U.S. workers in global comparison

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The American Worker Project from EIG compares the U.S. worker of today against the U.S. worker of the past. My aim is to add a new dimension, comparing U.S. workers to their counterparts in the rest of the world.

Specifically, I look at the abundance of jobs in the U.S. and abroad, trends in wage growth, and the distribution of worker pay.

Jobs have been abundant in the United States and other advanced economies.

Workers in the United States have experienced dramatic events in recent years, ranging from the global Covid-19 pandemic to the enormous fiscal response to lockdowns and related threats to Americans' income security.

Price inflation and real wage declines returned across advanced economies for the first time in over a generation, triggered in the United States partly by the scale of fiscal stimulus.

Real wage levels, however, have held up far better for American workers than for European workers in recent years.[1] The strong recovery in U.S. job creation pushed down the unemployment rate to below 4 percent for an unprecedented period of more than two years, and it has restored employment-to-population ratios to their pre-Covid ranges.

But at the same time, Figure 1 illustrates that in the United States the recovery in the employment-to-population ratio for the 15–64 year old working age population—arguably the most relevant metric for broad labor market health—actually lags behind the recoveries in the EU27 and Japan, even though the U.S. has outpaced them in GDP growth and enacted a much larger fiscal stimulus.[2]

Figure 1: Employment/population ratio 15–64y, 1983–2023

Legend: — U.S. Women - - U.S. Men — Japan Women - - Japan Men — EU27 Women - - EU27 Men
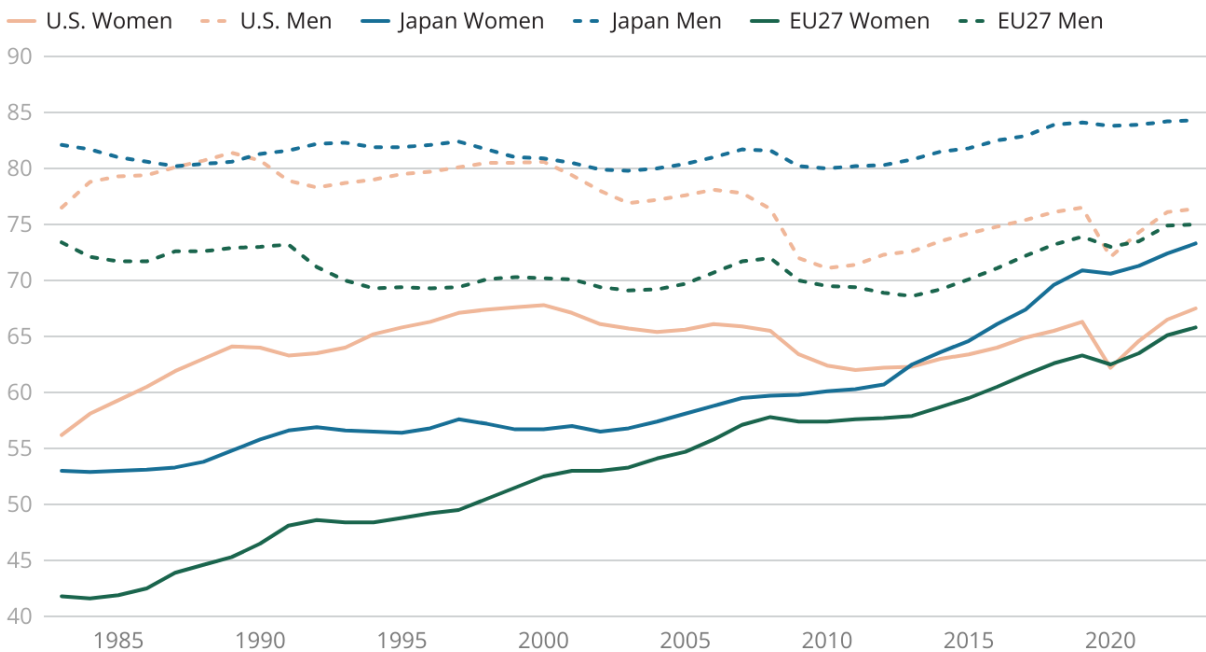
Source: Organization for Economic Co-operation and Development, Eurostat, Statistics Japan

The 2023 U.S. male employment ratio was at 76.4 percent, near its highest peak from after the Global Financial Crisis, though it remains well below the levels of the 1980s and 1990s. The U.S. female employment rate of 67.5 percent, meanwhile, exceeded 2019 levels and by 2023 had nearly returned to the historic U.S. female employment heights of 2000.

But the U.S. post-pandemic labor market rebound looks less remarkable when compared to the male employment rate in Japan (which never fell below 84 percent in recent years) and in the EU27 (which by 2023 had exceeded its 2019 levels and climbed to 75 percent).

Japan's working age female employment rate, meanwhile, exceeded that of U.S. women by more than five percentage points as of 2023, while the EU27 had nearly closed its historically large female employment gap with America.

Surging immigration into the United States in 2022 and 2023 helped the economy grow and generate more jobs, while also potentially putting downward pressure on working age employment rates. Total population growth from net migration into the United States (making up by far the largest share of total population growth) accounted for 0.30 and 0.34 percentage points in 2022 and 2023 respectively.

The latest available reported net migration into Japan in 2022 was a comparable (!) 0.3 percent in 2022,[3] while the EU27 witnessed an unprecedented population inflow from the war in Ukraine and saw reported net migration in 2022 rise by 0.89 percent, almost exclusively made up of working age women (Ukrainian

men of fighting age are not allowed to leave) and children. In other words, rising post-pandemic U.S. net migration levels have at least been matched by migration to other large advanced economies.

To summarize, while the U.S. labor market rebound has been strong and real wages mostly held up despite an inflationary spike, it has not—despite larger fiscal stimulus, higher GDP growth, and comparable net immigration levels—matched the simultaneous rise in recent years of the employment-to-population ratios of Japan and the EU27.

U.S. workers are paid higher wages than workers in other advanced economies.

When comparing wages from the perspective of workers across different countries, it is most relevant to rely on purchasing power parities to capture the equivalent levels of goods and services that workers can purchase from the fruits of their labor.

At the same time, as the U.S. is a continental size economy, it is most appropriate where possible to compare U.S. state wage levels with those found in other advanced economies, and to adjust them also for the differing price levels of goods and services found across U.S. states.

For the latter, this paper will rely on the BLS QCEW state level wage data and the BEA Regional Price Parities (RPP).[4] Figure 2 shows the latest available U.S. state wages in current $ and PPP adjusted terms from 2022.

Figure 2: U.S. state and District of Columbia wages
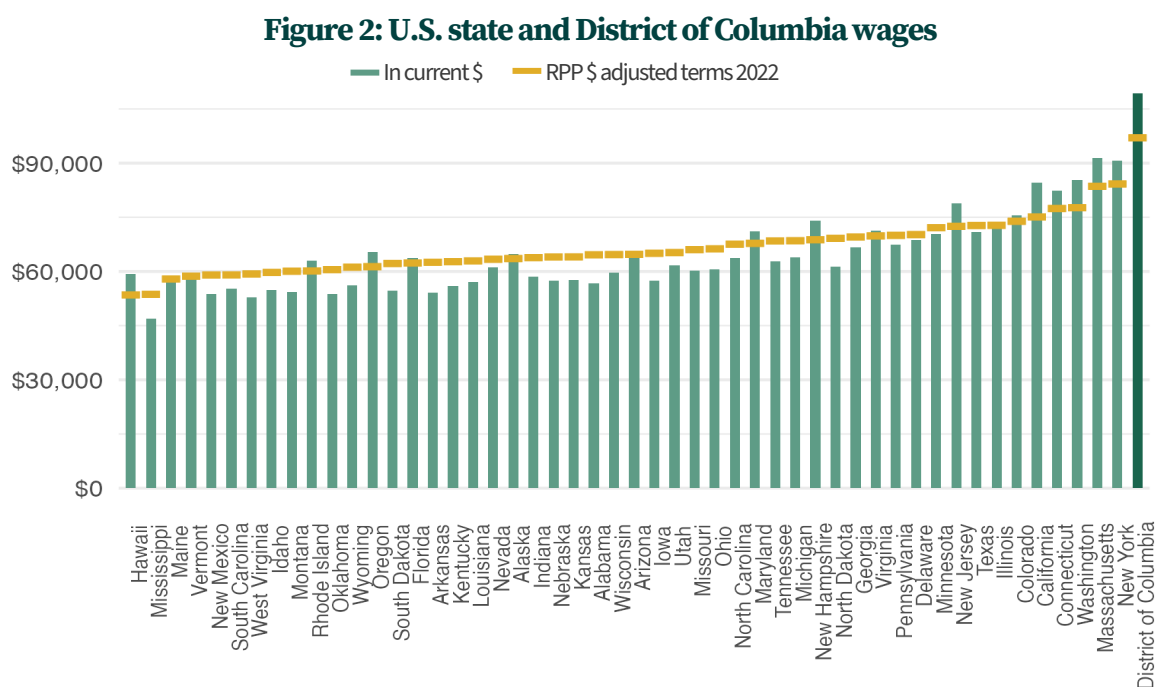
Source: Bureau of Labor Statistics and Bureau of Economic Analysis

Mississippi in 2022 had the lowest dollar wages in the United States, while when factoring in price levels, Hawaii had a marginally lower wage income. New York and Massachusetts top both current dollar and RPP state level wages. (The small urban metropolitan area of the District of Columbia unsurprisingly surpasses all U.S. states in average wage levels, but will for genuine comparisons' sake be dropped in the subsequent analysis.)

Figure 3 compares U.S. state level RPP wages with other OECD countries in OECD current PPP dollar terms in 2022.[5]
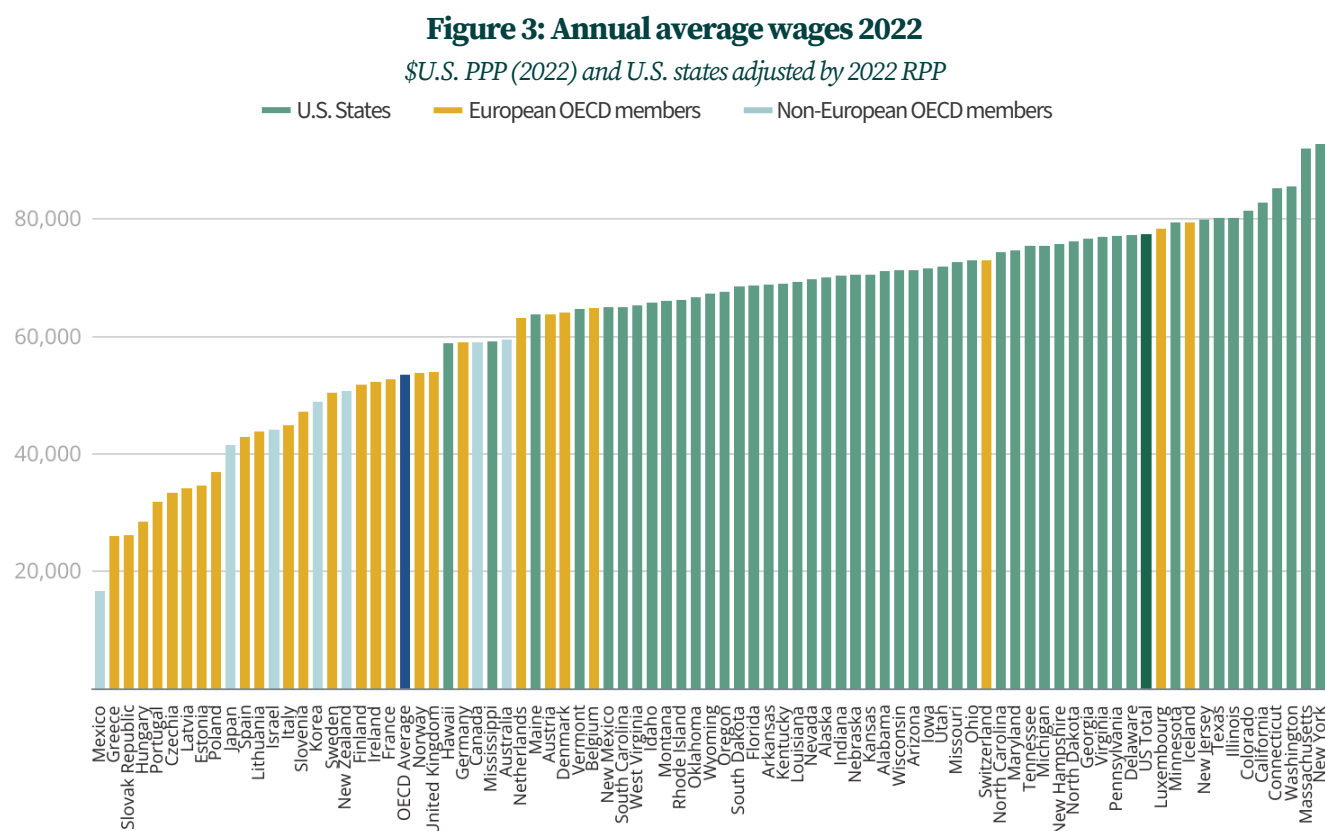
Figure 3: Annual average wages 2022

$U.S. PPP (2022) and U.S. states adjusted by 2022 RPP

Source: Organization for Economic Co-operation and Development, Bureau of Economic Analysis, Bureau of Labor Statistics

Only workers in Luxembourg, Switzerland, and Iceland have wages higher than the lowest wage U.S. states. And wages even in Hawaii are well above the OECD average. U.S. state level wages, when adjusted for price levels, are in general considerably higher than wages in most other OECD countries.

The price adjusted distribution of wages among U.S. states is furthermore considerably smaller than found among European and other non-U.S. OECD members.

Regional wage inequality inside the U.S. is hence lower than among other OECD members. Mexico had the lowest wages in the OECD, followed by Greece and Slovakia, while (perhaps surprisingly) average Japanese

wages were approximately $7,500 lower than South Korean wages when adjusted for purchasing power parity.

A considerable part of the lower wage incomes in other OECD countries can be attributed to the higher annual hours worked in the United States, particularly when compared to Northern European OECD members.

The United States has 10 paid federally mandated holidays, but otherwise paid leave is solely at the discretion of the public or private employer. In comparison, at the other extreme in Europe, Germany and Denmark have on average 30 days of paid annual leave, agreed through collective bargaining, in addition to 10–13 paid public holidays. Even Japan has 10 paid holidays as a statutory minimum on top of 19 paid public holidays.[6]

Work-life balance preferences will vary across countries. From the perspective of non-U.S. workers, they can conceptually be said to have purchased more leisure time with part of their wage earnings. To illustrate the impact of this "choice" on their price adjusted wage levels, we can further adjust their wage levels upwards to U.S. annual hours worked (to see what workers in other countries would earn if they worked as many hours as American workers do).

This is done in Figure 4.

Figure 4: Annual average wages 2022

$U.S. PPP (2022) and U.S. states adjusted by 2022 RPP, all countries' wages adjusted to U.S. annual hours worked
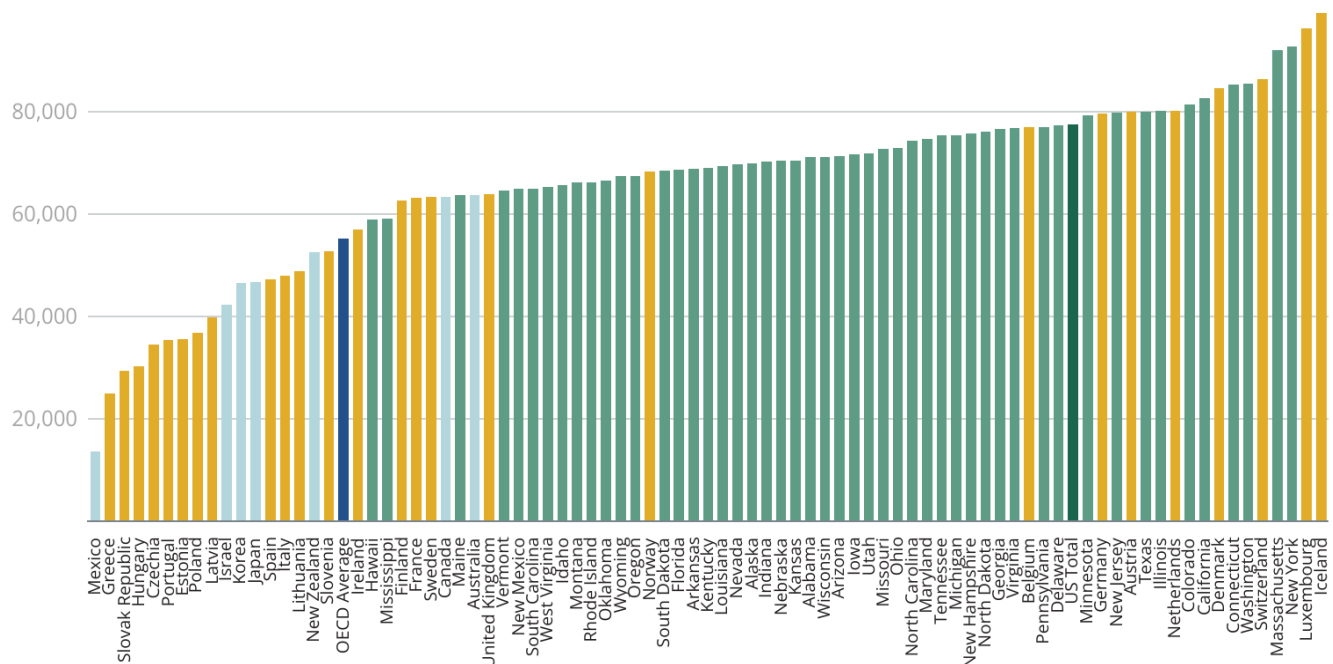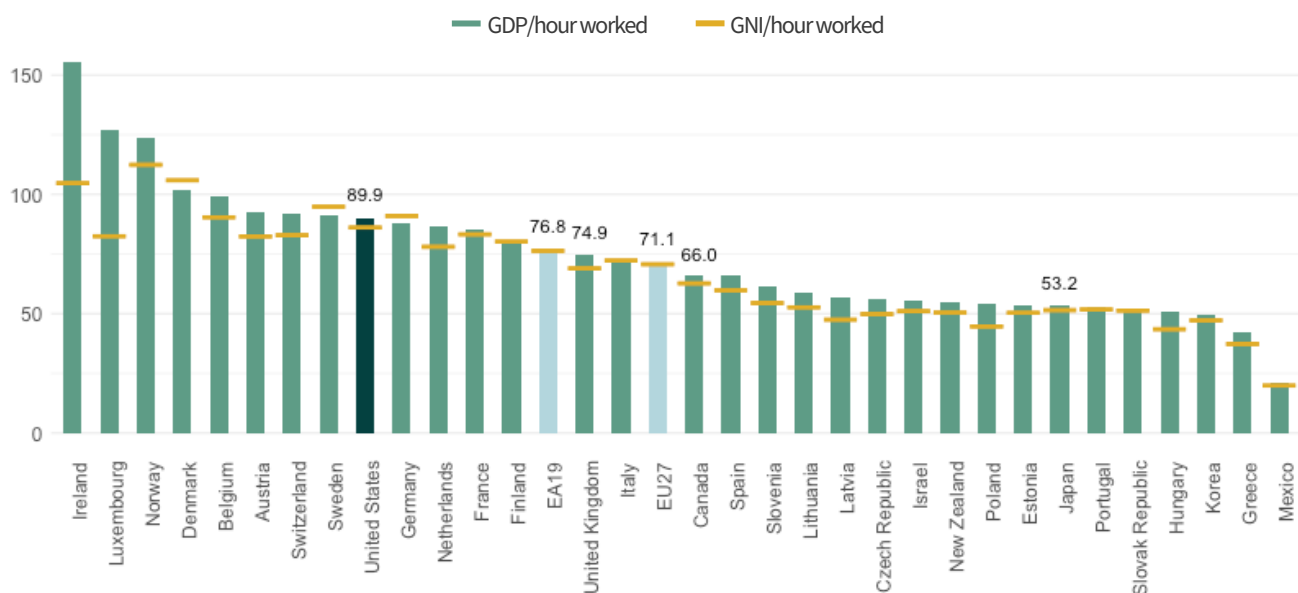

Source: Organization for Economic Co-operation and Development, Bureau of Economic Analysis, Bureau of Labor Statistics

After this adjustment, Northern European OECD members Iceland, Luxembourg, Switzerland, and Denmark now crack the top 10 with six U.S. states. Other non-U.S. OECD member states remain lower than almost all U.S. states, while Japan and Korea are now at essentially identical wage levels.

Even when adding in the assumption that workers in other countries worked U.S. hours, American workers still earn higher price level adjusted wages than those in most other advanced economies—and, with the exception of Germany, more than in all other large advanced economies.

Higher wages in the United States are rooted in higher U.S. productivity levels. This is visible in Figure 5, which shows broad productivity levels from GDP per hour worked and GNI per hour worked for 2022.[7]

Figure 5: GDP and GNI per hour worked 2022 (or latest available), current USD/current PPP

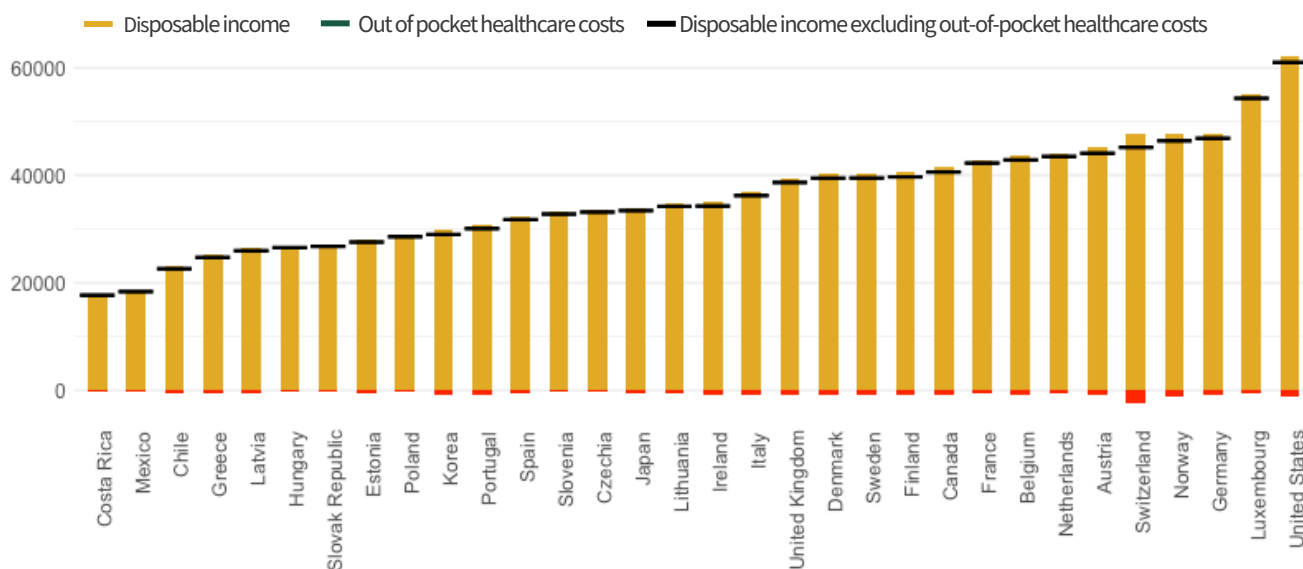*Source: Organization for Economic Co-operation and Development*

Figure 5 shows that GDP per hour worked is higher in the U.S. than in most OECD countries, though lower than in a number of smaller, predominantly Northern European countries.

The difference between GDP and GNI based metrics is limited for most OECD members, but very large for some, like Ireland and Luxembourg, that are heavily dominated by foreign owned firms. Overall, Figures 4 and 5 reaffirm the close aggregate relationship between workers' wages and productivity levels in the United States and other OECD countries.

How inequality in the U.S. compares to that of other countries depends on how it is measured.

Taxes, government transfers, and income from sources other than wages and salaries invariably matter in comparisons of real life economic circumstances. Disposable income estimates attempt to include these effects, but are regrettably not available at the U.S. state level from official sources. Figure 6 charts disposable incomes in the OECD in 2022, as well as often debated out-of-pocket healthcare expenses.

Figure 6: Average household gross disposable income, out-of-pocket healthcare costs, current $U.S. PPP (2022)

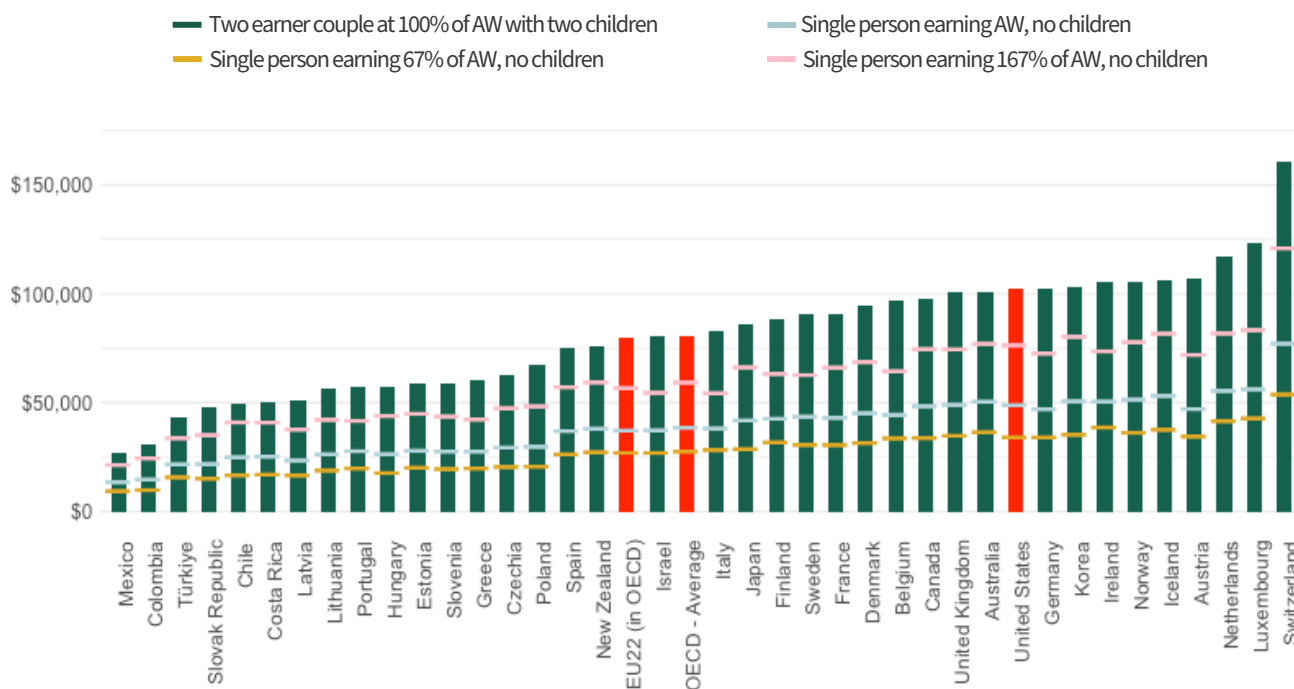Source: Organization for Economic Co-operation and Development

Average disposable incomes are higher in the United States than in all other OECD countries, and this result is not much affected by out-of-pocket healthcare expenses. Healthcare expenses are higher than average in the United States, but not an outlier among OECD members, where such payments are the norm—including in traditional Scandinavian welfare states.

National disposable incomes, however, are average estimates affected by the distribution of wages and include non-wage income, which is often highly concentrated, and as such do not necessarily reflect the situation of the "typical worker".

To address this issue, the OECD also estimates "take home pay", which is wages received after taxes and including cash transfers from the government for eight specific household types (according to marital status, number of children, earnings levels expressed as proportion of average wages, and whether there are one or two earners).[8]

Figure 7 shows take home pay for four different household types in 2022 across the OECD.

Figure 7: Net "take home pay" after taxes and cash transfers, current $U.S. PPP (2022)

— Two earner couple at 100% of AW with two children   — Single person earning AW, no children
— Single person earning 67% of AW, no children   — Single person earning 167% of AW, no children

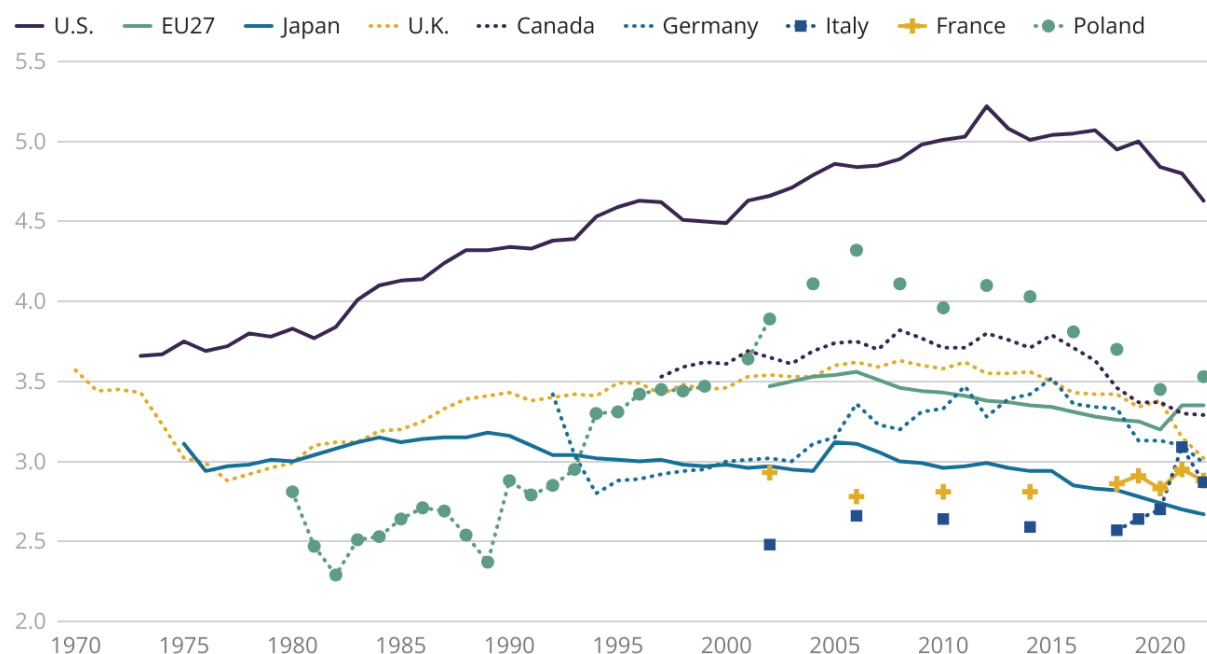*Source: Organization for Economic Co-operation and Development, Taxing Wages (2023)*

For all four household categories, the United States is in the upper third of the OECD and well above the OECD and European averages. For two-earner households making the average wage with two children, the American household was tenth in "take home pay" in 2022, behind Germany, Korea, and a number of smaller European OECD members.

Relatively high levels of income inequality—for both wage and non-wage income—in the United States are partly responsible for the different results in Figures 5 and 6. (Some scholarly controversy remains about the specific inequality trends focused on the very highest income categories among the top 1 percent or top 0.1 percent of the income distribution in the United States.)

Other wage inequality metrics available across the OECD membership show high U.S. levels of wage inequality relatively to other high income large OECD members—but they also show a noticeably declining trend in recent years.

This is illustrated by the interdecile wage ratio, which is the ratio given by dividing the 90th percentile wage by the 10th percentile wage,[9] in Figure 8. The higher the ratio, the more wage inequality it represents.

Figure 8: Wage distribution interdecile ratio P90/P10, select OECD economies, 1970 – 2022

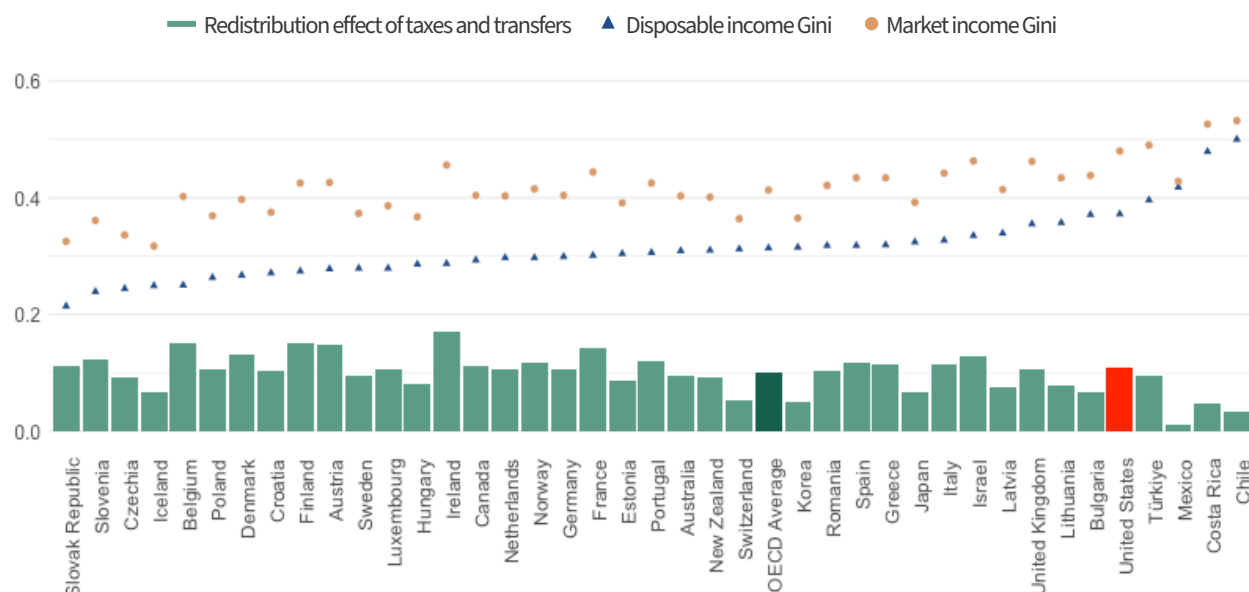*Source: Organization for Economic Co-operation and Development*

U.S. interdecile wage inequality rose after 1970 to levels far higher than in the most comparable OECD members, but the level peaked in 2012. But it has fallen fast, especially since 2019, to a level in 2022 that was last seen more than two decades earlier.

Declines in recent years are also found in most other OECD countries—noticeably Canada, Germany, and the UK—while the ratio has been stable in France and rising in Italy. Japan has maintained a low and slowly declining level for most of the 21st century.

Broad-based wage inequality appears to have peaked in the United States and most other OECD members.

Another widely used measure of income inequality across jurisdictions is the Gini coefficient. It can be estimated for different categories of income. Doing so for market income (before taxes and transfers) and disposable income offers a crude measure of the redistributive impact of a country's tax collection and cash transfers. This is done in Figure 9 for the OECD members in 2021.

Figure 9: OECD country market and disposable income Gini coefficients 2021 or latest available

— Redistribution effect of taxes and transfers   ▲ Disposable income Gini   ● Market income Gini

Source: Organization for Economic Co-operation and Development

The U.S. has one of the highest disposable income Gini coefficients—real world inequality—in the OECD, surpassed only by considerably poorer members.

At the same time, however, the redistributive impact of U.S. taxes and cash transfers is marginally higher in the U.S. than the OECD average—and comparable to Canada, Germany, the UK, and Norway.

High U.S. disposable income inequality is hence principally related to the very high levels of observed pre-tax market income inequality in the United States, rather than a much less redistributive welfare state.

Conclusion

American workers have enjoyed a strong labor market in recent years with low unemployment, rising employment rates, and smaller real wage declines than in other advanced economies. Strong labor markets have been widespread across the largest OECD economies over this period.

Price level adjusted U.S. wages are materially higher than among other advanced economies. Relative to Northern European economies, this advantage is derived to a significant degree from American workers' longer annual working hours.

Average disposable income, including non-salary income, in the United States remains considerably higher than in other OECD countries as well. When estimated for particular household categories, U.S. take home pay levels do drop, though they remain in the OECD's upper range.

Broad wage inequality, meanwhile, remains higher in the United States—but it appears to have peaked both in the U.S. and in most other large OECD economies during the 2010s. The redistributive impact of U.S. taxes and transfers is comparable to that found in the average OECD welfare state, with disposable income inequality in the U.S. driven by higher market income inequality.

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Explore the Economic Innovation Group's American Worker Project here.

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[1] OECD (2024) shows how real wage declines in the U.S. from Q4 2019 to Q3 2023 have been noticeably smaller than in European economies. https://www.oecd.org/employment/Policy-Brief-Real-wages-regaining-some-of-the-lost-ground.pdf

[2] U.S. real GDP grew at 5.8, 1.9, and 2.4 percent in 2021, 2022, and 2023 respectively, while Japan saw growth of 2.2, 0.9, and 1.7 percent and the EU27 6.0, 3.4, and 0.4 percent. The marginally stronger rebound in the EU27 in 2021 and 2022, however, can be explained by the far deeper 2020 contraction in real GDP of 5.6 percent, compared to 2.2 percent in the United States. U.S. general government deficits were 11.5, 4.0 and 7.8 percent of GDP respectively in 2021, 2022 and 2023. In Japan it was 6.2, 5.8 and 5.1, and in the EU27 4.7, 3.3 and 3.2 percent. Data from the OECD Economic Outlook Database and Eurostat.

[3] Japan's natural population, however, fell by 0.84 percent in 2022, meaning that the total population declined by historically high 0.54 percent. U.S., Japan, and EU27 net migration data from Kirkegaard (forthcoming at PIIE).

[4] QCEW data available at https://data.bls.gov/PDQWeb/en, and BEA RPP at https://www.bea.gov/sites/default/files/2023-12/rpp1223_1.pdf

[5] U.S. national and state level 2022 QCEW and RPP wages have been adjusted to OECD current $ PPP levels before comparison with other OECD countries. The RPP state level wage values in Figure 2 are therefore not the same as the OECD current $ PPP values in Figure 3.

[6] All paid holiday data from OECD (2023). https://www.oecd.org/els/soc/PF2_3_Additional_leave_entitlements_of_working_parents.pdf

[7] GDP is a territorial demarcation including all workers inside the territory of a given country. Gross national income (GNI)/hour worked is an ownership-based concept that instead measures the output per hour worked at all entities owned by nationals of the country in question. In other words, for the United States it includes all the workers at U.S. owned firms abroad, but subtracts all workers at foreign owned operations in the United States.

[8] Details of the OECD Taxing Wages can be found at https://www.oecd.org/tax/taxing-wages-20725124.htm

[9] The 90th percentile wage is the wage above which are the top 10 percent of wages in a given country. The 10th percentile wage is the wage with the bottom 10 percent of wages below it.