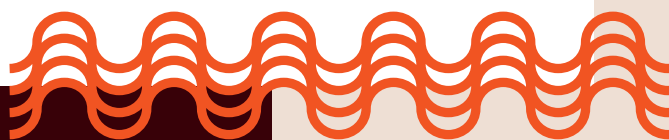


Merja Kauhanen
Aart-Jan Riekhoff
Susanna Sten-Gahmberg

TYÖPAPEREITA / WORKING PAPERS

361

Platform Work in Finland: Determinants, Heterogeneity, and Multiple Jobholding



TALOUDEN
TUTKIMUS
LABORE
EST 1971

This paper is part of the project “Tutkimus alustatyöstä, sen yhdistämisestä muuhun työhön ja työuraseurauksista Suomessa” funded by the Finnish Work Environment Fund (TSR).



Työsuojelurahasto
Arbetarskyddsfonden
The Finnish Work Environment Fund

Merja Kauhanen

Labour Institute for Economic Research LABORE

Aart-Jan Riekhoff

Finnish Centre for Pensions

Susanna Sten-Gahmberg

Finnish Centre for Pensions

June 22, 2026

ABSTRACT

Using linked survey and register data, we provide new nationally representative evidence on platform work in Finland, examining its prevalence, heterogeneity, and combination with multiple jobholding. Platform work participation is most strongly associated with immigrant background. Onsite and online platform workers exhibit systematically different profiles – immigrant background and urban residence are distinctive correlates of onsite platform work while lower income is independently associated with online participation. We also provide the first nationally representative evidence on the intersection of platform work and multiple jobholding in a Nordic coordinated market economy. Conventional multiple jobholding concentrates among higher-income and higher-educated workers consistent with portfolio theory, while platform

work without strictly defined multiple jobholding follows a necessity pattern more prevalent among lower-income workers. Platform multiple jobholding conforms to neither framework, exhibiting income invariance and a distinctive gender gap absent from conventional multiple jobholding.

JEL Codes: J22, J24

Keywords:

**platform work,
multiple jobholding,
onsite platform work,
online platform work**

TIIVISTELMÄ

Tutkimus alustatyöstä, sen yhdistämisestä muuhun työhön ja työuraseurauksista Suomessa

Yhdistetyllä kansallisesti edustavalla kysely- ja rekisteriaineistolla tutkimme alustatyön yleisyyttä, heterogeenisyyttä ja sen yhdistämistä monimuotoiseen ansiotyöhön Suomessa. Alustatyön tekeminen on voimakkaasti yhteydessä ulkomaalaistaustaan. Paikan päällä ja verkossa tehtävän alustatyön tekijäprofiilit poikkeavat selvästi toisistaan – ulkomaalaistausta ja kaupunkimainen asuinpaikka ovat yhteydessä erityisesti paikan päällä tehtävään alustatyöhön, kun taas matalampi tulotaso on itsenäisesti yhteydessä verkossa tehtävään alustatyöhön. Tutkimus tuottaa myös uutta tietoa alustatyön ja monimuotoisen ansiotyön yhdistämisestä. Perinteinen monimuotoinen ansiotyö keskittyy kork-

easti koulutetuille ja korkeatuloisille, mikä on yhdenmukaista portfolioteorian kanssa, kun taas alustatyö ilman monimuotoista ansiotyötä on yleisempää pienituloisilla, viitaten tarvelähtöisen motivaatioon. Alustatyö yhdistettynä monimuotoiseen ansiotyöhön ei noudata kumpaakaan viitekehystä, se ei vaihtelee systemaattisesti tulotason mukaan ja siihen liittyy selkeä sukupuoliero, jota ei havaita perinteisessä monimuotoisessa ansiotyössä.

JEL-koodit: J22, J24

Avainsanat:

**alustatyö,
useamman työn tekeminen,
paikan päällä tehtävä alustatyö,
netissä tehtävä alustatyö**

1 Introduction

Technological change is one of the megatrends transforming labour market (OECD, 2018). It has led to new forms of work organization and task distribution across the workforce such as platform work. Platform work characterized by algorithmic coordination through digital platforms (Bejaković and Gladoić Håkansson, 2021) is establishing itself as one of the most prominent and fastest growing forms of work over the past decade (Fredman et al., 2025). Although still small in scale, the growing prevalence of platform work has been regarded as one of the most significant transformations of work affecting labour markets both now and in the future (Berg et al., 2018; Healy et al., 2017; Kovalainen et al., 2019). Also, the types of work mediated by platforms and the business models they employ are becoming increasingly diverse (Eurofound, 2018).

This form of employment transforms traditional employment relationships and the organisation of work (Eurofound, 2018). It has also raised the concern of the quality of platform work including working conditions, and the legal rights and work protections available to workers engaged in them, as well as the effects on the economy and society (ILO, 2021; OECD, 2018).

Despite a growing literature providing a more empirically grounded account of platform work, there is still paucity and dispersion of information about the prevalence of platform work, the number of workers involved, their individual and job characteristics, and the diversity of the phenomenon. The lack of more comprehensive and representative information risks hindering the development of adequate policies. Relatively little research has also examined the extent to which platform work is combined with traditional forms of employment, or platform work from the perspective of multiple jobholding (MJH) and diversified earned income, even though survey evidence suggests that for many workers

platform work functions as a secondary job or a supplementary source of income (Eurofound, 2018; Pesole et al., 2018).

In Finland, platform work has attracted some research attention — including through the SWIPE project (Kovalainen et al., 2019) — however existing studies have largely focused on specific occupational groups such as food delivery workers (Seppänen et al., 2018; Perkiö et al., 2023) or selected population groups (Alasoini et al., 2023), and have examined experiences of fairness and justice in platform work (Seppänen et al., 2022). Prior research has been predominantly qualitative in nature, drawing on interview data. Because prior research has been largely confined to specific groups it does not provide a representative overall picture of platform work in Finland — who does it, under what employment status, and the extent to which it is combined with conventional employment including through multiple jobholding. This study addresses that knowledge gap.

The empirical analysis draws on established theoretical frameworks from the labour economics literature. The determinants of platform work participation are examined through labour supply, human capital, and labour market segmentation perspectives. The analysis of platform work and multiple jobholding draws on hours constraint theory and job portfolio theory, which generate competing predictions about the characteristics of platform multiple jobholders that are developed and tested in section 3.3.

In this paper, we provide representative empirical evidence on platform workers in Finland and their characteristics using individual-level register-linked survey data and probit and multinomial logit regression analyses. More specifically, we examine platform work in Finland from three interrelated perspectives. First, we investigate who engages in platform work in Finland, that is, which demographic, human capital and labour market characteristics are associated with platform work participation. Second, we examine what types of platform workers can be distinguished, specifically whether onsite and online platform workers differ systematically in their profiles and the factors associated with these

differences. Third, we analyse the extent to which platform workers combine platform work with traditional non-platform employment, and how platform multiple jobholders differ from both employed platform workers without strictly defined multiple jobholding and from conventional multiple jobholders, contributing to theoretical debates about whether platform work serves as a necessity-driven income supplement or a portfolio diversification strategy in the Finnish labour market.

Our contribution to the existing literature is threefold. First, we provide new, nationally representative evidence on platform workers in Finland, who they are and their heterogeneity across demographic, human capital and labour market characteristics. Second, we contribute methodologically by introducing a novel four-category typology, distinguishing non-MJH platform workers, platform multiple jobholders, conventional multiple jobholders, and non-platform non-multiple jobholders, that enables direct empirical comparison of platform and conventional multiple jobholding using representative data. Third, going beyond documenting the prevalence of combining platform work with conventional employment, we provide the first nationally representative evidence on the intersection of platform work and multiple jobholding in Finland, a Nordic coordinated market economy with strong employment protections and comprehensive social insurance.

Our findings reveal that platform work and conventional multiple jobholding serve empirically distinct functions in the Finnish labour market. Conventional multiple jobholding is concentrated among higher income and higher educated workers, consistent with job portfolio theory, while non-MJH platform work exhibits a contrasting necessity pattern, more prevalent among lower income workers. Platform multiple jobholding conforms to neither framework cleanly, showing income invariance across the earnings distribution and a distinctive gender gap absent from conventional multiple jobholding. These findings contribute to theoretical debates on whether platform work reinforces or challenges socioeconomic stratification in labour market access, and demonstrate the

relevance of examining these questions beyond the liberal market economies that dominate existing research.

The paper is organised as follows. Section 2 describes the data sources, The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data, and presents the definition of platform work employed throughout the analysis. Section 3 presents the empirical strategy and results in three parts. First, we examine the determinants of platform work participation, treating platform workers as a single group. Second, we disaggregate by platform work type, distinguishing onsite and online platform workers, and examine whether the determinants of participation differ across these two groups. Third, we analyse the relationship between platform work and multiple jobholding, introducing a four-category typology that distinguishes platform multiple jobholders from non-MJH platform workers and conventional multiple jobholders, and examine how these groups differ in their labour market profiles. Section 4 presents concluding remarks and discusses policy implications.

2 Data, definitions and descriptive overview

2.1 Data and definitions

The analysis draws on three linked data sources: the Finnish Labour Force Survey 2022 platform work module, main LFS variables, and individual-level FOLK register data.

Information on platform work comes from a pilot survey on digital platform employment of the resident population aged 15–64, collected as a module of the Finnish Labour Force Survey in 2022. The survey, conducted in 2022 across 16 EU and one EFTA country using a common questionnaire, provides nationally representative data on platform work participation, frequency, intensity, and type of platform activity, as well as employment status, income from platform work, working time arrangements, and whether platform

work constitutes a main or secondary job. Information on job quality aspects of platform work is also included.

The platform work module data is combined with the main Finnish Labour Force Survey from 2022, which provides rich information on employment status, employment characteristics, and demographic and socioeconomic characteristics of respondents¹. This combined survey data is further linked at the individual level with FOLK register data, providing annual wage income, entrepreneurial income, disposable income, number of working months, urban place of residence, and immigrant background.

The combined dataset allows us to examine the determinants of platform work participation, heterogeneity across platform work types, and the relationship between platform work and multiple jobholding.

The pilot survey defines digital platform employment as having worked for pay or profit in tasks or activities organised through an internet platform or phone application for at least one hour in at least one week during the reference period. Platform activities covered include taxi services, transport services, accommodation rental, selling goods online, cleaning and handiwork, child and elderly care, teaching and tutoring, IT (programming and coding), online content support, translation, data or text entry, medical and health services, content creation, and other tasks or services. The analysis sample is restricted to the working age population aged 15–64.

Survey weights provided for the platform work module are applied throughout to produce population-representative estimates. As documented in studies from other countries, the

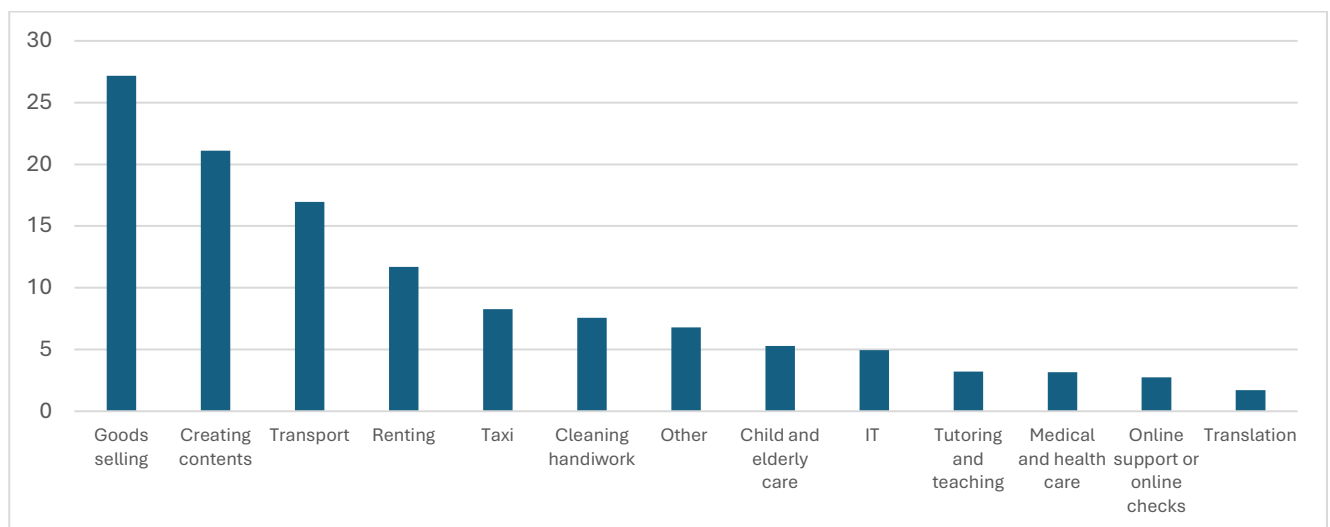
¹As the Finnish LFS rotating panel design generates multiple interview-wave records per person, with module responses merged onto each, we keep one observation per individual (person_tag=1) to avoid duplicates. Age is highly consistent between the module and the main LFS for this record, with discrepancies limited to individuals whose age changes across survey waves.

small absolute number of platform workers remains a key challenge for measurement and the level of detail achievable in the analysis, a limitation that must be taken into account when interpreting results (Kristiansen et al., 2023). All tables and figures draw on the Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data, unless otherwise stated.

2.2 Platform Work in Finland – Descriptive Overview

According to the pilot survey data 3.9 percent of the working age population aged 15–64, corresponding to 132,839 individuals, engaged in platform work during the preceding 12 months in Finland. Figure 2.1 presents the distribution of platform work by task or service type as a share of all platform workers. Selling goods online, creating online contents and transport services are the three most common platform activities. Among these selling goods accounts for 27 percent of platform workers.

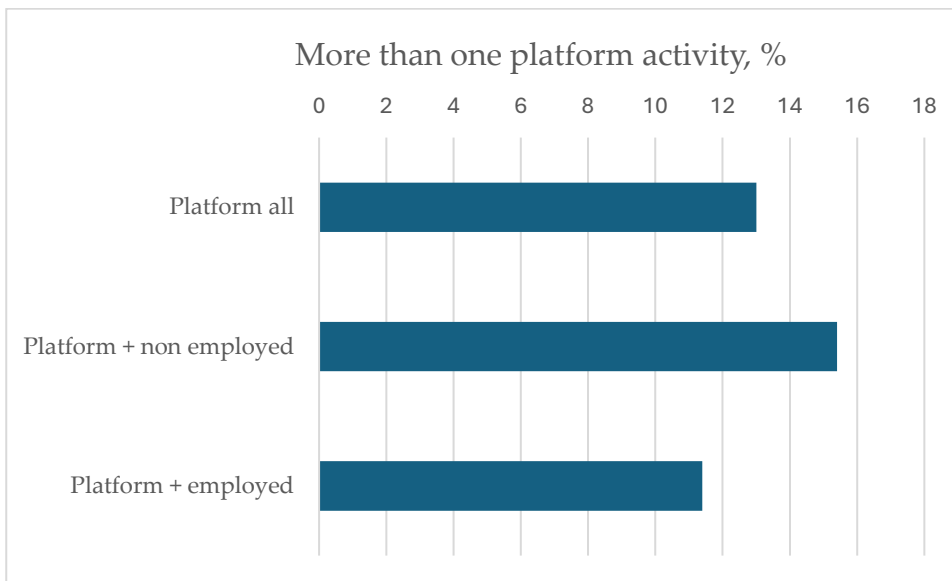
Figure 2.1. Platform workers in 12 months by task or service, % of platform workers



Notes: Data source: The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data. Shares do not sum to 100 percent as platform workers may engage in more than one type of platform activity simultaneously.

It should be noted that 13 percent of platform workers report engaging in more than one type of platform activity, with this share higher among those not in conventional employment (Figure 2.2). Approximately 19 percent of platform workers have also participated through multiple platforms simultaneously.

Figure 2.2 Engagement in more than one type of platform activity, %



Notes: Data source: The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data.

The self-declared employment status of platform workers, available for the 41,645 platform workers active in the preceding calendar month, indicates that the majority operate as self-employed (56.7 percent), while around one fifth report being employees. The share of self-employment increases with platform work intensity, reaching its highest level among those for whom platform work is their self-reported main job (Table 2.1). A substantial share of main platform workers (27.5 percent) also report being employees in their platform work.

Notably, a substantial proportion of platform workers report being unable to classify themselves as either self-employed or employees, particularly among those for whom

platform work is a side activity, reflecting the ambiguous employment relationship characteristic of platform work.

Table 2.1 Self-declared labour market status of platform workers by main job vs. not main job

Employment status	Platform not main job	Platform main job
Self-employed	55.3	63.2
Employee	15.9	27.5
Cannot say	28.7	-

Notes: The 'not main job' category combines platform work performed as a second job and as an additional/occasional job. Data source: The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data.

The most common motivation for platform work, reported by approximately 55 percent of platform workers active in the preceding calendar month, is the opportunity to earn additional income, while flexible working arrangements constitute the second most common motive (approximately 27 percent). These findings suggest that workers are drawn to platform work by both income-related and flexibility-related considerations.

3 Empirical strategy and results

A central objective of this study is to examine who engages in platform work in Finland, how platform work differs across its onsite and online forms, and how it intersects with multiple jobholding. Section 3.1 examines the determinants of platform work participation overall. Section 3.2 disaggregates platform work into onsite and online activities to assess whether the same characteristics predict each type. Section 3.3 examines how platform work intersects with multiple jobholding, distinguishing platform multiple jobholders from conventional multiple jobholders and from platform workers who do not meet the formal multiple jobholding threshold.

3.1 Determinants of platform work participation

The analysis uses the full working age population aged 15-64, modelling platform work participation as a binary outcome against non-platform population regardless of employment status, consistent with existing European evidence on platform work prevalence and avoiding selection on employment status. We estimate two specifications. The first examines the association of demographic and socioeconomic characteristics with platform work participation. The second extends this by adding conventional labour market status, distinguishing employees, self-employed workers, unemployed, and inactive persons, to examine whether sociodemographic characteristics are associated with platform work participation independently of conventional labour market attachment, consistent with the approach of Piasna and Zwysen (2026) and Cegregado et al. (2022)².

Table 3.1 presents the demographic, socioeconomic, and employment characteristics of platform workers in Finland and those of non-platform population. The table shows that platform workers are more likely to be male, with men being overrepresented relative to their share in the non-platform population. On average platform workers are younger than the non-platform population, with the youngest age group particularly overrepresented. Most strikingly the proportion of workers with an immigrant background (defined as being foreign-born, based on country of birth recorded in the FOLK register data) is markedly higher among platform workers, approximately 2.5 times higher than among the non-platform population, pointing to the distinctive role of immigrant labour in the Finnish platform economy. Platform workers are also somewhat more concentrated in urban areas than the non-platform population. Educational level and marital status do not differ significantly between platform workers and the non-platform population.

² Conventional labour market status and platform work participation are likely related in both directions, with self-employment potentially facilitating platform work and platform work potentially leading some workers into self-employment. We do not interpret this association as causal in either direction; it is consistent with our finding that the great majority of platform workers report platform work as a supplementary rather than primary activity.

Platform workers are also more concentrated in the lowest previous year labour income tertile, a pattern consistent with the financial pressure motivation for platform work participation. The conventional labour market status distribution of platform workers also differs markedly from the non-platform population. The share of self-employed workers in their main job is approximately 2.5 times higher among platform workers than in the non-platform population, suggesting that self-employment facilitates or accompanies platform work participation. They also show higher rates of both conventional employment and unemployment relative to the non-platform population, while being less represented among the inactive.

Table 3.1 Demographic, socioeconomic, and employment characteristics of platform workers and a comparison group of non-platform population in Finland

	Platform workers	Non-platform population	p-value
Female	44.4	49.4	0.0160
Age group			
18-24	21.2	17.2	
25-54	67.4	61.2	
55-64	11.4	21.6	0.0000
Education			
Low	19.1	18.2	
Middle	44.7	45.8	
High	36.2	36.2	0.872
Married	43.1	40.4	0.1929
Urban place of residence	91.	88.1	0.0037
Immigrant background	26.7	10.4	0.0000
Previous year labour income tertiles			
Low	39.5	33.6	
Middle	33.3	33.5	
High	27.3	32.9	0.0025
Conventional labour market status			
Employee	20.5	8.6	
Self-employed	8.1	5.5	
Unemployed	14.7	20.4	0.0000
Inactive			

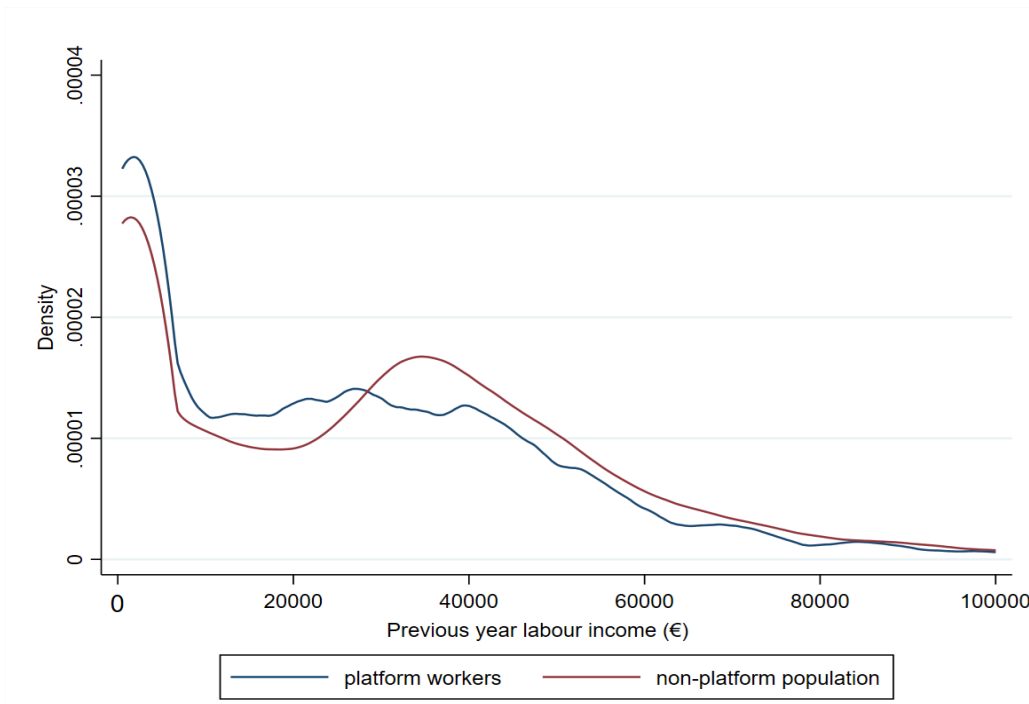
Unweighted N	670	18 105
Weighted N	132 839	3 258 997

Notes: Column percentages are weighted using the platform module survey weight. P-values for categorical variables are from design-adjusted Wald tests based on survey-weighted cross-tabulations. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The previous year labour income of platform workers, constructed as the sum of wage and salary income and self-employment income from linked register data, is clearly below the average of the non-platform population (€26,809 vs. €30,589). The kernel density estimates presented in Figure 3.1 show that low income positions are substantially more prevalent among platform workers than in the non-platform population. Beyond this initial concentration at low income levels, the labour income distribution of platform workers is broad and relatively flat without a distinctive middle income peak in contrast to the non-platform population which shows a pronounced concentration around 35,000–40,000 euros consistent with standard full-time employment earnings.

The supplementary nature of platform work is further reflected in its contribution to total income. Among individuals who performed platform work in the preceding calendar month, the pilot survey data show that platform income accounted for less than one quarter of total monthly income for about 56 percent, while it represented at least three quarters for only 17.6 percent. For the majority of platform workers platform work thus constitutes a minor supplementary income source rather than a primary earnings activity, which is consistent with the broader European evidence on the secondary role of platform work in workers' overall income portfolios.

Figure 3.1. Weighted kernel density estimates of previous year annual labour income - platform workers and non-platform population



Notes: Figure restricted to incomes below €100 000 to focus on the low-income range where distributional differences are most pronounced. High income observations above this threshold are excluded for visual clarity; this excludes approximately 2.1 percent of the observations. Income is previous year labour income comprising wage and salary income and self-employment income from FOLK register data.

To examine the association between background characteristics and the probability of platform work participation we estimate a probit model. The dependent variable y_i is binary, taking the value one if individual i has done platform work and zero otherwise. Let y_i^* represent the unobservable propensity to engage in platform work for individual i :

$$y_i^* = X_i\beta + \varepsilon_i$$

where $y_i = 1$ if $y_i^* > 0$ and $y_i = 0$ otherwise, X_i is a vector of exogenous covariates, β is the vector of coefficients to be estimated, and ε_i is the error term assumed to follow a standard normal distribution.

We estimate two specifications. In the first specification X_i comprises demographic and socioeconomic characteristics: sex, age group, educational level, marital status, immigrant background, urban residence, and previous year labour income tertiles. The second extends this by adding employment status, distinguishing employees, self-employed workers, unemployed, and inactive persons, to examine whether sociodemographic characteristics are associated with platform work participation independently of labour market position. Both specifications are estimated using survey-weighted probit models with linearized variance estimation to account for the complex survey design of the platform work module.

Table 3.2 presents average marginal effects from the three probit specifications. To aid interpretation, we report average predicted probabilities alongside marginal effects, since equal absolute marginal effects can correspond to very different relative effects depending on the baseline probability of the outcome. The discussion focuses on Model 2, the full labour market specification, as the preferred specification, noting where results differ from Model 1. Model 3 serves as a robustness check restricting platform work to labour platform activities excluding goods selling and accommodation rental, while otherwise being similar to Model 2.

The probability of platform work participation decreases monotonically with age across all age groups being highest among the youngest workers and significantly lower for each successive age group³. This pattern is consistent with the greater digital familiarity and higher labour market flexibility of younger workers documented in the broader platform work literature. Individuals with an immigrant background exhibit a significantly higher

³ A robustness check using a finer five-category age breakdown (15–24, 25–34, 35–44, 45–54, 55–64) shows no significant difference between the 15–24 and 25–34 groups in Model 1, though the difference is significant in Models 2 and 3. In addition, no finer age group within 25–54 has a higher predicted probability of platform work participation than the youngest group in any specification, preserving the declining age pattern reported in the main specification. We retain the coarser three-category grouping throughout, including in the multinomial logit models, where finer age categories would produce small and unstable cell sizes once platform workers are further split by type.

probability of platform work participation, exceeding that of native workers by over 4 percentage points and constituting the largest marginal effect among the sociodemographic covariates examined.

This finding aligns with existing evidence from comparable studies, notably Kristiansen et al. (2023) and Piasna and Zwysen (2026), and underscores the marked overrepresentation of workers with immigrant background in the Finnish platform economy. Urban residence significantly increases the probability of platform work participation relative to non-urban areas, being consistent with the concentration of platform work opportunities in urban labour markets, particularly for onsite activities such as delivery and transport. Workers with tertiary education show a significantly higher probability of platform work participation compared to those with primary education, while the association for secondary education is not significant.

Previous year labour income is negatively and significantly associated with platform work participation. Relative to the lowest income tertile, both the middle- and high-income tertiles exhibit lower participation, indicating a monotonic decline in platform work with income. This pattern suggests that financial pressure is a significant driver of platform work participation in Finland, with lower income workers being more likely to seek supplementary income through platform work as an accessible income route and holds even after controlling for employment status and other socioeconomic characteristics.

Conventional labour market status, added in Model 2, reveals that self-employment significantly increases the probability of platform work participation by 5.7 percentage points relative to employees, while inactive status significantly decreases by 1.1 percentage points. The positive association between self-employment and platform work participation reflects both the structural affinity between independent work and platform work and the role of platform work as an additional income channel for self-employed workers, consistent with Congregado et al. (2022) who find that self-employed workers show substantially

higher predicted probabilities of platform work participation than paid employees across European countries. Unemployed workers show a positive but non-significant association with platform work suggesting that unemployment does not independently predict platform work participation once other characteristics are controlled. The negative inactive status association suggests that platform work is primarily a labour market activity rather than a route into employment for those outside the labour market.

Sex and marital status show significant associations with platform work participation in the sociodemographic Model 1, with women being less likely and married workers more likely to engage in platform work, but both lose significance when conventional labour market status is added in Model 2. This pattern suggests that neither association reflects a direct relationship with platform work participation but rather operates through the self-employment channel, with women less likely to be self-employed and therefore less likely to do platform work, while married workers are more likely to be self-employed and therefore more likely to participate. Once self-employment status is directly controlled in Model 2 the independent associations of sex and marital status on platform work participation are no longer statistically distinguishable from zero.

We reestimate Model 2 excluding self-employed workers, the group for whom conventional labour market status and platform work participation are most likely to be related in both directions. In this unreported specification the core findings related to immigrant background, age, and urban residence remain significant and consistent in magnitude, supporting the robustness of these associations across the majority of the sample. Three findings differ: the female coefficient becomes significant and negative, consistent with the mediation story above; and tertiary education and the high income tertile lose significance, suggesting these are partly driven by the self-employed subgroup

Model 3, restricting platform work to labour platform activities excluding goods selling and accommodation rental, produces broadly consistent results in terms of direction. Some

coefficients lose statistical significance due to the smaller sample under the restricted definition. The key findings of Model 2 related to foreign background, age, self-employment, and the middle income tertile remain statistically significant in Model 3, confirming these are robust predictors of labour platform work participation independently of the broader platform work definition. The high income tertile loses significance in the restricted sample, likely reflecting reduced statistical power rather than a genuine absence of association given its consistent negative direction across both specifications.

Table 3.2. Average marginal effects on the probability of platform work participation

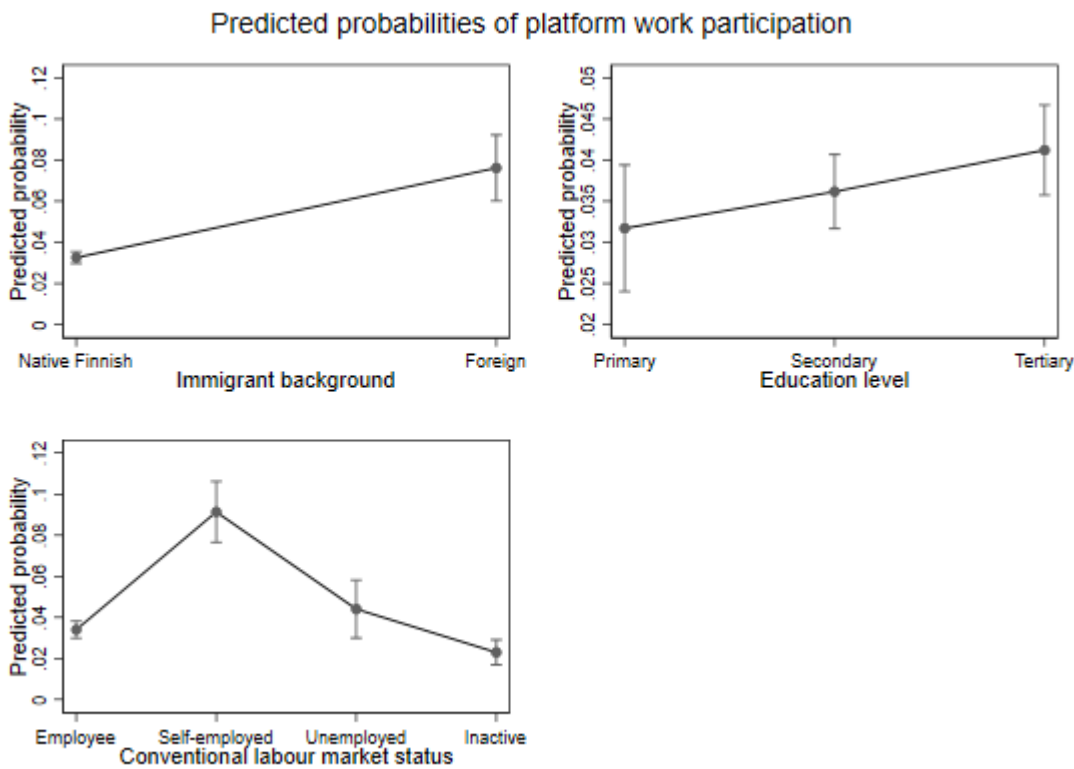
	(1)	(2)	(3)
Sex (ref. male)			
Female	-0.0072* (0.0031)	-0.0047 (0.0031)	-0.0035 (0.0025)
Age group (ref. 15-24)			
25-54	-0.0108* (0.0066)	-0.0173** (0.0070)	-0.00172** (0.0060)
55-64	-0.0028*** (0.0062)	-0.0345** (0.0067)	-0.0276*** (0.0057)
Education level (ref. primary)			
Secondary	0.0064 (0.0045)	0.0044 (0.0046)	0.0039 (0.0036)
Tertiary	0.0108** (0.0051)	0.0095* (0.0053)	0.0022 (0.0040)
Marital status (ref. nonmarried)			
Married	0.0072** (0.0034)	0.0053 (0.0033)	0.0019 (0.0027)
Immigrant (ref. native)			
Immigrant	0.0434*** (0.0084)	0.0436*** (0.0083)	0.00420** (0.0075)
Place of residence type: (ref. non-urban)			
Urban			
Previous year's labour income tertiles (ref. low)	0.0070* (0.0046)	0.0093** (0.0040)	0.0138** (0.0027)
Middle			
High	-0.0087* (0.0046)	-0.0131** (0.0052)	-0.0065* (0.0041)
	-0.0122** (0.0046)	-0.0147** (0.0054)	-0.0056 (0.044)

Conventional labour market status (ref. employee)	No	0.0573***	0.0348***
Self-employed		(0.0076)	(0.0064)
		0.0100	0.0060
Unemployed		(0.0077)	(0.0061)
		-0.0110**	-0.0050
Inactive		(0.0042)	(0.0035)
Average	0.0368	0.0368	0.0227
predicted probability			
N	18 542	18 535	18 262

Notes: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Reference categories: male, age 18–24, primary education, not married, native Finnish, lowest labour income tertile, employee. Specification 1 includes demographic and socioeconomic covariates only. Specification 2 extends Specification 1 by adding conventional labour market status. Specification 3 replicates Specification 2 restricting platform work to labour platform activities — excluding selling goods online and renting out accommodation. Average marginal effects reported. Standard errors in parentheses are adjusted for the complex survey design using linearization methods. Average predicted probabilities are calculated using the margins approach, by averaging individual-level predicted probabilities evaluated at observed covariate values, consistent with the computational approach used for the average marginal effects reported above.

Figure 3.2 presents predicted probabilities of platform work participation by immigrant background, education level, and conventional labour market status based on Model 2. The figure provides visual confirmation of the key findings, with the sharp contrast between native Finnish and foreign background workers, the rising pattern across education levels, and the pronounced peak for self-employed workers relative to all other labour market status categories all clearly visible.

Figure 3.2. Predicted probabilities of platform work participation by immigrant background, educational level, and conventional labour market status



Notes: Predicted probabilities computed from Model 2 at observed values of all other covariates. Model 2 includes sex, age group, educational level, marital status, immigrant background, urban residence, previous year labour income tertiles, and conventional labour market status.

3.2 Heterogeneity in Platform Work: Onsite versus Online Workers

Previous research indicates that considerable variation exists across labour platforms, underscoring the need to account for heterogeneity among platform workers. A growing body of research has developed typologies to capture this heterogeneity and distinguish among different types of digital labour platforms and forms of platform work (Codagnone et al., 2016; Schmidt, 2017; Berg et al., 2018; Hauben et al., 2020). One commonly used distinction differentiates between onsite and online labour platform work (Pesole et al., 2018). Online platform work refers to tasks mediated entirely through digital platforms,

allowing workers to complete assignments remotely without being physically present at a specific location. In contrast onsite platform work requires physical presence at a designated location, as in ridesharing, food delivery, or home services, where the platform coordinates assignments but execution is location dependent. Quantitative evidence on the determinants of participation in each type remains limited. One of the few relevant studies is Pesole et al. (2018), using data from the COLLEEM pilot survey across EU member states, who distinguish onsite platform work from professional and non-professional online platform work.

To examine heterogeneity within platform work and the determinants of different types of platform engagement in the Finnish labour market we adopt the broad onsite versus online distinction. In our data this classification is based on the variable indicating the type of platform service. Onsite platform work includes taxi services, transport services, cleaning and handiwork, child and elderly care, and medical and health care. Online platform work includes teaching and tutoring, programming and coding, online content support, translation, data or text entry, web or graphic design, and content creation such as videos or texts.

To examine the determinants of different types of platform work we employ a multinomial logit model with three outcome categories – non-platform population, onsite platform work, and online platform work – with the non-platform population as the base outcome. In the main specifications, Models 1 and 2, selling goods online and renting out accommodation are included within the broader online platform work category. Model 3 provides a robustness check excluding these activities, which are more appropriately classified as capital platform work allocating the use of durable goods through market-making mechanisms rather than mediating labour services (Ilsøe and Larsen, 2020), to assess sensitivity to this definitional choice. The potential two-way relationship between conventional labour market status and platform work participation, included in Models 2

and 3 and discussed in section 3.1, applies equally to the multinomial logit specifications estimated here

The multinomial logit model takes the following form:

$$P(y_i = m | x_i) = \frac{\exp(x_i\beta_m)}{\sum_{j=0}^2 \exp(x_i\beta_j)}, m = 0,1,2$$

where y_i denotes the outcome category for individual i taking the value 0 for non-platform population, 1 for onsite platform work, and 2 for online platform work. x_i is the vector of explanatory variables, identical to those used in the probit model in section 3.1, and β_m is the vector of coefficients for outcome m relative to the base outcome. The model is estimated separately for each non-base outcome – onsite and online – with coefficients interpreted relative to the non-platform population reference category.

The multinomial logit imposes the independence of irrelevant alternatives assumption where the relative probability of any two outcome categories is unaffected by the presence or absence of other categories. This assumption was assessed through coefficient stability checks, with estimating the model with each outcome category omitted in turn. Coefficients were broadly stable across specifications providing informal support for the multinomial logit specification.

Table 3.3 presents selected weighted covariate profiles across the three outcome categories. The descriptive statistics reveal clear differences between onsite and online platform workers. A foreign background is around 3.7 times more prevalent among onsite platform workers than among either online platform workers or the non-platform population, consistent with the occupational segregation of immigrant workers into physical platform activities. Urban residence is similarly more concentrated among onsite platform workers reflecting the geographic nature of onsite platform activities such as delivery and transport. By contrast online platform workers show a higher share of highly educated workers consistent with skill-based sorting into online platform activities. Self-employment is higher

for both platform work types relative to the non-platform population, consistent with the structural affinity between self-employment and platform work regardless of type.

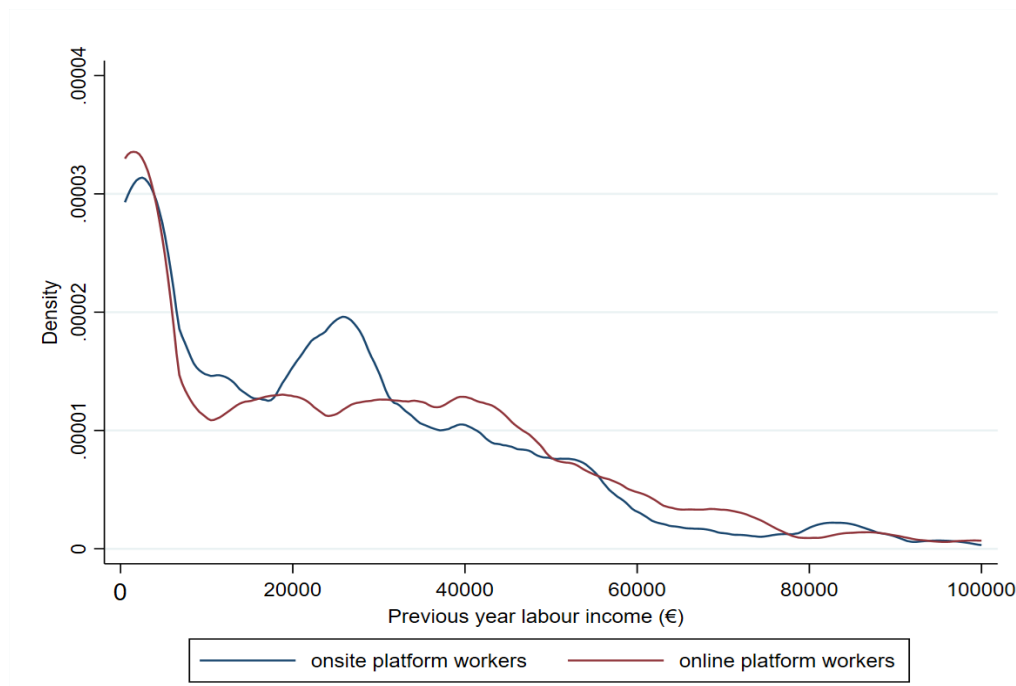
Table 3.3. Selected characteristics by platform work type, %

	Onsite platform	Online platform	Non-platform population	p-value
Immigrant background	50.1	13.4	10.4	0.0000
Urban	96.6	88.9	88.1	0.0000
Education high	30.7	39.3	36.2	0.0013
Self-employed	19.6	20.9	8.6	0.0000
Unweighted N	217	453	18 105	
Weighted N	48 165	84 459	3 258 997	

Notes: Column percentages are weighted using the platform module survey weight. P-values for categorical variables are from design-adjusted Wald tests based on survey-weighted cross-tabulations. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure 3.3 presents weighted kernel density estimates of previous year labour income for onsite and online platform workers restricted to incomes below 100,000 euros. Both distributions show a pronounced concentration at low income levels reflecting the prevalence of platform workers with limited conventional employment income. Online platform workers show a higher density peak at very low income levels, suggesting greater concentration among workers with minimal labour income. Onsite platform workers exhibit a distinctive secondary peak at approximately 25,000–30,000 euros which is absent among online platform workers. The two distributions converge at higher income levels, suggesting that high income workers participate in both platform work types at similar rates.

Figure 3.3. Weighted kernel density estimates of previous year labour income by platform work type



Notes: Figure restricted to incomes below €100 000 to focus on the low income range where distributional differences are most pronounced. High income observations above this threshold are excluded for visual clarity. Income is previous year labour income comprising wage and salary income and self-employment income from FOLK register data.

Information on the contribution of platform work to total income is available for platform workers active in the preceding calendar month. Among these active onsite platform workers approximately 30 percent derive more than three quarters of their total income from platform work, suggesting that for a meaningful share platform work constitutes a primary rather than supplementary income source. The corresponding proportion among online platform workers is considerably lower, with nearly 61 percent receiving less than one quarter of their income from platform work, compared with approximately 39 percent among onsite workers. Online platform work thus plays a more supplementary income role than onsite platform work among active platform workers, consistent with European evidence that platform work constitutes a secondary rather than primary income source for the majority of platform workers (Eurofound, 2018; Pesole et al., 2018).

Figure 3.4 presents average marginal effects from Model 2, the preferred specification, for onsite and online platform work simultaneously. Full results for all three specifications are presented in Table A1 in the appendix. The results reveal marked differences between the determinants of onsite and online platform work participation, suggesting that the two platform work types attract workers from systematically different segments of the working age population. Average marginal effects represent the change in predicted probability of each outcome category associated with a unit change in each covariate, with discrete changes computed for categorical variables.

The most striking contrast concerns foreign background and urban residence. Foreign background is the largest marginal effect for onsite platform work, significantly and substantially increasing the probability of onsite participation, but is not significantly associated with online platform work. This pattern is consistent with occupational segregation whereby immigrant workers are disproportionately channelled into physical onsite platform activities such as delivery and transport rather than skill-based online platform work. Similarly, urban residence significantly increases the probability of onsite platform work, reflecting the geographic concentration of onsite platform opportunities in urban labour markets, but does not significantly predict online platform work participation in Model 2, consistent with the location-independent nature of online platform activities.

The education gradient also differs across platform work types. Secondary education is positively and significantly associated with onsite platform work relative to primary education while tertiary education is positively and significantly associated with online platform work in Model 2. This education-based sorting, where mid-level educated workers are more likely to do onsite work, higher educated workers are more likely to do online work, is broadly consistent with Pesole et al. (2018) who find that higher educational attainment is associated with professional online platform work and lower probability of onsite participation. However, as discussed below this education gradient for online platform work is not robust to the restricted platform work definition in Model 3.

The income findings reveal a further important contrast. Previous year labour income is not significantly associated with onsite platform work but shows a significant negative gradient for online platform work in Model 2 with lower income workers being more likely to engage in online platform activities. This suggests that financial pressure operates as a driver of online rather than onsite platform work participation in the broader definition. For onsite platform work foreign background and self-employment appear to be more important predictors than income position.

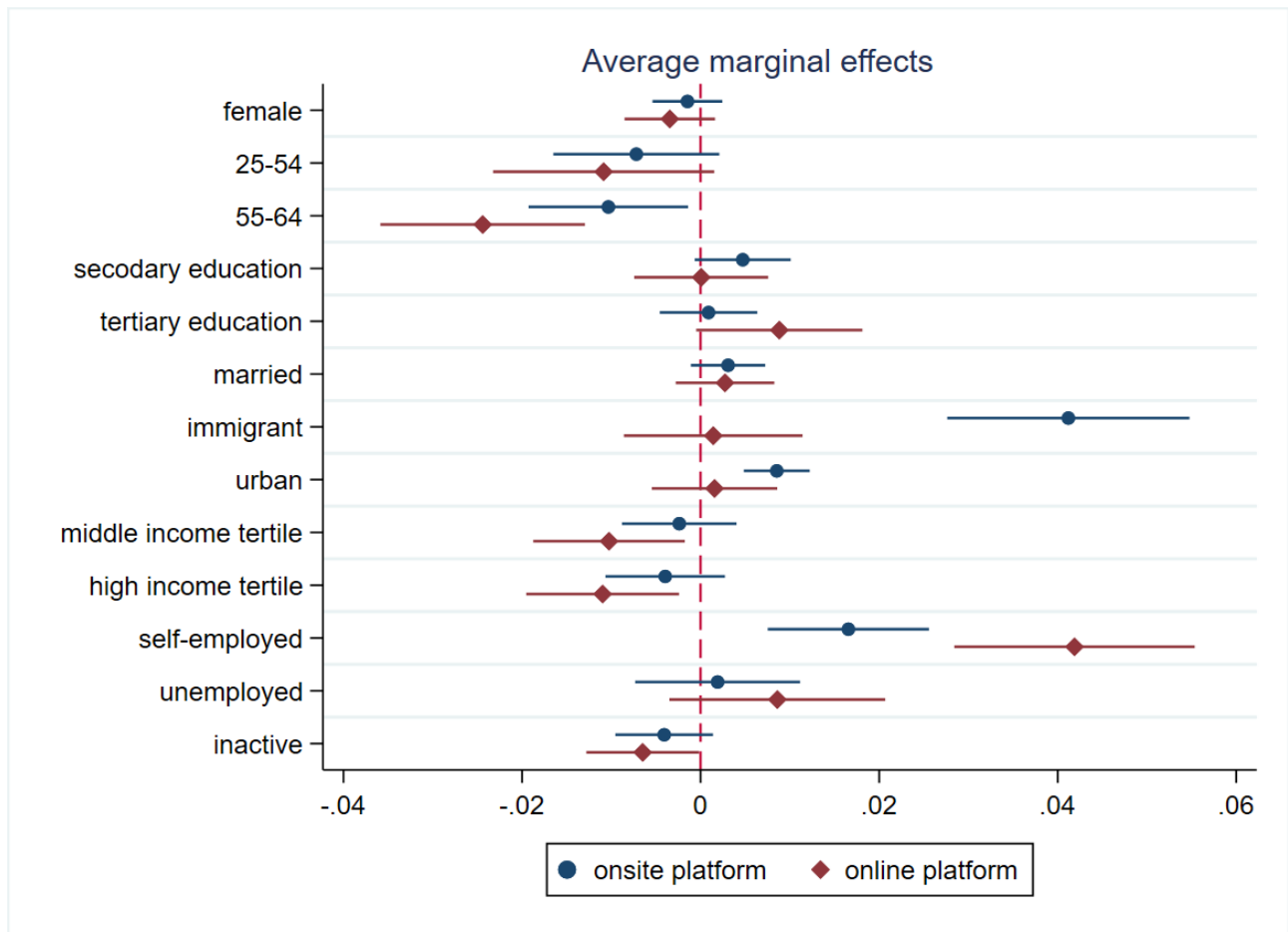
The age pattern also differs between types. Both age groups show negative and significant associations with online platform work, with younger workers being disproportionately likely to engage in online activities, while for onsite platform work only the oldest age group shows a significant negative association. This suggests online platform work is particularly concentrated among the youngest workers while onsite platform work shows a less pronounced age gradient.

Self-employment significantly increases the probability of both onsite and online platform work participation, a pattern that is consistent across platform work types and indicates a close relationship between self-employment and platform work regardless of type. Inactive status significantly reduces the probability of online platform work but is not significantly associated with onsite platform work, likely reflecting the skill requirements of the two platform work types. Online platform activities such as programming, translation, and content creation demand specific human capital that inactive working age persons are less likely to possess, while onsite platform activities such as delivery and transport are more accessible regardless of skill level or labour market status.

Sex and marital status are not significantly associated with either platform work type in Model 2, consistent with the section 3.1 finding that these associations are mediated by employment status rather than reflecting direct associations with platform work participation. This null finding for gender is consistent with Pesole et al. (2018), who

similarly find no significant role for gender across platform work types, although they find age to be negatively associated specifically with professional online platform work.

Figure 3.4. Average marginal effects from multinomial logit Model 2 for onsite and online platform work



Notes: Average marginal effects from survey-weighted multinomial logit. Spikes represent 95 percent confidence intervals. Discrete changes from 0 to 1 computed for categorical variables.

Model 3 restricts online platform work to labour platform activities, excluding goods selling and accommodation rental, with the onsite definition unchanged. For online platform work several changes emerge, though the substantially smaller online category under the restricted definition reduces statistical power and may account for some losses of significance. Urban residence, which is non-significant for online in Model 2, becomes

significant and positive in Model 3, suggesting that pure labour online platform work is more concentrated in urban areas, but this relationship is obscured when asset-based activities are included. Tertiary education and the income gradient lose significance in Model 3 attributable partly to reduced statistical power and partly to the distinct characteristics of goods sellers and accommodation renters within the broader online category. Self-employment remains significant and positive throughout, the one finding fully robust across both specifications for online platform work.

3.3 Platform Work and Multiple Jobholding: Necessity or Portfolio Diversification?

Despite growing interest in platform work, only a handful of studies have examined its relationship with multiple jobholding (MJH) directly, and the literature on this intersection remains thin internationally. The few studies addressing the embeddedness of platform work within the conventional economy have found that the majority of platform workers are simultaneously employed in the conventional labour market and use platform work as a secondary or sporadic source of income, as noted above. Some studies — notably Ilsøe et al. (2021) — conceptualise multiple jobholding as the combination of any platform activity with conventional employment, emphasizing the structural duality between protected and unprotected labour market positions. Our paper adopts the standard ILO Labour Force Survey definition of multiple jobholding, holding two or more jobs in the reference week, and uses the platform work module to distinguish platform from non-platform multiple jobholders. This more conservative approach requires platform activity to meet the formal second job threshold but has the advantage of comparability with the established multiple jobholding literature.

The labour economics literature distinguishes two broad motivations for multiple jobholding. Necessity-driven motivations arise when the main job provides insufficient hours or income. The hours constraint hypothesis holds that workers seek a second job to reach their preferred total working hours and income level (Shishko and Rostker, 1976;

Paxson and Sicherman, 1996), or when job insecurity motivates income diversification as insurance against unemployment (Böheim and Taylor, 2004). Non-necessity motivations center on the heterogeneous jobs motive/job portfolio motive, where workers seek a second job for non-pecuniary benefits such as job satisfaction, skill development, or working time flexibility unavailable in the main job (Böheim and Taylor, 2004; Livanos and Zangelidis, 2012). These motivations are not mutually exclusive and empirical evidence supports both (Conway and Kimmel, 1998; Heineck and Schwarze, 2004).

Central questions are whether platform work combined with multiple jobholding in the Finnish context serves a necessity function, compensating for insufficient income and hours in the main job, an opportunity function, providing portfolio diversification for workers seeking to combine earnings from multiple sources, or a combination of both, and how platform multiple jobholders differ from their conventional counterparts in this respect.

These motivations generate different predictions about the characteristics of platform multiple jobholders and how they compare with conventional multiple jobholders. Under the hours constraint hypothesis, platform multiple jobholders should be disproportionately part-time workers with low main job hours and low income. Under the heterogeneous jobs or portfolio motivation, platform multiple jobholders should be concentrated among higher income and higher educated workers who seek non-pecuniary benefits, such as job satisfaction, skill development, or working time flexibility, unavailable in their main job, rather than seeking additional income for necessity-based reasons. If both motivations operate simultaneously within platform MJH, we would expect a heterogeneous income profile rather than a clear gradient in either direction. For non-MJH platform workers, who engage in platform work without formal multiple jobholding, platform work is more likely to serve a necessity function, with lower income workers disproportionately using platform work as an accessible supplementary income route that does not require the commitment of a formal second job.

To examine these predictions, we construct a four-category typology, distinguishing platform multiple jobholders, conventional multiple jobholders, non-MJH platform workers, and non-platform non-multiple jobholders, and estimate a survey-weighted multinomial logit model to identify the characteristics associated with each category.

We construct a four-category typology of labour market positions based on the combination of multiple jobholding status recorded in the LFS reference week and platform work participation recorded over the preceding 12 months. The reference category comprises workers with no multiple jobholding and no platform work, the modal group of conventionally employed single-job workers without platform activity. Conventional multiple jobholders are workers who report having worked in two or more jobs during the reference week but no platform work activity in the preceding 12 months. Platform multiple jobholders combine reported multiple jobholding in the reference week with platform work activity in the preceding 12 months. Finally, non-MJH platform workers are employed workers who report platform work activity in the preceding 12 months but do not report multiple jobholding in the reference week, a group that corresponds broadly in multiple jobholding terms to the platform worker population identified by Ilsøe et al. (2021) under their broader definitional approach. The distribution of the analysis sample across these four categories is presented in Table 3.4.

It should be noted that category 2, platform multiple jobholders, is likely to underrepresent the true prevalence of this group. The requirement that both platform work and multiple jobholding are simultaneously observed, the former over a 12-month recall period and the latter within a single reference week, means that workers who combine platform work and conventional second jobs sporadically or seasonally may not be jointly captured in the same category. Category 2 estimates should therefore be interpreted as conservative and most reliably characterising workers who regularly and concurrently combine platform work with conventional multiple jobholding rather than all workers who do so at any point during the year. Furthermore, the relatively small number of platform multiple jobholders

in the analysis sample means that estimates for this category should be interpreted as indicative rather than definitive, while estimates for the remaining categories are more robustly determined. Consequently, the multinomial logit specification is restricted to theoretically central covariates, namely part-time status, hours worked in the main job⁴, education level, previous year labour income tertiles and sex.

Table 3.4 presents weighted covariate profiles across the four outcome categories. Statistically significant differences are found for sex, education level, part-time status, and previous year labour income tertiles, while mean hours in the main job does not differ significantly across categories. The income distribution reveals a pronounced gradient, with the share of low income workers rising progressively from 15.7 percent among non-multiple jobholders without platform work, to 17.9 percent among conventional multiple jobholders, to 21.1 percent among platform multiple jobholders, reaching 27.9 percent among non-MJH platform workers. Conversely, the share of high income workers is distinctly lower among non-MJH platform workers than in the other three categories – at 32.9 percent compared with 43.1 to 43.9 percent – though it remains substantial, indicating that non-MJH platform work attracts workers across the income distribution rather than being exclusively a low income phenomenon. Together, these patterns suggest that the income distribution of non-MJH platform workers is shifted downward relative to other categories. The remaining categories show broadly similar income profiles, though platform multiple jobholders have a somewhat higher low income share than conventional multiple jobholders.

⁴ Although part-time status and hours worked in the main job are mechanically related, variance inflation factors for both variables remain below 2, well below commonly used thresholds for problematic multicollinearity, indicating that multicollinearity is unlikely to materially influence the estimates.

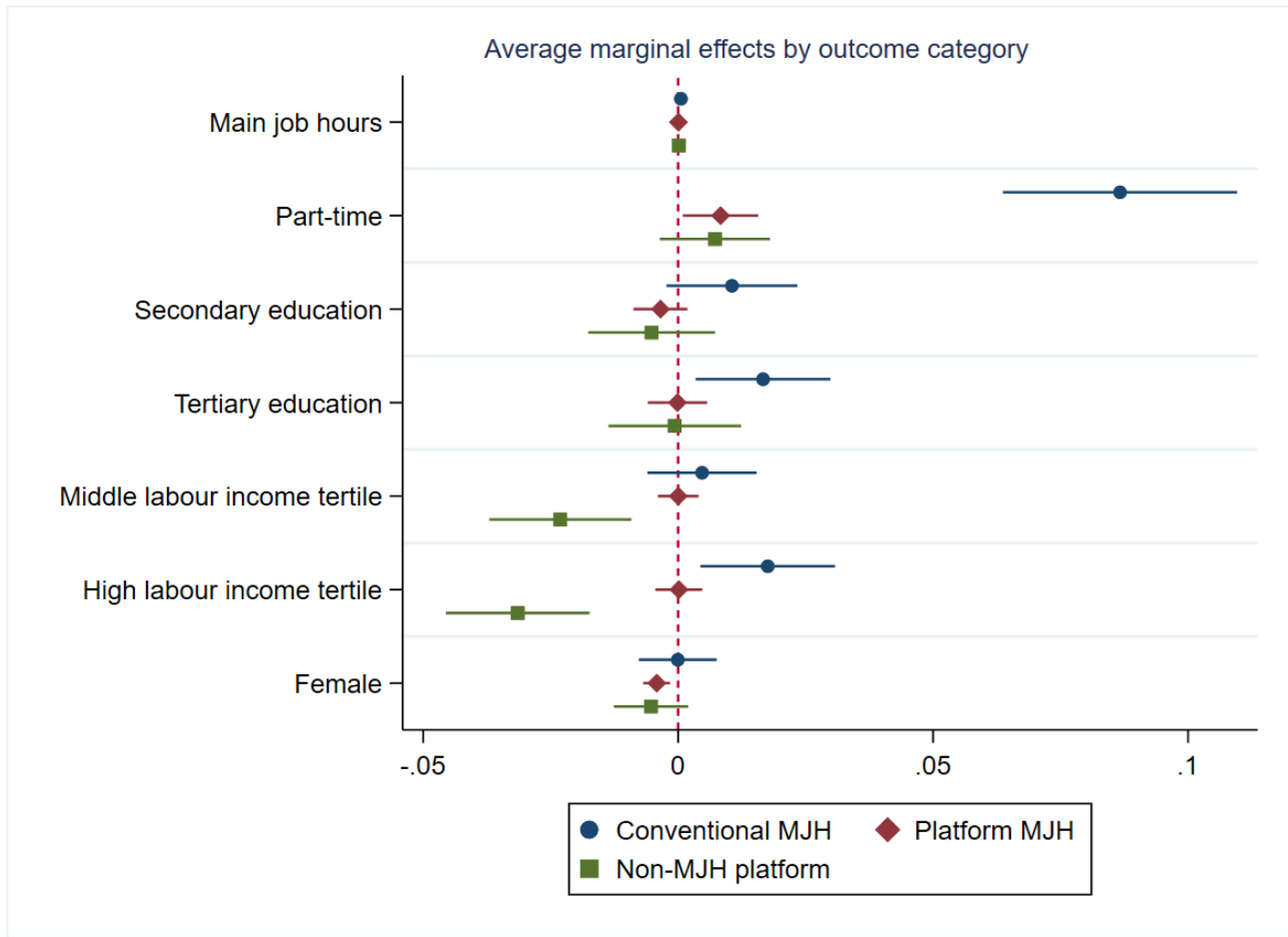
Table 3.4. Characteristics of workers by multiple jobholding and platform work

	No MJH and no platform	Conventional MJH	Platform MJH	Non-MJH platform	p-value
Hours in main job	30.4	30.8	30.9	29.8	0.871
Part-time	15.1	30.5	28.5	23.4	0.008
Education level:					0.022
Low	10.7	8.6	17.6	10.8	
Middle	46.7	45.1	33.1	46.5	
High	42.6	46.2	49.3	42.8	
Previous year labour income tertiles:					0.000
Low	15.7	17.9	21.1	27.9	
Middle	41.0	38.1	35.5	39.2	
High	43.1	43.9	43.3	32.9	
Female	48.7	50.9	32.9	46.7	0.032
Unweighted N	13430	726	76	466	
Weighted N	2 290 743	120 671	13 324	89 246	

Notes: Column percentages are weighted using the platform module survey weight. P-values for categorical variables are from design-adjusted Wald tests based on survey-weighted cross-tabulations. P-value for mean hours worked is from an F-test of joint equality of means across categories estimated by survey-weighted regression. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

To examine the association between individual characteristics and MJH category membership, net of other covariates, we estimate a survey-weighted multinomial logit model. The average marginal effects from this model are presented in Figure 3.5 and in Table A.2 in appendix A, where average predicted probabilities are again reported alongside the marginal effects, since the average predicted probability differs markedly across the four categories.

Figure 3.5. Average marginal effects from multinomial logit by platform work and multiple jobholding category



Notes: Average marginal effects from survey-weighted multinomial logit with no MJH no platform workers as reference category. Spikes represent 95 percent confidence intervals.

The average marginal effects reveal systematic differences across the outcome categories. Starting with labour supply variables, part-time employment in the main job is positively and significantly associated with both multiple jobholding categories, increasing the predicted probability of conventional MJH by 8.7 percentage points and platform MJH by 0.8 percentage points. The association remains stronger for conventional MJH even in relative terms: given the average predicted probability in each category, the percentage point increases correspond to relative changes of approximately 183 percent for conventional MJH and 162 percent for platform MJH. Although conventional MJH retains a somewhat larger relative effect, the two percentages are reasonably close in magnitude

compared with the much larger gap between the absolute percentage-point effects, indicating that part-time status plays a proportionally similar role in explaining multiple jobholding across the conventional and platform forms. Formal testing of the difference between the two associations was not conducted.

Hours worked in the main job shows a very small but statistically significant positive association with both MJH categories. Although the direction of the effect is contrary to the hours constraint prediction, it is more consistent with a portfolio motive. However, its negligible magnitude warrants caution in interpretation. Main job hours are not significantly associated with non-MJH platform work participation, suggesting that hours constraints are not a primary correlate of platform work without multiple jobholding.

Turning to human capital variables, educational level is significantly associated with conventional MJH but not with platform MJH or non-MJH platform work. Higher educated workers are more likely to be conventional multiple jobholders, consistent with the heterogeneous jobs motive, where motives other than necessity drive the decision to seek a second job. For the two platform categories, the negative direction of the coefficients nonetheless suggests a tendency for platform work probability to decrease with higher education, more consistent with necessity than heterogeneous jobs motivation, though this pattern should be interpreted cautiously given the absence of statistical significance."

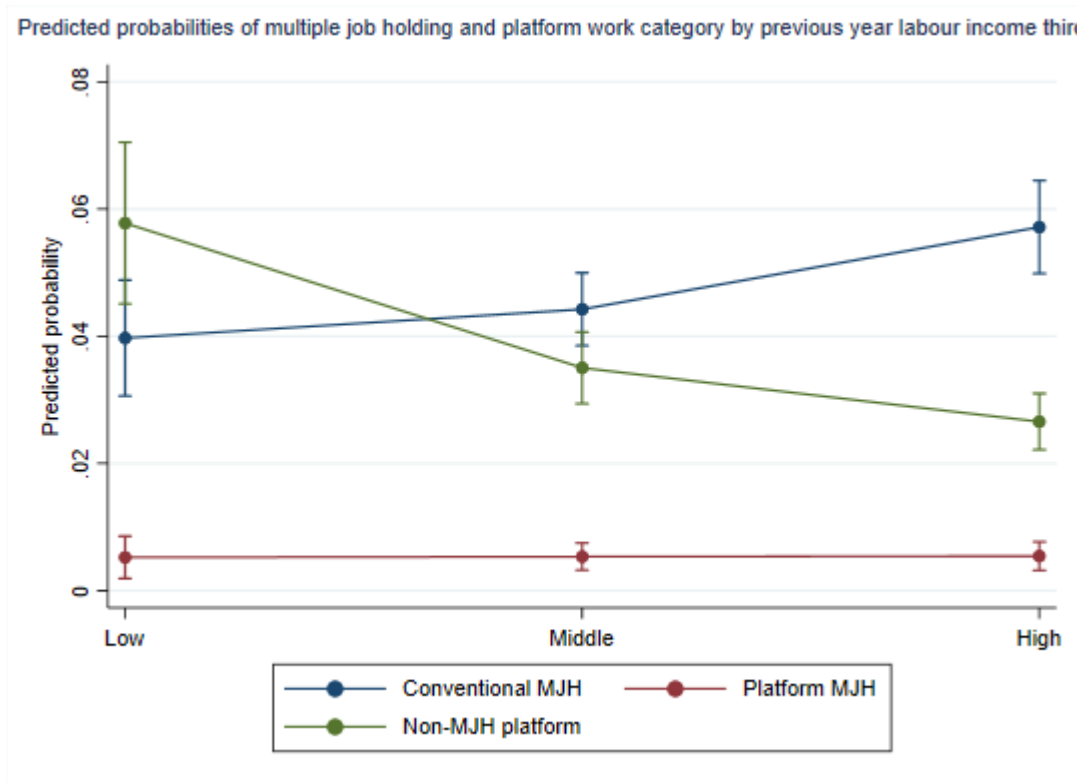
The income findings bear on the necessity versus opportunity debate. Higher income is positively associated with conventional MJH, consistent with job portfolio theory, while income is not significantly associated with platform MJH. For non-MJH platform workers, previous year labour income is negatively and significantly associated with category membership, with lower income workers significantly more likely to be in this category. Together these findings suggest a gradient of necessity motivation across categories, most pronounced for non-MJH platform workers, absent for conventional MJH workers, and neither clearly present nor absent for platform MJH workers. For platform MJH workers

income invariance may reflect a mix of necessity and job portfolio motivations within this group that cancel each other out at the aggregate level. The absence of a significant hours association for non-MJH platform workers despite the significant negative income gradient may partly reflect the overrepresentation of self-employed workers in this group, for whom hours constraints do not apply in the conventional sense.

Figure 3.6 presents the predicted probabilities of category membership across previous year labour income tertiles for the three non-reference categories, revealing a theoretically informative divergence across income tertiles. Conventional MJH and non-MJH platform workers show opposite income gradients, with the predicted probability of conventional multiple jobholding increasing monotonically from low to high income tertiles, while that of non-MJH platform work declines monotonically across the same range.

This divergence directly maps onto the portfolio versus necessity distinction, with conventional MJH concentrated among higher income workers and platform work without strictly defined multiple jobholding concentrated among lower income workers. Platform MJH shows a flat income profile, conforming to neither gradient and consistent with a mix of necessity and portfolio motivations within this group. That three forms of supplementary work show three distinctly different income gradients – upward, downward, and flat – is itself a novel empirical finding. The figure provides visual confirmation of these divergent income functions in the Finnish labour market.

Figure 3.6. Predicted probabilities of multiple jobholding and platform work category membership by previous year labour income tertile



Notes: Predicted probabilities from survey-weighted multinomial logit at observed values of all other covariates. No MJH no platform category omitted for visual clarity. Income tertiles based on weighted tertiles of previous year labour income.

Being female is negatively associated with all three non-reference categories, smallest and non-significant for conventional MJH, stronger but still non-significant for non-MJH platform workers, and largest and statistically significant for platform MJH, where the share of female workers is also clearly lower in the descriptive statistics. Although small in absolute terms (AME = -0.0042), this corresponds to an approximately 84 percent change relative to the category's average predicted probability, suggesting a substantively large effect in relative rather than absolute terms. Notably the female share among conventional multiple jobholders is approximately equal to the male share, making the significant negative female association specific to platform MJH theoretically informative: women are substantially underrepresented in the combination of platform work and multiple

jobholding but not in conventional multiple jobholding or platform work without multiple jobholding. This pattern points toward the male-dominated nature of Finnish platform work, particularly onsite delivery and transport, as a contributing factor in the gender gap rather than a general female aversion to multiple jobholding. As the data do not allow direct testing of this mechanism, the gender pattern warrants further investigation.

Taken together, the results reveal that conventional MJH, platform MJH, and non-MJH platform work are empirically distinct phenomena associated with partially different characteristics and patterns. Conventional MJH is consistent with the heterogeneous jobs or portfolio prediction, concentrated among higher income and higher educated workers.

Non-MJH platform work is most clearly consistent with the necessity prediction, disproportionately attracting lower income workers for whom platform work represents the most accessible supplementary income route. Notably, non-MJH platform workers, who combine platform work with conventional employment without meeting the formal multiple jobholding threshold, correspond broadly to the platform worker population studied by Ilsøe et al. (2021), and the necessity pattern observed for this group is consistent with their finding that lower income workers are more likely to generate platform income alongside conventional employment.

Platform MJH conforms to neither framework, exhibiting income invariance and a distinctive gender gap not observed in conventional MJH. One possible interpretation is that both necessity and portfolio motivated workers are present within this heterogeneous category, with opposing income tendencies cancelling at the aggregate level, a pattern tentatively consistent with Congregado et al. (2022) who find that hybrid self-employed workers combining employment with secondary self-employment show both necessity and opportunity motivations simultaneously. Given the small cell size of the platform MJH category this interpretation should be treated as tentative and warrants further investigation.

4 Conclusion

This paper provides nationally representative evidence on platform work in Finland, examining three interrelated questions: who engages in platform work and what characteristics are associated with participation; how the profiles of onsite and online platform workers differ; and the extent to which platform workers combine platform work with conventional employment and how platform multiple jobholders differ from both employed platform workers without strictly defined multiple jobholding and from conventional multiple jobholders.

Drawing on a unique combination of survey and register data, we find that immigrant background is strongly associated with platform work participation, with immigrant workers exhibiting significantly higher participation rates than native Finnish workers. The probability of participation decreases with age and tends to increase with educational attainment, most clearly among tertiary educated workers. Urban residence is also positively associated with participation, consistent with the geographic concentration of platform opportunities in urban labour markets. Lower previous-year labour income is likewise associated with higher platform work participation, a pattern consistent with interpretations emphasizing economic necessity and financial pressure as correlates of platform work participation.

Our analysis of platform work heterogeneity reveals that onsite and online platform workers have systematically different profiles. Immigrant background and urban residence emerge as significant correlates of onsite platform work, consistent with the higher prevalence of immigrant workers in onsite platform activities and the geographic concentration of onsite opportunities. For online platform work, lower previous-year labour income is negatively associated with participation net of education and self-employment, a pattern absent for onsite platform work. This asymmetry may partly reflect the dominant role of immigrant background in onsite platform work, a characteristic associated with

lower labour market incomes in the literature, which may account for part of the income variation otherwise associated with onsite platform work.

We also contribute to the literature by providing the first nationally representative evidence on the intersection of platform work and multiple jobholding in Finland. Our findings reveal that platform work and conventional multiple jobholding serve empirically distinct functions in the Finnish labour market. Conventional multiple jobholding is concentrated among higher income and higher educated workers, consistent with job portfolio theory, while platform work without multiple jobholding exhibits a contrasting necessity-oriented pattern, being more prevalent among lower income workers. Platform multiple jobholding aligns fully with neither framework. Rather than reflecting either the opportunity-driven profile of conventional multiple jobholding or the necessity-oriented profile associated with platform work without multiple jobholding, platform multiple jobholders occupy a distinct position characterized by income invariance across the earnings distribution. These findings contribute to ongoing debates on whether platform work reinforces or mitigates existing labour market inequalities and extend a literature dominated by evidence from liberal market economies to a Nordic welfare-state context.

A further distinctive finding is a statistically significant gender gap in platform MJH, absent from conventional multiple jobholding, with women substantially underrepresented in the combination of platform work and multiple jobholding. Although small in absolute terms (AME = -0.0042), this corresponds to an approximately 84 percent change relative to the category's average predicted probability, suggesting a substantively large effect in relative rather than absolute terms.

While this paper addresses the need for representative descriptive evidence on platform work participation and its combination with multiple jobholding, future research employing causal identification strategies is needed on the consequences of platform work

participation, particularly for workers combining platform work with multiple jobholding, to inform policy development on employment and income outcomes.

References

- Alasoini, T., Immonen, J., Seppänen, L., and Käsälä, M. (2023). Platform workers and digital agency: Making out on three types of labor platforms. *Frontiers in Sociology*, 8, 1063613. doi: 10.3389/fsoc.2023.1063613
- Bejaković, P. and Gladoić Håkansson, P. (2021). Platform work as an important new form of labour in Croatia. *Zagreb International Review of Economics and Business*, 24, 159–171. doi: 10.2478/zireb-2021-0015.
- Berg, J., Furrer, M., Harmon, E., Rani, U., and Silberman, M. S. (2018). *Digital labour platforms and the future of work: Towards decent work in the online world*. Geneva: International Labour Organization (ILO).
- Böheim, R. and Taylor, M. P. (2004). *And in the evening she's a singer with the band: Second jobs, plight or pleasure?* IZA Discussion Paper No. 1081. Bonn: IZA.
- Codagnone, C., Abadie, F., and Biagi, F. (2016). *The future of work in the 'sharing economy': Market efficiency and equitable opportunities or unfair precarisation?* EUR 27913 EN. Luxembourg: Publications Office of the European Union. JRC101280.
- Congregado, E., de Andrés, M. I., Nolan, E., and Román, C. (2022). Heterogeneity among self-employed digital platform workers: Evidence from Europe. *International Review of Entrepreneurship*, 20(1), 45–68.
- Conway, K. S. and Kimmel, J. (1998). Male labor supply estimates and the decision to moonlight. *Labour Economics*, 5(2), 135–166.
- Eurofound (2018). *Employment and working conditions of selected types of platform work*. Luxembourg: Publications Office of the European Union.
- Fredman, S., Du Toit, D., Bertolini, A., Valente, J., and Graham, M. (2025). Fair work for platform workers: Lessons from the EU Directive and beyond. *Industrial Law Journal*, 54(3), dwaf018.
- Hauben, H., Lenaerts, K., and Waeyaert, W. (2020). *The platform economy and precarious work*. Publication for the Committee on Employment and Social Affairs, Policy Department for Economic, Scientific and Quality of Life Policies. Luxembourg: European Parliament. PE 652734.

- Healy, J., Nicholson, D., and Pekarek, A. (2017). Should we take the gig economy seriously? *Labour & Industry: A Journal of the Social and Economic Relations of Work*, 27(3), 232–248. doi: 10.1080/10301763.2017.1377048
- Heineck, G. and Schwarze, J. (2004). *Fly me to the moon: The determinants of secondary jobholding in Germany and the UK*. IZA Discussion Paper No. 1358. Bonn: Institute for the Study of Labor (IZA).
- ILO (2021). *World Employment and Social Outlook 2021: The role of digital labour platforms in transforming the world of work*. Geneva: International Labour Office.
- Ilsoe, A. and Larsen, T. P. (2020). Digital platforms at work: Champagne or cocktail of risks? In A. Strømmen-Bakhtiar and E. Vinogradov (Eds.), *The Impact of the Sharing Economy on Business and Society: Digital Transformation and the Rise of Platform Businesses* (pp. 1–20). London: Routledge. doi: 10.4324/978042929320.
- Ilsoe, A., Larsen, T. P., and Bach, E. S. (2021). Multiple jobholding in the digital platform economy: signs of segmentation. *Transfer: European Review of Labour and Research*, 27(2), 201–218. [Wiley Online Library](#).
- Kovalainen, A., Poutanen, S., Rouvinen, P., Hakanen, J., and Seppänen, L. (2019). *Alustatyö kasvaa ja edellyttää kestäviä ratkaisuja*. SWIPE Alustatalous Policy Brief, helmikuu 2019.
- Kovalainen, A., Poutanen, S., Rouvinen, P., ja Seppänen, L. (2019). Alustatalous muuttaa työtä, mutta millä tavalla? *Talous ja Yhteiskunta*, 47(2), 24–29
- Kristiansen, J. H., Larsen, T. P., and Ilsoe, A. (2023). Hybrid work patterns: A latent class analysis of platform workers in Denmark. *Nordic Journal of Working Life Studies*, 13(S10), 55–76. doi: <https://doi.org/10.18291/njwls.133721>.
- Livanos, I. and Zangelidis, A. (2012). Multiple job-holding among male workers in Greece. *Regional Studies*, 46(1), 119–135.
- OECD (2018). *Good Jobs for All in a Changing World of Work: The OECD Jobs Strategy*. Paris: OECD Publishing. doi: 10.1787/9789264308817-en
- Paxson, C. H. and Sicherman, N. (1996). The dynamics of dual job holding and job mobility. *Journal of Labor Economics*, 14(3), 357–393.
- Perkiö, M., Mbare, B., Svyntarenko, A., Kokkinen, L., and Koivusalo, M. (2023). *Occupational Safety and Health Risks amongst Food Delivery Workers*. Work Research Centre, Tampere University.

- Pesole, A., Urzì Brancati, M.C., Fernández-Macías, E., Biagi, F., and González Vázquez, I. (2018). *Platform workers in Europe: Evidence from the COLLEEM survey*. EUR 29275 EN, Publications Office of the European Union, Luxembourg. doi:10.2760/742789, JRC112157.
- Piasna, A. and Zwysen, W. (2026). Is platform work migrant work? The economic and social conditions behind migrant (over-)representation in the platform economy across Europe. *International Labour Review*, 165(1), 1–22.
- Schmidt, F. A. (2017). *Digital labour markets in the platform economy: Mapping the political challenges of crowd work and gig work*. Bonn: Friedrich-Ebert-Stiftung. Available at: <https://library.fes.de/pdf-files/wiso/13164.pdf>.
- Seppänen, L., Hasu, M., Käpykangas, S., and Poutanen, S. (2018). On-demand work in platform economy: implications for sustainable development. In S. Bagnara, R. Tartaglia, S. Albolino, T. Alexander and Y. Fujita (Eds.), *Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018)* (Vol. VIII: Work, Organizational Design and Sustained Development, pp. 803–811). Springer.
- Seppänen, L., Käsälä, M., Immonen, J., and Alasoini, T. (2022). *Näkökulmia alustatyön reiluuteen. Reiluuden mallit alustatyössä -hankkeen loppuraportti*. Helsinki: Työterveyslaitos ja Työsuojelurahasto.
- Shishko, R. and Rostker, B. (1976). The economics of multiple job holding. *American Economic Review*, 66(3), 298–308.

Appendix A

Table A.1. Average marginal effects - different types of platform work (Multinomial logit) – Models 1, 2 and 3

	Model 1		Model 2		Model 3	
	Onsite platform	Online platform	Onsite platform	Online platform	Onsite platform	Online platform
Female	-0.0023 (0.0019)	-0.0053** (0.0025)	-0.0014 (0.0019)	-0.0034 (0.0025)	-0.0008 (0.0019)	-0.0028 (0.0018)
Age group (ref. 15-24)						
25-54	-0.0050 (0.0043)	-0.0060 (0.0056)	-0.0072 (0.0047)	-0.01086* (0.0063)	-0.0062 (0.0044)	-0.0114** (0.0052)
55-64	-0.0082** (0.0041)	-0.0198*** (0.0052)	-0.0103** (0.0045)	-0.0244*** (0.0058)	-0.0088** (0.0042)	-0.0189** (0.0047)
Education level (ref. primary)						
Secondary	0.0053** (0.0025)	0.0013 (0.0037)	0.0047* (0.0027)	0.00006 (0.0038)	0.0044* (0.0027)	-0.0003 (0.0024)
Tertiary	0.0012 (0.0026)	0.0095* (0.0046)	0.009 (0.0027)	0.0088* (0.0047)	-0.0002 (0.0026)	0.0028 (0.0031)
Marital status (ref. nonmarried)						
Married	0.0034 (0.0021)	0.0041 (0.0029)	0.0030 (0.0021)	0.0027 (0.0028)	0.0030 (0.0020)	-0.0007 (0.0020)
Immigrant (ref. native)						
Immigrant	0.0412*** (0.0069)	0.0013 (0.0050)	0.0411*** (0.0069)	0.0014 (0.0051)	0.0370*** (0.0065)	0.0037 (0.0079)
Place of residence type: (ref. non urban)						
Urban	0.0082*** (0.0019)	-0.0004 (0.0038)	0.0085*** (0.0018)	0.0015 (0.0035)	0.0080*** (0.0018)	0.0062** (0.0062)
Previous year's labour income tertiles (ref. low)						
Middle	-0.0005 (0.0026)	-0.0077* (0.0040)	-0.0024 (0.0032)	-0.0102** (0.0043)	-0.0035 (0.0031)	-0.0018 (0.0028)
High	-0.0025 (0.0027)	-0.0098** (0.0041)	-0.0039 (0.0034)	-0.0101** (0.0043)	-0.0037 (0.0034)	-0.0014 (0.0029)
Conventional labour market status (ref. employee)	No					
Self-employed			0.0165*** (0.0046)	0.0418*** (0.0068)	0.0158* (0.0046)	0.0194*** (0.0052)
Unemployed			0.0019	0.0086	0.0016	0.0052

Inactive			(0.0047)	(0.0061)	(0.0046)	(0.0043)
			-0.0040	-0.0065**	-0.0041	-0.0005
			(0.0028)	(0.0032)	(0.0026)	(0.0024)
Average predicted probability	0.0122	0.0246	0.0122	0.0246	0.0114	0.0112
N	18 542		18 535		18 262	

Notes: Average marginal effects from survey-weighted multinomial logit. Reference category is non-platform population. Standard errors in parentheses. Reference categories: male, age 15–24, primary education, not married, native Finnish, lowest labour income tertile, employee. Model 1 includes sociodemographic covariates only. Model 2 extends Model 1 by adding conventional labour market status. Model 3 replicates Model 2 restricting online platform work to labour platform activities excluding goods selling and accommodation rental. * p<0.10, ** p<0.05, *** p<0.01. Data: The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data. Average predicted probabilities are calculated using the margins approach, by averaging individual-level predicted probabilities evaluated at observed covariate values, consistent with the computational approach used for the average marginal effects reported above.

Table A.2. Average marginal effects from multinomial logit for platform work and multiple jobholding categories

	Conventional MJH	Platform MJH	Non-MJH platform
Hours main job	0.0005*** (0.0001)	0.00005* (0.00003)	0.0001 (0.0001)
Part-time (ref.full-time)	0.0866*** (0.0117)	0.0083** (0.0037)	0.0072 (0.0055))
Education level (ref. primary)			
Secondary	0.0105** (0.0065)	-0.0034 (0.0027)	-0.0052 (0.0063)
Tertiary	0.0166** (0.0067)	-0.0001 (0.0029)	-0.0006 (0.0066)
Previous year's labour income tertiles (ref. low)			
Middle	0.0046 (0.0054)	0.00001 (0.0020)	-0.0231** (0.0071)
High	0.0175** (0.0067)	0.0001 (0.0023)	-0.0314*** (0.0071)
Female (ref. male)	-0.0008 (0.0038)	-0.0042** (0.0013)	-0.0053 (0.0037)

Average predicted probability	0.0473	0.0051	0.0351
N	18 542		

Notes: Average marginal effects from survey-weighted multinomial logit. Reference category is non-platform. Standard errors in parentheses. Reference categories: full-time, primary education, lowest labour income tertile, male. * p<0.10, ** p<0.05, *** p<0.01. Data: The Finnish Labour Force Survey 2022 platform work module linked to main LFS variables and individual-level FOLK register data. Average predicted probabilities are calculated using the margins approach, by averaging individual-level predicted probabilities evaluated at observed covariate values, consistent with the computational approach used for the average marginal effects reported above.



Labore eli Työn ja talouden tutkimus

LABORE (ent. Palkansaajien tutkimuslaitos) on vuonna 1971 perustettu itsenäinen tutkimuslaitos, jossa keskitytään yhteiskunnallisesti merkittävään ja tieteen kansainväliset laatukriteerit täyttävään soveltavaan taloustieteelliseen tutkimukseen. Tutkimuksen painopistealueisiin kuuluvat työn taloustiede, julkistaloustiede sekä makrotaloustiede ja toimialan taloustiede. Lisäksi teemme suhdanne-ennusteita ja toimialakatsauksia sekä julkaisemme Talous & Yhteiskunta -lehteä ja podcasteja.

Vahvuksiamme ovat tutkijoiden korkea tieteellinen osaaminen sekä tiivis yhteistyö kotimaisten ja ulkomaisten yliopistojen ja tutkimuslaitosten kanssa. Tutkijoillamme on tärkeä asiantuntijarooli eri yhteyksissä ja he osallistuvat aktiivisesti yhteiskunnalliseen keskusteluun.

Työn ja talouden tutkimus LABORE

Arkadiankatu 7 (Economicum)
00100 Helsinki
Puh. +358 40 940 1940
labore.fi

ISBN 978-952-209-240-3 (verkkojulkaisu)

ISSN 2984-2158 (verkkojulkaisu)