

GIGMETER SPECIAL REPORT #3

UNTIL WAR DO US PART

COMPARISON OF GIG WORK MARKETS IN UKRAINE, ROMANIA, AND SERBIA

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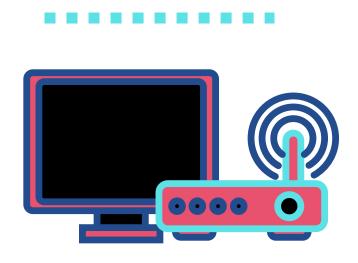
Until war do us part, a special edition of Gigmetar, presents a comparison of the gig work markets in Ukraine, Romania, and Serbia based on data collected in February and March 2022, early on in the war against Ukraine. As Ukraine, Romania, and Serbia boast some of the largest gig workforces both globally and in Europe, and since their freelance communities share many similarities, this assessment provides some context for the online gig work markets in Ukraine and South-Eastern Europe. Using an algorithm developed for Gigmetar's assessment of the Ukrainian digital labour market, this CENTAR report will serve as the starting point for continuing monitoring of how the war has impacted gig workers in this part of the world.





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For nearly a decade, Ukraine has boasted one of the largest online gig workforces globally and in Europe. According to the Oxford Internet Institute, Ukraine had the world's seventh largest freelancer population as measured by the number of workers on the online platforms Fiverr, Freelancer, Guru, and PeoplePerHour (Lehdonvirta, 2017). An assessment by the International Labour Organisation (ILO) estimated about 500,000 Ukrainians were registered on online platforms, which accounted for some 3 percent of the country's total workforce (Aleksynska et al. 2018). At the same time, Payoneer ranked the country as one of the top ten fastest growing freelancing countries globally (Payoneer, 2020). The Online Labour Index (OLI) found Ukrainian gig workers were the most numerous in the areas of software dev and tech (accounting for 86 percent of these projects and assignments) and creative and multimedia (12.6 percent) and constituted a major pool of workers for high-tech Western companies.

Platformski rad u Ukrajini ostao je imun na političke nestabilnosti nakon 2014. godine, a pojedine procene nagoveštavaju da je tokom pandemije COVID-19, ova populacija radnika dodatno porasla zahvaljujući potražnji poslodavaca iz Sjedinjenih Američkih Država, Evrope i Australije (<u>Giunipero, 2021</u>).

After Russia's invasion of Ukraine, interest in daily news of the war was accompanied by a desire to understand the impact of the conflict on the country's platform workers. This issue has been approached from a variety of perspectives, including tracking the share price of the world's leading online work marketplace Upwork, which derives 6 percent of its revenue from Ukrainian workers and clients (Reuters, 2022); client migration to other markets (Stephany, et al., 2022); treatment of workers by platforms (Marshall, 2022); and the precarity of platform workers, which has been laid completely bare by the war (Bertolini et al., 2022). Notwithstanding the questionable impact of such efforts, platforms have allowed clients to donate to platform workers and permitted Ukrainian freelancers to keep their accounts and continue working regardless of where they were physically located.

This special edition of Gigmetar looks at platform work in Ukraine in the regional Southern European context, aiming to shed light on the impact of the conflictⁱ on future platform work trends throughout Europe

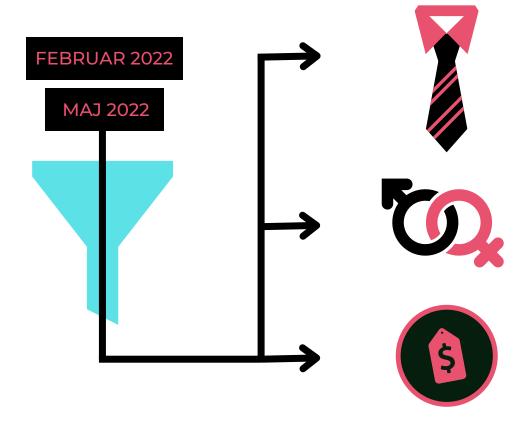
METHODOLOGY

This measurement is based on data collected in February and early March 2022 and looks at the features of gig work in Ukraine in the immediate run-up to the war and in its early days.

The report discusses the key characteristics of gig work in Ukraine, such as the major occupations, gender structure, hourly rates, and incomes, and compares them with data for South-Eastern Europe. The assessment endompasses Ukrainian online gig workers whose profiles indicated they had earned income at the time the data were collected. To ensure comparability, the same data types were used for the South-Eastern European countries assessed.ⁱⁱ

The assessment of freelancing in Ukraine was based on data publicly available on Ukrainian gig workers' Upwork profiles. Even though Ukrainian freelancers were active on more than 40 different global, Russian, and local platforms (Aleksynska et al. 2018), what made Upwork relevant for understanding the impact of the war on the activity of Ukrainian online workers was the platform's relatively large exposure to that market, in contrast to other global marketplaces where freelancers from other countries, such as Pakistan or India, were more numerous.ⁱⁱⁱ According to a Payoneer survey, Upwork and Fiverr accounted for 71 percent of

total freelancer employment in Ukraine (<u>Payoneer, 2020</u>). At the same time, Upwork has been the primary platform for workers throughout South-Eastern Europe, monitored by Gigmetar, making the data mutually comparable.



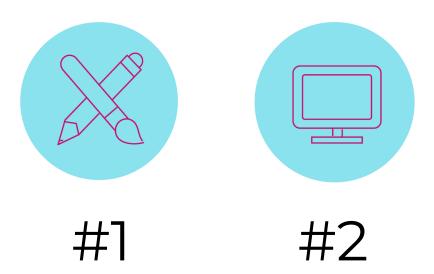
COMPARATIVE ADVANTAGES OF UKRAINE AND SOUTH-EASTERN EUROPE:

BOTH MORE NUMEROUS AND MORE EXPENSIVE

Creative and multimedia and software dev and tech accounted for the largest freelancer workforces in both Ukraine and South-East Europe at the time of the measurement. This report follows the OLI classification of occupations, iv according to which the largest body of Ukrainian gig workers (nearly one-half, or 45.24 percent) offered services in creative and multimedia. The second largest freelancer population were software dev and tech workers, who made up 37.23 percent of Ukraine's total gig workforce. Significantly fewer freelancers were active in other professions, with sales and marketing support accounting for 5.70 percent, writing and translation for 5.21 percent, and clerical and data entry for some 4.27 percent of all gig workers measured on the platform. As expected, professional services was the least numerous occupation (at 2.34 percent).

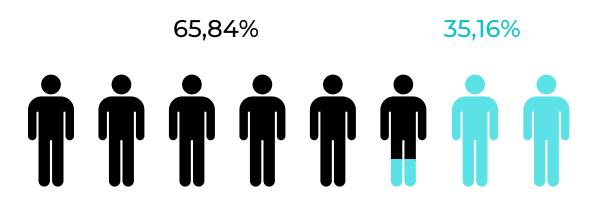
When compared to the South-Eastern European average, Ukraine's comparative advantages lay exactly in those occupations where its workforce was the largest – creative and

multimedia and software dev and tech.



Ukraine had the largest proportion of creative and multimedia freelancers relative to other occupations, making it similar to Serbia, where these gig workers accounted for 40.49 percent of the total freelancer population. Overall, creative and multimedia was the most numerous occupation in eight of the nine South-Eastern European countries. The only exception was Albania, where software dev and tech workers were in the majority (at 29.31 percent)

In Ukraine as in the other countries, platform work was primarily a man's game. In Ukraine, the ratio of men to women was 65.84 to 34.16 percent, slightly lower than the global average (of 37 percent, according to the 2022 Global Freelancer Income Report). In South-Eastern Europe, 64.10 percent of all freelancers were men, and 35.90 percent were women. Men were the most dominant in Bosnia and Herzegovina (with a ratio of 68.89 men to 31.11 percent women), whilst, by contrast, the largest proportions of women in the freelancer population were found in Albania (42.12 percent), Montenegro (41.78 percent), and Bulgaria (41.69 percent).



MEN AND OCCUPATIONS

In Ukraine, men dominated software dev and tech. In this country, men were the most likely to provide services in software dev and tech (50.32 percent) and creative and multimedia (37.57 percent), but were much less well represented in other occupations. No more than 5.41 percent of Ukrainian men freelancers were active in sales and marketing support, with even fewer working in clerical and data entry, writing and translation, and professional services (at 2.47, 2.41, and 1.82 percent, respectively).

The proportion of Ukrainian men gig workers in creative and multimedia exceeds the South-Eastern European average: in all countries of this region, fewer than one-quarter, or 37.99 percent, were active in this occupation (as opposed to 50.32 percent in Ukraine). By contrast, men were more numerous in South-Eastern European countries than in Ukraine in software dev and tech, with 39.49 percent working in this occupation.

Interestingly, in South-Eastern Europe these two occupations also accounted for the majority of the male freelancer population. Most men were active in software dev and tech in Romania, Albania, and Bulgaria. In the remaining countries of this region, creative and

multimedia was the most popular occupation for men: in Serbia it accounted for 43.27 percent of the total male workforce, in North Macedonia the figure was 42.5 percent, in Bosnia and Herzegovina 38.19 percent, in Montenegro 38.17 percent, in Croatia 37.95 percent, and, lastly, in Hungary it was 31.58 percent.

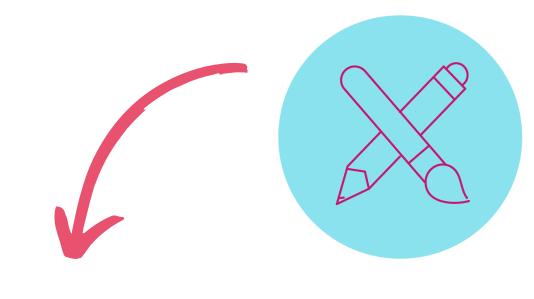
WOMEN AND OCCUPATION

By contrast, the fewest Ukrainian women gig workers were active in professional services (3.43 percent), sales and marketing support (6.26 percent), and clerical and data entry (7.74 percent). Slightly more than 10 percent of the country's women freelancers worked in writing and translation (10.59 percent) and software dev and tech (11.96 percent). Creative and multimedia was the most dominant profession for Ukraine's women gig workers, as it accounted for over 60 percent of the women freelancers in the country active on Upwork.

The large share of Ukrainian women gig workers in this occupation was consistent with South-Eastern European gender patterns, although the percentage was greater than the South-Eastern European average, where 41.82 percent of all women freelancers were active in creative and multimedia.

Looking at individual countries of this part of Europe, creative and

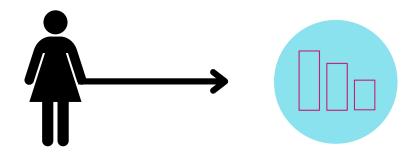
multimedia was the most popular occupation for women in Montenegro (33.51 percent), Bulgaria (34.61 percent), and Serbia





(35.47 percent). A significant proportion of women gig workers (29.35 of the total) worked in creative and multimedia in Romania as well, but these were slightly outnumbered by freelancers in writing and translation (29.88 percent),

also the dominant occupation in Bosnia and Herzegovina, Croatia, and Hungary. In Albania and North Macedonia, women were more likely to be active in clerical and data entry.



OCCUPATIONS BY GENDER

In Ukraine, men outnumbered women in 4 of the 6 occupations. Apart from dominating software dev and tech – where nearly 90 percent of all freelancers were men – male gig workers were also more numerous in sales and marketing support, with on average two out of three male freelancers offering these skills. Men were also slightly more numerous than women in creative and multimedia (at 54.68 percent) and professional services (50.64 percent).

Ukrainian women freelancers outnumbered their male counterparts in clerical and data entry, where they accounted

for 61.95 percent of the total gig workforce, and in writing and translation, where they made up 69.61 percent of all gig workers. Both of these groups of professions were, as a rule, less well paid than other occupations tracked by the OLI index.

The preponderance of women in clerical and data entry and writing and translation was also a common feature of many South-Eastern European gig labour markets. Women freelancers were more numerous than men in several countries. This was the case with writing and translation in Bosnia and Herzegovina, Montenegro, Croatia, and Hungary, whilst their relative share in clerical and data entry was greater in Albania.

Interestingly, Ukrainian women were particularly well-represented, especially relative to the South-Eastern European average, in creative and multimedia, the largest occupation and the one that attracted the largest gig population. Even though Ukrainian men were still in the lead in this occupation, the share of women in the total workforce stood at a significant 45.32 percent.

INCOME

Men earned more than women in Ukraine and Bosnia and Herzegovina, due to the gender structure of the freelancer population and, to a lesser extent, higher average hourly rates commanded by men. Freelancer income figures revealed Ukrainian men earned 72.05 percent of total revenue on Upwork, with women accounting for 27.95 percent.

In fact, apart from Ukraine, it was only Bosnia and Herzegovina that saw men freelancers earn a greater percentage of total gig income than women, with 76.58 percent vs 23.42 percent. It ought to be borne in mind, however, that the share of men in the total freelancer workforce was greatest in both Ukraine and Bosnia and Herzegovina, which certainly increased the likelihood of men capturing the largest proportion of the total available revenue. This assumption is further borne out by income distributions in countries with the largest shares of women in their gig populations. Wherever women accounted for a larger proportion of the workforce, they were also able to capture a more significant share of the total platform income. For instance, the share of women in the total workforce in Albania was 42.12 percent, in Montenegro it was 41.78 percent, and in Bulgaria it stood at 41.69 percent. This meant that women in these countries earned greater shares of the total income, which accounted for nearly 34.98

percent in Albania, 34.37 percent in Bulgaria, and 34.11 percent in Montenegro.



HOURLY RATES

The average hourly rates quoted by Ukrainian freelancers stood at US\$25.55, higher than in any South-Eastern European country save Croatia. Before the war, Ukrainian gig workers were very well paid in comparison with those in Serbia and other markets measured by Gigmetar.

As revealed by the latest measurement of South-Eastern European gig labour markets, only Croatian workers commanded somewhat higher average hourly rates for platform work (at US\$26.07). Romania and Bulgaria came next, with an average hourly rate of US\$24.5. Serbia's average rate stood at US\$20.45, about US\$4 lower than the Romanian average and some US\$5 less than in Ukraine.

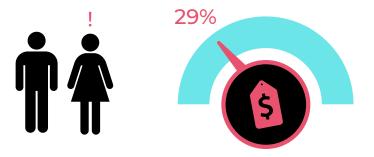




The lowest average rates were recorded in Bosnia and Herzegovina (US\$19.14), Albania (US\$18.02), and Montenegro (US\$16.69).

The difference between men and women was less pronounced in Ukraine than in South-Eastern Europe before the war. Women could make US\$20.90 an hour, whilst men earned on average US\$27.96, or some US\$7.06 more. As such, the average hourly rate commanded by a male Ukrainian freelancer was about 29 percent higher than the corresponding rate earned by his female counterpart.

The gender gap was widest in Croatia, where men earned an hourly rate higher by some 37.71 percent more than women. Bosnia and Herzegovina came next, with men there commanding hourly rates greater by 33.95 percent on average, followed by Montenegro and Bulgaria, where rates for men were higher by 32.36 and 30.98 percent, respectively. In Romania, the difference in the average hourly rate was similar to that registered in Ukraine before the war, as rates commanded by men were greater by US\$7.01, or 28.89 percent, on average, whereas Serbia recorded one of the lowest gender disparities with men earning some US\$4.57 (23.10 percent) more than women.



One major reason why men were able to command higher average rates was their relatively greater presence in better-paid gig occupations across all countries tracked by Gigmetar.

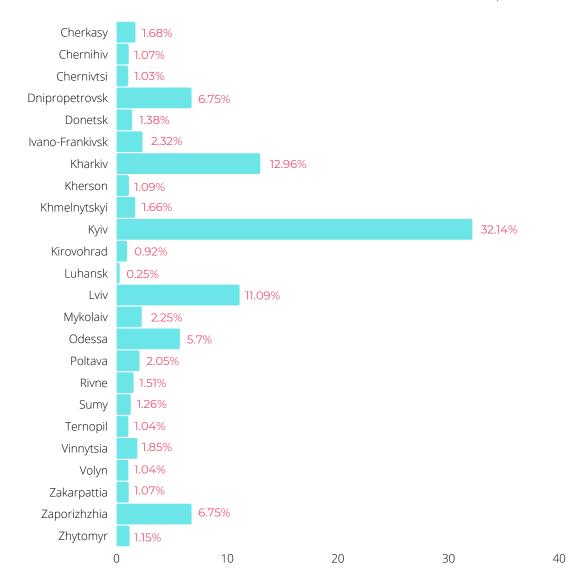
POLITICAL TENSIONS

This section presents some aspects of gig work in Ukraine that stem from the differences between, i and the comparative advantages of, the country's 24 oblasts (regions) in the gig work arena. A detailed overview of the characteristics of the workforce by region is given in the Appendix to this report.

Nearly one-third of Ukraine's entire freelancer population was concentrated in the Kyiv Oblast, with Luhansk Oblast being home to the fewest gig workers even before the war. The Kyiv Oblast, surrounding the city of Kyiv, the capital and administrative centre of Ukraine, contained the largest proportion of gig workers (at 32.14 percent). Only a few other oblasts could boast larger concentrations of freelancers: 12.96 percent of the country's total gig workforce was located in Kharkiv Oblast, with Lviv Oblast being home to another 11.09 percent. Dnipropetrovsk and Zaporizhzhia Oblasts each had 6.75 percent, whilst 5.70 percent were located in Odessa Oblast. All remaining oblasts had significantly smaller freelancer populations, and Luhansk and Kirovohrad Oblasts were home to the fewest gig workers, at under 1 percent each.

Given differences in population density, a more relevant indicator may be the average number of freelancers per 100,000 population in each oblast. These figures, however, paint a nearly identical

FIGURE 1. DISTRIBUTION OF GIG WORKERS BY OBLAST, UKRAINE



picture when it comes to top and bottom oblasts by gig workforces and underscore the large-scale regional disparities. Kyiv Oblast was home to on average 143 gig workers per 100,000 population, followed by Kharkiv, Lviv, and Zaporizhzhia Oblasts, with 65, 58, and 53 gig workers per 100,000 inhabitants on average, respectively. The remaining oblasts were below the national average of 33 freelancers per 100,000 population. Donetsk and Luhansk Oblasts contained the smallest gig populations of fewer than 5 and 2 freelancers, respectively, per 100,000 population. The sanctions imposed against the Donbas region (Donetsk and Luhansk Oblasts) are certain to cause major challenges with tracking gig worker activity in these areas.

The following map reveals that, even before the outbreak of the war in late February 2022, Ukraine's oblasts displayed major differences by freelancer population density. The regional disparities were certainly caused by the long-standing political inability. The Donbas region had been plunged into conflict as far back as 2014, and its two oblasts (Luhansk and Donetsk) were home to the smallest numbers of gig workers per capita. Nevertheless, given the Russian orientation of the majority of the population in these areas, it is reasonable to assume some freelancers are active primarily on Russian platforms.

Some oblasts devastated by the war in recent months had recorded much higher freelancer densities before the outbreak of

FIGURE 2. NUMBER OF GIG WORKERS PER CAPITA BY OBLAST. **UKRAINE** Zhytomy Київська Kharkiv Khmelnytsky Харківська Luhansk Cherkasy vano-Frankiv Vinnytsia Kirovohrad Donetsk Чернівецька Zaporizhzhia Sevastopol **LOWER DENSITY** HIGHER DENSITY **NOT AVAILABLE**

1

hostilities. Kharkiv and Zaporizhzhia, whose per capita numbers of gig workers placed them immediately behind Kyiv, were on the front lines of the war, with Kherson Oblast also directly affected by the conflict (Reuters, 2022).

COMPETITORS, PARTNERS, OR FRIENDS IN FAR DISTANT LANDS?

Ukraine and South-Eastern European countries are part of the same cultural circle, which sets them apart from the other countries that supply most of the workforce for the platform economy. These nations share gender-related and professional features and have similar hourly rates. At the time of the measurement that took place immediately before the war, the platform work market of South-Eastern Europe had not registered large-scale migration of jobs from Ukraine, meaning that no major increase in the scale of activity had been recorded relative to previous Gigmetar surveys. The decline in demand for Ukrainian freelancers (Stephany, et al., 2022) that ensued as the war progressed still suggests that employers have been looking to other markets, which may lead to changes in the supply of, and demand for, gig workers in South-Eastern Europe. At the same time, many European countries, Serbia included, have received Ukrainian (and Russian) refugees, some of which may be platform workers, which may also cause dramatic changes to the concentration of freelancers in Ukraine, South-Eastern Europe, and the broader European continent.

The war in Ukraine has revealed the flipside of the 'digital nomad' coin, the forced movement of gig workers away from their home countries. On the other hand, the conflict has brought into sharper relief the importance of dignified work to the globalised workforce and the issue of how global freelancer platforms operate under conditions of risk and enforced migrations.

1 GIn addition to Serbia, Gigmetar tracks gig work in another nine South-Eastern European countries, namely Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Montenegro, North Macedonia, and Romania.

ii The total sample used for comparative analysis in this report comprised 32,996 gig workers. Apart from Ukraine, the sample was drawn from the other countries monitored by Gigmetar, Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Montenegro, North Macedonia, and Romania. The sample comprised gig workers on Upwork whose profiles at the time of the measurement indicated they had previously earned some income.

iii On 7 March 2022, Upwork introduced <u>restrictions on gig workers from Russia and Belarus</u> that banned new freelancers based in those countries from opening accounts on the platform and prevented registered ones from taking on new projects on Upwork. The platform has announced gig workers from these two countries would no longer be available as of 1 May. Nevertheless, Upwork has indicated it would unblock the profiles of freelancers who submit proof of having moved abroad from Russia and Belarus. In addition, <u>Payoneer</u> is no longer available to new Russian clients.

iv The Online Labour Index classification comprises six groups of occupations: 1) professional services; 2) clerical and data entry; 3) creative and multimedia; 4) sales and marketing support; 5) software dev and tech; and 6) writing and translation.

v Since the Online Labour Index tracks multiple platforms (including Russian-speaking ones), these data indicate IT freelancers outnumbered those active in creative and multimedia, who account for the largest share of Ukrainian gig workers on Upwork.

vi Oblasts could not be determined for some gig workers, so the sub-sample used to analyse freelance work by oblast comprised 13,209 gig workers of the total nationwide sample of 13,241 freelancers.

vii Ukraine is divided into 24 administrative units called oblasts, one autonomous republic, and two cities with special status. The Autonomous Republic of Crimea and its capital Sevastopol, which has special status, are beyond the scope of this assessment. The other city with special status, Kyiv, which is also the

administrative centre of Kyiv Oblast, is covered by the analysis presented here. The 24 oblasts included in this assessment are Cherkasy Oblast, Chernihiv Oblast, Chernivtsy Oblast, Dnipropetrovsk Oblast, Donetsk Oblast, Ivano-Frankivsk Oblast, Kharkiv Oblast, Kherson Oblast, Khmelnytskyi Oblast, Kyiv Oblast, Kirovohrad Oblast, Luhansk Oblast, Lviv Oblast, Mykolaiv Oblast, Odessa Oblast, Poltava Oblast, Rivne Oblast, Sumy Oblast, Ternopil Oblast, Vinnytsia Oblast, Volyn Oblast, Zakarpattia Oblast, Zaporizhzhia Oblast, and Zhytomyr Oblast.

APPENDIX 1 NUMBER OF GIG WORKERS BY OBLAST AND OCCUPATION

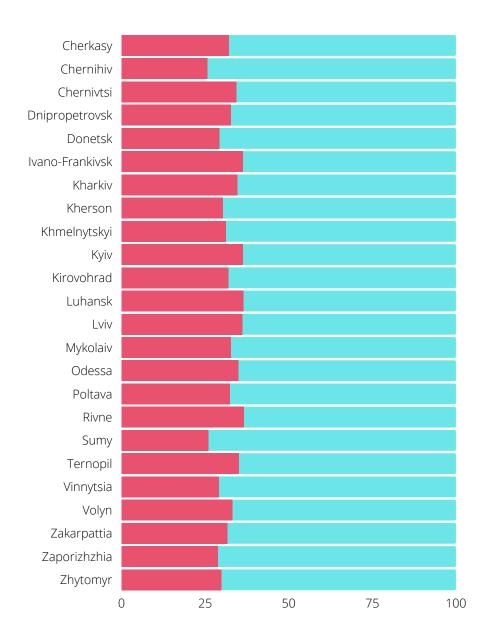
The distribution of gig workers by oblast and occupation followed the features of the Ukrainian gig labour market as a whole. Freelancers active in two OLI occupations, creative and multimedia and software dev and tech, were the most numerous across all oblasts. In some oblasts (Odessa, Ternopil, Ivano-Frankivsk, and Rivne), more than one-half of all gig workers were active in creative and multimedia. In fact, the share of these freelancers was high across all oblasts, and they did not account for fewer than one-third of the total gig workforce in any particular region. Software dev and tech was the second most popular occupation throughout the country. Workers active in this field accounted for the least of the freelancer population of Luhansk Oblast, where they made up some 27.27 percent of the total gig workforce, and were the most concentrated in Zaporizhzhia Oblast, in which they accounted for 53.42 percent of the total. Other occupations were far less common. Kirovohrad Oblast, was home to the largest concentration of sales and marketing support freelancers, at 9.84 percent, followed by Mykolaiv and Kyiv Oblasts, at 7.74 and 7.42 percent, respectively. It is interesting to note that two occupations, writing and translation at some 12.12 percent, and clerical and data

entry, at about 9.09 percent of the total gig workforce, were the most highly represented relative to other occupations in Luhansk Oblast. As at the national level, professional services were the least common in all oblasts: the largest share of these freelancers was registered in Volyn Oblast, where they accounted for 3.65 percent of the total gig workforce.



NUMBER OF GIG WORKERS BY OBLAST AND GENDER

Deeper analysis of the gender structure of the gig population by oblast permitted the study to discern the scope of the gender gap at the regional level. Nationally, men accounted for 65.84 percent of Ukraine's gig workforce, as opposed to 34.16 percent for women. Similar proportions were registered in most oblasts, but women outnumbered men nine of the 24 oblasts, whilst men were more numerous in the remaining 15 by an even greater factor than at the national level. In some oblasts men made up as much as 74 percent of the entire gig workforce: in Chernihiv and Sumy Oblasts, 74 of every 100 gig workers were men, whilst 26 were women.



Conversely, the narrowest gaps were found in Rivne, Luhansk, Kyiv, Ivano-Frankivsk, and Lviv Oblasts, where men accounted for on average 63 percent of the freelancer population whilst women made up 37 percent.

FIGURE 3: GENDER STRUCTURE OF THE GIG WORKFORCE BY OBLAST, UKRAINE



HOURLY RATES IN US\$ BY OBLAST AND GENDER

The highest average hourly rate – the official price quoted by gig workers for their services – was registered in Kyiv Oblast, at some US\$28.4. This was higher than the national average of US\$25.5 per hour. Higher-than-average hourly rates were also commanded by freelancers based in Kharkiv, Dnipropetrovsk, and Zaporizhzhia Oblasts. By contrast, the figures reveal gig workers based in Rivne, Poltava, and Ivano-Frankivsk Oblasts were amongst least well paid, as they were able to command hourly rates of some US\$21 per hour, whereas those from Chernivtsy and Luhansk Oblasts earned even less, with average hourly rates of approximately US\$20.55 and US\$18.67, respectively.

Women commanded the highest hourly rates in Kyiv Oblast at US\$23.31, more than the national average of US\$20.90. Another three oblasts registered hourly rates for women higher than the national average: these were Zaporizhzhia, at US\$21.59, Volyn, at US\$21.23, and Kharkiv, at US\$21.21. At the other end of the scale, official data show women freelancers based in Chernivtsy and Luhansk Oblasts were able to earn the least, as hourly rates there stood at US\$15.90 and US\$14.95, respectively.

Men earned the highest incomes in Kyiv Oblast, with figures showing hourly rates quoted there standing at US\$31.33. Four additional oblasts recorded hourly rates for men that were higher than the national average, namely Kirovohrad, Kharkiv, Odessa, and Dnipropetrovsk.

At the national level, the gender gap in average hourly rates stood at US\$7.06, or 28.89 percent, in favour of men. In 15 of the 24 oblasts this gap was wider than at country level. The greatest disparities were recorded in Chernivtsy and Khmelnitsky Oblasts, where the men's average hourly rates were higher by some 36 percent. A slightly smaller gap (at 34 percent) in favour of men was found in Odessa, Mykolaiv, Vinnytsia, and Cherkasy Oblasts. The difference was lowest in Volyn Oblast, where men could expect to earn on average US\$1.32, or 6 percent, per hour more than women

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