among one-female-earner households

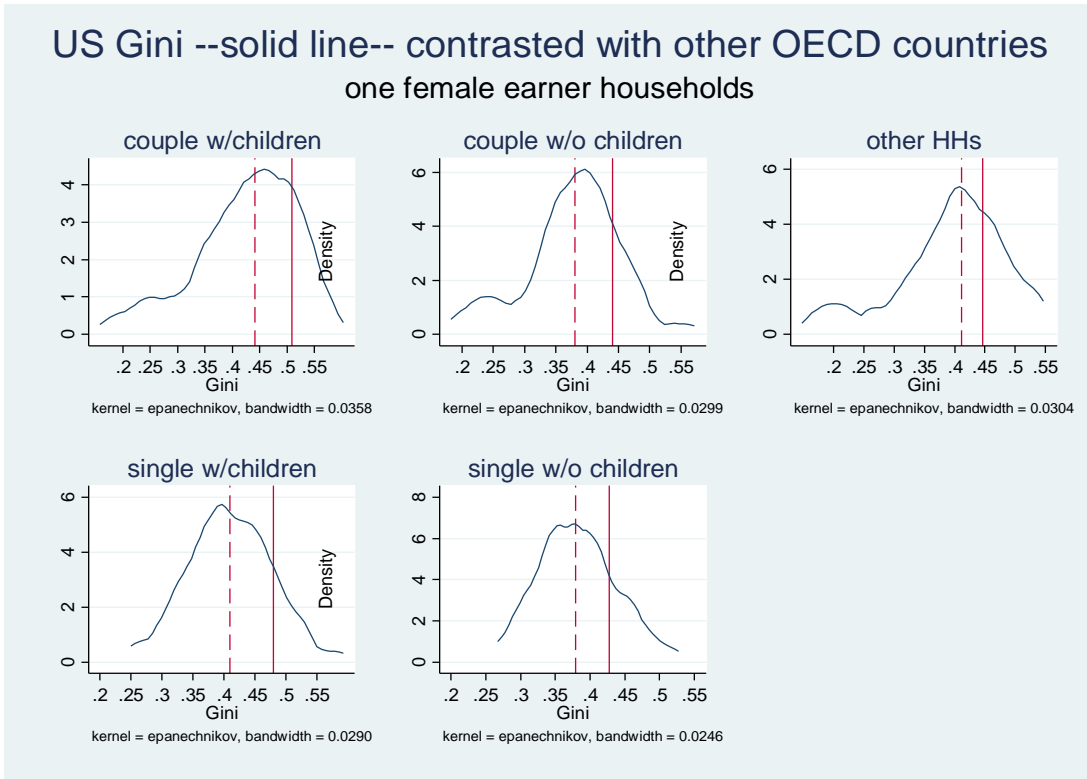
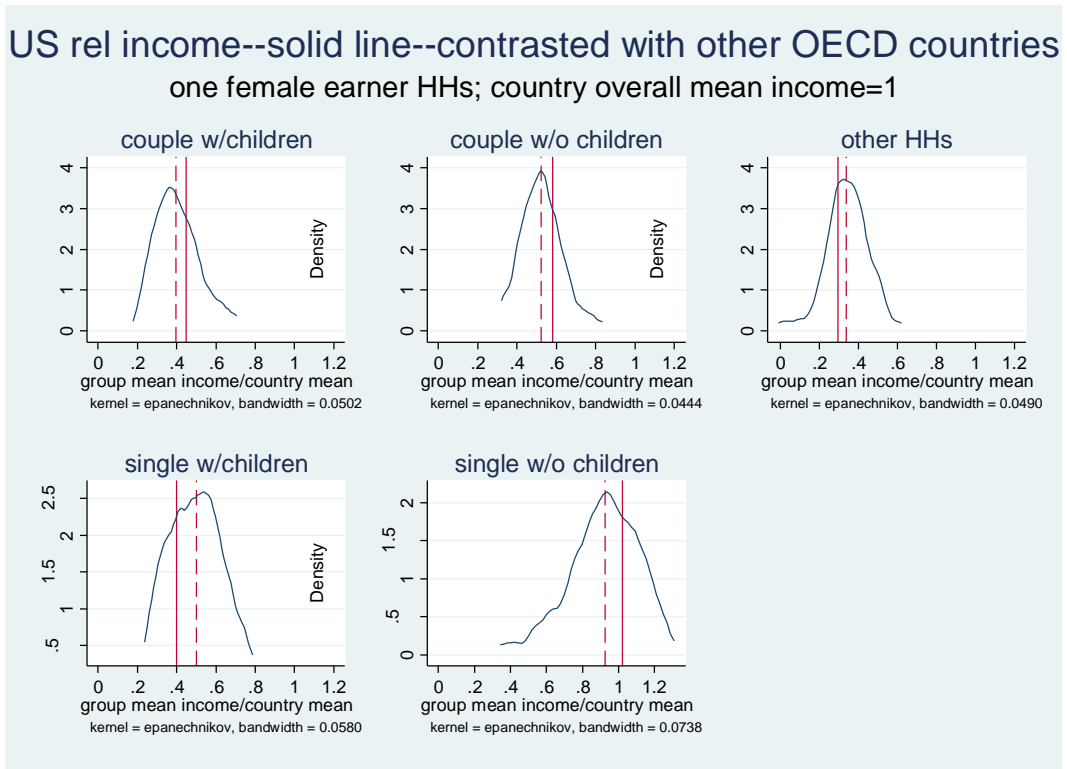


Figure 7. Relative income of 5 subgroups among one-female-earner households



Note: US value: solid line. Median for 24 countries: dashed line.

Figure 8. Inequality of 5 subgroups among one-male-earner households

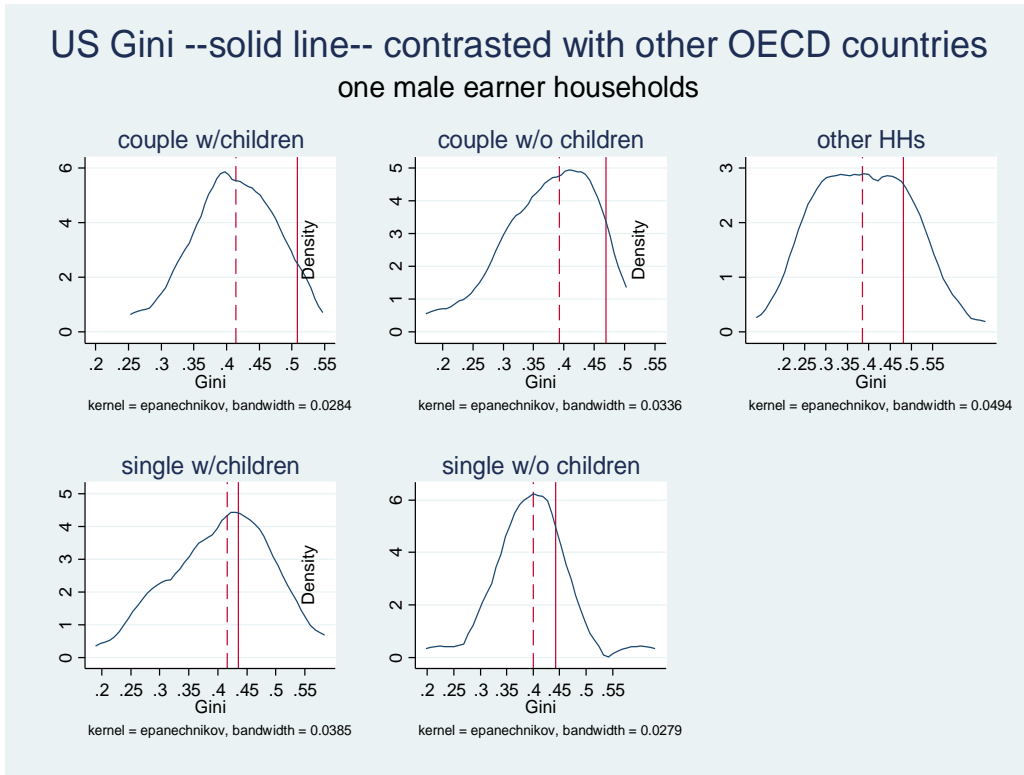
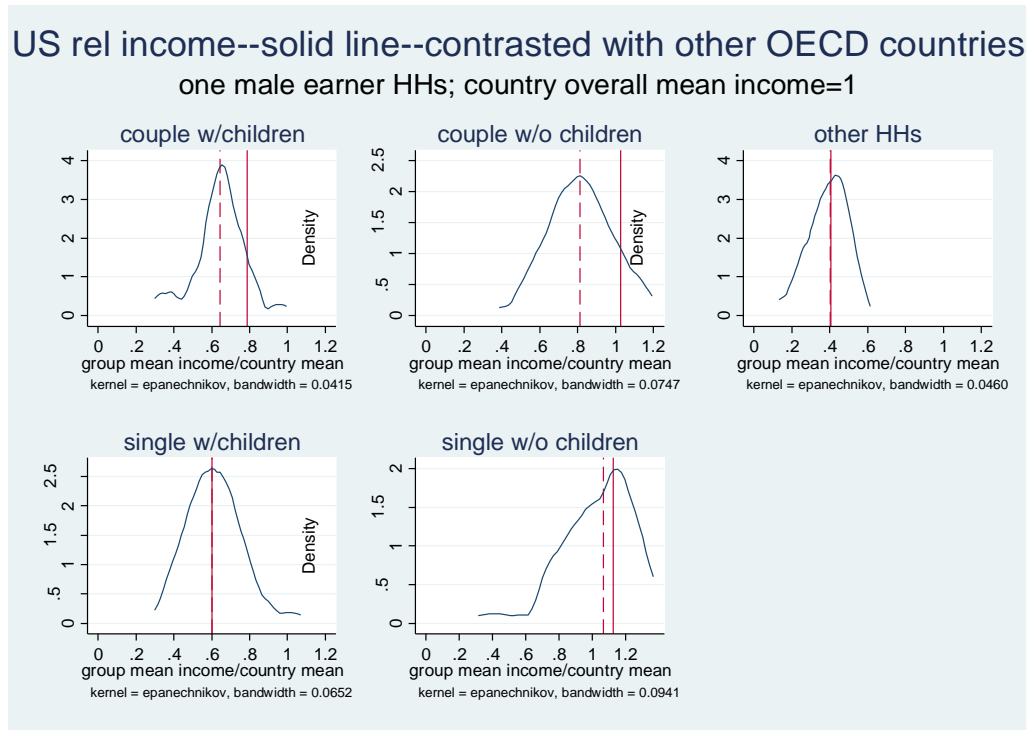


Figure 9. Relative income of 5 subgroups among one-male-earner households



Note: US value: solid line. Median for 24 countries: dashed line.

Figure 10. Inequality of two subgroups of “traditional” households

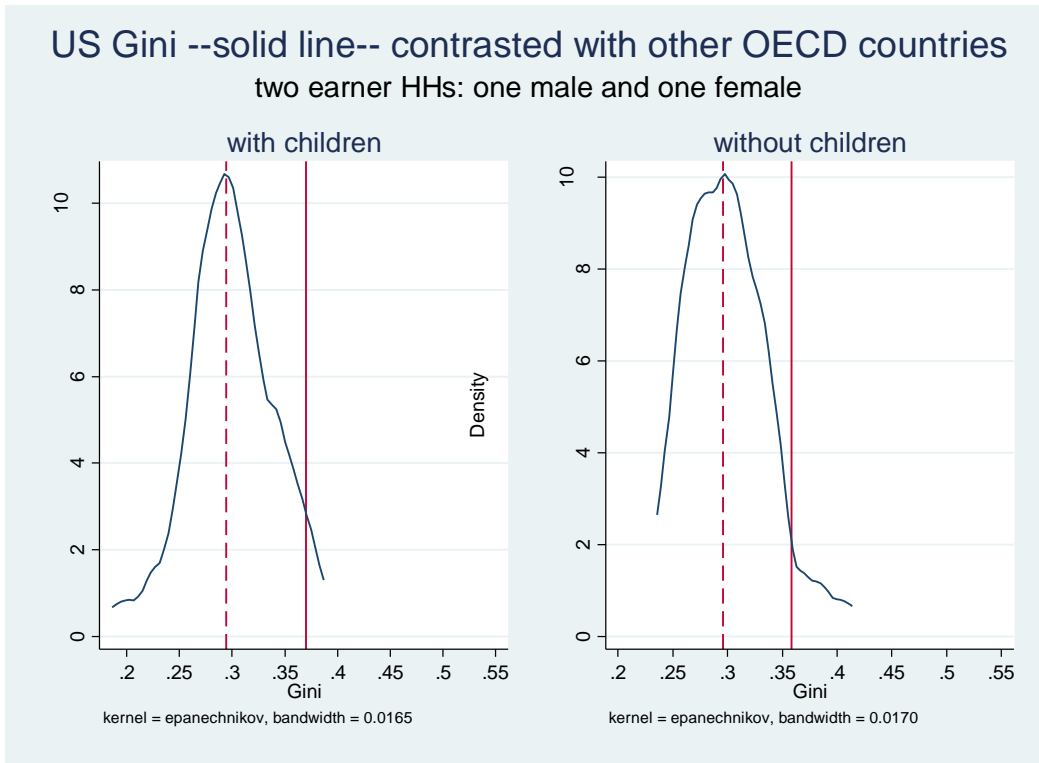
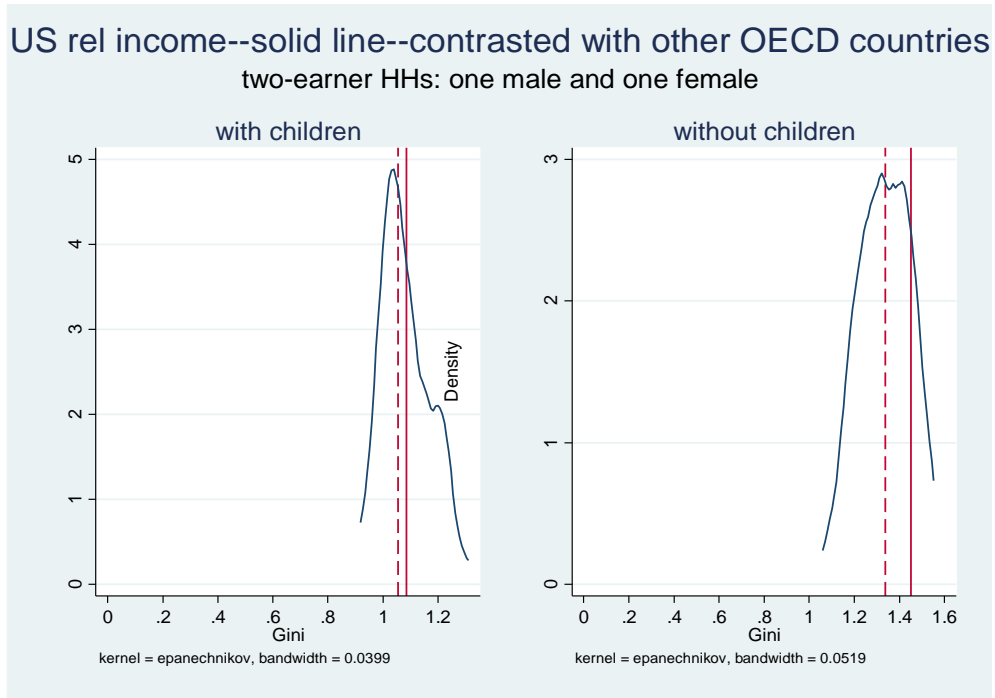


Figure 11. Relative income of two subgroups of “traditional” households



Note: US value: solid line. Median for 24 countries: dashed line.

Multivariate analyses.

To tease out the specificity of US inequality, we estimated regressions where the Gini coefficient for each country/group is regressed on groups' relative mean income (i.e., relative to the mean of that country) and dummy variables for the subgroups groups (N=15) and countries (N=24). The omitted household type is one-male-one-female-earner *with children*, and the omitted country is Denmark (with very low inequality).

We use two specifications of the regression: an unweighted one, and a weighted regression where each group is weighted by its share in the population of a given country. The latter adjusts for the different household compositions across countries. We are, of course, mainly interested in the coefficient on the dummy variable for the US. The results are reported in Table 2.

Compared to the omitted country (Denmark), the coefficient on the US dummy is 0.069 in the unweighted formulation, and 0.101 in the weighted formulation. It is statistically significant at less than 0.1 percent in both cases. This means that, on average, US inequality is between 6.9 and 10 Gini points greater than Denmark's. Perhaps more revealing is the fact that in both formulations, the US coefficient is the largest. The next largest positive coefficient in the unweighted formulation is Canada's (5.4 Gini points more unequal than Denmark) and, in the weighted formulation, Israel's (8.2 Gini points more unequal than Denmark). So, in terms of within-group inequalities, the US is, on average, more unequal, than the second most unequal OECD country by between 1.5 and 1.8 Gini points.

Possible limitations.

There are two possible limitation of our results that need to be addressed. The first refers to the composition of the population (i.e., shares of different demographic groups); the second concerns the year selected for this study (2010).

Consider subgroup composition first. Earlier in this paper, we noted that the higher overall labor income Gini in the US, compared to other relatively similar countries, could be the result of:

- greater group Ginis (the "within" component);
- larger mean income gaps between the groups (the "between" component); and/or
- greater shares of groups that have higher level of inequality.

Throughout this paper, we formally assessed the contributions of the first two of these three factors – the "within" and "between" components of inequality – but we did not present a detailed look at the third. Note that Table 1 reports prevalences of the six groups based on the number and gender of earners; we have not, however, reported subgroup prevalences across the finer disaggregation into 15 subgroups. That opens the question: Could the higher level of US inequality, in cross-national perspective, be driven by an unusual composition, within the US, across the 15 subgroups?

Annex 3 allows us to assess that question. This Annex reports the share (or prevalence) of each subgroup in the US, and the unweighted average shares, of the same subgroups, across the 23 comparator countries. The findings that we report there suggest that the answer is no, the US does not have an exceptional compositional profile.

Table 2. US income inequality exceptionalism
(dependent variable: Gini coefficient of household type/country)

Variable		Coefficient (p value)	
		Unweighted regression	Population-share weighted regression
		* = significance < 0.05 ** = significance < 0.01	
Relative group mean		-0.036 (0.20)	-0.003 (0.89)
Three or more earners		-0.028 (0.09)	-0.034** (0.00)
Two earners	Female	0.022 (0.23)	0.035* (0.02)
	Male	0.034* (0.04)	0.033** (0.01)
One female earner	Couple with children	0.099** (0.00)	0.136** (0.00)
	Couple without children	0.048* (0.03)	0.065** (0.00)
	Other	0.057* (0.03)	0.081** (0.00)
	Single with children	0.082** (0.00)	0.098** (0.00)
	Single without children	0.066** (0.00)	0.078** (0.00)
One male earner	Couple with children	0.089** (0.00)	0.097** (0.00)
	Couple without children	0.054** (0.00)	0.067** (0.00)
	Other	0.049* (0.05)	0.074** (0.00)
	Single with children	0.086** (0.00)	0.117** (0.00)
	Single without children	0.087** (0.00)	0.094** (0.00)
One male one female earner	Couple without children	0.104 (0.54)	0.002 (0.80)
US dummy		0.069** (0.00)	0.101** (0.00)
Adjusted R ² (F)		0.59 (12.3)	0.82 (38.9)
Number of observations		360	360

Note: The regression is based on 360 observations, i.e., 24 countries x 15 subgroups. The omitted household type is one-male-one-female-earner with children, and the omitted country is Denmark. Coefficients on dummy variables for countries other than the US are not shown.

The US shares diverge by more than 2 percentage points from the (unweighted) average share across the other 23 OECD countries in only two cases. The first case is the one-male-one-female-earner couple with children: about 30 percent of the US population is living in such households versus 33 percent, on average, in the rest of these OECD countries. The second case is one-female-earner households where that earner is single with children; in that case, about 6.5 percent of the US population lives in that type of household but only 4 percent (on average) in the other OECD countries. (In common parlance, the US is slightly low on “traditional” households and slightly high vis-à-vis single mothers).

In short, the US composition, overall, is not substantially different from that reported in other similar countries. Thus, a unique compositional structure does not explain the high level of overall earnings inequality reported in the US. In the few cases where the US diverges from the other countries (on average), that divergence is modest.

Second, is the “story” that we report here one that is stable over time, or is there something unusual about the year that we chose (2010)?

Annex 4 provides a window onto the answer to that question. This Annex reports, for each subgroup, how US inequality (captured by the Gini) is ranked with respect to the 24 countries in our study – and, here, we report those ranks at two points in time, 1997 and 2010. This is not, of course, a huge sweep of time but it is the longest interval for which we had data on all 24 countries; and 13 years (including the onset of the global financial crisis) is not a trivial passage of time. We acknowledge that this change-over-time assessment includes only one indicator (the “within” Ginis) but it is an indicator that lies at the heart of the paper.

Consider the five most prevalent subgroups – shaded in gray. These groups constitute over 75 percent of the US population. In each of these five subgroups, the US rank (within the 24 countries) is exactly the same at both time points. Across all 15 subgroups, the average change in rank, over this 13-year period, is 0.8 – that is, less than one rank position. Thus, we conclude, our results are sustainable over time. The year of our study – 2010 – does not appear to be unique, at least not with respect to the last decade and a half.

4. Conclusions

We began with by noting that prior literature establishes that the high level of inequality in US disposable household income, calculated across working-age households, is not only the product of modest redistribution in the US as compared with similar OECD countries; it is also the result of a comparatively high level of inequality in the underlying market income. Furthermore, the primary component of market income is income from labor income. In this paper, we have shown that equalized labor income across households is indeed more unequally distributed in the US than in all (but one) of 24 OECD countries.

We were also interested in assessing whether labor income inequality is pervasive, across household types and demographic subgroups, or whether it may be due to either exceptionally high or exceptionally low average labor incomes received by some groups. We conclude that within-group inequality of labor incomes in the US is, in almost all cases, high by OECD standards. So it is neither an unusual household composition, nor unusually high mean labor incomes of some demographic groups

that explain high US earnings inequality, but simply the fact that high and low labor incomes are universally spread across all household/demographic categories.

Table 3 shows that, when we look at 15 (mutually-exclusive) demographic groups, the US' inequality ranking is uniformly high. In 11 out of 15 cases, US within-group inequality is among the three top inequalities. When we look, however, at groups' and subgroups' relative mean incomes, most of them are quite close to the OECD average. In only two cases are US relative labor incomes rather high (one-male-earner households living in a couple with or without children) and in only three cases is US relative income unusually low (single one-female earner households with and without children, and three-or-more-earner households).

Our overall conclusion is that US market income inequality – specifically, inequality of labor income – is not an outcome that can be readily addressed by changing the relative economic position of persons within selected household groups. High levels of inequality in the US are found across all household types; they all contain households with very high and very low labor incomes. The generalized policy implication of this finding is that if policy-makers aim to reduce US labor (and thus market, and ultimately disposable) income inequality, they need to design and implement policy strategies that affect diverse households.

Table 3. US inequality and relative income rankings
(compared to other OECD countries)

Type of household	Rankings among 24 OECD countries (1 = highest; 24 =lowest)	
	By inequality	By relative income
One-female-earner		
Couple w/children	5	8
Couple w/o children	4	8
Other	6	18
Single w/children	3	19
Single w/o children	3	9
One-male-earner		
Couple w/children	1	2
Couple w/o children	1	3
Other	3	12
Single w/children	8	14
Single w/o children	4	10
“Traditional”		
w/children	1	9
w/o children	2	5
Two female earners	2	9
Two male earners	1	10
Three + earners	2	20
<i>Mean of all ranks</i>	<i>3.1</i>	<i>10.4</i>

Annexes.

Annex 1. LIS datasets used

	Name of survey	Year
Australia	Household Expenditure Survey (HES) and Survey of Income and Housing (SIH)	2010
Canada	Survey of Labour and Income Dynamics (SLID)	2010
Czech Republic	Survey on income and living Conditions / EU-SILC	2010
Denmark	Statistics Denmark: Law Model	2010
Estonia	Estonian Social Survey (ESS) / EU-SILC (Survey on Income and Living Conditions)	2010
Finland	Survey on Income and Living Conditions (SILC), formerly known as Income Distribution Survey (IDS)	2010
France	Family Budget Survey (BdF)	2010
Germany	German Social Economic Panel Study (GSOEP)	2010
Greece	Survey on Income and Living Conditions / EU- SILC 2011 survey	2010
Hungary	Household Monitor Survey	2009
Iceland	Survey of Income and Living Conditions (EU-SILC)	2010
Ireland	Survey on Income and Living Conditions / EU-SILC	2010
Israel	Household Expenditure Survey	2010
Italy	Survey on Household Income and Wealth (SHIW)	2010
Luxembourg	Panel socio-économique "Liewen zu Letzebuerg" (PSELL III) / Survey on Income and Living Conditions (EU-SILC)	2010
Netherlands	Survey on Income and Living Conditions (EU-SILC)	2010
Norway	Household Income Statistics (formerly based on the Income Distribution Survey)	2010
Poland	Household Budget Survey	2010
Russia	Russia Longitudinal Monitoring Survey-Higher School of Economics (RLMS-HSE)	2010
Slovakia	Statistics on Income and Living Conditions (EU SILC 2011)	2010
Slovenia	Household Budget Survey	2010
Spain	Encuesta de Condiciones de Vida (ECV) / Survey on Income and Living Condition (EU- SILC) 2010 survey	2010
UK	Family Resources Survey (FRS)	2010
US	Current Population Survey – ASEC (Annual Social and Economic Supplement)	2010

Annex 2.
Decomposition: within-group, between-group, and overlap components
(for six household types); all in Gini points

	(1) Overall labor Gini	(2) Between component	(3) Narrow within component	(4) Overlap	(5) = (3) + (4) Total within component
Australia	0.357	0.119	0.002	0.236	0.238
Canada	0.394	0.112	0.003	0.280	0.282
Czech Republic	0.323	0.129	0.002	0.192	0.193
Denmark	0.323	0.112	0.003	0.208	0.211
Estonia	0.368	0.124	0.006	0.238	0.245
Finland	0.335	0.103	0.004	0.228	0.232
France	0.365	0.114	0.006	0.245	0.251
Germany	0.363	0.109	0.005	0.248	0.254
Greece	0.365	0.127	0.002	0.237	0.238
Hungary	0.394	0.149	0.011	0.234	0.245
Iceland	0.330	0.127	0.002	0.200	0.202
Ireland	0.430	0.186	0.008	0.235	0.243
Israel	0.442	0.184	0.003	0.255	0.258
Italy	0.320	0.149	0.003	0.169	0.171
Luxembourg	0.366	0.084	0.003	0.279	0.282
Netherlands	0.336	0.100	0.002	0.234	0.236
Norway	0.337	0.119	0.003	0.215	0.218
Poland	0.358	0.135	0.005	0.218	0.223
Russia	0.368	0.156	0.007	0.205	0.212
Slovakia	0.311	0.136	0.001	0.173	0.175
Slovenia	0.277	0.128	0.002	0.147	0.149
Spain	0.366	0.136	0.003	0.227	0.230
UK	0.400	0.124	0.004	0.272	0.277
US	0.436	0.125	0.006	0.305	0.311
<i>Non-US mean</i>	<i>0.358</i>	<i>0.129</i>	<i>0.004</i>	<i>0.228</i>	<i>0.229</i>
<i>US/non-US mean</i>	<i>1.21</i>	<i>0.97</i>			<i>1.34</i>

Note that:

Figure 1 corresponds to column 1 of this Annex.

Figure 4 corresponds to column 5 of this Annex.

Figure 5 corresponds to column 2 of this Annex.

Annex 3.
Population shares of household types

Type of household	(1) Share in the US (percent)	(2) Average share in other 23 countries (percent)	(3) = (1) - (2) Difference between US share and average share in other countries (percentage points)
One-female-earner			
Couple w/children	2.3	3.5	-1.2
Couple w/o children	1.0	0.9	0.1
Other	1.8	0.6	1.1
Single w/children	6.5	4.1	2.4
Single w/o children	3.2	3.2	0.0
One-male-earner			
Couple w/children	13.1	13.0	0.1
Couple w/o children	2.2	1.7	0.5
Other	1.5	0.8	0.7
Single w/children	1.2	1.0	0.2
Single w/o children	4.0	4.3	-0.3
“Traditional”			
w/children	29.6	32.9	-3.3
w/o children	12.6	13.4	-0.8
Two female earners	2.3	1.7	0.6
Two male earners	3.0	2.3	0.7
Three + earners	15.3	16.4	-1.1

Annex 4.
 US inequality rankings
 Rankings among 24 OECD countries
 (1 = highest; 24 = lowest)

Type of household	Prevalence of this subgroup (US)	1997	2010	Difference in US rank between two time points
One-female-earner				
Couple w/children	2.3	2	5	-3
Couple w/o children	1.0	6	4	2
Other	1.8	2	6	-4
Single w/children	6.5	3	3	0
Single w/o children	3.2	1	3	-2
One-male-earner				
Couple w/children	13.1	1	1	0
Couple w/o children	2.2	1	1	0
Other	1.5	2	3	-1
Single w/children	1.2	5	8	-3
Single w/o children	4.0	2	4	-2
"Traditional"				
w/children	29.6	1	1	0
w/o children	12.6	2	2	0
Two female earners	2.3	3	2	1
Two male earners	3.0	1	1	0
Three + earners	15.3	2	2	0
<i>Unweighted means</i>		2.3	3.1	-0.8

Notes:

The five rows shaded in gray account for more than 75 percent of persons in the US. Inequality results for 2010 are from Table 3, the "by inequality" column.

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