INVESTMENT IN HUMAN CAPITAL UNDER UNCERTAINTY:

UKRAINIAN WAR MIGRANTS IN DUTCH LABOR MARKET

by

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LIST OF ABBREVIATIONS

CBS Centraal Bureau Statistics

EU European Union

NGO Non-governmental organization

OECD The Organisation for Economic Co-operation and Development

TPD Temporary Protection Directive

VWU Uitvoeringsinstituut Werknemersverzekeringen (Employee Insurance Agency)

ZZP Zelfstandigen zonder personeel (Self-employed people without employees)

Human capital refers to the collective knowledge, skills, experiences, intelligence, training, and competencies possessed by individuals in a given population. It represents a valuable resource that can be addressed to achieve the goals and prosperity of a nation or a specific region. Well-educated and skilled individuals are more productive, leading to an increase of economic prosperity for a nation. Nowadays, the competition between countries is competition for people as they contribute to a nation's productivity, innovation, and economic growth. As a result, developed countries seek to attract and retain this human capital to remain competitive on a global scale. After Russia's invasion of Ukraine at the end of February 2022, the international armed conflict has led to civilian casualties and the devastation of civilian infrastructure, forcing individuals to leave their homes in search of safety, security, and support. Europe has welcomed millions of displaced Ukrainians, providing them with opportunities and support at a time when numerous European countries are facing significant labor shortages due to population aging.

As individuals fleeing their home country due to armed conflict, Ukrainians can receive temporary protection in the Netherlands under the EU Temporary Protection Directive. Upon registration, it grants the immediate right to work in this country without requiring an additional work permit. However, the duration of their stay in the host country remains temporary. Furthermore, the Ukrainian refugee crisis exhibits atypical characteristics, with a notable proportion of adult arrivals being women, unlike many other refugee situations where the majority of adult refugees may be men. This unique demographic composition highlights the distinctive challenges and needs that arise in the integration process, including gender-specific issues such as access to

employment and childcare responsibilities. The differing legal status of Ukrainian war migrants in comparison with other cohorts of refugees, especially their temporary stay but immediate work rights upon registration, poses an interesting case for examining human capital investment decisions under uncertainty.

For successful integration in the local labor market migrants need to focus on enhancing their human capital. However, given the large uncertainty that Ukrainian refugees face increases the risk regarding the potential returns on their investment in education or skill development.

This thesis aims to explore how factors of uncertainty might influence decisions regarding investment in human capital within the Ukrainian war migrant population.

Chapter 1 "Introduction" introduces motivation for this study and describes the research problem.

Chapter 2 "Industry overview and related studies" involves discussing related studies, outlining their findings. Additionally, it includes a description of the Dutch labor market during the influx of Ukrainian immigrants.

Chapter 3 "Methodology" focuses on how data for this research was collected and provides a comprehensive overview of the approach used in the research and justifies the methodology's appropriateness for addressing the research question.

Chapter 4 "Data" focuses on analysis, interpretation and presentation of the collected data using appropriate tools and methods.

Chapter 5 "Results" presents the results of my analysis: both qualitative and quantitative.

Chapter 6 "Conclusions and Recommendation" is a concluding part summarizing the key findings of this research while also providing recommendations.

CHAPTER 2. INDUSTRY OVERVIEW AND RELATED STUDIES

2.1. Theoretical background

In comparison with physical capital, human capital is more risky - it exhibits considerable flexibility in its application across diverse economic circumstances. If future earnings depend on the level of investment, and there's a positive correlation between average and marginal returns, then the insured individual will invest less under uncertainty. If the uncertain case aligns with the defined, investment under certainty could be lower or higher depending on the relationship between the marginal productivity of investment and the uncertain factor. If the average future earning capacity is held constant, increasing uncertainty might lead to a decrease in investment if marginal productivity increases with uncertainty. Levari and Weiss (1974) concluded that the impact of uncertainty on human capital investment can either encourage or discourage investment, depending on factors, which are mentioned before.

When discussing an individual's choices, there are typically two mutually exclusive alternatives: "correct" and "incorrect". In this context, an individual's decision-making involves a key parameter, which reflects their likelihood of making the right choice. Remarkably, this parameter is not entirely exogenous to the decision maker but can be increased through investment in human capital. A significant discovery (Nitzan, Paroush, 1980) is that as the net benefit of making correct decisions increases, individuals tend to allocate more investment into enhancing their human capital.

Snow and Warren (1990) extended the theory of human capital investment under uncertainty by Levhari and Weiss (1974). In the context of investment decisions, future labor supply expectations play a key role. When deciding how much to invest in human skills, there's a balance between the expected rewards and the risks involved. In the best

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situation, the expected marginal return on human capital investment can be higher or lower than the risk-free return on nonhuman capital. This depends on whether additional investment increases or decreases risk about the marginal return. Levhari and Weiss found that when risks increase, individuals might invest less in their skills if the potential rewards are positive, and invest more if the potential rewards are negative. However, when labor supply becomes a choice variable, risk's impact on human capital investment becomes more complex, with the income effect becoming significant, especially under constant risk conditions. This underscores the income effect's role in the interplay between human capital investment, labor supply, and future income. The presence of risk can weaken or strengthen the income effect, making human capital investment less inferior or possibly normal.

Then Duleep and Regets (1999) explored the phenomenon of immigrants investing more in human capital compared to native-born individuals:

1. Immigrants tend to have faster earnings growth than natives due to greater human capital investment and higher value over time of source-country skills.
2. Immigrants with lower initial skill transferability invest more in human capital and experience greater earnings growth than those with higher initial skill transferability.
3. Immigrant earnings growth is negatively affected by initial earnings, adjusted for age and source-country schooling.
4. Differences in earnings among immigrants from different source countries narrow over time.
5. Education encourages investment more among low-skill-transferability immigrants than high-skill-transferability immigrants.

Refugees' migration decisions are driven by different factors compared to economic migrants. While economic migrants choose to move based on the relative opportunities abroad compared to their home country, refugees are often forced to flee due to factors like life danger and a lack of means for survival. This fundamental distinction results in refugees having less economic selectivity in their migration choices. Brell, Dustmann & Preston (2020) emphasize the role of different stages in the refugee experience. These stages include flight from the home country, the journey to the host country (often involving dangerous routes and intermediate destinations), and the challenges faced upon arrival. These stages collectively shape refugees' integration prospects and can influence their access to labor markets, human capital development, and overall well-being.

Upon arrival, refugees face distinct challenges in their integration process. They often arrive with lower levels of human capital, including language and job skills, compared to economic migrants. This deficiency in locally applicable skills leads to lower wages and employability for refugees. Moreover, the uncertainty of their future, including the uncertainty of asylum status and the possibility of return, can hinder their investment in host-country-specific human capital and their overall integration. Unlike other migrants, refugees have not made a choice to migrate, leaving them with little opportunity to prepare for life in their new country, including learning the language. They typically arrive without a strong attachment or connection to the host country, having acquired qualifications and work experience in different education and labor market contexts. Furthermore, many refugees struggle to provide proper documentation that verifies their education and skills. Additionally, as refugees often arrive in large numbers, they face competition among themselves for employment opportunities. Refugees often face significant challenges when entering the local labor market, resulting in outcomes that are typically behind those of other migrant groups. They encounter disadvantages such as lower education levels and language barriers, and their labor market performance

tends to be poorer even compared to migrants with similar characteristics. In European OECD countries, data shows that refugees have employment rates that are typically 23 percentage points lower than those who arrived as labor migrants, even after considering other relevant factors (OECD report, 2023).

Chiswick et al. (2005) explained that refugees go through a sharper drop in adaptation to integration in the initial phase of integration but show a more noticeable improvement later on, forming a more pronounced "U" pattern compared to economic migrants. Their research suggests refugees face greater challenges in adapting to migration as they're less driven by economic incentives. Since refugees often don't anticipate or equip themselves for relocation to another country, their skills and abilities can face even greater devaluation in the local job market compared to economic migrants during the initial period.

According to a study by De Vroome and Van Tubergen (2010), refugees who have received education in the host country can enhance their integration into the economy, leading to positive economic effects.

Return plans play a significant role in creating diversity in the earnings and career trajectories of immigrants. They also drive a form of selective emigration that is independent of unobservable skills or abilities. This has substantial implications, particularly when estimating earnings equations for immigrants. Furthermore, return plans influence the reservation wages of immigrants, which explains why many immigrants are willing to accept job offers with wages that might be considered inadequate by native workers. Additionally, the connection between immigrants' career paths and their expected duration of migration suggests that immigration policies introducing strict conditions for permanent residency impact not only the careers and contributions of immigrants in the host country but also the selection of those who choose to emigrate and the composition of new arrivals (Adda, Dustmann, & Görlach,

2021). Unlike other immigrant populations, Turkish migrants in Germany had the freedom to choose their migration duration. The authors find that return migration rates are substantial, and many migrants follow their intended return durations. However, there is variability between intentions and actual migration durations, which affects incentives to invest in skills and savings. This unique population provides valuable insights into the dynamic aspects of migrants' choices and their impact on the labor market and migration policies. Those who intend to stay permanently arrive at a younger age than those with intentions to return, indicating a stronger attachment to the home country when migration occurs later in life. Additionally, employment probabilities and transition rates into work are higher for those considering their migration as temporary, aligning with intertemporal substitution of leisure. The concept of intertemporal substitution of leisure comes into play here. It suggests that individuals adjust their allocation of time between work and leisure based on their expectations of future opportunities and constraints. Migrants who see their migration as temporary are likely to substitute leisure time with work in the short term to maximize their earnings during their limited stay. This can result in higher employment probabilities and smoother transitions into work for this group. People who plan to stay in the host country permanently tend to have higher earnings growth than those who plan to return. This could be due to different types of people choosing to stay or incentives to learn skills for the host country. People with longer stay plans can benefit more from such skills over time.

2.2. Dutch labor market

Since the start of 2021, the Dutch labor market has shown a robust recovery following the impact of the COVID-19 crisis. Vacancies have increased while the number of jobseekers has continued to decline, leading to a significant rise in labor market tension for five consecutive quarters. This trend reached a new milestone in the

first quarter of 2022, with the Tension Indicator surpassing the threshold for a 'very tight' labor market. The official data from the Employee Insurance Agency (UWV) as of August 2023 reveals that there are still more job openings than available employees, putting mounting pressure on the economy. As for the beginning of 2022, labor shortage in the Netherlands was visible in all regions and almost all professional groups. There were 452.8 thousand open job vacancies, and the number of unemployed individuals (seasonally adjusted) was 338 thousand. In the first quarter, there were 133 job vacancies for every 100 unemployed individuals (see Table 1).

The consequences of labor shortages were being felt by the public, with reduced services by the railway operator NS, increasing waiting times at Schiphol, shortages of teachers impacting parents and the quality of education, and a lack of healthcare staff affecting patients in hospitals. The lack of available workers can be attributed to various factors, including an aging population, a significant proportion of part-time workers in the Netherlands, the impact of the coronavirus crisis, and concerns regarding unfavorable working conditions within certain sectors experiencing labor shortages.

Table 1 below demonstrates that with a further increase in the number of open job vacancies and yet another decrease in the number of unemployed individuals, labor market tension kept increasing in the second quarter of 2022.

There were 16 thousand additional open job vacancies, and the average number of unemployed individuals decreased by 11 thousand. Furthermore, the number of jobs increased once again, this time by 94 thousand. As a result, the numbers of job vacancies and positions have reached new record levels, while the number of unemployed individuals has reached its lowest point in the quarterly data series dating back to 2003.

After Ukrainian refugees were granted permission to work, the labor market experienced a slight easing of its seven consecutive quarters of increasing tightness in

the third quarter. The number of open job vacancies decreased by 17 thousand, while 45 thousand unemployed individuals were added. This resulted in 121 job vacancies for every 100 unemployed individuals. The number of jobs continued to increase, with an additional 59 thousand positions.

Table 1. The number of open vacancies across different sectors (seasonally adjusted), thousand

Sector	Q1 2022	Q2 2022	Q3 2022
Commerce	89.7	99.5	91.8
Business services	73.7	74.8	72.6
Healthcare	60.9	65.1	67.7
Horeca	44.6	39.9	35.7
Production	37.1	37.7	34.4
ICT	28.1	28.9	27.1
Construction	26.8	28.4	27.4
Public Administration	20.0	22.1	23.0
Transport and Logistics	20.0	19.6	21.3
Culture and Recreation	12.7	13.5	12.5
Finance	11.7	12.7	11.8
Education	12.0	12.0	13.3
Rental and Real Estate	3.7	3.8	3.9
Agriculture and Fisheries	3.6	3.7	3.0

Source: CBS

2.3 Ukrainian war migrants in Dutch labor market

Since the big war in Ukraine began on February 24, 2022, the number of registered Ukrainian war migrants has reached 92,063 by May 2023. Traditionally the term "human capital" might emphasize the working-age population, which is from 15 to 67 years old in the Netherlands. The cumulative population of Ukrainian migrants of working age amounts to 69,597 which is 76% of the total population. Figure 2 illustrates the demographic characteristics of this population based on the CBS of the Netherlands[1]. Females outnumber males in all age groups except for below 15 years old. The most numerous age group is under 15 years old, and the least numerous is over 65 years old. The age range of 35-44 falls under the category "Middle Adulthood" and is the second most numerous group. At this stage, many individuals have acquired substantial work experience, skills, and expertise within their respective fields. They have had time to accumulate knowledge and experience, which can contribute significantly to the workforce and various sectors of the economy.

When a Dutch employer hires a Ukrainian for a job, they are required to inform the UWV about it. As of August 2023, there have been 91,831 registrations of Ukrainian war migrants as employed. This count includes people who may have already returned to Ukraine and some who could be registered more than once if they changed their employers. Table 2 illustrates the distribution across various sectors among registered working refugees from Ukraine. More than half of them have job contracts through employment agencies, which complicates the precise identification of their respective sectors of employment. Some sectors, such as ICT, Education, and Finance, show minimal representation, each constituting less than 1% of Ukrainian employers who represent this sector.

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[1] See the full table is in Appendix, Table A1

**Figure 1. Demographic characteristics of Ukrainian war migrants
in the Netherlands**
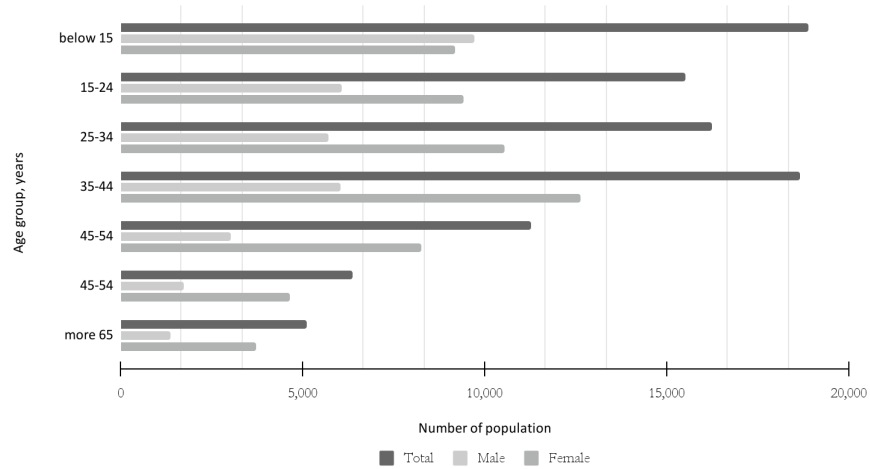
Source: CBS

The arrival of Ukrainians exerted additional strain on the healthcare, education, public administration, transportation, and real estate domains. Proficiency in the Dutch language is typically a prerequisite in these fields, and refugees may require some time to attain the requisite language skills. Their qualifications and credentials from Ukraine are not automatically acknowledged in the Netherlands, complicating employment in regulated sectors like healthcare and education.

Table 2. Share per sector of registered working refugees from Ukraine

Sector	Proportion
Job agency[2]	55.14 %
Commerce	2,51 %
Business services	4,30 %
Healthcare	0,34 %
Horeca	10.37 %
Production	9.46 %
ICT	0.08 %
Construction	0.23 %
Public Administration	0.10 %
Transport and Logistics	0.61 %
Culture and Recreation	0.17 %
Finance	0.06 %
Education	0.19 %
Agriculture and Fisheries	5.61 %
Cleaning	4.05 %
Unknown	6.80 %

Source: UWV

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[2] A temporary employment contract is a contract between a temporary employment agency and an employee. This contains agreements about temporary work, considering the working hours, salary and employment conditions. The employment agency is the employer and loans the employee to another company for a certain period of time.

CHAPTER 3. METHODOLOGY

3.1 Data collection

The data for this study was collected in June-August 2023. The main data comes from the survey of Ukrainian refugees in the Dutch labor market. Along with data obtained from the questionnaire, decisions regarding human capital investment among Ukrainian war migrants obtained from the focus groups were analyzed. I collected my data during an internship at the OPORA Foundation, as they were researching the work related experiences of Ukrainian refugees in the Netherlands. Since the topic of the work is closely related to human capital, I gladly joined the project, actively participating in selecting focus group participants and drawing up questions. At the data processing stage, our research paths went different directions as I focused on the goals of my own research. We have entered into a written agreement that I can use the data for my master's degree.

The sampling strategy included snowball sampling together with the purposive sampling. First respondents were recruited in social networks such as Facebook, Telegram, Instagram using a Google-form. Later we expanded our network by incorporating their recommendations for other Ukrainian war migrants. This approach aimed to widen the scope of our study by including various professional groups. In the context of purposive sampling, it depends on the subjective judgment of researchers when determining whom to interview (Flick, 2007). The composition of the focus groups was deliberately designed to account for specific participant characteristics, including factors such as their occupation or job roles (high-skilled, low-skilled, unemployed etc.). This careful selection aimed to ensure a comprehensive representation of viewpoints within the focus groups. It also served the purpose of

constructing a training dataset for the model, which was subsequently utilized to predict the decisions regarding the investment of human capital by other respondents.

The questionnaire, conducted in July-August 2023, consisted of closed and open-ended questions (see Appendix B). 279 properly completed responses were collected.

The semi-structured interview was chosen to obtain a data set. It was important to create an environment where respondents feel at ease discussing the topics openly. Considering this fact, all the interviews were conducted in Ukrainian.

The participants of focus groups in my research are individuals over 18 years old who hold Ukrainian citizenship and have temporary protection status in the Netherlands. The focus groups were conducted online from June to August 2023. Participants were recruited via Google-form the link to which was distributed in social networks, that was shared within various social networks, or other participants and were rewarded with gift certificates for their collaboration. Each group interview lasted approximately one hour and included 2-5 participants (with some exceptions), a total of 62 individuals participated. These interviews were recorded, transcribed verbatim and translated to English, and all names were fully anonymized.

3.2 Model specification

To investigate the research question in focus, this study adopted a comprehensive approach, utilizing predictive modeling techniques to analyze decision-making in the realm of investment capital.

The first phase is based on the data gathered through the focus groups for 62 respondents. Among different variables there was information about a person's decision to invest in human capital. The latter is defined as commitment to improve

skills according to local market needs: additional training, education, language courses, internships.

Our training model predicts the probability of taking a positive decision about investment in human capital among individuals from Ukraine with Temporary Protection status in the Netherlands. We consider 18 key factors (see Table 3), which we obtained from the focus group discussions, that may influence investment decisions.

$$
\begin{aligned}
Decision = {} & \beta_1 Skills + \beta_2 Education + \beta_3 English + \beta_4 Dutch + \beta_5 Accommodation + \\
& + \beta_6 Age + \beta_7 Female + \beta_8 Children + \beta_9 Region + \beta_{10} Contract.Type + \\
& + \beta_{11} Job.Type + \beta_{12} Unemployment + \beta_{13} Job.Satisfaction + \\
& + \beta_{14} Assist.Satisfaction + \beta_{15} Job.Match + \beta_{16} IncomeUkr + \\
& + \beta_{17} FinDependRelUkr + \beta_{18} FinDependRelNL
\end{aligned} \tag{1}
$$

The dataset underwent data cleaning, encoding and preprocessing to ensure data quality and consistency. The decision to invest in human capital is modeled with logistic regression. This training phase was essential for the model to learn the underlying relationships between the selected predictor variables and the outcome variable representing the probability of positive decisions regarding human capital investment. The training process involved the estimation of model coefficients, which subsequently were used for predictions. The comparison of the 60 predicted values with the actual responses of individuals from the training set served as a reference point for assessing the model's predictive accuracy. The model demonstrated a high degree of accuracy, with only 12.8% of predictions being incorrect. These findings highlighted the potential utility of the logistic regression model as a predictive tool for decision-making in investment capital. The outcomes of the logistic regression estimation are provided in Appendix, Table A2.

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At the second phase the estimated coefficients were used to predict the probability of investment into human capital for the big data set collected from the survey. The predicted probability was regressed on the potential determinants.

The linear model includes six determinants that are related to uncertainty:

$$Decision \ = \ \beta_1 Accommodation \ + \ \beta_2 IncomeUkr \ + \ \beta_3 FinDependRelUkr \ +$$
$$+ \ \beta_4 Contract.Type \ + \ \beta_5 Job.Type \ + \ \beta_6 Unemployment \ + \ \epsilon$$

(2)

Variables that characterize uncertainty are: type of accommodation, labor market related security such as part time or full time employment, nature of the employment contract and contract and job types, the duration of unemployment, the presence of financially dependent relatives and income in Ukraine. The type of employment contract can determine job security and career progression opportunities, influencing investment decisions. The period of being unemployed directly relates to uncertainty regarding job prospects and the need for investment to secure employment. An extended period of unemployment can lead to disillusion and impact an individual's decision to stay in the host country.

3.3 Variables describing the process of decision making about investment in human capital

Age can impact an individual's career stage, which may affect their investment decisions in terms of further education or skill development. Having children can affect the willingness and ability to invest in education or training due to childcare responsibilities. The presence of income from Ukraine can lead to hesitancy in participating in the Dutch labor market, due to its impact on financial stability, aversion to risk, willingness to commit to education or training, and the determining factors influencing an individual's decision to return to Ukraine. Financial responsibilities

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toward family members in Ukraine can impact the ability to invest in an individual's own human capital as well as creating stronger connections with the home country. Educational backgrounds influence career opportunities, income potential, and the ability to address complex challenges.

The Netherlands is a hub for international trade and business. Despite the fact that Dutch is the only official language of the country, English serves as a working language in many companies in big cities. It also gives access to study opportunities in Dutch universities.

The decision of developing human capital can vary within regions of the Netherlands based on various factors such as access to educational resources, employment opportunities, infrastructure, and regional economic conditions. For instance, big cities are often considered hubs for education, commerce, and innovation. North Holland, Utrecht, North Brabant, South Holland are considered more economically developed provinces in terms of GDP per capita[3] and offer wider professional opportunities than others.

There are other various factors that contribute to uncertainty, including the duration of the conflict in Ukraine, the duration of residency permissions in the Netherlands, and fluctuations in labor market demand. However, these factors cannot be incorporated into the analysis due to data limitations. Additionally, demand for specific professions has remained consistent from the initial arrival of the first wave of Ukrainians to the present day.

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[3] Regional key figures: National Accounts. Source: CBS
https://www.cbs.nl/en-gb/figures/detail/84432ENG#shortTableDescription

Table 3. Summary of the training model variables

Variable	Definition
Skills	The level of expertise based on the position the person held in their previous job in Ukraine: 0 - Position that does not require special or higher education 1 - Position of a specialist that requires special or higher education 2 - Position of a specialist that requires special or higher education and experience in the field 3 - Department/sector manager or supervisor 4 - Middle-level manager (department, division, etc.) 5 - Senior-level manager (company, significant part of the company) 6 - Entrepreneur (own business)
Education	The highest level of formal education that an individual has received or the highest degree they have earned: 0 - Secondary education 1 - College or technical school 2 - Bachelor's degree (Junior Specialist) 3 - Master's degree (Senior Specialist); Ph.D. or higher
English	Language proficiency in English language: 0 - None 1 - Basic 2 - Intermediate 3 - Advanced 4 - Professional
Dutch	Language proficiency in Dutch language: 0 - None 1 - Basic 2 - Intermediate 3 - Advanced 4 - Professional

Table 3. Summary of the training model variables - continued

Variable	Definition
Age	The age group to which a respondent belongs: 18-24 - Young People 25-34 - Early Adulthood 35-44 - Middle Adulthood 45-54 - Late Middle Age 55-65 - Pre-Retirement Age or Late Career
Female	Sex of the respondent: 0 - Male 1 - Female
Children	Childcare obligations: 0 - no 1 - present
Region	The region of residence of the respondent: 1 - Drenthe 2 - Flevoland 3 - Friesland 4 - Gelderland 5 - Groningen 6 - Limburg 7 - North Brabant 8 - North Holland 9 - Overijssel 10 - South Holland 11 - Utrecht 12 - Zeeland
Accommodation	The type of housing where the respondent resides: 1 - host family 2 - family or friends 3 - shelter 4 - house from municipality 5 - rental (own cost) 6 - rental (paid by work of government)

Table 3. Summary of the training model variables - continued

Variable	Definition
Job.Type	Current occupation in the Netherlands: 0 - unemployed 1 - part-time 2 - full-time
Contract.Type	The type of contract which the respondent currently has (if employed): 0 - no contract 1 - on call (zero-hour contract) 2 - contract with job agency 3 - temporary contact with my employer 4 - permanent contract 5 - self-employed (officially registered)
Unemployment	The duration of current unemployment period in the Netherlands: 0 - has a job 1 - less than 3 months 2 - from 3 to 6 months 3 - from 6 to 12 months 4 - more than 12 months 5 - missing information
IncomeUkr	The presence of income in Ukraine: 0 - no 1 - present
FinDependRelUkr	Financial assistance obligations: 0 - no 1 - present
FinDependRelNl	Financial assistance obligations: 0 - no 1 - present

Table 3. Summary of the training model variables - continued

Variable	Definition
Job.Satisfaction	Satisfaction with current job in the Netherlands, assessed by the respondents themselves on a scale from 1 to 5, where 1 - not satisfied at all and 5- completely satisfied
Assist.Satisfaction	Whether the individual is satisfied with the support provided by the government in securing employment or not: 0 - no 1 - yes

3.4 Qualitative data analysis technique

Thematic analysis systematically uncovers, organizes, and interprets main themes within a dataset. It assists researchers in identifying recurring patterns and shared meanings across the data. In this study, interview transcriptions underwent thematic analysis, following the six-phase method (Braun and Clarke, 2012). Codes were applied to the data, leading to the deduction of themes, mainly guided by the research questions. To provide depth and meaning to the findings, concepts from existing literature and the quantitative results of my analysis were integrated in the results part (Chapter 5).

When working with categorical variables in statistical analysis, it is common to create dummy variables to represent different categories. The selection of base categories for the categorical variables Accommodation, Job.Type, and Contract.Type was made based on the degree of uncertainty. We designated the categories associated with the lowest level of uncertainty as the reference points. In case of Contract.Type the category "temporary contract with the employer" was chosen as reference instead of permanent (which is considered the most certain), because of the low number of respondents with permanent contract. Consequently, the coefficients for the remaining categories, which reflect higher levels of uncertainty, signify the extent of their deviation from the chosen reference category.

Descriptive statistics (see Table 4) show that on average, the respondents have a relatively high level of education, around the graduate level. Proficiency in English is intermediate and in Dutch is basic. In this population, 82% of the individuals identified as female, 46% of the respondents answered that they have children. The largest segment of age group in this dataset falls into the early adulthood and middle adulthood category, accounting for 36% and 35% respectively of the surveyed population. This age group typically represents individuals in their prime working years. They are often the most active participants in the labor force, contributing significantly to a country's productivity.

The majority (45%) of individuals are residing in shelters, indicating potential housing instability, while a substantial proportion (20%) resides in houses provided by municipalities due to municipality support initiatives. Additionally, a notable number (16%) choose to rent at their own expense, signifying the smallest level of uncertainty in housing problems, and a minority (3%) rely on family or friends for accommodation.

Moreover, Dutch citizens help Ukrainian war migrants solve housing problems: the share of individuals living with host families (10%) or in houses provided by host families (4%). The prevalence of individuals residing in temporary housing suggests a high level of housing instability and insecurity, leading to uncertainty about future conditions of living.

The educational composition of the population demonstrates that the population is well-educated: the majority (56%) possess advanced degrees, either master's or even doctoral degrees. A substantial number (31%) have achieved bachelor's degrees, providing a solid foundation for a wide range of professional roles. Despite the high level of education, broader economic and societal factors connected with migration can still influence the level of uncertainty.

For English, a significant proportion of the population demonstrates a basic to intermediate level of proficiency - 23% and 35% respectively, indicating a reasonable ability to engage in everyday communication. A notable segment possesses advanced (21%) and professional (18%) proficiency, which can offer benefits in various professional and academic contexts. On the other hand, when it comes to Dutch language proficiency, a considerable portion of the population indicates either no proficiency (40%) or basic skills (54%), highlighting potential challenges in effective communication and integration within Dutch-speaking communities.

In discussions regarding employment, it's noteworthy that a considerable majority (51%) of the population holds temporary positions with their employers, signifying a substantial dependence on short-term work arrangements, which could potentially result in job insecurity and reduced access to benefits. Variable skills contains the information about expertise which individuals gained in their prior work roles in Ukraine. A quarter of the respondents has achieved the position of a manager in a

department or as a supervisor. Individuals, who had low-skilled jobs in Ukraine are only 7% of the population. 13% of the respondents had their own business in Ukraine. And 8% had top-management positions.

Table 4. Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Female (1 = yes)	340	0.82	0.38	0	1
Children (1 = present)	340	0.46	0.50	0	1
Age (1 = yes):	340				
18-24 - Young People	50	0.15	0.35	0	1
25-34 - Early Adulthood	121	0.36	0.48	0	1
35-44 - Middle Adulthood	119	0.35	0.48	0	1
45-54 - Late Middle Age	41	0.12	0.33	0	1
55-64 - Pre-Retirement Age	9	0.03	0.16	0	1
Accommodation (1 = yes):	340				
Rental (own cost) = base category	55	0.16	0.37	0	1
Host family	34	0.10	0.30	0	1
House from the host family	14	0.04	0.20	0	1
Family or friends	10	0.03	0.17	0	1
Shelter	154	0.45	0.50	0	1
House from municipality	68	0.20	0.40	0	1
Rental (paid by work)	5	0.01	0.12	0	1
Income in Ukraine (1 = present)	340	0.07	0.26	0	1
Financially dependent relatives in Ukraine (1 = present)	340	0.37	0.48	0	1
Financially dependent relatives in the NL (1 = present)	340	0.59	0.49	0	1

Table 4. Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Region (1 = yes):	340				
Drenthe	6	0.02	0.13	0	1
Flevoland	7	0.02	0.14	0	1
Friesland	6	0.02	0.13	0	1
Gelderland	30	0.09	0.28	0	1
Groningen	9	0.03	0.16	0	1
Limburg	11	0.03	0.18	0	1
North Brabant	44	0.13	0.34	0	1
North Holland	82	0.24	0.43	0	1
Overijssel	22	0.06	0.25	0	1
South Holland	87	0.26	0.44	0	1
Utrecht	25	0.07	0.26	0	1
Zeeland	11	0.03	0.18	0	1
Skills (1 = yes):	340			0	1
Position that does not require special or higher education	24	0.07	0.26	0	1
Position that requires special or higher education	67	0.19	0.40	0	1
Position that requires special or higher education and experience in the field	61	0.18	0.38	0	1
Department/sector manager or supervisor	85	0.25	0.43	0	1
Middle-level manager	34	0.10	0.30	0	1
Senior-level manager	26	0.08	0.27	0	1
Entrepreneur	43	0.13	0.33	0	1

Table 4. Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Education (1 = yes):	340			0	1
No tertiary education	16	0.05	0.21	0	1
College of technical school	28	0.08	0.27	0	1
Bachelor's degree (Junior Specialist)	107	0.31	0.46	0	1
Master's degree (Senior Specialist); Ph.D. or higher	189	0.56	0.50	0	1
English (1 = yes):	340			0	1
None	11	0.03	0.18	0	1
Basic	78	0.23	0.42	0	1
Intermediate	119	0.35	0.48	0	1
Advanced	72	0.21	0.41	0	1
Professional	60	0.18	0.38	0	1
Dutch (1 = yes):	340			0	1
None	137	0.40	0.49	0	1
Basic	183	0.54	0.50	0	1
Intermediate	20	0.06	0.24	0	1
Advanced	0	0	0	0	1
Professional	0	0	0	0	1
Job Type (1 = yes):	340				
Full-Time	180	0.53	0.50	0	1
Part-Time	72	0.21	0.41	0	1
Unemployed	88	0.26	0.44	0	1

Table 4. Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Contract (if employed, 1 = yes):	252			0	1
No contract	10	0.04	0.20	0	1
Permanent contract	16	0.06	0.24	0	1
Temporary contract with employer	128	0.51	0.50	0	1
Contract with job agency	29	0.12	0.32	0	1
On call	52	0.21	0.40	0	1
ZZP	5	0.02	0.14	0	1
Missing information	12	0.05	0.21	0	1
Unemployment (if unemployed, 1 = yes):	88			0	1
Less than 3 months	40	0.45	0.50	0	1
3-6 months	23	0.27	0.44	0	1
6-12 months	11	0.12	0.33	0	1
More than 12 months	10	0.11	0.32	0	1
Missing information	4	0.05	0.21	0	1
Job satisfaction, on scale from 1 (not satisfied) to 5 (very satisfied)	209	3.60	1.23	0	1
Assistance in job search satisfaction (1 = yes)	340	0.49	0.50	0	1

5.1. Regression model results

The estimated regression equation (2) is presented in Table 5 below. It states that decisions about investment in human capital are associated with different aspects of uncertainty.

Strong financial ties with the source country (here Ukraine) have a strong effect on the decision to invest into human capital. Respondents who have income in Ukraine are by 30 percentage points less likely to invest in human capital relative to those who don't have sources of income in their home country. The presence of income in Ukraine is negatively associated with the individual's decisions about investment in human capital to fit the Dutch labor market as they consider their stay in the Netherlands as temporary.

When individuals are in an unstable housing situation, which is currently provided by the government, they feel uncertain about their future as they are unable to independently provide themselves with a place to live. For the variable "Accommodation" the category "Rental" was chosen as a reference, since it represents the lowest level of uncertainty among all as the individuals can independently secure their own place to live. Respondents who reside in shelters are by 17 percentage points less likely to invest in human capital development.

People who live with a host family or stay with their family members or friends are more likely to invest in human capital than those who rent an apartment on their own. This can be indicative of several factors, other than uncertainty. First, it may reflect higher exposure to local culture and assistance with integration provided by hosts, family or friends in a foreign country. Such exposure might be more conducive to

investing in human capital compared to renting an apartment. Staying at family or friends place also reduces the financial burden, freeing up resources that can be invested in education and skill development. According to Beinea et al. (2010), diasporas lower the costs of assimilation and acquiring information for newcomers. They provide assistance in finding employment, housing, education, and navigating cultural adjustments, which enhances greater confidence in one's future in the host country.

Another important finding is that people who work part-time or unemployed are substantially less likely to invest in human capital than those who work full-time. Part-time workers may experience greater financial instability and may prioritize short-term financial goals over long-term investments in education or skill development. Furthermore, part-time employment often does not make use of an employee's skills or provide opportunities for his skill development.

Overall, unemployed are 39 percentage points less likely to invest in human capital, mostly due to a group between the jobs (unemployed for less than 3 months). But the duration of unemployment can significantly impact this decision. People who are unemployed for 3 to 6 months are rather similar to full-time employed individuals in their willingness to invest in human capital. In contrast, respondents who are from 6 to 12 months unemployed are rather comparable to part-time employed. This could be caused by diminished confidence. The study shows that those individuals who experience longer periods of unemployment are less likely to invest in human capital.

Contract type has no proven significant impact on decision except for respondents who work without any contract. The latter group is 21 percentage points less likely to choose investment than those who have a temporary contract with their employer. Further research should be conducted to determine if this variable can impact the decision with focus on larger amounts of observations.

Table 5. The regression model estimation

Variable	Estimate
Host family	0.200** (0.071)
Host family (private)	0.133 (0.098)
Family or friends	0.227* (0.110)
Shelter	-0.172** (0.052)
House from work	0.112 (0.153)
House from municipality	0.011 (0.061)
Part-time	-0.182*** (0.047)
Unemployed	-0.390*** (0.096)
3-6 months of unemployment	0.353*** (0.083)
6-12 months of unemployment	0.247* (0.114)
More than 12 months of unemployment	-0.104 (0.112)
No contract	-0.212* (0.105)
Missing information	0.024 (0.097)
ZZP	-0.250 (0.143)
On call	0.043 (0.054)
Permanent contract	-0.104 (0.112)
Contract with job agency	-0.067 (0.067)
Financially dependent relatives in Ukraine	-0.043 (0.037)
Income in Ukraine	-0.297*** (0.070)
Constant	0.949*** (0.049)
F Statistic (df = 19; 317)	10.03***
Observations	340
R^2	0.376
Adjusted R^2	0.338
Note:	*p<0.1; **p<0.05; ***p<0.01

Here, the parentheses are used to enclose the standard error associated with the estimated coefficient.

5.2 Focus group discussions

The consequences of displacement can be challenging for refugees as they often lack the necessary information and understanding of the labor market in their destination country. Consequently, internal barriers arise from within the refugee population. Through the interviews conducted, several themes have emerged, including inadequate language skills, work qualification which meets local labor market needs (overqualified, underqualified), networks, lack of vacancies for high-skilled workers in small towns and childcare responsibilities among Ukrainian refugees. Furthermore, the previous studies have indicated that refugee women may experience a compounding disadvantage due to the intersecting challenges associated with gender, immigrant status, and forced migration, which can mutually worsen in tandem (Liebig and Tronstad, 2018).

Aligned with this case, Dustmann (2002) stresses that local language skills are quintessential for temporary migrants to access and integrate into the host country's labor market. It highlights the importance of language skills as a component of human capital, as individuals with strong language skills are better equipped to find job opportunities and integrate into the labor market of the host country.

> Because work here really depends on the knowledge of languages: Dutch and English. You can have 2 university diplomas, but if you don't know the languages you will not get a good job. (Female, 59 y.o., not employed, Rotterdam area)

> I know English at the intermediate level. It was enough for me to work through the agency. But when I started to work in the shop, it changed a bit. Almere is a very international city, but the majority does not know English, and I felt that I have to study Dutch as soon as possible. It is going to be easier for me to communicate with people, that is why I want to learn it. (Female, 39 y.o., shop assistant, Almere)

I think for now English is enough, but of course, if I want to have professional development here, and I want to have a job that corresponds to my qualification, I need Dutch. (Female, 34 y.o. Housekeeper, Wageningen)

As we have seen from descriptive statistics of our dataset, Dutch language proficiency of this population is lower than English. The majority of focus group participants reported that they prefer to invest in enhancing their English skills over Dutch due to uncertainty about their length of stay, considering English as a more globally applicable language.

On one hand, our future prospects here are uncertain, and it might be more practical to focus solely on English. (Female, 49 y.o, Project Manager for a Ukrainian project, Amsterdam)

An important obstacle to integration is the absence of clear information regarding how long displaced Ukrainians might stay in the Netherlands. The focus group discussions have unveiled a collective sense of uncertainty regarding what lies ahead in the future. Decisions concerning returning to Ukraine or settling in The Netherlands are influenced by family considerations, particularly among Ukrainian women who fled with their children but without their husbands. The temporary nature of contracts entered into with Ukrainians, dependence on social housing provided by the government, the presence of income or financially dependent relatives in Ukraine also play a significant role in uncertainty about the future. Decisions under uncertainty play a crucial role in this context, as there are multiple factors that influence investment in human capital of Ukrainian war migrants. Here is the perspective shared by two of the focus group participants regarding the situation:

Unfortunately, this lack of certainty adds stress to the lives of Ukrainian individuals residing here. Initially, one may accept any job for financial stability and occupation, but as time goes on, questions about the future start to arise: "What comes next?" "How long will I be here?" "Are there better opportunities

available?" Therefore, we must learn to plan for the long term. (Female, 49 y.o, Project Manager for a Ukrainian project, Amsterdam)

Until March 2024, we are unable to make long-term plans, which can discourage individuals from pursuing career advancement opportunities. I have heard discussions about potentially extending the duration of stay for Ukrainians up to 10 years, and I believe that such a change would encourage more people to seek employment that aligns with their skills and qualifications. (Female, 48 y.o, Project Manager at NGO, Amsterdam)

The level of accessibility to information, such as job listings, salary details, and admission information significantly influences the formation of human capital. Having access to such information not only assists migrants in selecting options aligned with their interests but also promotes the effective utilization of human skills and knowledge. Unfortunately, many Ukrainians, due to limited language proficiency, cannot access crucial information about the labor market situation in the Netherlands. Employers take advantage of this situation by offering lower salaries, fewer work benefits, and low-skilled and physically hard jobs to this population.

I wasn't even aware that there could be any help or support available. The first Gemeente (municipality) where I lived didn't communicate with me at all. They only communicated a couple of times with my mother's husband because he speaks Dutch. As a result, I didn't receive any assistance or support during that time. (Female, 28 y.o., Web-analyst, Utrecht)

I went to Gemeente (municipality), but when I asked them, they said there are no job opportunities for me because I am a qualified worker. It seems they focus more on providing physical labor jobs, and they don't help with finding intellectual or skilled work. (Female, 43 y.o., unemployed, Amsterdam)

We need integration courses similar to those organized for other refugees. In our culture, women take care of children and don't typically consider part-time jobs. But here, it's normal for a mother of a young child to work 2 days a week, for example. We need to inform Ukrainians about the possibilities of this job market, as they've never worked here and aren't familiar with it. In Ukraine, few people use LinkedIn, but here, it's a must-have. Job searching here is a different kind of work. There are people, who are highly skilled and know English, and

there are others who need to be guided. Actions from the authorities are needed to adapt Ukrainians to the Dutch job market. (Female, 43 y.o., volunteer at the NGO, the Hague)

I have learned a lot about my rights, but when we were signing the contract, no one explained it to us. I think they kind of took advantage of the fact that we were a bit lost and we were ready to agree on any job offered. Now, because of this bad experience we started learning more about our rights, we started asking our management about the working rights that we have. (Female, Naarden)

Some of the respondents expressed frustrations which come from a lack of support for individuals seeking to establish businesses in the Netherlands. One of the focus group participants, who chose not to invest in human capital shares her opinion:

For individuals who have established successful careers or businesses in Ukraine, they often find better opportunities and prospects at home compared to staying in the Netherlands. On the other hand, those who previously held low-skilled jobs in Ukraine may find greater satisfaction with their current job situations in the Netherlands…

…I do not understand why the government does not want to figure out something for people like me who want to open their business here. To make a hub for entrepreneurs, to assist with bookkeeping, translation. I find Ukrainians a very strong labor force. My Ukrainian brand was connected with Amsterdam - here I have bought prints from Dutch artists for my design clothes. So when I came here I already had some contacts, I hoped it would be easy to move my business here. However, I do not know how to collaborate with shops here. And I am confused, because everyone tells me different information. Until there is proper governmental regulation and support in place, I find it more convenient for me to return to Ukraine. (Female, 45 y.o, unemployed, Goor)

Migration can facilitate the development of human capital by allowing individuals to apply skills that might not have been fully utilized or recognized in their home country. However, it can be different for Ukrainians coming from large urban centers with higher education, relocating to smaller towns in the Netherlands. The mismatch between skill sets and available opportunities in smaller towns could make it difficult to secure fitting employment.

> The city where I currently reside has a population of 12,000 people, and the only employment opportunity for Ukrainians here is at a chicken factory. Regardless of my two master's diplomas in Ukraine, it seems that the only options here are either working in housekeeping or at this factory. I am actively seeking opportunities in larger cities such as Amsterdam or Utrecht. (Female, 45y.o., unemployed, Goor)

Furthermore, conduction of focus groups gave us more imagination of the impact of current policies of the Dutch government regarding Ukrainians. All children are required to attend Dutch schools, where studying the Dutch language is compulsory. Some children join international classes, where they first spend a year learning the language, and then they integrate into regular classes with Dutch children; a few end up in classes only with Ukrainian children, but such cases are very rare throughout the country. Many respondents note that their children already speak Dutch, unlike the parents themselves, for whom the opportunity to learn Dutch is very limited and largely depends on the initiative of volunteers. While children have the chance to receive a quality education and progress in their development, their parents face restricted opportunities for enhancing their own. The Netherlands seems to exhibit more interest in Ukrainian war migrants as temporary labor rather than actively encouraging or supporting them to develop their skills for more advanced career opportunities. In this scenario, it is primarily Ukrainians themselves who are the ones taking the initiative to advance their own development.

> I initiated a meeting for employers where I presented information about Ukraine, our education, and our experience. I showed them that they shouldn't just focus on the short term. In the Netherlands, there's currently a shortage of engineers, and many Ukrainians have engineering education; they need to be adapted to specific companies and further trained. I received questions that concern local employers. One of the questions was about English language proficiency, and no one even asked for Dutch. They are concerned about investing their time and money in Ukrainian specialists and how many of them will stay in the Netherlands. (Female, 42 y.o, Manager, Schiedam)

Acknowledging the exploratory nature of this research, it is important to recognize the limitations of this paper as one of the initial endeavors to investigate the situation of Ukrainian refugees in the Dutch labor market and the role of uncertainty in human capital related decision-making. Exploratory research typically encounters certain constraints, and it is crucial to be mindful of these limitations throughout the study. The first limitation is the lack of diversity in my research sample, as it does not fully encompass all the characteristics of Ukrainian refugees in the Netherlands, nor does it comprehensively cover all the factors that may impact their decision.

The paper of Adda et al. (2022) provided valuable insights into understanding the behavior of immigrants when it comes to investing in human capital. Migrants who see their migration as temporary are likely to substitute leisure time with work in the short term to maximize their earnings during their limited stay. The factors that indisputably influence decision-making under uncertain conditions are the type of accommodation, the presence of income in the home country, and the type of contract.

The key result of this research is the found relationship between investment in human capital and various factors of uncertainty. The outcomes of the regression analysis suggest that individuals with higher levels of uncertainty regarding their future tend to make fewer investments in human capital. The economic stability, housing conditions, and employment status notably influence investment in human capital among Ukrainian war migrants in the Netherlands. Some of them strategically manage their human capital investments, taking advantage of their temporary status in the host country by learning the local language, preparing for higher professional roles, striving to obtain a permit for residency over an extended period. And some consider their staying as temporary due to strong connections with their home country, unsuccessful attempts to

find a job in their field of qualification or unwillingness to adapt to circumstances and learn local high-demanded skills.

It is crucial to consider this study as a foundation for gaining a more profound insight into this significant matter and as a catalyst for encouraging additional research on this topic, as it highlights significant challenges faced by Ukrainian refugees in the Netherlands, particularly focusing on language proficiency, uncertainty, and the need for support. Interviews revealed barriers such as limited language skills hindering access to job market information, leading to exploitation by employers offering lower-paying, less skilled jobs. The uncertainty about their stay influences decisions, affecting their career planning. Many expressed the need for language improvement and integration courses to navigate the Dutch job market. Frustrations emerged regarding establishing businesses due to the lack of governmental support. Additionally, migration creates obstacles for highly educated Ukrainians in smaller Dutch towns, who struggle to find suitable employment. Overall, the study emphasizes the crucial role of language skills, uncertainty, and the necessity for targeted support to bridge the gap between skills and job opportunities. This article can provide valuable insights and recommendations for policy makers in the Netherlands to adapt their strategies and policies to enable refugees to rebuild their lives and attain stable livelihoods, irrespective of the duration of their stay in the host country. Supporting and encouraging Ukrainians to develop their local language skills and retrain in line with the needs of the Dutch job market can significantly help fulfill the demand for specialists.

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APPENDIX A

DATA TABLES

1. **Table A1.** The demographic characteristics of the Ukrainian war migrants, registered in the Netherlands from 24th of February 2022. As for 1st May 2023. Source: CBS.

	Totaal	Mannen	Vrouwen
Totaal	92,064	33,662	58,402
Leeftijd			
0 jaar	106	50	56
1 jaar	750	397	353
2 jaar	970	503	467
3 jaar	1 022	510	512
4 jaar	1 172	591	581
5 jaar	1 200	629	571
6 jaar	1 382	724	658
7 jaar	1 356	686	670
8 jaar	1 570	782	788
9 jaar	1 528	802	726
10 jaar	1 606	819	787
11 jaar	1 569	824	745
12 jaar	1 512	766	746
13 jaar	1 561	808	753
14 jaar	1 581	823	758
15 jaar	1,403	665	738
16 jaar	1,440	730	710
17 jaar	1,582	830	752
18 jaar	1,968	1,130	838
19 jaar	1,468	436	1,032
20 jaar	1,466	416	1,050
21 jaar	1,569	444	1,125

	Totaal	Mannen	Vrouwen
22 jaar	1,534	455	1,079
23 jaar	1,507	474	1,033
24 jaar	1,566	505	1,061
25 jaar	1,589	558	1,031
26 jaar	1,635	580	1,055
27 jaar	1,544	531	1,013
28 jaar	1,534	554	981
29 jaar	1,570	551	1,019
30 jaar	1,581	576	1,005
31 jaar	1,568	562	1,006
32 jaar	1,622	576	1,046
33 jaar	1,766	605	1,161
34 jaar	1,834	604	1,230
35 jaar	1,884	653	1,231
36 jaar	1,993	700	1,293
37 jaar	2,009	687	1,322
38 jaar	1,981	649	1,332
39 jaar	2,098	660	1,438
40 jaar	1,989	642	1,347
41 jaar	1,782	559	1,223
42 jaar	1,762	546	1,216
43 jaar	1,617	485	1,132
44 jaar	1,554	460	1,094
45 jaar	1,421	408	1,013
46 jaar	1,421	403	1,018
47 jaar	1,421	419	1,002
48 jaar	1,250	348	902
49 jaar	1,111	294	817
50 jaar	1,072	276	796
51 jaar	1,035	262	773
52 jaar	943	234	709
53 jaar	836	198	638
54 jaar	770	184	586
55 jaar	695	183	512

	Totaal	Mannen	Vrouwen
56 jaar	715	156	559
57 jaar	578	121	457
58 jaar	551	107	444
59 jaar	590	113	477
60 jaar	627	183	444
61 jaar	750	279	471
62 jaar	666	215	451
63 jaar	621	191	430
64 jaar	594	180	414
65 jaar	554	153	401
66 jaar	507	153	354
67 jaar	454	139	315
68 jaar	431	138	293
69 jaar	340	92	248
70 jaar	367	92	275
71 jaar	362	111	251
72 jaar	294	62	232
73 jaar	259	74	185
74 jaar	248	55	193
75 jaar	178	43	135
76 jaar	206	61	145
77 jaar	113	19	94
78 jaar	87	22	65
79 jaar	79	18	61
80 jaar	61	12	49
81 jaar	89	25	64
82 jaar	97	22	75
83 jaar	75	18	57
84 jaar	77	13	64
85 jaar	73	22	51
86 jaar	46	6	40
87 jaar	31	5	26
88 jaar	24	3	21
89 jaar	11	2	9

	Totaal	Mannen	Vrouwen
90 jaar of ouder	33	11	22

2. **Table A2.** The training model estimation results.

Table 1. The training model estimation

Variable	Estimate
Age	-0.081
Female	2.138
Children	-1.900
Accommodation	-3.682
Region	0.128
Education	-0.234
English	-0.823
Dutch	2.884
Skills	0.514
Job.Match	-0.706
Contract.Type	0.905
Job.Type	-1.202
Job.Satisfaction	-0.338
Unemployment	0.102
Assist.Satisfaction	0.138
FinDependRelUkr	-0.007
FinDependRelNL	2.302
IncomeUkr	-3.653
Constant	22.202
Observations (residual)	62 (44)
Null deviance (residual deviance)	83.73 (40.98)
AIC	78.98

4

APPENDIX B

QUESTIONNAIRE

Figure B1. A list of questions of the questionnaire, mentioned in Chapter 3.

1. Скільки Вам років (18-24, 25-34, 35-44, 45-54, 55-64, 65+)
2. Стать (жін/чол/не хочу вказувати)
3. В якому місті/регіоні в Нідерландах ви проживаєте? **open**
4. В якому типі житла Ви проживаєте:
    a. В окремому житлі, наданому приймаючою родиною
    b. В приймаючій родині (разом з приймаючою сім'єю)
    c. В шелтері/локації
    d. В житлі, наданому муніципалітетом (не шелтер)
    e. В орендованому житлі (за власні кошти)
    f. У друзів чи родичів
    g. Робота з проживанням
5. Чи є у вас діти?
    a. Only if yes to children - Хто доглядає за дітьми, коли Ви на роботі? **open**
6. Чи є у вас родичі, що матеріально від вас залежать?
    (ні/ родичі в Нідерландах/родичі в Україні)
7. Який у вас найвищий рівень освіти?
    a. Середня освіта
    b. Технічна освіта
    c. Вища освіта - бакалавр
    d. Вища освіта - магістр або еквівалент
    e. Інше **(open)**
8. Як ви оцінюєте свій рівень володіння англійською? (1-5 scale)
    1 - Не володію,
    2 - Початківець - я розумію деякі прості слова та фрази, але не можу вести повноцінний діалог,
    3 - Середній рівень - Я можу вести розмову на різноманітні теми, але іноді маю труднощі зі складними висловлюваннями,
    4 - Високий рівень - Я добре розумію та говорю, можу вести професійні діалоги та вільно читати текст,
    5 - Вільно володію - Я розмовляю без зусиль, маю рівень рідного мовлення)

9. Як ви оцінюєте свій рівень володіння нідерландською?(1-5 scale)
1 - Не володію,
2 - Початківець - я розумію деякі прості слова та фрази, але не можу вести повноцінний діалог,
3 - Середній рівень - Я можу вести розмову на різноманітні теми, але іноді маю труднощі зі складними висловлюваннями,
4 - Високий рівень - Я добре розумію та говорю, можу вести професійні діалоги та вільно читати текст,
5 - Вільно володію - Я розмовляю без зусиль, маю рівень рідного мовлення)

10. Якою мовою Ви спілкуєтесь на роботі? *(оберіть все, що підходить)*
    a. Англійська
    b. Нідерландська
    c. Українська чи Російська
    d. Інше **(open)**

11. Яке у Вас джерело доходу? *(оберіть все, що підходить)*
    a. Повна зайнятість в Нідерландах
    b. Повна зайнятість в Україні (віддалено)
    c. Часткова зайнятість в Нідерландах
    d. Часткова зайнятість Україні (віддалено)
    e. Пенсія в Україні

12. Я шукаю роботу до 3 місяців / 3-6 місяців / 6-12 місяців / Більше 12 місяців) > go to 20

13. В якій сфері ви працюєте та яка у Вас поточна посада (відкрите питання)?

14. Як ви оцінюєте відповідність вашої поточної посади вашим кваліфікації та досвіду за шкалою від 1 до 5?

    1 - Посада повністю не відповідає моїм кваліфікаціям.
    2 - Посада відповідає недостатньо моїм кваліфікаціям.
    3 - Посада відповідає добре моїм кваліфікаціям.
    4 - Посада відповідає великим частинам моїх кваліфікацій.
    5 - Посада не відповідає моїм кваліфікаціям, я перекваліфікований (-а).

15. Який у Вас тип контракту? *(оберіть все, що підходить)*
   a. Нульовий (0-hour, on call, *оберіть все, що підходить)*
   b. Робота через агентство працевлаштування (uitzendbureau), Uitzendovereenkomst
   c. Без контракту
   d. Не знаю
   e. Я приватний підприємець + subquestion open:
      i. Чи зареєстрували Ви ZZP у KVK? Чи стикалися Ви з проблемами з реєстрацією та веденням бізнесу в Нідерландах?
   f. Інше (open)
16. Скільки годин на тиждень Ви працюєте за контрактом? (*оберіть все, що підходить*)
   g. 8
   h. 16
   i. 24
   j. 38
   k. По-різному
17. Скільки годин на тиждень Ви фактично працюєте? **(number)**
18. Чи виникали у вас якісь конфлікти та проблеми на роботі (юридичні, мовні, з колегами, з керівництвом і т.д.)? **open**
19. На скільки Ви задоволені вашою посадою?
   l. Так, задоволений/а + **open** (чому?)
   m. Ні, не задоволений/а + **open** (чому?)
   n. Шукаю іншу роботу + **open** (чому?)
20. Чи знаєте ви, як оформлювати ваші податки? Чи стикались ви з проблемами з заповнюванням податкової декларації? **open**
21. Чи задоволені ви підтримкою та допомогою, яку отримали при інтеграції на голландський ринок праці? (Так/Ні) Якщо ні, будь ласка, вкажіть сфери, в яких ви відчуваєте нестачу підтримки. **open**