Organisation for Economic Co-operation and Development

DELSA/ELSA/WD/SEM(2023)14

For Official Use English - Or. English

21 July 2023

DIRECTORATE FOR EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS
EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS COMMITTEE

Cancels & replaces the same document of 19 July 2023

Unemployment benefit reforms to support employment and inclusiveness in the United-States

Impacts of the Pandemic Unemployment Assistance

JEL Classifications : J65, I38, H55, C63

Eliza-Jane Pearsall (eliza-jane.pearsall@oecd.org)
Daniele Pacifico (daniele.pacifico@oecd.org)
Edoardo Magalini (edoardo.magalini@oecd.org)

JT03523547

OECD Social, Employment and Migration Working Papers

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Working Papers describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on which the OECD works. Comments on Working Papers are welcomed, and may be sent to els.contact@oecd.org.

This series is designed to make available to a wider readership selected labour market, social policy and migration studies prepared for use within the OECD. Authorship is usually collective, but principal writers are named. The papers are generally available only in their original language – English or French – with a summary in the other.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area

Acknowledgements

The authors gratefully acknowledge helpful comments and suggestions from OECD colleagues Orsetta Causa, Raphaela Hyee, Florentin Kerschbaumer, Sarah Perret, Olga Rastrigina, Ben Westmore and Herwig Immervoll. Mariama Diallo and Marie-Aurélie Elkurd provided editorial assistance.

This paper was prepared as part of the project *Benefit Reforms for Inclusive Societies in the United States: Income Security During Joblessness*. The project was co-funded by the US Department of Labor. The content of this paper does not necessarily reflect the views or policies of the United States Department of Labor, nor does the mention of trade names, commercial products, or organizations imply endorsement by the United States Government.

The authors would like to thank the experts from the US Department of Labor, the Department of Health and Human Services, the Department of Housing and Urban Development, and the US Department of Agriculture Food and Nutrition Service for providing detailed tax and benefit policy information for the US states analysed in the paper. We also thank Stéphane Carcillo (Head of the Jobs and Income Division), Stefano Scarpetta and Mark Pearson (Director and Deputy Director of ELS) for their guidance and comments.

Abstract

This paper analyses the impact of Pandemic Unemployment Assistance (PUA) extensions on jobseeker households in selected US states and examines how these extensions compare to the pre-pandemic policies. The analysis finds that PUA extensions increase benefit duration for all jobseekers, but due to interactions between other government benefits, this translates to significant increases in benefit generosity only for jobseekers without children. This has an impact on the financial incentives to take up employment, although incentives are still above the OECD average. PUA extensions have little impact for people who have been unemployed for a very long time, and jobseekers with no recent contribution history. PUA extensions also have minimal impact on jobless families with children who continue to receive less support compared to other OECD countries.

Table of contents

Tables

Figures

No table of figures entries found.

Boxes

No table of figures entries found.

1 Introduction

1. Following the Great Recession, many US states faced mounting financial strain that prompted them to reduce the duration and generosity of their unemployment benefit systems. This increased concerns about the UI system's ability to withstand future recessions and adequately support workers during times of economic hardship (Wandner, 2018[1]). Prior to the onset of the COVID-19 pandemic, unemployment-benefit coverage in the United-States was lower than in most other OECD countries: 12% of all US jobseekers received unemployment benefits, compared to about 30% in the United Kingdom, Spain or Australia, and around 60% and over in Austria and Germany (OECD, 2023[2]).

2. The COVID-19 pandemic has further accentuated structural challenges facing social protection systems in many OECD countries (OECD, 2020[3]). The United-States, like many other countries, quickly expanded their income support programmes, to support those who have lost their incomes early on during the health crisis (OECD, 2020[3]; OECD, 2021[4]; OECD, 2022[5]). As a result, OECD countries provided unprecedented levels of support to jobseekers, both in terms of recipient numbers and aggregate payments, supporting labour market groups it had not served before.

3. The United-States implemented a series of extraordinary measures to expand their unemployment compensation programmes in response to the pandemic and the subsequent recession: Federal Pandemic Unemployment Compensation (FPUC), Pandemic Emergency Unemployment Compensation (PEUC), and Pandemic Unemployment Assistance (PUA). PEUC extended the availability of regular unemployment compensation benefits. FPUC provided an additional supplement per week to recipients of unemployment benefits. PUA significantly increased receipt durations, reduced minimum contribution requirements for all workers and extended benefits to self-employed workers and other workers not previously eligible for unemployment insurance (e.g. gig workers). While PEUC was similar to other policy responses taken in previous recessions, the generosity of FPUC and coverage of PUA were unprecedented. These extensions were phased out in September 2021, restoring the pre-pandemic rules.

4. A growing literature in the US is investigating the impact of the COVID-19 policy response – particularly FPUC and PUA – on benefit coverage, adequacy and work incentives (CRS, 2022[6]). Recent OECD work shows that, if PUA extensions were kept in place, they would have increased the UI coverage rate in a pre-pandemic labour market from 14% to 29% ((OECD, 2023[2]), Chapter 2), aligning the US coverage rate to the OECD average (OECD, 2018[7]). Meanwhile, the withdrawal of PUA and FPUC benefits in 2021 resulted in an average reduction in benefit amounts by USD 278 per week (Coombs et al., 2022[8]) and reduced the number of households that reported no difficulty in meeting expenses by 5% (Holzer, Hubbard and Strain, 2021[9]).

5. The increased coverage and adequacy tend to reduce financial work incentives. Employment levels increased by 4.4 percentage points in states which elected to withdraw PUA and FPUC support early compared to states which maintained the policies (Coombs et al., 2022[8]). Interestingly, the withdrawal of PUA and extended benefits had a larger effect than FPUC on reemployment (Marinescu, Skandalis and Zhao, 2021[10]; Ganong et al., 2022[11]). This is despite the generosity of the FPUC supplement which, combined with the regular UI payment, replaced more than 100% of pre-pandemic earnings for more than 75% of benefit recipients (Ganong, Noel and Vavra, 2020[12]). However, in some domains the effects of the extensions are neutral. For example, (Greig et al., 2021[13]) found that

reemployment prospects are similar between recipients of regular UC benefits and the expanded eligibility base receiving PUA.

6. This paper contributes to the growing literature on the impacts of the COVID-related unemployment policies by examining the policy mechanisms affecting net incomes and financial work incentives for US jobseekers, and comparing them with the pre-pandemic policies of the US and other OECD countries. It relies on a sample of hypothetical households generated with the OECD tax-benefit model for the purpose of analysis. In comparing these results to the other OECD countries, the report presents an international perspective independent of the COVID-related context. It highlights the strong financial work incentives for jobseekers in the US relative to other OECD countries, and identifies social protection gaps that persist even when unemployment benefit extensions are in place.

7. Considering the challenges of estimating the effects of COVID-related measures on work incentives using pre-pandemic data and statistical models based on previous recessions[1], the use of synthetic data households, combined with tax-benefit simulations, has several advantages. First, it allows isolating the "pure" policy effect of the selected COVID-related without requiring complex decomposition techniques, which are needed when using survey data to separate reform effects from confounding factors such as demographic and labour market changes that occur in parallel (Bargain and Callan, 2008[14]).[2] In addition, the possibility of holding constant across countries the sample of synthetic households allows for an accurate comparison of benefit levels and work incentives in the US – before and after the selected COVID-related policies – with other OECD countries. Finally, the use of tax-benefit simulation, allows consideration of the combined income support package of jobseekers, including their complex interactions, and not just unemployment benefits (OECD, 2023[2]). Considering a comprehensive package of income support measures has a great advantage in a comparative setting, as countries provide support to households through a range of different programmes, especially when children are present (OECD, 2023[15]).

8. This report is structured as follows. Section 1.1 summarises the main findings. Section 1.2 outlines the scope of the analysis, including the household and jobseeker characteristics selected and the exact definition of 'PUA extensions' used throughout the report. Section 2 provides an in-depth analysis of income support systems for jobseekers in selected US states with and without PUA extensions. Section 3 adds an international perspective, comparing the results for the US with other OECD countries. Section 4 describes how taxes and benefits affect jobseekers' incentives to seek and take up employment for selected US states. Section 5 concludes by comparing work incentives in the US with other OECD countries.

[1] For instance, the US COVID-19 policy response included many other forms of assistance for employees and employers which are not considered in the empirical research but may as well have affected work incentives and re-employment prospects. This can be the case for, e.g. the Payment Protection Program, the Employee Retention Tax Credit, and the Economic Impact Payments to households. In addition, other COVID-related exogenous factors, such as the availability of vaccines as well as the limited access to childcare facilities and schools, may have also contributed to unusual patterns in returning to work during the crises.

[2] In practice, simulations based on stylised household types and population micro-data are useful complements. Models using stylised household types facilitate the understanding of key policy mechanics and interactions, but this information is specific to the chosen vignettes, which may be more or less relevant (representative) depending on the country context. Vignette-based simulation models can provide insights for specific population groups that are often underrepresented in standard survey data (e.g. the long-term unemployed).

1.1. Main findings

9. Under the existing UI programme rules, without PUA extensions, the analysis shows the following:

- For full-time workers, the UI benefit in the US has less demanding minimum contribution requirements but shorter durations and lower benefit amounts than in other OECD countries. As a result, average net income over a 24-month unemployment spell is only 15-20% of net income in employment in the three US states studied in this report (California, Michigan and Texas) for a single jobseeker with a long employment record at median earnings, compared to 41% on average in the OECD.
- Existing income support provides comparatively little poverty protection for US jobseekers, particularly those with children and those who are not, or no longer, entitled to UI benefits. For instance, in the 13th month of unemployment, i.e. after UI benefits have expired in the US, a partnered jobseeker with two children in Texas has benefit income that is 25% of the OECD poverty line. Incomes are slightly higher in Michigan (30%) and California (39%), but still well below the OECD average (67%).
- Financial work incentives are high in the US compared to other OECD countries, particularly for single jobseekers not receiving UI benefits, and jobless families with children. Relatively low out-of-work support for jobseekers not receiving UI benefits, as well as refundable earned income tax credits particularly targeted at low-income families incentivise the take up of employment.
- Work incentives for secondary earners in couples with children are lower in the US compared to other OECD countries because the wage of the secondary earner reduces the family's earned income tax credits.

10. The PUA extensions provide additional support to jobseekers, but interactions with other payments mean that not all jobseeker households benefit to the same extent.

- PUA extensions lengthen benefit durations, particularly benefitting jobseekers without children.
- But TANF reduces the impact of PUA extensions for jobseekers with children, due to the treatment of UI benefit income in the TANF means test.
- PUA extensions increase benefit amounts for jobseekers with earnings up to the federal minimum wage and jobseekers with very short employment records.
- PUA extensions do not provide support to long term unemployed jobseekers or jobseekers with no work history. These jobseekers, and their families, have particularly low financial support in the US relative to other OECD countries.
- Financial work incentives are typically lower for jobseekers who receive UI benefits because the jobseeker's out-of-work income is higher. When receiving UI benefits, a single jobseeker taking up work at median earnings loses 62-68% of their earnings through decreased benefit amounts. When not receiving UI benefits, the jobseeker loses only 21-27% of their earnings. By increasing the benefit duration, the PUA extensions also increase the share of jobseekers who face lower work incentives.
- However even when receiving extended UI benefits thanks to PUA, jobseekers in the US face strong work incentives relative to other OECD countries, primarily due to the federal and state earned income tax credits.

11. The analysis shows that extending the duration of UI benefits and providing an increased benefit floor have the potential to significantly improve net income in unemployment for jobseekers with certain characteristics. However, it exposes two gaps in the social protection of jobless households in the US that are not improved by the PUA extensions.

- First, a large share of jobseekers is not entitled to UI benefits because they have no recent work history. A means tested unemployment assistance programme as described in ((OECD, 2023[2]), Chapter 3) could provide targeted support to jobseekers, alleviating poverty. Given the existing strong work incentives in the US, it is unlikely that the means testing of such a payment would discourage the take-up of work, especially if designed carefully.
- Second, jobseekers with children are only entitled to limited additional support, despite having a higher financial need. TANF has poor coverage, varying generosity between states, and interacts with both UI benefits and Supplemental Nutrition Assistance Program (SNAP) leading to lower benefit amounts and unintuitive outcomes. Support for low-income working families is stronger, but is provided via tax credits whose timing may not align to financial need. Other OECD countries avoid these issues by paying means tested family benefits to out-of-work and low-income households with children.

1.2. Scope of analysis

12. This report presents results for three US states with different labour markets and UI rules: **California**, **Texas** and **Michigan**.[3] For each state, the analysis considers two policy scenarios: the policy rules in place on the 1st of January 2020 (that is, before the start of the COVID-19 pandemic) and the 2020 policy rules including selected emergency extensions, collectively referred to as "PUA extensions". The selected PUA extensions include:

- Extensions to UI benefit durations by a total of 66 weeks: 13 weeks of Extended Benefits and 53 weeks of Pandemic Emergency Unemployment Compensation (PEUC). In addition, jobseekers retain entitlement to benefits for at least 79 weeks (the duration of the Pandemic Unemployment Assistance payment).4
- Easing of UI entitlement requirements: one week of earnings at the minimum wage in the reference period is sufficient for entitlement.
- Increased benefit floor equal to 50% of the average unemployment benefit paid in the state of residence.5

13. The analysis does not consider the supplementary Federal Pandemic Unemployment Compensation (FPUC) payment. To keep the focus on UI-related COVID provisions, pandemic related policy changes to other programmes are also not accounted for (notably extensions to the Supplemental Nutrition Assistance Program and the Child Tax Credit, among others). See Annex A for further methodological details. An online annex provides an in-depth description of the policy rules in US states in 2020 and the relevant pandemic extensions as implemented in the TaxBEN model.

14. The results for the US states both with and without the PUA extensions are compared to the 2020 pre-pandemic policy settings for all OECD countries. In view of the complexity and diversity of tax and benefit systems across OECD countries, the results are based on a selection of hypothetical jobseekers and their families (vignettes), as described in Box 1.1. Calculations rely on the OECD tax-benefit model (TaxBEN), which allows for cross-country comparisons by holding individual and family characteristics that may have an impact on benefit eligibility and entitlements constant across countries.

[3] Michigan is the default US state included in the OECD tax-benefit model. For the purpose of this report, the model has been extended to also cover California and Texas.

[4] Total UI benefit duration under the PUA extensions is thus modelled as between 79 and 92 weeks depending on the state and previous employment characteristics of the jobseeker.

[5] Less generous benefit floors apply without the PUA extensions. See the online annex for further details.

Box 1.1. Selected household types and jobseeker characteristics used in the analysis

The analysis in this report is based on hypothetical household types with selected individual and labour market characteristics that are kept constant across US states and OECD countries.

To illustrate the supports available to households of different sizes and compositions, the analysis focuses on two household types:

- A single jobseeker without children
- A partnered jobseeker with two children (where the jobseeker's spouse is either out-of-work and not entitled to unemployment benefits, or is employed with earnings at the 50th percentile of the national full-time earnings distribution, as indicated)[1]

Support provided to jobseekers often depends on their previous employment record. The analysis considers jobseekers who were in **wage or salaried employment** prior to unemployment, who faced **involuntarily job loss**, and who **satisfy all activity-related eligibility requirements** (such as active job search) that may be relevant for receiving income support. The analysis simulates jobseekers with the following three employment histories:

- "**Long and stable employment at median earnings**": a 40-year-old jobseeker with a "long" previous employment record and earning at the 50th percentile of the national full-time earnings distribution (USD 42 624 in 2020). A "long" employment record means uninterrupted work after completing education, i.e. 22 years for a 40-year-old who started to work at age 18.[2]
- "**Short employment record at low earnings**": a 40-year-old jobseeker with a previous employment record of five months and earnings at the 20th percentile of the national distribution of full-time earnings. The 20th percentile of the full-time earnings distribution was USD 26 077 in 2020. This is higher than the minimum wage which applies in each of the three states, and 73% higher than the annualised federal minimum wage (USD 7.25 per hour, USD 15 080 per year).[3]
- "**Marginal employment at low earnings**": a 40-year-old jobseeker with a previous employment record of one month and earnings at the 20th percentile of the national distribution of full-time earnings.

Note: [1] Because cash benefits in the US generally depend on household size, a lone parent is entitled to similar but slightly lower benefit amounts compared to a couple with the same number of children.
[2] In most benefit systems, an employment record much shorter than this gives rise to full benefit entitlements (e.g. 12 months in the United-States, see http://oe.cd/TaxBEN for policy rules in other countries).
[3] It is 30% higher than the minimum wage in Michigan (USD 20 072 per year) and 4.5% higher than the minimum wage in California (USD 24 960 per year). Texas does not have a state-level minimum wage (the federal minimum applies).

2 Income support for jobseekers: selected US states

15. Given the differing Unemployment Insurance programme rules in California, Michigan and Texas, this section explores how the PUA extensions affect UI benefit entitlement for jobseekers with specific characteristics in each state. It calculates other benefits available to single jobseekers and partnered jobseekers with children to compare the overall support package that may be available in unemployment, and calculates the average net replacement rate (NRR) over a 24-month unemployment spell to compare benefit generosity with and without PUA extensions in each of the three states.

16. Although UI is the main form of income support available to jobseekers in the United-States, additional benefits may be available, notably Temporary Assistance for Needy Families (TANF) and the Supplemental Nutrition Assistance Program (SNAP).[6] Unless otherwise noted, the analysis that follows assumes that families receive TANF benefits if they meet income-related entitlement requirements, although actual coverage is very low (see Box 2.1). Some results for families not claiming TANF are available in Annex B, as indicated in the text.

[6] See online annex for a detailed description of TANF and SNAP benefits in California, Michigan and Texas.

Box 2.1. Temporary Assistance for Needy Families

TANF, the main benefit for workless families with children in the United-States, replaced its precursor, Aid to Families with Dependent Children (AFDC) with the welfare reform act of 1996. In contrast to AFDC, TANF is not an entitlement programme, but is financed by nominally fixed grants to states. The welfare reform act also introduced a maximum receipt duration of 60 months during any recipient's lifetime (although states can choose longer, or more often shorter maximum receipt durations) as well as stringent work requirements underpinned by sanctions (Aizer, Hoynes and Lleras-Muney, 2022[16]; Ziliak, 2016[17]). For instance, forty states required single parents to work a minimum of 30 hours per week in 2019 – while education and training are generally allowed as part of the activity requirements, some paid work is required in most states and circumstances (The Urban Institute, 2021[18]). The programme is also tightly asset tested, e.g. in July 2019, allowable assets in Texas were USD 1,000, USD 2 250 in California, and USD 3,000 in Michigan.[1] Following the introduction of these stringent eligibility requirements, receipt numbers and spending fell, starting in 1996 and even through the great recession (Hoynes and Schanzenbach, 2018[19]). Research indicates that African American families in particular were negatively affected by these changes, as they are more likely to live in states with less generous and more restrictive TANF regulations and are more likely to be sanctioned (Shrivastava and Thompson, 2022[20]).

TANF is now a minor programme, serving around 1.5 million children (Aizer, Hoynes and Lleras-Muney, 2022[16]). In Texas, only 4 out of 100 families with children living in poverty receive TANF, and in Michigan it is around 10 in 100. California provides the highest benefit level and more generous income testing provisions, resulting in a coverage of around 70% of households with children in poverty receiving support (Shrivastava and Thompson, 2022[20]).

Note: [1] California and Michigan have since increased allowable asset limits to USD 10,000 and USD 15,000 respectively. The assets which are assessed and/or excluded vary between states. See the online annex for more detail on eligibility requirements for TANF in the selected states.

2.1. Most full-time employees meet unemployment insurance entitlement requirements

17. For wage and salaried workers with a continuous history of full-time work, contribution requirements are relatively short in all three states (Figure 2.1)[7]. For example, for a low-wage worker (full-time equivalent earnings at the 20th percentile of the earnings distribution) five months of contributions are sufficient for entitlement in Michigan and Texas.[8] In California, where eligibility only requires USD 1 300 of earnings in any quarter, one month of contributions at this earnings level is sufficient to receive a modest benefit.[9]

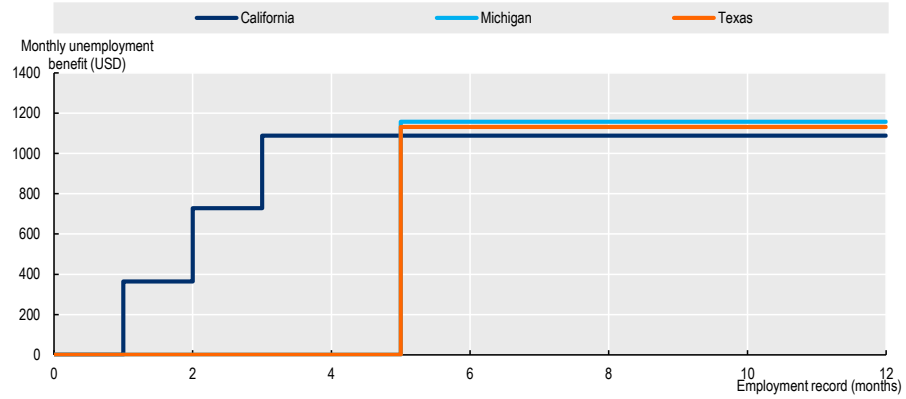
[7] 6Annex A describes the UI specific assumptions applied for the analysis of UI benefit calculations, and the online annex provides additional details on rules in California, Michigan and Texas.

[8] Michigan and Texas both require earnings in at least two quarters of the base period, a minimum earnings level, and Base Period Wage of at least 1.5 (Michigan) or 1.48 (Texas) times the earnings in the highest quarter. See the online annex for more detail.

[9] In some circumstances a lower high quarter wage (USD 900 instead of USD 1 300) may allow benefit entitlement in California, provided the Base Period Wage is at least 1.25 times the earnings in the highest quarter. For example,

Figure 2.1. Unemployment insurance entitlement by employment record

Low-wage full-time earner, 2020 prior to PUA extensions



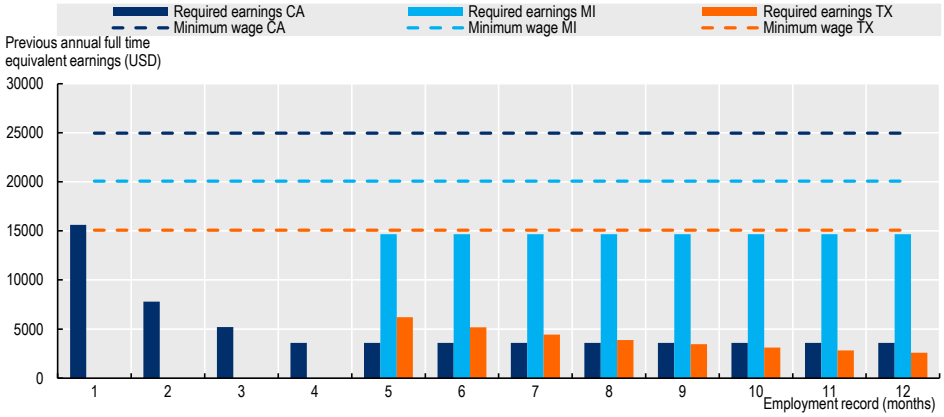
Note: Calculations for a single person without children and previously in continuous full-time employment. Previous earnings are equal to the 20th percentile of the national full-time earnings distribution (USD 26 077). Policy rules and parameters refer to 2020 (before PUA extensions).
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

18. Given full-time work, earnings requirements are below minimum wage (Figure 2.2). However, low-wage part-time workers may not meet minimum earnings requirements, particularly in Michigan where earnings of at least 73% of the state minimum wage are needed. In Texas, required earnings are 41% of the minimum wage with a five-month employment record, but only 17% with a record of 12-months or longer. In California requirements are also significant for those with short employment records (63% of minimum wage with only one month of employment) but fall to 14% for those with employment tenures of four months or longer.

19. Under the PUA extensions, UI eligibility requires only one week of work in the preceding calendar year in all states regardless of earnings. PUA-type extensions therefore significantly lower eligibility requirements for UI.

Figure 2.2. Earnings requirement by employment record

Full-time equivalent, 2020 prior to PUA extensions, California (CA), Michigan (MI) and Texas (TX)



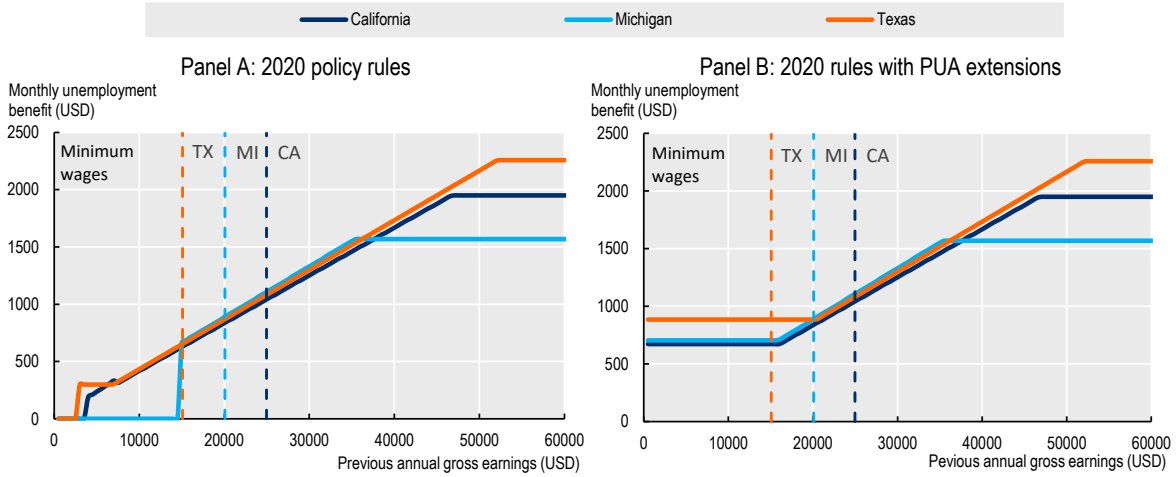
someone earning just USD 300 per month (25 hours at the state minimum wage) would be entitled to UI benefits after five months of contributions.

Note: Calculations for a single person without children and previously in continuous full-time employment. Policy rules and parameters refer to 2020 (before PUA extensions)
Source: Secretariat calculations based on the OECD tax-benefit model, http://oe.cd/TaxBEN.

2.2. PUA extensions lengthen benefit durations and increase entitlements

20. PUA extensions raise benefit amounts, but only at low earnings levels (Figure 2.3). Before the extensions (Panel A), benefits are calculated in proportion to past earnings, and entitlement requires earnings of a certain minimum.[10] With PUA extensions in place (Panel B), all states pay a minimum benefit amount (benefit floor), which increases entitlements for low-wage earners (those with annual equivalent earnings of up to approximately USD 15 000 in California and Michigan, and USD 20 000 in Texas).[11] PUA also removes the minimum earnings requirement, which affects entitlements in Michigan in particular.

Figure 2.3. Unemployment benefit amounts by previous earnings



Note: Calculations for a single person without children and previously in full-time employment for at least 12 months. Minimum wage in each state is indicated on the figures. The federal minimum wage applies in Texas (USD 15 080 in annualized terms, considering 40 hours per week).
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

21. With a long and stable employment record at median earnings, a jobseeker is entitled to receive UI for the maximum possible duration: 26 weeks in California and Texas, and 20 weeks in Michigan (Figure 2.4, Panel A, left). With low earnings and a short or marginal employment record, the duration is shorter (Panels B and C, left).

22. The figure also shows the main effects of PUA extensions. First, a minimum benefit amount applies, equal to 50% of the average benefit paid in the state. Without PUA, claimants with a marginal employment record (Figure 2.4, Panel C) are eligible for modest benefits in California but none in Michigan

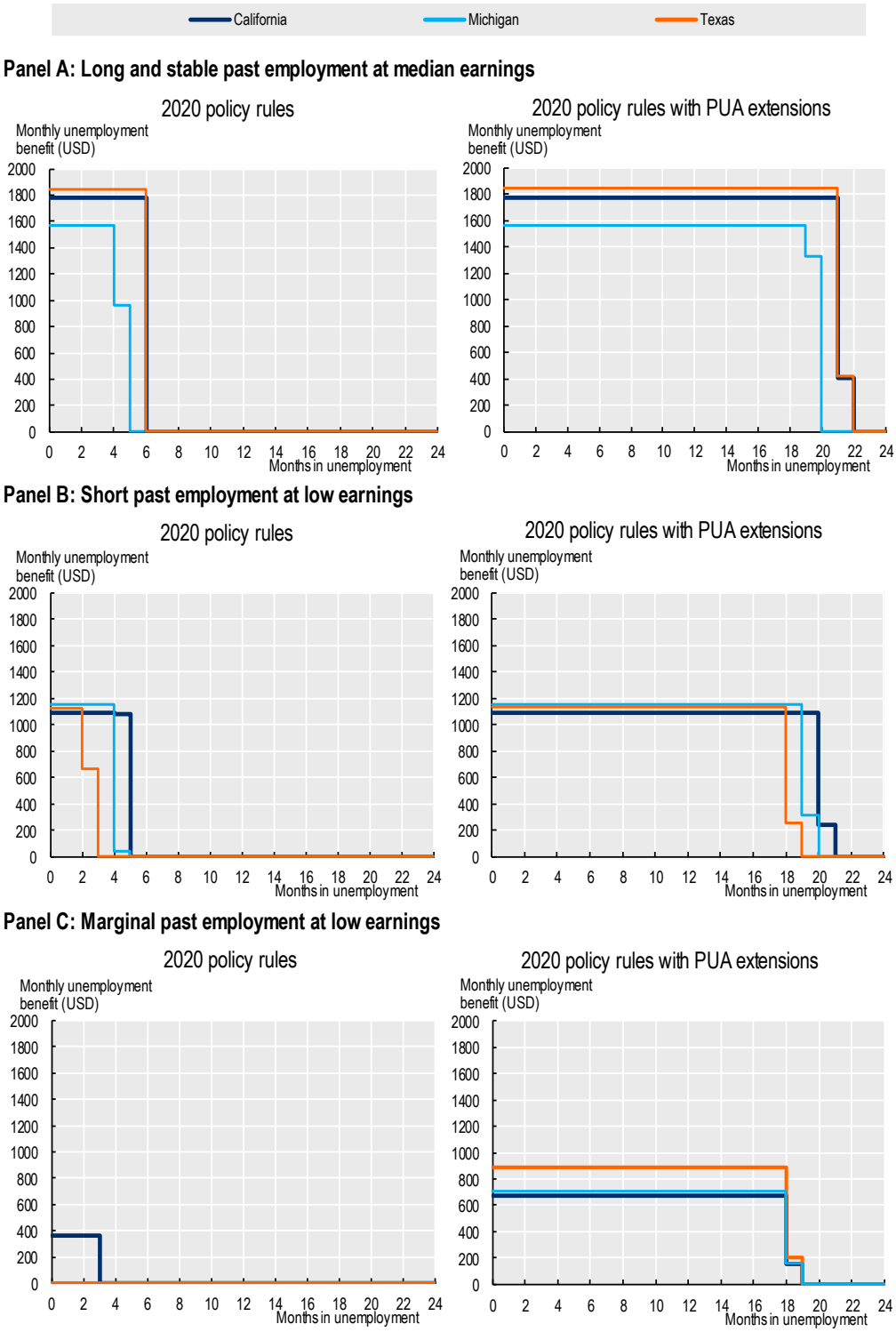
[10] Weekly UI benefits are calculated as a proportion of the previous high-quarter wage (HQW). The weekly benefit is 4.1% of the HQW in Michigan, 4.0% in Texas, and 3.85% in California. In some states the calculation is adjusted for low earners. In California, very low-income earners receive a slightly higher proportion of their previous wage (4.0% instead of 3.85%). In Texas, a minimum benefit level (benefit floor) applies. The proportional benefit is capped at the maximum weekly benefit amount. In Michigan, the maximum is reached at much lower earnings than in the other two states, for instance median earners in Michigan are already subject to the cap.

[11] The minimum amount is equal to 50% of the average UI benefit paid in the state.

and Texas (Panel C, left). With PUA in place benefit amounts are significantly higher for this group (Panel C, right).

23. Second, PUA extends maximum benefit durations by between 66 and 79 weeks. The effects of these extensions are especially sizeable for claimants who would not be entitled to UI at all without PUA, or whose entitlements would be limited due to a marginal employment record (Panel C, compare left to right).

Figure 2.4. Amount of unemployment benefit by time in unemployment



Note: Calculations for a single person without children and previously in continuous full-time employment. Low earnings: 20th percentile of the national full-time earnings distribution (annual full-time equivalent of USD 26 077). Median earnings: USD 42 624. Long and stable employment: at least 12 months. Short employment record: 5 months. Marginal record: 1 month. Benefit duration is presented in months. Although the weekly benefit is consistent throughout the benefit duration, jobseekers may receive a lower amount in the final month of receipt, reflecting a loss of entitlement part way through the month.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

2.3. SNAP and TANF benefits reduce the impact of PUA extensions for low-income households

24. Interactions between UI and other cash transfers can affect the overall net amount of income support received by jobseekers and their families throughout their unemployment spell. These interactions are accounted for when calculating the Net Replacement Rate (NRR) in unemployment, which measures the proportion of the net household income in work that is maintained after job loss, or at different points in an unemployment spell (Box 2.2). The indicator therefore enables the assessment of PUA extensions for those with entitlements to other cash benefits.

25. The NRR generally refers to a specific month of the unemployment spell. Results in the present analysis refer to two points in the unemployment spell (the 2nd and 24th months of unemployment) and the *average* NRR calculated month by month up to a maximum unemployment duration of 24 months (Box 2.2).

Box 2.2. The Net Replacement Rate in unemployment

The Net replacement Rate is the ratio between the net household incomes for a selected family type calculated before and after the job loss of a family member at a selected month of the unemployment spell. More specifically, the NRR is defined as follows:

$$NRR_t = \frac{y_{out\ of\ work,t}}{y_{in\ work}}$$

Where $y_{in\ work}$ is the net household income before the job loss and $y_{out\ of\ work,t}$ is the net household income while out of work calculated after *t* months of unemployment for a person who made a transition from employment to unemployment.

The *average* NRR over a selected unemployment spell is calculated as:

$$Average\ NRR = \frac{1}{T}\sum_{t=1}^{T} NRR_t$$

The average NRR incorporates the time dimension in the analysis, which allows capturing the impact of benefit durations and the interactions of benefit and taxes throughout the unemployment spell. It is therefore a more general and comprehensive measure compared to the "static" NRR.

Another way to analyse the generosity of unemployment benefit system is through the so-called Gross Replacement Rates in unemployment (GRR), which express the amount of unemployment benefit received as a percentage of previous gross earnings. The level of the GRR is determined by the features of the UB system in isolation – including the policy replacement rate and benefit ceilings and floors – but it does not consider the interaction of the UB system with the broader tax and benefit system. For instance, GRRs do not take tax and social security contributions on earnings and on benefits into account. For progressive income tax systems, like in the United-States, taxes are a higher proportion of income while in-work than while out of work. This is captured by NRRs, which will therefore tend to be higher than GRRs. Similarly, when GRR focuses on unemployment benefits, they do not consider the impact of other benefits. Where benefits other than unemployment support are sizeable, this will again result in GRR values lower than NRR. The Net Replacement Rate indicator provides a more complete and comprehensive measure of benefit generosity and income maintenance.

NRR involve comparing two different employment situations of a given household member. They are therefore typically calculated for single-earner families. NRRs calculated for a two-earner couple are less straightforward to interpret as they are, to a large extent, driven by the employment income of the second adult, whose employment status and hours of work do not change.

2.3.1. Single households without children benefit most from PUA extensions

26. Net income of single jobseekers in unemployment is either a UI benefit or, if not or no longer entitled to UI, a modest SNAP benefit[12] (Figure A B.1, grey blue and dark blue bars). Under the PUA extensions, the extended duration of UI benefits (to at least 79 weeks) increases the net income over time, and thus the average NRR, of all UI recipients. Additionally, less stringent entitlement criteria under PUA allow jobseekers with "marginal" employment records to qualify for UI benefits after PUA extensions in

[12] Single jobseekers without children cannot receive UI and SNAP benefits at the same time as UI benefits mechanically reduce SNAP entitlements to zero through the means-test. Only once UI benefits expire, do jobseekers become entitled to SNAP, however SNAP benefits are much lower than UI entitlements.

Michigan and Texas. The PUA benefit floor results in more generous UI entitlements for this group in California.

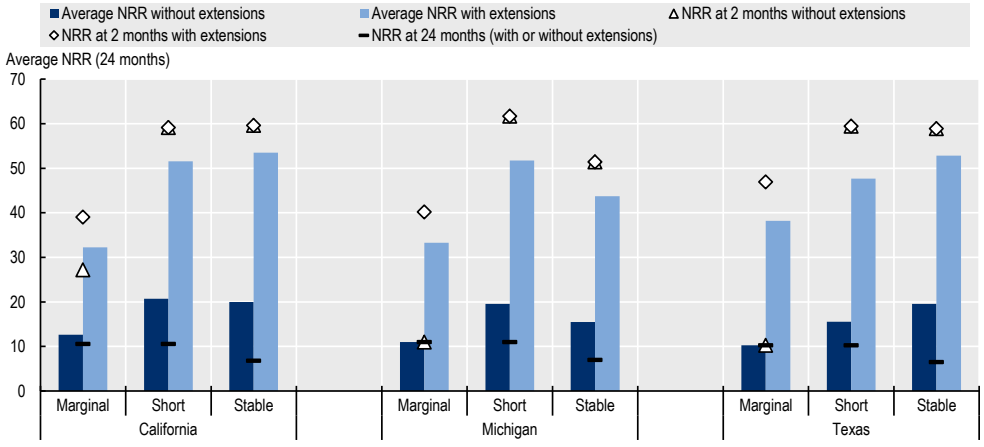
27. The PUA extensions have only minor effects on the NRR at the start of the unemployment spell (2nd month, Figure 2.5, diamond markers) and no effect for the long term unemployed (24th month, horizontal bars).

- Those with a "short" or a "stable" employment record have an NRR of between 51% and 62% at the beginning of the unemployment spell (2nd month) both before and with PUA extensions (Figure 2.5, diamond markers). This means that a jobseeker can retain up to 62% of their net income when they become unemployed, a relatively high value driven by the UI benefit income that is available at the beginning of the unemployment spell.
- For those with "marginal" employment before job loss, the NRR at the beginning of the unemployment spell is much lower without PUA extensions; 10-11% in Michigan and Texas, where there the jobseeker has no entitlement to UI and receives SNAP instead (triangular markers). In California, claimants with the 'marginal' past employment can receive a reduced UI benefit, resulting in a NRR of 27% (Figure 2.5, triangular markers).
- For jobseekers whose UI entitlements expire, for example those who remain unemployed up to 24 months, NRR reflect SNAP entitlements and range between 6% and 11% in the three states (Figure 2.5, horizontal bars).

28. Rather, the effect of PUA extensions can be seen from the very different *average* NRR over a longer unemployment spell. Without PUA, the short UI benefit duration and modest SNAP entitlements for those no longer entitled to UI result in average NRRs of 21% or lower in the three states, (Figure 2.5, dark blue bars).[13] With PUA, average NRRs increase to 32% for low-wage earners with "marginal" employment records, and to 54% for median earners with a "long" contribution record (light blue bars).

Figure 2.5. Average net replacement rate for single-person households without children

With and without PUA extensions, by past employment history, average over a 24-month unemployment spell



Note: Calculations for a single person without children and previously in continuous full-time employment. 'Stable' employment record is 12 months, with median previous earnings in the national full-time earnings distribution (USD 42 624). Short employment record is 5 months, with "low" previous earnings (20th percentile of the national earnings distribution, full-time equivalent of USD 26 077). Marginal record is 1 month, with "low" previous earnings.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

[13] Other factors contributing to the average NRR include the level of in-work support such as the Earned Income Tax Credit and SNAP benefits, as discussed in detail in 6Annex D and 6Annex E.

2.3.2. For poor families with children, the impact of PUA extensions depends on their entitlements to TANF and SNAP

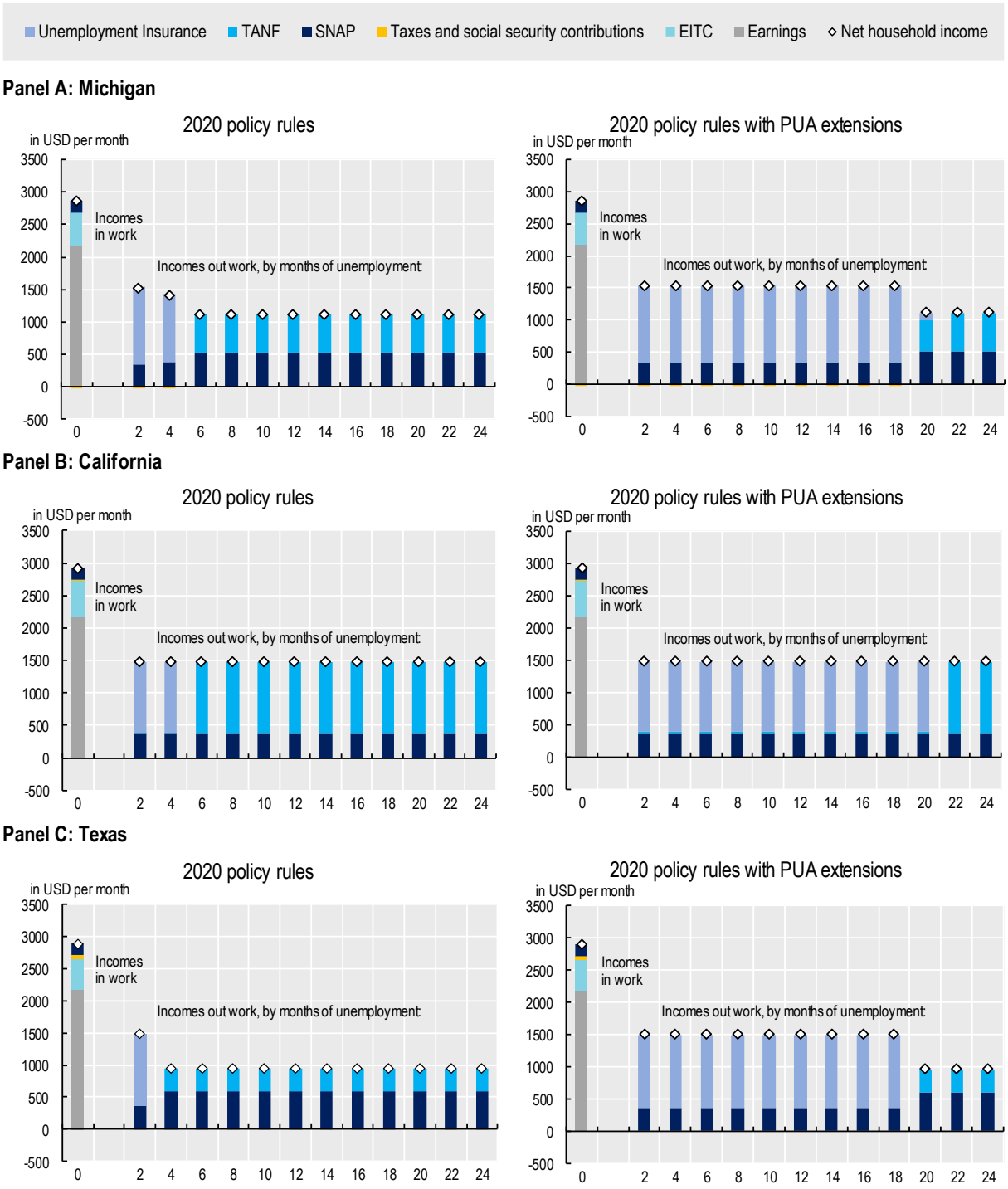
29. Families with children qualify for higher SNAP entitlements than households without children, as the maximum benefit increases with household size. Unlike a single adult, a jobless couple with two children and one jobseeker with a short record of low-paid employment is eligible for SNAP throughout their unemployment spell (Figure 2.6, dark blue bars). UI benefit income counts towards the SNAP income test, so when the UI benefit expires the SNAP benefit increases slightly.

30. TANF support is generally more tightly targeted than SNAP. Because UI benefit income reduces TANF dollar for dollar in all three states, a family with two children and one jobseeker is not entitled to TANF while receiving UI benefits. When UI benefits expire, TANF may partly offset the loss of UI income (Figure 2.6, bright blue bars). For jobseekers with low past earnings, and hence lower unemployment benefit entitlements, TANF can completely offset unemployment benefits when they expire.

31. As a result of these mechanisms, in all three states, families receiving TANF experience a much smaller impact on their net income from the PUA extensions when compared to families who do not claim TANF (Figure A B.2) and childless households (Figure A B.1). For a short previous employment record at low earnings, TANF completely offsets the loss of unemployment benefits only in California (Figure 2.6, Panel B).

Figure 2.6. Income components for jobless families by time in unemployment

Couple with two children, jobseeker with short past employment at low earnings



Note: Calculations for a one-earner couple with two children in work and after job loss. Prior to unemployment, the wage earner was employed full-time with a short (5-month) employment record at low earnings (the 20th percentile of the national distribution of full-time earnings, annual full-time equivalent earnings of USD 26 077). Results assume that the jobseeker's partner is not entitled to the Unemployment Insurance benefit. The household claims TANF benefit. Children are aged 4 and 6. When in work, earnings are supplemented by refundable tax credits (see Section 4).

Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

32. The reduced impact of the PUA extensions for families with children is apparent in the average NRR measure (Figure 2.7). Before extensions the average NRR is between 28% and 46%. After extensions, the average NRR increases only moderately to between 38% and 51%.

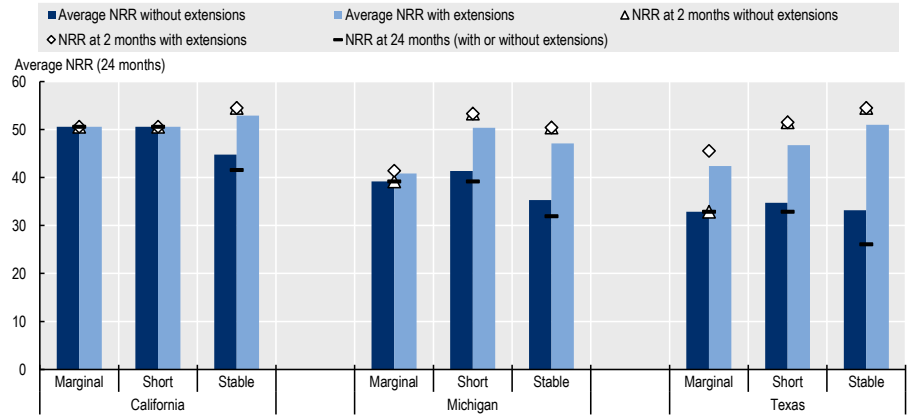
33. If, like many poor US families, the household does not receive or claim TANF benefits, the PUA extensions have a much larger impact, increasing the average NRR from 22% to 28% before extensions to 36% to 50% after (Figure A B.3). As for childless households (Figure 2.5), this is because SNAP is the only support available when UI benefits expire.

34. For families claiming TANF, PUA extensions have the largest effect for jobseekers with "short" or "stable" employment records. The effect of the PUA extensions for families with a "marginal" (1 month) employment record varies between states:

- In California this family type does not benefit at all from the PUA extensions, because their TANF benefit completely offsets the loss in UI income regardless of when the UI benefit expires. This is also the case in California for jobseekers with a short employment record.
- In Michigan, the TANF benefit is lower than in California. The UI benefit amount after PUA extensions is the minimum amount, and only slightly higher than the TANF benefit, resulting in a small increase in the average NRR.
- In Texas, the minimum UI benefit amount after PUA extensions is higher than in Michigan, however the TANF benefit is significantly lower. After PUA extensions, this results in a similar average NRR in Texas compared to Michigan, but a significantly lower average NRR before PUA extensions, when TANF is the main form of support.

Figure 2.7. Average net replacement rate for a one-earner couple with children

With and without PUA extensions, by past employment history, average over a 24-month unemployment spell



Note: 'One-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) when the jobseeker is unemployed. The wage earner was previously in continuous full-time employment. 'Stable' employment record is 12 months, with median previous earnings in the national full-time earnings distribution (USD 42 624). Short employment record is 5 months, with "low" previous earnings (20th percentile of the national earnings distribution, full-time equivalent of USD 26 077). Marginal record is 1 month, with "low" previous earnings. The household claims the TANF benefit. Children are aged 4 and 6.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

3 Income support for jobseekers: International comparison

35. This section compares the net replacement rates (NRR) for jobseekers in the US (presented in Section 2) with equivalent jobseekers in other OECD countries to assess the relative benefit generosity of the US states both with and without PUA extensions. It considers the vignettes with "short" (5 month) employment records at low earnings and with a long and stable employment at median earnings.[14] Results for "marginal" employment records are similar to those with "short" employment history in the international context. They are therefore not described further.

36. Notable findings include the following:

- The short duration of UI benefits in the United-States before PUA extensions leaves overall support during long jobless spells well below most other OECD countries. The average net replacement rate (NRR) over a 24-month period for a single adult in the United-States is 15% in Michigan and 20% in California and Texas, compared to 41% in the OECD on average, where the adult was previously in long and stable employment at median earnings.
- Other OECD countries provide more generous non-contributory benefits than the United-States for those who are not or no longer entitled to UI, through one or more of unemployment assistance, family benefits and minimum income benefits.
- For families with children, MIBs and family benefits are more generous in other OECD countries. The NRR is low for these households in the United States even when the families receive TANF (33% in Texas, 35% in Michigan and 45% in California) relative to the OECD average (59%). However most poor families in the US do not receive TANF support (see Box 2.1) and hence experience even lower NRRs.
- PUA extensions raise the NRR across a two-year jobless spell above the OECD average for jobseekers without children, but remains low for jobseekers with children.
- PUA extensions have a diminishing effect on the NRR over longer jobless spells, as they do not improve the very low level of support for US jobseekers once the benefit expires.

3.1. Net replacement rates in the United States and internationally

37. Figure 3.1 shows the average NRR over 24 months of unemployment, together with the NRR in the 2nd month and the NRR in the 24th month, for four selected household types:

[14] A "stable" employment record is defined as 264 months in the international context to capture the maximum unemployment benefit entitlement. In the US, a record of 12 months (as discussed in previous sections) gives rise to the same results. See Box 1.1 for further details on the selected family and labour market characteristics.

- Households with "long and stable" previous employment record at median earnings, for a single person without children (Panel A) and a one-earner15 couple with two children (Panel B),
- Households with "short" previous employment at low earnings, again for a single person without children (Panel C) and a one-earner couple with two children (Panel D).

38. Households with children are always assumed to be claiming TANF benefits, despite the low take-up rate in the US. Without TANF benefits, the NRR in the 24th month and the average NRR over 24 months would be lower than those presented in Panels B and D of Figure 3.1, especially before PUA extensions[16].

39. Among OECD countries, **Luxembourg** consistently has the highest average NRRs regardless of household type and previous employment record. This is due to a relatively generous MIB scheme that supports unemployed individuals who are not entitled to unemployment benefits, either because the benefit expired (Panels A and B) or because they lack the necessary employment history (Panels C and D).

40. By contrast, countries with a low average NRR have less generous, or no MIB schemes, resulting in a drop in benefits for unemployed individuals after the exhaustion of the unemployment insurance. This is the case for countries like **Türkiye** and **Hungary**, that stand out for particularly low average NRRs, especially in the case of households with a short employment record, where there is no eligibility to unemployment benefits. Policy mechanisms are explored in more detail for four countries, selected to illustrate the variation in support across the OECD (**Australia**, **Canada**, **France** and **Slovenia**) in Annex C.

3.1.1. As in the US, OECD countries generally reduce or withdraw contributory UI benefits over time

41. For long and stable employment records, the average NRR in OECD countries in the 2nd month of unemployment is 59%, but only 31% in the 24th month for single people without children (Figure 3.1, Panel A). In the 2nd month, the higher NRR is generally due to the receipt of contributory unemployment insurance benefits, as it is in the US. **California** and **Texas** are around the OECD average at the 2nd month and **Michigan** is lower, at 51%.

42. The average NRR over a 24-month period depends on when and how UI benefits reduce. In the US before PUA extensions, UI expired after a maximum of 6 months (less in **Michigan**), resulting in a relatively low average NRR for a single person without children with a stable employment record (Panel A). The short duration of UI in **Michigan** results in the lowest average NRR in the OECD, while only **Hungary**, the **United Kingdom** and **Poland** have lower average NRRs than **California** and **Texas** before PUA extensions. After PUA extensions, all selected **US** states have average NRRs above the OECD average, due to the extended duration of UI benefits.

43. Although the NRR in most countries changes between the 2nd and 24th month in Panel A, there are some countries where the NRR is constant across the whole period. In **Portugal**, **France**, **Norway** and **Denmark**, a person with this employment history still receives UI in the 24th month of unemployment. In **Australia**, there is no contributory unemployment insurance, but instead an indefinite flat-rate unemployment assistance program for all jobseekers.[17]

[15] 'One-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) when the jobseeker is unemployed.

[16] See Section 2.3.2 for more detail on the effect TANF receipt has on the NRR in the US states.

[17] This is usually also the case in New Zealand, but a temporary COVID-19 wage subsidy is modelled in 2020.

3.1.2. UI for those with short contribution histories is more accessible in the United-States than in other OECD countries

44. In most OECD countries, contributory UI benefits require a longer employment record than five months, so jobseekers with a short employment record receive non-contributory benefits instead. As a result, there is little change in the NRR over a two-year period. The OECD average NRR is low for this household (31%), as non-contributory benefits are usually less generous than UI benefits.

45. Conversely, in the **US**, short employment records do grant eligibility to UI benefits. However, the average NRR in all three states (15-21%) is still well below the OECD average (31%) due to the short duration of UI and low levels of other benefits. After PUA extensions, the longer UI benefit places the average NRR in the selected US states among the highest five OECD countries for singles without children (48-52%, Figure 3.1, Panel C).

3.1.3. MIB and family benefits are less generous in the US than in other OECD countries

46. Jobseekers may also receive means-tested support such as minimum income benefits (MIB) and family benefits. Generally, these benefits are constant over time but may increase over the unemployment spell if UI benefits decrease depending on the income testing provisions applicable to the programme. In the US states, both MIB (SNAP) and family benefits (TANF) are significantly lower than in other countries, resulting in a lower NRR when UI benefits expire.

47. For a single jobseeker without children in the 24th month of unemployment, the **US** states rank lower than most OECD countries. Only **Türkiye** has a lower NRR than the **US** states for singles without children, although a number of countries are similarly low, including **Hungary**, the **Czech Republic** and **Latvia**. A comparatively low NRR in the 24th month generally indicates that UI benefits have expired and there are minimal (or no) other supports available to the household, as is the case for all three **US** states, **Hungary** and **Türkiye** for households without children. Conversely, higher NRRs in the 24th month are a result of UI benefits with longer durations or more generous supplementary benefits when UI is no longer available.

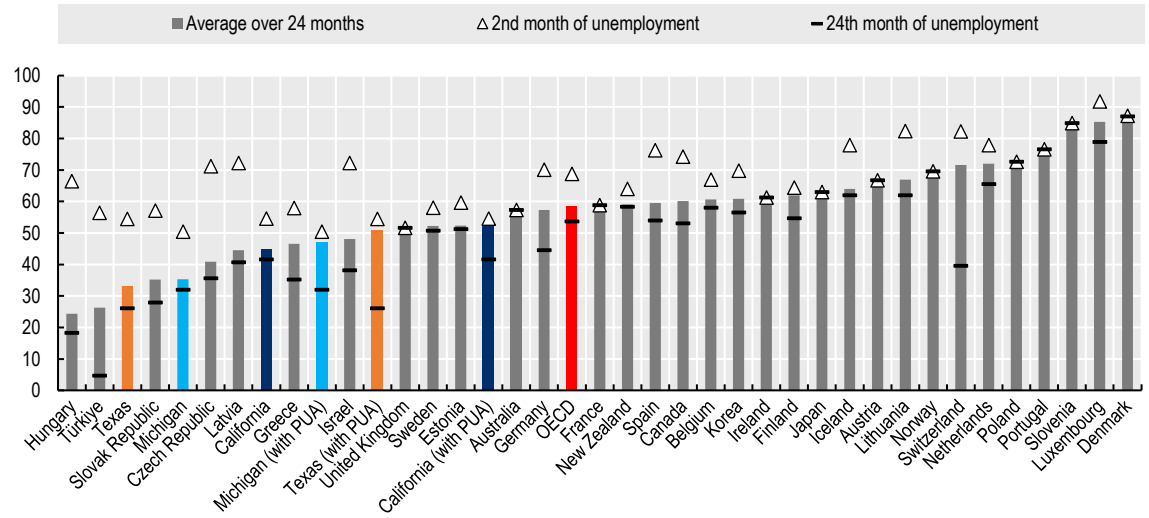
48. Families with children tend to have smaller differences in NRR across a 24-month unemployment spell (Figure 3.1, Panel B), since more generous MIB schemes and family benefits usually make up for the lower or absent unemployment insurance. This is the case in **California** and **Michigan**, and to a lesser extent **Texas**, due to the TANF benefit. The contribution of MIB (SNAP) is modest in the US, but more significant in other countries.

49. The relative generosity of MIB and TANF benefits in the US is particularly evident when considering jobseekers with children with a short previous employment record (Figure 3.1, Panel D). Unlike in most OECD countries, this household type is eligible for a UI benefit in the US states. However, due to significantly less generous MIB and family benefits, the US states are still among the five OECD countries with lowest average NRR over 24 months, even after the PUA extensions.

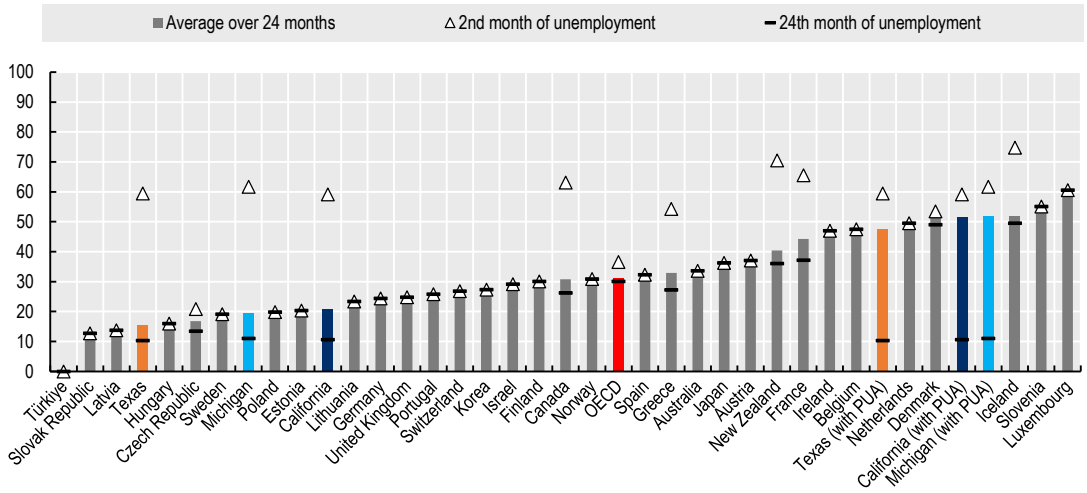
Figure 3.1. Net replacement rates: OECD countries and selected US states

Panel A: Single person without children, long and stable employment at median earnings

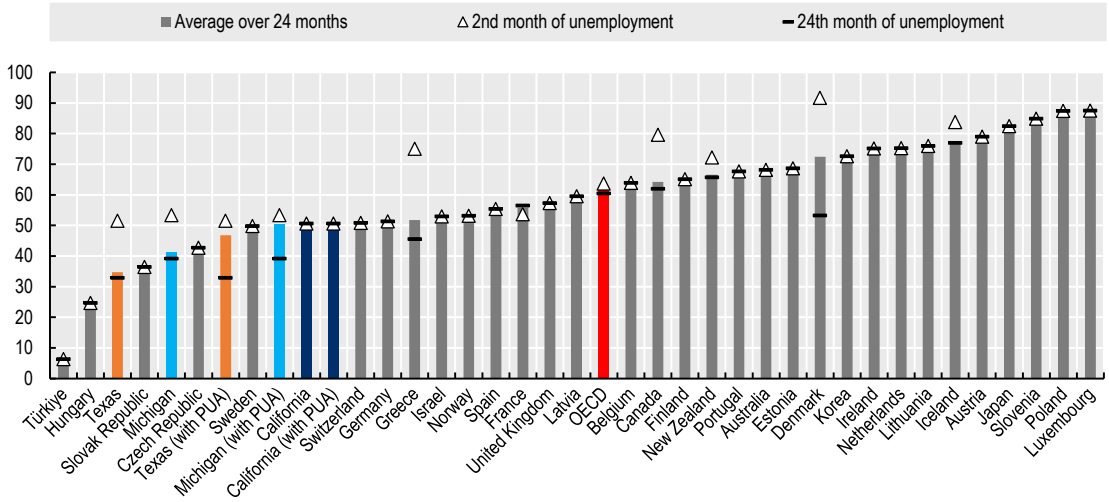
Panel B: One-earner couple with two children, long and stable employment record at median earnings



Panel C: Single person without children, short employment record at low earnings levels



Panel D: One-earner couple with two children, short employment record at low earnings levels



Note: 'One-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) when the jobseeker is unemployed. 'Long and stable employment' is an employment record of 264 months (see Box 1.1), with median previous earnings in the national full-time earnings distribution. Short employment record is 5 months, with "low" previous earnings (20th percentile of the national earnings distribution). Children are aged 4 and 6. PUA extensions in the United-States are as described in section 1.2. Results do not include the impact of any cash housing supplements.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

3.2. Existing income support provides comparatively little poverty protection for US jobseekers

50. Income support systems in OECD countries do not always protect against poverty, defined here using the OECD relative poverty threshold[18]. In the 13th month of unemployment many countries provide support that falls short of the poverty line for both single adults and families with children (Figure 3.2). Even

[18] OECD analysis commonly uses a relative poverty line for country comparisons, defined as 50% of median disposable income in the population. The disposable income measure is equivalised across households by adjusting for household size.

earlier in the employment spell (2nd month, Figure A B.4) when unemployment benefits are most generous, single jobseekers in seven OECD countries (including the US), and jobseekers with children in all but four OECD countries may live in poverty.

51. For single jobseekers without children in the 13th month of unemployment (Figure 3.2, Panel A), net incomes are higher in countries which still pay unemployment benefits (grey blue bars), including all nine countries where the net income is above the relative poverty threshold. Flat rate unemployment benefits tend to provide lower net incomes (**Germany**, **Greece**, **United Kingdom**, **New Zealand**, **Australia** and **Ireland**).

52. Minimum income benefits (dark blue bars) replace unemployment benefits in many countries by the 13th month. In **Japan** and **Luxembourg**, the MIB income is relatively generous (more than three quarters of the poverty threshold). In contrast, the MIB income (SNAP benefit) in the **US** provides the lowest net income of all OECD countries except **Türkiye**[19], just a tenth of the amount required to escape poverty. This particularly low level of income protection is comparable only with some Eastern-European countries (**Latvia**, **Slovak Republic,** and **Czech Republic**). With the PUA extensions, the net income improves significantly for single jobseekers in all three states in the thirteenth month of unemployment, above the OECD average but still below the poverty line.

53. For unemployed families with children, the higher financial needs of the family mean net income is above the poverty line in only two countries in the 13th month of unemployment (**Switzerland** and **Denmark**) (Figure 3.2, Panel B). This is despite entitlement to family benefits, and in some cases more generous minimum income or unemployment benefits. Once again, support in the **US** (SNAP and TANF) is among the lowest offered in the OECD, just a quarter of the poverty threshold in **Texas** and less than half of the poverty threshold in **California** and **Michigan**.

54. More generous out-of-work benefits for jobseekers with children are an important mechanism in protecting from poverty in the OECD. In **Poland**, a single adult's income is around a quarter of the poverty threshold in the 13th month of unemployment (Figure 3.2, Panel A), but for a couple with children (Panel B), the increased MIB amounts (dark blue bar) and the family benefit (bright blue bar) result in the third highest net income in the OECD and is only just below the poverty line.

55. In contrast, family benefits do not operate as efficiently in the **US**. **Türkiye** and the **US** are the only countries where family benefits do not supplement unemployment benefit income early in the unemployment spell[20] (2nd month, Figure A B.4, bright blue bars). The PUA extensions have a limited impact on income adequacy for families with children. Although the PUA extensions increase net income in the 13th month, the net income remains around half of the poverty threshold in all three states, and well below the OECD average (Figure 3.2, Panel B).

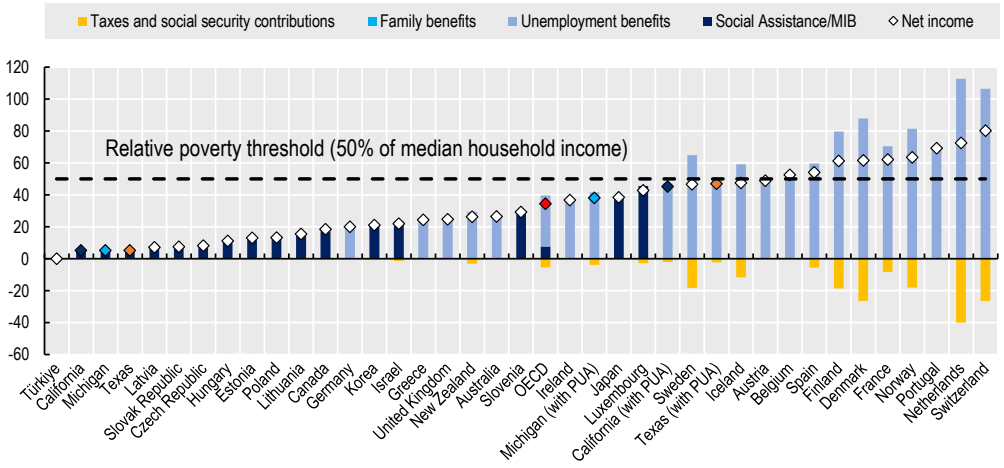
[19] Türkiye provides no financial support to single jobseekers once unemployment benefits expire.

[20] In the US, this is because UI benefit income reduces the TANF benefit. See 6Annex E for more details.

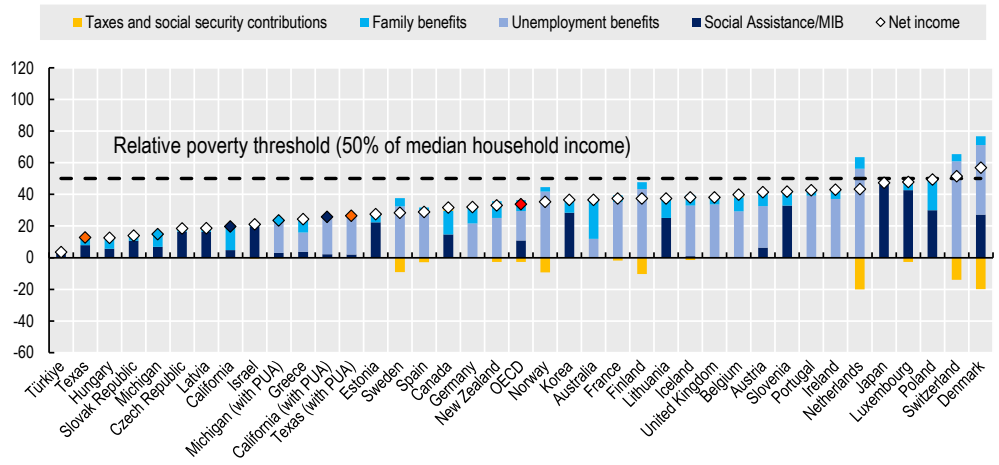
Figure 3.2. Income support for jobseekers falls short of a relative poverty line in many countries

Income in the 13th month of unemployment given a long employment record at median earnings, % of median household income

Panel A: Single without children



Panel B: Couple with two children



Note: Results for a single adult without children and for a jobless couple with two children aged 4 and 6. 'Long and stable employment' is an employment record of 264 months (see Box 1.1), with median previous earnings in the national full-time earnings distribution. Results assume that the partner of the jobseeker (when present) has exhausted their rights to unemployment benefits. The family is assumed to meet the requirements for social assistance. Results do not include the impact of any cash housing supplements.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

4 Financial incentives to seek and take up employment: Selected US states

56. One of the main challenges of income support programmes for job seekers is to strike the right balance between ensuring adequate income protection – allowing people to get through periods of unemployment and have sufficient time to search for work – and motivating them to actively seek new employment. A key element of this incentive is the financial gain from work compared to the support received while unemployed.

57. The complex design of taxes and benefits as well as their interactions with market incomes make it difficult to quantify the financial gain from entering work. When a jobseeker takes up employment, part of the earnings are "taxed away" by the combined effect of reduced benefit amounts and higher taxes. On the other hand, some benefit provisions can increase the financial reward of work by allowing individuals to earn income from jobs alongside income support. For instance, in most OECD countries, earnings below a certain threshold do not trigger a reduction in benefits. In a similar vein, partial unemployment benefits and temporary "into-work" benefits allow jobseekers to continue accessing some of their earnings-replacement benefits when taking up work in certain circumstances. In-work benefits and refundable tax credits can also increase the financial reward of employment by providing additional support to low earners.

58. This section presents how these mechanisms apply in the US context to influence the financial incentive to take up work. A jobseeker in the US taking up employment will generally experience a reduction in UI, SNAP and/or TANF benefit income, while also paying income tax and social security contributions. However, refundable income tax credits may reduce tax liability for some households, while benefit income tests partially disregard earned income[21].

59. It is important to note that the net income calculations and work incentives presented here do not consider the timing of income components. Because the income tax credits do not respond to the immediate financial situation and needs of the family, the actual effectiveness of these credits as an incentive to take up employment is not completely captured by the analysis.

60. Figure 4.1 shows the impact of the combined policy mechanisms for a jobseeker receiving UI[22] when taking up employment at earnings levels up to median full-time earnings (USD 42 624) in California, Michigan and Texas:

- The white diamond marker in Figure 4.1 shows the net household income calculated before the jobseeker takes up work. The calculations assume that the jobseeker is receiving UI benefits when

[21] Considering the complex policy mechanisms and interactions that define the net disposable household incomes in the US, two technical annexes provide further details on the design of taxes (6Annex D) and benefits (6Annex E) in the three selected states and how this may affect the financial gain from work for jobseekers.

[22] Results for jobseekers not receiving UI when taking up work are available in Figure A B.5.

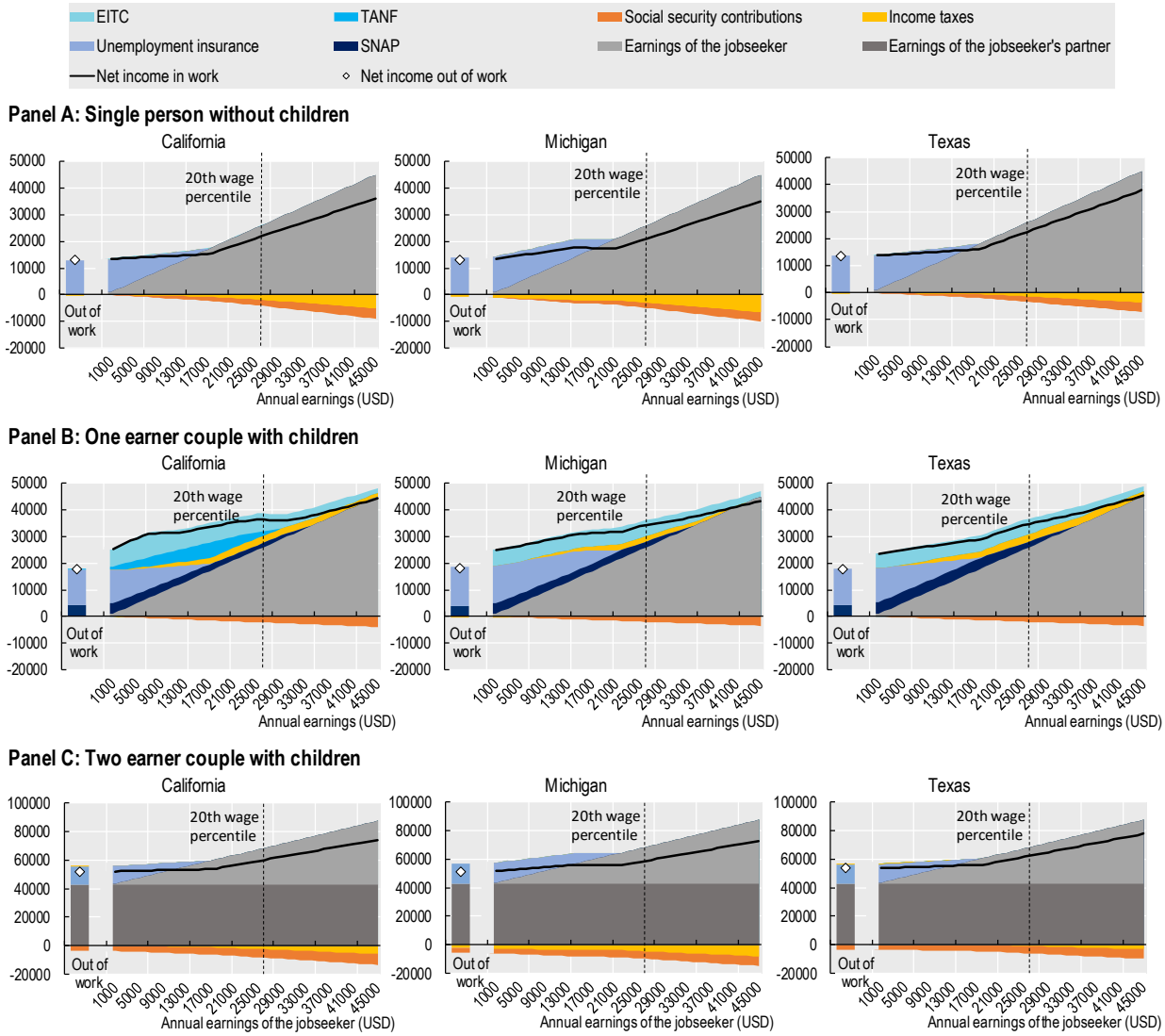
they take up work, and that the jobseeker has a “short” (5-month) employment record with “low” earnings (the 20th percentile of the full-time earnings scale, i.e. USD 26 077 – see Box 1.1 for details on the selected individual and family characteristics).

- The black line in Figure 4.1 shows the net household income calculated after the jobseeker takes up employment at selected annual earnings levels (dark grey area).

61. The relationship between these two net incomes determines the financial incentives to take up employment. Intuitively, the closer the net incomes before and after taking up employment the lower the financial incentives to work.

Figure 4.1. Withdrawal of UI and tax credits affect the financial gain of work for jobseekers taking up work at low earnings levels

Jobseeker's characteristics: “short” previous employment record and “low” previous earnings



Note: 'One-earner' and 'two-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) and only one earner (two-earner couple) when the jobseeker is unemployed. Calculations for wage earners previously employed full-time with a short (5-month) employment record at low earnings (the 20th percentile of the full-time earnings scale, that is annual full-time equivalent earnings of USD 26 077). Results for families with children assume two children aged 4 and 6. For two-earner couples, the calculations assume that the jobseeker's partner is employed full-time at median earnings (50th percentile of the national earnings scale, USD 42 624 per year). EITC includes federal and state tax credits on earned income. Other tax credits, like the child tax credit, are included in the Income taxes amount.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

4.1. A simple metric of financial incentives to take up employment

62. The Participation Tax Rate indicator summarises the complex mechanisms presented in Figure 4.1 into a single measure of "financial work disincentive". The PTR indicator measures the proportion of earnings that are lost to higher taxes (personal income tax plus employee social security contributions) and lower benefits (loss of out-of-work benefits, reduced income-tested benefits) when a jobseeker takes up work. A higher PTR means that the financial gain from work is lower, which in turn may reduce the incentive to actively seek and take up employment. Looking again at Figure 4.1, the PTR at the 20th percentile of the earnings distribution can be calculated as (one minus) the difference between the net incomes in and out of work (i.e. between the diamond marker and the point where the dotted vertical line crosses the black continuous line), expressed as a percentage of the earnings in the new job[23]. Box 4.1 describes the PTR indicator and demonstrates how it can be decomposed into income components – a useful property that allows identifying the main policy mechanisms that drive the overall value.

63. Figure 4.2 shows the PTR indicator calculated for selected households in the US when one of the adults takes up employment while still receiving UI (Panel A) and when UI is no longer available (Panel B). The PUA extensions allow jobseekers to receive UI benefits for a longer period, whereas the broadened entitlement conditions widen access to claimants with very short employment histories. As a result, jobseekers are more likely to receive UI benefits when they take up work (Panel A) and thus face a different structure of financial work incentives, generally lower, compared to those who are not entitled to or run out of UI while still unemployed (Panel B).

[23] For instance, the PTR for a jobseeker with two children whose spouse does not work in California (Figure 4.1, Panel B) is equal to:

$$\left(1-\frac{Net_{in-work}-Net_{out-of-work}}{Gross}\right)*100=\left(1-\frac{36{,}313-17{,}760}{26{,}077}\right)*100=(1-0.712)*100=28.8\%$$

Box 4.1. The Participation Tax Rate indicator

The Participation Tax Rate measure the fraction of any additional earnings that is lost to either higher taxes or lower benefits when individuals take up a new job:

$$PTR = 100\% - \frac{\Delta Net_y}{\Delta Gross_y}$$

Where ΔNet_y and $\Delta Gross_y$ denote the change of net and gross household income after the transition into work. Higher PTRs indicate *weaker* work incentives. A useful property of the PTR indicator is the possibility to decompose the measure into the contribution of the individual income components. Consider a tax-benefit system with just one benefit (BEN) and one tax (TAX). The PTR for a jobseeker who moves from unemployment (U) to employment (E) is:

$$PTR = 1 - \frac{Net_E - Net_U}{Gross_E - Gross_U} = 1 - \frac{(Gross_E + BEN_E - TAX_E) - (Gross_U + BEN_U - TAX_U)}{Gross_E}$$
$$= \frac{(TAX_E - TAX_U) - (BEN_E - BEN_U)}{Gross_E} = \frac{\Delta TAX}{Gross_E} - \frac{\Delta BEN}{Gross_E}$$

PTRs can therefore be decomposed into separated components, with each component measuring the change in a particular tax or benefit amount relative to gross earnings in the new job. For instance, an out-of-work or means tested benefit increases the PTR as $\Delta BEN = (BEN_E - BEN_U) < 0$.

4.1.1. UI withdrawal has a large impact on work incentives

64. For those who receive UI when taking up work, their UI benefits are partially withdrawn depending on the earnings level in the new job (see Figure 4.1, grey blue area). As a result, net income (black line) only increases gradually while UI benefits are withdrawn (earnings up to around USD 20 000 depending on the state[24]). This withdrawal is the policy mechanism with the largest impact on work incentives (Figure 4.2, Panel A, grey blue bars). Social contributions payable on earnings also increase the financial disincentives to take up employment (orange bars).

4.1.2. Refundable tax credits strengthen work incentives for jobless families with children

65. For jobless couples with children where one adult takes up work, the impact of UI withdrawal on the net income at low earnings levels is offset by the phase in of the federal and state earned income tax credits (Figure 4.1, Panel B, pale blue area) and the child tax credit (yellow area). In the three states, these refundable tax credits increase the net income (black line) relative to childless households and jobless families (see Annex D for a comparison of the credit calculation for different household types in California, Michigan and Texas).

[24] The differences in the amount of income disregarded in each state results in different gains from employment (Figure 4.1, black line). The UI income disregard is more generous in Michigan at very low earnings (see 6Annex E) increasing the net income gains relative to the other states for earnings below USD 14 000. However, at earnings between USD 14 000 and USD 23 000, the combined amount of UI benefits and earnings is capped which reduces the net income gain relative to the other states. Once UI benefits are fully withdrawn, net incomes (black line) increase steadily with earnings in all three states, but faster in Texas due to the absence of state-level taxes (6Annex D).

66. The additional income from the tax credits has a negative contribution to the PTR (Figure 4.2, Panel A, negative pale blue and yellow bars). This results in a significantly lower PTR for a jobseeker with children whose spouse does not work taking up work at 'low' or median earnings (diamonds).

67. When taking up employment at low earnings, California has the lowest PTR of the three states (29%). The state earned income tax credit significantly decreases tax liability relative to the other states. In addition, due to the relatively high TANF benefit amount and the concessional assessment of earned income in the TANF income test, the family receives a slightly larger TANF benefit with low earnings compared to when out-of-work and receiving the UI benefit[25] (Figure 4.2, Panel A, negative bright blue bar).

68. The effect of the tax credits on the incentive to take up work is more modest for a jobseeker with a stable record entering work at median earnings because the EITC and state earned income tax credits are means tested at this earnings level.

69. Similarly, a jobseeker with children whose partner is already in work does not benefit from increased tax credits when they take up employment (assuming their spouse has median earnings). When they are out of work and entitled to UI benefits, the family's combined taxable income precludes the family from earned income tax credits in all states (Figure 4.1, Panel C, 'out of work' column). As a result, the earned income tax credits have no effect on the work incentive of the out of work partner (Figure 4.2, Panel A).

70. The higher combined income of the household when one adult is already in work also translates into a more sizeable contribution of tax liabilities to the PTR (yellow bars). The contribution of tax liabilities is lowest in Texas (where no state income tax exists), and highest in Michigan (where the state's flat tax rate exceeds that of California's progressive schedule at these earnings levels).

4.1.3. Incentives to take up employment are strong for those receiving benefits other than UI

71. As means-tested out-of-work support is modest, financial work incentives are much stronger for households without UI entitlements (Figure 4.2, Panel B).

72. Jobless couples with children can have higher net incomes than other household types if they receive the TANF benefit (Figure A B.5, Panel B, and Section 2.3.2). TANF benefits are fully withdrawn at relatively low earnings levels, decreasing the incentive to work (Figure 4.2, Panel B, positive bright blue bars). This effect is, however, offset by refundable tax credits targeted at working families (negative pale blue and yellow bars). California provides the highest TANF entitlement among the three states, but also the most generous earned income tax credit, resulting in a lower PTR than the other states at low earnings. PTRs at median earnings are higher in all three states, as the means-tested refundable earned income tax credits are lower and thus have a smaller impact on the PTR (negative pale blue and yellow bars).

73. Couples with one jobseeker and a working spouse (here at median earnings) are not eligible for means-tested cash benefits (Figure A B.5, Panel C). Once the jobseeker takes up employment (earnings represented by the light grey area), the family's means-tested earned income tax credits *decrease* (pale blue area) while their tax liability increases (yellow area). The withdrawal of the means-tested earned income tax credits thus increases, rather than decreases, the PTR for secondary earners (Figure 4.2, Panel B, positive pale blue bars). Overall, when taking up work at low earnings, the PTR is higher for secondary earners than for jobseekers whose spouse does not work. When taking up work at median

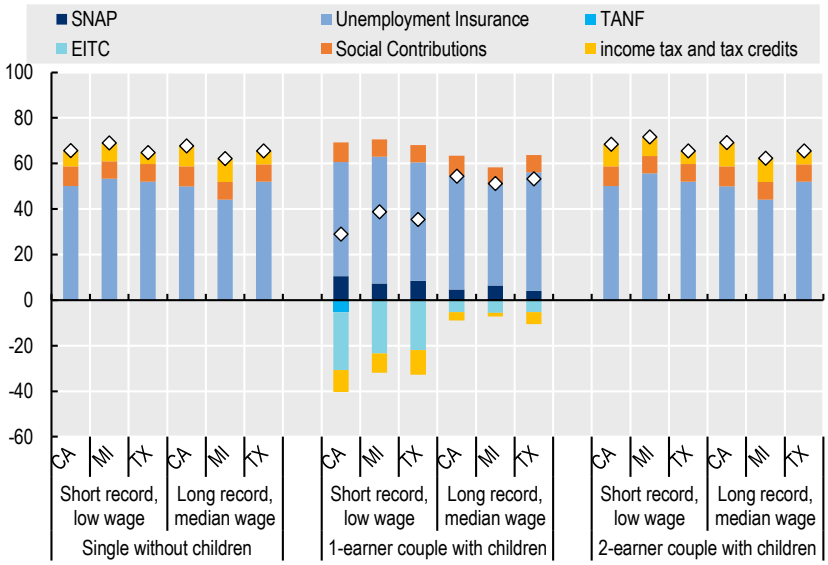
[25] In all three states, UI benefit income reduces the TANF amount dollar for dollar. In contrast, earned income is partially disregarded. The specific rules vary by state (see 6Annex E). In California, the family is entitled to more TANF support when in work at 'low' earnings than when out of work and receiving UI benefits. This mechanism is explained in detail in 6Annex E.

earnings, the PTR is similar to jobseekers whose spouse does not work, however the policy levers underlying the PTR are different and there is less variation between the states.

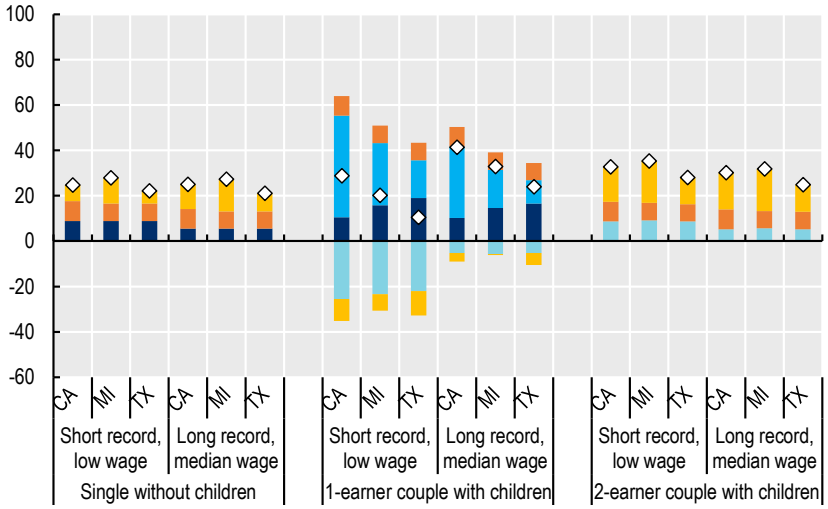
Figure 4.2. Despite different policy configurations, financial work incentives are broadly similar across US states

Participation Tax Rate and contribution of different policy levers, by state, past earnings, and family type

Panel A: Jobseekers receiving UI



Panel B: Jobseekers not receiving UI



Note: 'One-earner' and 'two-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) and only one earner (two-earner couple) when the jobseeker is unemployed. The work incentive indicator is calculated assuming that the jobseeker takes up full-time employment at the same earnings levels as in their previous employment. Results for a "Short record, low wage" refer to a jobseeker with 5 months of employment with previous earnings equal to the 20th percentile of the national full-time earnings distribution (USD 26 077). "Long record, median wage" refer to a jobseeker with at least 12 months of employment with previous earnings equal to the 50th percentile of the national full-time earnings distribution (USD 42 624). Children are aged 4 and 6. The yellow bar (Income tax and tax credits) includes the impact of the Local, State and Federal income taxes as well as the Federal child tax credit. Figure A D.2 provides more details on relevant income tax rules, and Box 4.1 summarises the decomposition of the PTR indicator.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

5 Financial incentives to seek and take up employment: International comparison

74. This section compares the strong financial work incentives experienced by US jobseekers (see Section 4) with those in other OECD countries. It draws a number of findings, which are explored in more detail throughout the section.

75. Financial work incentives to take up employment are generally strong in the US compared to other OECD countries. This is particularly the case for single adults who are not entitled to unemployment benefits. The out-of-work support available to the jobseeker is relatively low in the US (see also Section 3), which increases the financial return of working.

76. Jobless families in the US also have strong incentives, due to the generous and refundable earned income tax credits. In contrast, in other OECD countries the withdrawal of means-tested family benefits when a jobseeker enters work decreases the financial work incentive relative to the US.

77. In most OECD countries, secondary earners with children face higher work incentives than a jobseeker whose partner does not work. With one adult already in work, the family receives less financial support while the jobseeker is out of work, and so stand to lose less when the jobseeker takes up employment. In contrast, the withdrawal of the earned income tax credits in the US decreases the incentive for a secondary earner to take up work.

5.1. Work incentives are generally high for childless households in the US compared to other OECD countries

5.1.1. Single US jobseekers with long employment records face above average work incentives when receiving unemployment benefits

78. On average across OECD countries, a childless jobseeker with a “long” previous employment record who takes up employment at median earnings loses about 69% of their earnings to higher taxes and lower benefits (Figure 5.1, diamonds). The PTR for this family type in the US states is slightly below the OECD average in **California** and **Texas** (67% and 65% respectively), and somewhat lower in **Michigan** (62%).

79. The withdrawal of unemployment benefits (grey blue bars) when taking up employment has the largest impact (48 percentage points) to the overall PTR (69%) across the OECD. Higher income tax payments (yellow bars) and social contributions (orange bars) are the other main contributors to the overall PTR, 12 and 9 percentage points respectively. Taxability of unemployment benefits varies between countries, but even when they are taxed, median earnings generally result in a higher taxable income than unemployment benefits alone.

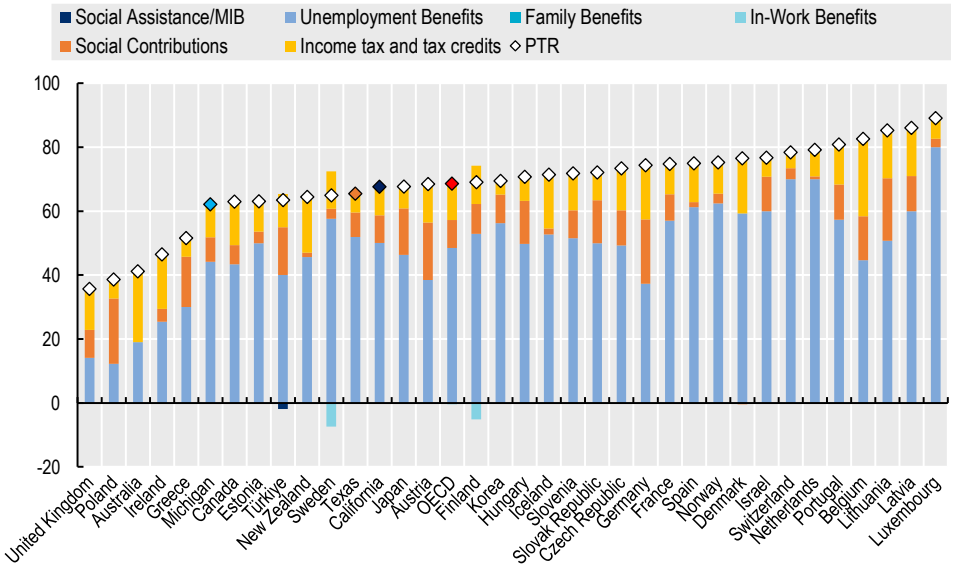
80. The **United Kingdom, Poland, Australia**, **Ireland** and **Greece** have PTRs significantly below the OECD average (35-52%) as their unemployment benefits are paid at a relatively low flat rate regardless of the jobseeker's previous wage (assuming previous full-time work).

81. Similarly, high PTRs are generally the result of higher unemployment benefit amounts. **Luxembourg** has the highest PTR at 89%, driven by a generous unemployment benefit which replaces 80% of previous earnings. In contrast, the high PTR of 83% in **Belgium** has a significant contribution from increased tax liability (24 percentage points) – twice the OECD average.

82. Unusually among OECD countries, a single jobseeker without children entering work in **Finland** and **Sweden** at median earnings is eligible for an in-work benefit, marginally reducing the overall PTR (negative pale blue bars). The US earned income tax credits are not available to single households at median earnings and so do not impact the work incentive in this scenario.

Figure 5.1. Financial work disincentive: single jobseekers with a 'long' employment record

PTR indicator for a single household without children, receiving unemployment benefits, entering work at median earnings



Note: Results for a single jobseeker without children taking up work at median earnings after receiving unemployment benefits for one month. Prior to unemployment, the jobseeker was employed full-time with a long and stable (264-month) employment record at median earnings. Median earnings are the 50th percentile of the national full-time earnings scale (in the US, that is annual full-time equivalent earnings of USD 42 624). In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components. PTR breakdown by income component for households not receiving unemployment benefits is shown in Figure A B.6.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

5.1.2. Broader accessibility of UI benefits decreases work incentives relative to other countries for jobseekers with short employment records in the US

83. In contrast to many other OECD countries, US jobseekers with a short employment record are eligible for contributory UI benefits.[26] Because contributory benefits are on average more generous than

[26] Many OECD countries require a longer employment record to satisfy eligibility requirements for UI benefits. See also Section 3.1.

non-contributory benefits, the net income in unemployment is higher in the US compared to other countries for households without children. Therefore, the PTR when re-entering work is comparatively higher – the PTR in the US states ranges from 65% to 69%, compared to the OECD average of 50% (Figure 5.2, Panel A, bars).

84. OECD countries pay different benefits to out-of-work households when they are not entitled to contributory unemployment insurance. In some countries, the benefit available to these jobseekers is an unemployment assistance payment, i.e. an unemployment benefit that is typically means tested and supports jobseekers regardless of previous salary and contributions history. In other countries, support to these jobseekers is provided through a minimum income benefit (MIB).

85. A selection of countries illustrates the different benefit compositions across the OECD (Figure 5.2, Panel B, left[27]). As a result of the varying policy design across countries, the OECD average shows roughly equivalent contributions to the PTR between unemployment insurance and assistance benefits (grey blue bar) and MIBs (dark blue bar) when the jobseeker receives unemployment benefits.

86. Among the selected countries, most show a withdrawal due to unemployment benefits, representing the loss of either contributory unemployment insurance or non-contributory unemployment assistance (grey blue bars). Because social contributions are often payable on unemployment benefit income, sometimes at a reduced rate, the effect of social contributions on the PTR (orange bars) is in general relatively small when entering work at 'low' earnings.

87. In contrast, in **Slovenia** and **Hungary** the benefit lost is a MIB (dark blue bars). Social contributions are not payable on the MIB income in these countries when out of work, but are payable on earnings from the new job. As a result, the effect of social contributions (orange bars) is significantly larger in **Slovenia** and **Hungary** compared to the other countries.

88. In **France** and **Finland**, the combined PTR due to unemployment benefit withdrawal, increased social contributions and increased tax liability is offset by a small in-work benefit payable to the single jobseeker at low earnings (Panel B, left, negative pale blue bars). For childless households, the EITC in the US states is already exhausted at the selected earnings level. The state earned income tax credit is still available at low earnings in **California**, but the effect on the overall PTR is so small that it is not visible in Panel B (left).

89. The relatively low level of out-of-work benefits in **Australia**, the **United Kingdom** and especially **Hungary** for single households without children, result in overall lower than average PTRs for these countries.

5.1.3. Work incentives in the US are much higher than in other countries when jobseekers are not receiving unemployment benefits

90. As is the case in the US, the benefit composition available when out-of-work may change significantly when jobseekers are not, or no longer, entitled to unemployment benefits. In general, lower out-of-work benefits lead to stronger incentives to take up work for those not receiving unemployment benefits. For jobseekers with a stable employment record taking up work at median earnings, the average PTR across the OECD is 42% when receiving unemployment benefits (Figure 5.2, Panel A) but only 27%

[27] The breakdown of the PTR by income component for all countries is presented in

Figure A B.7

when not (Annex Figure A B.6)[28] – an increase in the financial work incentive of 15 percentage points on average.

91. The effect is muted for jobseekers with a short employment record, as most countries require a longer employment record for unemployment benefit entitlement. Only eight countries and the US states have different work incentives for single jobseekers without children when the jobseeker does not receive unemployment benefits. The PTR for jobseekers taking up employment at low earnings while not receiving unemployment benefits is 44% on average across the OECD (Figure 5.2, Panel A, diamonds).

92. In general, minimum income benefits (MIB) are the primary form of out-of-work benefit that governments offer in the absence of unemployment benefits. They vary in generosity, but are generally tightly targeted, and thus taking up work even at low earnings may cause a significant or complete decrease in MIB amounts (Panel B, right, dark blue bars[29]). The United States have particularly low PTRs when the jobseeker is not receiving unemployment benefits, driven by the comparatively smaller contribution of MIB benefits (i.e. the low SNAP benefit amounts)[30]. In **France**, **Australia** and **Slovenia** the contribution of MIB to the PTR is higher than the OECD average of 23 percentage points. In **Slovenia**, MIB guarantees a minimum level of net income. Therefore, increases in earnings at very low levels are completely offset by decreased MIB amounts until the MIB is completely withdrawn.

[28] The PTR is between 12 and 53 percentage points lower when not receiving unemployment benefits in nearly all countries. Only Australia, Ireland, Poland and the United Kingdom have no or very small changes in the PTR.

[29] Results for all countries are presented in Figure A B.6 for jobseekers entering work at median earnings, and in Panel B of

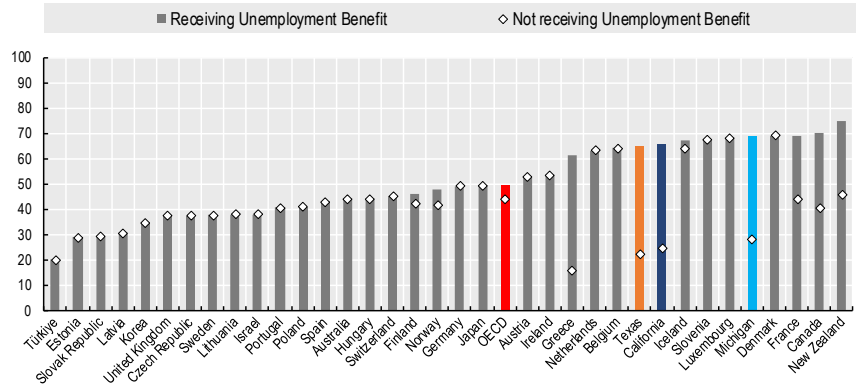
Figure A B.7 for jobseekers entering work at low earnings.

[30] Due to the low level of assistance benefits received by the jobseeker, the proportion of earnings lost to lower benefits when taking up work is relatively small

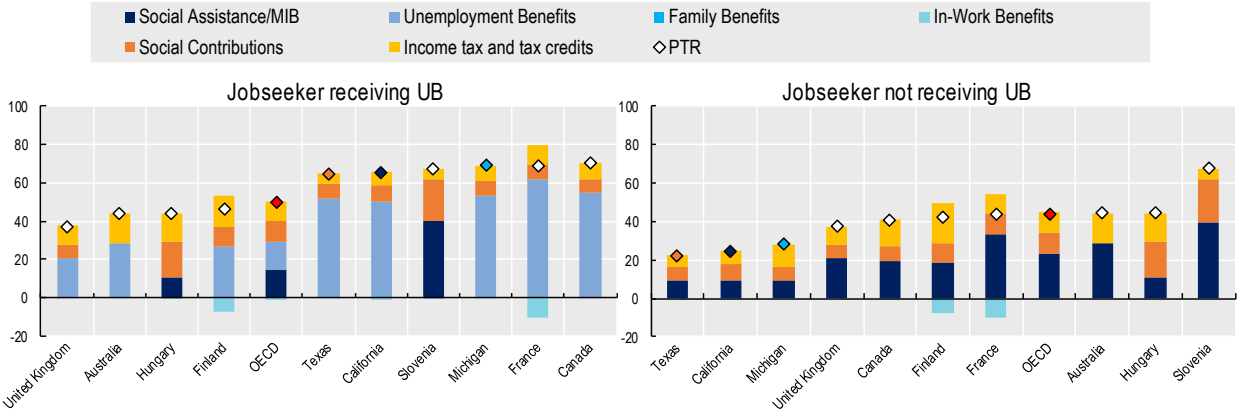
Figure 5.2. Financial work disincentive: single jobseekers with a 'short' employment record

PTR indicator for a single household without children, entering work at 'low' earnings

Panel A: PTR indicator by entitlement to unemployment benefits



Panel B: PTR breakdown by income component



Note: Results for a single jobseeker without children taking up work at 'low' earnings. Prior to unemployment, the jobseeker was employed full-time with a short (5-month) employment record at low earnings. For jobseekers receiving unemployment benefits, they take up employment after receiving benefits for one month. 'Low' earnings are equal to the 20th percentile of the full-time earnings distribution (in the US, this is equal to USD 26 077). In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components. PTR breakdown by income component for all countries is shown in Figure A B.7.

Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

5.2. Work incentives for jobless families in the US are strong relative to other OECD countries

93. Families with children often have different support packages than households without children, which may change the financial work incentives. Many countries target support to families via means tested benefits which are paid to out-of-work jobseekers and may be partially or fully withdrawn when the household earnings increase. In general, this decreases the financial incentive to work for families with children relative to childless households.

94. For a jobseeker receiving unemployment benefits (having a short employment record) entering work at low earnings, the average PTR across the OECD is 61% when their partner is out of work (Figure 5.3, Panel A), compared to 50% for a single jobseeker without children (Figure 5.2, Panel A).

95. In contrast, the US has relatively low levels of cash benefits for out-of-work and low-income families with children (see Section 3). In addition, substantial support is provided to families via refundable tax credits when they work at low earnings levels which increases the financial incentive relative to single households. As a result, the US states have PTRs among the five lowest OECD countries for a partnered jobseeker with children entering work at low earnings while receiving unemployment benefits[31].

96. As for single households without children, the main contributor to the PTR is unemployment benefits (Figure 5.3, Panel B, left, grey blue bars) or MIBs (dark blue bars). On average across all countries[32] withdrawal of MIBs contributes more (30 percentage points of the 61% average, compared to 19 percentage points for unemployment benefits). In some countries (**United States**, **Finland**, **Spain**, **Norway** and **Iceland**) for previous low wage earners with children, both MIB and unemployment benefits may be received when out-of-work, and the withdrawal of both increase the PTR.

97. Income tax has a small contribution (only 4 percentage points on average across the OECD) to the overall PTR compared to households without children, reflecting that support is often provided to families through lower tax liabilities and/or higher tax credits. In **Hungary** and **Slovenia**, unlike the single jobseeker, the family pays no tax when the jobseeker enters work at low earnings. In the US states, the federal EITC and state earned income tax credits (in-work benefits), and the federal Child Tax Credit (reduced income tax) reduce the PTR by a combined 32-35 percentage points in the US states (pale blue and yellow bars). The PTR is reduced slightly further in **California** because the household is eligible for a larger TANF benefit when in work[33] (negative bright blue bar). Similarly, in **France**, the in-work benefit gained while working at low earnings levels offsets increased taxes, social contributions, and part of the lost unemployment benefits, reducing the PTR by 38 percentage points (pale blue bar).

98. The countries with the highest PTRs have relatively generous MIBs which are tightly targeted, combined with an above average effect of social contributions (including **Japan**, **Poland**, **Slovenia**, the **Netherlands** and **Austria**) (Figure A B.9, Panel A, dark blue and orange bars). In **Slovenia**, for example, MIBs are generous and are withdrawn for every dollar increase in earnings (Figure 5.3, Panel A, left, dark blue bar). Social contributions are not payable on MIB income but are on earnings. Combined, this results in a particularly high PTR.

99. When the jobseeker is not receiving unemployment benefits, the overall PTR only changes in **Michigan**, **Texas** and seven other countries including **France** and **Canada** (Figure 5.3, Panel B, right). Despite the lack of change in the overall PTR, the contribution of each income component often changes. For example, in **California** the withdrawal of the unemployment benefit (grey blue bar) is replaced with withdrawal of the TANF family benefit (bright blue bar). In **Finland**, the net disposable income in unemployment remains the same when the family no longer receives unemployment benefits, however the lost unemployment benefit income is redistributed to increase MIB and decrease social contributions and income tax amounts. As a result, the overall PTR does not change, but the contribution from each income component changes.

100. The US states have very strong work incentives for jobless families with children when not receiving UI benefits. Despite the withdrawal of TANF benefits (Figure 5.3, Panel B, right, bright blue bars), the refundable tax credits (pale blue bars) significantly decrease the PTR. If the family does not claim TANF, the low out-of-work income (only the SNAP benefit) and availability of refundable tax credits in work

[31] The US states have the lowest PTR of any OECD country for partnered jobseekers with a long and stable employment record entering work at median earnings (Figure A B.8, Panel A). Both cases assume the jobseeker's partner is out of work.

[32] The breakdown of the PTR by component is shown in Panel A of Figure A B.9.

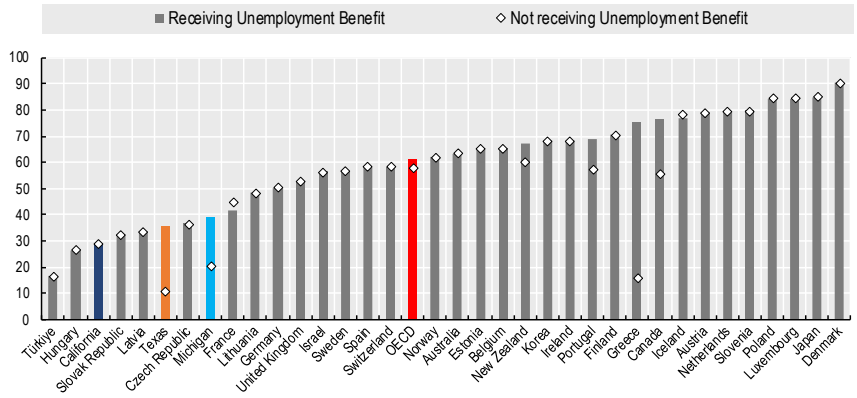
[33] This unusual result is due to the relatively generous TANF benefit and concessional treatment of earnings relative to UI income. See full explanation in 6Annex E

result in a negative PTR in all three states. That is, the family receives more financial assistance with 'low' earnings (in the form of refundable tax credits and a small SNAP benefit) than when out-of-work (SNAP benefit), even when accounting for income tax and social contributions.

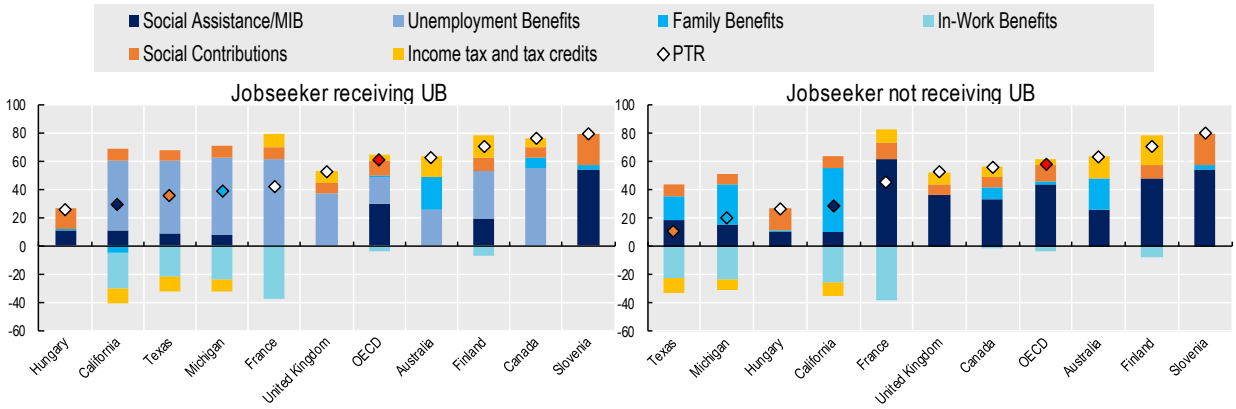
Figure 5.3. Financial work disincentive: jobless couple with children

PTR indicator for a jobless couple with two children, jobseeker with a 'short' employment record, entering work at 'low' earnings

Panel A: PTR indicator by entitlement to unemployment benefits



Panel B: PTR breakdown by income component



Note: Results for a jobless couple with two children where the jobseeker takes up work at 'low' earnings. Prior to unemployment, the jobseeker was employed full-time with a short (5-month) employment record at low earnings. For jobseekers receiving unemployment benefits, they take up employment after receiving benefits for one month. 'Low' earnings are equal to the 20th percentile of the full-time earnings distribution (in the US, this is equal to USD 26 077). Children are aged 4 and 6. In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components. PTR breakdown by income component for all countries is shown in Figure A B.9.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

5.3. Work incentives for secondary earners with children are lower in the US compared to other OECD countries

101. In couples with two children where one parent has median earnings, the financial incentive of the other parent taking up employment is generally higher in OECD countries compared to the other household types. At low earnings, the secondary earner has an average PTR of 30% (Figure 5.4, red diamond),

compared to 44% for a single person without children and to 58% for a partnered jobseeker with children whose partner does not work. This is because, in general, many MIB payments and means-tested family benefits are already withdrawn when one parent is already in work. If income tax is levied individually, the marginal tax liability of the secondary earner remains low, further increasing the incentive to work.

102. The effect is the opposite in the US states. A low earning secondary earner has a PTR of 28% to 35% in the US states, which is around the OECD average (Figure 5.4), compared to 22% to 28% percent for singles without children (Figure 5.2) and to 11% to 29% percent for jobseekers with children whose partner is out of work (Figure 5.3).

103. The analysis assumes that no paid childcare is required in order for the secondary earner to take up work. If it was required, costs of childcare can significantly increase PTRs and disincentivise work, especially for single parents and secondary earners in couples with young children.

5.3.1. In-work benefits decrease work incentives for secondary earners in the US

104. Unlike a primary earner taking up work in the **US**, a secondary earner will not receive additional earned income tax credits because there is already a working adult in the family. In fact, the additional earnings will decrease the amount of earned income tax credit paid to the household because of the income test, increasing the PTR (Figure 5.4, positive pale blue bars). Joint taxation also contributes to a higher PTR because the secondary earner's wage is taxed at the primary earner's marginal tax rate. Similarly, in **France** the family receive the child related in-work benefit when the secondary earner is unemployed. When they enter work, the amount is reduced according to the means test, increasing the PTR (positive pale blue bar).

105. In contrast, the **Netherlands**, **Sweden** and **Finland** make an in-work benefit available to a secondary earner despite their partner's earnings, incentivising the take up of work (negative pale blue bars).

5.3.2. Tax and social contributions drive the PTR for secondary earners

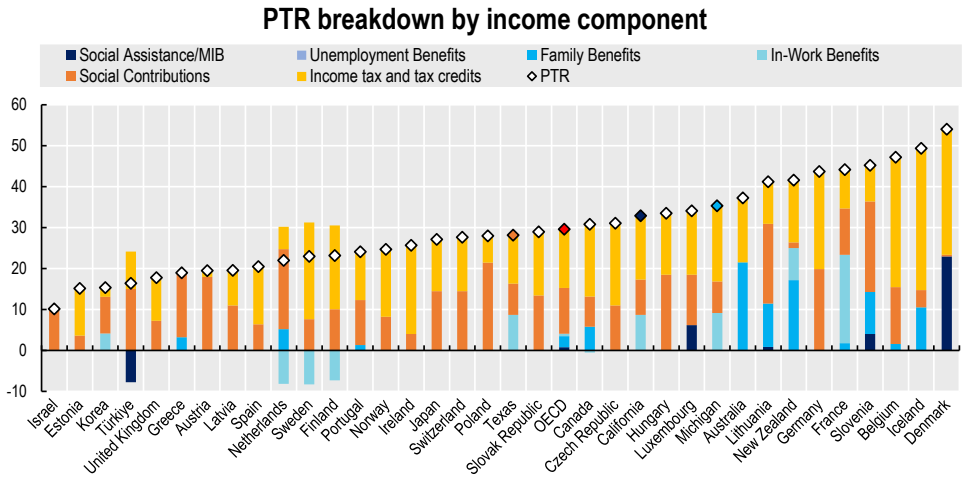
106. In thirteen OECD countries, only tax and social contributions affect the PTR of the secondary earner, and they have the largest contribution to the average of 30%. Social contributions increase the PTR by 11 percentage points (Figure 5.4, orange bars) and income tax liabilities increase the PTR by 14 percentage points (yellow bars) when taking up work at low earnings.

107. The withdrawal of family benefits has only a small effect on average on the PTR in OECD countries, even when the secondary earner takes up work at median earnings (2-3 percentage points, bright blue bars in Figure 5.4 and Figure A B.10). When the secondary earner takes up work at low earnings, only ten countries withdraw family benefits, with the largest effects in **Australia** (21 percentage points), **New Zealand** (17 percentage points), **Lithuania**, **Iceland** and **Slovenia** (10 percentage points each). The effect of family benefit withdrawal places the PTRs for these countries above the OECD average. In contrast, there is no effect from family benefits if the benefit was already withdrawn when the secondary earner was out of work (**Spain**, **US**), if the benefit is universal (**Hungary**, **Ireland**, **Switzerland**), or if the benefit is withdrawn over different, often higher, income ranges (**France**, **Germany**, **United Kingdom**).

108. The OECD average effect of MIB on the PTR is 0.8 percentage points (dark blue bars). The high PTR in **Denmark** is driven by a significant reduction in MIB when the secondary earner takes up work. Smaller effects are apparent in **Slovenia** and **Luxembourg**. In **Türkiye**, the household's MIB increases when the secondary earner takes up work, decreasing the PTR and increasing the work incentive.

Figure 5.4. Financial work disincentive: secondary earner with children

PTR indicator for a secondary earner with two children, not receiving unemployment benefits, entering work at 'low' earnings



Note: Results for a jobseeker with a working spouse and two children, not receiving unemployment benefits and taking up work at 'low' earnings. 'Low' earnings are equal to the 20th percentile of the full-time earnings distribution (in the US, this is equal to USD 26 077). The jobseeker's partner is employed full-time at median earnings. Children are aged 4 and 6. In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components. PTRs for this family type when the jobseeker takes up work at median earnings are presented in Figure A B.10.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

6 Conclusions

109. This report shows the effect of selected PUA extensions on statutory benefit generosity and work incentives in three US states (California, Michigan and Texas), and compares these calculations with other OECD countries.

110. Although UI benefit coverage has been shown to increase as a result of PUA-type extensions (OECD, 2023[2]), the impact on the household's net income depends on its composition.

111. Single jobseekers experience an in their average net replacement rate (NRR) over a 24-month unemployment spell of up to 34 percentage points due to the extended benefit duration.

112. Jobseekers with children, although also entitled to an extended benefit duration, experience a more modest increase in NRR in Michigan and Texas because TANF support offsets the lost UI income when the benefit expires. In California, jobseekers with children experience no increase in the average NRR because TANF support is more generous and completely offsets the lost UI income.

113. Compared to other OECD countries, the combined package of support for jobless households is very low once UI benefits expire. As a large share of jobseekers are not entitled to UI benefits, many jobseekers and their families are living in poverty. The increased duration under the PUA extensions only benefits a small portion of these households – those with jobseekers who have been unemployed less than 79 weeks – and so are not sufficient to alleviate poverty.

114. Financial work incentives in the US are strong in the international context because of a robust system of refundable tax credits that provide support to low-earning families. This is especially the case for jobseekers with relatively low out-of-work benefits: jobseekers with children and single jobseekers who are ineligible for UI benefits. This provides an opportunity to improve income adequacy in unemployment without discouraging employment, for example through the introduction of a means-tested unemployment assistance benefit to complement the UI benefit.

115. The US relies most heavily on UI benefits to provide support to jobless households, but this benefit does not adequately support the jobseeker's family. The US family benefit, TANF, is a much smaller programme than similar benefits in other OECD countries, and its interactions with SNAP and UI benefits lead to counter-intuitive outcomes. Additionally, although refundable tax credits targeted at families improve the theoretical financial work incentive, the timing of this support may mute the actual work incentive experienced by parents week-to-week. A broader examination of net income for jobless and low-earning families, although outside the scope of this report, would be valuable to improve benefit adequacy for families, and align income to financial need.

Annex A. Methodology

116. The tax-benefit model TaxBEN (TaxBEN) is the cross-country tax and benefit simulation model developed and maintained by the OECD. It is a unique tool for exploring the detailed mechanics of tax-benefit policies and reforms on working age individuals and their families across countries. The scope of TaxBEN includes taxes and social benefits that, together, account for a large share of government budgets. The TaxBEN methodology provides a comprehensive guide to the TaxBEN model, including key concepts, assumptions and interpretation of main indicators. This section gives a very short overview of the model and highlights the main assumptions specific to this paper.

Scope of the OECD tax-benefit model "TaxBEN"

117. The policy scope of the model comprises the most important benefits and taxes for working-age families: unemployment benefits (unemployment insurance and assistance), family benefits (universal as well as means-tested, excluding contributory benefits for young children under one, such as maternity and paternity leave benefits), social assistance benefits (such as minimum income benefits) and in-work benefits as well as temporary into work benefits, direct income taxes (as well as support provided through the tax system such as refundable or non-refundable tax credits and allowances) and social security contributions. All family members are assumed to be in good health, therefore sickness and disability benefits are not included in the analysis. Due to the highly localised rental assistance programs in the US, their long waiting periods and level of discretion in their administration, housing benefits are not included in the TaxBEN model for the US, and are disregarded for the analysis in this report.

118. For the US, the analysis includes Unemployment Insurance (including Extended Benefits), Supplemental Nutrition Assistance Program (SNAP)[34], Temporary Assistance for Needy Families (TANF), Earned Income Tax Credit (EITC), federal and state-level mandatory employee's social security contributions and personal income taxes. Other benefits fall outside the scope of the model and are not included in the analysis (for example veteran's benefits, disability benefit, Supplemental Security Income, General Assistance and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), among others). The TaxBEN policy descriptions (available online) provide detailed information on the policies modelled in each country. A modified version of the US policy description for 2020 has been prepared as an online annex to this report, describing the policies included in California, Michigan and Texas.

119. The analysis in this report is conducted on the 2020 policy rules (in place on 1st January 2020) in the US and OECD countries. To a large extent[35], COVID-19 related measures were not in place.

[34] The TaxBEN model generally excludes in-kind benefits (e.g. subsidised housing, transport and health care) because of difficulty to measure and compare such benefits across countries. However, the model includes large-scale near-cash transfers e.g. the Supplemental Nutrition Assistance Program (SNAP) in the United-States, as such payments are very close to cash payments and have important interactions with other tax-benefit instruments.

[35] New Zealand and the United Kingdom use a reference date of April 2020, and thus some Covid-related policies are included for these countries.

120. A selection of the COVID-19 related measures introduced in the US in 2020 and 2021 are analysed against the 2020 baseline, to assess how these extensions affected generosity and work incentives in selected US states and how these measures compare in the international context. The COVID-19 related measures were implemented following step by step the descriptions of the 2021 rules provided by US experts. Compared to the simulations presented in Chapter 3 of (OECD, 2023[2]), the simulations presented here take advantage of the greater level of precision allowed by the hypothetical family approach that characterises the OECD tax-benefit model. As a result, the simulations consider interactions between income support measures (including interactions with taxes and refundable tax credits) as well as differences in how these extensions apply in the selected US states.

Table A A.1. Implementation of COVID-19 related measures in the US in TaxBEN and for the purposes of the analysis in this report

	Brief description of measure	Implementation in TaxBEN 2021 (Michigan only)[1]	Implementation for this report (PUA extensions)[2]
Extended Benefits[3]	An additional 13 weeks of UI paid if the state meets insured unemployment rate criteria	Extend maximum UI duration by 13 weeks	As per implementation in TaxBEN 2021
Pandemic Emergency Unemployment Compensation (PEUC)	Temporary program providing up to 53 weeks of the weekly benefit on top of regular UI between weeks ending 5 April 2020 and 6 September 2021	Extend maximum UI duration by 39 weeks (weeks between 1st January 2021 and 6 September 2021)	Extend maximum UI duration by 53 weeks
Pandemic Unemployment Assistance (PUA) - eligibility	Provide unemployment benefit to people who are ineligible for regular unemployment compensation and who are unemployed for Covid-19 related reasons.	Provide unemployment benefit to people with at least one month's employment record.	As per implementation in TaxBEN 2021
PUA - amount	Pay at the same rate as regular UI, but at least 50% of the average benefit paid in the state.	As per description	As per description
PUA - duration	Pay for 79 weeks between weeks ending 5 April 2020 and 6 September 2021, less weeks eligible for other unemployment compensation.	Pay for 39 weeks, less weeks eligible for other unemployment compensation (weeks between 1 January and 6 September 2021)	Pay for up to 79 weeks, less weeks eligible for other unemployment compensation.
Federal Pandemic Unemployment Compensation (FPUC)	Supplementary payment of USD 600 (April 2020 through July 2020) or USD 300 (January 2021 through 6 September 2021) per week on top of all unemployment compensation payments.	Increase UI amount by USD 300 per week	Not included
Increased SNAP payments	Increase the maximum SNAP allotment to 115 percent of the Thrifty Food Plan Top up SNAP payments for households who do receive less than the maximum SNAP allotment	Implemented	Not included
Recovery Rebates for Individuals	Three rounds of income-tested grants. The first two rounds were passed in 2020 and the third round in 2021	Third round included	Not included
Child Tax Credit changes	Temporary changes to the Child Tax Credit in tax year 2021: Increased rate, fully refundable (rather than partially), means tested	Implemented	Not included

Note: [1] The full description of policies implemented in TaxBEN for 2021 (Michigan only) are presented in the TaxBEN 2021 Policy Description for the United-States, available online.
[2] The full description of COVID-19 measures included in the analysis for this report (the 'PUA extensions') are presented in the online annex.
[3] Extended Benefits are not a COVID-19 specific measure but were triggered in all states of interest on 1 January 2021.

Description of relevant assumptions

Regional assumptions

121. The US has social support programmes provided at federal, state and local levels. Similarly, there are federal, state and local taxes that citizens are liable to pay. The OECD tax-benefit model TaxBEN simulates rules for Michigan. However, for this project two additional states have been added to the model: California and Texas. Policy rules for the regions modelled are available in the online annex.

122. In the US, unemployment insurance is a joint state-federal program. All states follow the same guidelines established by federal law, but each state administers its own program and defines minimum earnings thresholds, duration and generosity of benefits.

123. In some other OECD countries, policies also vary at a regional or municipality level. In such countries, the model also focuses on the rules in a particular sub-national jurisdiction, often the capital. This most often concerns social assistance benefits (as well as housing benefits and childcare policies, which are outside the scope of this report). See the list of assumption in Box A A.1. Unlike the US, all other OECD countries provide nation-wide unemployment insurance schemes.

Box A A.1. Regional policy components modelled in TaxBEN

Some countries provide social support and or impose taxes at a local level. Averaging across very different policy settings is often unfeasible or impractical. When this is the case, the model focuses on specific rules of a sub-national jurisdiction (region, municipality or other), which is in charge of specific taxes or benefits. Most often this concerns social assistance benefits and local taxes. This approach ensures a family perspective in a specific jurisdiction, and provides clear policy implications. Focussing on a specific jurisdiction also enables taking into account support that is provided at the sub-national level, which is often particularly important for vulnerable groups, such as lone parents, low-income families, and large families. The list below provides the jurisdictions that are chosen for modelling in TaxBEN:

Country name	Regional policy components
Austria	Vienna (Means-tested minimum income)
Belgium	Wallonia (Guaranteed family benefit, Family benefit); Brussels-Capital region (Regional and local surtax)
Canada	Ontario (Social Assistance, Child Benefit, Local income tax, Health Premium); Québec (Pension Plan)
Finland	Helsinki (Supplement to home care allowance)
Iceland	Reykjavik (Municipality financial assistance)
Italy	Lazio (Regional surcharge tax); Rome (Local surcharge tax)
Japan	Tokyo (Public assistance)
Spain	Madrid (Minimum income scheme, Regional income tax)
Switzerland	Zurich (Guaranteed minimum income, Taxes levied by decentralised authorities)
United-States	Michigan (Unemployment insurance, Temporary Assistance for Needy Families or Family Independence Program, Local income tax)

Source: OECD tax-benefit policy descriptions: http://oe.cd/TaxBEN.

UI-specific assumptions relevant for this report

124. **Type of employment.** For working family members, the TaxBEN model assumes employment in the private sector with a standard employment contract. Even if a person is in work only for several months, the employment is assumed to be without interruptions and with constant earnings and working hours. Previous earnings can be set at any chosen level, but a person is assumed to work full time in the past. When a person starts a new job, he or she can start a part-time job at any chosen number of hours. Self-employed are outside the scope of the model.

125. **Assessment of eligibility for unemployment benefits in the US.** Eligibility for unemployment benefits in the US depends on the employment history during the "base period". In the TaxBEN model, the base period is assumed to be the 12 months (4 quarters) immediately preceding unemployment. Most states have requirements for both earnings levels and the pattern of earnings. Requirements for earnings levels may be a minimum amount over the entire reference period (the Base Period Wage) and/or a minimum amount in the quarter with highest earnings (the High Quarter Wage). The pattern of earnings may require earnings in a minimum number of quarters, or that earnings are not concentrated in a single quarter.

126. As the TaxBEN model assumes continuous and constant full-time earnings during the employment record, both the earnings level requirements and the earnings pattern requirements are simplified to the previous wage and the employment record. For example, consider a person with a 5-month employment record with full-time annual equivalent earnings of USD 30 000 per year (that is, USD 2 500 per month).

In the quarter immediately preceding unemployment they worked the full 3 months (with earnings of USD 7 500) and in the quarter before that they worked 2 out of 3 months (with earnings of USD 5 000). Their total earnings over the base period (the Base Period Wage) are thus USD 12 500, and the earnings in the highest quarter (the High Quarter Wage) are USD 7 500. They have earnings in two quarters and the Base Period Wage is 1.67 times the High Quarter Wage. This set of information is then assessed against the eligibility requirements of each state to determine if UI is payable.

127. **Duration of unemployment benefits:** The TaxBEN model uses months to measure duration of unemployment benefits, therefore all duration expressed in other time units (e.g. weeks or days) are expressed in months. To convert a duration in weeks to months, we divide by 52 to get the duration in years and then multiply by 12 to get months. After the full months are exhausted, the remaining proportion is paid in the final month. For example, 79 weeks is 1.519 years, which is 18.23 months. The benefit is received in full from month 1 through 18. In the 19th month of unemployment, the remaining proportion of the benefit is paid (23 percent of the full amount).

128. **Behavioural requirements:** When a person loses a job, separation is assumed to be involuntary, a person applies for unemployment benefits as well as other means-tested benefits, such as social assistance, and is assumed to meet all behavioural eligibility requirements for such benefits. Despite low coverage of TANF benefits, it is assumed that households receive them if they meet the eligibility requirements.

129. **Health.** The default TaxBEN assumption is that all family members are in good health and that all adult members have full working capacity.

130. **Waiting periods.** As the aim of TaxBEN is to assess the impact of tax-benefit rules in force at a particular point in time (e.g. on 1 January), time lags delaying the assessment of claimants' entitlement (e.g. for administrative reasons) are disregarded. This enables better understanding of interactions between different policy elements. Waiting periods are also typically disregarded with some exceptions.

131. **Take-up:** Full-take up is assumed.

132. **Additional assumptions in the US**: In the US, employees are covered by the unemployment if their employer is subject to the payment of unemployment taxes. TaxBEN assumes that these requirements are met.

Selection of personal and family characteristics ("vignettes")

133. The TaxBEN model focuses on stylized families. Characteristics such as race, ethnicity and gender are outside the scope of the model as these characteristics usually do not directly affect statutory entitlements. Nevertheless, race, ethnicity and gender might be correlated with other observable characteristics, such as low earnings or employment record, which may affect eligibility and/or amount of available unemployment compensation. This report focuses on vulnerable groups defined in terms of the characteristics available in TaxBEN and which have direct implication for UB eligibility and amounts.

134. The specific circumstances ("vignettes") are defined in a consistent way across countries to facilitate cross-country comparison. This allows abstracting from differences in population characteristics across countries and focusing on comparable policy-relevant situations in across countries. Clear settings also help identify policy mechanisms driving work incentives.

135. Low previous earnings and contribution record are some of the important factors defining eligibility and amounts of UI entitlements. Families with children may be eligible to UI or other supplements, which may increase the generosity of the support but may weaken work incentives at the same time.

136. Disadvantaged groups have characteristics that make their entitlements to unemployment benefits lower and at the same time might be related to higher risks of losing a job.

137. Disadvantage groups are assessed relative to a single 40-year-old worker without dependents, with long and continues employment record (22 years) and previous earnings at median earnings. This group is likely to face a low risk of becoming unemployed in "normal times", but might be affected by future labour market shocks.

138. We assess how the extensions affected benefit generosity and work incentives for disadvantaged groups relative to average standard worker.

139. In particular, the three types of employment history considered in this report are:

- "**Long and stable employment at median earnings**": a 40-year-old jobseeker with a "long" previous employment record and earning at the 50th percentile of the national full-time earnings distribution (USD 42 624 in 2020). A "long" employment record means uninterrupted work after completing education, i.e. 22 years for a 40-year-old who started to work at age 18.36
- "**Short employment record at low earnings**": a 40-year-old jobseeker with a previous employment record of five months and earnings at the 20th percentile of the national distribution of full-time earnings. The 20th percentile of the full-time earnings distribution was USD 26 077 in 2020. This is higher than the minimum wage which applies in each of the three states, and 73% higher than the annualised federal minimum wage (USD 7.25 per hour, USD 15 080 per year).37
- "**Marginal employment at low earnings**": a 40-year-old jobseeker with a previous employment record of one month and earnings at the 20th percentile of the national distribution of full-time earnings.

140. To assess the effect of a broad range of supports available to jobseekers in the US and OECD countries, these employment histories are applied to single people without children and also to a couple with two children aged 4 and 6.

[36] In most benefit systems, an employment record much shorter than this gives rise to full benefit entitlements (e.g. 12 months in the United-States, see http://oe.cd/TaxBEN for policy rules in other countries).

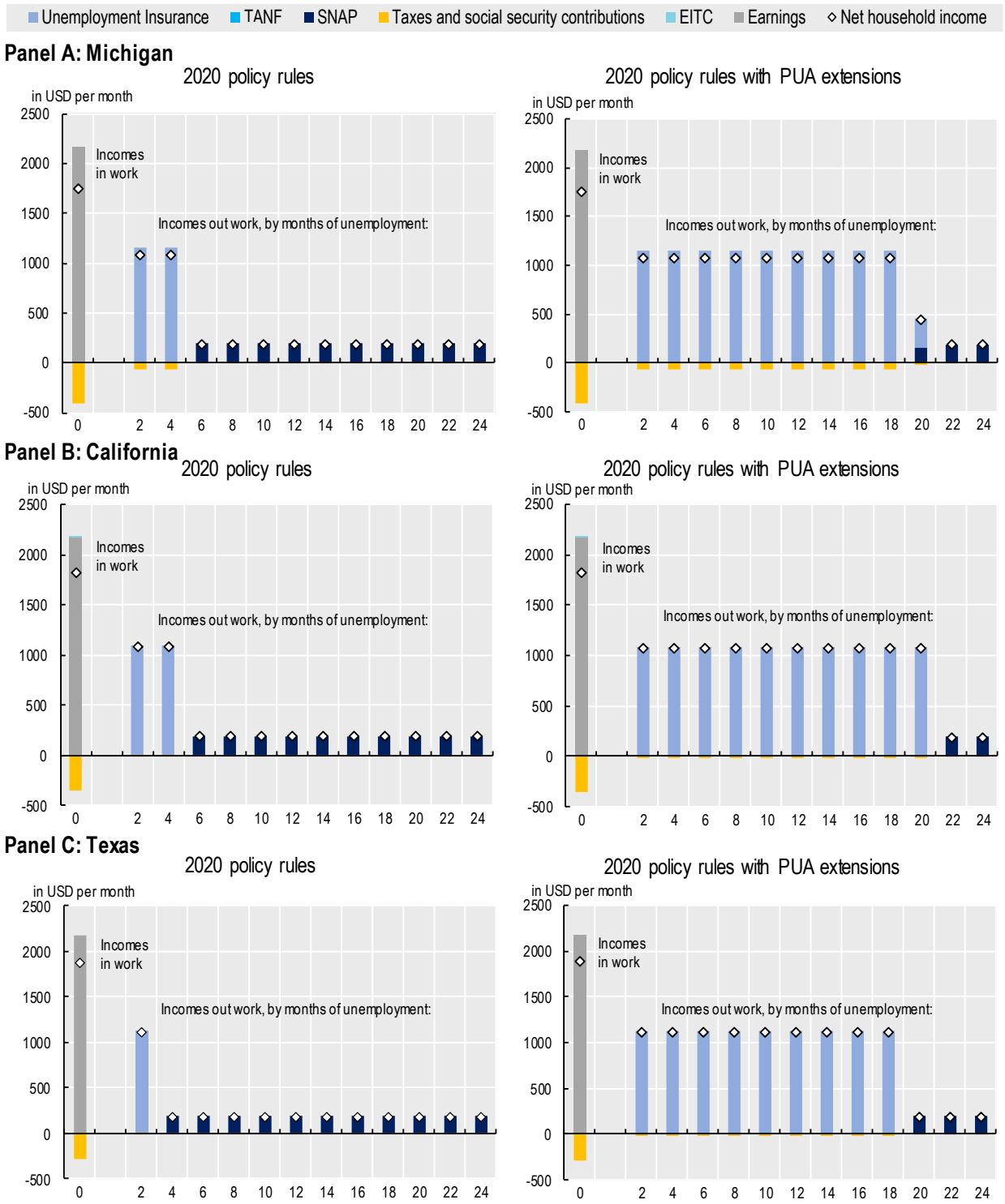
[37] It is 30% higher than the minimum wage in Michigan (USD 20 072 per year) and 4.5% higher than the minimum wage in California (USD 24 960 per year). Texas does not have a state-level minimum wage (the federal minimum applies).

Annex B. Supplementary figures

141. This annex contains supplementary figures which are referred to in the main text.

Figure A B.1. Income components for an unemployed adult by time in unemployment

Single person without children, short past employment at low earnings

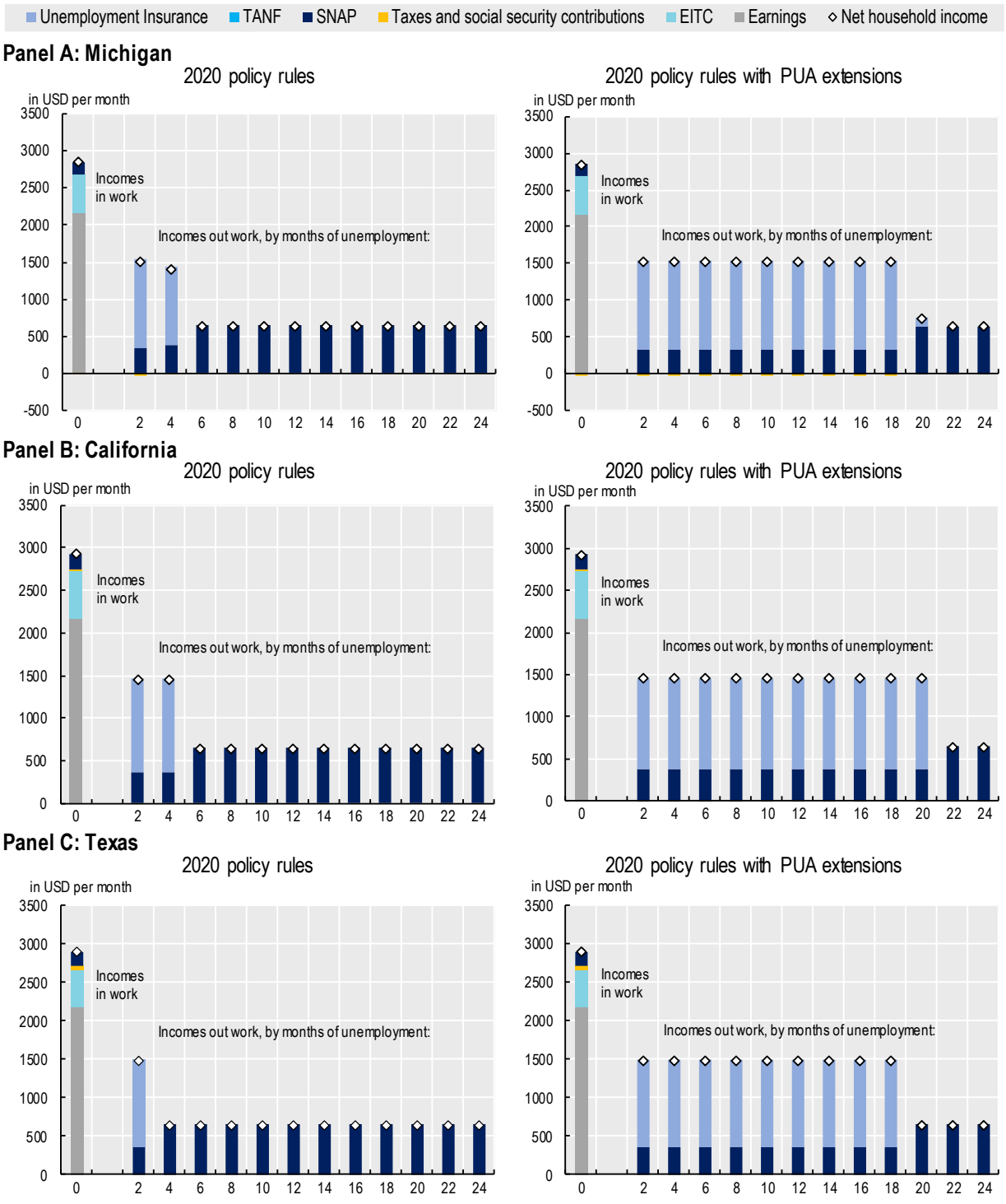


Note: Calculations for a single household without children in work and after job loss. Prior to unemployment, the wage earner was employed full-time with a short (5-month) employment record at low earnings (the 20th percentile of the national distribution of full-time earnings, annual full-time equivalent earnings of USD 26 077).

Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A B.2. Income components for jobless families without TANF by time in unemployment

Couple with two children, not claiming TANF, jobseeker with short past employment at low earnings

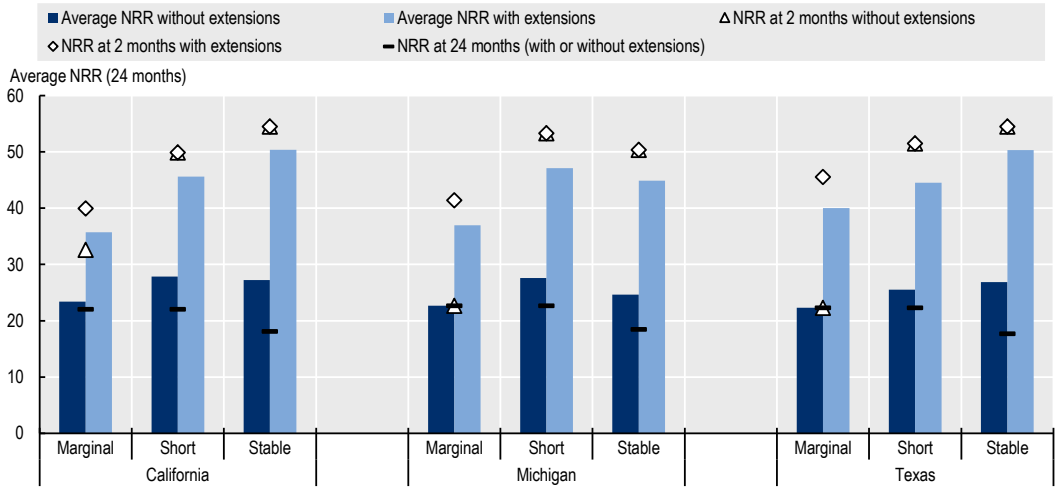


Note: Calculations for a one-earner couple with two children in work and after job loss. Prior to unemployment, the wage earner was employed full-time with a short (5-month) employment record at low earnings (the 20th percentile of the national distribution of full-time earnings, annual full-time equivalent earnings of USD 26 077). Results assume that the jobseeker's partner is not entitled to the Unemployment Insurance benefit. The household claims TANF benefit. Children are aged 4 and 6. When in work, earnings are supplemented by refundable tax credits (see Section 4).

Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A B.3. Average net replacement rate for a one-earner couple with children without TANF

With and without PUA extensions, by past employment history, average over a 24-month unemployment spell

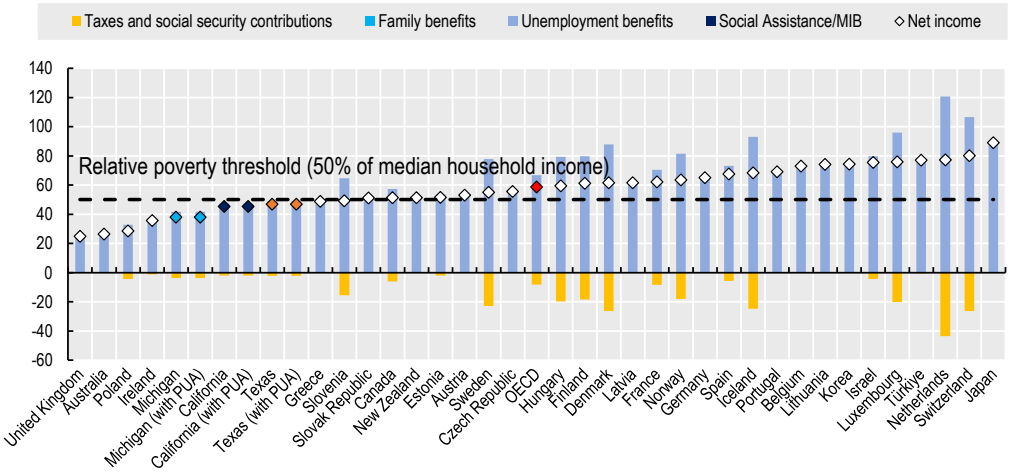


Note: 'One-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) when the jobseeker is unemployed. The wage earner was previously in continuous full-time employment. 'Stable' employment record is 12 months, with median previous earnings in the national full-time earnings distribution (USD 42 624). Short employment record is 5 months, with "low" previous earnings (20th percentile of the national earnings distribution, full-time equivalent of USD 26 077). Marginal record is 1 month, with "low" previous earnings. The household does not claim the TANF benefit. Children are aged 4 and 6.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

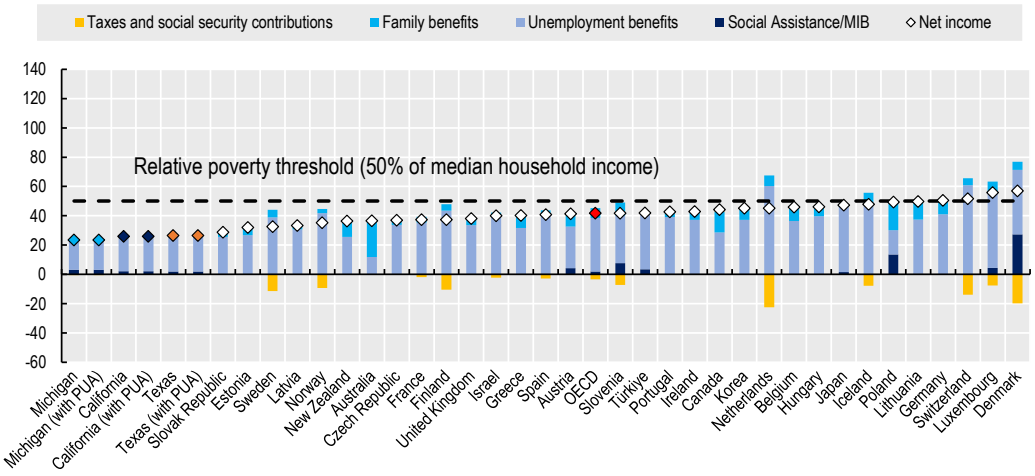
Figure A B.4. Income in the 2nd month of unemployment compared to a relative poverty line

Income in the 2nd month of unemployment given a long and stable employment record at median earnings, % of median household income

Panel A: Single without children



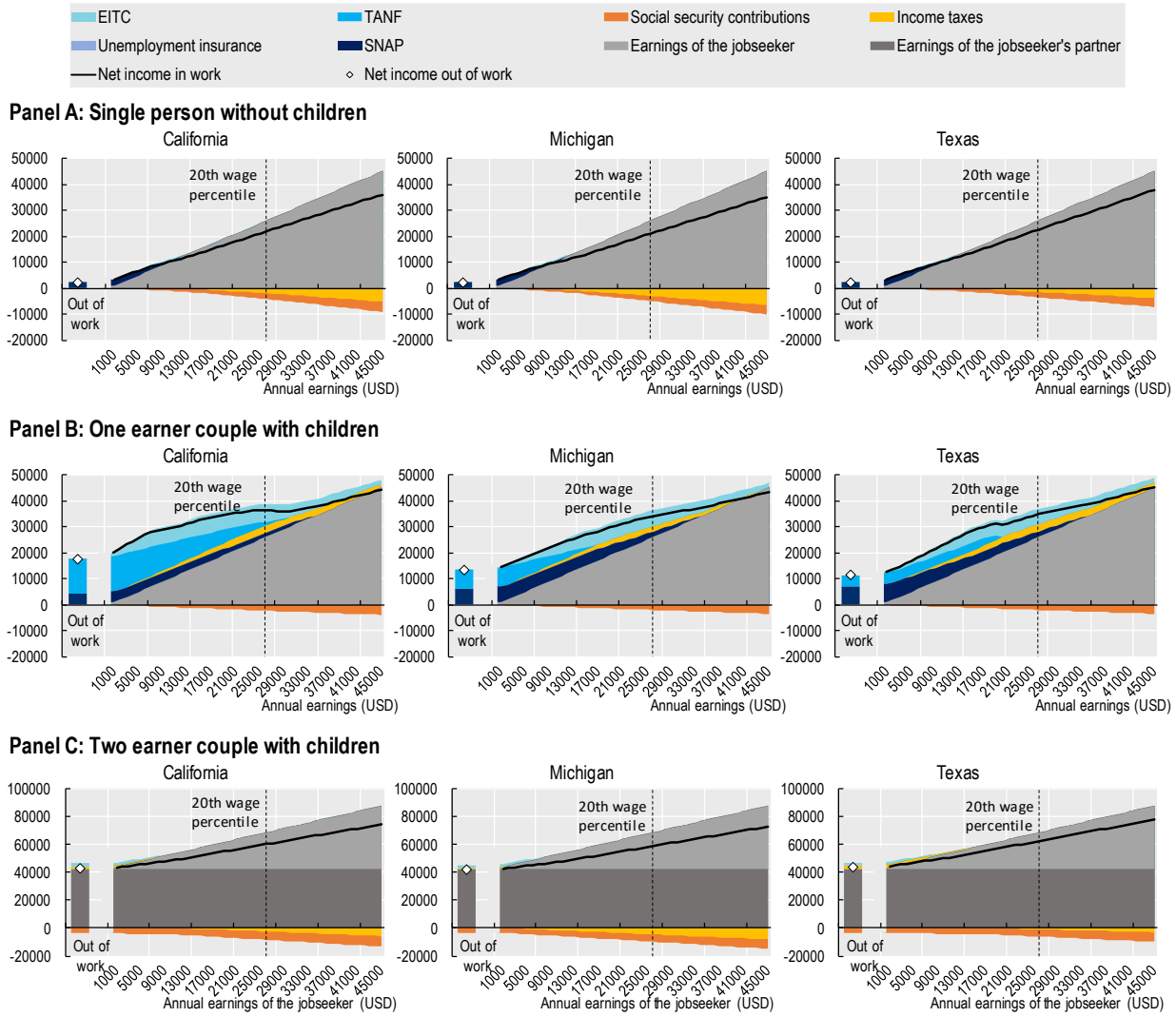
Panel B: Couple with two children



Note: Results for a single adult without children and for a jobless couple with two children aged 4 and 6. 'Long and stable employment' is an employment record of 264 months (see Box 1.1), with median previous earnings in the national full-time earnings distribution. Results assume that the partner of the jobseeker (when present) has exhausted their rights to unemployment benefits. The family is assumed to meet the requirements for social assistance. Results do not include the impact of any cash housing supplements.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A B.5. Income components for jobseekers not receiving UI when taking up employment

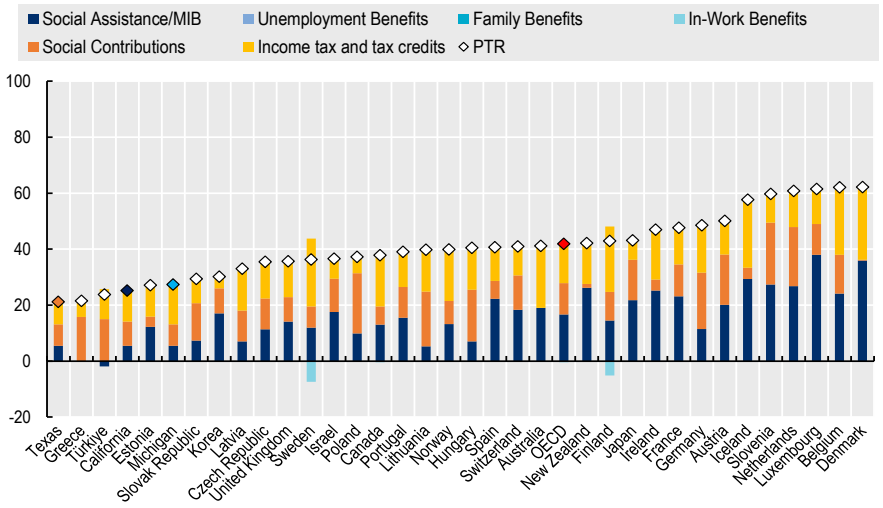
Jobseeker's characteristics: "short" previous employment record and "low" previous earnings



Note: 'One-earner' and 'two-earner' couple refers to the household's labour-market situation before job loss; there is no earner (one-earner couple) and only one earner (two-earner couple) when the jobseeker is unemployed. The jobseeker is not eligible to receive UI benefit. Results for families with children assume two children aged 4 and 6. For two-earner couples, the calculations assume that the jobseeker's partner is employed full-time at median earnings (50th percentile of the national earnings scale, USD 42 624 per year). EITC includes federal and state tax credits on earned income. Other tax credits, like the child tax credit, are included in the Income taxes amount. Families in Texas receiving TANF are assumed to be subject to the temporary generous income test (see Annex E for further details).
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A B.6. Financial work disincentive: single jobseekers entering work at median earnings

PTR indicator for a single household without children, not receiving unemployment benefits, entering work at median earnings

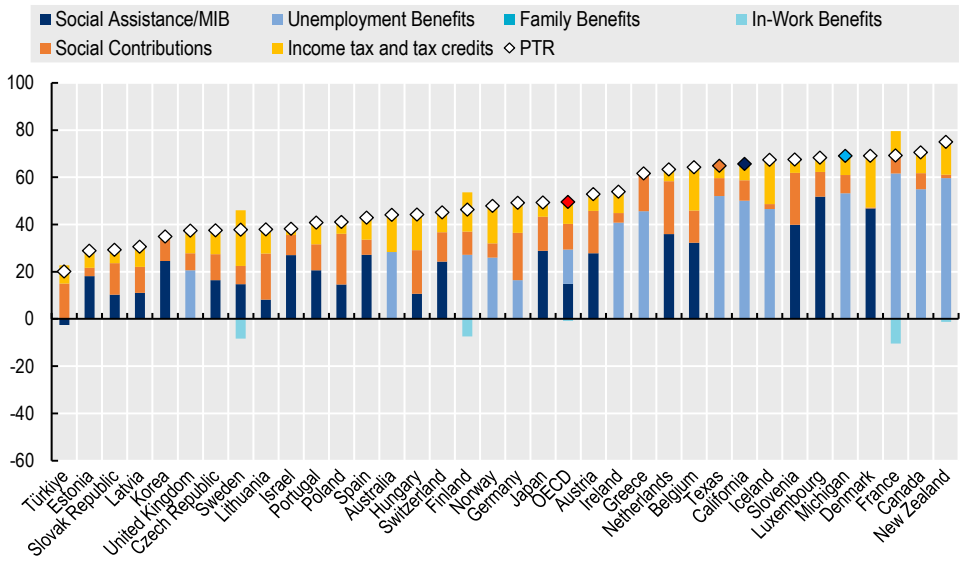


Note: Results for a single jobseeker without children not receiving unemployment benefits, taking up work at median earnings. Median earnings are the 50th percentile of the national full-time earnings scale (in the US, that is annual full-time equivalent earnings of USD 42 624). In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

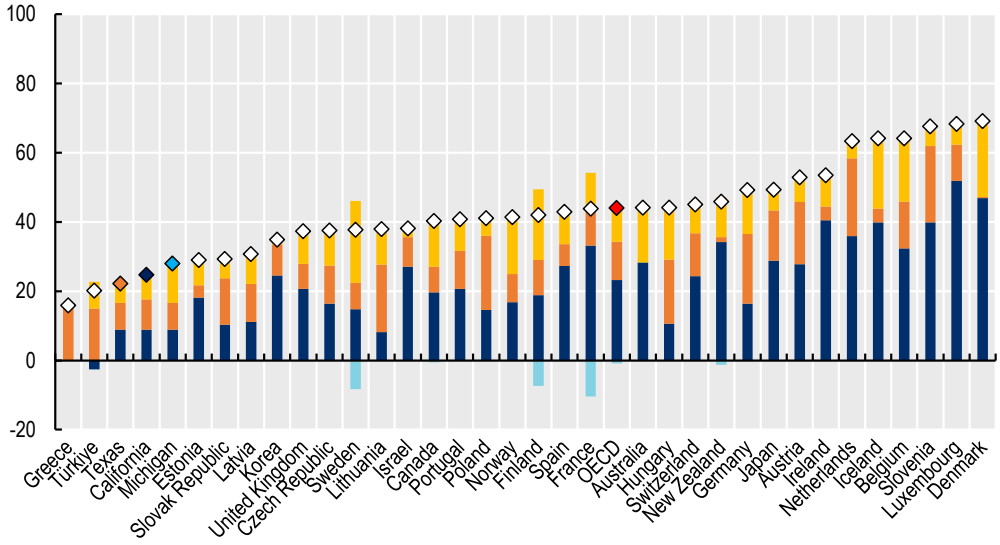
Figure A B.7. Financial work disincentive: single jobseekers with a 'short' employment record

PTR indicator for a single household without children, entering work at 'low' earnings

Panel A: Jobseeker receiving unemployment benefits



Panel B: Jobseeker not receiving unemployment benefits

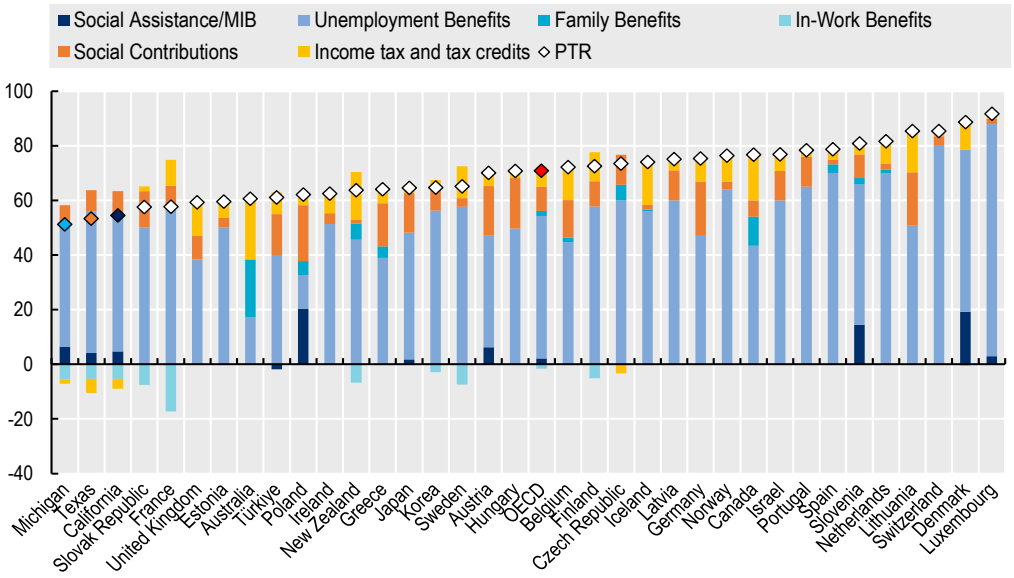


Note: Results for a single jobseeker without children taking up work at 'low' earnings. Prior to unemployment, the jobseeker was employed full-time with a short (5-month) employment record at low earnings. For jobseekers receiving unemployment benefits, they take up employment after receiving benefits for one month. 'Low' earnings are equal to the 20th percentile of the full-time earnings distribution (in the US, this is equal to USD 26 077). In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

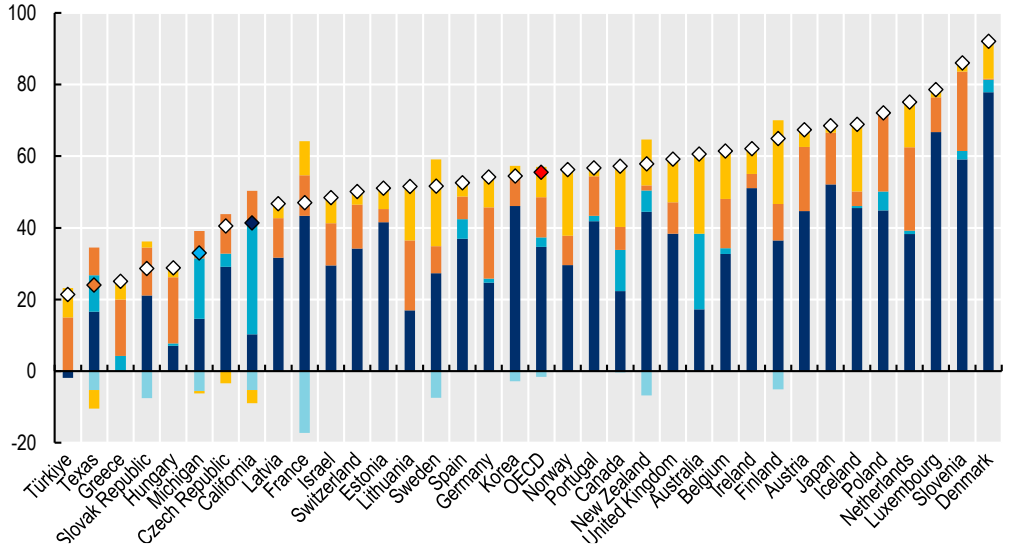
Figure A B.8. Financial work disincentive: jobless couple with children, jobseeker with a 'long' employment record

PTR indicator for a jobless couple with two children, jobseeker with a 'long and stable' employment record, entering work at median earnings

Panel A: Jobseeker receiving unemployment benefits



Panel B: Jobseeker not receiving unemployment benefits

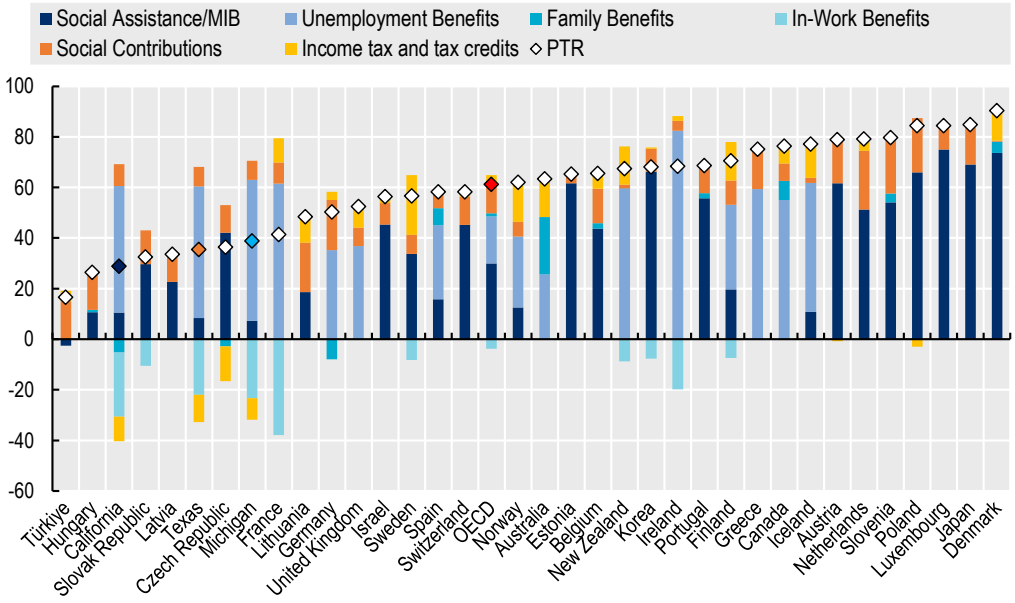


Note: Results for a jobless couple with two children where the jobseeker takes up work at median earnings. Prior to unemployment, the jobseeker was employed full-time with a long and stable (264-month) employment record at median earnings. For jobseekers receiving unemployment benefits, they take up employment after receiving benefits for one month. Median earnings are the 50th percentile of the national full-time earnings scale (in the US, that is annual full-time equivalent earnings of USD 42 624). Children are aged 4 and 6. In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

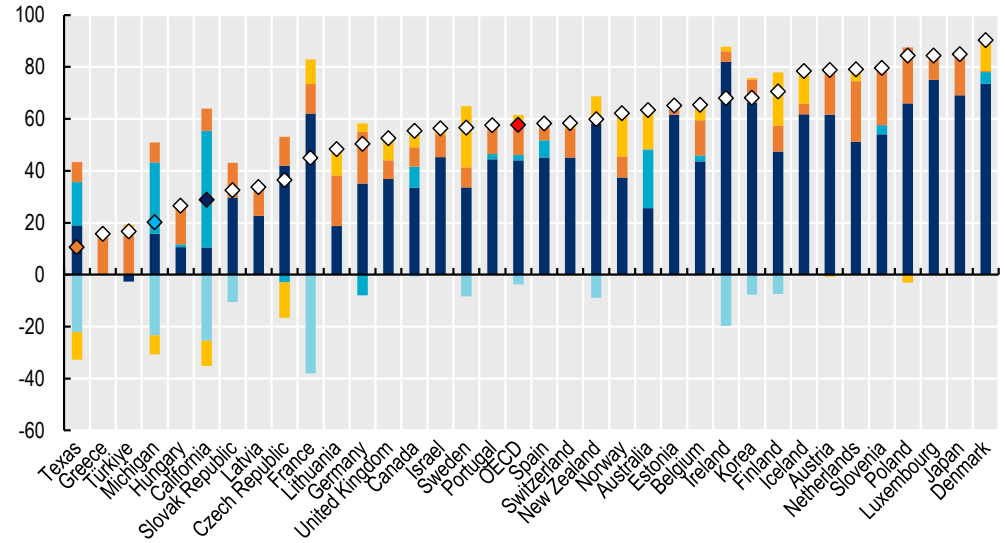
Figure A B.9. Financial work disincentive: jobless couple with children, jobseeker with a 'short' employment record

PTR indicator for a jobless couple with two children, jobseeker with a 'short' employment record, entering work at 'low' earnings

Panel A: Jobseeker receiving unemployment benefits



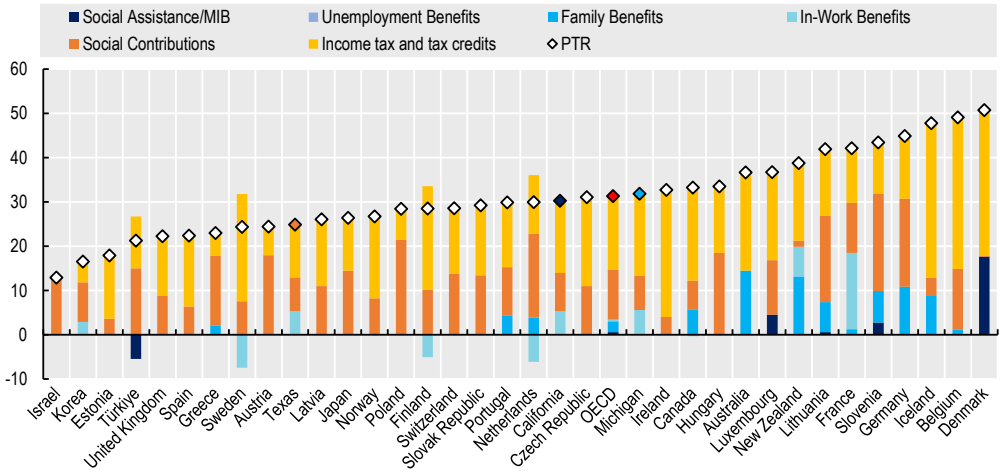
Panel B: Jobseeker not receiving unemployment benefits



Note: Results for a jobless couple with two children where the jobseeker takes up work at 'low' earnings. Prior to unemployment, the jobseeker was employed full-time with a short (5-month) employment record at low earnings. For jobseekers receiving unemployment benefits, they take up employment after receiving benefits for one month. 'Low' earnings are equal to the 20th percentile of the full-time earnings distribution (in the US, this is equal to USD 26 077). Children are aged 4 and 6. In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A B.10. Financial work disincentive: secondary earner with children entering work at median earnings

PTR indicator for a secondary earner with two children, not receiving unemployment benefits, entering work at median earnings



Note: Results for a jobseeker with a working spouse and two children, not receiving unemployment benefits and taking up work at median earnings. Median earnings are the 50th percentile of the national full-time earnings scale (in the US, that is annual full-time equivalent earnings of USD 42 624). The jobseeker's partner is employed full-time at median earnings. Children are aged 4 and 6. In the US, income tax and tax credits (yellow bar) include the impact of the local, state and federal income taxes as well as the federal Child Tax Credit, and in-work benefits (pale blue bar) include the state and federal earned income tax credits. Annex D provides more details on design of income tax in the US. Unemployment benefits include both unemployment insurance and unemployment assistance benefits. Box 4.1 provides details on the decomposition of the PTR indicator into income components.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Annex C. Income support systems for jobseekers with children in selected OECD countries

142. Diverse policy design across the OECD underlies the average Net Replacement Rates (NRR) presented in Section 3. To examine the differences in the net unemployment support packages between the selected US states and other countries, this annex replicates the analysis made for the US in Section 2.3.2 for four OECD countries – **Australia**, **Canada**, **France** and **Slovenia**. The selected countries display varying policy design, particularly in how the MIB and family benefits interact with the main UI benefit over time to provide a higher NRR than in the US[38] (Figure 3.1).

143. Figure A C.1 compares the disposable incomes in and out of work for one-earner couples with children, both with a "short "employment record at low earnings (right-hand panels) and with a "long and stable" employment record at median earnings (left-hand panels) in **Australia**, **Canada**, **France** and **Slovenia**. These are four countries with particularly different designs of the income support for jobseekers. For instance, **Australia** has only non-contributory means tested benefits whereas **France** and **Canada** are examples of "layered" social protection systems where non-contributory benefits coexist with generous contributory benefit. The figure illustrates how the composition of income support in unemployment changes according to on the design of the benefit system. It shows also the generosity of income support (i.e. the NRR, see Box 2.2) which can be easily calculated by taking the ratio between the diamond markers of disposable income in and out or work.

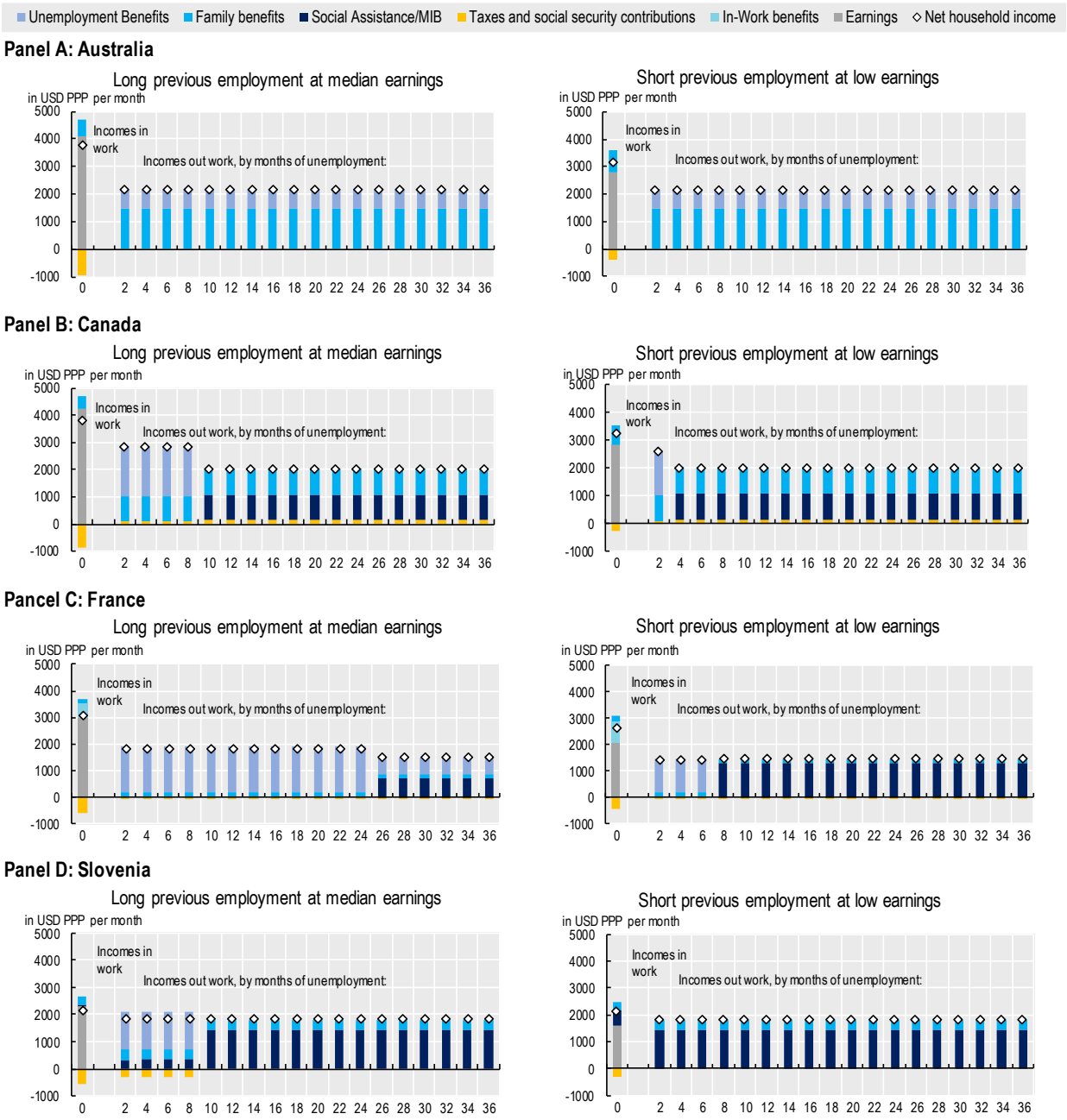
In the absence of a contributory benefit, families receive consistent benefit amounts throughout an unemployment spell

144. In **Australia** (Figure A C.1, Panel A), the NRR is affected by neither the previous employment history nor the duration of unemployment, since there is only an unemployment assistance benefit which is not contribution-based but means-tested and does not have a pre-defined duration (left and right panels are identical, and benefit composition does not change over time). This family type in **Australia** also has a relatively generous family benefit, a combination of a general child payment (Family Tax Benefit) and an income support payment made to the non-working spouse (Parenting Payment).[39] The family is eligible for family benefits while receiving unemployment benefits and also while in work at low incomes, reflecting that these are not as tightly targeted as the family benefits in the **US**.

[38] The NRR also depends on the disposable income in employment. In all four countries considered, the additional benefits include family benefits offset by income tax liability. In France there is also an in-work benefit (similar to the US), while in Slovenia there is also a small MIB benefit.

[39] In families with older children, the non-working spouse receives the income support payment in the form of an unemployment assistance benefit (JobSeeker Payment) rather than a family benefit.

Figure A C.1. Net income components for a low income one-earner couple with children in employment and unemployment, selected countries



Note: Calculations are for policies in place on 1 January 2020. For all countries the case represented is the one of a couple with two children where the partner of the jobseeker has exhausted their rights to unemployment benefits. "Low earnings" is equal to the 20th percentile of the national full-time earnings distribution. Long and stable employment is an employment record of 264 months. A short employment record is 5 months. Children are aged 4 and 6. Housing supplements are not considered.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Contributory benefits decrease with time, replaced by higher MIB and family benefits compared to the US

145. By contrast, **Canada**, **France** and **Slovenia** show a change in the income support throughout the unemployment spell. With a previously long and stable employment record at median earnings, eligibility conditions for UI benefits are met in all three countries (left panels). In **Canada**, UI is received for eight months alongside family benefits. The loss of UI in the 9th month is partially offset by MIB benefit top ups. In **France**, UI is received for 24 months. After this period, jobseekers receive support through an unemployment assistance benefit. The loss of income observed when transitioning from the unemployment insurance to the less generous unemployment assistance scheme is partially offset by MIB benefit top ups. The household receives additional support through a family benefit, which is paid throughout the unemployment spell as well as when the household is in employment. In **Slovenia**, UI benefits are received for 9 months and are taxable. The household is also eligible to receive family and MIB benefit together with UI. When UI is exhausted, the net UI benefit (after tax) is replaced by an equivalent increase in MIB, so the overall net income (and NRR) does not change.

146. For long and stable employment records, the **US** provides a similar UI program compared to **Canada** and **Slovenia**, though the significantly lower family benefits, only available to families with no or very low UI and earned income, causes a lower NRR in the selected states after expiry of the UI benefit.

Contributory benefits are less accessible than in the US, but MIB and family benefits provide a higher safety net for families with short employment records

147. For short employment records at low earnings (right panels) the net income is quite different. In **Canada** (Panel B), the short contribution period only gives the right to receive unemployment insurance for three months, then the household receives a less generous MIB causing a decrease in the NRR. In **France**, the composition of the out-of-work income follows the same pattern described for **Canada**, however the MIB benefit completely offsets the loss of the UI benefit. The small increase in the NRR when passing from unemployment benefits to the social assistance programme is due to the fact that the former is taxed, while the latter is not, and the small residual tax liability observed from the 7th month of unemployment is linked to the family benefits received. In **Slovenia**, a short contribution period of five months does not give entitlement to the unemployment insurance and the household relies on a MIB benefit and family benefits.

Annex D. The US tax system: main characteristics and implications on work incentives

148. The personal income tax in the US is levied by the federal government, as well as by most state (41 of the 50 states) and some local governments. A standard tax deduction reduces the tax base for each form of income tax levied, reducing the tax liability.

149. The federal income tax schedule is progressive and has different income tax brackets depending on filing method (single, joint return of married couple, or single head of household). Tax rates range from 10% to 37%.

150. State and local income tax schedules vary between the selected states:

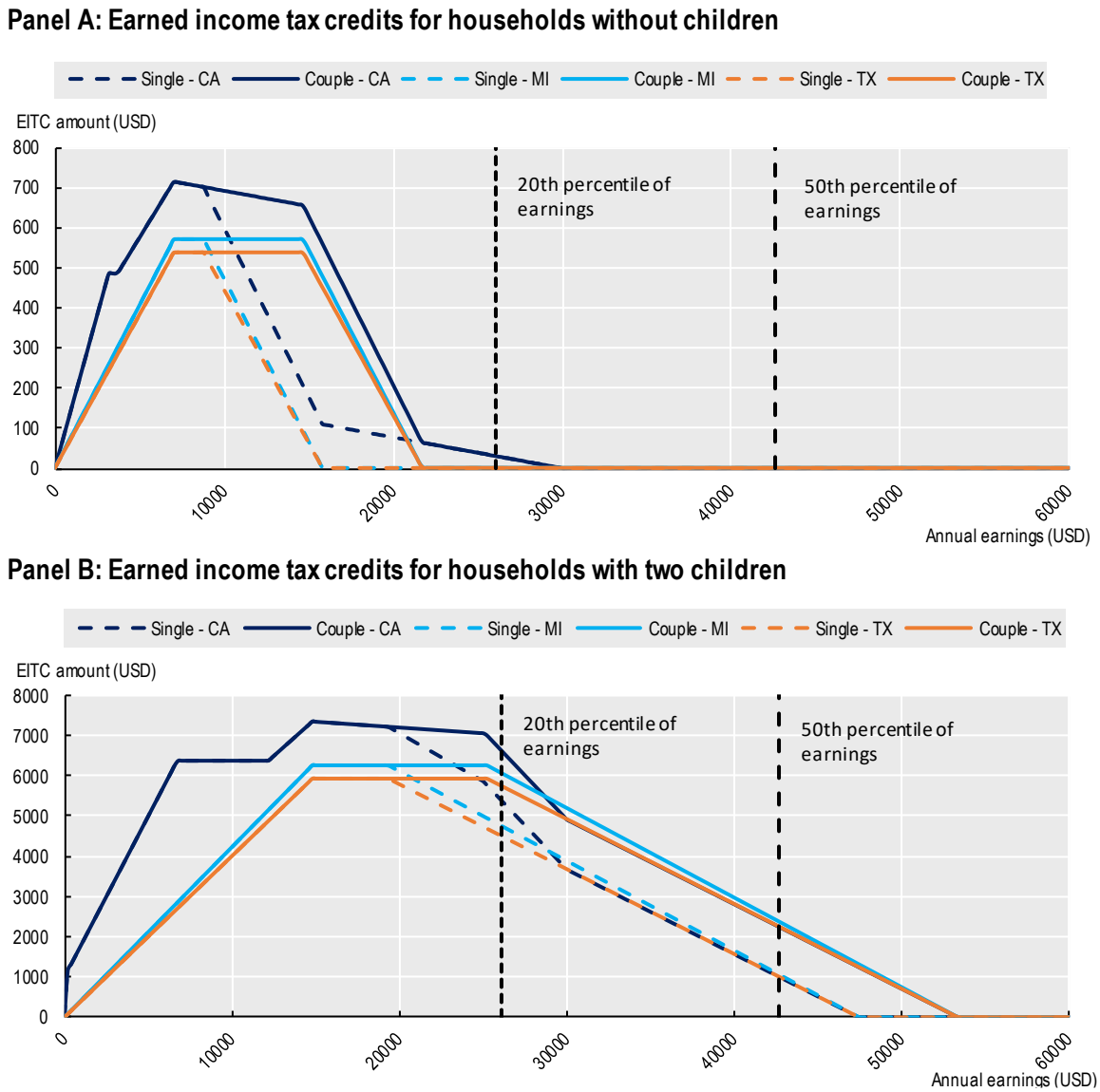
- Texas has no state or local income tax.
- California has a progressive income tax schedule which depends on the filing method of the household; the tax rates range from 1% to 12.3%. The 0.38% income tax levied by the city of San Francisco is included in the results presented in this section.
- Michigan levies a flat 4.25% income tax. The analysis includes the income tax levied by the city of Detroit, which is 2.4%.
- The US operates a system of federal and state tax credits to reduce the household's income tax liability. When these credits are refundable and the household's tax liability is low, they can result in a positive income amount that increases the financial reward of work for jobseekers. The extent of this financial reward varies from state to state and is generally higher for families with children.
- Federal Child Tax Credit. This is a partially refundable credit which offsets the federal tax liability. In 2020, the maximum credit was USD 2 000 per child gradually reduced to zero at high incomes.
- Federal Earned Income Tax Credit (EITC). A fully refundable credit which targets low-income earners. In 2020, childless households may receive up to USD 538, while a household with two children may receive significantly more, up to USD 5 920. The credit phases out at higher income levels for families with children. This is the only earned income tax credit available in Texas.
- State earned income tax credits. These credits are available in addition to the federal EITC in California and Michigan. In both cases they are fully refundable. In Michigan, households receive a credit equal to 6% of the federal EITC. In California, the credit is composed of two parts:
  - The California Earned Income Tax Credit (CalEITC) is designed to complement the federal EITC, particularly targeting very low-income households and families with children.
  - The Young Child Tax Credit (YCTC) is available to families with at least one child aged under six who are entitled to the CalEITC. They receive an additional amount, up to USD 1000.

151. More details on the income tax system in the US are available in the online annex.

152. Figure A D.1 shows the *combined* amount of the federal and state-level tax credits for families without (Panel A) and with (Panel B) children in the three selected states. For families with children, the combined amount in California (dark blue lines) is more generous for families with income up to about

USD 10 000 compared to households in Texas (orange lines) and Michigan (bright blue lines). This is especially the case for families with children under age six (Panel B). Notably, childless households (Panel A) are still eligible for the CalEITC at the 20th percentile of the earnings distribution, whereas the federal and Michigan credits have been fully withdrawn by that income level.

Figure A D.1. Refundable earned income tax credits are more generous for families with children



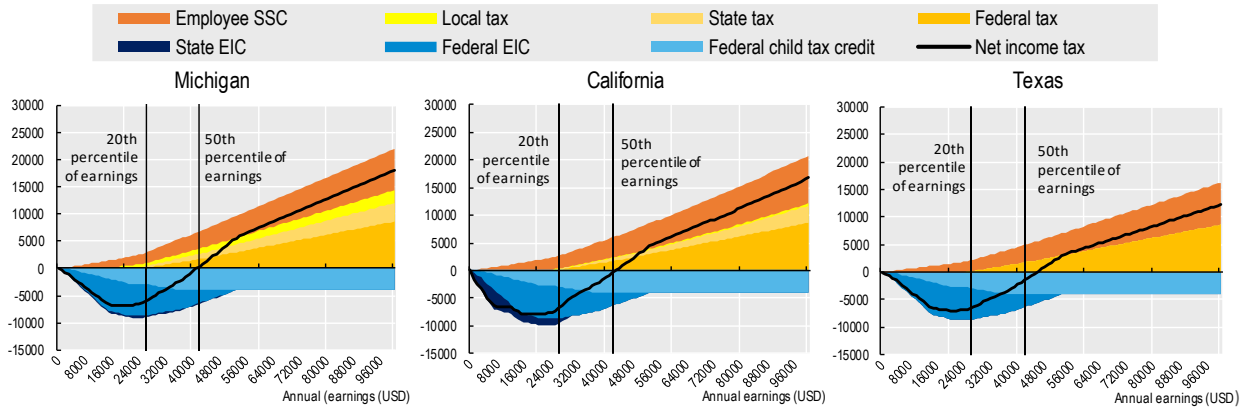
Note: Combined earned income tax credits include the federal EITC and the state earned income tax credits in California and Michigan. Children are aged 4 and 6. The scale for Panel A is 1/10th of the scale for Panel B. The federal EITC is equivalent to the combined credits in Texas, as no state credit is available. The state earned income tax credits are the difference between the federal/Texas credit and the total credits in California or Michigan.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

153. Figure A D.2 shows the composition of the net income tax liability in the three selected states for a one-earner couple with children. Figure A D.3 shows the same results for a childless household. Because of the absence of local income taxes, Texas features the lowest net tax liability of the three states (black line). The only exception is at very low earnings in California, where the Cal-EITC described above reduces

the net tax liability. The progressive state tax in California means also that net income tax is lower than in Michigan for low-income households, but higher for high-income households.

Figure A D.2. One-earner couples with children do not pay taxes until median earnings

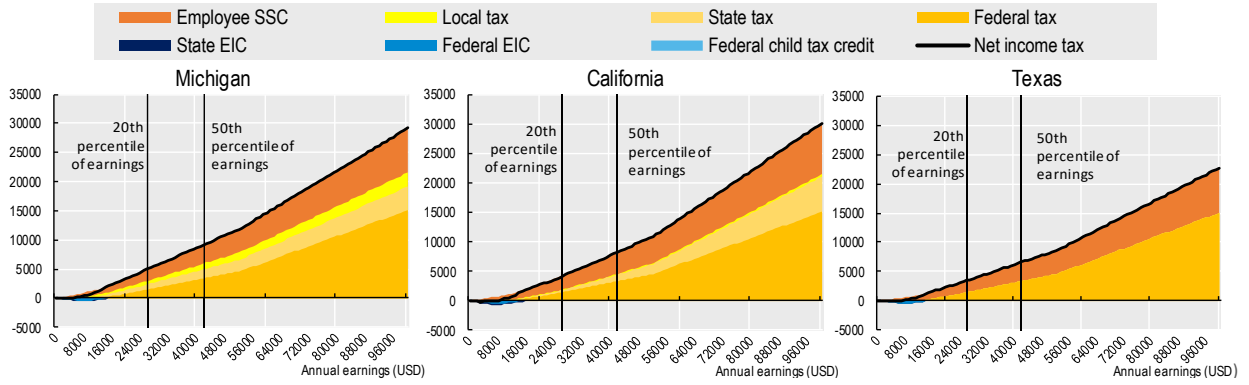
Net income tax liability (black line) and individual tax components by earnings and state - One-earner couple with two children



Note: Calculations for a one-earner couple with two children aged 4 and 6. The 20th percentile of the national full-time earnings scale is USD 26 077 per year, while the 50th percentile of the national full-time earning scale is USD 42 624 per year. Net income tax liability includes income tax, tax credits and social contributions. The total tax liability shown in the figure (black line) includes federal and state income tax, tax credits, and employee social security contributions. Employee social security contributions are similar in the three states, except in California where an additional 1 percent of earnings up to USD 122 909 is withheld for State Disability Insurance. See the online annex for more details on the policy rules in each state.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Figure A D.3. Income tax components and social security contributions for single households without children in US states

Net income tax liability (black line) and individual tax components by earnings and state - Single person without children



Note: Calculations for a single household without children. The 20th percentile of the national full-time earnings scale is USD 26 077 per year, while the 50th percentile of the national full-time earning scale is USD 42 624 per year. Net income tax liability includes income tax, tax credits and social contributions. The total tax liability shown in the figure (black line) includes federal and state income tax, tax credits, and employee social security contributions. Employee social security contributions are similar in the three states, except in California where an additional 1 percent of earnings up to USD 122 909 is withheld for State Disability Insurance. See the online annex for more details on the policy rules in each state.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

Annex E. The design of cash benefits in the US and implications on work incentives

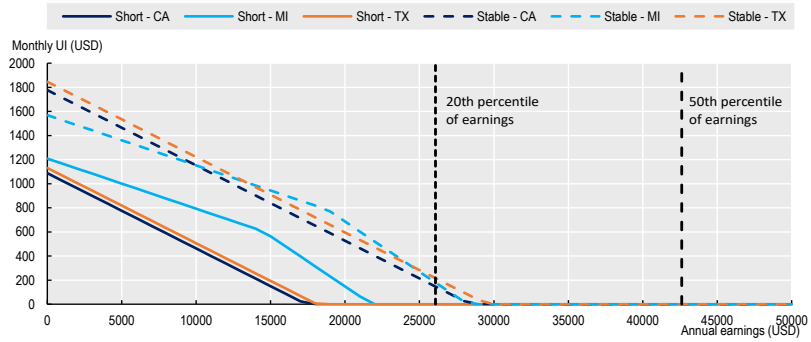
154. Unemployment Insurance, the SNAP and TANF benefits are partially or fully compatible with earnings, subject to the income testing rules of the respective programmes. This annex describes the relationship of these benefits with earnings, and how this can affect work incentives for jobseekers taking up employment while claiming these benefits.

UI entitlements are partially compatible with earnings

155. US jobseeker may be able to continue receiving a reduced UI payment when they take up employment. How much the UI benefit is reduced varies by state (Figure A E.1). California and Texas both disregard 25% of earnings. Michigan initially withdraws the benefit at a slower rate, disregarding 50% of earnings, but the combined amount of UI benefit plus wages is limited to 1.5 times the Weekly Benefit Amount (WBA). This provision means the benefit is withdrawn more rapidly at higher earnings.

156. In all three states, once new job earnings are equal to previous earnings, no UI benefit is payable. However, the ability to combine UI benefit with earnings encourages jobseekers to take up employment at a lower wage or for fewer hours.

Figure A E.1. UI benefit withdrawal rate in three US states, by previous employment record and earnings in the new job



Note: Calculations for a jobseeker with two children. In the 'short' employment record scenario, previous earnings were low (at the 20th percentile of the national full-time earnings scale, or full time equivalent annual earnings of USD 26 077). In the 'stable' employment record scenario, previous earnings were the median earnings (at the 50th percentile, USD 42 624). Stable employment is an employment record of at least 12 months. A short employment record is five months.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

SNAP and TANF entitlements for jobseekers taking up work depend on the receipt of UI

157. Similarly to UI, the SNAP and TANF benefits may be available when a jobseeker enters work, subject to the income testing provisions of the respective programmes. However, whether SNAP and TANF

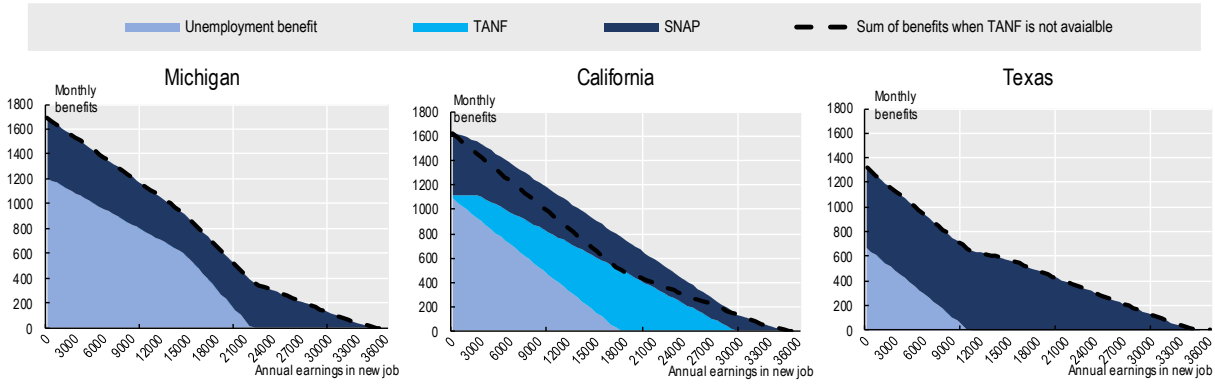
benefits are available to families entering work depends on whether the jobseeker has income from the UI benefit, which is assessed in both the SNAP and TANF income tests. In addition, income from TANF is assessed in the SNAP income test, which means that a higher TANF amount may decrease the SNAP amount.

158. The overlapping income tests of the three cash benefits (i.e. the sequence UI>>TANF>>SNAP) makes it difficult for recipients to calculate the precise amount of the total amount of income support they can receive when taking up employment. Figure A E.2 shows for the selected US states the total cash benefit (black dotted line) received by a jobless couple with two children claiming the TANF when the jobseeker takes up work while receiving UI benefits. Results assume that the jobseeker previously had a short employment record at low earnings.

- In Michigan and Texas, no TANF benefit is payable *even before* the jobseeker take up work, due to UI benefits reducing the modest TANF benefit to zero.
- In California, a small TANF benefit is payable when the jobseeker is out of work (bright blue area), because the maximum TANF benefit is larger than in Michigan and Texas. Unusually, the TANF benefit *increases* as their earnings increase. This is because their UI benefit, which reduces TANF dollar for dollar, is decreasing (grey blue area). In fact, the UI benefit is being replaced with earnings, which are partially disregarded for the TANF income test (USD 225 per month plus 50 percent of additional earnings). As a result, TANF benefits increase until earnings have completely withdrawn the UI benefit at annual equivalent earnings of around USD 18 000.

Figure A E.2. UI entitlements reduce SNAP and TANF amounts

Combined cash benefits received by a one-earner couple with children when a jobseeker receiving UI takes up employment



Note: Results for a jobless one-earner couple with two children aged 4 and 6. The jobseeker previously had a short employment record at low earnings and takes up work while still receiving UI benefits. Results assume that the partner of the jobseeker has exhausted their rights to unemployment benefits.
Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

159. If the family does not claim TANF, the total cash benefit amount shown in Figure A E.2 (black dotted line) would be lower. In fact, the SNAP benefit would be higher, but the increased amount would not replace the full amount of the TANF benefit.

Strict eligibility rules and stringent means testing may reduce TANF take-up.

160. TANF benefits are subject to stringent income and asset tests. For jobseekers, assets are limited to USD 2 250 in California, USD 15 000 in Michigan and USD 1 000 in Texas (some exclusions apply in

each state). Other requirements must also be met to establish eligibility. For instance, in California couples can only be granted TANF if the primary wage earner is unemployed at time of application, or if they work a low level of hours (100 in the four weeks) before application.

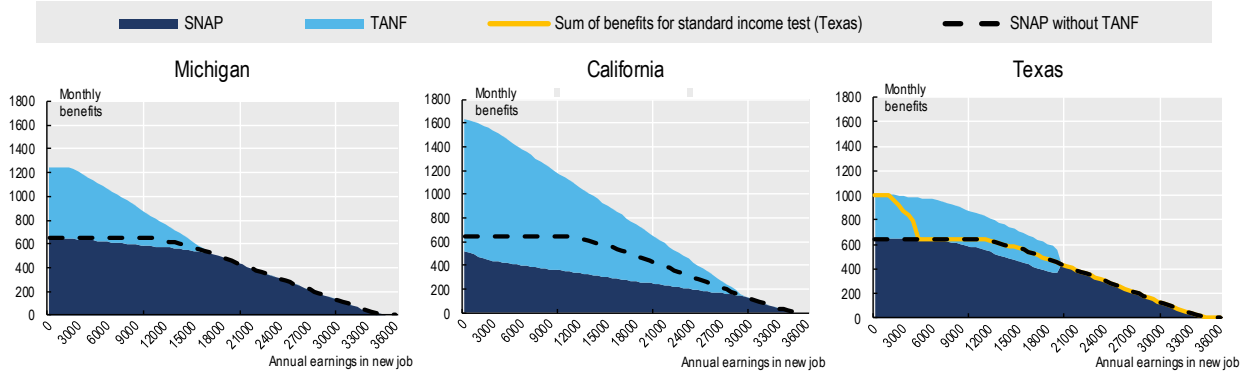
161. These requirements, combined with the low benefit amount and the difficulty for recipients to calculate the precise amount of the total amount of income support (due to the overlapping means tests with the UI and SNAP benefits), contribute to explain the low take-up of this benefit in many states.

162. For those who claim TANF and meet the eligibility requirements, a more generous income test applies, which allows support to continue at very low earnings levels. Figure A E.3 shows the same calculations as in Figure A E.2 with the only difference that the jobseeker who take up employment does not receive UI (e.g. because it expired).

- In California and Michigan, the TANF benefit (bright blue area) decreases smoothly with earnings, in line with the income disregards for this benefit (50% of monthly earnings over USD 200 in Michigan and over USD 225 in California). Due to the more generous TANF benefit in California, the SNAP benefit received (dark blue area) is already subject to income testing at zero earnings. As a result, it is lower than in the other states.
- In Texas there are two possible income tests for the TANF benefit, with different definitions of assessable income.[40] The standard income test (yellow line) disregards the first USD 120 of earnings per adult in work. The more generous income test (bright blue area), which may apply for four months within the claim period, disregards the first USD 120, plus 90% of additional earnings up to a limit of USD 1 400 per month. This increases the amount that a low-income earner may receive. However, the maximum TANF benefit is relatively small compared to the other states considered, and the take-up rate of the benefit in Texas is particularly low, indicating that few families benefit from this incentive to take up work in practice. Despite the more generous income test, the total cash benefit received in Texas is still lower than in Michigan for low-earners, and lower than in California at all earnings levels.

Figure A E.3. TANF eligibility affect SNAP entitlements

Combined benefits received by a one-earner couple with children when a jobseeker not entitled to UI takes up employment.



Note: Results for a jobless one-earner couple with two children aged 4 and 6. The jobseeker previously had a short employment record at low earnings and takes up work after UI benefits have expired. Results assume that the partner of the jobseeker has exhausted their rights to unemployment benefits.

[40] For both income tests, the assessable income (applying the respective earnings disregard) must be below the Recognizable Needs for the household composition. For a couple with two children, this is USD 231/ month in 2020.

Source: OECD tax-benefit model version 2.5.1, http://oe.cd/TaxBEN.

163. If the family does not claim the TANF and the jobseeker does not receive UI, the family would receive only the SNAP benefit. Although the SNAP amount received in this case would be higher than the amount received in combination with TANF, the total benefit income would still be much lower if the family claimed only the SNAP.

164. The online annex provides further details on the design of the TANF and SNAP benefits.

References

Aizer, A., H. Hoynes and A. Lleras-Muney (2022), "Children and the US Social Safety Net: Balancing Disincentives for Adults and Benefits for Children", *Journal of Economic Perspectives*, Vol. 36/2, pp. 149-174, https://doi.org/10.1257/jep.36.2.149. [16]

Bargain, O. and T. Callan (2008), "Analysing the effects of tax-benefit reforms on income distribution: a decomposition approach", *The Journal of Economic Inequality*, Vol. 8/1, pp. 1-21, https://doi.org/10.1007/s10888-008-9101-4. [14]

Coombs, K. et al. (2022), "Early Withdrawal of Pandemic Unemployment Insurance: Effects on Employment and Earnings", *AEA Papers and Proceedings*, Vol. 112, pp. 85-90, https://doi.org/10.1257/pandp.20221009. [8]

CRS (2022), "How Did COVID-19 Unemployment Insurance Benefits Impact Consumer Spending and Employment?", *CRS Report IF12143*, https://crsreports.congress.gov/product/pdf/IF/IF12143. [6]

Ganong, P. et al. (2022), *Spending and Job-Finding Impacts of Expanded Unemployment Benefits: Evidence from Administrative Micro Data*, National Bureau of Economic Research, Cambridge, MA, https://doi.org/10.3386/w30315. [11]

Ganong, P., P. Noel and J. Vavra (2020), "US unemployment insurance replacement rates during the pandemic", *Journal of Public Economics*, Vol. 191, p. 104273, https://doi.org/10.1016/j.jpubeco.2020.104273. [12]

Greig, F. et al. (2021), "When unemployment insurance benefits are rolled back: Impacts on job finding and the recipients of the Pandemic Unemployment Assistance Program", *SSRN Electronic Journal*, https://doi.org/10.2139/ssrn.3896667. [13]

Holzer, H., R. Hubbard and M. Strain (2021), *Did Pandemic Unemployment Benefits Reduce Employment? Evidence from Early State-Level Expirations in June 2021*, National Bureau of Economic Research, Cambridge, MA, https://doi.org/10.3386/w29575. [9]

Hoynes, H. and D. Schanzenbach (2018), "Safety Net Investments in Children", *Brookings Papers on Economic Activity*, Vol. 2018/1, pp. 89-150, https://doi.org/10.1353/eca.2018.0001. [19]

Marinescu, I., D. Skandalis and D. Zhao (2021), "The impact of the Federal Pandemic Unemployment Compensation on job search and vacancy creation", *Journal of Public Economics*, Vol. 200, p. 104471, https://doi.org/10.1016/j.jpubeco.2021.104471. [10]

OECD (2023), *Benefit Reforms for Inclusive Societies in the United States: Income Security During Joblessness*, OECD Publishing, Paris, https://doi.org/10.1787/32d8f005-en. [2]

OECD (2023), *Income support for jobseekers: Trade-offs and current reforms*, OECD Publishing, https://www.oecd.org/employment/Income-support-for-jobseekers-Trade-offs-and-current-reforms.pdf. [15]

OECD (2022), "Supporting jobs and incomes: an update on the policy response to the COVID-19 crisis", in *OECD Employment Outlook 2022: Building back more inclusive labour markets*, OECD Publishing, https://doi.org/Supporting jobs and incomes: an update on the policy response to the COVID-19 crisis. [5]

OECD (2021), "Job retention schemes during the COVID-19 crisis: Promoting job retention while supporting job creation", in *OECD Employment Outlook 2021: Navigating the COVID-19 Crisis and Recovery*, OECD Publishing, Paris, https://doi.org/10.1787/c4c76f50-en. [4]

OECD (2020), "Supporting livelihoods during the COVID-19 crisis: closing the gaps in safety nets", *ELS Policy Brief on the Policy Response to the COVID-19 Crisis*, http://oe.cd/il/covid19briefsupport. [3]

OECD (2018), "Unemployment-benefit coverage: Recent trends and their drivers", in *OECD Employment Outlook 2018*, OECD Publishing, Paris, https://doi.org/10.1787/empl_outlook-2018-en. [7]

Shrivastava, A. and G. Thompson (2022), *TANF Cash Assistance Should Reach Millions More Families to Lessen Hardship*, https://www.cbpp.org/research/income-security/tanf-cash-assistance-should-reach-millions-more-families-to-lessen (accessed on 1 February 2023). [20]

The Urban Institute (2021), *Welfare Rules Databook: State TANF Policies as of July 2019*, https://www.urban.org/research/publication/welfare-rules-databook-state-tanf-policies-july-2019. [18]

Wandner, S. (ed.) (2018), *Unemployment Insurance Reform: Fixing a Broken System*, W.E. Upjohn Institute, https://doi.org/10.17848/9780880996532. [1]

Ziliak, J. (2016), *Temporary Assistance for Needy Families*, University of Chicago Press, https://doi.org/10.7208/chicago/9780226370507.001.0001. [17]