

# Working paper series

# **How Exceptional is American Job Quality? Decent- and Poverty-Pay Rates by Age, Gender, and Education** in the U.S., U.K., Canada, Australia, and France

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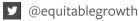
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# How Exceptional is American Job Quality? Decent- and Poverty-Pay Rates by Age, Gender, and Education in the U.S., U.K., Canada, Australia, and France\*

Working Paper
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#### **ABSTRACT**

Social protection for working-age American adults is almost entirely conditional on employment, which makes earnings a particularly important dimension of job quality for workers. This paper employs new indicators (Howell, 2019) to compare the quality of the U.S. earnings distribution with France and three other large Anglophone liberal market economies. Using data from national household surveys, the incidence of decent-, low- and poverty-pay are defined by wage cutoffs linked to the living standards made possible by full-time earnings. Worktime adequacy is captured by whether a worker is employed involuntarily part-time. Measuring the share of workers in different parts of the pay distribution for workers grouped by age, gender and education, these simple incidence indicators uniquely describe both the inequality (spread) and quality (living standards) of national job hierarchies. The main finding is that across demographic groups, American decent- and poverty-pay rates have been consistently worse than Canada's and the U.K.'s, worse still than Australia's, and far worse than France's. For example, the most recent available *poverty-pay* rate for young (18-34) *female* workers without a college degree ranged from 67% for the U.S. to 28% for France, with the U.K., Canada, and Australia between (60%, 56% and 40%). Similarly, the pattern for decent-pay rates for young non-college degree male workers was just 14.1% for the U.S. but 55% for France; between were the U.K. (20%), Canada (34%) and Australia (39%). The evidence suggests no simple correspondence between these persistent cross-country patterns in pay quality and employment performance as measured by employment and unemployment rates.

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American economic inequality increased sharply over the last half century to levels unmatched in the rich world. For many working families the pay problem has been less the persistent decline in relative standing than the increasing difficulty of maintaining a decent standard of living from full-time work. The typical American family experienced little improvement in median household income between 1980 and 2013, far below increases in nearly all other rich countries. This exceptionally poor American showing at the middle of the household income distribution was even worse for workers in the bottom half of the individual earnings distribution, reflecting four decades of stagnant or declining hourly pay. For example, in 2019 – nine years into the economic recovery, almost one-third of all wage and salary workers earned under \$14.64, well below the \$15 widely accepted as the minimum threshold for a living wage, even for low-income regions.<sup>3</sup>

The dominant explanation for such poor labor market outcomes over the last half century, at least among economists, has been that it reflects shifts in competitive market forces, as the rising computer-driven demand by employers for cognitive skills has been unmatched by the supply of adequately skilled workers (Goldin and Katz, 2008; Autor, 2010 and 2014; Acemoglu and Autor, 2011 and 2012). The broader implication of this canonical textbook account is that the same competitive forces tend to explain rising wage inequality across the rich world (Van Reenan, 2011). In recent years, an alternative political economy explanation has gained increasing credibility, in which the low pay, high inequality problem reflects mainly a wide variety of post-1980 policy choices and institutional changes that have shifted the balance of power between employers and workers, resulting in widespread wage suppression that has been most pronounced at the bottom of the distribution (Krueger, 2018; Stansbury and Summers, 2020; Mishel and Bivens, 2021). In this view, following the lead of the U.S. and U.K., many rich countries have pursued varying policy mixes of deregulation, privatization, de-unionization, and

<sup>&</sup>lt;sup>1</sup>This is often measured by the rise in the 90-10 ratio, which has been driven by growth at the top since the late 1980s, as measured by the 90-50 ratio and the top 1% share (see Piketty, Saez and Zucman, 2018). For international comparisons that illustrate the exceptional quality of American income inequality, see Thewissen et al. (2018), the OECD's *Divided We Stand* (OECD, 2011: Figures 1 and 2) and Salverda and Checchi (2015: Figures 18.19 and 18.20).

<sup>&</sup>lt;sup>2</sup> The U.S. average annual increase in median household income was 0.32%, far below that of Canada (0.53%), Australia (1.21%), the UK (1.56%), Germany (0.52%), France (0.85%), Belgium (1.51%) and Sweden (1.76%) (Thewissen et al. 2018, Table 1). According to this paper, the US pay distribution is exceptional in both its high and rising inequality and its failure to translate virtually any of the proceeds of economic growth to the middle and bottom of the income distribution. "The US case, with rapidly rising inequality accompanied by stagnating middle incomes, is not representative of the experience of the rich countries over recent decades" (16).

<sup>&</sup>lt;sup>3</sup> This is what the giant retailer Amazon set in 2018 as its lowest starting wage for any worker in any location in the country. This wage policy, in many places resulting in hourly pay more than twice the applicable statutory minimum wage (\$7.25), may have been motivated by efforts to fight off union drives, but it is still testimony to prevailing views of what counts as a minimum living wage. Other large nation-wide retailers have also raised their lowest starting wage to at least \$15, including Target (\$15 in 2020) and Costco (\$16 in 2021). Derenoncourt et al. (2021) have found sizable wage spillover effects from Amazon's wage increase in the same commuting zones, but negligible negative employment effects, which demonstrates widespread employer wage-setting power.

reduced social safety-net generosity, generating what Thelen (2014) refers to as "varieties of liberalization." While political economy explanations can easily incorporate an important role for competitive market forces, competitive market explanations – typically grounded in perfectly competitive labor market models - are incompatible with important roles for institutional and policy interventions (Howell and Kalleberg, 2019).

These starkly different perspectives on the way modern labor markets work have helped frame recent comparative studies of low pay and wage inequality, most notably the Russell Sage Foundation's (RSF) "Project on Low-Wage Work", whose motivation was summarized by Solow and Wanner (Gautié and Schmitt, 2010, p. xvi): "At issue is whether U.S (low wage) trends are the inexorable result of worldwide intensification of economic competition, or whether European institutions have been more successful in resisting economic forces and maintaining a higher level of pay and job quality for workers on the lower rungs of the labor market." The RSF's 10-year study concluded decisively in favor of the central role of the inclusivity of national institutions based on book-length case studies of six countries (the U.S., the U.K., Denmark, the Netherlands, Germany and France).

Motivated by the same question – the importance of regulatory regimes for low pay and employment performance, this paper extends the quantitative dimension of the RSF project on low wages by comparing five countries (the U.S., U.K., Canada, Australia, and France) with earnings quality indicators developed for the U.S. in an earlier paper (Howell, 2019). Crosscountry differences in wage inequality have been well-documented with indicators of relative standing like the Gini coefficient or decile ratios (e.g., ratio of the 50<sup>th</sup> percentile to the 10<sup>th</sup> percentile wage), but these measures cannot capture how relative pay outcomes have translated into living standards made possible by full-time work at different points in the wage distribution, nor are they designed to compare outcomes across groups of workers distinguished by, say, gender, education and age. But measures of relative standing can be anchored to wage levels widely accepted to be better or worse in terms of socially acceptable living standards and these can be used to compare pay quality over time for different groups of workers. The OECD and the ILO publish one such indicator, the incidence of low pay, calculated as the share of workers paid less than two-thirds of the median wage, but do so only for all employed workers. 4 Measures like these have also appeared in recent research, such as Blair et al. (2020), which characterizes American jobs that pay below the median as "low wage".<sup>5</sup>

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<sup>&</sup>lt;sup>4</sup> While the OECD (Organization for Economic Cooperation and Development) measures the low-wage share by reference to the median wage for full-time workers (<a href="https://data.oecd.org/earnwage/wage-levels.htm">https://data.oecd.org/earnwage/wage-levels.htm</a>), the ILO (International Labour Organization) defines it relative to the median wage for all workers (<a href="https://ilostat.ilo.org/resources/concepts-and-definitions/description-earnings-and-labour-cost/">https://ilostat.ilo.org/resources/concepts-and-definitions/description-earnings-and-labour-cost/</a>).

<sup>&</sup>quot;Low-wage" jobs according to Blair et al. (2020, p. 12) are those that belong to a low-wage occupation, which in turn is defined as those whose median wage in a state is less than the state's median hourly wage. Blair et al. explain that they chose not to define their income groups (low-, middle- and high-wage) by reference to standards of living

Despite common references to "low" pay, there has been little detailed study of the quality of earnings distributions across countries by demographic group over time as measured by the incidence of low pay, much less by other incidence measures for different parts of the pay distribution, as in *very* low-wage jobs (e.g., "poverty-pay") or for jobs located above what is widely accepted as the low-pay threshold (e.g., "decent-pay" and "good-pay" jobs). Grounded in the living standards made possible by full-time employment, such indicators of pay quality are potentially informative about all three dimensions of personal well-being that Kalleberg (2018: 31) argues derive from work: *economic security* (sufficiency of material resources), *successful transition to adulthood and family formation*, and *subjective well-being* (life satisfaction and overall happiness). This is especially true for the U.S., which offers scant benefits and services that are not conditional on employment but can be crucial to working-age household living standards, like support for healthcare, childcare, education, and housing. To compensate for this lack of public support, American earnings from work need to be substantially higher than in other rich countries for workers in the bottom half to achieve similar material standards of living.<sup>6</sup>

As measures of the substantive quality of job opportunities beyond relative standing, incidence measures of earnings (the combination of hourly pay and hours of work) adequacy can be used to describe changes in the living standards from employment for different groups of workers. This, in turn, makes possible insights into how changes in the pay distribution have impacted recent critically important developments, like the "deaths of despair" epidemic for different demographic groups (e.g., middle-age white workers with less than a college degree) and the increasingly consequential populist disenchantment and anger at (perceived) elitedominated mainstream politics (Case and Deaton, 2020; Hochchild, 2016; Greenhouse, 2009, 2019).

The pay quality indicators employed here are generated from definitions of wage and work hour adequacy for the U.S. (Howell, 2019). Reflecting evidence from living-wage calculators, a "decent-wage" threshold is defined as two-thirds of the *mean* wage for full-time prime-age workers (\$17.50 U.S. in 2017). This threshold identifies nearly half of all American

because they argue that this is not commonly done in the labor economics literature and in addition avoids "the need to refer to additional methodologies" (fn15).

<sup>&</sup>lt;sup>6</sup> It might be argued that measuring worker pay in the bottom half of the distribution with net (after tax and benefits) instead of gross earnings would produce a substantially different portrait of cross-country pay outcomes, since taxes as well as benefits are higher in countries like France, but as Section 4 shows, the income tax (and cash benefits) burden of low-wage workers in the US is not notably different from other rich countries.

<sup>&</sup>lt;sup>7</sup> One of the two wage thresholds used here (to define the poverty-wage cutoff) is identical to the cutoff used by the OECD for cross-country comparisons of low pay (two-thirds of the median full-time wage). It should be recognized that this approach is undeniably complicated by the different standards for these thresholds that would apply by family type and location. It seems reasonable as a first approximation to focus on minimally decent living standards for a single worker or two-person family living independently in major mid-cost metropolitan areas – the approach taken here.

jobs as "low-wage" (the overall US median wage was \$18.28) – broadly consistent with Blair et al. (2020). By this definition, there is a wide range of wage rates that qualify as "low", with crucial implications for living standards - from the prevailing federal statutory minimum wage of \$7.25 (and below that for some workers) to the \$17.50 low-wage/decent-wage cutoff (equivalent to \$19.17 in 2021). Given this wide range, there is a need for an additional "poverty-wage" (or "lousy-wage") threshold, and with guidance on the minimum subsistence level for a single independent person working full-time, the threshold was defined as two-thirds of the *median* wage for full-time workers (the conventional OECD low-wage definition), which was \$13.33 in 2017 (\$14.60 in 2021 dollars). These wage threshold formulas, together with an indicator of work-time inadequacy (involuntary part-time employment), distinguish decent- from low-*pay* jobs and poverty-*pay* jobs from other low-*pay* jobs. With these definitions, Howell (2019) calculated the incidence of decent- and poverty-pay jobs for the U.S. between 1979 and 2017 for demographic groups defined by combinations of age, gender, education, race and nativity.

This paper compares the incidence of decent- and poverty-pay jobs for demographic groups defined by age, gender and education using national household surveys for the U.S. (1979-2017), the U.K. (1994-2014), Canada (1998-2016), Australia (2002-2013) and France (1990-2012). In addition, changes in the *levels* of bottom-half wage quality for each country are calculated for the post-2000 decades, measured by changes in the median wage for all young less-educated workers and for these workers employed in poverty-pay jobs. The overriding goal of the paper is to offer a new perspective on how the quality of the bottom-end of the U.S. pay distribution compares to that of other rich countries with inequality measures that also tell us, not just about relative standing (the 50-10), but about the implications of levels of pay in different ranges of the pay hierarchy for standards of living attainable from full-time work for different populations. This comparison does not consider the fact that all other large rich countries have a substantially stronger social safety-net not conditional on employment, which makes poor American earnings performance all the more notable.

The main finding is that the earnings quality of jobs in the bottom half of the American earnings distribution has been consistently worse than Canada's and the U.K.'s, quite substantially worse than Australia's, and far worse than France's. This pattern has been particularly pronounced for young (18-34) less-educated workers – both male and female. For example, the *decent-pay* shares for young non-college degree *male* workers ranged from 14.1%

<sup>8</sup> State and local minimum wages in the U.S. are often higher than the Federal minimum of \$7.25. On the other hand, some workers are paid less than the statutory minimum, either because they are not eligible (e.g., tipped workers) or because they are illegally paid below the minimum ("wage theft"). The CPI-W (Bureau of Labor Statistics) was used to update the decent-wage threshold to April, 2021.

<sup>&</sup>lt;sup>9</sup> In Howell (2019), instead of "poverty-wage", "lousy-wage" was used to describe the lowest earnings quality tier. To the degree that rising inequality has been driven by relative growth at the top of the distribution, defining decent wages by reference to the mean and poverty wages by the median should produce larger changes over time for the former (especially for the US), but as the figures below show, any differences in trends turn out to be small.

for the US (2017) to 54.6% for France (2012); located between were the U.K. (19.8% in 2014), Canada (34.1% in 2016) and Australia (38.6% in 2013). Similarly, for young *female* workers without a college degree, the *poverty-pay* rate ranged (for the same years) from France (28.2%) to the US (66.7%), with Australia, Canada and the U.K. between (39.6%, 55.8% and 59.9%). These large differences in recent pay quality reflect the *worsening* of absolute and relative U.S. performance, which translated in many cases into a sharply growing divergence with the other countries, particularly France. For example, for young non-college degree women, the U.S.-France decent-pay gap grew from 22 points in 1990 (30% and 52%) to over 37 points in 2012 (17.4% and 54.5%). For their male counterparts, the American-French decent-pay gap rose from 17 to 42 percentage points.

For young workers with less than a college degree, the Australian poverty-pay gender gap (5.9 percentage points) was by far the lowest of the five countries in the 2010's, followed by France (10.1 points), the U.K. (12.7 points), the U.S. (14.4 points) and Canada (16 points). At the same time, there was a notable convergence in the gender gap for the U.S., the U.K. and France, stability at high levels for Canada, and a widening gender gap in Australia (but from a very low level). Another notable finding is that the poverty-pay gap by gender/education for young workers, defined as the difference between the poverty-pay rate for *women without college degrees* and the rate for *men with college degrees*, has been by far the highest for American workers and the lowest for French workers. This measure of gender-by-education inequality rose sharply in the U.S., from 44.2 percentage points in 1979 to 52.7 points in 2017, much higher than the 2012-2016 gaps for the U.K., Canada, Australia, and France (45.3, 35.2, 31.6 and 20.4 points). <sup>10</sup>

Turning from earnings quality incidence to levels, I find that changes in the median wage for young non-college degree workers between 2000-2 and 2012-14 fell or barely increased in the U.S. and U.K. for both males and females, but *grew substantially* for the three other countries, with increases ranging from 7.2 percent (Canadian males) to 11.6 percent (Australian males). For the narrower set of poverty-pay jobs held by young non-college workers, only U.S. workers experienced declining wages (-1.3 percent for males and -0.4 percent for females).

In sum, both pay incidence and pay level indicators show far worse performance for the U.S. than France, and notably worse performance by the U.S. relative to the three other liberal market economies, particularly Australia. Despite France's relatively poor performance on unemployment and employment rates for young workers, a brief review of the cross-country data and the literature at the end of the paper suggests no simple tradeoff between pay and

<sup>&</sup>lt;sup>10</sup> For example, the poverty-pay share in 2017 for young non-college degree women and men were 66.4 percent and 13.7 percent, a difference of 52.7 points.

These changes are calculated as percentage changes in the median wage in each country's national currency for the available years since 2000 (the U.S., U.K. and Canada, 2000-2014; France, 2000-2012; Australia, 2002-2013).

employment performance across these five countries or across a larger set of rich OECD countries.

The paper has four main sections. Section 1 outlines the measurement of earnings quality as defined by the incidence of decent- and poverty-pay jobs. Section 2 presents key findings for these indicators for the five countries, with some results reported for all workers (18-64) and prime-age workers (35-59), but with the focus on young (18-34) workers without a college degree by gender. Section 3 describes changes in the wage quality levels of jobs for young non-college degree workers by gender as measured by median wages for all jobs and for these workers employed in the subset of poverty-pay jobs. Evidence presented in Section 4 strongly suggests that measuring pay quality after taxes and benefits would not change the main finding that American pay performance has been exceptionally poor for bottom-half workers compared to the other four countries since the 1980s. Evidence is also presented that points to little or no tradeoff between bottom-half pay quality and employment performance, as measured by employment and unemployment rates for the most vulnerable workers – young (25-34) with the lowest levels of educational attainment. Section 5 concludes.

These findings are consistent with the view that the institutional and policy frameworks within which wages are set largely explains differences in the quality of earnings distributions as measured by the incidence of poverty- and decent-pay jobs, even across large Anglophone liberal market economies. A companion paper (Howell, forthcoming 2021) explores this relationship between the balance of bargaining power and pay quality by developing an index of Institutional Bargaining Power for these five countries (and a similar one for a larger set of rich countries) from conventional indicators of wage-setting institutions and employment and income protection policies.

## 1. The Measurement of Earnings Quality

While a comprehensive measure of job quality would include many other important dimensions of work, like health and pension benefits (at least for countries without universal claims to them), working conditions and work schedules, the concern here is with earnings. The ILO's Decent Work Project identifies a set of 75 statistical and 21 legal framework indicators for the measurement of decent work, organized into ten main elements. After "employment opportunities", "adequate earnings" is the top ranked element. Distinguishing different levels of

<sup>&</sup>lt;sup>12</sup> Howell (2019) shows that there is a close correspondence between these other dimensions of job quality and pay levels.

https://ilostat.ilo.org/measuring-job-quality-difficult-but-necessary/

adequacy (from "poverty" to "low", "decent" and "good") is the task of the new earnings quality indicators developed in Howell (2019) and described below.

The first part of this section describes the data used for the cross-country comparisons of decent- and poverty-pay employment shares. Section 1.2 then discusses the formulas used to calculate these shares and their grounding in evidence from (American) basic-needs budget studies. Finally, Section 1.3 explains the use of involuntary part-time (IP-T) employment as an indicator inadequate work time. Accounting for IP-T distinguishes poverty-wage shares from poverty-pay shares (and the same for decent-wage and decent-pay) and the difference between these two incidence indicators is presented for each of the five countries.

#### 1.1 Data

The earnings quality results presented in this paper for the U.S. and four comparison countries were calculated from national surveys: for the U.S., the Current Population Survey (CPS-ORG, as processed by the Center for Policy Analysis): 1979-2017; for France, the Enquete Emploi: 1990-2002) and Enquete Emploi en Continue (2003-2012); for the UK, the Quarterly Labour Force Survey: 1992-2014; for Canada, the Labour Force Survey Public Use Microdata File: 1997-2016; and for Australia, the Household, Income and Labour Dynamics in Australia (HILDA) Survey (University of Melbourne Faculty of Business and Economics).

The individual observations were limited to wage and salary workers, ages 18-64. Self-employed workers were excluded. The wage measure is not identical across countries. The U.S. wage is the self-reported hourly wage for hourly-wage workers; for salaried workers it is weekly earnings divided by usual weekly hours. For the other countries, it is weekly earnings divided by usual weekly hours (the U.K., Canada and Australia), and the same for monthly earnings for France. There are also some differences in the treatment of overtime, bonuses and tips. Since this paper is only concerned with the *share* of workers employed above or below a particular wage cutoff (the incidence measures) or with the *change* in median wages for various groups of workers, these differences should not be important for the comparisons made here. For each country, involuntary part-time indicates that the person is working part-time (less than full-time hours) but would like full-time work.<sup>14</sup>

# 1.2 Wages Adequacy: decent- and poverty-wage thresholds<sup>15</sup>

Household basic-needs budget studies can provide guidance about the level for the cutoff between decent and poverty wages. Particular wage thresholds are inherently arbitrary, but basic-needs survey evidence for single adults and small families can help make sensible distinctions between, say, a good- and just a decent-wage, a decent- and a low-wage, and a low-wage that

<sup>&</sup>lt;sup>14</sup> More detail is available upon request from the author (howell@newschool.edu).

<sup>&</sup>lt;sup>15</sup> This section draws heavily from Howell (2019).

reasonably qualifies as a poverty-wage. The alternative is the conventional approach, which is to choose an arbitrary criterion at or below the median (e.g., two-thirds of the median wage). This was thought to be inadequate for the purposes of this project, since the conventional threshold seemed better characterized as much too low to mark the divide in most U.S. communities between a "decent" and a "low" wage, which meant that separate thresholds were needed to distinguish a decent from a low wage, and a poverty wage from a low wage. Basic-needs survey evidence offers a guide to appropriate wage thresholds for the U.S., and a formula was needed to produce that wage cutoff over time and across countries.<sup>16</sup>

According to the Economic Policy Institute, the wage a full-time worker requires for a "basic-needs" budget in seven of nine American cities (projected for 2016, in 2016 dollars) falls in narrow bands: between \$13.62 to \$15.67 for a single adult and between \$22.67 to \$26.76 for a single adult with one child.<sup>17</sup> The MIT living wage calculator estimates a living wage and a poverty wage based on costs of living in metropolitan areas and states.<sup>18</sup> For example, for the Orlando Florida metropolitan area, the living wage for a single adult was \$13.05 in 2019 (about \$12.55 in 2017) and for one working adult and one child jumps to \$25.57 (about \$24.60 in 2017). Taking a housing-centered approach, The National Low Income Housing Coalition (NLIHC) estimates the full-time wage necessary to rent a modest two-bedroom apartment under the assumption that housing rents amount to no more than 30 percent of annual income (NLIHC, 2017). The 2017 national average for the required full-time wage according to this living wage standard was \$21.21. The median state was Arizona, at \$17.56, and the 12 states ranked 31<sup>st</sup> to 20<sup>th</sup> ranged from Wisconsin (\$16.11) to Pennsylvania (\$18.68).<sup>19</sup>

This living wage budget evidence suggests that the U.S. decent-/low-wage cutoff for full-time workers should be located between \$16 and \$19 per hour and \$12.50 -\$14.00 to mark the low-wage/poverty-wage threshold. With these guidelines, five threshold formulas were compared using three criteria: 1) *work status* (all employed workers or just full-time workers?); 2) *the benchmark wage statistic* (the median or the mean wage?); and 3) *the age of workers* (all workers or prime-age workers?). For both simplicity and consistency with the conventional low-wage incidence definition, all formulas used two-thirds as the fraction of the reference wage.<sup>20</sup>

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<sup>&</sup>lt;sup>16</sup> The purpose of this project is to compare the U.S. pay distributions by demographic group to those of other countries, using pay quality incidence indicators defined for the United States. It would be interesting to define decent- and poverty wage thresholds using similar survey evidence for another country and conduct a similar comparative analysis. This was far beyond the scope of this project.

<sup>&</sup>lt;sup>17</sup> These cities are Bakersfield, Phoenix, Colorado Springs, Houston, Minneapolis, Chicago and Buffalo. To be conservative, Washington DC and Baltimore were excluded because basic-needs budgets in those cities were much higher (for more detail, see Howell, 2019).

<sup>18</sup> https://livingwage.mit.edu/

<sup>&</sup>lt;sup>19</sup> NLIHC (2017): https://reports.nlihc.org/sites/default/files/oor/OOR 2017 0.pdf

<sup>&</sup>lt;sup>20</sup> John Schmitt and Janelle Jones (2012) take a different approach. Instead of calculating the low-wage threshold for each point in time (say, for each year), they use 2/3 of the median for all workers (full-time and part-time) in the first year of their period (1979) as the reference point, so "low pay" is defined for each year after 1979 as a wage that falls below 2/3 of the 1979 median wage (adjusted for inflation).

The definition that generates the lowest wage cutoff, and therefore the lowest incidence of low pay, is *two-thirds of the median wage for all workers* - the cutoff used by the Russell-Sage Foundation's (RSF) Low-Wage Work study (Gautié and Schmitt, 2010). This produced a 4<sup>th</sup> quarter wage of \$12.16 for 2017 (2017 dollars). The OECD's low-wage formula is the same but restricts the reference population to full-time workers. This puts the threshold at \$13.33 in 2017 and this is the poverty-wage cutoff used here. For the cutoff between decent- and low-wage jobs, a substantially higher threshold is required. The mean (rather than the median) was chosen as the reference wage and the reference population was restricted to full-time prime-wage workers. This formula generated a cutoff of \$17.50 for 2017 (\$17.44 for 2017q4).<sup>21</sup> The "goodwage" cutoff, which is not used in this paper's analyses, was defined simply as 150 percent of the decent-low wage threshold, which is \$26.16 for 2017 - about the minimum living wage for a single working adult in a family of 2-4 members in Orlando and Chicago (as estimated by the MIT Living Wage calculator - see above).

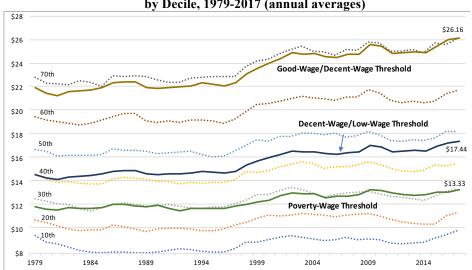


Figure 1. Decent-, Low- and Poverty-Wage Thresholds and the Wage Distribution by Decile, 1979-2017 (annual averages)

Source: wage deciles are taken from The Economic Policy Institute; the wage cutoffs are the author's calculations from the CPS-ORG (CEPR).

**Figure 1** shows the wage threshold for the divide between decent- and low-wage jobs, between low-wage and poverty-wage jobs, and for good-wage jobs along with the values of the 10th through the 70th wage deciles. The cutoff between decent- and low-wage jobs is near the

<sup>&</sup>lt;sup>21</sup> See Howell (2019) for more discussion of this figure and the choice of cutoff formulas. The use of the mean will make changes over time slightly responsive to rising top-end inequality, which seems appropriate since these are relative standards that should change with the shape of the distribution. But it is "slightly" because most of the increase in inequality since the late 1980s has been driven by the top 1-4 percent (above the 95<sup>th</sup> percentile), which is excluded by top-coding of the data. "Prime-age" for the purposes of setting wage cutoffs is defined conventionally as ages 25-54, which is different from the one used in the earnings analysis (35-59).

40th percentile in 1979 and rises steadily to about the 47th percentile by 2017, nearly the national median. The poverty-wage cutoff closely tracks the 30th percentile over the course of the entire 1979-2017 period. The threshold that distinguishes good-wage jobs from just decentwage jobs tracks slightly under the 70th percentile wage until around the 2008 crisis and has since been almost identical with it.

## 1.3 Work-time Adequacy: from wages to pay

A decent job requires adequate earnings, which means a worker needs adequate hours of work. Many workers prefer part-time jobs, so full-time work cannot be the criterion. For simplicity, especially given the complications of cross-country comparisons, a job with adequate-hours is defined as one in which workers are not employed involuntarily part-time (IP-T). If a worker would prefer to work more hours and is unable to do so (answering yes to "could only find parttime work") it is defined as a poverty-pay job even if the hourly wage is above the poverty-wage threshold.<sup>22</sup> Accounting for the adequacy of work hours in this way is less important for the U.S. than many other countries. According to the OECD, for the five countries considered here, the IP-T share of total employment was just 0.7 for the U.S. in 2000, much lower than the UK (2.4), France and Canada (4.6), and Australia (6.3).<sup>23</sup>

What difference does the adequacy of work time (by this measure) make for earnings adequacy across our five countries? **Table 1** presents the poverty-wage and poverty-pay shares for three demographic groups for 1998 (2002 in the case of Australia) and 2014 (2013 for Australia and 2012 for France).<sup>24</sup> The difference between the incidence of poverty-wage jobs and poverty-pay jobs is that the latter includes workers paid *above* the poverty-wage threshold but working IP-T.

The top panel shows that for all American wage and salary workers (18-64), accounting for inadequate hours generates a poverty-pay rate 1.5 percentage points above the poverty-wage rate in 2014 (32.5% compared to 31%), and 1.1 percentage points above the poverty-wage rate in 1998 (29.2% and 28.1%). The 2014 differential was much larger for young male than young female workers, 3.1 percentage points compared to 1.4 points. The results for the U.K. for these gender-age groups were similar. The importance of involuntary part-time work was much higher

<sup>&</sup>lt;sup>22</sup> This might seem extreme, but there the vast majority of workers who identify themselves as involuntary parttime are in the bottom half of the wage distribution. I use the OECD's definition of involuntary part-time, which is limited to those who work fewer than desired hours because they cannot find full-time jobs. But unlike the U.S. Bureau of Labor Statistics definition, this excludes "economic short time" workers. The OECD defines "economic short time" workers as those "working fewer hours than usual" (and therefore part-time) during the reference week "due to slack work for technical or economic reasons or to change of job during reference week (i.e. start or end of job without taking up a new one)" (http://www.oecd.org/els/emp/LFSNOTES\_SOURCES.pdf).

<sup>&</sup>lt;sup>23</sup> For 2018, the rates ranged from 1.0 percent for the US to 8.9 percent for Australia (OECD, "Incidence of involuntary part-time employment" (<a href="https://stats.oecd.org/Index.aspx?DataSetCode=INVPT\_I">https://stats.oecd.org/Index.aspx?DataSetCode=INVPT\_I</a>).

The dates were chosen to provide as much comparison across countries as possible given the years available for

each country.

for Canada, Australia and France, particularly for 1998. For example, inadequate hours added 3.5 percentage points to the young female Canadian poverty-wage rate in 1998 (48.8% compared to 45.3%) and 2.7 points in 2014 (47.1% versus 44.4%). Similarly, the Australian poverty-pay rate was 2.5 percentage points higher than the poverty-wage rate for young female workers in 2013. Accounting for inadequate hours had an even larger impact on the French incidence of pay adequacy in both 1998 and 2012, again most dramatically for young female workers - a difference of 7.8 percentage points in 1998 and 7 points in 2014. This table shows that the importance of inadequate hours between 1998 and 2014 rose for all three U.S. and U.K. groups, fell for young Canadian women, and fell for all three Australian and French age-gender groups.

Table 1: The Significance of Inadequate Hours: The Poverty-Wage and Poverty-Pay Shares of Employment for Three Age-Gender Groups, 1998-2014\*

		1998			2014		
		Poverty-Wage (%)	Poverty-Pay (%)	Dif (pts)	Poverty-Wage (%)	Poverty-Pay (%)	Dif pts)
United States	18-64	28.1	29.2	1.1	31	32.5	1.5
	18-34 male	35.3	36.4	1.1	44.5	47.6	3.1
	18-34 female	46.6	47.6	1	51.9	53.3	1.4
United Kingdom	18-64	29.3	30.4	1.1	27.9	29.4	1.5
	18-34 male	28	28.7	0.7	34.3	35.7	1.4
	18-34 female	40.4	41.5	1.1	41.5	43.3	1.8
Canada	18-64	27.8	30.2	2.4	27.8	29.8	2
	18-34 male	34.3	35.9	1.6	34	35.5	1.5
	18-34 female	45.3	48.8	3.5	44.4	47.1	2.7
		2002		2013			
Australia	18-64	16.4	19.2	2.8	18	19.9	1.9
	18-34 male	23.3	26.2	2.9	23.7	25.4	1.7
	18-34 female	23	26	3	28.3	30.8	2.5
		1998		2012			
France	18-64	14.1	18	3.9	10.4	14.2	3.8
	18-34 male	16.1	19.3	3.2	14.9	17.2	2.3
	18-34 female	22.3	30.1	7.8	16.8	23.8	7

<sup>\*</sup>The share of workers in each demographic group with an hourly wage above the poverty-wage threshold but with inadequate hours, measured by involuntary part-time employment, is added to the poverty-wage share to get the poverty-pay share. Author's calculations from national or household surveys.

## 2. The Cross-Country Incidence of Decent- and Poverty-Pay Jobs

Figures 2-4 present trends in decent- and poverty-pay rates by country for available years since 1980. **Panel 2A** reports annual trends in the incidence of decent-pay for all wage and salary workers (ages 18-64) - the share of jobs that pay above the decent-wage threshold and in which workers are not employed involuntarily part-time. Ranging between 53-58 percent, decent-pay shares for the U.S. and U.K. were notably lower than the 62-76 percent range for Canada, Australia, and France. The U.S. decent-pay rate experienced a long-run decline, from 60.4 percent in 1980 to 53.5 percent in 2017; the U.K.'s rate fluctuated between 53 and 55 percent

between 1995 and 2014; and Canada's rate has been considerably better (higher): 63-65 percent between 1998 and 2007 before falling gradually to 62.4 percent in 2016. At still higher levels, Australia's decent-pay share rose from 67.7 in 2002 to just under 70 percent in 2005-7 and then fell to 64.7 percent in 2013. After fluctuating between 67 and 70 percent in the 1990s, France's decent-pay rate rose sharply to 77.5 percent in 2007 and then fell slightly to 76 percent in 2012. Panel 2A shows that the performance of LME countries has declined substantially relative to France. The most extreme decent-pay gap was between the U.S. and France, which rose from 12 percentage points in 1990 to 22.3 points in 2012 (53.7% compared to 76%).

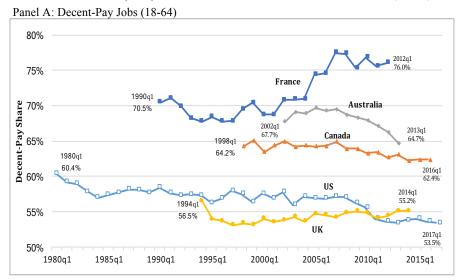
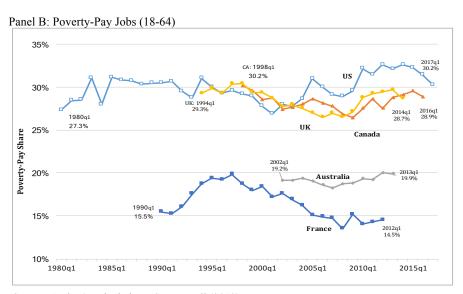


Figure 2: Decent- and Poverty-Pay Jobs for Five Countries for All Workers (18-64), 1980-2014\*



Source: Author's calculations. See Howell (2019)

**Panel 2B** shows that the incidence of poverty-pay jobs has been similar for the U.S., U.K., and Canada and at much higher levels than for Australia and France. This means that poverty-*wage* differences between these two sets of countries were even larger because Australia and France have had considerably higher involuntary part-time rates (Table 1). The poverty-pay rate in 2012 was 32.6 percent in the U.S., 29.5% in the U.K., 27.6 percent in Canada, and 14.5 percent in France. The poverty-pay gap between the U.S. and France grew between 1990 and 2012 from 14.6 percentage points 17.6 points.

**Figure 3** narrows the focus to the incidence of poverty-pay jobs for prime-age workers (35-59), separately for males and females. The share of prime-age American male workers with poverty-pay jobs (Figure 3A) almost doubled between 1980 and 2017, rising from 8.7 to 16.5 percent. Over this 37-year span, there was stability or decline in only two short periods, 1994-2001 and 2012-2017. Canada and the U.K. show smaller increases from slightly lower levels, reaching 15.5 percent in 2016 and 14.7 percent in 2014, respectively. At much lower levels, Australia (10.5% in 2013) and France (5.8% in 2012) show similar levels at the beginning and end of their time series. For women (Figure 3B), the poverty-pay rate rises slightly for Australia (to 17.7% in 2013) but falls for the other four countries, leaving the U.S., U.K., and Canada between 27 and 30 percent in 2014-17 and France and Australia much lower at 17.5-17.7 percent (2012-13). Like the results for all workers in Figure 2, outcomes for prime-age men and women are worst (and similar) for the U.S., U.K., and Canada, and considerably better for Australia and France.

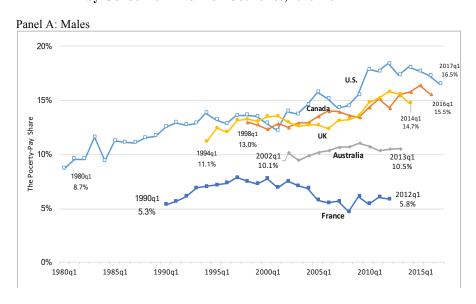
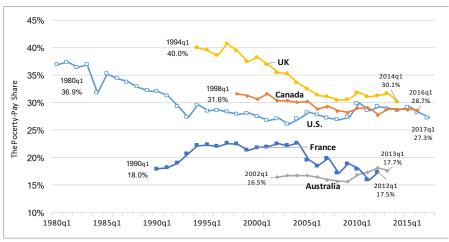


Figure 3: The Incidence of Poverty-Pay Jobs for Prime-Age Workers (35-59) by Gender for Five Rich Countries, 1979-2017\*





\*Source: Author's calculations from national labor force (or household) surveys. See text.

**Figure 4** turns to decent- and poverty-pay rates for young workers (18-34) with less that a 4-year college degree by gender. The cross-country rankings are similar to those for the full population of 18-64 workers but with much worse outcomes: young female and male workers without a college degree show substantially lower and falling shares of decent-pay jobs and much higher and rising shares of poverty-pay jobs.

Panel 4A reports that after almost perfect stability at around 30 percent between 1980 and 1993, the American decent-pay share for young less-educated female workers fell steadily to just 14.6 percent in 2014. Young U.K. women experienced an even larger percentage point decline between 1998 and 2014, from 38 to about 20 percent, although at a higher decent-pay share levels than U.S. women. Young Canadian and Australian women without a college degree had still better outcomes, but the Australian decent-pay share then fell sharply to under 39 percent by 2013, not much above the Canadian rate. Much better off on this metric since 2004 were young French women, with a decent-pay rate of 54.6 percent in 2012. The French-U.S. decent-pay rate gap between young women with less than a college degree rose spectacularly, from 22 percentage points in 1990 (52% and 30%) to over 37 points in 2012 (54.5% and 17.4%). Panel 4B shows that the cross-country pattern of decent-pay rates since the 1980s for similarly defined young men were quite similar. The increase in the French-U.S. decent-pay job gap for less-educated young men between 1990 and 2012 was enormous, from 17 percentage points (64.3% and 47.3%) to 42.3 points (69.7% and 27.4%).

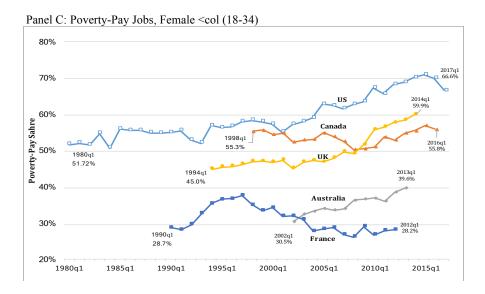
Panels C and D report the incidence of poverty-pay jobs for young workers with less than a college degree for the five countries. Again, poverty-pay job shares were highest and increased the most in the U.S. and U.K., for both men and women. Like the U.S. and U.K., **Panel 4C** shows that Australian poverty-pay shares rose sharply between 2002 and 2013 but at much lower levels, from 30.5 percent 39.6 percent. Unlike the performance of all four LME countries, the French

incidence of poverty-pay jobs for young non-college degree French women *fell* after the mid-1990s from a relatively low level, from 37.5 percent in 1997 to 28.2 percent in 2012. The gap between these U.S. and French poverty-pay rates rose from 26.2 percentage points in 1990 (55% and 26.3%) to 40 points in 2012 (68.2% and 28.2%). For young male workers without a college degree, **Panel 4D** also shows large increases for the U.S. and U.K. at the highest levels, while Canada and Australia show stability at lower poverty-pay levels. France is, again, all by itself, with a young less-educated male poverty-pay rate that fell from 23.6 percent in 1997 to 18.1 percent in 2012. The gap between American and French poverty-pay rates grew by 13.9 percentage points between 1990 and 2012, from 22.9 points in 1990 (39.3% and 16.4%) to 37.8 points in 2012 (55.9% and 18.1%).

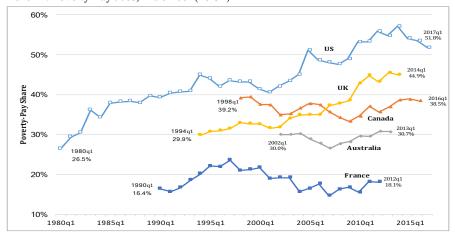
Panel A: Decent-Pay Jobs, Female <col (18-34) 70% 60% Decent-Pay Share 40% 37.1% UK 1980a1 US 20% 10% 1980q1 1985q1 1990q1 1995q1 2000q1 2005q1 2010q1 2015q1

Figure 4: Decent- and Poverty-Pay Jobs for Young (18-34) with Less than a College Degree by Gender for Five Countries, 1980-2014\*





Panel D: Poverty-Pay Jobs, Male <col (18-34)



\*Source: Author's calculations from national labor force (or household) surveys. See text.

While figure 4 compared decent- and poverty-pay incidence trends by gender-education group with the five countries in each panel, **Figure 5** shows the incidence of poverty-pay jobs for four demographic groups in each country panel, which facilitates comparisons of trajectories of poverty-pay incidence levels and gaps across gender-education groups for each of the five countries.

The top two trend lines in each of the Figure 5 panels show the incidence of poverty-pay jobs by gender for *young workers without a college degree*. Panels A and B for the U.S. and U.K. report high and sharply rising shares of poverty-pay jobs, reaching 71 percent and 56 percent in 2014 for American women and men (66.4 % and 50.9% in 2017) and 60 percent and 47 percent for similarly defined young British women and men. Panel 4C shows that young non-college Canadian women and men in these demographic groups experienced some declines in poverty-pay rates over the middle of the 1998-2016 period, but both genders have nearly

identical 1998 and 2016 endpoints over a range of 50-57 percent for women and 33-40 percent for men. In contrast, Panel 4D shows that Australian poverty-pay rates have been much lower, rising from 30.5 percent to almost 40 percent between 2002 and 2013 for female workers and fluctuating between 26.5 to 30.7 percent for men. Panel 4E shows that French poverty-pay rates have been even lower. Unlike the LME countries, both young male and female French workers without college degrees experienced *falling* poverty-pay shares between 1996 and 2012: from 36.7 percent to 28.2 percent for women and from 21.9 to 18.1 percent for men.

The two trend lines at the bottom of each panel show the incidence of poverty-pay jobs for young male and female workers with *at least a conventional (BA/BS) college degree*. Panels A and B indicate that poverty-wage shares for both female and male college graduates were higher in the U.S. than the U.K. before the Great Recession by 2-6 percentage points, but since 2008 these rates worsened more in the U.K., reaching U.S. levels for women (20%) and to just a percentage point below U.S. levels for men at the end of 2014. Panel 5C shows that young Canadian college-educated workers have consistently had higher poverty-pay rates than the other three LME countries, rising for women from 20 percent in 2002 to 27 percent in 2014 (24.6% at the end of 2016), and for men from about 14 percent to 22.5 percent (20.6% in 2016). College degree Australian workers (Panel D) have shown stable poverty-pay rates at levels modestly below American rates and far below Canadian levels for female and male workers (14.3% and 8% in 2013). Poverty-pay rates for French college-educated workers (Panel E) have been stable at levels similar to Australia, ranging from 3.7 to 7.8 percent for young French men and from 7.3 percent to 14 percent for young French women.

Figure 5 also reveals large differences in the evolution of differences in the incidence of poverty-pay jobs for these gender-education groups within and across the five countries. For workers with less than a college degree, there was notable convergence in the gender gap for the U.S., the U.K. and France, stability at high gap levels for Canada, and a widening gender gap in Australia (but at very low gap levels). The Australian gender gap for non-college degree workers was nearly nonexistent in 2002 (.5 points) but increased to 7.4 points in 2007 and was 5.9 points in 2013. The most recent poverty-pay gender gap for the other countries was considerably higher: France (10.1 points), the U.K. (12.7 points), the U.S. (14.4 points) and Canada (16 points).

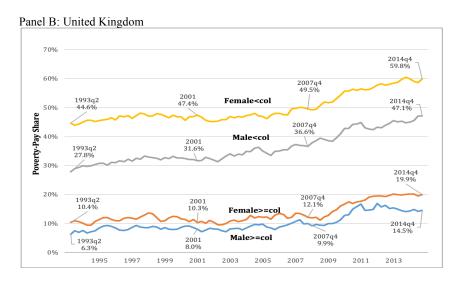
It is not surprising that young workers with the lowest incidence of poverty-pay jobs in all five countries were men with a college degree while those with the highest were female workers with less than a college degree. The distance between the top and bottom trend lines in each country panel measures the gap between these two extremes. For the most recent available years, the *size* of poverty-pay gap between young female workers without a college-degree and young male workers with a degree was by far the largest in the U.S., at 52.7 percentage points (66.4% vs 13.7% in 2017), followed by the U.K. (45.3 points in 2014), Canada (35.2 points in

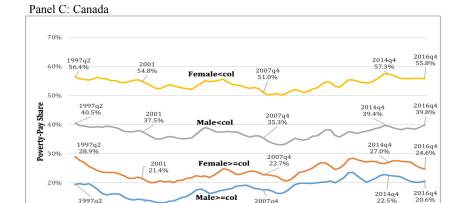
2016), Australia (31.6 points in 2013) and France (20.4 points in 2012). Once again, the U.S. and U.K. show the largest earnings quality disparity, Australia, and France the lowest.

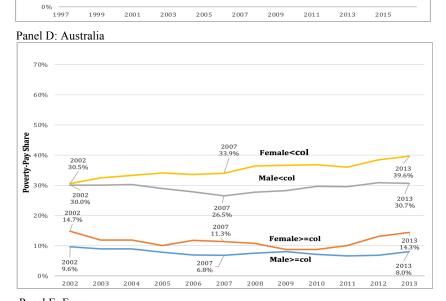
The U.S. and U.K. also experienced the large *increases* in this measure of gender-education disparity in poverty-pay rates for young workers, from 44.2 percentage points to 52.7 points for the US from 1979 to 2017 (8.5 points; up 10.8 points from 1989). This disparity gap also increased in the U.K. (up 7 points between 1993 to 2014) and Australia (up 10.5 points between 2002 and 2013). But it fell for Canada (down 1.5 points between 1997 and 2017) and France (down 4.6 points between 1990 and 2012). These differences in levels and changes (and changes in direction) demonstrate that there is no iron rule for gender-education pay disparities across countries as one might expect if earnings distributions were determined by computer-driven (or globalization-driven) shifts in the demand for skills.

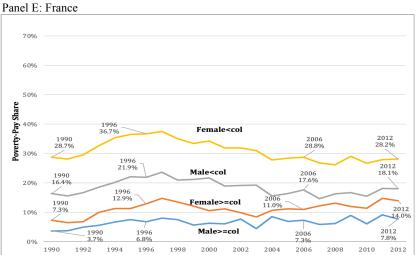
Panel A: United States 70% Female<col 1989q4 54.3% 2017q4 66.4% 1979q2 52.1% Male<col overty-Pay Share 2008q4 16.0% 20% 1979q2 17.1% 10% 1989q4 12.4% 2008q4 12.1% 2017q4 13.7% Male>=col 1979q2 7.9% 1987 1991 1995 2003 2011 2015 1999 2007

Figure 5: The Incidence of Poverty-Pay Jobs for Young Workers (18-34) by Gender and Education for Available Years by Country









\*Source: author's calculations from national household surveys (see text).

#### 3. Cross-Country Changes in the Wage Growth for Young Less-Educated Workers

Figures 2-5 showed that across the five countries, American workers have consistently faced a labor market with the highest share of poverty-pay jobs and the lowest share of decent-pay jobs, especially for young workers with less than a college degree. Canada and the U.K. fall between the U.S. and the two best performers, France, and Australia. This section turns from these two indicators of the incidence of pay quality to two indicators of the *levels* of pay quality. These are measured by changes in the median wage over the first two decades of the 21<sup>st</sup> century. The first compares changes in the median wage for young workers without a college degree in all jobs; the second does the same for these workers employed in poverty-pay jobs.

The top panel of **Figure 6** presents results for female workers. The change in the overall median wage for young female workers with less than a college degree (the first bar for each country) follows the same cross-country pattern as the incidence of poverty-pay jobs: a big decline (worsening) for the U.S. (-10.3%), negligible to moderate increases for the U.K., Canada, and Australia (.7%, 8.9%, and 7.4%), and a large increase for France (11%). The second bar for each country reports median wage changes for these workers employed in poverty-pay jobs. Again, the US has been the worst performer (-.4%), but for these worst paying jobs, the percentage increase in the median wage for these young workers in poverty-pay jobs was *lower* in France (8.2%) than the U.K., Canada, and Australia (14.5%, 13.5%, and 16.3%). Still, the U.S. performs the worst: the range of 8.2 to 16.3 percent growth for these four countries compares to a decline of 0.4 percent for young American female workers.

Results for male workers are shown in Panel B. For all jobs, the change in median wages for young non-college degree male workers followed the same broad pattern as in panel A (and the poverty-pay incidence rankings shown in Figures 2-5): the U.S. is by far the worst performer (-13.1%), followed by the U.K. (-4%) and Canada (7.2%), while the best performers are Australia (11.6%) and France (10.4%). But as in Panel A for female workers, this is not quite the same cross-country pattern for those in poverty-pay jobs: although the U.S. (-1.3%) again shows the worst performance, the next poorest performer is France (1.7%), <sup>26</sup> while Canada (6.3%) falls between France and the top performers on this metric, the U.K. (12.9%) and Australia (12.2%).

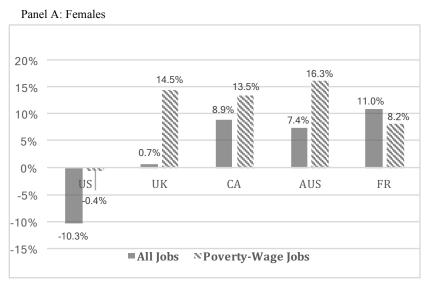
In sum, Figure 6 shows that on both overall wage growth and poverty-pay job wage growth for young non-college degree workers, the U.S. is clearly the worst performer. Overall, the pattern of changes in median wages for the most part mirrors the relative standings of the five countries on the levels and changes in the incidence of poverty- and decent-pay jobs, except that

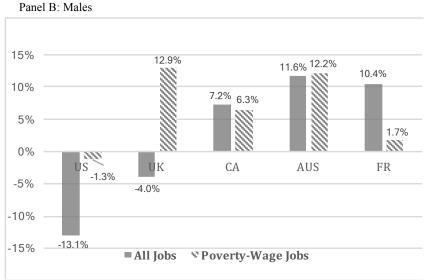
<sup>&</sup>lt;sup>25</sup> Wages are in real terms, deflated by each country's consumer price index (for 2014).

<sup>&</sup>lt;sup>26</sup> On the other hand, it is worth noting that France's high minimum wage puts the level of the median wage for poverty-pay jobs far higher than the LME countries, with the possible exception of Australia which also has a high minimum wage. Not entirely consistent with the French median wage series for poverty-pay jobs shown in Figure 5, the French median wage has risen steadily since 2000. Between 2010 and 2020 it rose from 9 to 10.15 euros (<a href="http://www.fredpayroll.com/minimum-wage-france/">http://www.fredpayroll.com/minimum-wage-france/</a>).

the other three LME countries outperform France on median wage growth for these workers in poverty-pay jobs.

Figure 6: Changes in Wage-Quality Measured by the Real Median Wage for Young (18-34)
Workers without a College degree for All Jobs and for Poverty-Pay Jobs by Gender:
Five Countries, 2000-2014





\*Source: author's calculations from national household surveys (see text). Results are for 2000 to 2014 except Australia (2002-2013) and France (2000-2012).

## 4. Net Pay and Employment Performance

The magnitude of these cross-country differences in poverty- and decent pay incidence and median wage suggest that labor markets do much better for bottom-half workers in some countries than others, even among Anglophone liberal market economies. These are indicators of

gross pay for employed workers. It is possible that country rankings would look quite different with indicators of net pay and, perhaps also, if account were taken of workers "priced-out" of the labor market by institutions and policies that raise pay levels and compress the pay distribution in the bottom-half.

# A. Would Net Pay Matter for Country Performance?

Countries that intervene to raise pay at the bottom and compress the bottom half of the distribution may require higher taxes that could, in turn, distinguish the gross from the net cross-country pattern of pay performance.

**Table 3** shows the OECD's estimated 2019 tax burden on labor income for four family types in each of the five countries. For a single low-wage worker (paid 67% of the average wage), the first column reports that the combined income and social security tax contribution ("all-in") was the highest for France (23.3%) and lowest for Australia (18.1%). The tax burden on American low-wage workers (21.5%) was, next to France, the highest – well above Canada (18.7%) and the U.K. (19.1%).

Table 3: Average Tax Burdens on Labor Income by Family Type for Five Countries (%), 2019

	"All-in" (combined	"All-in" less cash	"All-in" less cash	"All-in" less cash	
	income tax & SS	transfers at the	transfers at the	transfers at the	
	contribution on	average wage for a	average wage for a	average wage for	
	labour income) for a	single person with two	one-earner married	a one-earner	
	single person at 67%	children <sup>2</sup>	couple with no	married couple	
	of the average wage <sup>1</sup>		child <sup>2</sup>	with two children <sup>2</sup>	
France	23.3	8.9	20.8	13.8	
Australia	18.1	16.0	23.6	16.0	
Canada	18.7	2.8	19.1	2.4	
United Kingdom	19.1	18.9	22.7	18.3	
United States	21.5	14.0	19.8	12.2	

Source: OECD.Stat, Tax Database (<a href="https://stats.oecd.org/index.aspx?DataSetCode=TABLE\_15#">https://stats.oecd.org/index.aspx?DataSetCode=TABLE\_15#</a>). "All-in" is the total tax wedge minus employer social security contribution. "Combined" income tax includes central and sub-central government taxes. Percentage figures in bold are the highest and lowest for the five countries.

The results for workers at the average wage for three other family types are different, but for each the pattern of net tax burden fails to reflect the cross-country earnings quality patterns reported in sections 3 and 4. Column 2 shows that the net tax burden ("all-in" taxes less cash transfers) for a single worker paid at the average wage with two children is the lowest in Canada (2.8%) and France (8.9%) and highest for the U.K. (18.9%) and Australia (16%); the U.S. holds the middle position (14%). For a single-earner married couple with no children (column 3), the net tax burden by this measure is similar - Canada is again the lowest (19.1%) and Australia the highest (23.6%). Like column 2, column 4 shows how important children are for tax burdens for

<sup>&</sup>lt;sup>1</sup> OECD Table 1.5: "Average personal income tax and social security contribution rates on gross labour income."

<sup>&</sup>lt;sup>2</sup> OECD Table 1.6: "All-in average personal income tax rates at average wage by family type."

single earner married workers paid the average wage: Canada's rate is just 2.4 percent, compared to 18.3 percent for the U.K., 13.8 percent for France and 12.2 percent for the United States.

These results do not suggest that net tax burdens could possibly offset the pattern of earnings quality in the bottom half of pay distributions for these five rich countries, except for Canada for workers in single-earner families with children.

## B. Is there a Tradeoff between Pay and Employment Performance?

An important challenge to interventions that raise wages and promote more egalitarian pay distributions is the concern that employers will respond by reducing job opportunities. Does the aggregate cross-country evidence suggest that there is a pay-employment tradeoff for workers most vulnerable to being "priced-out" of jobs - young workers with the least educational attainment? The aggregate evidence reported here does not support such a tradeoff.

Figure 7 presents the incidence of low pay and employment rates for young (25-34) workers with the lowest levels of educational attainment - those with less than an upper secondary degree. If institutions and policies that raise wages at the bottom reduce job opportunities, they should be evident for this population.<sup>27</sup> American workers experience the highest incidence of low pay (23.4%), far above that of Sweden (3.0%) and Belgium (5.5%), but young American workers with low levels of educational attainment do not have particularly high employment rates: at 57.4 percent, the share employed is well below Sweden (64.6%), Netherlands (64.2%) and Switzerland (69.4%) as well as three other liberal market economies (the U.K, 66.6%; Australia, 60.8%; and New Zealand, 68.9%). As the long oval underscores, countries with similar employment rates of 56-58 percent have dramatically different low pay employment shares, ranging from Denmark (8.7%) to the U.S (23.4%) with Austria, Germany and Canada between them.

Figure 8 contrasts the employment rates for the same population with a common measure of bottom-end wage inequality, the 50-10 ratio (relative pay of the median to the 10<sup>th</sup> percentile). The cross-country pattern is similar to Figure 7. With a ratio of 2.02, bottom-end inequality is far higher for the U.S. than any other country in the figure, but with an employment rate that is similar to or below that of thirteen other rich countries. There is no apparent simple explanation for the four countries that report lower employment rates but have much more egalitarian bottom-end pay distributions. They range from Nordic and Protestant (Finland) to Continental and Catholic (France and Belgium) and Mediterranean Catholic (Italy). But all four are similarly egalitarian, with 50-10 ratios ranging from 1.39 (Belgium) to 1.51 (France).

<sup>&</sup>lt;sup>27</sup> Young prime-age workers (25-34) rather than the youngest group (15-24) are used to avoid the effects of differences across countries in the share of workers who are students working part-time or part-year, who are still living with their parents, or face special regulations for teen workers (e.g., the minimum wage).

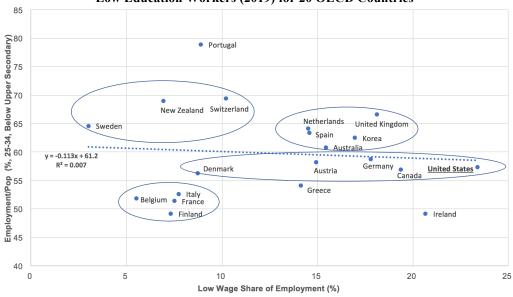


Figure 7: The Incidence of Low Wages (2013-19) and Employment Rates for Young Low Education Workers (2019) for 20 OECD Countries\*

\* The incidence of low pay is measured as the share of workers paid below 2/3 of the median full-time wage. The source is the International Labour Organization (ILO) for France (2013) and Sweden (2014) and the Organization for Economic Cooperation and Development for the other countries (2019: Canada Korea, New Zealand, the U.K., and the U.S.; 2018: Australia, Austria, Denmark, Finland, Germany, Greece, and Portugal; 2017: Belgium; 2016: Italy, Switzerland; 2014: Ireland, the Netherlands and Spain). Employment rates are for workers ages 25-34 for those with below upper secondary education (the lowest category) for 2019. Source: *Education at a Glance* (OECD, 2020, Table A.3.2).

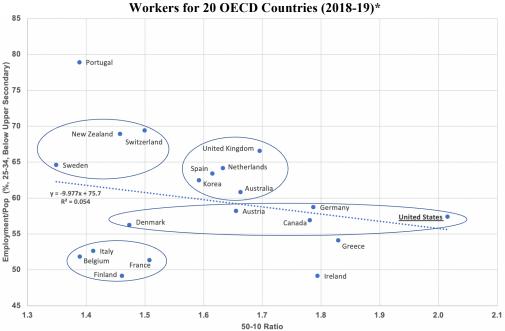


Figure 8: The 50-10 Inequality Ratio and Employment Rates for Young Low-Education Workers for 20 OECD Countries (2018-19)\*

<sup>\*</sup> The ratio of the 50<sup>th</sup> to the 10<sup>th</sup> percentile worker is a measure of bottom-half wage inequality. The ratios are for 2018 with the exception of Canada, Korea, New Zealand, Sweden, the U.K. and the U.S. (2019) and Belgium (2017). The source is the OECD. incidence of low pay is measured as the share of workers paid below 2/3 of the median full-time wage. Employment rates are for workers ages 25-34 for those with below upper secondary education (the lowest category) for 2019, taken from *Education at a Glance* (OECD, 2020, Table A.3.2).

The pattern of unemployment rates for young less-educated workers and bottom-end inequality is shown in Figure 9. Three groups of countries have similar employment rates but vastly lower inequality below the median. Inequality is notably lower in Germany, Canada and Ireland and unemployment that is slightly higher. With still lower inequality, another group has the same (Australia) or lower unemployment rates (Netherlands, U.K., and Korea). Another four countries show much lower inequality and similar or lower unemployment (Denmark, Switzerland, Portugal, and New Zealand). Three countries have very low inequality and relatively high unemployment (Sweden, Belgium, and Finland) and another three with low inequality report very high unemployment (Italy, France, and Spain).

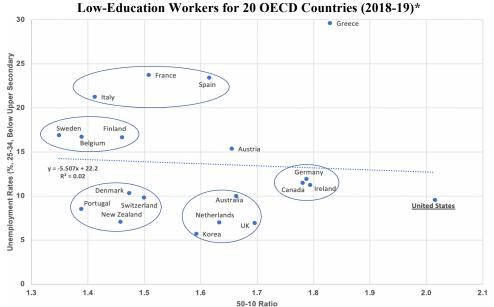


Figure 9: The 50-10 Inequality Ratio and Unemployment Rates for Young

Source: see Figure 8, but unemployment rates are from Table A.3.2 (Education at a Glance, OECD, 2020).

The explanation for this wide variety of inequality and employment performance - whether measured by employment or unemployment rates - remains far from clear, but two points can be made with some confidence. First and most obviously, figures 7-9 demonstrate that there is no simple correspondence between employment performance for the most vulnerable workers and national differences in bottom-end wage levels and compression. Second, the recent empirical literature that has attempted to explain cross-country employment performance by the protectiveness (or "rigidity") of labor market institutions and policies that raise wages and reduce wage inequality has failed to produce robust, widely accepted results (Howell, 2005; Baccaro and Rei, 2007; Koeniger et al., 2007; Howell et al., 2007; Avdagic and Salardi, 2013; Jaumotte and Buitron, 2015; Brancaccio et al., 2020).

#### 5. Conclusion

The main contribution of this paper to the cross-country literature on wage inequality and job quality is to compare new indicators of earnings quality developed by Howell (2019) for the U.S. to four other rich countries – the U.K, Canada, Australia, and France. These indicators measure the *incidence* of decent- and poverty-pay jobs and reflect the adequacy of both wages and work hours. The wage quality of jobs is calculated by reference to two wage cutoffs, grounded in judgments from basic budget survey evidence about the consequences of different wage levels for "decent" and "poverty" living standards for a small (single worker without or with a single child). Decent-pay jobs are those paid above the decent-wage threshold in which a worker is not employed involuntarily part-time; poverty-pay jobs are those paid below the poverty-wage threshold or employed involuntarily part-time.

The main finding is that the pattern of cross-country pay quality is quite similar for all demographic groups defined by age, gender, and education: the performance of the U.S. has been consistently the worst, with the lowest decent-pay job shares and highest poverty-pay shares. France shows much superior performance on both incidence measures, especially for young workers without a college degree, and the U.S.-France gap on both metrics has shown a persistent increase for both male and female workers. Between the performance of the U.S. and France is Canada and the U.K. (closer to the U.S.) and Australia (closer to France). The same broad cross-country pattern is found for changes in the level of earnings quality, measured by changes in the median wages for young workers with less than a college degree and for those employed in poverty-pay jobs. The conventional argument against raising pay quality at the bottom and compressing the pay hierarchy has been that young less-educated workers will be "priced-out" of the labor market. But the evidence presented here, both in the form of cross-country scatterplots of employment performance and earnings quality and by reference to the published literature, suggests no such tradeoff.

This paper addressed the question of how the U.S. compares to other rich countries in bottom-end earnings performance, particularly three similarly large Anglophone, liberal market economies. This approach to earnings quality in Howell (2019) ought to be extended to other countries to further explore the effects of institutional regimes on the earnings quality of jobs at the bottom of national pay distributions. As part of such an extension, it would be interesting to replace the US as the yardstick for the wage cutoff formulas with one from another country for comparisons across countries with broadly similar social safety-net systems.

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