



Social Situation Monitor



Labour market situation and dynamics of displaced people from Ukraine in Czechia

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EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs & Inclusion
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October 2024



Manuscript completed in October, 2024

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Luxembourg: Publications Office of the European Union, 2025

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PDF ISBN 978-92-68-31415-9 ISSN 2811-6798

doi: 10.2767/1258796 KE-01-25-214-EN-N



The data are taken from the project Panel Survey Ukraine/Voice of Ukrainians which was a collaboration between the Institute of Sociology of the CAS and PAQ Research. Data collection is carried out by the Institute of Sociology of the CAS. Data from waves 1-3 are publicly available in the Czech Social Science Data Archive: <https://doi.org/10.14473/CSDA/YQ4L89>, <https://doi.org/10.14473/CSDA/PSWEXG>, and <https://doi.org/10.14473/CSDA/APYZ2D>. The authors wish to express their gratitude to Paulina Tabery from the Institute of Sociology of the Czech Academy of Sciences for her invaluable support in providing the data.



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INTRODUCTION

Russia's war of aggression against Ukraine triggered a significant movement of Ukrainian displaced persons¹ into European Union (EU). The most pronounced impact has been recorded in the countries of Central and Eastern Europe (CEE) due to their geographical, cultural and language proximity. This massive arrival of migrants may have significant effects on the domestic labour markets of these countries. Preliminary calculations suggest a median rise ranging from 0.2% to 0.8% in the labour force of the Euro area over the medium term (European Central Bank (ECB, 2022)). Analyses by the Organisation for Economic Co-operation and Development (OECD, 2022) anticipate that most of the Ukrainian post-2022 migration impact on the EU labour force may be expected in a few countries, notably Czechia, Poland and Estonia, with labour force increases of around 2%. With the war continuing, the prospect of return of refugees remains highly uncertain. The majority of people displaced from Ukraine have started to settle into the societies of their receiving countries (OECD, 2023a), making their integration into the labour markets a significant issue.

In the short term, the most substantial effects may be expected in the precarious and low-paid segments of labour markets. The International Labour Organization (ILO, 2020) shows that migrants in high-income countries are generally more likely to work in low-paid occupations that demand lower skills and qualification. This trend also affects migrant workers with higher education, pointing to serious issues with skills matching and work quality. Migrant workers also earn significantly lower wages than nationals, on average. The relative size of immigration flows from non-EU countries had a positive association with low-wage employment in receiving EU Member States in the 2005-2019 period, which may reflect the fact that immigrants often find jobs in low-paid precarious sectors of the labour market, increasing the pool of low-paid workers (Fialová, 2024). A larger inflow of low-paid labour increases the supply in this segment, potentially limiting the pressures on wage growth.

Evidence shows that people displaced from Ukraine accessed European labour markets more quickly than other refugee groups, although employment rates vary by country (Basna, 2024). This success is partly due to existing Ukrainian communities in several countries, which provided valuable connections and support (OECD, 2023a). Displaced people fleeing Russia's war of aggression against Ukraine have certain socio-demographic and other characteristics that might affect their integration into the labour markets of receiving countries. Some of these factors may help smooth their integration, such as existing social networks in EU countries, immediate access to employment or generally very high education profile (OECD, 2022, 2023a). However, other characteristics may hinder their labour market integration prospects, such as many being women with small children or other dependents who need to be cared for. Their successful labour market integration is thus often conditioned by social

¹ This report uses the terms 'refugees' and 'displaced people' to denote those who obtained some kind of international protection after the start of Russia's war of aggression against Ukraine in February 2022, including the formal status of a refugee as per the Geneva Convention, or those covered by the Temporary Protection Directive (2001/55/EC), among others.



integration of their children (OECD, 2023a). Displaced people from Ukraine often face great uncertainty about the timing of their potential (and desired) return to Ukraine, affecting their motivation to start/build a career in the receiving country. Many prioritise finding employment quickly over seeking positions that match their skills, resulting in a high number working in lower-skilled, part-time jobs, and one-off work, all of which may be classified as precarious (OECD, 2023a; Martinez, Szakas & Bahodal, 2023; Desiderio & Hooper, 2023). This trend is especially common among those with family responsibilities or plans to return to Ukraine soon (European Commission, 2023a). This under-employment leads to a skills mismatch, which negatively impacts both the displaced people and their receiving societies, missing also the opportunity to address labour shortages (Basna, 2024). Extended periods in lower-skilled and lower-wage positions could also negatively impact long-term career prospects, potentially leaving lasting effects on people's professional trajectory (Desiderio & Hooper, 2023).

Precarious and low-skilled sectors of the labour market may be more accessible, given the language and administrative barriers for higher-paid jobs (Leontiyeva, 2014). These barriers have been somewhat reduced by the Temporary Protection Directive, which enabled relatively swift entry of displaced people from Ukraine into labour markets of receiving countries². Problems with qualification recognition (European Commission, 2023a), insufficient language skills among refugees, and a lack of child-care facilities result in significant skill mismatches (ECB, 2022; OECD, 2023a) and represent serious obstacles to successful labour market integration.

Facilitating the integration of displaced people from Ukraine into the labour market may not only boost employability but also fill gaps in sectors lacking skilled workers. However, European countries have not fully capitalised on the opportunity presented by the arrival of millions of displaced Ukrainians, many with high levels of education or essential skills (Martinez, Szakas & Bahodal, 2023). As a result, the prevailing employment patterns of Ukrainians primarily reflect the social networks available to them and not their actual skills and qualifications, with a significant proportion of their employment concentrated in low-skilled jobs (ECB, 2022).

Employment in low-skilled and precarious jobs may be an important issue in labour market outcomes of displaced people from Ukraine in EU countries. To enable smooth and efficient labour market integration of these individuals, it is important to know (1) the extent of precarious employment and work below the qualification for displaced people from Ukraine, and, (2) the main determinants of successful labour market integration. Such findings are crucial for formulating any potential integration policy strategy.

This research provides insights into the labour market dynamics and challenges faced by people displaced from Ukraine in the Czech labour market. It analyses characteristics of displaced people from Ukraine, short-term trends (2022-2023) in work activity and labour outcomes, with a deeper

² Given the educational profile of this group – i.e. more women and more people with higher education – the most affected segments will likely be service occupations rather than unskilled manual labour.



analysis of their drivers. The focus is on labour market integration and precarious work of displaced people from Ukraine, including work below their qualification level, and their determinants. Special attention is paid to displaced women, who account for a large share of this population, have a specific position, and face serious obstacles in their labour market integration.

Czechia has a high incoming number of displaced people from Ukraine, as well as a leading position in the number of displaced individuals per capita. The data used here are particularly valuable, as they provide unique information about displaced people from Ukraine from several perspectives over a longer time horizon, enabling a comprehensive understanding of their situation.

UKRAINIANS IN CZECHIA

INSTITUTIONAL FRAMEWORK

The EU granted temporary protection to displaced people from Ukraine, easing barriers to their integration into the labour markets of receiving countries. On 4 March 2022, the Council of the European Union unanimously decided to activate the Temporary Protection Directive for the first time. The Directive enabled the EU to promptly offer displaced people from Ukraine temporary residence permits and work permits, facilitating their swift integration into the labour market, enhancing their self-sufficiency, and fostering positive contributions to society. The Directive provided guidance to Member States on efficiently managing and addressing large numbers of arrivals; while labour market integration was a significant objective, its broader aim was to offer immediate and collective assistance to displaced people, relieving the strain on national asylum systems. Under the Directive, displaced people from Ukraine received temporary protection for an initial period of one year, extendable up to three years. A notable advantage of this approach is that displaced people are spared the lengthy asylum procedures that often impede access to essential services. In addition to gaining residence permits, displaced people from Ukraine also gained access to a range of crucial services and opportunities, including healthcare, education, social protection and assistance, and banking facilities. The European Commission's June 2022 Communication offers guidance on access to the labour market, vocational education and training, and adult learning (European Commission, 2022a). In March 2022, a Ukrainian version of the EU Skills Profile Tool for Third-Country Nationals³ was launched to identify and map the skills of displaced people from Ukraine.

Czechia adopted special legislation to deal with reception of displaced people from Ukraine. On 21 March 2022, the Lex Ukraine⁴ laws came into force, based on the Temporary Protection Directive. Lex Ukraine addressed the legal status of displaced people, their employment, access to healthcare,

³ EU Skills Profile Tool for third-country nationals, n.d., <https://ec.europa.eu/social/main.jsp?catId=1412&langId=en>

⁴ Laws No. 65/2022, 66/2022, 67/2022.



social security, and education. With these laws, Czechia granted displaced people from Ukraine unrestricted access to the labour market and exempted them from the obligation to obtain an employment permit from the Labour Office. However, displaced people from Ukraine did not have access to Czech social assistance benefits. The laws also introduced a humanitarian benefit to help displaced people from Ukraine granted temporary protection in Czechia but who do not have the means to pay for their basic needs. The Solidarity Household Allowance was also issued, paid to households accommodating a person covered by Lex Ukraine. As of July 2023, the humanitarian benefit was conceived as both a living allowance and a housing allowance. However, the eligibility conditions for humanitarian benefit often dissuade displaced people from accepting part-time jobs, temporary work, or one-off jobs, as earning this income can prevent them from qualifying for the benefit (Šafářová et al., 2023a).

Despite the very favourable conditions of labour market access, the current framework has some shortcomings. Under the temporary protection regime, unrestricted labour market access is granted for one year, with the possibility of extension. Despite this flexibility, many employers are reluctant to offer unlimited work contracts and instead opt for fixed-term work contracts⁵. Employers are also required to report the employment of a foreigner to the Labour Office within eight days of their start date, a flexibility that allows employers to delay reporting until an official inspection, at which point they can claim the foreigner was just recently employed. This may give a ground for frequent illegal employment, which is one of the most common labour law violations among displaced people from Ukraine in Czechia (SUIP, 2023a and 2023b)⁶.

A large part of the displaced Ukrainian population comprises separated families with children or other dependents, with people's integration into the labour market often contingent on the integration of their children into the education/pre-school system. The institutional framework governing integration of Ukrainian children is thus an important factor, as is the general functioning of the Czech education system. Prior to 2022, the education and pre-school system suffered from long-term structural issues, regional disparities in quality and quantity of educational institutions, insufficient capacity at several levels, and other challenges (PAQ Research, 2023a), which may hamper the integration process (MŠMT, 2022; Prokop, 2022).

SITUATION BEFORE 2022 AND POST-2022 ARRIVAL OF DISPLACED PERSONS FROM UKRAINIAN

According to United Nations High Commissioner for Refugees (UNHCR) data, as of February 2024, more than six million Ukrainians have been recorded as refugees across Europe (UNHCR, 2024). At that time, 381 400 Ukrainian refugees were recorded in Czechia (Table 1), representing the third

⁵ See, for instance, recommendations on employment of displaced Ukrainians issued by Agricultural Association of the Czech Republic, <https://www.zscr.cz/clanek/prvni-zkusenosti-se-zamestnavanim-uprchliku-z-ukrajiny-aneb-na-co-si-dat-pozor-pri-zamestnavani-uprchliku-z-ukrajiny-7185>.

⁶ These violations most often concern low-skilled segments in construction, manufacturing, wholesale, retail trade, accommodation, and food services (SUIP, 2022).



highest volume of arrivals to a single EU Member State after Germany and Poland, and the highest proportion of Ukrainian refugees relative to their populations, along with Estonia and Poland (OECD, 2023a). More than 589 285 displaced Ukrainians applied for asylum, temporary protection or similar national protection schemes in Czechia between February 2022 and February 2024 (cumulative number that may include multiple registrations of the same individual), which is the third highest volume in a single EU Member State. The effects of displaced people from Ukraine on the Czech labour market might therefore be very pronounced in the European context.

Table 1 Number of displaced Ukrainian people under temporary protection, February 2024

Country	Refugees from Ukraine recorded in country ^a	Refugees from Ukraine who applied for temporary protection ^b	Share on country population as of 1/1/2023 (%)
Germany	1 139 690	1 053 050	1.35
Poland	956 635	1 640 510	2.60
Czechia	381 400	589 285	3.52
United Kingdom	253 160	1 260	0.38
Spain	192 405	198 120	0.40
Italy	168 840	189 450	0.29
Netherlands	149 015	146 715	0.84
Slovakia	115 875	137 755	2.13
Ireland	104 315	104 315	2.01

Notes: Only countries hosting more than 100 000 Ukrainian refugees listed. ^afigures refer to the estimated number of individual refugees who have fled Ukraine since 24 February and are currently present in European countries; include refugees from Ukraine who were granted refugee status, temporary asylum status, temporary protection, or statuses through similar national protection schemes, as well as those recorded in the country under other forms of stay (UNHCR, 2024); ^bfigures refer to total cumulative number of refugees who have fled Ukraine since 24 February and applied for asylum, temporary protection or similar national protection schemes to date; may include multiple registrations of the same individual in one or more European countries, or registrations of refugees who have moved onward, including beyond Europe (UNHCR, 2024).

Source: UNHCR (2024), Eurostat [tps00001], Office for National Statistics UK.

The Czech Ministry of the Interior granted temporary protection to 390 159 displaced people from Ukraine during the first half of 2022 (Klimešová, Šatava and Ondruška, 2022), i.e. within six months of the start of Russia's war of aggression against Ukraine. As of the end of March 2023, 297 260 displaced people had applied for the extension of temporary protection after one year of the original temporary protection (Šafářová et al., 2023b), indicating that a large share of displaced people sought protection for a longer time. The vast majority were women (61%) especially in age groups 25-65. Children younger than 15 years accounted for 22% (Šafářová et al., 2023b).

Czechia has been home to a significant population of Ukrainian migrants for many years. Census data⁷ from 2021 revealed that 150 505 Ukrainian citizens were living in Czechia, making them the largest group of foreign citizens in the country, constituting approximately 1.4% of the total population. The majority lived in the capital city, Prague, or in the surrounding Central Bohemian region.

⁷ Czech Statistical Office, Population Census 2021, Table SLD21048-KR/1.



Recent data from the Directorate of the Foreign Police Service⁸ showed some 574 447 Ukrainian citizens residing in Czechia at the end of 2023. Notably, the arrival of people displaced from Ukraine almost tripled the number of Ukrainians in the country compared to end-2021.

The growing number of Ukrainian residents in Czechia are also increasingly involved in the labour market. Average Earnings Information System (ISPV)⁹ data indicated that the number of employed people with Ukrainian citizenship grew by 46% in 2022 and by a further 19% in the first half of 2023. The growing involvement of Ukrainians in the Czech labour market is a longer term phenomenon: the number of employed Ukrainians recorded an average annual growth of 25% between 2014 and 2021¹⁰. In the first half of 2023, Ukrainian employees (including those residing in Czechia before 2022) accounted for 3.3% of total employees in Czechia, largely concentrated in the private sector of the economy (97% of all working Ukrainians).

ISPV data also showed that Ukrainians work for lower average wages in Czechia compared to both Czechs and other foreign citizens and in both private and public sector. The median wage of Ukrainian employees has hovered around 80% of the total country median over the long term. While Ukrainian wages at the first decile were around 85% of the total national first decile value in 2021-2023, the ninth decile wage was even lower, at less than 70% of the national wage level. This means that while Ukrainian employees more often work for lower wages than other groups, those Ukrainians who manage to earn relatively higher wages still fall far short of the wage level of other groups. The Ukrainian wage at the first decile was only slightly above the minimum wage (on average 1.06 times higher over 2012-2023), suggesting that a large proportion of the impact pertains to the low-paid segment.

Increased labour supply in low-paid sectors might limit wage growth or even lead to lower wages in some labour market segments, although, to date, empirical evidence for such effects is lacking. This may represent a serious issue for wage convergence in the CEE region, which may be impeded by the entry of migrants to the low-paid segment. On the other hand, using the labour potential of often highly-educated Ukrainian workers and matching their skills with jobs corresponding to their qualifications may ease the tight labour markets of CEE countries and increase their economic potential.

Czechia has been dealing with a tight labour market since 2016 and consistently has one of the highest job vacancy rates in Europe¹¹. The entry of Ukrainian workers has enabled solid growth in total employment in recent years (CNB, 2024). As of February 2022, there were 1.38 vacancies per

⁸ Czech Statistical Office, Table R02 - Foreigners in the Czech Republic, <https://www.czso.cz/csu/cizinci/number-of-foreigners-data>.

⁹ ISPV is managed by the Ministry of Labour and Social Affairs of the Czech Republic, <https://ispv.cz/cz/Vysledky-setreni/Archiv.aspx>.

¹⁰ ISPV offers survey data and does not cover all employees in the national economy. It is not possible to present absolute numbers of workers.

¹¹ According to Eurostat (dataset jvs_a_rate_r2), the Czech vacancy rate stood at 3.7% in 2023 and was the fourth highest in Europe, after the Netherlands, Germany and Norway.



unemployed person and this ratio gradually declined below 1 in 2024 (see Table 2). The Czech unemployment rate is the lowest in the EU (Eurostat, 2024a) and Czech companies in almost all economic sectors face labour shortages (Ministry of Finance, 2023). The arrival of displaced Ukrainian people has eased the labour market and they generally managed to find employment easily due to excessive labour demand: more than one-third of arriving Ukrainians (working age) were employed as of end-February 2023 (OECD, 2023b).

Table 2 Labour demand and labour supply in Czechia, 2022-2024

	February 2022	February 2023	February 2024
Unemployed (number)	263 433	282 508	296 107
Unemployed (% of total population 15-64)	3.5	3.9	4.0
Vacancies (number)	363 915	283 101	268 579
Vacancies per unemployed	1.38	1.00	0.91
Vacancies in ISCO0 (% of total)	0	0	0
Vacancies in ISCO1 (% of total)	1	1	1
Vacancies in ISCO2 (% of total)	6	7	7
Vacancies in ISCO3 (% of total)	4	4	5
Vacancies in ISCO4 (% of total)	3	3	3
Vacancies in ISCO5 (% of total)	9	11	12
Vacancies in ISCO6 (% of total)	1	1	1
Vacancies in ISCO7 (% of total)	21	22	21
Vacancies in ISCO8 (% of total)	34	30	29
Vacancies in ISCO9 (% of total)	22	21	22

Source: Ministry of Labour and Social Affairs of the Czech Republic.

Despite the overall labour market tightness and the excessive supply of vacancies compared to unemployed people seeking work, vacancies are largely concentrated in several occupational categories and in particular regions. The lowest-skilled categories ISCO8 and ISCO9 accounted for 56% of all vacancies in February 2022, declining slightly to 51% in February 2024 (see Table 2). The lasting labour shortages in these categories may represent one of the factors directing the employment of displaced people from Ukraine into the low-skilled segments of the economy. The Employment and Social Developments in Europe (ESDE) Review 2023 showed that economic sectors facing greater and persistent labour shortages also had higher shares of employed migrants in the EU in 2021¹² (European Commission (2023b)). Within the industries facing labour shortages, the highest concentration of migrants was in lower-skilled occupations.

More generally, problems with the employment of displaced people from Ukraine somewhat reflect longstanding problems of low flexibility in the Czech labour market (Fialová, 2017), as well as the persistence of low-skilled low-paid activities with lower added value, despite convergence towards the Member States of North-Western Europe (Myant, 2018).

¹² ESDE 2023 defines migrants as people born outside the EU but residing in the EU.



LITERATURE REVIEW

MIGRANT LABOUR MARKET INTEGRATION

Recent decades have seen a notable increase in migration movements across OECD and EU countries, despite a significant temporary decline during the COVID-19 crisis. As individuals move across borders in search of better opportunities and improved livelihoods or to flee conflict, the dynamics of labour market integration have emerged as a critical aspect of migrant experiences. Labour market integration is a cornerstone for migrants' successful adaptation and integration into host societies (De Coninck & Solano, 2023). The European Commission's 2020 Action Plan on Integration and Inclusion emphasises the need for inclusive and tailored approaches to employment, education and social services, highlighting labour market access as a key pillar in ensuring that migrants can contribute meaningfully to their new communities (European Commission, 2020).

However, growing evidence across the Member States suggests that recent migrants often face challenges in receiving countries. They often have far higher unemployment rates and lower participation in the labour market compared to the native population (Catalini et al., 2022; Heath et al., 2008; Koopmans, 2016). According to a recent OECD report, if migrants could secure employment as readily as native-born individuals, an additional 2.4 million people would be employed and contribute to the economy within the EU alone (OECD/European Commission, 2023). In addition, migrants often accept jobs below their education level and pay grade. The literature reveals the presence of an 'immigrant entry effect': due to a lack of work experience in the host country, limited language proficiency, and difficulties in the recognition of their home country credentials, migrants are likely to commence at lower levels than natives (Reitz 2007).

In general, skill mismatches and working in low-paid jobs below their actual qualifications represent a serious issue in both the short-term and long-term, threatening to trap refugees in low-skilled, low-paid positions due to declines in skills and expertise, depreciation of human capital, or reduced job-search efforts. Low-wage jobs often provide limited opportunities to develop skills by investing in training or education, which may further reduce the prospects of future wage growth (Burdett & Smith, 2002; OECD, 2017). Working in low-paid positions may create disincentives to work by ending up in low-pay traps (OECD, 2005), as well as increasing incentives to join the shadow sector to avoid taxes and thus improve net wages. Involvement in the shadow economy may further reduce the working and living conditions of workers. Holding a low-paid job may harm future job prospects due to the lasting negative effects, often referred to as 'scarring' effects (Schnabel, 2021). As a result, workers might get 'stuck' in low-paid jobs, leading to long-term poverty and in-work poverty (Cooke and Lawton, 2008; Maitre et al., 2012), a pattern that may even extend to future generations (Gregg, Macmillan, and Vittori, 2019). Over the last decade, the skills levels of immigrant occupations have risen, narrowing the gap with native-born workers in one-third of countries (OECD/European Commission, 2023). Nevertheless, 30% of elementary jobs in Europe are still held by migrants, with this figure exceeding 50% in German-speaking countries, Cyprus, Norway and Sweden (OECD/European



Commission, 2023). While migrants have the potential to contribute significantly to their host nations, certain systemic barriers hinder their ability to fully realise this potential (OECD, 2023c) and they are more likely to work in non-standard forms of employment (European Commission, 2023b).

Unemployment rates and skills mismatches differ between groups of migrants. For example, refugees generally encounter difficulties accessing the labour market of host countries and, on average, exhibit lower employment rates compared to other migrants, except for family migrants (European Commission and OECD, 2016). This is due to several issues, such as lengthy asylum processes increasing insecurity, lower preparation before the move, or suffering from traumatic experiences (Bakker et al., 2017). The socioeconomic backgrounds of refugees and migrants also influences the unemployment rate and the success of finding suitable jobs. Numerous studies on migrants' labour market paths and the factors contributing to their disadvantaged position highlighted socio-demographic characteristics and individual attributes, including education, language proficiency, migration motive, and age at migration (Bakker et al., 2017; De Coninck & Solano, 2023; Hoxhaj et al., 2020). Being highly educated, speaking the local language, being from western countries, or having ties to the local population are all factors improving the likelihood of success on the labour market.

Gender plays an important role, as migrant women tend to be specifically discriminated against in the labour market due to their domestic and family responsibilities (European Commission, 2020). Overall, women migrants across OECD and EU countries have higher education levels than their male peers, but this does not translate into better labour market outcomes (OECD/European Commission, 2023). The literature suggests that refugee women may face a 'triple disadvantage', as challenges stemming from gender, migrant status, and forced migration intersect and compound one another (Liebig and Tronstad, 2018). This is evident in the fact that only 57% of migrant women in the EU are employed, compared to 73% of their male counterparts and 65% of native-born women (OECD/European Commission, 2023). Additionally, the OECD (2020) found that immigrant women with young children experience a significantly greater labour market disadvantage than their native-born counterparts.

Migrants with foreign qualifications encounter significant barriers even when they have higher education degrees, regardless of the field of study, gender or age. Notably, migrants with tertiary degrees are less likely to work than their native-born peers in all countries (OECD/European Commission, 2023). On average, 27% of highly educated migrants are not in employment and a further 26% are formally overqualified for their job, compared to 20% of migrants with domestic qualifications who are not in employment and 18% who are overqualified for their job (OECD, 2017). Other studies have found important effects of other factors, such as discrimination or the so-called 'ethnic penalty' (Catalini et al., 2022; Heath & Cheung, 2007), or limited familiarity with the local labour market (De Coninck & Solano, 2023; European Commission, 2020).

Analysing migrant integration in the labour market over time is an approach that has gained traction in recent decades. Some researchers contend that migrants may never achieve parity with native populations on labour market integration (Reitz, 2007). By contrast, other studies have found that



despite initially low earnings or occupational status, migrants gradually catch up after acquiring language skills and other human capital specific to the destination country; however, complete parity may not be achieved (Aydemir & Skuterud, 2005; Chiswick et al., 2005; Dell'Aringa et al., 2015). Research in European countries indicates that, apart from socioeconomic background, the country of origin plays a crucial role in long-term integration. While migrants from Europe generally achieve parity with the native population, their counterparts from Asia, Africa or Latin America often face greater challenges and may never fully integrate into the labour market (Bakker et al., 2017; Grand & Szulkin, 2002; Reitz, 2007). A more segmented labour market in the host country is also associated with a greater likelihood of occupational downgrading among immigrants on their arrival (Fellini & Guetto, 2019).

The surge in migrant and refugee numbers across Europe has prompted significant attention and political action from governments. Consequently, various measures have been implemented to facilitate the integration of migrants and refugees into society and the workforce (De Coninck & Solano, 2023). These measures encompass initiatives to identify and recognise individuals' skills and competences acquired through formal, non-formal, and informal learning pathways. Facilitating the integration of migrants and refugees into the labour market not only improves their employability but also mitigates skills mismatches in the job market and addresses shortages of skilled workers in specific occupational sectors. Aligning newcomers' skills and experiences with suitable employment opportunities can also foster personal well-being and enhance social cohesion. Several Member States have initiated efforts to validate the skills, knowledge and competences of migrants and refugees acquired through diverse learning avenues. In addition, prioritising migrant integration from the outset of their arrival in the host country is crucial (OECD, 2023c).

Research aims to establish the connection between migrant integration policies and labour market outcomes (De Coninck & Solano, 2023). Nevertheless, there is little focus on the local and national contexts of effectiveness of integration policies, although Eurostat data highlight that the labour market performance of migrants, as well as the disparities between migrants and native populations, differ both between and within countries (European Commission, Joint Research Centre (JRC), 2017, 2019). For example, in Mediterranean countries, migrants typically have employment prospects similar to those of native populations. However, there is a significant risk of migrants disproportionately occupying the lower tiers of the occupational structure. By contrast, in Western Member States, the dynamic shifts: although migrants may initially encounter reduced employment opportunities, once employed, they generally face less pronounced disparities in job quality compared to migrants residing in Southern European regions (Catalini et al., 2022).

DISPLACED PEOPLE FROM UKRAINE

Migrants from Ukraine, especially people who fled Russia's war of aggression against Ukraine, have distinct features that are crucial to understanding their labour market integration needs. The group have specific socioeconomic characteristics, such as gender, age and educational profile, as well as being impacted by the existence of Ukraine diasporas in many EU countries before the war. While



women make up about 70% of adult Ukrainian refugees in most host countries now, they only accounted for 30% of asylum applications during the European refugee crisis in 2015-2017 (OECD, 2023d). More than one-third of Ukrainian refugees are minors and about 5% are over 65 years of age (OECD, 2023a). The working age population of those displaced from Ukraine generally has very high levels of educational attainment compared to both the domestic labour force in host countries and even to the Ukrainian labour force before Russia's war of aggression (OECD, 2022, 2023a). Their integration into the societies and labour markets of EU Member States tends to be much faster (OECD, 2023a), although a large part of the early employment uptake is concentrated in low-skilled segments, with widespread (if varying) skills mismatches (OECD, 2023a).

The specific gender dimension of the Ukrainian migration arrivals creates several challenges. Earlier studies suggest that women experience greater labour market disadvantage than men, with Ukrainian women's preference for staying at home with their children and negative attitudes towards maternal employment relatively widespread (OECD, 2023d). As a result, economic inactivity among Ukrainian women aged 25-39 was quite high even in Ukraine pre-2022, at around 30%, compared to approx. 9% of economically inactive men (Ukraine Labour Force Survey 2021¹³). This backdrop, together with societal pressures for women to prioritise family duties and limited access to childcare facilities, may further hamper the labour market integration of Ukrainian women.

Family and caregiving responsibilities are one of the most frequently cited obstacles to labour market participation among Ukrainian refugees seeking work (European Union Agency for Fundamental Rights (FRA), 2023). According to an International Organization for Migration (IOM) survey (2023), nearly half (48%) of those who are neither employed nor seeking work cite caregiving responsibilities – whether for children, older people, or individuals with disabilities – as the primary reason for being out of the labour market. This underscores the need for accessible and affordable childcare facilities. However, the atypical employment arrangements widespread among refugee workers complicate the issue of securing childcare for Ukrainian women. Employment in flexible, part-time, and short-term jobs often creates challenges in accessing childcare services, due to low flexibility of providers, restricted opening hours, long waiting lists, etc., making it difficult for employees in non-standard jobs to accommodate their childcare needs (Biegel, Wood, and Neels, 2021). The FRA (2023) report shows that 3 in 10 refugees were unable to work due to care obligations, with women encountering this barrier more often than men (33% vs. 9%). The presence of older dependents can have ambiguous effects on the labour market integration and position of Ukrainian single mothers: on the one hand, they may represent another obstacle to employment, but on the other hand, older dependents may be able to take care of the children, smoothing labour market integration of Ukrainian women (OECD, 2023a). The European Commission (2022) has urged EU Member States to prioritise attention to the gender dimension in supporting the socioeconomic integration of displaced Ukrainian people.

¹³ <https://stat.gov.ua/en/datasets/labour-force-survey>



The high educational profile of displaced people from Ukraine increases the risk of underemployment and skill mismatch. Comparative evidence across European countries shows that the level of education of Ukrainian refugees is particularly high, with around 60-70% holding a tertiary degree (Brücker et al., 2023; European Union Agency for Asylum (EUAA) et al., 2022; IOM, 2023; OECD, 2023a). Information compiled from multiple countries by the EUAA, IOM and OECD indicates that a considerable number of displaced Ukrainians possess extensive education and previous employment across diverse sectors such as sales, management, education, and healthcare. The OECD (2023a) states that a significant share of displaced people from Ukraine worked in the health or education sector at home, with typical country-specific entry barriers relating to qualification and skills. By contrast, jobs requiring low skill levels are more easily accessible, due to lower demands of skill transferability. Refugees with tertiary degrees or vocational education are more likely to report that their qualifications not being recognised is a significant barrier to job search (FRA, 2023). In addition to those with higher levels of education or qualifications, younger refugees are more likely to experience barriers while seeking employment. Accordingly, the overall employment patterns of Ukrainian refugees significantly reflect the social networks available to them, rather than their actual qualifications or education level (OECD, 2023a).

To mitigate these barriers, the Commission Recommendation on the recognition of qualifications for people fleeing Russia's invasion of Ukraine (European Commission, 2022b) proposes the simplification of formalities in recognising professional qualifications for individuals under temporary protection. In response, many countries have taken steps to modify their national recognition processes or waived certain document requirements, notably to recognise professional qualifications of Ukrainians seeking access to crafts, regulated or specific professions (European Commission, 2023a). This is especially true of neighbouring countries that have faced heightened pressures as they adapt their national procedures to accommodate the unique demands of the situation. Many countries have also implemented support measures such as language courses, skills validation, and counselling to enhance labour market integration (Basna, 2024; European Migration Network (EMN), 2024). Some Member States, especially those facing heightened pressures, have adjusted their national recognition procedures, while others provide access to the same employment support services as permanent residents, without additional measures. Public Employment Services play a key role in coordinating this integration effort (EMN, 2024).

The high level of uncertainty relating to the length and temporary character of their stay can deter Ukrainian refugees from investing in country-specific skills and activities, such as language learning and integration efforts (OECD, 2023d). Intention to return home seems to be somewhat shaped by gender and family circumstances. According to a German survey, a higher percentage of men (68%) than women (51%), and more than two-thirds of refugees who fled together with their partners, were planning to remain in Germany (Panchenko, 2022). The gender difference may be attributed to the fact that while most Ukrainian refugee men in Germany lived with their partners, the opposite is true for women (OECD, 2023d), as most of their partners remained in Ukraine due to military conscription or because they did not wish to leave (UNHCR, 2022a). Accordingly, family reunion is one of



the main cited reasons for intending to return (UNHCR, 2022b; OECD, 2023d). Perceiving the current stay in host countries as temporary may act as an incentive to take up any employment opportunity to secure some income, even if it is far below their qualification and skill level. This short-term perspective may have long-lasting negative consequences for the decay of skills and competences of workers and their overall labour market outcomes, for the labour market outcomes of their children (OECD, 2020a, 2020b) and for the labour market of the host country not exploiting the full labour potential of the migrants (OECD, 2023d).

Insufficient language skills may hinder refugees from using their qualifications and fully developing their labour market potential in the host countries (OECD, 2021). According to the FRA (2023) and IOM (2023) surveys, the primary obstacle to labour market integration is a deficiency in language proficiency. OECD (2023a) documents that while knowledge of English is relatively frequent among the refugees, only a minor share speak other languages. Approx. half of Ukrainian refugees are proficient in Russian and English, with smaller proportions proficient in other languages (8% in Polish, 5% in German, 3% in French, and 2% in Czech) (European Union Agency for Asylum. et al., 2022). Proficiency in the language of the host country is more common among refugees in countries speaking Slavic languages (UNHCR, 2022b).

These complex issues mean that displaced people from Ukraine often face difficulties in finding regular employment opportunities (Eurofund, 2024). The results of the FRA (2023) survey indicate that Ukrainian refugees often work in temporary jobs, as well as in sectors with prevalent temporary jobs, such as tourism, hospitality, construction (Eurofound, 2024). OECD (2023a) highlights the prevalence of short-term and part-time employment among Ukrainian refugees, who are often expected not to be registered in the social security system. Short-term and informal employment is a particular concern for Czechia.

The pace and success of labour market integration of Ukrainian refugees in different countries is influenced by the labour market situation in the country and its institutional setup, specific demographic characteristics of Ukrainian refugees, and supports available from the state and from existing Ukrainian communities residing in the country (OECD, 2023a).

This research note addresses several issues pertaining to the labour market dynamics of displaced people from Ukraine in Czechia:

- What share of displaced people from Ukraine have successfully secured employment within local labour markets? What professions do they predominantly engage in?
- To what extent are they employed in precarious positions? What are the key characteristics that define displaced people from Ukraine in precarious employment? What are the primary drivers facilitating the shift of Ukrainian workers from precarious roles to standard jobs with more favourable working conditions?



- What proportion occupies positions below their original roles in the Ukrainian labour market? What are the determinants of this underemployment, i.e. working in jobs below qualification of displaced people, compared to their job positions back in Ukraine?
- Which policy instruments have proven efficient in enhancing the labour market positions of migrant workers? To what extent do factors such as access to education, pre-school care for their children, language proficiency, and prospect of returning to Ukraine impact the employment status of displaced people from Ukraine?
- What is the specific labour market position of women displaced from Ukraine?

DATA

Obtaining comprehensive information on the labour market outcomes of Ukrainian refugees poses several challenges (OECD, 2023a). Firstly, administrative data from host countries often fails to distinguish between Ukrainian nationals present before February 2022 and new migrant-refugees. Secondly, standard statistical data such as those from labour force surveys do not include the recently arrived Ukrainian population. Thirdly, available data in many countries mainly come from employers' notifications of newly hired Ukrainian refugees, leading to duplicate records for individuals in short-term or part-time roles. In addition, informal employment is not captured by these data at all.

This research uses the unique data from the longitudinal 'Voice of Ukrainians' survey on the integration of displaced people from Ukraine in Czechia, which maps labour outcomes, housing, health, knowledge of Czech language, education and integration of Ukrainian children. The survey covers the attitudes and experiences of people from Ukraine who arrived in Czechia after February 2022 and still live there. The panel of respondents represents a sample from official registered data on recipients of humanitarian social benefits (by the Ministry of Labour and Social Affairs), i.e. those under the Temporary Protection Directive. The respondent sample is continuously updated in collaboration with the Ministry of the Interior, which provides data on re-registered displaced persons under the temporary protection regime. This supplements the overall sample, as participants who have moved back to Ukraine, relocated to other countries, or withdrawn from the survey are no longer included.

The sample is representative in terms of region of residence within Czechia, as well as the age and gender mix of household members within regions. However, the data have several shortcomings: overrepresentation of the capital region, Prague; biases common to surveys of this type, such as overrepresentation of more educated people from higher socioeconomic classes, older respondents, etc. To ensure the representativeness of the data, weights have been constructed based on available information from the Ministry of the Interior. Unfortunately, the Czech state does not have the legal right to obtain information about the education level of displaced people from Ukraine, thus there are no official administrative data on education levels for the adult refugee population. The only information comes from various survey information or partial data samples. The representativeness



of the sample may be limited in respect of educational structure, as it may overstate the share of those with tertiary education.

The survey was implemented by the Institute of Sociology of the Czech Academy of Sciences, in cooperation with a private agency, PAQ Research¹⁴. It was conducted online (computer-assisted web interviewing, CAWI) in Ukrainian on a panel of displaced people from Ukraine. To date, eight waves (W1-W8) of research have been conducted with different focus modules:

- W1 June 2022 (housing, Czech language);
- W2 August 2022 (work, income, Czech language);
- W3 September 2022 (health);
- W4 December 2022 (education, work, housing, income, Czech language);
- W5 March 2023 (education, work, housing, income, Czech language);
- W6 June 2023 (education, work, housing, income, Czech language, integration);
- W7 October 2023 (health);
- W8 June 2024 (work).

Data from W7 and W8 are not available at the time of this analysis. Table 3 presents numbers of respondents and total observations in W1-W6 of the survey, along with attrition. There were 1 414 respondents in W6 of the survey. Each respondent also filled in information about other members of their household, totalling 3 721 observations in W6. The data track the history of displaced people as well: nearly 500 respondents were present in all six waves of the survey. More than 800 respondents were present in both waves targeting work (W2 and W6).

Data from W1 and W3 do not include sufficient information on employment of respondents. Accordingly, this study only uses data from W2, W4, W5 and W6, covering the period August 2022 to June 2023. The panel is partially fluid due to the character of the population covered. Displaced people from Ukraine in Czechia often travel back to Ukraine for a certain time and then come back, which is enabled by geographical proximity, i.e. in some cases, the same respondent may be present in several waves but without direct continuity.

Table 3 Respondents and observations in Voice of Ukrainians survey, waves and attrition

Wave	W1	W2	W3	W4	W5	W6
1	1 700	969	682	582	516	451
2		2 351	1 301	1 054	965	837
3			1 347	902	809	708
4				1 599	1 066	923
5					1 325	886
6						1 414
Total	4 845	6 729	3 866	4 466	3 802	3 721

¹⁴ Research was supported by the United Nations Children's Fund (UNICEF) in cooperation with the Czech Ministry of Labour and Social Affairs and the 3WFoundation.



Observations

The data contain information on detailed characteristics of migrants and members of their household, their employment and job positions in relation to their qualifications, as well as information on their expectations of potential return to Ukraine, existence of social networks in Czechia, language skills, use of childcare facilities, drawing social benefits, or using labour agencies or other types of organisations¹⁵.

The benefit of these longitudinal survey data is that they follow the labour market history and transitions of individuals during the period August 2022 to June 2023 in consecutive observations. The data also allow the associations between different characteristics of individuals to be examined, as well as these transitions. The character of data and availability of necessary variables across particular waves determines the choice of examined phenomena and applied methods. The data enable the analysis of two adverse aspects of employment of displaced people from Ukraine, both related to earning lower wages: (i) working in precarious jobs; and (ii) underemployment, i.e. working below their qualification and skill levels attained back in Ukraine¹⁶.

It is not possible to take advantage of full panel information for analysis of precarious forms of employment because some of the waves did not include detailed information on job characteristics and working conditions. These were, however, included in W2 and W6. All other waves offer information on employment status and job position (classified in the International Standard Classification of Occupations (ISCO)), which may be compared to the original job in Ukraine. W2 and W6 were chosen for analyses of the precariousness of displaced people's work and transitions from non-working and unemployment status in W2 to working status in W6, and from precarious work in W2 to a standard job in W6. Four waves (W2, W4-W6) included information about working status and job and were used to analyse underemployment.

All of the analyses focus on displaced people from Ukraine aged between 15–65 years, i.e. those at the age of economic activity¹⁷. The data are weighted¹⁸. Given the specific position of women among the displaced people, separate analyses are run on a sample of women in each of the analyses.

SOCIODEMOGRAPHIC STRUCTURE OF THE DATA

In the Voice of Ukrainians survey data, 65% of the total number of observations (including other members of the respondents' households) in W2 are women, decreasing to 64% in W4 and W5 and 62% in W6. Proportions of women are higher in all age groups except the youngest children (below

¹⁵ Two waves of the survey (W3 and W7) included a module on health, including mental health, but these variables have not been made publicly available due to funding restrictions.

¹⁶ The data do not allow for analysis of macroeconomic consequences of Ukrainian migration for wage growth or employment prospects of domestic workers.

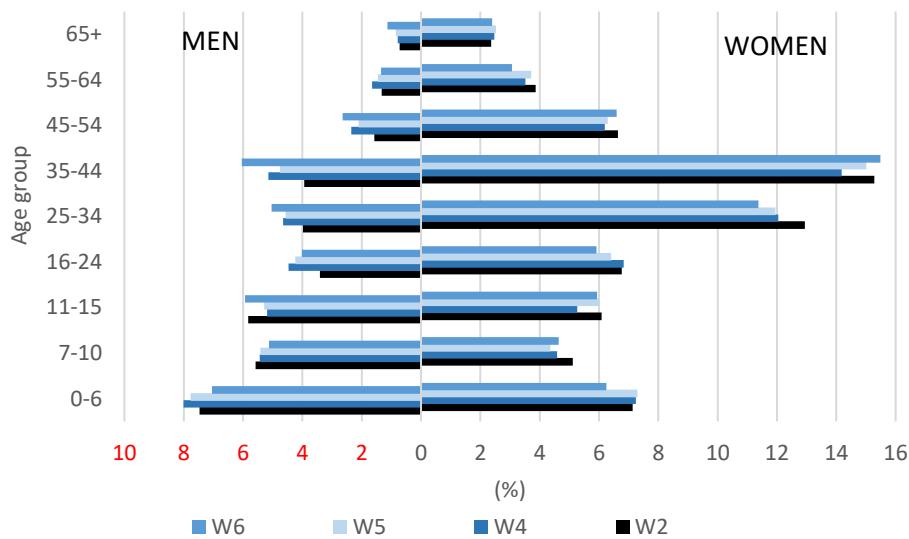
¹⁷ Observations with missing values are not included in the analyses.

¹⁸ Post-stratification weights from temporary protection statistics for adult population (Ministry of the Interior), taking into account gender, age, and regional differentiation.



10 years) (see Figure 1). The shares are roughly similar among those aged 11–15. The largest share of migrants are women aged 35–44, who account for about 15% of the total number of observations. Within the waves of the survey, the gender-age shares are roughly constant, with the exception of a slight increase of shares of men aged 16–54: the largest growth is evident in the 35–44 age group, which doubled from 3% to 6% between W2 and W6. In the survey sample, considering only the respondents themselves and not other members of their households, women make up the vast majority, at more than two-thirds of working-age individuals (aged 15–64). This proportion decreases slightly, from 73% in W1–W4 to 67% in W6. More than half (56%) of the working-age women sample are single mothers, representing 40% of the total sample. By contrast, single fathers make up only 22% of the working-age men sample, accounting for 6% of the total sample.

Figure 1 Sociodemographic structure of data, by age and gender (% in wave)

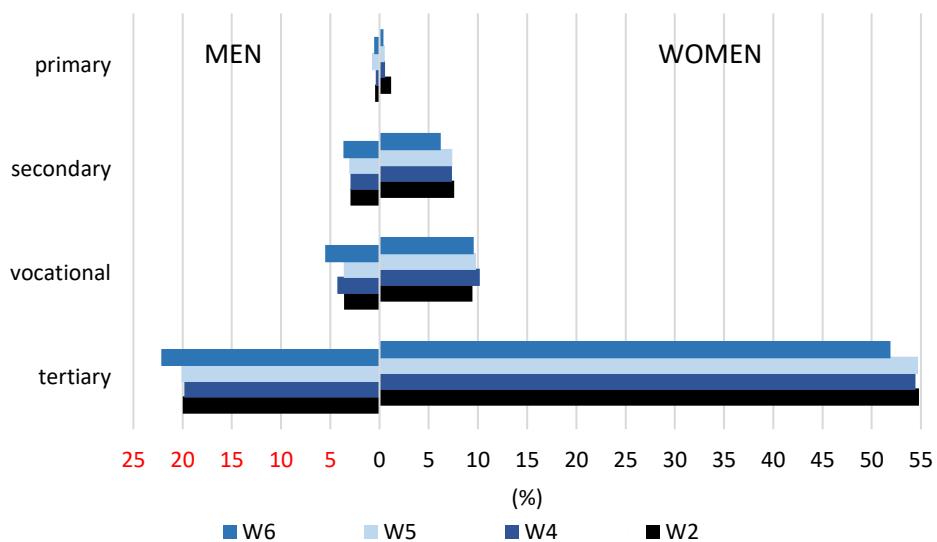


Note: Each wave shares sum to 100%.

Source: Voice of Ukrainians survey.

The data indicate that nearly 75% of displaced adults have a university degree: more than half of the displaced people are tertiary-educated women, while about one-fifth are tertiary-educated men. On the other hand, the shares of those with primary education do not exceed 1% and proportions of those with secondary educational degrees or vocational education do not exceed 11% across the waves. The proportions do not change significantly between waves. The share of those tertiary-educated is higher compared to other sources of data on Ukrainian refugees. A survey by the Ministry of Labour and Social Affairs in May 2022 refers to 35% (Klimešová, Šatava and Ondruška, 2022; N=50 236), while data from the Ministry of the Interior in May 2023 show 55% (PAQ Research, 2023b; N=8 385). Consequently, results drawn from analysis of this data may be biased to certain degree.

Figure 2 Sociodemographic structure of data, by education and gender (% in wave)



Note: Each wave shares sum to 100%.

Source: Voice of Ukrainians survey.



EMPIRICAL STRATEGY AND ESTIMATION METHODOLOGY

This section provides methodological background for the analysis of determinants of labour market outcomes of displaced people from Ukraine and their transitions between non-employment and employment, including its different forms, such as precarious and non-precarious employment, or employment in jobs below their qualification level.

WORKING IN A STANDARD OR PRECARIOUS JOB AND TRANSITIONS BETWEEN LABOUR MARKET STATES

The definition of precarious work is not uniform across the literature. Generally, precarious employment is related to a lack of stability, labour protection and security, and overall economic and/or social vulnerability (Famira-Muehlberger, 2014). Other definitions also emphasise the degree of control over working conditions and wages and income level (Rodgers; 1989). The European Parliament adopted a Resolution on working conditions and precarious employment in 2017, defining precarious employment as 'employment which does not comply with EU, international and national standards and laws and/or does not provide sufficient resources for a decent life or adequate social protection' (Eurofound, 2018).

Table 4 Four dimensions of precariousness and their measures in the data (questions together with answers considered precarious)

Dimension	W2 indicators	W6 indicators	Index values (maximum)
Instability	<ul style="list-style-type: none">• My job is stable. I'm confident I'll have it in the future, too (No)	<ul style="list-style-type: none">• I often change jobs (Yes)• I find out shortly beforehand if there will be work for me (Yes)	1
Financial stress	<ul style="list-style-type: none">• My job is enough to cover my current living expenses in Czechia (No)• Do you have any other job? (Yes)	<ul style="list-style-type: none">• My wage payment is often delayed (Yes)• I must have more jobs to make ends meet (Yes)	1
Agency work	<ul style="list-style-type: none">• Do you work through an agency? (Yes)	<ul style="list-style-type: none">• I work through an employment agency (Yes)	1
Undeclared work	<ul style="list-style-type: none">• Do you work unofficially? (Yes)	<ul style="list-style-type: none">• My employer does not pay my health insurance for me (Yes)• I work through an unofficial agent (Yes)	1
Precarious Work Index			4



In the analyses here, precariousness of work covers four dimensions, defined along several working conditions: instability, financial stress, agency work, and undeclared work (see Table 4). Only W2 and W6 include questions on working conditions that enable identification of precarious work; however, the questions changed between these two waves. Nevertheless, four dimensions have one or two measures available in both data waves. The worker is considered to meet the conditions of each particular dimension if the answer to at least one of the questions under the particular dimension corresponds to that indicated in the table.

The conditions under each dimension are evaluated and may attain a value of 1 in case of precarious conditions under each dimension. These are then summed up to create a 'Precarious Work Index' for each worker, which may reach a maximum value of 4 in case of complete precariousness of the job (at least one condition of precarious work fulfilled under each dimension). The analyses use two definitions of precarious work:

- (i) Precarious Work Index ≥ 1 , i.e. work precarious in at least one dimension;
- (ii) Precarious Work Index ≥ 2 , i.e. work precarious in at least two dimensions.

The data do not enable identification of those employed (as employees) and those who are self-employed, as it gives answers to the question 'Are you currently in paid employment?'. Those who indicate 'I work in Czechia (even if it is a small extra income)' are considered 'working' without any further distinction, while those who do not indicate having paid work are considered 'non-working' without any further distinction. The data do not enable the identification of unemployed people (in the economic sense, i.e. those actively seeking a job and ready to start working) in W6. A sample of unemployed displaced people may be identified only in W2 based on the question 'Are you looking for a paid work to do here in Czechia?'.

For analysis of determinants of precarious work in both periods, three labour markets states are defined relating to current situation of displaced people in Czechia:

1. Displaced people not working;
2. Displaced people working under precarious working conditions (classified according to value of Precarious Work Index);
3. Displaced people working in standard jobs (not fulfilling conditions of precariousness according to Precarious Work Index).

All respondents aged 15-64 are considered. Some of the analyses restrict the sample to those respondents who indicate that they worked in Ukraine and may presumably be classified as economically active.

A multinomial logit model is used to analyse the probability of staying in each of the particular labour market states (1-3). The model is defined on cross-sectional data in each of the two periods and



uses the two definitions of precariousness of work described above (Model 1 for Precarious Work Index ≥ 1 ; Model 2 for Precarious Work Index ≥ 2 used as a robustness check).

Longitudinal data enable the analysis of individuals' transitions between non-work/unemployment and work, including its precarious forms, i.e. transitions between different labour market states between W2 and W6¹⁹ (see Figure 3). The incidences of all these transitions are presented in Table 5.

Figure 3 Models of different labour market statuses and transitions: standard work, precarious work and non-employment, August 2022 and June 2023

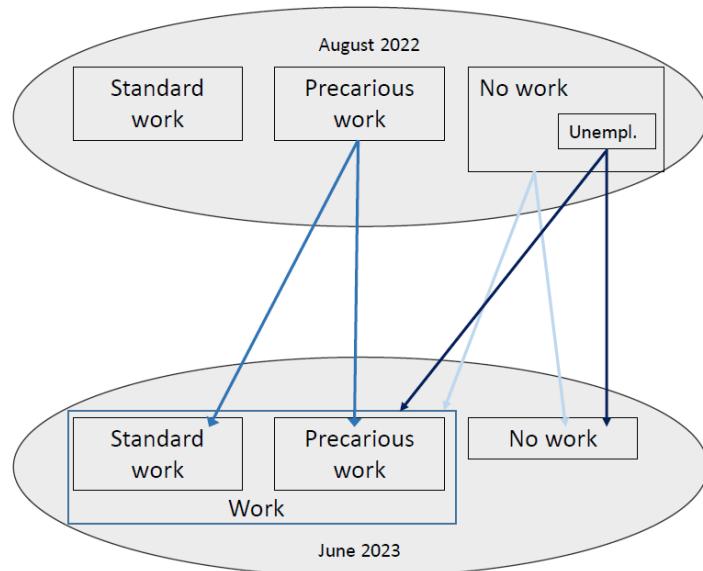


Table 5 Labour market statuses and transitions between W2 (August 2022) and W6 (June 2023): sample sizes (number of respondents and proportions in %)

W2 status		W6 status		Transition (%)
Non-working	436	► Non-working ► Working	236 160	54 36
Unemployed	341	► Non-working ► Working	186 155	55 45
Precarious work	205	► Precarious work ► Standard work	118 87	58 42

Source: *Voice of Ukrainians survey*.

¹⁹ Reverse transitions, i.e. from working status to non-working/unemployment or from working in standard job to working in precarious job are not examined, as this study aims to identify factors that drive people into work and, particularly, into standard jobs.



The main method of estimation of transition patterns is binary logit regression on cross-sectional datasets²⁰. The empirical strategy is based on research of Kelly et al. (2013), who examined transitions in and out of unemployment among young people in Ireland. Three models are estimated on three different samples of displaced people who are present in both waves (W2 and W6) and who have a specific labour market status in W2:

- Transition from non-working in August 2022 to working (both precarious and standard) in June 2023 (Model 3);
- Transition from unemployment in August 2022 to work (both precarious and standard) in June 2023 (Model 4);
- Transition from precarious employment in August 2022 to standard employment in June 2023 (Model 5)²¹

UNDEREMPLOYMENT

Given the limitations on employment opportunities for displaced people from Ukraine (stemming from issues such as recognition of qualifications, care obligations, uncertainty about future return to Ukraine etc.), many displaced people do not continue in their previous career, but instead work in jobs with lower qualification requirements. These lower-skilled jobs are considered underemployment in this study.

The skill level of employment is classified by ISCO, which groups occupations according to skill level and nature of work. Generally, the higher the ISCO category, the lower the skill level of the job. The classification is simplified into five categories²²:

1. ISCO1 Managers + ISCO2 Professionals;
2. ISCO3 Technicians and associate professionals + ISCO4 Clerical support workers;
3. ISCO5 Service and sales workers;
4. ISCO6 Skilled agricultural, forestry and fishery workers + ISCO7 Craft and related trades workers;
5. ISCO8 Plant and machine operators, and assemblers + ISCO9 Elementary occupations;

The data offers the ISCO category for current work of the displaced individual in Czechia and for their last job before they left Ukraine. To be classified as underemployed in wave t , the worker must fulfil the condition $ISCO^{UA} < ISCO_t^{CZ}$. In that case, the dependent variable *Underempl* takes a value of 1. The variable takes a value of 0 for those who work in a similar or higher qualified job in Czechia as they did in Ukraine. The sample of displaced people for analysis of underemployment is defined

²⁰ Number of observations in the data are limited and do not enable duration analysis or the use of survival models.

²¹ In Model 5, those who transitioned from precarious employment into inactivity are excluded from the analysis (similarly to Kelly et al. (2013) in their analysis of youth unemployment).

²² ISCO0 Armed forces occupations is excluded due to the specific character of this work, both in line with standard approaches in employment analysis and because workers in this ISCO are neither supposed to become refugees nor to become members of the Czech armed forces.



as those who worked in Czechia and filled in the last job they held in Ukraine. Binary logit regressions with random effects on panel data are used (Model 6) to study determinants of underemployment of workers (panel dimension) across the waves (time dimension)²³. The panel is unbalanced.

FACTORS INFLUENCING LABOUR MARKET OUTCOMES

At the individual level, the control variables included in the analyses are commonly used in labour market research and capture the effect of both demand-side and supply-side factors. They cover a women dummy and dummies for age in 10-year intervals. Educational attainment is reflected in dummies for primary, secondary and vocational education (tertiary educational degree is the reference group). Some of the analyses add a dummy indicating previous employment in the health or educational sector in Ukraine²⁴ and a dummy for arriving to Czechia before June 2022 to reflect the length of stay in the host country (W6 only). The existence of social networks in the host country is controlled for by a dummy for having previous contact with people living in Czechia (both family and friends) before arrival. Perceived intentions about potential return to Ukraine are accounted for by a dummy reaching value 1 for those who definitely want or rather want to return (those who do not want/do not know are 0).

At household level, a dummy for living with a partner (both married or not) is included. Presence of older dependents in the household is reflected by a dummy for adults older than 65 years in the household. Presence of child dependents in the household is controlled for by two dummies: children younger than six years, and children aged 7-10. Dummies also cover the presence of a child younger than six years who does not attend any formal pre-school education institution and a dummy for a child aged 7-10 who does not attend primary school. The adverse housing conditions of the household are accounted for by a dummy for living in non-residential housing, such as a dormitory or hotel. In some analyses, region of stay in Czechia is controlled for by dummies for NUTS-2 regions (reference category is the capital, Prague).

A dummy variable controlling for language proficiency in Czech is also added, reaching a value of 1 if the respondent indicates the ability to negotiate in standard situations and understand text, to speak and write fluently, or have Czech as a mother tongue. Another dummy variable reflects attendance at Czech language courses any time in the survey history. To account for the effect of institutional help in finding a job, a dummy is added that takes a value of 1 if the respondent indicates use of Labour Offices services when looking for a job in Czechia (W2 only). Finally, a dummy is added on whether the household has been receiving humanitarian aid or other benefits from the Czech state.

²³ Feasibility of using panel setup was tested by a likelihood-ratio test comparing the pooled estimator with the panel estimator. Test results confirmed that panel-level variance component is important, validating panel approach.

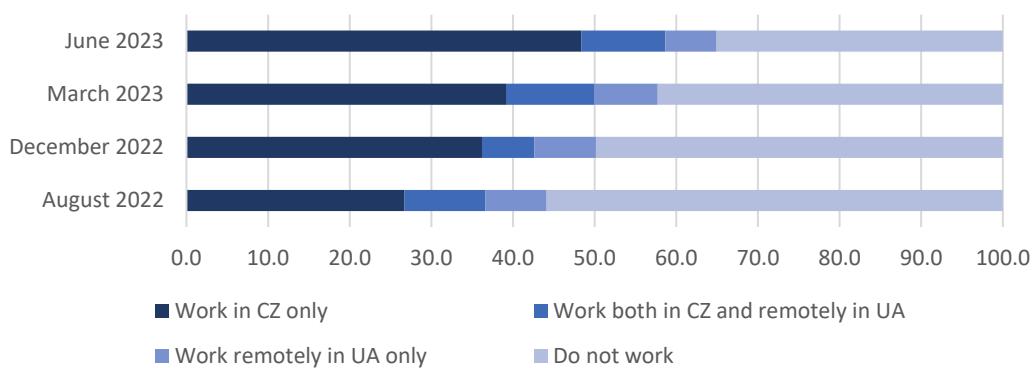
²⁴ ISCO categories 2200 – 2399 and 3200 – 3399.



LABOUR MARKET INTEGRATION

The data indicate a clear upward trend in labour market involvement of displaced people from Ukraine in Czechia (see Figure 4). While in August 2022, 37% of those aged 18–65 had a job in Czechia (including those who worked remotely in Ukraine alongside), this share increased to 59% in June 2023. The share of those who only work remotely in Ukraine remains quite stable, at around 17% across the waves of the survey. As a result, the share of those who do not work fell from 56% to 35% between August 2022 and June 2023. A significant difference is evident between the shares of Ukrainian men and women who managed to find a job in Czechia, at 64% and 56%, respectively. That difference tended to narrow after August 2022.

Figure 4 Employment of displaced people from Ukraine in Czechia, % of those aged 18–65



Note: Data weighted by post-stratification weights.

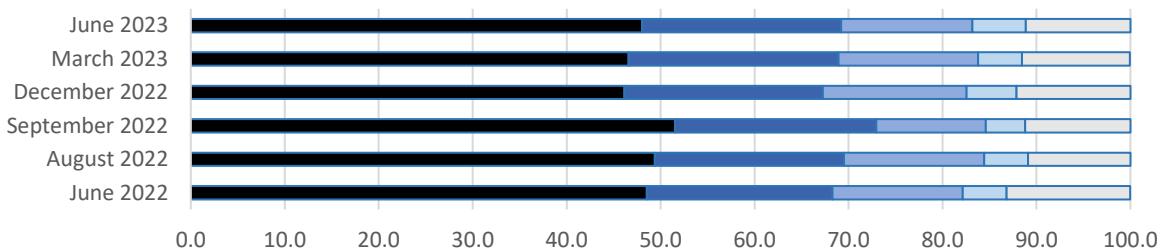
Source: Voice of Ukrainians survey.

The displaced people are not only highly educated, they also worked in highly-skilled occupations in Ukraine (see Figure 5). Almost half worked as managers and professionals (ISCO 1 and ISCO2), while a further 20% worked as technicians and associate professionals or clerical support workers (ISCO 3 and ISCO4). Across the survey waves, around 12% worked in lower skill occupations, as plant and machine operators, assemblers, and in elementary occupations (ISCO 8 and ISCO9). The situation of the Ukrainian refugee population almost reversed in Czechia: although improvement over time is visible in the data the largest share of workers hold low-skilled jobs and work as plant and machine operators, and assemblers and in elementary occupations (ISCO 8 and ISCO9), falling gradually from 66% in August 2022 to 44% in June 2023. By contrast, proportions of workers holding jobs in all other occupational categories demanding more skills than the basic occupations have increased: in June 2023, proportions of workers in the highest occupational categories managers and professionals were at 16%, followed by service and sales workers (14%), skilled agricultural, forestry and fishery workers, and craft and related trades workers (14%) and technicians and associate professionals, clerical support workers (12%).

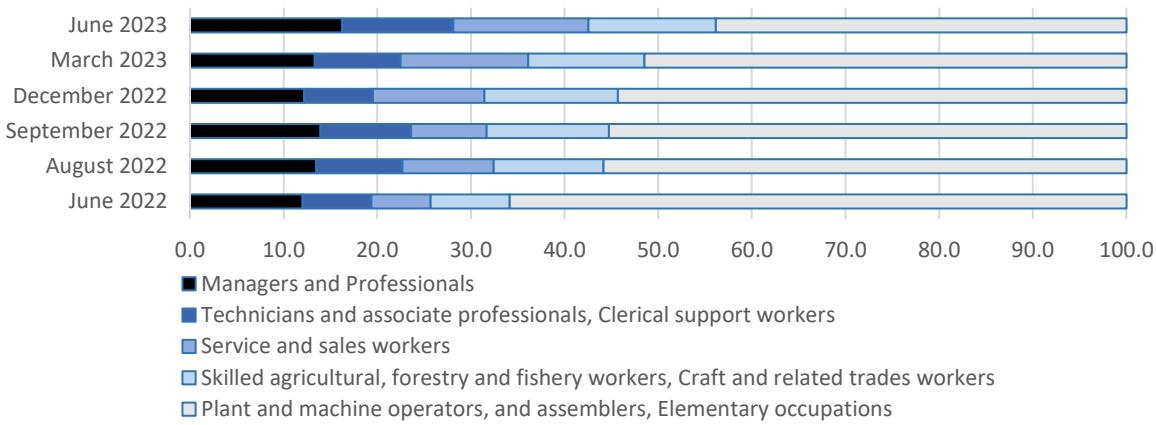


Figure 5 Employment structure in aggregated ISCO categories, %

(i) in Ukraine



(ii) in Czechia



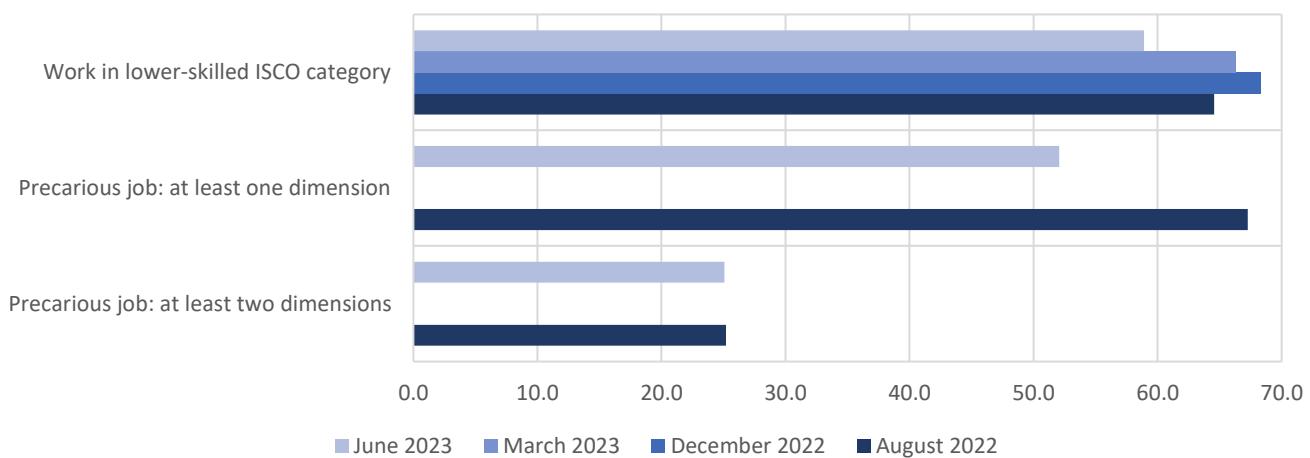
Note: Data weighted by post-stratification weights.

Source: Voice of Ukrainians survey.

As the largest share of displaced people worked in the highest-skilled occupations in Ukraine and are now engaged in the lowest-skilled occupations in Czechia, they mostly work below their qualifications. Generally, the higher the occupational position held in Ukraine, the greater the likelihood of working in a job below their qualification in Czechia. Throughout the waves, the highest percentage is in the ISCO1 category (87% in June 2023), followed by ISCO3 (78%) and ISCO4 (71%), with a notable gap between ISCO1 and both ISCO3 and ISCO4 categories across all waves. Individuals who worked in ISCO2 occupations in Ukraine consistently show somewhat lower rates of underemployment in Czechia compared to other highly qualified professions (67% in June 2023), suggesting that they tend to find corresponding jobs more easily. Despite overall employment growth, the labour market and economic potential of qualified Ukrainians remains far from effectively utilised. As of June 2023, 59% of displaced people in Czechia worked in significantly less qualified jobs than they had in Ukraine (underemployed). However, this share significantly decreased from 65% in August 2022 (see Figure 6) and, therefore, the situation significantly improved in this sense. The disparity by gender was significant: 53% of Ukrainian men and 63% of Ukrainian women had jobs below their qualification level in June 2023.



Figure 6 Precarious employment and underemployment, % of those working in Czechia



Note: Data weighted by post-stratification weights.

Source: Voice of Ukrainians survey

In June 2023, more than half of displaced people (52%) worked in jobs that fulfilled at least one of the dimensions of precarious work, significantly down from 67% in August 2022, indicating improved working conditions for many Ukrainian workers. The proportion of workers whose jobs fulfilled at least two of the characteristics of precarious work was stable, at around one-quarter in both periods. Again, the gender difference in overall working conditions was significant: 23% of Ukrainian men and 29% of Ukrainian women had jobs that met at least two dimensions of precariousness as of June 2023, with the share whose jobs met at least one dimensions of precariousness at 53% of women compared to 50% of men.

In June 2023, instability and financial stress were the most prevalent dimensions. Almost half of the displaced people who worked in Czechia worked weekends or late evenings and a similar share believed that they earned less than other people (e.g. Czechs) who worked with them in the same position. About one-quarter had to do multiple jobs to make ends meet, and a similar share were notified of work at short notice. Some 18% worked in very demanding conditions, 18% claimed that their employer did not pay their health insurance, 15% worked through an employment agency, and 15% were not entitled to holiday. One-tenth of displaced people from Ukraine worked through an unofficial intermediary, about 5% often changed jobs, and about 4% said that their pay was often delayed.

Among Ukrainians, by far the mostly common barrier to finding a (better) job is their lack of knowledge of the Czech language. Other barriers include issues with recognition of qualifications, uncertainty about the future, and absence of pre-school education and childcare (see Figure 7). Generally, the data indicate no significant differences in the perception of barriers between displaced people already working in Czechia and wishing to find a better job, and those not currently working in Czechia. One exception is assessment of barriers related to childcare and education. Those who are not currently working in Czechia perceive childcare provision as a significantly higher barrier.



Almost one-tenth of displaced people were satisfied with their job in June 2023, twice as many as in August 2022.

Figure 7 What would help you the most to find a job in Czechia according to your preferences, if you want one? (shares of positive answers, %)



Note: Data weighted by post-stratification weights. More answers possible.

Source: Voice of Ukrainians survey.

According to the Voice of Ukrainians survey data, the wages of displaced people from Ukraine are generally lower than those of other employees in Czechia. In June 2023, the average net hourly wage of a refugee working in Czechia was CZK 192 (8.1 EUR)²⁵, with 15% working for a wage below or at the statutory minimum wage tariff (CZK 96 (4.1 EUR) hourly), down from 19% in August 2022. For the overall Czech labour market, the proportion of employees earning the minimum wage was estimated to be substantially lower, at 3% in 2018 (Eurostat, 2024b), with little substantial change in the long term. Despite (according to their assessment speaking better Czech and having the same level of education, displaced Ukrainian women more often work not only below their qualifications and in precarious jobs, but also for lower wages, compared to Ukrainian men. As of June 2023, the mean net hourly wage for Ukrainian women workers was CZK 170 (7.2 EUR), compared to CZK 220 (9.3 EUR) for men workers. This reflects a gender wage gap of 23%, which is higher than the overall gender pay gap in Czechia,(18% in 2022)²⁶. Similarly, the proportion of women paid less than the net hourly minimum wage was 18%, double that of men (9%).

RESULTS

²⁵ Converted at the average exchange rate of June 2023, 1 EUR = 23,696 CZK.

²⁶ Eurostat (online data code: sdg_05_20). The overall figure refers to gross wages, while the Ukrainian wage gap is based on net wages. Due to the de facto progressive nature of wage taxation in Czechia, the overall wage gap might be smaller if expressed in net terms.



This section presents the findings of empirical analyses uncovering determinants of labour market outcomes and dynamics of displaced people from Ukraine in Czechia. These results should be read in light of the specific structure of the displaced population from Ukraine, particularly the significantly higher number of women compared to men. The majority of these women bear household and child-care responsibilities alone, without a partner, which influences the types of jobs they are able to pursue.

WORKING IN A STANDARD OR PRECARIOUS JOB

Figure 8 and Figure 9 present the results of multinomial logit regressions, analysing factors associated with the labour market status of displaced people from Ukraine in August 2022 (W2) and June 2023 (W6). Work is classified as precarious if the Precarious Work Index value is 1 or higher, i.e. if the respondents' work is precarious in at least one dimension (Model 1). The estimates are presented for both the overall sample and for women specifically.²⁷

While working in a standard job serves as the reference category for labour market status, the figures report the estimated coefficients transformed into relative-risk ratios for being in a specified labour market state compared to working in a standard job²⁸. Figure 8 shows relative-risk ratios of being non-working compared to working in a standard job across various explanatory variables, while Figure 9 shows the relative-risk ratios for working in a precarious job compared to working in a standard job. A relative-risk ratio greater than 1 indicates a higher relative risk associated with the specific factor, whereas a ratio lower than 1 indicates a lower relative risk. For example, the first bar of Figure 8 shows that in June 2023, the relative risk of being non-working compared to working in a standard job was significantly higher – 2.32 times higher – for displaced women compared to displaced men.

The results suggest that between the initial period shortly after the onset of Russia's war of aggression against Ukraine and more than a year later, the determinants of labour market status underwent slight changes. In the early period (August 2022), demographic factors such as gender and age generally did not significantly influence the probability of being non-working versus working in a standard job (Figure 8). However, by June 2023, these factors had become significant: apart from the increased relative risk for women, displaced individuals aged 25-34 and 55-64 had a significantly higher relative risk of being non-working compared to those aged 35-44 – this pattern was evident both for the total sample and for women specifically; women aged 45-54 also faced a significantly higher risk of being non-working.

In August 2022, displaced individuals with primary education had a significantly higher relative risk of being non-working over working in a standard job compared to those with tertiary education. By

²⁷ Estimates for a precarious work index value of 2 or higher (Model 2) are provided in the Appendix (Table A3, Table A4) along with the full result tables for Model 1 (Table A1, Table A2). In the tables in the Appendix, two specifications are offered under each sample, one defined for all respondents (columns 1-2 and 5-6) and one for respondents who indicated working in Ukraine (columns 3-4 and 7-8). Figure 88 only displays results of specifications (3) and (7), Figure 99 only displays results of specifications (4) and (8).

²⁸ Relative-risk ratio is an exponentiated version of the estimated coefficient.



contrast, in June 2023, having vocational education significantly reduced the relative risk of being non-working compared to those with tertiary education. Nearly one-third of those with tertiary education worked in healthcare or education in Ukraine – professions that are often regulated and may not have easily recognised and transferable qualifications. The persistent shortage of skilled craftsmen and other workers with vocational education in the Czech labour market and the relative ease of their qualification recognition (compared to highly qualified workers in education and health sectors) may enable these workers to find a job more easily.

Looking at household structure, the presence of children not attending any (pre-)school education (either under six years old or aged 7-10) significantly increased the relative risk of being non-working in both the total sample and for women in August 2022. However, by June 2023, this effect remained significant only for women. Similarly, in June 2023, the presence of children under six in the household (regardless of whether they attended pre-school) had a more significant impact on women compared to the overall sample. Having a partner in the household also significantly increased the relative risk of being non-working for women, suggesting that while household structure significantly affected all displaced individuals initially in 2022 (likely because integration into the labour market and education systems of the host country requires time), by 2023, this effect remained significant only for women. Women's participation in the labour market thus continued to be substantially hampered by their motherhood and household duties, which no longer seemed to be the case for men. This may be driven by the prevailing traditional division of family roles, where men are seen as breadwinners and women as primary caregivers responsible for children and household duties, especially in adapting to situations where (pre-)school attendance remains frequently problematic.

Looking at Czech language skills, attending a Czech course significantly reduced the relative risk of being non-working in the total sample in August 2022. However, this effect was not observed separately for women, despite women attending Czech language courses more frequently than men (53% of all women vs 46% of all men). By June 2023, having a good command of Czech and arriving in Czechia before June 2022 significantly lowered the relative risk of being non-working, suggesting that successful labour market integration requires time and obtaining language skills is a crucial pre-determinant.

Receiving humanitarian or other benefits was associated with a substantially elevated relative risk of being non-working, with a growing effect over the period and a larger impact on women in each period. Similarly, using public employment services to search for a job was associated with a significantly higher risk of being non-working in August 2022. However, for both variables, the direction of causality may be ambiguous. Absence of work implies lack of work income and thus greater dependence on other sources of income, such as benefits from the state. The reverse is also true: getting a job and securing work income usually means losing entitlement to benefits, including humanitarian benefits. Similarly, those individuals without work may be more inclined to use the public employment services (PES) in their search for work. Nevertheless, these results may also indicate that PES faced challenges in effectively placing jobseekers during the initial period. The data for the later period do



not provide this information, preventing examination of this effect in 2023 or identification of causal trends.

In June 2023, plans to return to Ukraine were associated with a higher relative risk of being non-working, in line with expectations (an insignificant factor in August 2022). The great uncertainty surrounding the war's progression in 2022 likely contributed to the insignificant impact of return plans during that initial period. However, by 2023, as the war's prolonged nature became more apparent, plans to return may have been based on more realistic expectations, significantly reducing the likelihood of participation in the Czech labour market.

Looking at the factors related to the relative risk of working in a precarious job over working in a standard job (see Figure 9), fewer explanatory variables showed significant effects. Among demographic factors, the effect of age is not straightforward or robust. Having a secondary educational degree (compared to tertiary degree) increased the relative risk of working in a precarious job, although this was not significant in August 2022. Living in a household with a partner significantly reduced the likelihood of precarious work in August 2022. This suggests that sharing both household responsibilities and expenses with a partner enabled displaced persons to avoid accepting precarious work, giving them the opportunity to seek and secure more stable employment. They could afford to spend more time searching for a better job, relying on their partner for financial security. Having children aged 7-10 not attending primary school increased the relative risk of working in precarious conditions for women in both periods, with the effect intensifying over time. Apparently, those women whose children attended education were more likely to find a standard job and avoid precarious work. The insignificant effect observed in the total sample indicates that this was not the case for men.

By June 2023, living in non-residential housing was associated with an increased relative risk of working in a precarious job, as was receiving humanitarian or other benefits. Again, the causality in both cases may be ambiguous. Contrary to expectations, planning to return to Ukraine was associated with a lower relative risk of working in precarious conditions in August 2022, particularly for women. However, this effect was insignificant for women but significant and positive (i.e. increasing the relative-risk of precarious work) for the total sample a year later.

Previous work experience in the health or education sectors in Ukraine increased the relative risk of working in a precarious job in the total sample and for women in June 2023, indicating that qualification recognition in these two sectors may be a serious barrier in searching for a standard job in line with their qualifications. For women, arriving in Czechia before June 2022 also significantly reduced the relative risk of working in a precarious job, again indicating that successful labour market integration of displaced people takes a longer time.

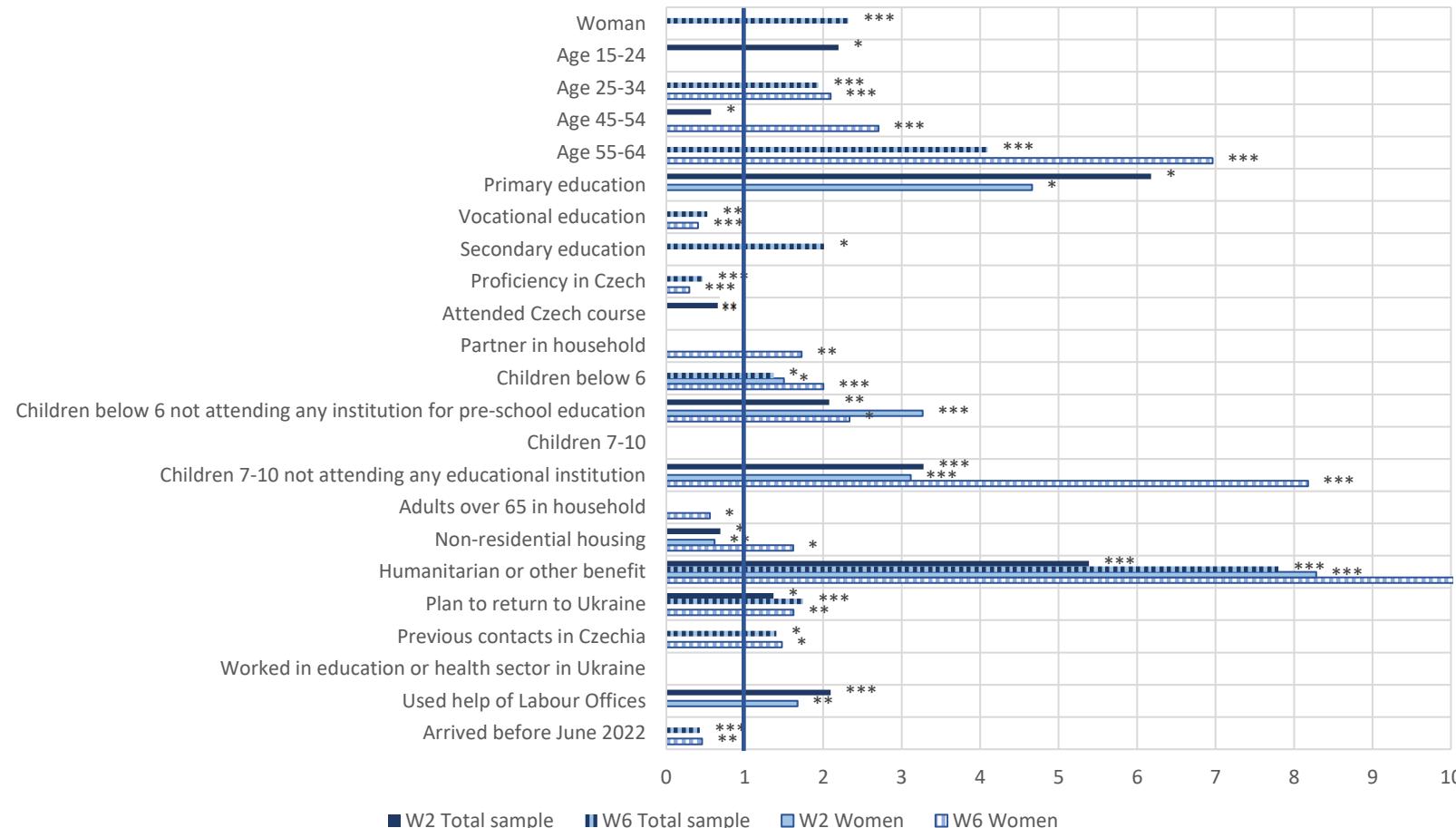
Finally, in estimations of the determinants of being non-working or working in precarious jobs, work is defined as precarious if it meets at least two dimensions of precariousness (Precarious Work Index of 2 or higher). These primarily serve as robustness checks (see Table A3 and Table A4 in the Appendix). In general, the estimation results confirm the patterns discussed, with some notable distinctions.



In August 2022, the age pattern of non-employment became more evident: younger age groups had a higher risk of being non-working compared to working in a standard job, while a year later, older displaced individuals (over 55) faced an increased likelihood of being non-working. Proficiency in Czech emerged as a significant factor reducing the relative risk of being non-working in both periods, while plans to return to Ukraine significantly increased this risk. The intention to return also increased the relative risk of working in a precarious job in the total sample in June 2023 (although not for women). In June 2023, women continued to face an increased relative risk of being non-working but also a reduced relative risk of working in a precarious job. On the other hand, the presence of children under six and the presence of children under six not attending any pre-school education were both significantly associated with a significantly higher relative risk of being non-working in both periods, with the effect substantially greater for children not in pre-school education. Finally, previous work in health and education sectors in Ukraine was not a significant factor in determining precarious work, neither for women nor for the total sample. While such experience increased the relative risk of working in a 'modestly' precarious job (Precarious Work Index of 1 or higher), it did not increase the relative risk of working in a 'substantially' precarious job (Precarious Work Index of 2 or higher).



Figure 8 Results of multinomial logit regressions: being non-working (Precarious Work Index ≥ 1), August 2022 (W2) and June 2023 (W6)

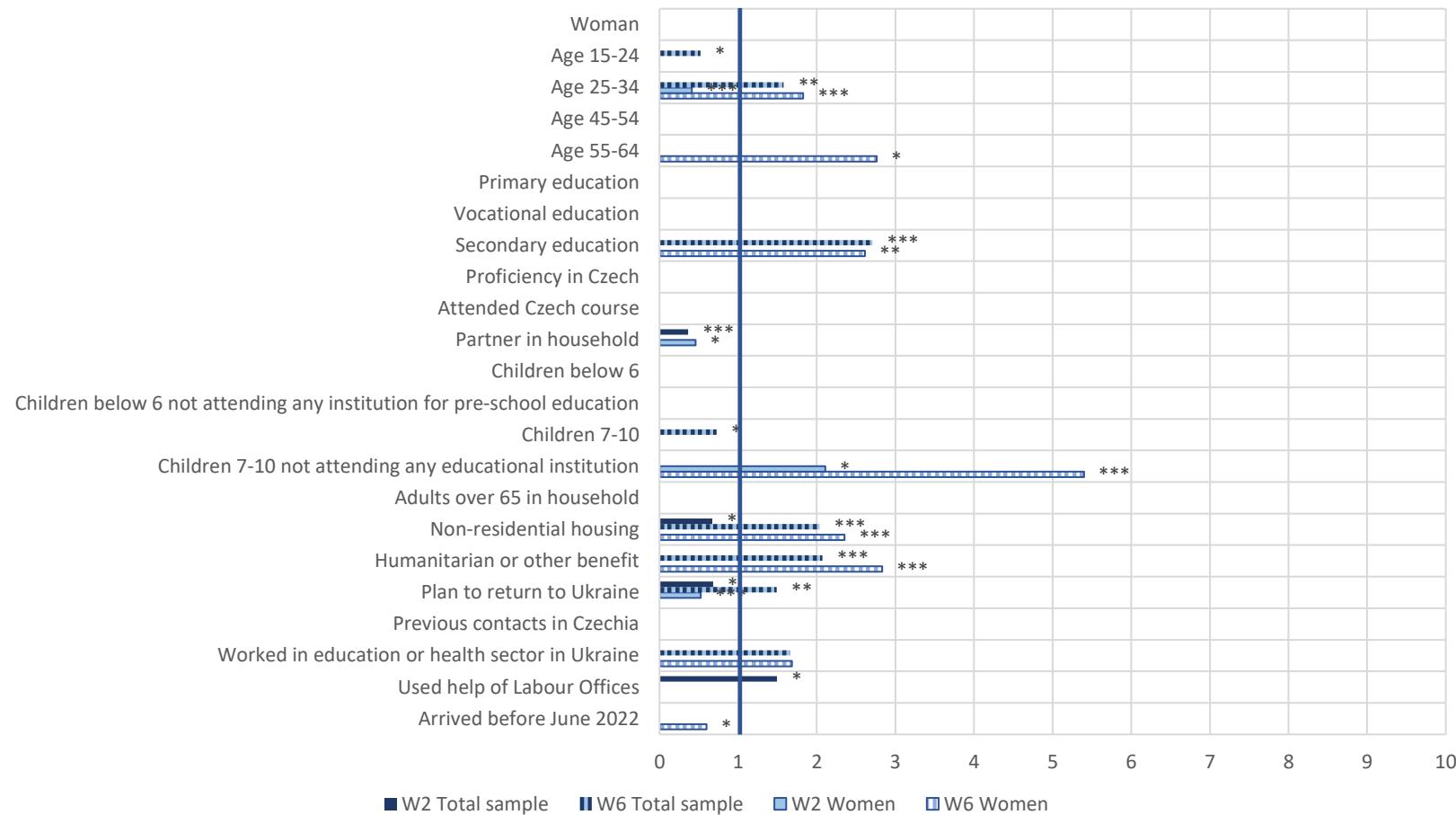


Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Insignificant values not displayed. Full results available in Table A1 and Table A2 in the Appendix, specifications (3) and (7) of these tables displayed. Data weighted by post-stratification weights.

Source: Authors' calculations based on Voice of Ukrainians survey.



Figure 9 Results of multinomial logit regressions: working in a precarious job (Model 1, Precarious Work Index ≥ 1), August 2022 (W2) and June 2023 (W6)



Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Insignificant values not displayed. Full results available in Table A1 and Table A2 in the Appendix, specifications (4) and (8) of these tables displayed. Data weighted by post-stratification weights.

Source: Authors' calculations based on Voice of Ukrainians survey.



TRANSITIONS BETWEEN LABOUR MARKET STATES

Figure 10 presents the results of logit regressions estimating the likelihood of transitions between different labour market states (Models 3-5). Separate models are estimated for the total sample and for women for each transition. Two specifications are analysed as robustness checks: one including only individual and household characteristics with no missing values, and another including additional variables with missing values.

The results show marginal effects on the probability of transitioning from one labour market state to another. Marginal effects at means are reported, as they provide more straightforward and insightful interpretations than estimated coefficients. A marginal effect quantifies the estimated result as a difference in probabilities and represents the influence of a specific explanatory factor while holding all other factors at their sample-mean values. For example, a value of 0.163 for proficiency in Czech indicates that having a good command of the Czech language significantly increases the likelihood of transitioning from non-working to working status by 16.3 percentage points (pp). Negative values indicate negative effects.

Generally, similar drivers are significantly related to the likelihood of transitioning from non-working to working status and from unemployment to work. The two most important factors increasing these likelihoods were proficiency in Czech, with a stronger effect for women, and having a vocational education. While the Czech labour market persistently lacks skilled craftsmen and other workers with vocational education, the relative ease of qualification recognition (compared to highly qualified workers in the education and health sectors) may have enabled these workers to find a job more easily than those with a tertiary educational degree. The results underline the crucial importance of knowledge of the host country language for finding a job. By contrast, the presence of children under the age of six in the household significantly reduced the likelihood of transitioning to work. For women, having children under six who were not attending any pre-school institution also had a significant adverse effect. Additionally, displaced individuals older than 45 faced a reduced likelihood of transitioning, although this effect was not robust across all specifications.

The likelihood of transitioning from a precarious job to a standard job was lower for displaced individuals aged 25-34 and those with previous work experience in the health and education sectors in Ukraine. This suggests that lack of previous experience related to lower age, as well as work experience in regulated professions and sectors that is hardly transferable to the host country, are important factors in increasing displaced individuals' likelihood of precarious employment. In the total sample, living with a partner showed a significant positive effect, which did not manifest in the women sample, suggesting that this effect primarily concerns men, whose female partners take care of the household, increasing men's likelihood of finding a standard job. Proficiency in Czech had a significant positive effect for women only, suggesting that other factors may have played a more prominent

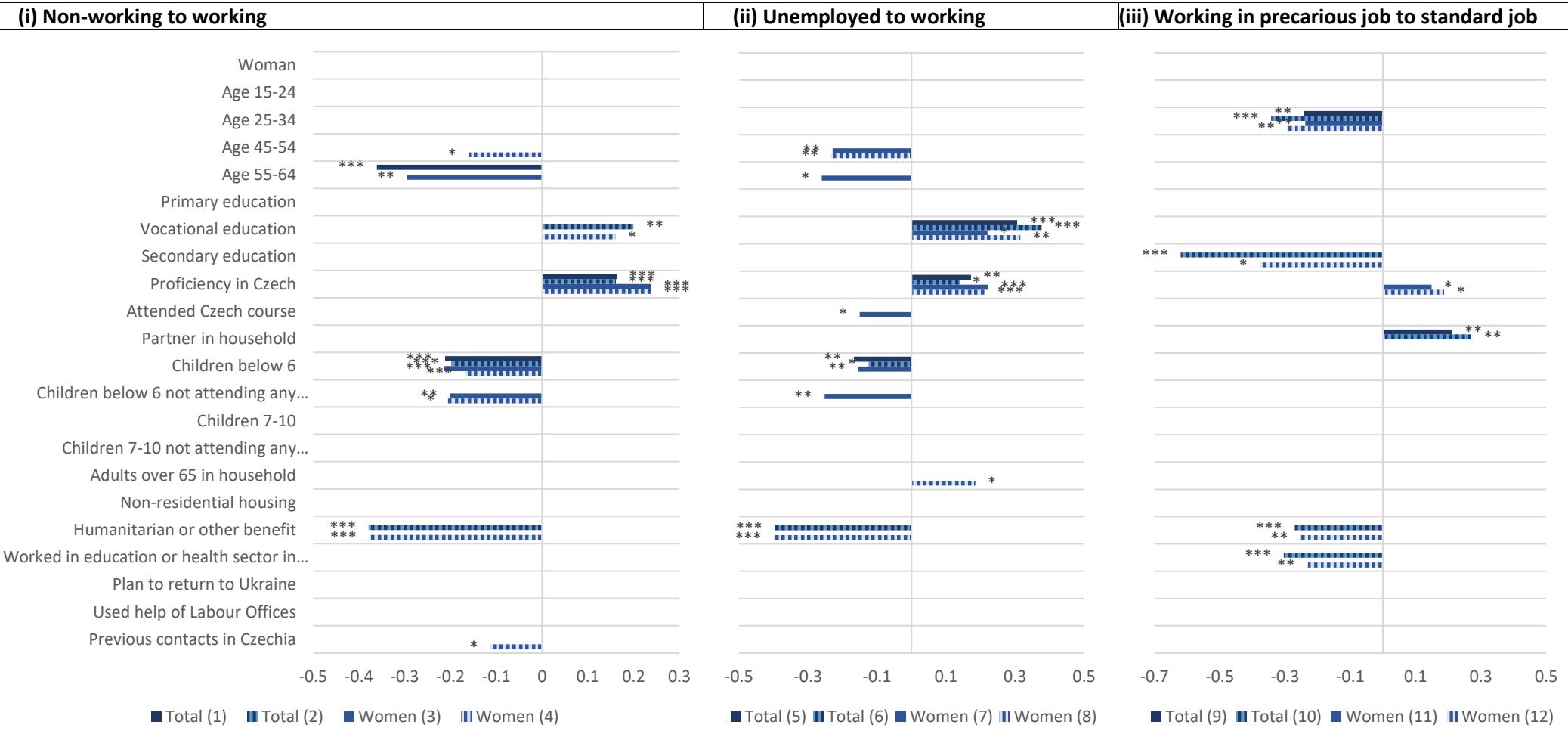


role for men. The effect of attending Czech courses and educational attainment of respondents was neither significant nor robust across the estimation results.

Finally, receiving humanitarian or other state benefits was associated with a substantially reduced likelihood of transitioning to work and to a standard job. This may reflect the fact that these benefits target displaced individuals in need and securing income by work – particularly work in a standard job – usually means losing entitlement to such benefits. Drawing benefits is thus mainly associated with having no work (and related stable income). It may also suggest that those receiving benefits are likely to be in greater need and therefore less able to enter the workforce immediately.



Figure 10 Results of logit regressions: transitions between different labour market statuses



Note: Dependent variable (binary) specified in the first row. Marginal effects at means reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Insignificant values not displayed. Data weighted by post-stratification weights. Regional dummies not covered due to low number of observations. Precarious work defined as Precarious Work Index ≥ 1 , i.e. work precarious in at least one dimension. Full results available in Table A5 in the Appendix. Number in the legend refers to column number denoting model specification in Table A5.

Source: Authors' calculations based on Voice of Ukrainians survey.



UNDEREMPLOYMENT

Figure 11 presents the results of panel logit regressions estimating the probability of a displaced Ukrainian person working in a job below their qualifications (Model 6; full results available in Appendix Table A6). Marginal effects at means are displayed, both for the full sample and for women only. To illustrate, the first bar shows that when comparing two otherwise similar displaced individuals – one man and one woman – the woman’s probability of working in an underqualified job is 28.5 pp higher, and this result is statistically significant. This finding suggests that women are generally more likely than men to work below their qualification level.

While age does not appear to be a significant driver of underemployment, having vocational education significantly reduces the probability of working in an underqualified job in the overall sample (not observed separately for women). This may be because these workers are more successful in aligning their qualifications with their jobs due to the persistent unmet demand for skilled craftsmen in the Czech economy. It could also be because this level of education did not enable these individuals to attain higher-qualified jobs in Ukraine, reducing the likelihood of them working below their qualification level in Czechia.

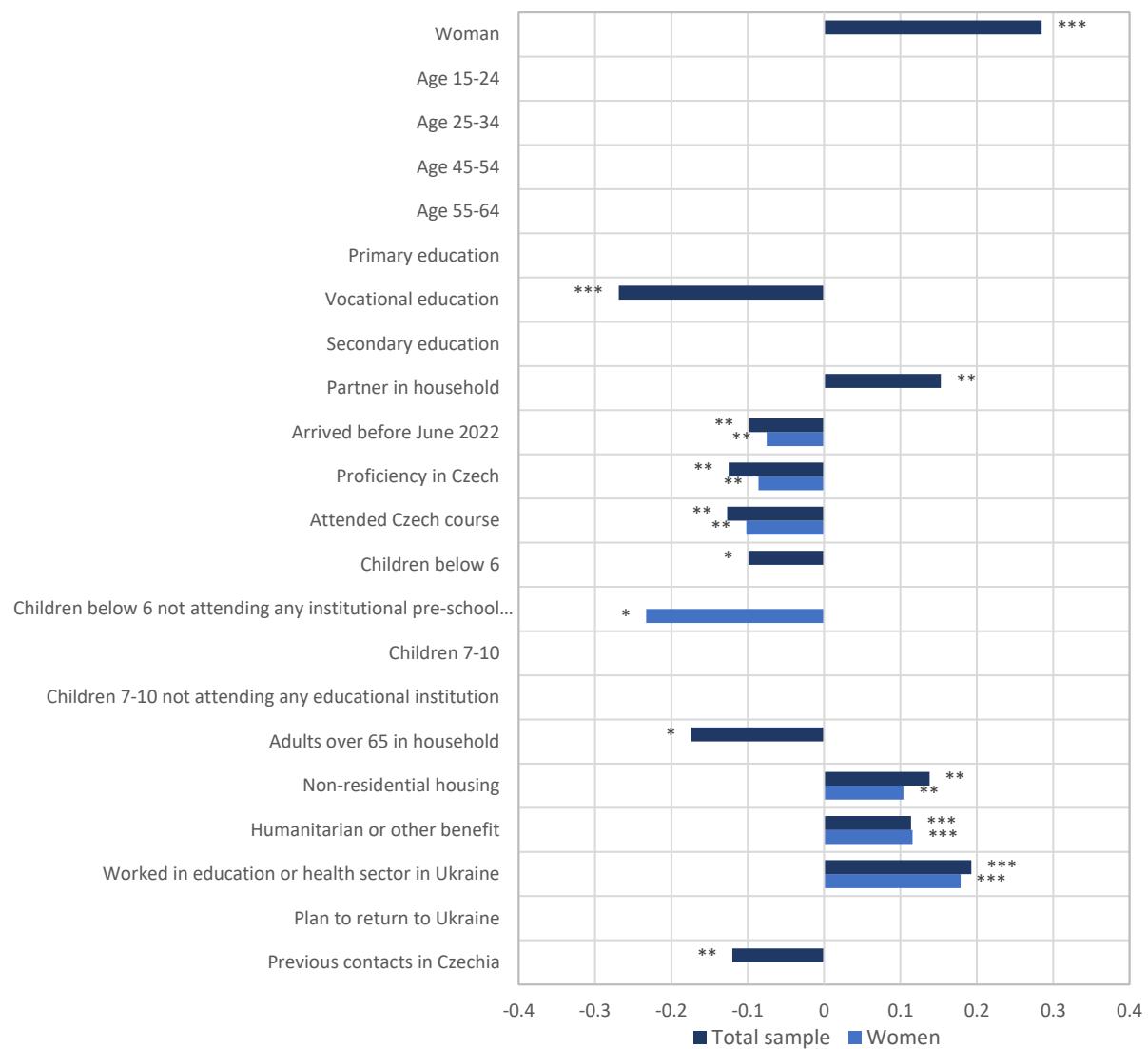
Those who arrived in Czechia before June 2022, those who have a good command of Czech, and those who have attended a Czech course all had a lower probability of working in a job below their qualifications. This suggests that acquiring language skills is essential for securing a job in line with qualifications and underscores that successful labour market integration takes some time.

Living in non-residential housing, receiving humanitarian or other state benefits, and having previous work experience in the education or health sector in Ukraine significantly increased people’s probability of working in a job below their qualifications. This reinforces earlier findings that displaced persons who were previously employed in these two specific sectors in Ukraine face challenges in finding jobs that match their qualifications in Czechia. It also suggests that working in a job below their qualification level is significantly associated with a person’s reliance on state benefits, most likely because work income is not enough to make ends meet. Plans to return to Ukraine were not a significant factor in this context. Similarly, the effects of household structure (presence of children or older adults) were only weakly significant and not robust.

While women were generally more likely to work in underqualified jobs, they also faced some distinct factors affecting this probability compared to the overall sample, indicating that some factors mainly affected men. The presence of a partner in the household significantly increased the likelihood of working in an underqualified job in the total sample, indicating that men living with a partner are more likely to accept an underqualified job, potentially related to their bread-winning role in the family. Having prior contacts in Czechia significantly reduced the probability of being underemployed in the total sample, but not in the separate women’s sample, indicating that utilisation of social networks in searching for a suitable job may be particularly important for men.



Figure 11 Results of panel logit regressions: probability of working in job below respondent's qualification (Model 6)



*Note: Dependent variable (binary): working in a job below respondent's qualification (reference group = working in a job with a corresponding/higher level of qualification). Marginal effects at means reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively. Insignificant values not displayed. Full results available in Table A6 in the Appendix. Data weighted by post-stratification weights.*

Source: Authors' calculations based on Voice of Ukrainians survey.



CONCLUSION AND POLICY IMPLICATIONS

The research note explores the labour market integration of displaced people from Ukraine in Czechia, a country that has experienced one of the largest absolute and relative number of arrivals of displaced people since the outbreak of Russia's war of aggression against Ukraine. Using unique data from the longitudinal Voice of Ukrainians survey on the integration of displaced people from Ukraine in Czechia, it identifies factors affecting labour market outcomes and dynamics of displaced individuals, with a special focus on the situation of women, who account for majority of the displaced population.

The integration of displaced people from Ukraine into the Czech labour market is gradually improving. The proportion of those of working age who managed to find work in Czechia increased from 37% in August 2022 to 59% by June 2023. While the share of those working remotely in Ukraine remains relatively stable, at around 17%, the proportion of those not working at all decreased from 56% to 35% during the same period.

Displaced Ukrainians in Czechia are generally highly educated, having held skilled positions in Ukraine. However, their employment situation in Czechia has often been different. A large portion of Ukrainian workers held low-skilled jobs initially, but there has been a considerable improvement over time. However, many are still employed below their qualifications: as of June 2023, 59% were working in positions that required significantly lower qualifications than their previous roles in Ukraine. Additionally, more than half were in jobs that met at least one criterion of precarious work. However, this number has declined substantially since 2022, indicating improved working conditions for many Ukrainian workers in Czechia.

Significant gender disparities persist in labour market outcomes, with women experiencing less favourable results in labour market participation and a higher likelihood of being engaged in under-qualified and precarious jobs compared to men. The results also indicate that the labour market and economic potential of qualified Ukrainians in Czechia remains largely untapped.

Analysis results from August 2022 to June 2023 reveal that the factors influencing labour market status have shifted, with gender and age becoming more significant in determining whether an individual works. More specifically, displaced women aged 25-34 and over 45 faced a higher relative risk of being non-working compared to those aged 35-44. Overall, women are significantly more likely than men to be non-working or working in positions below their qualifications.

Household structure, particularly the presence of young children, has a significant impact on labour market status and dynamics, with some patterns specific to women. In August 2022, having children not enrolled in any (pre-)school education increased the risk of being non-working, an effect that



persisted and even intensified for women by June 2023, while the presence of a husband or partner in the household further reduced women's likelihood of work. For women, having children not attending primary school also raised the likelihood of working in precarious conditions, highlighting the importance of securing educational placements for their children in order to find stable employment and avoid precarious work. The presence of children, especially those not enrolled in (pre-)school education, not only decreased the likelihood of work but made it more difficult to transition into work, with these effects being stronger for women. As a result, women's labour market outcomes remained substantially hindered by childcare responsibilities and family duties, pushing them towards inactivity or less secure jobs. However, the findings also suggest that men living with a partner were more likely to accept jobs below their qualifications, possibly due to a perceived breadwinner role. Given the specific structure of the displaced population from Ukraine (i.e. significantly higher number of women compared to men, and disproportionately greater number of single mothers compared to single fathers), these results highlight the lasting serious challenges for the successful integration of displaced women and their children into the Czech labour market and education system.

Proficiency in the Czech language emerges as a crucial factor for securing employment. Attending language courses and having a strong command of Czech significantly reduced the risk of being non-working and underemployed, and increased the chances of transitioning to work. These findings underscore the importance of language acquisition for successful labour market integration.

Displaced individuals with vocational education were less likely to be non-working or working below their qualifications and more likely to transition from unemployment into work, as their skills aligned with the Czech labour market's demand for skilled craftsmen. This suggests that vocational training may offer a more direct path to employment for displaced individuals, compared to higher education degrees. Nearly one-third of those with tertiary education worked in healthcare or education in Ukraine, in professions that are often highly regulated and may not have easily recognised and transferable qualifications. The results indicate that prior work experience in these sectors in Ukraine significantly increased the likelihood of people being employed in precarious jobs or in positions below their qualifications. This suggests that displaced persons from these sectors continue to face challenges in finding jobs that match their qualifications in Czechia.

The analysis revealed a relationship between social policy and labour market outcomes for displaced people. Receiving humanitarian or other state benefits was significantly associated with a higher likelihood of being non-working, working in precarious jobs, or working below qualification level, and a lower chance of transitioning to work or to a standard job. This may reflect the fact that individuals lacking stable and adequate work income rely more on state benefits. Benefit schemes might inadvertently create barriers to labour market participation, especially in lower paying jobs and depending also on the generosity of the benefit. Living in non-residential housing was linked to a higher risk of precarious work and underemployment, further complicating labour market integration for displaced individuals. Similar to state benefits, the causality is unclear, as the lack of stable work income may prevent individuals from affording standard housing.



Finally, the analysis found that displaced individuals who arrived in Czechia before June 2022 experienced more favourable labour market outcomes compared to those who arrived later. They were less likely to be non-working, working in precarious jobs, or employed below their qualification levels. These outcomes suggest that successful integration into the host country's labour market takes time, although the effect may be partly due to changes in the Czech labour market driven by arrival of new workers, reducing the supply of unfilled vacancies and, thus, tightness of certain labour market segments.

The policy implications of these findings may be relevant to other countries experiencing a significant arriving number of displaced people from Ukraine. Implications span several key areas:

1. Language training programmes: Given the critical role of Czech language proficiency in securing employment, expanding and enhancing access to language courses improves labour market outcomes.
2. Childcare services: More accessible and affordable pre-school childcare services, as well as improved access to the first stage of the education system (primary school), help to reduce the barriers to employment for women, particularly those with young children.
3. Qualification recognition in specific sectors: Addressing the challenges of qualification recognition, particularly in the education and health sectors, is crucial. Developing clear pathways to recognise the qualifications of displaced individuals from Ukraine could reduce the risk of underemployment and precarious work and use their expertise more effectively.
4. Benefit provision: Structuring benefits to incentivise employment for those who can work is key to avoid the unintended consequences of benefit dependence.



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LIST OF ABBREVIATIONS

CAWI	computer-assisted web interviewing
CEE	Central and Eastern Europe
CNB	Czech National Bank
CZ	Czechia
ECB	European Central Bank
EMN	European Migration Network
ESDE	Employment and Social Developments in Europe
EU	European Union
EUAA	European Union Agency for Asylum
FRA	European Union Agency for Fundamental Rights
ILO	The International Labour Organization
IOM	International Organization for Migration
ISCO	International Standard Classification of Occupations
ISPV	Average Earnings Information System
JRC	Joint Research Centre
OECD	Organisation for Economic Co-operation and Development
SUIP	State Labour Inspection Office (Státní úřad inspekce práce)
UA	Ukraine
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund



APPENDIX



Table A1 Results of multinomial logit regressions: being non-working or working in precarious job (Model 1, Precarious Work Index ≥ 1), August 2022

	Total sample				Women only			
	Non-working	Precarious work	Non-working	Precarious work	Non-working	Precarious work	Non-working	Precarious work
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Woman	1.276	0.918	1.241	0.757				
Age 15-24	2.412**	1.851	2.193*	1.846	1.696	1.021	1.410	0.944
Age 25-34	1.243	0.773	1.172	0.714	1.069	0.468***	1.010	0.410***
Age 45-54	0.714	0.678	0.571*	0.615	1.037	0.924	0.878	0.828
Age 55-64	1.829	0.823	1.797	0.784	1.548	0.717	1.302	0.480
Primary education	4.046*	2.493	6.178*	2.462	2.608	1.545	4.661*	0.660
Vocational education	0.999	1.493	1.013	1.493	1.166	1.645	1.085	1.488
Secondary education	1.775*	1.181	1.595	1.396	1.736*	1.233	1.528	1.074
Proficiency in Czech	0.689	1.117	0.693	1.230	0.778	1.061	0.716	1.091
Attended Czech course	0.692*	0.758	0.655**	0.743	0.780	0.882	0.768	0.886
Partner in household	0.725	0.426**	0.608	0.363***	0.890	0.486*	0.691	0.459*
Children below 6	1.361*	0.834	1.390	0.844	1.512*	0.764	1.501*	0.693
Children below 6 not attending any institution for pre-school educ.	2.236**	1.571	2.075**	1.519	3.497***	1.741	3.269***	1.801
Children 7-10	0.769	1.215	0.770	1.212	0.736	1.055	0.752	1.034
Children 7-10 not attending any educational institution	3.409***	1.835	3.278***	1.871	3.254***	2.026*	3.116***	2.107*
Adults over 65 in household	1.544	0.796	1.555	0.845	0.801	0.625	0.811	0.649
Non-residential housing	0.765	0.759	0.688*	0.671*	0.674*	0.756	0.614**	0.676
Humanitarian or other benefit	5.438***	0.934	5.386***	0.932	7.695***	1.004	8.283***	1.059
Plan to return to Ukraine	1.378*	0.771	1.365*	0.682*	0.978	0.584***	0.977	0.523***
Used help of Labour Offices	2.069***	1.542*	2.094***	1.494*	1.710**	1.142	1.673**	1.066
Previous contacts in Czechia	1.076	0.851	1.137	0.896	1.125	0.921	1.178	0.921
Worked in education or health sector in Ukraine			0.929	1.078			0.744	0.868
Central Bohemia	0.991	2.064**	1.069	2.281**	1.127	1.802*	1.220	1.885*
Southwest	0.892	1.790**	0.969	1.821**	0.989	1.563	1.029	1.472
Northwest	1.296	1.450	1.707	1.686	1.392	1.691	1.587	1.561
Northeast	0.967	1.528	1.076	1.620	1.299	2.001**	1.571	2.016*
Southeast	0.990	1.288	1.015	1.505	1.237	1.499	1.363	1.732
Central Moravia	0.693	1.472	0.554	1.439	1.330	2.938**	1.137	2.830**
Moravian-Silesian	0.859	1.093	0.975	0.954	1.322	1.063	1.584	0.743
Constant	0.331***	1.316	0.334**	1.576	0.322***	1.583	0.323***	1.973*
Observations	1,353		1,215		1,176		1,059	
r2_p	0.135		0.141		0.155		0.164	
ll	-1203		-1080		-834.8		-751.2	
chi2	223.4		220.2		252.3		246.8	
p	0		0		0		0	

Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Data weighted by post-stratification weights.

Source: Authors' calculations based on Voice of Ukrainians survey.



Table A2 Results of multinomial logit regressions: being non-working or working in precarious job (Model 1, Precarious Work Index ≥ 1), June 2023

	Total sample				Women only			
	Non-work-	Precarious	Non-work-	Precarious	Non-work-	Precarious	Non-work-	Precarious
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Woman	2.048***	1.417*	2.322***	1.417				
Age 15-24	1.430	0.714	1.062	0.520*	2.098*	0.887	2.067	1.079
Age 25-34	1.674**	1.404*	1.939***	1.579**	1.815**	1.617**	2.094***	1.828***
Age 45-54	0.990	0.694	1.013	0.714	2.344***	1.244	2.705***	1.306
Age 55-64	3.149***	1.684	4.096***	1.976	5.091***	2.275	6.963***	2.764*
Primary education	1.861	1.625	1.063	1.982	0.384	0.000	0.128	0.000
Vocational education	0.706	1.258	0.524**	1.172	0.430***	0.837	0.405***	0.849
Secondary education	2.197**	2.071**	2.011*	2.709***	2.083*	2.068*	1.785	2.614**
Proficiency in Czech	0.492***	0.951	0.464***	1.053	0.342***	0.917	0.295***	0.865
Attended Czech course	0.845	0.899	0.740	0.876	0.958	0.972	0.941	1.034
Partner in household	1.330	1.228	1.336	1.340	1.815**	1.295	1.724**	1.234
Children below 6	1.218	0.730*	1.369*	0.782	1.763***	0.782	2.004***	0.858
Children below 6 not attending any institution for pre-school educa-	1.407	0.592	1.466	0.621	2.052*	0.792	2.337*	0.875
Children 7-10	0.940	0.734*	0.917	0.726*	1.363	0.961	1.312	1.038
Children 7-10 not attending any educational institution	2.409	2.813	2.506	2.395	7.030***	6.113***	8.178***	5.398***
Adults over 65 in household	0.988	1.044	1.076	1.118	0.557*	0.779	0.555*	0.811
Non-residential housing	1.393	1.662**	1.441	2.036***	1.429	1.857**	1.616*	2.353***
Humanitarian or other benefit	7.506***	1.833***	7.802***	2.072***	13.452***	2.725***	13.085***	2.831***
Plan to return to Ukraine	1.953***	1.521**	1.745***	1.489**	1.700***	1.319	1.623**	1.309
Previous contacts in Czechia	1.231	1.142	1.403*	1.089	1.266	0.976	1.474*	1.032
Worked in education or health sector in Ukraine			1.202	1.659**			1.164	1.683**
Arrived before June 2022	0.579**	0.802	0.428***	0.666	0.455***	0.560**	0.458**	0.599*
Central Bohemia	0.436***	0.706	0.440**	0.674	0.587	0.604	0.614	0.599
Southwest	0.806	0.814	0.900	0.742	0.840	0.716	0.708	0.548*
Northwest	1.163	0.600	1.217	0.450**	1.026	0.510*	0.905	0.441**
Northeast	0.505**	0.604*	0.620	0.609	0.729	0.561*	0.671	0.500**
Southeast	0.649	0.686	0.747	0.622	0.842	0.869	0.982	0.833
Central Moravia	0.445**	0.547*	0.420**	0.474**	0.588	0.508*	0.378**	0.440**
Moravian-Silesian	0.562	0.421**	0.711	0.426**	0.853	0.473*	1.132	0.544
Constant	0.246***	0.721	0.196***	0.579	0.251***	0.906	0.219***	0.668
Observations	1,316		1,135		1,062		927	
r2_p	0.154		0.170		0.213		0.226	
II	-1177		-991.7		-736.3		-634.3	
chi2	287.9		267.5		2015		1766	
p	0		0		0		0	

Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Data weighted by post-stratification weights.

Source: Authors' calculations based on Voice of Ukrainians survey.



Table A3 Multinomial logit regressions results: non-working/working in precarious job (Model 2, Precarious Work Index ≥2), 08/2022

	Total sample				Women only			
	Non-working	Precarious work	Non-working	Precarious work	Non-working	Precarious work	Non-working	Precarious work
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Woman	1.195	0.630	1.255	0.560*				
Age 15-24	2.124**	2.784**	1.772*	2.104*	2.067**	2.286**	1.745	2.015
Age 25-34	1.445**	1.004	1.417*	0.989	1.542**	0.766	1.562**	0.793
Age 45-54	0.842	0.736	0.690	0.664	1.059	0.805	0.955	0.782
Age 55-64	1.936*	0.756	1.869	0.597	1.972	1.269	1.883	0.934
Primary education	2.704	2.145	9.374***	10.238**	1.802	0.569	7.701***	2.886
Vocational education	0.855	1.444	0.892	1.594	0.957	1.605	0.972	1.650
Secondary education	1.512	0.784	1.256	0.868	1.510	0.971	1.454	0.944
Proficiency in Czech	0.591***	0.682	0.573***	0.746	0.707*	0.741	0.654*	0.791
Attended Czech course	0.829	1.114	0.793	1.108	0.899	1.395	0.881	1.335
Partner in household	0.955	0.464	0.833	0.386*	1.120	0.451	0.832	0.323*
Children below 6	1.451**	0.863	1.471**	0.864	1.676***	0.815	1.714***	0.763
Children below 6 not attending any institution for pre-school education	2.040**	1.944	1.874**	1.718	2.803***	1.547	2.517***	1.262
Children 7-10	0.724*	1.228	0.717*	1.187	0.720*	1.009	0.732*	0.948
Children 7-10 not attending any educational institution	2.639***	1.766	2.579***	1.878	2.446***	2.070*	2.364***	2.374*
Adults over 65 in household	1.572*	0.620	1.545*	0.602	0.955	0.724	0.930	0.660
Non-residential housing	0.907	1.069	0.864	1.026	0.823	1.218	0.799	1.281
Humanitarian or other benefit	6.136***	1.521	6.233***	1.661*	8.070***	1.361	8.698***	1.639*
Plan to return to Ukraine	1.580***	0.932	1.640***	0.839	1.328*	1.019	1.361*	0.882
Used help of Labour Offices	1.778***	1.596*	1.863***	1.711*	1.791***	1.807**	1.849***	1.922**
Previous contacts in Czechia	1.250	1.284	1.271	1.219	1.292	1.550	1.324*	1.410
Worked in education or health sector in Ukraine			0.916	1.121			0.834	1.225
Central Bohemia	0.691	1.358	0.713	1.382	0.872	1.400	0.924	1.379
Southwest	0.692	1.379	0.706	1.038	0.818	1.274	0.821	0.909
Northwest	1.138	1.422	1.467	1.823	1.058	1.009	1.301	1.182
Northeast	0.824	1.477	0.888	1.479	0.897	1.070	1.087	1.087
Southeast	0.931	1.394	0.880	1.426	1.077	1.368	1.091	1.382
Central Moravia	0.610	1.402	0.501*	1.443	0.724	1.011	0.659	1.112
Moravian-Silesian	1.078	2.961*	1.397	3.610**	1.425	1.584	2.163	2.147
Constant	0.156***	0.128***	0.144***	0.140***	0.122***	0.079***	0.108***	0.077***
Observations	1,353		1,215		1,176		1,059	
r ² p	0.141		0.148		0.161		0.169	
LI	-1103		-986.3		-759.7		-680.3	
chi ²	205.7		206.0		242.5		235.7	
P	0		0		0		0	

Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Data weighted by post-stratification weights.

Source: Authors' calculations based on Voice of Ukrainians survey.



Table A4 Multinomial logit regressions results: non-working/working in precarious job (Model 2, Precarious Work Index≥2), June 2023

	Total sample					Women only		
	Non-working	Precarious work	Non-working	Precarious	Non-work-	Precarious	Non-work-	Precarious
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Woman	1.517**	0.680*	1.638**	0.596**				
Age 15-24	1.494	0.553	1.330	0.588	2.031**	0.647	1.846	0.764
Age 25-34	1.408*	1.049	1.502**	1.035	1.335	0.951	1.409	0.953
Age 45-54	1.018	0.560*	1.014	0.537**	1.732**	0.498**	1.940**	0.484**
Age 55-64	2.669***	1.584	2.759**	1.173	2.906**	0.981	2.842**	0.529
Primary education	1.432	1.120	0.716	1.249	0.811	0.000***	0.302	0.000***
Vocational education	0.625**	1.045	0.489***	1.100	0.471***	0.949	0.449***	1.001
Secondary education	1.462	1.179	1.216	1.501	1.335	1.218	0.977	1.217
Proficiency in Czech	0.516***	1.064	0.477***	1.179	0.366***	1.036	0.335***	1.103
Attended Czech course	0.897	1.002	0.815	1.063	0.946	0.887	0.899	0.915
Partner in household	1.145	0.866	1.116	0.922	1.458*	0.785	1.484*	0.898
Children below 6	1.315*	0.729	1.425**	0.738	1.965***	0.843	2.154***	0.898
Children below 6 not attending any institution for pre-school educa-	1.781**	0.929	1.923**	1.062	2.289**	0.938	2.468**	0.944
Children 7-10	1.012	0.696	0.987	0.658*	1.225	0.553**	1.144	0.590**
Children 7-10 not attending any educational institution	1.822	2.602	2.263	2.950	1.981	0.907	2.904	1.408
Adults over 65 in household	0.972	1.021	1.019	1.043	0.580*	0.650	0.576*	0.683
Non-residential housing	1.117	1.365	1.031	1.447	1.129	1.777**	1.089	1.887**
Humanitarian or other benefit	6.305***	1.836***	6.025***	1.764***	9.285***	2.560***	8.453***	2.332***
Plan to return to Ukraine	1.737***	1.555**	1.588***	1.607**	1.482**	1.149	1.434*	1.182
Previous contacts in Czechia	1.109	0.890	1.266	0.815	1.246	0.863	1.382*	0.833
Worked in education or health sector in Ukraine			0.921	1.133			0.870	1.192
Arrived before June 2022	0.598**	0.735	0.481***	0.671	0.524**	0.413**	0.515**	0.404**
Central Bohemia	0.427***	0.484**	0.456***	0.540*	0.592*	0.326***	0.663	0.395**
Southwest	0.763	0.595*	0.873	0.512**	0.831	0.472**	0.775	0.326***
Northwest	1.154	0.324**	1.449	0.365**	1.076	0.251***	1.091	0.287**
Northeast	0.550**	0.504**	0.694	0.549*	0.767	0.323***	0.782	0.345***
Southeast	0.664	0.532*	0.779	0.455**	0.695	0.364***	0.808	0.303***
Central Moravia	0.512*	0.521	0.510*	0.481*	0.780	0.642	0.559	0.657
Moravian-Silesian	0.693	0.480*	0.921	0.532	1.087	0.549	1.420	0.621
Constant	0.238***	0.603	0.213***	0.612	0.215***	0.596*	0.217***	0.527*
Observations	1,316		1,135		1,062		927	
r2	0.159		0.168		0.228		0.234	
LI	-1091		-928.4		-666.0		-577.6	
chi2	280.5		259.5		913.4		869.6	
P	0		0		0		0	

Note: Dependent variable: being non-working, working in a precarious job or working in a standard job (multinomial). Reference value = working in a standard job. Relative-risk ratios reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Data weighted by post-stratification weights.



Source: Authors' calculations based on Voice of Ukrainians survey.

Table A5 Results of logit regressions: transitions between different labour market statuses (Models 3-5)

	Non-working to working (Model 3)				Unemployed to working (Model 4)				Working in precarious job to working in standard job			
	Total		Women		Total		Women		Total		Women	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Woman	0.01	-0.045			0.055	0.01			-0.178	-0.146		
Age 15-24	-0.031	0.107	-0.131	0.022	0.01	0.064	-0.173	-0.102	0.321	0.24	0.159	0.026
Age 25-34	-0.034	-0.039	-0.029	0.005	0.024	-0.009	-0.025	-0.008	-0.242**	-0.342***	-0.238**	-0.293**
Age 45-54	-0.072	-0.047	-0.124	-0.16*	-0.141	-0.151	-0.229**	-0.233**	0.02	0.033	-0.084	-0.089
Age 55-64	-0.361***	-0.328	-0.295**	-0.264	-0.203	-0.197	-0.26*	-0.184	-0.098	0.231	-0.116	0.148
Primary education	-0.225	0.098	-0.055	0.218	-0.265	0.327	-0.055	0.402	0.000	0.000	0.000	0.000
Vocational education	0.097	0.2**	0.087	0.16*	0.306***	0.377***	0.22*	0.315**	0.048	0.02	0.041	0.007
Secondary education	-0.158	-0.156	-0.13	-0.082	-0.135	-0.219	-0.129	-0.148	-0.301	-0.619***	-0.166	-0.377*
Proficiency in Czech	0.163***	0.161***	0.238***	0.238***	0.172**	0.14*	0.222***	0.212***	0.114	0.138	0.149*	0.188*
Attended Czech course	0.001	-0.01	-0.06	-0.092	-0.009	-0.012	-0.15*	-0.139	-0.065	-0.051	-0.09	-0.148
Partner in household	0.075	0.094	0.046	0.021	0.099	0.062	0.077	0.028	0.212**	0.271**	0.111	0.131
Children below 6	-0.212***	-0.198***	-0.214***	-0.168***	-0.167**	-0.124*	-0.154**	-0.091	-0.122	-0.089	-0.052	-0.044
Children below 6 not attending any institution for pre-	-0.105	-0.064	-0.201**	-0.207*	-0.173	-0.109	-0.252**	-0.201	0.129	0.201	0.053	0.104
Children 7-10	-0.06	-0.061	-0.088	-0.085	-0.068	-0.035	-0.124	-0.092	0.077	0.01	0.101	0.03
Children 7-10 not attending any educational institution	-0.347	-0.251	-0.328	-0.223	-0.431	-0.332	-0.407	-0.278	0.000	0.000	0.000	0.000
Adults over 65 in household	-0.119	-0.071	-0.029	0.088	-0.076	0.03	0.031	0.185*	0.041	0.061	-0.019	0.018
Non-residential housing		0.011		0.06		0.058		0.129		-0.161		-0.187
Humanitarian or other benefit		-0.379***		-0.378***		-0.397***		-0.399***		-0.271***		-0.253**
Worked in education or health sector in Ukraine		0.031		0.051		-0.039		-0.019		-0.304***		-0.233**
Plan to return to Ukraine		-0.038		-0.078		0.025		-0.045		-0.058		-0.102
Used help of Labour Offices		0.029		0.053		-0.023		0.031		-0.005		0.031
Previous contacts in Czechia		-0.102		-0.113*		-0.067		-0.101		0.057		0.034
Observations	408	356	359	315	321	293	279	256	192	175	172	157
r2_p	0.0984	0.2081	0.1222	0.244	0.0813	0.1743	0.0969	0.1994	0.1054	0.2006	0.0666	0.1657
LI	-218.107	-169.534	-164.473	-125.417	-186.238	-152.771	-139.117	-112.869	-104.17	-83.6126	-87.506	-70.513
chi2	36.58	61.72	45.25	70.11	25.6	46.59	32	50.17	19.92	38.93	16.37	33.17
P	0.0024	0	0.0001	0	0.0599	0.0017	0.0064	0.0003	0.1327	0.0068	0.2296	0.023

Note: Dependent variable (binary) specified in the first row. Marginal effects at means reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively; robust standard errors used. Data weighted by post-stratification weights. Regional dummies not covered due to low number of observations. Precarious work defined as Precarious Work Index ≥ 1 , i.e. work precarious in at least one dimension. The discrepancy in the number of observations compared to Table 5 is due to missing data in some of the independent variables.

Source: Authors' calculations based on Voice of Ukrainians survey.



Table A6 Results of panel logit regressions: probability of working in a job below respondent's qualification level (Model 6)

	Total sample	Women
	(1)	(2)
Woman	0.285***	
Age 15-24	-0.075	-0.071
Age 25-34	0.004	-0.035
Age 45-54	0.112	0.053
Age 55-64	0.171	-0.124
Primary education	-0.41	-0.072
Vocational education	-0.269***	-0.087
Secondary education	-0.085	-0.099
Partner in household	0.153**	0.084
Arrived before 6/2022	-0.098**	-0.075**
Proficiency in Czech	-0.125**	-0.086**
Attended Czech course	-0.127**	-0.102**
Children below 6	-0.099*	-0.055
Children below 6 not attending any institution for pre-school education	-0.142	-0.233*
Children 7-10	0.012	0.013
Children 7-10 not attending any educational institution	0.076	0.005
Adults over 65 in household	-0.174*	-0.05
Non-residential housing	0.138**	0.104**
Humanitarian or other benefit	0.114***	0.116***
Worked in education or health sector in Ukraine	0.193***	0.179***
Plan to return to Ukraine	-0.008	0.04
Previous contacts in Czechia	-0.12**	-0.034
Observations	1,412	1,127
Number of respondents	1,039	833
LI	-713.788	-462.476
chi2	33.24	36.68
P	0.0586	0.0183

Note: Dependent variable (binary): working in a job below respondent's qualification (reference group: working in a job with a corresponding/higher level of qualification). Marginal effects at means reported. ***/**/* statistically significant at 1%/5%/10% levels, respectively. Data weighted by post-stratification weights. Regional dummies not covered due to low number of observations.

Source: Authors' calculations based on Voice of Ukrainians survey.