

Temporary Employment of First-Generation Migrants in the Netherlands¹

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ABSTRACT

The Netherlands is the European country that has undergone the highest increase in temporary jobs in the last decade. These occupations are characterized by a low level of job security and, in the case of older workers, may lead to social exclusion and higher welfare dependence. Using the LISS panel data (2008-2019) for the Dutch population, this paper establishes an innovative link between migration background and temporary employment. First, I investigate whether first-generation migrants (western and non-western) are more likely to be temporarily employed than Dutch-born natives. Besides, I explore whether higher education, language problems, and active social contacts influence this relationship. The findings show that non-western migrants are more likely to be temporarily employed than both western migrants and natives. Language problems are the main mediator increasing migrants' probability of being temporarily employed, while higher education and active social contacts appear not to be significant.

Keywords: temporary employment, immigrants, language problems.

JEL classification: J15, J61, Z13.

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1. Introduction

The Dutch labor market is experiencing two contemporaneous phenomena: a growing number of workers in non-standard forms of employment (flexibilization³) and rising participation of people with a migration background to the labor force (OECD, 2019). In this study, I contribute to the current literature on the integration of migrants in flexible labor markets by studying whether first-generation migrants are more likely to be temporarily employed than Dutch natives. Furthermore, I analyze some of the mediating factors that may affect the likelihood to be temporarily employed.

Temporary forms of employment are characterized by weak employment protection legislation (EPL), and their adoption is increasing in high-income countries (Boeri et al., 2020; ter Weel, 2018). Temporary forms of employment allow both the employee and the employer to manage their work relationship with more flexibility. Ultimately, especially for the youth, they should work as a trampoline to more permanent jobs. However, if the employer has no interest in shifting to permanent employment, temporary forms of employment can create a more fragile labor market or even a dual labor market. In this situation, a considerable share of workers is trapped in a loop of temporary occupations, having little or no career perspectives (Barbieri and Cutuli, 2015; Boeri et al., 2020; Bolhaar et al., 2018).

The Netherlands has the fifth highest share of temporary workers as a percentage of the total labor force in the EU (Eurostat, 2019). Most importantly, since 2008, the share of temporary workers versus permanent workers has been rising every year (CBS, 2018). This may be because the overall costs to hire and dismiss a permanent worker are higher than the ones for a temporary employee, which in turn may push employers towards heavy reliance on temporary jobs (Bolhaar et al, 2018; Hartog and Salverda, 2018; OECD, 2019).

In 2018, first-generation migrants (defined as Dutch residents born abroad) made up 12.5% of the local population. Including second-generation migrants (defined as Dutch-born residents with at least one parent born abroad) the percentage goes up to 23.6% (CBS, 2018). The present composition of the migrant population in the country is heavily influenced by the arrival in the 1960's-1970's of guest-workers from Morocco and Turkey, who were encouraged to come to work in the booming Dutch economy. From the 1980's to the 2000's, the Netherlands welcomed people from the former Dutch colonies (Dutch Caribbean and Suriname) and refugees from eastern-European countries, the Balkans, Afghanistan, Iraq, and Somalia (Schrover, 2010). As a result of this, 56% of the current Dutch residents

³ The European definition of flexworkers is not uniform, so it is the case that EU countries categorize them differently, and the data are difficult to compare. I follow the definition provided by Statistics Netherlands (CBS, 2019), which calls flexworkers the people who either are in temporary employment and/or have flexible working hours. This rather broad group comprises seven different subcategories. Four for employees with temporary contracts, depending on the duration of their contract and whether or not they have a fixed number of hours of work. Three for employees with on-call contracts, workers hired through temporary employment agencies (also called temporary staffers), and permanent employees with flexible hours (CBS, 2019).

with a migration background have a non-western background⁴. Conversely to this trend, most of those who arrived in 2018 and 2019 came from other EU member states (CBS, 2018).

Because of its relatively long migration history, advanced economic development, and high quality of the available population data, the Netherlands provides a good case study on the determinants of the integration of migrants in the local labor market. Recent evidence shows that non-western migrants are the ethnic group that, on average, needs most time to transit from unemployment to employment, presents the lowest level of earnings, and has the most mismatches between profession and skill level (Bevelander & Veenman, 2006; Bolhaar et al., 2018; Hartog and Salverda, 2018). Possible reasons for this disadvantaged position are low education, poor language proficiency, and lack of inter-ethnic social contacts (Bijwaard and Veenman, 2007; Chiswick and Wang, 2019; Hartog and Zorlu, 2009; Lancee, 2010; van Ours and Veenman, 2006).

The forementioned studies have investigated the position of migrants in the labor market by looking at outcomes such as employment, hours of work, and wages. However, the question of whether migrants in the Netherlands are more likely to be temporarily employed remains unanswered. In the present work, I investigate whether a first-generation migration background increases the chances of temporary employment versus natives, and, besides, I explore whether some of the mediating factors pointed at by the literature may affect migrants' involvement in temporary jobs. The main hypothesis is that, for first-generation migrants, the acquisition of higher education outside the Netherlands, language barriers, and lack of active social contacts reinforce the probability of temporary employment versus permanent one.

For the empirical part of the analysis, I use data from a representative sample of the Dutch population provided by the Longitudinal Study for the Social Sciences (LISS) for the period 2008-2019. I start by estimating through pooled OLS the effect of having a first-generation migration background on the probability of being temporarily employed. I control for demographic factors, profession, sector of employment, and the three integration variables that may affect the labor market position of a worker: education, language problems, and active social contacts. In addition, I interact the integration variables with the migration background to study whether they influence migrants' chance of being temporarily employed. For both stages of the analysis, I initially compare the whole pool of migrants with natives and subsequently distinguish between migrants with western and non-western backgrounds.

The findings show that first-generation migrants are almost eight percentage points more likely to be temporarily employed than natives, with a particularly strong effect for migrants with a non-western background. First-generation migrants who report having problems with reading and/or speaking Dutch are significantly more likely to be temporarily employed than those who do not. Again, this effect is particularly strong for migrants with a non-western background.

⁴ The CBS defines Europe, North America, Oceania, Japan, and Indonesia, the latter being a former Dutch colony, as western; Africa, Asia, and Latin America are defined as non-western.

The estimation of the effect of language problems is known to possibly suffer from endogeneity from three sources. The first are omitted variables which may affect both the type of employment and language skills. The second is reverse causality, because the type of employment may impact propensity to learn Dutch. The third is measurement error, since potential over- or underreporting of language problems can lead to a misestimation of the true impact of language problems on temporary employment probability. For these reasons, I re-estimate the language effects by employing an instrumental variable technique initially proposed by Bleakley and Chin (2004, 2010) and later employed by others (Budria and Martinez de Ibarreta, 2020; Chiswick and Wang, 2019; Miranda and Zhu, 2013; Yao and van Ours, 2015). This method instruments language problems with an interaction between the age at arrival in the Netherlands and a dummy variable for speaking non-Dutch during childhood. Late migration and speaking other languages during childhood are both associated with a worse command of Dutch at adulthood (Sweetman and van Ours, 2014). I use their interaction because age at arrival mostly affects the language skills of migrants who spoke non-Dutch during childhood. The crucial assumption for the interaction to work is that, except for language development, age at arrival has the same labor market effects for migrants who did not speak Dutch during childhood and those who did. The IV estimates confirm the effect of language problems on the probability of being temporarily employed, even suggesting it is underestimated in the OLS model.

The present analysis does not aim at precisely quantifying the racial discrimination that individuals from different ethnic backgrounds may suffer during their integration into the Dutch labor market (Andriessen, 2012; Zorlu, 2013). However, when the controls for demographic characteristics, profession, sector of employment, education, language problems, and active social contacts are included, a part of the residual effect of migration background on temporary employment probability can be interpreted as the effect of racial discrimination (also called *ethnic penalty*).

The contribution to the literature is threefold. To begin with, this is the first study of its kind to examine how different migration backgrounds influence the probability of temporary employment in the Netherlands. This moves beyond English-speaking countries, on which most of the temporary employment literature has been focused and provides evidence from the EU country which has seen the highest increase temporary jobs in the last decade, with significant implications for others. In addition, it presents a broader picture of the labor market position of first-generation migrants, rather than focusing on a specific parameter like wages and hours of work. Finally, on the empirical side, it employs data from a high-quality twelve-year panel, and it assesses the role of origin, personal characteristics, profession, sector of employment, education, Dutch language proficiency, and active social contacts at the same time.

The rest of the study is structured as follows. Section 2 provides a review of the literature on the labor market integration of first-generation migrants, the factors that might affect it, and the Dutch case. Section 3 includes the empirical analysis. Section 4 discusses implications and limitations of the findings. Section 5 concludes.

2. Literature review

The literature on the labor market integration of first-generation migrants has identified three important factors in explaining it. These are education, language proficiency, and social contacts. Education is often regarded as one of the main tools through which immigrants can enrich their human capital and achieve professional success in the host country. However, the available empirical evidence on the labor market beneficial effects of migrants' education corroborates this idea only partially. The little compatibility between different educational systems and the difficulties in translating one own knowledge into a foreign language are possible explanations for it (Zorlu, 2013). It is also the case that second-generation migrants benefit from the host country's education much more than their parents from the home country's one (Gonzalez, 2003; Hartog and Zorlu, 2009; Piton and Rycx, 2020). Migrating at a younger age allows the individual to complete secondary education in the host country and greatly improves job prospects (Åslund et al., 2009; Chiswick and Miller, 1995; Chiswick and Wang, 2019).

Contrary to education, the benefits from high host country language proficiency are often found to be significantly positive also for first-generation migrants. Dustmann (1994) is among the earliest to find a positive correlation between host country language proficiency and earnings of migrants in Germany. Chiswick and Miller (1995) are the first to use an IV estimation technique to account for the potential endogeneity of language problems and estimate that, in Australia, the language premium on male first-generation migrants' earnings is more than 20%. In later studies, age at arrival in host countries is a commonly used instrument for language skills. Bleakley and Chin (2004, 2010) improve this strategy by instrumenting language skills with the interaction of a dummy for arriving in the US as a child and one for being born in a non-English speaking country. Their approach is based on the assumption that non-language age-at-arrival effects are the same irrespective of the country of origin. They find that English proficiency increases the earnings of immigrants who arrived in their childhood by an average of 33 percentage points, compared to those of the individuals who migrated later.

Regarding the importance of social contacts, their relevance within migration studies has grown since the publication of Bourdieu's (1998) theory of social capital. Putnam (2000) extended on the previous definition by applying the concept of social capital also to collective bodies such as migrant communities. In particular, migrants' social capital may originate from two sources: bonding and bridging. Social capital comes from bonding when the individual strengthens his/her ties with his/her migrant community (intra-ethnic contacts), and from bridging when the social ties are made with the local community (inter-ethnic contacts) (Patulny and Svendsen, 2007). Inter-ethnic contacts are often found to improve migrants' employability and earnings (Chiswick and Wang, 2019; Lancee, 2010). Intra-ethnic contacts might instead have negative implications such as little integration in the host country's society, excessive trust in one own's inner circle, and restrictions imposed by leaders of the migrant community on others (Portes, 2000, 2014; Sanders and Nee, 1996).

2.1 The Dutch case

A considerable literature on the integration of migrants in the Dutch labor market has flourished since the arrival of guest-workers from Morocco and Turkey in the 1960's-1970's. Recent contributions have found non-western migrants as the ethnic group that faces the most labor market difficulties. Their participation rate is more than five percent lower than the one for western migrants and natives, whose rates are comparable (above 80%) (Hartog and Salverda, 2018). They are also the population group that, on average, takes more time to transit from unemployment to employment (Bijwaard and Veenman, 2007) and is less likely to be employed in jobs matching their skill level (Chiswick and Wang, 2019; Hartog and Zorlu, 2009; Zorlu, 2013). Finally, they are the ones whose earnings benefit the least from naturalization (Bevelander and Veenman, 2006).

According to the existing literature, attaining higher education in non-western countries appears to have no positive effect on the integration of migrants in the Dutch labor market (Hartog and Zorlu, 2009). Instead, obtaining education in the Netherlands, the EU, or a former Dutch colony, is found to have a significant positive effect on employment chances (Bevelander and Veenman, 2006; van Ours and Veenman, 2006). Language problems are found to have a major negative impact on the employability and earnings of migrants, especially when they come from non-western countries (Chiswick and Wang, 2019; Yao and van Ours, 2015). Regarding social contacts, the results are mixed. Inter-ethnic contacts seem to have a positive effect on migrants' job prospects; however, intra-ethnic contacts do not (Chiswick and Wang, 2019; Lancee, 2010; Martinovic et al., 2009). Migrating at a younger age appears in the literature as an important predictor of both language proficiency and higher educational attainment, with consequent better labor market outcomes (Chiswick and Wang, 2019; Yao and van Ours, 2015; Zorlu, 2013).

Migrants coming to the Netherlands in recent years have had to adapt to rapid labor market changes as well. Statistics Netherlands (CBS) (2019) reports that the Netherlands has been the country with the highest increase in the number of flexible workers⁵ in the period 2008-2017 (+4.7%). Currently, the country has the third most flexible labor market in the EU (30% of all the workers), following Poland (33.3%) and Spain (33.1%) (CBS, 2019). This growth has been driven by a constant increase in temporary jobs relative to permanent ones (CBS, 2018). Temporary workers make up 70% of the flexworkers in the Netherlands and 21% of all workers (CBS, 2018).

The recent rise in temporary jobs in the Netherlands has several possible explanations. First, non-standard forms of employment are on the rise in most developed countries as a result of the job polarization fostered by globalization and technological change (OECD, 2019). Being the Netherlands one of the world's most advanced labor markets, it does not come as a surprise that it is the leading European country for growth in the number of flexworkers in the period 2008-2017.

⁵ Flexworkers are defined as people who either are in temporary employment and/or have flexible hours (CBS, 2019). For more, see footnote 1.

Second, the Netherlands is a country with a high level of labor market dualism: the extent to which employment is divided between protected permanent contracts and fragile temporary contracts (Hartog and Salverda, 2018; OECD, 2019; ter Weel, 2015). In the Netherlands, an employer can terminate a permanent employment contract only by showing fair grounds for dismissal, proved that the employee cannot be moved to another position within the company. After the dismissal, if the employment period was of two years or more, the employer is obliged to make a costly severance payment to the employee (Bolhaar et al., 2018).

Although it is still weaker than in most other OECD countries, the stringency of Dutch EPL for temporary employment increased from 2013 to 2018 (OECD, 2019). This rise was led by the 2015 introduction of the Work and Security Regulation (Wet Werk en Zekerheid). The new law reduced the maximum period for successive fixed-term employment contracts with the same employer from three to two years. As a result of this, the regulation has increased the average contract's duration but has not provided a real incentive for switching from temporary to permanent work (Hartog and Salverda, 2018). When strict EPL for permanent contracts is combined with liberal ruling for temporary contracts, as in the Dutch case, firms react by substituting temporary for permanent workers (Boeri et al., 2020; Bolhaar et al., 2018; OECD, 2019).

3. Empirical analysis

3.1 Data and sample composition

The dataset employed for this study is derived from the Longitudinal Internet Studies for the Social Sciences (LISS) administered by CentERdata (Tilburg University, The Netherlands)⁶. The LISS provides information on a variety of topics including demographic characteristics, labor market position, and the financial situation of households. Most importantly for this study, it contains information also on migration background, type of employment, education, language skills, and social contacts. Survey modules on background variables are run monthly, while modules on more specific topics, like work and education, are run yearly. The dataset employed is composed of the waves covering the twelve years between 2008 and 2019.

Since I am interested in the working-age population, I restrict my sample to individuals who are 15 to 64 years old. To focus on the first generation, I exclude second-generation migrants (2,168) from

⁶ The population of reference is the Dutch-speaking population permanently residing in the Netherlands and the sample frame is the nationwide address frame of the CBS. The sampling and survey units are independent, private households, thereby excluding institutions and other forms of collective households. When a household receives the request for participation in the survey, all the members older than 15 are invited to take part. Households in which no adult is capable of understanding Dutch are not included (LISS, 2009).

the sample. Given that second-generation migrants are usually better integrated than their parents, pooling together the two groups would likely lead to an underestimation of the impact of having a migration background on the probability of temporary employment for just first-generation migrants⁷.

After deleting the observations of those who do not report information on their ethnic background (1,370) and their current or last type of employment (6,886), I obtain a dataset consisting of 32,406 observations from 22,331 individuals, from 5,943 unique households. 68.9% of the individuals appear only once in the sample, 25.1% appear twice, and 6.0% appear more than twice. Migrants make up 7.2% of the individuals in the sample (6.8% of the observations). This is lower than the percentage provided by the CBS (12.5%) for multiple reasons. First, the sample lacks all the migrants who are not active in the labor market or are first-time jobseekers⁸. This is relevant since Eurostat (2019) reports that 40.3% of the non-EU citizens in the Netherlands are not active in the labor market, compared to 17.7% of Dutch citizens. Second, the migrants who do not have a sufficient command of Dutch to fill out the survey are also not included.

3.1.1 Temporary employment variable

The variable for whether an individual has a temporary form of employment is derived from the survey question: *Are (In your last job) (were) you an employee in permanent or temporary employment?* Eight possible answers to the question are provided: employee with a permanent contract, employee with a temporary contract, on-call employee, temporary staffer, self-employed/freelancer, independent professional, director of a limited liability or private limited company, and majority shareholder director. From this question, basing myself on the CBS definition discussed in section 1, I create a dummy for whether someone is employed in a temporary form of employment or not. The specification includes all the people with temporary contracts, on-call employees, and temp-staffers, without any discrimination for the number of working hours. Workers with a permanent contract and flexible working hours are not categorized as temporarily employed. The same applies to self-employed and independent professionals.

3.1.2 Migration background variable

To study migration background, I use a survey question asking respondents to disclose their ethnic backgrounds, based on CBS definitions. The answers to the question are five possible categories: native Dutch (born in the Netherlands by two parents born in the Netherlands), first-generation migrant with

⁷ For more on the labour market integration of second-generation migrants in the Netherlands see Gracia et al. (2015), Sweetman and van Ours (2014), and van Elk et al. (2019).

⁸ First-time jobseekers are beyond the scope of the analysis as for them the probability of being employed has never become reality. It is also reasonable to assume that migration background has a different impact for them.

a western background (born outside the Netherlands by both the parents, or just the mother, from a western country), first-generation migrant with a non-western background (born outside the Netherlands by both the parents, or just the mother, from a non-western country), second-generation migrant with a western background (born in the Netherlands by both the parents, or just the mother, from a western country), and second-generation migrant with a non-western background (born in the Netherlands by both the parents, or just the mother, from a non-western country)⁹.

From this question, first, I create a dummy for whether someone has a first-generation migration background or not. Second, to study ethnic backgrounds separately, I create a categorical variable which takes value zero if the individual is native Dutch, one if the individual is a first-generation western migrant, and two if the individual is a first-generation non-western migrant. As said, second-generation migrants are excluded from the analysis.

3.1.3 Control variables

As control variables, I employ the set included by Yao and van Ours (2015), who also use the LISS to study the labor market position of migrants in the Netherlands. These are age, gender, civil status, number of children at home, and whether someone is living in an urbanized area or not.

In addition, I control for the profession and sector of employment by using two other categorical variables (the full specification can be found in Table 1). I include them in the analysis because professions and sectors of employment can correlate with both type of employment and migration background. Without controlling for them, the estimation strategy would calculate the impact of having a migration background on the probability of being employed in a sector or profession which makes high use of temporary employment, rather than on the pure probability of being temporarily employed. In other words, their exclusion would likely lead to omitted variables bias.

3.1.4 Integration variables

To capture the factors that may influence the probability of being temporarily employed, I make use of three variables: level of education, whether someone has language problems or not, and the number of social clubs at which an individual is an active member. The latter is a proxy for active social contacts. Education is expressed in CBS categories: primary education, lower secondary education (VMBO), intermediate secondary education (HAVO/VWO/MBO), and higher education (HBO/WO). Language problems are measured by a dummy variable that takes value one if the respondent reports to have problems in reading or speaking Dutch, and zero if not. The variable for active social contacts takes

⁹ The CBS defines Europe, North America, Oceania, Japan, and Indonesia, the latter being a former Dutch colony, as western; Africa, Asia, and Latin America are defined as non-western.

values zero to three for whether an individual is an active member of zero to three social clubs (sports clubs, culture/hobby clubs, and religious groups).

3.2 Descriptive statistics

Table 1 provides an overview of the summary statistics for the variables included in the analysis, split by ethnic groups: native Dutch population, first-generation migrants with a western background, and first-generation migrants with a non-western background.

The three ethnic groups are heterogeneous when it comes to types of employment. Dutch natives show the highest share of individuals permanently employed (76.0%), while western migrants and non-western migrants are three (73.4%) and eight points below (68.1%) respectively. Western migrants are the population group most involved in self-employment (self-employed and independent professionals) (10.4%) compared to Dutch natives (7.8%), and non-western migrants (4.7%). The latter is the ethnic group with the largest share of temporarily employed individuals (temporary contracts, on-call employees, and temporary staffers) (26.0%), compared to western-migrants (15.7%) and Dutch natives (14.8%).

These statistics can be related to the ones for professions and sectors of employment, as different sectors and professions rely on different types of employment. In fact, Dutch natives and western migrants, whose numbers for permanent and temporary employment are rather similar, show also similar professional profiles, with the latter slightly more employed in high- or medium-skilled jobs (52.9% and 53.3%) (high or intermediate academic, supervisory, and independent professions). Non-western migrants have instead a greater incidence in low-skilled professions (33.8%) (unskilled, manual, and agricultural jobs), which largely employ temporary contracts, on-call contracts, and temporary staffer contracts. Dutch natives are relatively more employed in sectors related to public services (38.7%) like healthcare, welfare, and education, all of which provide a high number of permanent jobs. Western migrants are relatively more present in the industrial production sector (17.1%) (like engineering) and in business services (8.4%), which might explain the relatively high number of self-employed individuals among them. Non-western migrants are relatively more employed in catering (6.8%), which is a sector that makes high use of temporary work arrangements, like on-call contracts.

Regarding the integration variables, non-western migrants are once again the most different population group from the other two. They are the ones with the lowest share of individuals with higher education (33.0%) and the highest one for individuals who report to have language problems in reading or speaking Dutch (45.4%). Western migrants show instead the largest share of individuals with higher education (47.9%) and a slightly lower number of people who report having language problems (40.8%). Regarding active social contacts, the three ethnic groups show similar statistics. All three have a share of individuals who are active members of a sports club, cultural/hobby association, or religious

group slightly below thirty percent, with western migrants and non-western presenting almost identical values (29.5% and 29.6%).

3.3 Methodology

To estimate the influence of having a migration background on the likelihood of being temporarily employed, I use Equation 1 below:

$$TE_{it} = \beta_0 + \beta_1 MB_i + \beta_2' \mathbf{X}_{it} + \beta_3 P_{it} + \beta_4 Se_{it} + \beta_5 E_{it} + \beta_6 LP_{it} + \beta_7 SC_{it} + \delta_t + \varepsilon_{it}. \quad (1)$$

TE_{it} is the dependent variable which takes value one if individual i has a temporary contract, on-call contract, or temporary staffer contract at time t , and zero if the individual has a permanent contract or is self-employed. MB_i is a dummy variable which takes value one if individual i has a migration background and zero otherwise. \mathbf{X}_{it} is a vector containing a set of variables measuring background demographic characteristics (age, age squared, gender, civil status, number of children at home, and whether someone lives in an urbanized area or not). P_{it} is the variable for profession and Se_{it} is the one for sector of employment. E_{it} , LP_{it} , and SC_{it} are the three integration variables for the factors that may influence the type of employment enjoyed by individual i at time t : level of education, language problems, and number of active memberships in social clubs respectively. δ_t are the calendar year effects captured with the inclusion of year dummies and ε_{it} is the error term.

I employ the pooled OLS estimator and cluster the standard errors at the household level to avoid correlation of the error term between observations of different individuals in the same household, as well as between different observations of the same individual over time. I do not use a fixed effects estimator because migration background is time-invariant. Further, to estimate the impact of the three integration variables on migrants' probability of being temporarily employed, I interact each of them with migration background, keeping the others as controls. For the sake of simplifying the interaction analysis, I treat each integration variable as a dummy (having or not higher education, having or not language problems, and having or not active social contacts). Finally, when I use an IV estimation technique to check the robustness of the OLS estimates, I instrument the dummy for language problems with an interaction between a variable for the migrant's age at arrival in the Netherlands and a dummy indicating whether the individual did not speak Dutch during childhood.

3.4 Results

Table 2 reports the pooled OLS estimates for Equation 1. As the first three columns show, having a migration background always increases the chances of being temporarily employed, whether I include background variables and integration variables as controls or not. When including all control variables, an individual with a migration background is estimated to be 7.6 percentage points more likely to be

temporarily employed than a native Dutch person, significant at 1%. Column 4 shows that this result is entirely driven by non-western migrants, who are 10.8 percentage points more likely to be temporarily employed than natives. Western migrants are 'only' 3.0 percentage points more likely to be temporarily employed than natives, but this estimate is insignificant at all levels¹⁰.

The estimates for the background variables appear with the expected signs and effect sizes¹¹: being one year older decreases the chances of being temporarily employed by 4.5 percentage points; age squared shows that the effect is increasing with age (+0.04 percentage points). Females are 3.4 percentage points more likely to be temporarily employed than males, while married individuals are 4.9 percentage points less likely to be temporarily employed than singles. Interestingly, having one more child at home does not statistically increase the chances of being temporarily employed. Unsurprisingly, individuals in low-skilled professions (semi- or unskilled manual work and agriculture) are around 10 percentage points more likely to be temporarily employed than those in high-skilled professions.

The three integration variables, here included as controls and not interacted with the migration background dummy, do not yield estimates statistically different from zero.

The estimates for the impact of the three integration variables on migrants' probability of being temporarily employed are presented in panels *a* and *b* of Table 3, Table 4, and Table 5. Language problems appears to be the only integration variable significantly affecting migrants' likelihood of being temporarily employed. Migrants with language problems are estimated to be 9.2 percentage points more likely of being temporarily employed than migrants without language problems, and 13.3 percentage points more likely to be temporarily employed than natives. As shown in panel *b* of Table 4, these numbers are largely driven by non-western migrants. Being a non-western migrant with language problems increases the chances of temporary employment by 12.0 percentage points with respect to those without, and by 17.9 with respect to natives. All of the estimates are significant at the 1% level.

Higher education and active social contacts appear to be not significant in explaining migrants' temporary employment probability. Migrants with higher education are not less likely to be temporarily employed than those without, and the same is true for migrants with active social contacts, independently of ethnic background.

¹⁰ As additional forms of check, the results have been re-estimated, first, with a probit model, second, with a random effects model and, third, by running separate regressions for males and females. The estimates obtained in these checks do not present significant differences from the ones discussed above.

¹¹ To improve the readability, the estimates for the background variables and *Year*-fixed effects are not displayed in Table 1. They are available in the Appendix upon request.

3.5 Robustness check

The results in Section 3.4 point to language problems as the main mediator affecting migrants' temporary employment probability. However, the estimation of the effects of language problems may suffer from endogeneity from three potential sources. These are omitted variables, reverse causality, and measurement error.

As for omitted variables, several unobserved characteristics are potentially correlated with both the type of employment and language problems. For example, migrants with more free time or higher motivation may have more possibilities and desire to learn Dutch and be more active in their job search. Regarding reverse causality, it is reasonable to assume that migrants with permanent jobs have a stronger incentive for learning Dutch. Additionally, measurement error may be an issue since the measure of language problems employed in this study is self-reported. If individuals tend to exaggerate their language problems, this will lead to an underestimation of the language proficiency effect. In the case of the present study, 11.1% of the Dutch natives in the sample report to have difficulties in reading or speaking Dutch. This is probably due to an exaggerated perception of one own's struggles, rather than an objective linguistic barrier as the one that migrants may face.

To correct for potential endogeneity, I employ an IV strategy similar to the one proposed by Bleakley and Chin (2004, 2010) and subsequently used in other studies on the labor market position of migrants in the Netherlands (Chiswick and Wang, 2019; Yao and van Ours, 2015). This method consists of instrumenting language problems with an interaction between two other variables: age at arrival in the Netherlands and a dummy indicating whether a migrant did not speak Dutch during childhood¹².

Previous research has extensively shown that being born in a household from a country where Dutch is not spoken is associated with a worse command of it at adulthood, while early age at arrival in the Netherlands can compensate for this initial disadvantage (Chiswick and Wang, 2019; Sweetman and van Ours, 2014; Yao and van Ours, 2015). Because age at arrival mostly affects language skills of immigrants whose did not speak Dutch during childhood, I follow the approach adopted in the literature and use the interaction between these two variables as identifying instrument (Budria and Martinez de Ibarreta, 2020; Chiswick and Wang, 2019; Miranda and Zhu, 2013; Yao and van Ours, 2015).

Given this interaction, the identifying assumption is that non-language labour market effects of age of arrival are the same for migrants who spoke Dutch during childhood and those who did not (Chiswick and Wang, 2019; Yao and van Ours, 2015). Any difference in temporary employment probabilities between young and old non-Dutch-speaking migrants that is different from the same difference for Dutch-speaking migrants should be plausibly attributed to language problems. IV parameter estimates obtained with this technique are usually larger than OLS parameter estimates,

¹² Given the colonial past of the Netherlands and the many individuals that migrated to the country during their childhood, the share of first-generation migrants who grew up speaking Dutch is considerable. In the present sample, they constitute 45% of first-generation migrants.

indicating that the potential upward bias from omitted variables and reverse causality is dominated by the downward bias from measurement error (Bleakley and Chin 2010; Chiswick and Wang, 2019).

To focus the analysis on the potential endogeneity of migrants' language problems and apply the IV strategy described above, I restrict the sample to first-generation migrants who report their age at arrival in the Netherlands and the language spoken during childhood and exclude Dutch natives from it. For these reasons, the number of observations drops to 1,471. To control for possible non-language assimilation effects of age at arrival, I include a dummy for having a non-western migration background.

Column 1 in Table 6 shows the OLS estimates for the restricted sample, without instrumenting language problems. Language problems increase the probability of being temporarily employed by 9.4 percentage points. The effect size is rather similar to the 9.2 percentage points obtained in panel *a* of Table 4 and it is significant at the 1% level as well. Even though the two calculations are not fully comparable given the different samples, the persistence of the effect of language problems suggests that the reduction in sample size does not affect the general accuracy of the estimation. As expected, having a non-western migration background increases the chances of temporary employment by 9.3 percentage points, significant at 1%.

Column 2 presents the estimates obtained with 2SLS. The coefficient of the effect size of language problems grows to 16.1, significant at 10%. The increase in effect size suggests that the downward bias caused by measurement error is bigger than the upward bias caused by omitted variables and reverse causality.

To check the goodness of the instrument, I first verify the assumption regarding its relevance. The idea is that, for first-generation migrants who grew up not speaking Dutch, arriving in the Netherlands at a later age increases language problems. This can be checked in the first-stage of the 2SLS estimation, reported in Column 3. The estimates show that for first-generation migrants who grew up not speaking Dutch, arriving one year later in the Netherlands increases the chances of having language problems by 1.5 percentage points, significant at 1%. I perform a further relevance check by running an F-test on the significance of the instrument. Weak instruments provide biased and inconsistent estimates. As a rule of thumb, a F-statistic above 10 signals that the instrument is strong enough (Stock and Yogo, 2005). As reported in Column 3, the F-statistic is well above 10.

In Column 4, I perform the same 2SLS estimation as above, but now including age at arrival alone as an additional instrument. Although this implies the additional assumption that age at arrival affects the labor market position of migrants only through language skills, it is now possible to calculate the age-at-arrival effects on language problems for immigrants who spoke Dutch during their childhood. The estimates show that the effect of language problems on temporary employment is robust to the inclusion of age at arrival as an additional instrument and the coefficient size grows to 18.9 percentage points, significant at 1%. The first-stage of the updated IV specification is reported in Column 5. The effect size of the interaction term decreases from 1.5 percentage points to 1.2, significant at 1%. It is

noteworthy that age at arrival increases language problems also for people who grew up speaking Dutch by 0.7 percentage points, significant at 1%.

It is now possible to check whether the two instruments (age at arrival interacted with speaking not-Dutch during childhood and age at arrival alone) are exogenous to the error term. To do so, I conduct a Hansen J test of overidentifying restrictions. To be carried out, the test requires the presence of more instruments than endogenous regressors¹³. Under the null hypothesis both instruments are exogenous to the error term and 2SLS estimates are valid. The Hansen J test-statistic in Column 4 shows that the null hypothesis cannot be rejected at all significance levels. Therefore, adding an additional instrument yields robust and consistent coefficients.

All in all, the increase in the effect size of language problems and the joint significance of the instruments suggest that there are some age-at-arrival language effects also for those migrants who spoke Dutch during childhood.

Finally, I run a Wooldridge¹⁴ (1995) robust score test for the endogeneity of language problems in both IV specifications. The null hypothesis is that language problems are actually exogenous, and instrumental variables are not needed. The Wooldridge test-statistic in Column 2 (under the first IV specification) shows that the null hypothesis cannot be rejected at all significance levels, while the one in column 4 (under the second IV specification) shows it can be rejected at 5%.

4. Discussion

The finding that non-western migrants are the ethnic group most likely to be temporarily employed is in line with previous evidence on their low employability and earnings in the Dutch labor market (Bijwaard and Veenman, 2007; Chiswick and Wang, 2019; Yao and van Ours, 2015; Zorlu, 2013).

This result can be framed in the wider context of recent studies on EU countries with a similar migrant population. In Belgium, where the statistics for first-generation non-western migrants are comparable to the ones of the Netherlands but the labor market is less flexible (Eurostat, 2019), non-western migrants are found by Piton and Rycx (2020) to suffer from a disadvantaged position similar to the one presented in this study. Non-western migrants in Belgium are particularly penalized in terms of employability and earnings, especially if they have language problems. As in the Dutch case, higher education obtained outside of the EU does not seem to improve their condition. The comparability of the two cases suggests that the integration of first-generation non-western migrants is an issue for different European countries and not for just the ones with the most flexible labor markets.

¹³ The Hansen J-statistic follows a χ^2 -distribution with one degree of freedom.

¹⁴ This is a test for the endogeneity of the regressors calculating the difference between OLS and 2SLS estimates. The estimation procedure is similar to the one of a Hausman test but taking into account robust standard errors (therefore, correcting for possible heteroskedasticity of the standard errors).

Two plausible explanations for the findings of this study and the similar Belgian evidence come from factors I cannot exactly quantify in the estimation strategy: discrimination and preferences.

4.1 Discrimination

Discrimination towards individuals with a non-western background (or just with non-western appearance) is a well-documented phenomenon in European labor markets (for the Dutch case see Andriessen, 2012; Zorlu, 2003). Despite the aim of this study is not to precisely estimate it, when demographic characteristics, profession, sector of employment, education, language problems, and social contacts are controlled for, a part of the residual effect of migration background on the probability of being temporarily employed may be interpreted as the effect of racial discrimination.

Two additional aspects suggest that discrimination may play a role in the labor market outcomes of non-western migrants in the Netherlands. First, the Dutch population has the highest level of English proficiency among European countries that do not have English as a native language (Eurostat, 2019). This would limit the circumstances under which Dutch proficiency is essential for succeeding in the workplace. Second, the summary statistics show that western and non-western migrants do not report particularly different levels of language problems. Assuming that language problems have a major influence on the type of employment, when controlling for the other factors, western migrants should suffer a disadvantaged labor market position rather similar to the one of non-western migrants. However, the results do not show that, and this disparity might be interpreted as discrimination towards non-western migrants. Nonetheless, it should also be considered that having language problems may mean different things for the two groups.

4.2 Preferences

Temporary forms of employment are generally intended as a trampoline towards permanent employment, especially for the youth. It is often the case that young people look for temporary jobs because they can be more easily combined with schooling and allow for more flexibility (CBS, 2018). Additionally, migrants could have a preference for temporary employment because of fewer job obligations and less bureaucracy in case of necessity to relocate again. Therefore, it might be argued that the results of this study are endogenous and driven by a strong preference of (young) first-generation non-western migrants for temporary employment.

Despite there is no specific question in the LISS asking for a preference between a permanent and a temporary job, from the available data it is possible to derive some interesting insights about temporary employment across age groups, ethnic backgrounds, and career satisfaction levels. Figure 1 shows the percentage of individuals in temporary employment across ethnic groups, by age. The majority of twenty-five-year-olds from all groups are employed in temporary jobs, even though the share for individuals with a migration background is 20 percentage points higher (reaching almost

80%). As age increases, the share of temporary jobs for western migrants drops and converges with the one of Dutch natives. Interestingly, this does not happen for non-western migrants: individuals aged from 45 to 65 remain always ten percent more likely to be temporarily employed than Dutch natives¹⁵.

Since 2016, the LISS includes two questions that allow for a preliminary analysis of temporary employment over time. The first asks respondents who have previously asserted to be employed with a temporary contract whether the current one is their first temporary contract in a row or not. The second one asks whether they expect their contract to switch to permanent soon. From these, I create two dummies: one for successive temporary contracts and one for positive expectations towards future permanent employment, and alternatively substitute them as dependent variables in Equation 1.

As visible in columns 1 and 3 of Table 7, having a migration background increases the probability of successive temporary contract by 9.0 percentage points, and by 13.5 for non-western migrants, significant at 10%. Having a migration background appears also to reduce the expectations for future permanent employment by around 10 percentage point, but the estimates are not statistically significant. These findings are limited by the little period of availability, the small sample, and the fact that they do not consider the other forms of temporary employment included in my specification (on-call contracts and temporary staffer contracts). However, they are still useful in providing preliminary evidence that non-western migrants, if currently temporarily employed, are more likely to be temporarily employed in the future as well.

As pictured in Figure 2, the professional patterns of non-western migrants are also associated with the lowest average levels of career satisfaction. The values are taken from a LISS question asking respondents their career satisfaction level on a scale from one to ten. Only 61.2% of people with a non-western migration background give a seven or more to their career, while 78.5% of Dutch natives do so. The lower average career satisfaction level among non-western migrants suggests that individuals with a higher probability of having temporary and low-skilled professions may feel more dissatisfied with their careers. This is supported also by Figure 3, which shows that temporary employees, independently of their migration background, are considerably less satisfied with their career than permanent employees and self-employed individuals.

These statistics about job satisfaction would not represent an issue if non-western migrants were mostly young people who just entered the labor market but, as seen in Figure 1, non-western migrants are the population group with the highest share of temporary professionals also in later age groups. For older individuals, temporary contracts can become a trap leading to possible risks of social exclusion (Bolhaar et al., 2018; Buiskool et al., 2016). When the data on consecutive temporary jobs will be available for more years, it will be interesting to investigate whether individuals with a migration

¹⁵ Given that most of the individuals in the sample appear only for two consecutive years, it is not possible to distinguish between cohort effects and age effects. To do so, it would be needed to observe the same individuals over a longer period.

background and language problems tend to have labor market trajectories characterized by a succession of temporary occupations. This kind of research would allow drawing conclusions on the time persistence of temporary employment, preferences for temporary or permanent jobs, and the trampoline-or-trap nature of temporary work.

4.3 Policy implications

Several policy implications can be derived from the present findings. The over-exposition of non-western migrants to temporary employment may translate into job insecurity, high job transitionality, and eventually social exclusion, which can put upward pressure on welfare expenditure. Non-western migrants are also likely to spend more time than western migrants and Dutch natives in transitioning from one temporary job to another (Bijwaard and Veenman, 2007; Buiskool et al., 2016), with worse matches between their skill level and profession (Zorlu, 2013). Therefore, on average, they will rely on unemployment benefits and other types of welfare contributions more frequently and for a longer time than western migrants and Dutch natives.

A higher level of uniformity between the EPL for permanent jobs and the EPL for temporary ones would be a beneficial policy for both public finances and the job security of migrants. In fact, when strict protection of permanent employees is combined with liberal regulation for temporary ones, employers react by substituting the second for the first (Boeri et al., 2020; OECD, 2019). A more uniform EPL across permanent and temporary jobs would limit this outcome, would improve migrants' labor market security, and would increase savings in public spending.

In addition, having identified Dutch language problems as crucial in increasing migrants' chances of being temporarily employed, it is relevant to formulate policy solutions that minimize them. Establishing training programs to improve migrants' language skills would foster their integration also in sectors that rely on a stronger mastery of the Dutch language as public administration, healthcare, and education. Furthermore, Hartog and Zorlu (2009) and Zorlu (2013) find that foreign degrees are a major reason for the missing returns to higher education obtained outside the Netherlands/EU. Better coordination between the Dutch and European educational systems and those of the migrants' home countries would allow for better matches between migrants' skills and their actual professions.

5. Conclusion

This study contributes to the literature on the integration of migrants in flexible labor markets. By using the LISS panel data for the Dutch population from 2008 to 2019, I research whether individuals with a first-generation migration background are more likely to be temporarily employed than Dutch natives. The hypothesis is that due to little education and/or education outside the Netherlands, language problems, and weak social contacts, first-generation migrants are more likely to be temporarily employed than natives.

The findings show that having a migration background increases the probability of being temporarily employed by almost eight percentage points, with an effect even stronger for individuals with a non-western migration background.

In addition, I assess the impact of three integration variables on migrants' chances of being temporarily employed: education, language problems, and active social contacts. Among these three, only language problems appear to significantly increase migrants' probability of temporary employment. Non-western migrants with language problems are 17.9 percentage points more likely to be temporarily employed than Dutch natives. This finding is proved robust by the employment of an IV estimation technique to tackle potential estimation biases. In line with the previous literature, having higher education and active social contacts do not significantly affect migrants' probability of temporary employment.

The particularly disadvantaged labor market position of non-western migrants for temporary employment is complementary to previous academic findings on their general employability and earnings. In addition to language problems, this could be explained also by racial discrimination and endogenous preferences, two factors it is hard to fully capture.

To improve the condition of first-generation non-western migrants and reduce their reliance on the Dutch welfare state, based on my results, I argue for more uniformity between the EPL levels across different types of employment. Furthermore, policies oriented towards increasing the language skills of non-western migrants would enhance their employability and diversify their professional paths.

A promising avenue for future research is to explore whether temporary employment of first-generation migrants is endogenous by investigating its persistence for the same individuals over time.

References

- Andriessen, I., Nievers, E., Dagevos, J., Faulk, L. (2012). Ethnic Discrimination in the Dutch Labor Market: Its Relationship With Job Characteristics and Multiple Group Membership. *Work and Occupations*, 3(39), 237-269. <https://doi.org/10.1177%2F0730888412444783>
- Åslund, O., Böhlmark, A., Nordström Skans, O. (2009, June). Age at Migration and Social Integration. *IZA Discussion Paper No. 4263*. Available at SSRN: <https://ssrn.com/abstract=1434577>
- Barbieri, P., Cutuli, G. (2015, April). Employment Protection Legislation, Labour Market Dualism, and Inequality in Europe. *European Sociological Review*, 32(4), 1-16. <https://doi.org/10.1093/esr/jcv058>
- Bevelander, P., Veenman, J. (2006, May). Naturalisation and Socioeconomic Integration: The Case of the Netherlands. *IZA Discussion Paper No. 2153*. Available at SSRN: <https://ssrn.com/abstract=908239>
- Bijwaard, G., Veenman, J. (2007, July). Unequal Chances on the Transitional Labor Market: The Case of the Netherlands. *IZA Discussion Paper No. 2908*. Available at SSRN: <https://ssrn.com/abstract=1000894>
- Bleakley, H., Chin, A. (2004, May). Language Skills and Earnings: Evidence from Childhood Immigrants. *The Review of Economics and Statistics*, 86(2), 481-496. <https://doi.org/10.1162/003465304323031067>
- Bleakley, H., Chin, A. (2010, January). Age at Arrival, English Proficiency, and Social Assimilation Among US Immigrants. *American Economic Journal: Applied Economics*, 2(1), 165-192. <https://doi.org/10.1257/app.2.1.165>
- Boeri, T., Giupponi, G., Krueger, Alan B., Machin, S. (2020). Solo Self-Employment and Alternative Work Arrangements: A Cross-Country Perspective on the Changing Composition of Jobs. *Journal of Economic Perspectives*, 34(1), 170-195. <https://doi.org/10.1257/jep.34.1.170>
- Bolhaar, J., de Graaf-Zijl, M., Scheer, B. (2018). Three Perspectives on the Dutch Growth of Flexible Employment. *De Economist*(166), 403-432. <https://doi.org/10.1007/s10645-018-9328-9>
- Buiskool, B., Broek, S., Dente, G. (2016). The Social and Employment Situation in the Netherlands and Outlook on the Dutch EU Presidency 2016, European Parliament. <https://doi.org/10.2861/554289>
- Budria, S., Martinez de Ibarreta, C. (2020, March). Educational and Skills Mismatches among Immigrants: The Impact of Host Language Proficiency. *IZA Discussion Paper No. 13030*. Available at: <https://ssrn.com/abstract=3558328>
- CBS. (2018). *Trends in the Netherlands 2017*. Available at: <https://www.cbs.nl/en-gb/publication/2017/26/trends-in-the-netherlands-2017>
- CBS. (2019). Flexwerk in Nederland en de EU. Available at: <https://www.cbs.nl/nl-nl/dossier/dossier-flexwerk/hoofdcategorieen/flexwerk-in-nederland-en-de-eu>

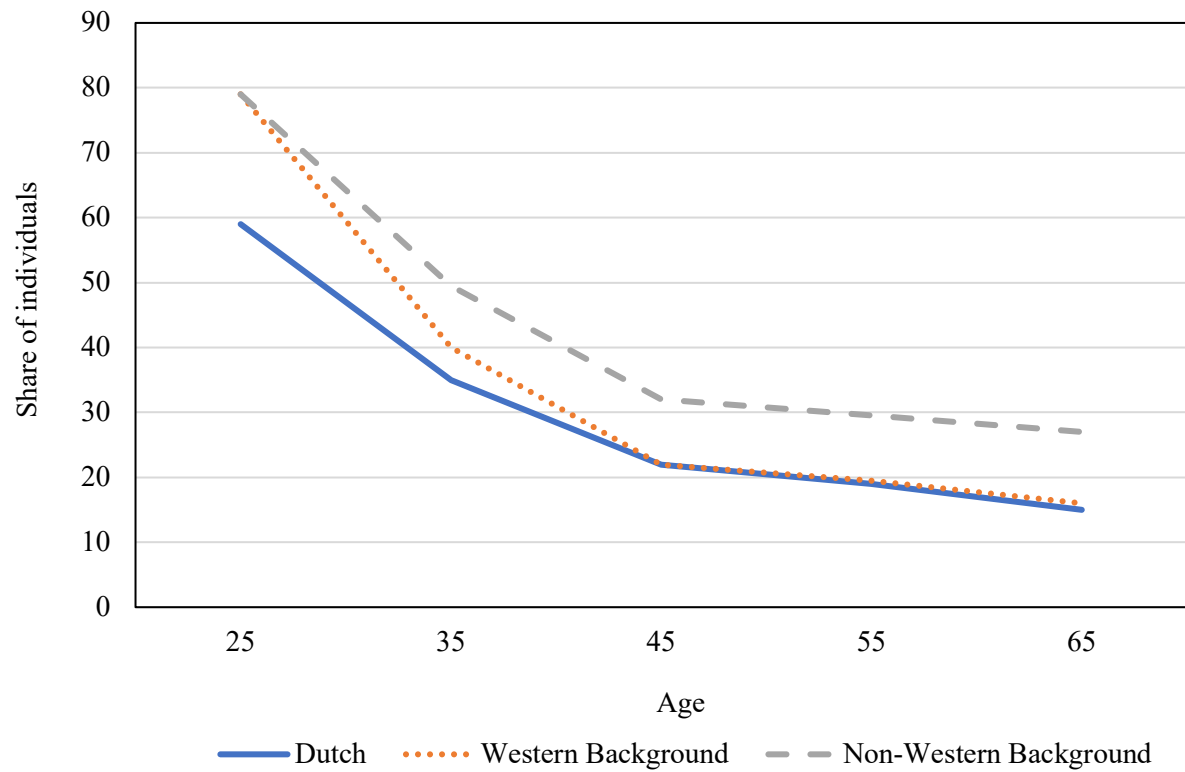
- Chiswick, B. R., Miller, P. W. (1995). The Endogeneity between Language and Earnings: International Analyses. *The Journal of Labour Economics*, 13(2), 246-288. <https://doi.org/10.1086/298374>
- Chiswick, B. R., Wang, Z. (2019, October). Social Contacts, Dutch Language Proficiency and Immigrant Economic Performance in the Netherlands. *GLO Discussion Paper, No. 419*. Available at: <http://hdl.handle.net/10419/205799>
- Dustmann, C. (1994). Speaking fluency, writing fluency and earnings of migrants. *Journal of Population Economics*, 133-156. <https://doi.org/10.1007/BF00173616>
- Eurostat. (2019). *Temporary Employees as percentage of the total number of employees*. Available at: <https://ec.europa.eu/eurostat/web/products-datasets/-/tesem110>
- Gonzalez, A. (2003). The education and wages of immigrant children: the impact of age at arrival. *Economics of Education Review*(22), 203-212. [https://doi.org/10.1016/S0272-7757\(02\)00004-3](https://doi.org/10.1016/S0272-7757(02)00004-3)
- Gracia, P., Vázquez-Quesada, L., van de Werfhorst, H. G. (2015). Ethnic penalties? The role of human capital and social origins in labour market outcomes of second-generation Moroccans and Turks in the Netherlands. *Journal of Ethnic and Migration Studies*. <https://doi.org/10.1080/1369183X.2015.1085800>
- Hartog, J., Salverda, W. (2018, January). The labor market in the Netherlands, 2001–2016. *IZA World of Labor*. <https://doi.org/10.15185/izawol.418>
- Hartog, J., Zorlu, A. (2009). How important is homeland education for refugees' economic position in The Netherlands? *Journal of Population Economics*, 219-246. <https://doi.org/10.1007/s00148-007-0142-y>
- Hesselink, d. K., van Vuuren, T. (1999). Job Flexibility and Job Insecurity: The Dutch Case. *European Journal of Work and Organizational Psychology*, 8(2), 273-293. <https://doi.org/10.1080/135943299398366>
- Lancee, B. (2010, Spring). The Economic Returns of Immigrants' Bonding and Bridging Social Capital: The Case of the Netherlands. *International Migration Review*, 44(1), 202-226. <https://doi.org/10.1111/j.1747-7379.2009.00803.x>
- Martinovic, B., van Tubergen, F., Maas, I. (2009). Dynamics of Interethnic Contact: A Panel Study of Immigrants in the Netherlands. *European Sociological Review*, 25(3), 303-318. Bureau for Economic Policy Analysis. <https://doi.org/10.1093/esr/jcn049>
- Miranda, A., Zhu, Y. (2013). English deficiency and the native-immigrant wage gap. *Economic Letters*(118), 38-41. <https://doi:10.1016/j.econlet.2012.09.007>
- OECD. (2019, June). *OECD Input to the Netherlands Independent Commission on the Regulation of Work*. Available at: <https://www.rijksoverheid.nl/documenten/rapporten/2019/06/20/oecd-input-to-the-netherlands-independent-commission-on-the-regulation-of-work>
- Ojala, S., Nätti, J., Lipiäinen, L. (2018). Types of Temporary Employment: An 8-Year Follow-Up of Labour Market Attachment. *Social Indicators Research*(138), 141-163. <https://doi.org/10.1007/s11205-017-1648-7>

- Patulny, R., Svendsen, G. L. (2007). Exploring the Social Capital Grid: Bonding, Bridging, Qualitative, Quantitative. *International Journal of Sociology and Social Policy*, 27(1/2), 32-51. <https://doi.org/10.1108/01443330710722742>
- Piton, C., Rycx, F. (2020, February). The Heterogeneous Employment Outcomes of First- and Second-Generation Immigrants in Belgium. *IZA Discussion Paper Series No. 13304*. Available at <http://hdl.handle.net/10419/216316>
- Portes, A. (2000). The Two Meaning of Social Capital. *Sociological Forum*, 15(1), 1-11. <https://doi.org/10.1023/A:1007537902813>
- Portes, A. (2014). Downsides of Social Capital. *Proceedings of the National Academy of Sciences of the United States of America*, 111, 18407-18408. <https://doi.org/10.1073/pnas.1421888112>
- Putnam, R. (1993, Spring). The prosperous community: Social capital and public life. *The American Prospect*, 4(13). Available at: <http://www.prospect.org/print/vol/13>
- Sanders, J. M., Nee, V. (1996, April). Immigrant Self-Employment: The Family as Social Capital and the Value of Human Capital. *American Sociological Review*, 61(2), 231-249. <https://doi.org/10.2307/2096333>
- Scherpenzeel, A. (2009, January). Start of the LISS panel: Sample and recruitment of a probability-based Internet panel. Tilburg: CentERdata. Available at: https://www.lissdata.nl/sites/default/files/bestanden/Sample_and_Recruitment.pdf
- Schrover, M. (2010). Pillarization, Multiculturalism and Cultural Freezing. Dutch Migration History and the Enforcement of Essentialist Ideas. *BMGN - Low Countries Historical Review*, 125(2-3), 329-354. <http://doi.org/10.18352/bmgn-lchr.7124>
- Stock, J. H., Yogo, M. (2005). Testing for weak instruments in linear IV regression. *Identification and inference for econometric models: Essays in honor of Thomas Rothenberg*, 80(4.2), 1. <https://doi.org/10.1017/CBO9780511614491>
- Sweetman, A., van Ours, J.C. (2014). Immigration: what about the children and grandchildren? In: Chiswick, B.R., Miller, P.W. (Eds.), *Handbook of the Economics of Immigration*. Elsevier 1141-1193. <http://dx.doi.org/10.2139/ssrn.2379503>
- ter Weel, B. (2018). The Rise of Temporary Work in Europe. *De Economist*(166), 397-401. <https://doi.org/10.1007/s10645-018-9329-8>
- van Elk, R., Jongen, E., Koot, P. (2019). Income differences across migrant groups in the Netherlands: an intergenerational perspective. *CPB Background Document*, CPB Netherlands. Available at: <https://www.cpb.nl/sites/default/files/omnidownload/cpb-achtergronddocument-income-differences-across-migrant-groups-in-the-netherlands.pdf>
- van Ours, J. C., Veenman, J. (2006). Age at immigration and educational attainment of young immigrants. *Economic Letters*(90), 310-316. <https://doi.org/10.1016/j.econlet.2005.08.013>
- Wooldridge, J. M. (1995). Score diagnostics for linear models estimated by two stage least squares. In *Advances in Econometrics and Quantitative Economics: Essays in honor of Professor C. R. Rao*,

- eds. Maddala, G. S., Phillips, P. C. B., Srinivasan, T. N., 66-87. Cambridge, MA: Blackwell Publishers. [https://doi.org/10.1016/0304-4076\(94\)01645-G](https://doi.org/10.1016/0304-4076(94)01645-G)
- Yao, Y., van Ours, J. C. (2015). Language skills and labor market performance of immigrants in the Netherlands. *Labour Economics*(34), 76-85. <https://doi.org/10.1016/j.labeco.2015.03.005>
- Zorlu, A. (2003, June). Do ethnicity and sex matter in pay? Analyses of 8 ethnic groups in the Dutch labour market. *Working Papers of the Applied Microeconomics Research Unit (NIMA) No. 21*. Available at: <http://hdl.handle.net/1822/11434>
- Zorlu, A. (2013, November). Occupational Adjustments of Immigrants in the Netherlands. *Journal of International Migration and Integration*, 14(4), 711-731. <https://doi.org/10.1080/1369183X.2017.1382340>

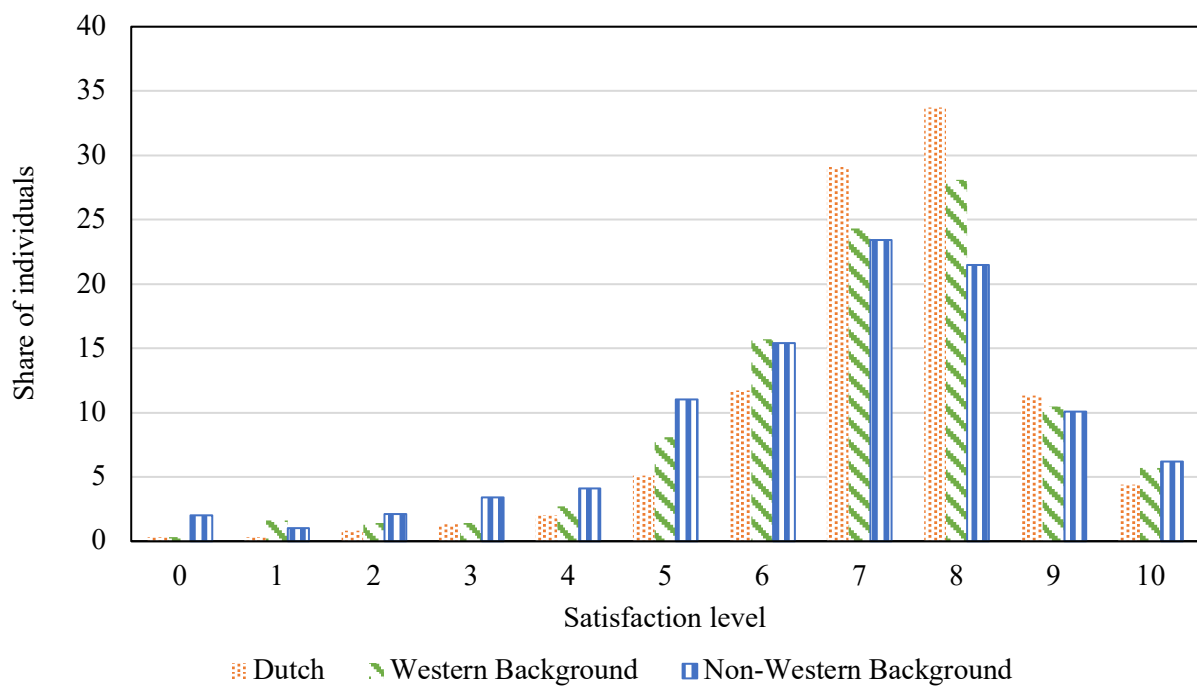
Figures and tables

Figure 1: Temporarily employed individuals over age, across ethnic groups.

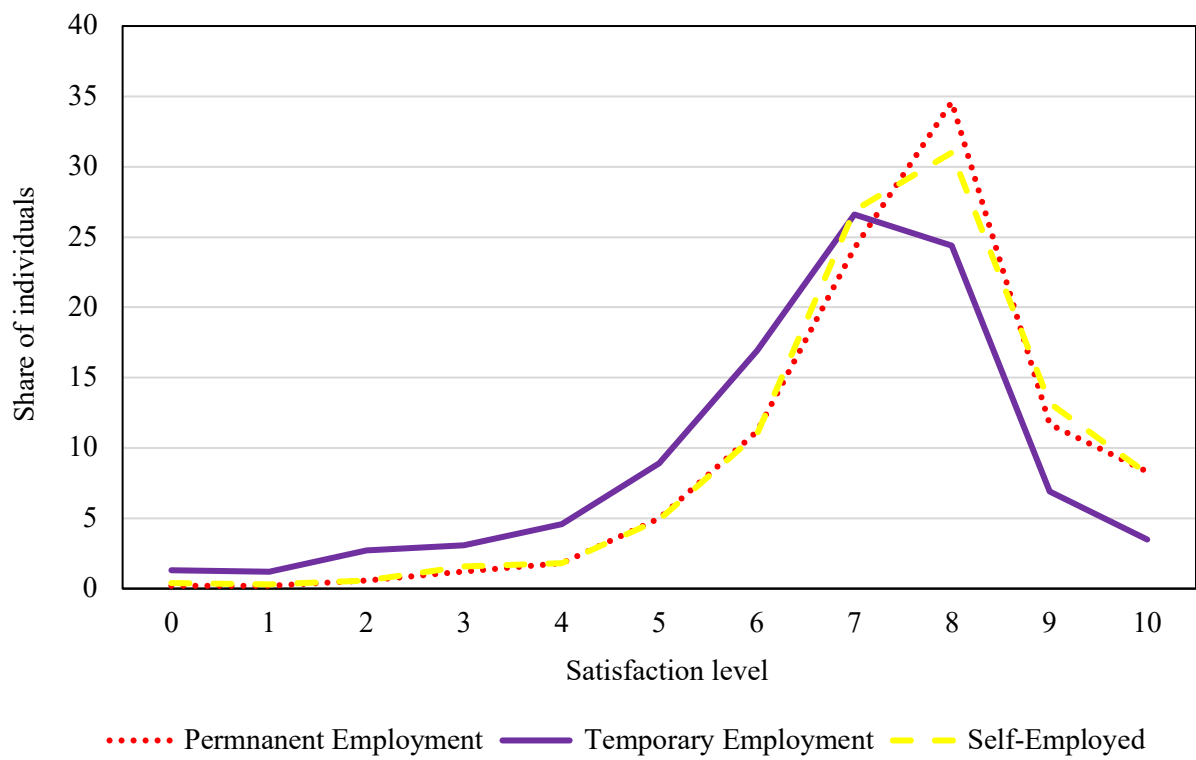


Source: author's calculation from the data.

Figure 2: Career satisfaction level across ethnic groups.



Source: author's calculation from the data.

Figure 3: Career satisfaction level across types of employment.

Source: author's calculation from the data.

Table 1: Summary statistics.

	Dutch	Western Migrants	Non-Western Migrants
<i>Demographic variables</i>			
Age	44.0	44.5	43.5
Female (%)	53.0	52.4	47.0
Civil status: % single	19.3	19.0	22.7
Civil status: % unmarried partner, not living together	7.6	6.8	8.9
Civil status: % unmarried partner, living together	16.7	13.9	9.0
Civil status: % married	56.4	60.3	58.4
N. of children at home	1.0	0.8	1.2
Urban domicile (%)	82.4	87.5	97.4
<i>Integration variables (%)</i>			
Level of education: primary education	5.0	7.9	10.4
Level of education: lower secondary education	19.8	9.9	18.5
Level of education: intermediate secondary education	38.2	34.3	38.6
Level of education: higher education	37.0	47.9	33.0
Language problems	11.1	40.8	45.4
Active membership in social clubs	27.2	29.5	29.6
<i>Types of employment (%)</i>			
Permanent contract	76.0	73.4	68.1
Temporary contract	9.9	11.3	16.5
On-call employee	2.9	1.4	3.1
Temp-staffer	2.0	3.0	6.4
Self-employed/freelancer	6.9	9.3	4.6
Independent professional	0.9	1.1	0.1
Director of a limited liability or private limited company	0.4	0.2	0.1
Majority shareholder director	1.0	0.3	1.1

Notes: In an urbanized area population density is above 1500 people per square kilometer. The categories for level of education are taken from the CBS: primary education, lower secondary education (VMBO), intermediate secondary education (HAVO/VWO/MBO), and higher education (HBO/WO). Active membership in social clubs defines individuals that in the last month have taken part in the activities of a religious group, sports club, and/or hobby club.

Table 1: Summary statistics, continuation.

	Dutch	Western Migrants	Non-Western Migrants
<i>Profession (%)</i>			
Higher academic or independent profession	7.5	9.7	7.0
Higher supervisory profession	7.7	8.7	6.9
Intermediate academic or independent profession	24.7	24.5	18.7
Intermediate supervisory or business profession	13.0	11.4	6.4
Other mental work	24.2	18.2	20.5
Skilled and supervisory manual work	6.7	8.6	5.8
Semi-skilled manual work	6.6	10.5	12.4
Unskilled and trained manual work	7.5	6.1	17.7
Agrarian profession	1.4	1.3	3.7
<i>Sector of employment (%)</i>			
Agriculture, forestry, fishery, hunting	2.1	0.4	1.7
Mining	0.05	0.1	0.07
Industrial production	9.2	17.1	9.9
Utilities production, distribution and/or trade	0.8	0.9	3.6
Construction	4.2	4.1	3.0
Retail trade	8.3	8.9	6.6
Catering	3.6	3.5	6.8
Transport, storage, communication	4.4	3.5	3.3
Financial	4.3	3.9	6.6
Business services (including real estate, rental)	6.3	8.4	4.0
Government services, P.A., and social insurances	8.9	9.5	8.4
Education	9.0	8.0	7.7
Healthcare and welfare	20.8	13.6	14.6
Environmental services, culture, recreation, and other services	2.4	2.1	1.7
Other	15.8	15.7	22.3
Individuals	20748	676	940
N. of households	5336	248	359
N	30193	902	1311

Notes: The categories for professions and sectors are taken from the LISS.

Table 2: OLS estimates.

VARIABLE	(1)	(2)	(3)	(4)
		Temporary Employment		
Origin: western				0.0307 (0.0194)
Origin: non-western				0.108*** (0.0213)
Migration background	0.0710*** (0.0167)	0.0762*** (0.0153)	0.0761*** (0.0152)	
Level of education: lower secondary			0.00486 (0.0155)	0.00438 (0.0156)
Level of education: intermediate secondary			0.0162 (0.0150)	0.0161 (0.0151)
Level of education: higher			0.00660 (0.0160)	0.00710 (0.0161)
Language problems			0.000203 (0.00850)	-7.96e-05 (0.00851)
N. active memberships in social clubs: 1			-0.00201 (0.00534)	-0.00217 (0.00534)
N. active memberships in social clubs: 2			0.0167 (0.0104)	0.0169 (0.0104)
N. active memberships in social clubs: 3			-0.000602 (0.0252)	-0.000881 (0.0252)
Background variables		Yes	Yes	Yes
Year-fixed effects		Yes	Yes	Yes
Constant	0.147*** (0.00369)	1.134*** (0.0502)	1.127*** (0.0513)	1.133*** (0.0513)
Observations	32,406	32,406	32,406	32,406
R-squared	0.002	0.196	0.196	0.197

Notes: Robust standard errors clustered at the household level in parentheses. Background variables include: age, age-squared, gender, civil status, number of children at home, whether someone lives in an urbanized area or not, sector of employment, and profession. Year-fixed effects include all the years from 2008 to 2019. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.

Table 3: Higher education.*Panel a: No ethnic background.*

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effect when higher education=1)
Migration background	0.0818*** (0.0205)	0.0684*** (0.0221)
Higher education	-0.00537 (0.00779)	
Migration background × Higher education	-0.0135 (0.0302)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.114*** (0.0524)	
Observations	32,406	32,406
R-squared	0.196	

Panel b: By ethnic background.

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effect when higher education=1)
Origin: western	0.0214 (0.0248)	0.0422 (0.0291)
Origin: non-western	0.115*** (0.0283)	0.0953*** (0.0318)
Higher education	-0.00549 (0.00779)	
Western × Higher education	0.0208 (0.0376)	
Non-western × Higher education	-0.0201 (0.0430)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.142*** (0.0504)	
Observations	32,406	32,406
R-squared	0.197	

Notes: Robust standard errors clustered at the household level in parentheses. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.

Table 4: Language problems.*Panel a: No ethnic background.*

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effects when language problems=1)
Migration background	0.0415** (0.0168)	0.133*** (0.0264)
Language problems	-0.0142* (0.00873)	
Migration background × Language problems	0.0919*** (0.0298)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.135*** (0.0514)	
Observations	32,406	32,406
R-squared	0.197	

Panel b: By ethnic background.

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effects when language problems=1)
Origin: western	0.0180 (0.0234)	0.0604* (0.0323)
Origin: non-western	0.0594*** (0.0229)	0.179*** (0.0367)
Language problems	-0.0139 (0.00851)	
Western × Language problems	0.0424 (0.0391)	
Non-western × Language problems	0.120*** (0.0409)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.141*** (0.0514)	
Observations	32,406	32,406
R-squared	0.198	

Notes: Robust standard errors clustered at the household level in parentheses. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.

Table 5: Active social contacts.*Panel a: No ethnic background.*

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effects when active social contacts=1)
Migration background	0.0784*** (0.0173)	0.0691*** (0.0214)
Active social contacts	0.00187 (0.00510)	
Migration background × Active social contacts	-0.00928 (0.0243)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.128*** (0.0513)	
Observations	32,406	32,406
R-squared	0.196	

Panel b: By ethnic background.

VARIABLES	(1) Temporary Employment	(2) Temporary Employment (average marginal effects when active social contacts=1)
Origin: western	0.0353 (0.0215)	0.0157 (0.0258)
Origin: non-western	0.109*** (0.0242)	0.105*** (0.0306)
Active social contacts	0.00183 (0.00510)	
Western × Active social contacts	-0.0196 (0.0275)	
Non-western × Active social contacts	-0.00407 (0.0346)	
Background variables	Yes	
Year-fixed effects	Yes	
Constant	1.133*** (0.0513)	
Observations	32,406	32,406
R-squared	0.197	

Notes: Robust standard errors clustered at the household level in parentheses. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.

Table 6: Robustness check.

VARIABLES	(1) Temporary Employment (OLS)	(2) Temporary Employment (2SLS)	(3) Language Problems (first-stage 2SLS)	(4) Temporary Employment (2SLS, double IV)	(5) Language Problems (first-stage 2SLS, double IV)
Language problems	0.0940*** (0.0353)	0.161* (0.0916)		0.189*** (0.0502)	
AA × ND			0.0153*** (0.00174)		0.0120*** (0.00116)
Age at arrival					0.00735*** (0.00223)
Non-Dutch during childhood					
Non-western background	0.0929*** (0.0342)	0.0890*** (0.0339)	0.0809*** (0.0406)	0.0873*** (0.0209)	0.0607** (0.0248)
Background variables	Yes	Yes	Yes	Yes	Yes
Year-fixed effects	Yes	Yes	Yes	Yes	Yes
F-statistic		77.1***		160.1***	
Hansen J-statistic				2.6	
Wooldridge test-statistic		0.7		4.6**	
Constant	1.367*** (0.277)	1.387*** (0.271)	-0.289 (0.288)	1.395*** (0.217)	-0.203 (0.206)
Observations	1,471	1,471	1,471	1,471	1,471
Partial R-squared		0.163		0.180	
R-squared	0.239	0.234	0.352	0.228	0.365

Notes: Robust standard errors clustered at the household level in parentheses. In Column 2, language problems = age at arrival in the Netherlands × speaking non-Dutch during childhood. In Column 4, language problems = age at arrival in the Netherlands × speaking non-Dutch during childhood, age at arrival. To perform the test for overidentifying restrictions, the standard errors in Column 4 are robust not-clustered. Background variables include: age, age-squared, gender, civil status, number of children at home, whether someone lives in an urbanized area or not, sector of employment, and profession. Year-fixed effects include all the years from 2008 to 2019. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.

Table 7: Temporary contracts over time.

VARIABLES	(1) Multiple temporary contracts	(2) Expected switch to permanent	(3) Multiple temporary contracts	(4) Expected switch to permanent
Origin: western			0.000880 (0.103)	-0.114 (0.0998)
Origin: non-western			0.135* (0.0688)	-0.0985 (0.0869)
Migration background	0.0908 (0.0600)	-0.103 (0.0712)		
Background variables	Yes	Yes	Yes	Yes
Year-fixed effects	Yes	Yes	Yes	Yes
Constant	0.630*** (0.219)	-0.355 (0.222)	0.616*** (0.218)	-0.357 (0.219)
Observations	885	816	885	816
R-squared	0.068	0.136	0.067	0.136

Notes: Robust standard errors clustered at the household level in parentheses. Background variables include: age, age-squared, gender, civil status, number of children at home, whether someone lives in an urbanized area or not, sector of employment, and profession. Because survey questions on the successive number of temporary contracts are available only since 2016, this estimation is limited to the years 2016-2019, included. *significant at the 10% level, **significant at the 5% level, ***significant at the 1% level.