

Unveiling Integration: Educational Enrollment Pathways for Adult Refugees in Sweden

Samaneh Khaef

Abstract

Adult refugees often face substantial disadvantages in the host country's labor market, primarily due to the lack of destination-specific human capital. Participation in adult education programs that provide language courses and knowledge of the host country may offer refugees a chance to establish themselves in the labor market. Given the outstanding system of adult education in Sweden, offering a wide range of free courses, this paper explores the educational enrollment pathways followed by adult refugees in Sweden. Longitudinal register data containing information about participation in different types of education is used, and sequence analysis to all refugees arriving in Sweden in the period 2000-2006 is applied, following them 10 years after arrival in Sweden. The results reveal five clusters representing educational enrolment pathways: exclusion, characterized by a large share of inactivity in the labor market; short enrollment in language courses combined with early establishment in the labor market; mixed, long participation in municipal adult education and late establishment in the labor market; and a pathway resulting in emigration. Using a multinomial logit model, the results indicate that refugees in the exclusion pathway are distinctly different from those in the early career pathway. Typically, individuals in the exclusion pathway are women, older, and have lower levels of education, originating from less privileged countries, while refugees in the early career pathway are more likely to be men, younger, higher educated, and coming from European and South American countries. Results further shows having children upon or shortly after arrival and spending long time in parental leave decrease the likelihood of an early career trajectory. Additionally, male and higher educated refugees are more likely to undertake the emigration path. These findings confirm the importance of structural factors such as discriminatory practices and gender norms, which may affect pathways to labor market establishment, despite the participation in adult educational courses.

Key words: adult educational participation, refugees, labor market integration, Swedish register data, sequence analysis, Swedish language courses, Swedish municipal adult education

1. Introduction

Since the 1970s, Sweden has been a top destination for individuals seeking asylum. In 2015, conflicts in the Middle East, Western Asia, and Africa caused a new surge of asylum seekers to the EU, with Sweden being the largest per capita recipient of refugees among OECD countries, with 163,000 asylum seekers arriving in 2015 (OECD, 2017). Given the significant proportion of refugees in Sweden, their integration in the labor market has emerged as a top priority on Sweden's political agenda, as being part of the work force and earning an income plays a crucial role in overall incorporation into Swedish society (EU, 2020; Qi et al., 2021). In this context, adult education may provide the necessary local knowledge for entering the labor market, and for the navigation of social and cultural life (Dahlstedt & Fejes, 2019).

The Swedish adult education system stands out among European countries due to its unique approach of providing a diverse range of courses that are free, available to all adults, aged above 20. The courses are funded and arranged by municipalities and civil society organizations, with a focus on meeting the individualized needs of learners (Dahlstedt & Fejes, 2019; Thunborg & Bron, 2012). However, there is a notable research gap regarding the involvement of adult migrants in education, as the focus has primarily been placed on their labor market outcomes. This gap in the literature may be attributed to the traditional assumption of the linear school-to-work transition, assuming adult migrants who potentially already acquired an education before migrating, would prioritize their work careers rather than (another) educational pursuit. Nevertheless, migrants encounter various challenges in establishing themselves into host country labor markets, primarily due to the ruptures emerging in the transnational transition of education (Söhn, 2016), including the transferability and recognition of foreign credentials (Tibajev & Hellgren, 2019; Basilio et al., 2017). These ruptures are particularly pronounced among refugees whose migration is not primarily driven by skill-selection, as compared to other groups of migrants. Furthermore, language proficiency may be another significant barrier to finding work, contributing to the labor market difficulties incurred particularly by refugees (Bevelander, 2011; Desiderio, 2016; Brell et al., 2020; Auer, 2018).

It is important to study the participation of adult refugees in education for multiple reasons. First, adult education provides refugees, particularly lower educated refugees, with the opportunity to continuously acquire the local human capital required in the labor market. Second, the credentials obtained by refugees in the host society are widely recognized by local educational institutions and employers, thus improving their prospects of securing employment (Van Tubergen, 2022). Third, the learning environment, including interactions with fellow students and teachers, plays a crucial role in facilitating the daily integration processes for refugees and foster their social networks and self-confidence (Söhn, 2016; Boeren, 2019). Consequently, adult education offers refugees a second chance to obtain social and cultural capital, as well as the skills, language, and knowledge demanded in the labor market to climb the educational, occupational, and social ladder.

Considering the ruptures in the transnational transition of adult education, the transition to the labor market is not a straightforward single event for refugees, unfolding as a sequence of transitions between different educations and employments after arrival. To obtain a nuanced understanding of refugees' integration into the labor market, it is crucial to explore the pathways undertaken before potential labour market establishment. This study therefore aims to explore the diversity in educational enrollment trajectories of adult refugees, particularly as the refugee population is highly heterogeneous. More specifically, this paper addresses the following questions: (1) How can we typify the diverse educational pathways of refugees after

arrival? (2) To what extent do the educational pathways of refugees reflect their background characteristics?

To answer these questions, I utilize comprehensive Swedish longitudinal register data. The main advantage of register data is the wide availability of individual-level information, more specifically educational information. Employing educational enrolment using register data allows for the examination of various types of education pursued by adult refugees, including non-formal education such as language courses, rather than focusing solely on the highest level of education obtained.

To disentangle the educational trajectories of refugees, defined as transitions through various forms of adult education, employment, and emigration, sequence analysis is used. The analysis spans a 10-year period, starting from adult refugees' arrival in Sweden (2000-2006). Subsequently, the individual determinants of following a specific educational pathway are modelled using multinomial logistic regression.

2. Theoretical background and previous research

2.1. Challenges in the transnational transition of education

Becker's (1964) theory of human capital provides a fundamental framework for understanding individual's labor market outcomes. According to Becker, human capital such as education and skills contribute to an individual's productivity, and ultimately improve employment outcomes. However, extensive research has revealed a notable disparity in the returns on pre- versus post-migration education, primarily stemming from the devaluation of educational credentials acquired prior to migration (Basilio et al., 2017; Nordin, 2011; Tibajev & Hellgren, 2019;).

Research indicates that in the transnational transition of education, specific ruptures occur that hinder migrants' integration into the labor market. A primary rupture relates to the transferability and recognition of foreign credentials. Variations in educational quality and educational systems worldwide result in the limited transferability of qualifications acquired by migrants prior to immigration (Lancee & Bol, 2017; Tibajev & Hellgren, 2019). Moreover, migrants' educational qualifications frequently encompass region-specific skills that may possess limited compatibility within the context of a new country. One approach to addressing the issue of transferability is through the formal validation and recognition of foreign degrees (Tibajev & Hellgren, 2019). However, refugees, whose migration is typically involuntary, encounter significant complexities in having their qualifications recognized, as many may not have completed their education prior to leaving their home country. Additionally, in situations of war, educational institutions may no longer exist, making it difficult to obtain the necessary documentation or referrals (Desiderio, 2016).

Insufficient language proficiency is another significant rupture that negatively impacts the labor market prospects of migrants, particularly for refugees (Auer, 2018; Brell et al., 2020). As refugees often migrate due to compelled and forced circumstances rather than economic reasons, their knowledge of the host country's language upon arrival is typically limited (Desiderio, 2016). According to a study by OECD (2016), language skills play a significant role in explaining the employment outcomes of refugees in the EU. Månsson and Delander (2017) found that refugees who successfully completed Swedish language courses exhibited a higher likelihood of securing employment. Learning the local language not only has economic value but also facilitates the establishment of social networks and the understanding of social norms and cultural practices in a new environment. According to Goodman & Wright (2015: 1885) refugees who possess knowledge of the host country's language, norms, and cultural values are "better equipped to politically, socially and economically integrate" which

underscores the importance of language going beyond mere economic value. In this regard, many European countries have devised a plethora of policy tools including language courses combined with civic education to enhance the integration of refugees (Kanas & Kosyakova, 2022). The 'Introduction program' is the Swedish equivalent of such a policy targeting refugees (Qi et al., 2021).

Hence, for adult refugees, engaging in education provided by the host country is a second chance to learn the local language, to mitigate the devaluation of their foreign educational qualifications, and as an "endowment insurance" (Nordlund et al., 2015, p. 528), enhancing prospects in the labor market (Lancee & Bol, 2017; Nordin, 2011; Van Tubergen, 2022).

2.2. Determinants of participation in adult education

Recognizing the pivotal role of adult education in the overall integration of migrants, scholars have employed the Immigrant Human Capital Investment (IHCI) model to uncover its underlying determinants. According to this model, the decision to pursue post-migration education depends on weighing its costs and benefits. Costs include educational expenses and the opportunity of forgone earnings (the cost of not working while studying). One key determinant of post-migration educational investment relates to the transferability of foreign educational qualifications and skills. Migrants with qualifications that are less transferable in the host country tend to invest more in post-migration education to improve their labor market prospects (Adamuti-Trache et al., 2013; Banerjee & Verma, 2012; Van Tubergen, 2022).

Another contributing factor relates to the educational level migrants obtained prior to migration. Studies show that highly educated migrants are more likely to pursue further education, as the opportunity costs are lower compared to potential productivity losses (e.g., Damelang & Kosyakova, 2021; Van Tubergen, 2022). Thus it "is more valuable in learning than in earning" (van Tubergen & van de Werfhorst, 2007, p 885).

Age also has an impact on the decision of migrants to invest in host country schooling. Research suggests that older migrants are less likely to pursue further education in the host country, due to reduced career aspirations and decreased learning efficiency (Adamuti-Trache et al., 2013; Banerjee & Verma, 2012; Damelang & Kosyakova, 2021). Gender plays a crucial role in the participation of migrants in adult education. Stoilova et al. (2023) conducted a study across 29 EU countries to ascertain whether barriers to equal participation in adult education vary by gender, also considering different class and ethnic backgrounds. Women were found to have a higher likelihood of participating compared to men. However, accounting for migrant background revealed a more pronounced negative impact on women's participation in adult education, compared to men.

The limited educational engagement of women migrants might be attributed to the cultural gender norms dominating in countries of origin. Studies have demonstrated that many female refugees originate from countries with high gender inequality and limited female employment opportunities, where caregiving and childbearing responsibilities disproportionately fall on female refugees (Grönlund & Fairbrother, 2022; Leibig & Tronstad, 2018). This might diminish their motivation to engage in adult education in the destination country and hamper their successful integration into the host society and the labor market. According to Landell (2021), women migrants, especially refugees, face a higher risk of inactivity, neither studying nor working, compared to their male counterparts, suggesting that having a preschool child is the primary reason for women refugees' inactivity, delaying their entry into the labor market. Additionally, women who migrate for family reunification or formation might prioritize family responsibilities over labor market and educational pursuits (Adamuti-Trache et al., 2013; Blau & Kahn, 2015).

3. Context: Swedish adult education

Lifelong learning is becoming increasingly popular in several EU nations as a result of globalization and the knowledge-based economy. Lifelong learning is centered around the idea of empowering individuals' ability to constantly acquire knowledge and skills to adapt to the changes and challenges of today's society. Aligned with the concept of lifelong learning, Swedish adult education underscores that all individuals should actively improve their knowledge and skills through a wide range of opportunities (Thunborg & Bron, 2012). Within this context, Swedish adult education emphasizes Second-Chance Education to enhance individuals' social and cultural inclusion, specifically for those who have had limited access or lacked education (Nordlund et al., 2013). Adult education in Sweden is free and accessible to everyone who is at least 20 years old, regardless of migration background, educational level, or employment status (Dahlstedt & Fejes, 2019).

The most common form of adult education is municipal adult education, known as 'Komvux', which is available to both Swedish and foreign-born adults. It has been offered since the late 1960s and provides individuals above the age of 20, who lack primary or secondary education, a second chance to acquire the knowledge and skills necessary for active participation in society, the labor market, and higher education, and has undergone some changes over the years (Nordlund et al., 2015). In the 1990s, Sweden faced a substantial increase in unemployment rates, which had a disproportionate impact on poorly educated individuals. In response to this situation, one to three-year vocational education and training programs (Kvalificerad Yrkesutbildning), were included into Komvux to provide advanced vocational training in various subjects, aligned with employers' requirements (Nordlund et al., 2015).

Another major change in Komvux education was the inclusion of Swedish language courses for immigrants (SFI). SFI is a subsidized language program offered to adult foreigners who lack basic Swedish language skills, to enhance their ability to write, read and communicate in Swedish. In the mid-1960s, private study associations began offering SFI courses as a pilot program and in 1986, it became a permanent program aimed to improve participants' linguistic skills for active participation in daily life activities (Ahlgren & Rydell, 2020). Attendees can combine SFI with work, internships, or other programs, while in reality, it is difficult to combine SFI and full-time work. With regard to refugees, SFI is an important and mandatory form of adult education, constituting one component of their "two-year introduction program". This program is coordinated by the Public Employment Service and encompasses SFI courses, civic education, and labor market preparation activities (Qi et al., 2021). From an organizational perspective, SFI courses are exclusively provided by municipalities, thus their quality may vary from one municipality to another (Öbrink Hobzová, 2021; OECD, 2014;). So, participants in Komvux can study courses corresponding to primary and secondary school, supplementing previous education to gain admission to a college or university, learn Swedish, and/or obtain vocational training suitable for the local labor market. Studies indicate that Komvux has a significant positive impact on the annual earnings of long-term unemployed individuals (Stenberg et al., 2014). Another type of common adult education is folk high school (Folkhögskolan), which offers general courses at the primary and upper secondary level, enabling individuals to meet the requirements to qualify for higher educational levels (Thunborg & Bron, 2012). Alongside these general courses, folk high school also offers various vocational training programs, both at the upper secondary and post-secondary level.

In summary, adult education in Sweden encompasses various forms tailored to address the diverse needs of individuals and promote their education and skills. According to Dahlstedt and Fejes (2019: 76), participation of adult migrants in education "as a means of finding a job

appears the main orientation guiding the futures of the adult students, as being an important way of finding a future and claim one's belonging to the Swedish social community". This underscores the significance of adult education in shaping their future aspirations and facilitating their integration into society.

4. Data & Methods

4.1. Data and analytical strategy

This paper utilizes annually updated longitudinal Swedish register data, accessible through Statistics Sweden's Microdata Online Access (MONA) system. Swedish register data is comprehensive and contains a wide array of demographic, socio-economic and geographic attributes for each registered individual in Sweden. Through the use of individuals' anonymized ID, it is possible to merge different datasets to get a full picture about individuals' characteristics. One of the main strengths of Swedish register data, for this paper's purpose, is the availability of various educational variables including the highest educational attainment, participation in different types of education, and information about language courses. Swedish educational data is unique as it includes information obtained before migration. Considering main emphasis of this study, the exploration of various types of adult education pursued by refugees, the educational enrollment variable is main variable used for this purpose.

This study focuses on all foreign-born individuals who came to Sweden primarily for asylum or family reunification where the lead migrant was a refugee. Since the last available educational register is for 2016, this study focuses on refugees who arrived in Sweden in the time period 2000-2006, allowing for a 10-year follow-up on their educational enrollment. Age restrictions are also applied, with a minimum age of 25 and an upper age limit of 55 upon arrival. This age range is chosen to focus on adult refugees who are likely to have completed their education before migration and are not in school ages, with participation in adult education being a key motivation for labor market integration. Additionally, refugees aged over 65, who might be less interested in attending adult education and work, are not included in this study. Moreover, to analyze the educational enrollment pathways of refugees from the year of arrival, those with missing information on educational enrollment upon arrival were excluded from further analysis¹. As a result of these restrictions, this study comprises a total of 39,708 refugees and their adult family members, who arrived in Sweden during the period 2000-2006, who are then followed in a 10-year period after arrival.

4.2. Methods

4.2.1. Sequence analysis

To analyze the educational trajectories of refugee cohorts 2000-2006 over a ten-year period, sequence analysis was applied. Sequence analysis is a statistical technique initially introduced to the social sciences by Abbott and Forrest (1986) to compare and cluster the longitudinal sequences of categorical states to understand social phenomena. It has since been widely used in social science research across various disciplines to explore, describe, and visualize individual trajectories in terms of ordered states and transitions between these states (Cornwell, 2015). By applying sequence analysis, this study offers valuable insights into the longitudinal

¹ A total of 102 refugees with missing information on educational enrollment in year of arrival to Sweden were excluded from further analyses.

integration trajectories of refugees across diverse adult educational activities, employment and emigration.

This study primarily focuses on enrollment in various types of adult education. Therefore, refugees who enroll in any education at any time during the first ten years after arrival are categorized as "studying", differentiating by type of education. Statistics Sweden (2016) identifies 14 distinct adult education categories, but for simplicity, some less commonly pursued types of educations were grouped as "other education". Additionally, a distinction was made between individuals studying SFI at Komvux, labeled as "SFI", and those studying other courses, but not SFI, at Komvux, labeled as "Komvux". Individuals may also combine SFI with other forms of education, categorized as "other educations combined with SFI ". Furthermore, since refugees may cease or forego education due to work or emigration, the latter are also defined as states in the analysis. Individuals who are not enrolled in any education are coded based on their employment or emigration status, if any. Employment is classified without distinguishing between full-time and part-time work to simplify the analysis. For each adult refugee, registered activities are used to create individual sequences of states, including different forms of education, employment, and emigration.

Combining different types of education with employment and emigration status, this study distinguishes between 10 states: SFI, Komvux, folk high school, tertiary education, other education, other educations combined with SFI, inactivity (not in employment nor in education), work, work and study, and emigration from Sweden. Table 1 gives an overview of these states.

Table 1 Coding scheme of sequence states

No	Sequence states	Composition of states		
		Education enrollment	Work	Emigration
1	SFI	SFI	X	X
2	Komvux	Komvux	X	X
3	Folk high school	Folk high school	X	X
4	Other education	Other education	X	X
5	Other education with SFI	Other education with SFI	X	X
6	Tertiary education	Tertiary education	X	X
7	Work and study	SFI	✓	X
		Komvux	✓	X
		Folk high school	✓	X
		Other education	✓	X
		Other education with SFI	✓	X
8	Work	Tertiary education	✓	X
		No education	✓	X
9	Inactivity	No education	X	X
10	Emigration	No education	X	✓

The given criterion ✓ does apply, X does not apply.

The observational window for each refugee starts from the year of arrival in Sweden, with each individual being followed for a period of 10 years. To simplify the interpretation of the large number of sequences across the 10-year observation period for 10 different states, the optimal matching technique is utilized. This technique measures the dissimilarity of two sequences and estimates the costs of inserting, deleting or substituting elements in one sequence to be transformed to another. Higher costs indicate greater dissimilarities between

two sequences. After calculating similarity scores for all sequence pairs, sequences are clustered by using the Ward method for the initial clustering and the partitioning around medoids algorithm (Kaufman & Rousseeuw, 1990; Studer, 2013). All calculations were made using the TraMineR and “Ward Cluster” packages in R studio (Gabadinho et al., 2011).

4.2.2. Multinomial logistic regression

In a second step, a multinomial logit regression model was used to estimate the predictors of being in each educational trajectory as the dependent variable. The independent variables consist of background characteristics including gender, region of origin, and age which are measured in the year of arrival. The highest completed pre-migration educational level is also included, and following Khaef (2022), was measured two years after arrival, as the share of migrants with missing educational information is high in year of arrival. The geographical effect of initial region of settlement in Sweden is examined using the classification of municipalities provided by the Swedish Association of Local Authorities and Region (2011). For simplicity, in this study, these municipalities are grouped into four broader categories of metropolitan areas, larger cities, small towns, and sparsely populated areas. Another variable relates to intake category of refugees, based on the dispersal policy refugees were subject to, refugees who were assigned housing by the Swedish Migration Agency (ABO), refugees with self-arranged housing (EBO), and quota refugees who were resettled by the UN's refugee agency (Swedish Migration Agency, 2020).

The engagement of adult refugees in education and their integration into the labor market may be affected by parental leave use. Sweden has a very generous parental leave benefit system, that does not differentiate by citizenship. All registered parents in Sweden, including immigrant parents arriving with children, may receive nearly the same number of parental leave days as native-born parents, and immigrants with children born in Sweden. This system ensures a balanced distribution of childcare duties between genders by an earnings-related benefit, promoting equal labor market engagement. All parents are entitled to 480 paid leave days per child, reimbursed at 80 percent of their previous earnings or a fixed rate if they were unemployed prior to parenthood. For parents from EU/EES countries or Switzerland, earnings-related leave in Sweden is possible after an assessment of their previous parental leave use and rights. To parents from other countries, a flat parental leave rate is paid. For children born before 2014, 90 percent of the leave days needed to be utilized within the first eight years of their child's life, whereas for those born after 2014, the same portion must be taken by the child's 4th birthday (Duvander & Mussino, forthcoming; Swedish Social Insurance Agency, 2023).

Since many migrants arrive with children, and migrant mothers who are eligible for parental leave often experience a delayed entry into the labor market (Vikman, 2013), the initial years after arrival emerge as a critical phase in migrants' integration process. Thus, in this paper, the annual proportion of days taken for parental leave in the first three years was calculated and averaged and included as a determinant for a possible absence from education or work. The presence of children² in the household was measured using three dummy variables during different phases: having children in the early phase (1-3 years after arrival), the middle phase (4-7 years after arrival), and the late phase (8-10 years after arrival).

² I initially classified three age categories (preschool, school aged, and older) for children variable in three different phases. But no specific result was observed from this approach and since it was difficult to interpret the findings, I decided to have the child variable in different phases regardless of their age.

5. Results

5.1. Typologies of trajectories

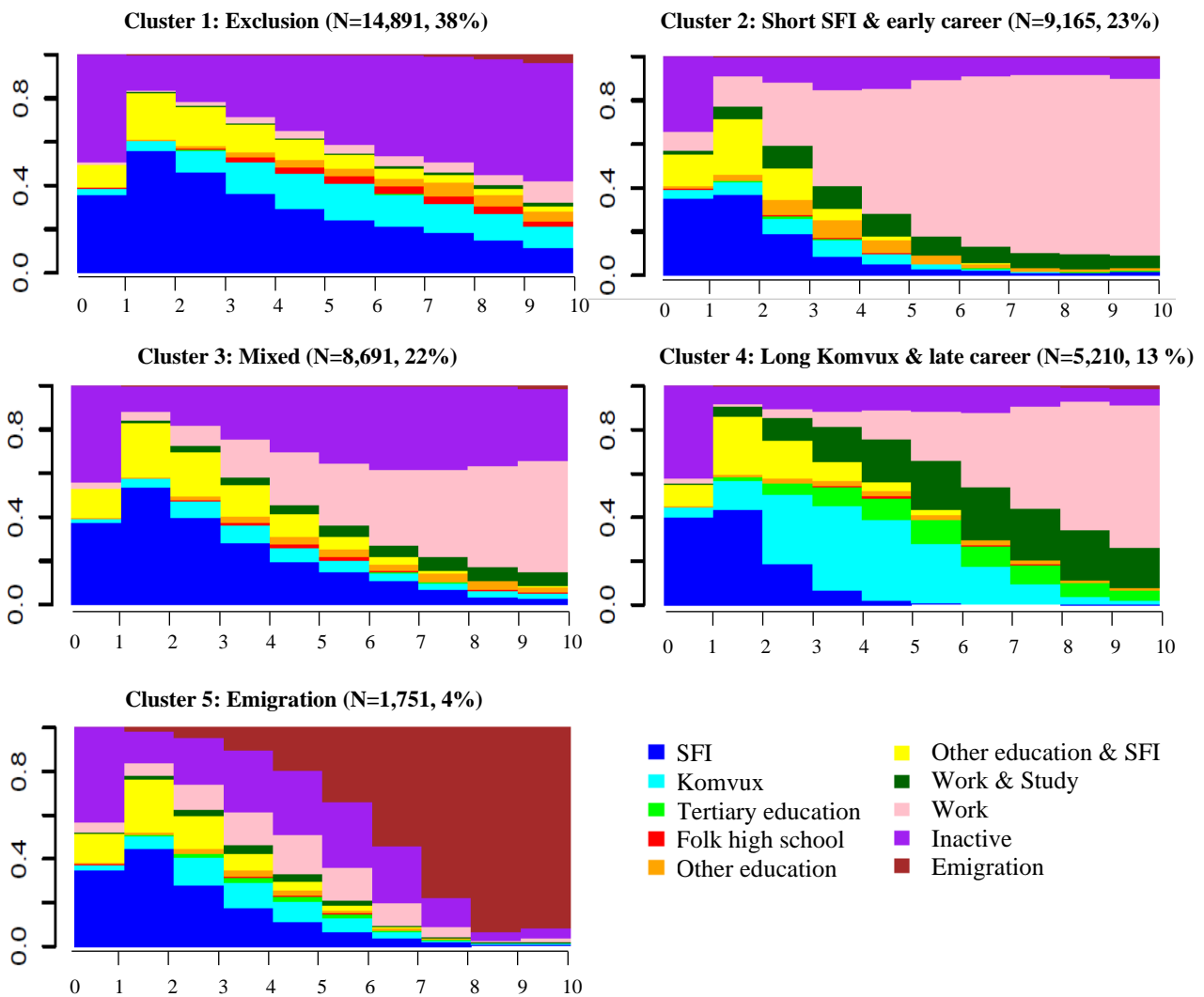


Figure 1 State distribution plots of refugees' educational trajectories in five clusters

Based on the results of the sequence analyses, a solution3 of five clusters best summarizes the educational trajectories of the study population, which are visualized in Figure 1. The x-axis represents years of residence in Sweden, while the y-axis represents the proportion of the population in various states within each cluster. These plots demonstrate the intricate and diverse evolution of different integration activities over time, but also highlighting distinct patterns. Descriptive statistics for the entire study population by each cluster are presented in Table 2.

³ To identify the optimal number of clusters in partitioning around medoids clustering, I tested several cluster solutions, and the five solutions showed the greatest differences among the clusters.

Table 2 Description of the study population by five clusters

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	
	Exclusion	Short SFI & early career	Mixed	Long Komvux & late career	Emigration	Total
Gender						
Male	43.4	72.7	63.8	43.2	65.3	55.6
Female	56.7	27.3	36.2	56.9	34.7	44.5
Age at arrival						
25-30	20.7	29.3	27.5	33.4	29.0	26.2
31-35	21.5	29.3	26.0	29.5	24.5	25.5
36-45	34.6	34.0	35.7	32.0	30.1	34.2
46-55	23.2	7.4	10.9	5.2	16.5	14.2
Pre-migration educational level						
Primary/lower secondary	38.0	24.4	36.9	16.1	29.1	31.4
Upper secondary	19.7	31.1	25.8	26.6	21.1	24.7
Tertiary	25.8	40.5	29.7	55.1	37.3	34.4
Missing	16.6	4.0	7.5	2.2	12.5	9.6
Region of origin						
Asia						
Iraq	46.8	32.6	42.1	33.3	46.2	40.7
Afghanistan	6.7	3.8	5.0	4.7	5.9	5.3
Iran	4.1	4.1	4.4	8.2	3.4	4.7
Middle East	7.6	8.0	7.9	6.1	8.3	7.6
Other Asia	2.6	4.0	4.2	3.1	3.3	3.4
Africa						
Horn of Africa	10.5	6.0	8.8	7.2	10.6	8.6
Other Africa	3.3	4.5	3.7	11.4	5.6	4.8
Balkan, EU ⁴	12.5	24.1	14.9	11.4	8.9	15.4
South and Latin America	1.3	2.9	2.9	3.5	2.6	2.4
Former Soviet Union ⁵	4.8	10.1	6.4	11.1	5.4	7.2
Intake category of refugees						
Refugees' family	14.4	20.6	6.6	12.0	14.6	14.7
ABO refugees	28.1	26.5	30.3	27.4	30.5	27.4
EBO refugees	48.9	43.3	58.1	51.5	44.1	49.0
Quota refugees	8.6	9.7	5.1	9.1	10.8	8.9
Region of settlement in Sweden						
Metropolitan areas	35.4	36.2	37.9	30.4	37.5	35.6
Larger cities	35.1	33.9	33.7	38.5	35.5	35.0
Small towns	25.6	27.0	24.7	26.2	23.2	25.7
Sparsely populated areas	3.9	3.0	3.7	4.9	3.8	3.8
Presence of children in different phases after arrival						
Early phase	74.7	68.5	70.1	74.5	51.1	71.2
Middle phase	79.0	79.5	79.3	81.7	41.1	77.8
Late phase	74.1	80.3	77.5	82.6	10.1	74.5
Annual time share of parental leave	18.6	12.0	14.6	21.3	12.3	16.3
N	14,891	9,165	8,691	5,210	1,751	39708

⁴ Including Bosnia and Herzegovina, Yugoslavia, Kosovo, Macedonia, Montenegro, Serbia, Romania, Bulgaria, and Poland.

⁵ Including Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Soviet Union, Tajikistan, Turkmenistan, Ukraine, Uzbekistan and Belarus.

Cluster 1 comprises the largest share of refugees (38%) and is characterized by a high proportion attending SFI courses, peaking in the second year after migration, and declining afterwards. Participation in SFI in combination with other education is another state common in this cluster. Inactivity from education and labor market represents the dominant sequence in this cluster, accounting for 69% of all sequences by the end of observation; therefore, this cluster is labeled “exclusion”. As we see from Table 2, a significant share of refugees following this cluster are women, older than 45 and have primary or lower secondary education.

Cluster 2, the second largest group in the sample (23%), is typified by an early transition to the labor market after a short initial period of enrollment in language courses. This cluster is labeled “short SFI & early career”. Descriptive statistics from Table 2, reveal that the share of male refugees (72%) and refugees with tertiary education (40%) are notably high within this cluster. Additionally, in comparison to the other clusters, a substantial proportion of refugees in this cluster originate from the Balkan or the EU.

Cluster 3, the third largest (22%), represents refugees who are to a large extent enrolled in SFI, either fully or combined with other educational activities. Over time, the proportion of SFI enrollment gradually decreases, while employment and inactivity become more prevalent after three years. This cluster is labeled “mixed” and is more common among male refugees (63.8%). Compared to the other clusters, this cluster contains a smaller proportion of family members of refugees.

The fourth cluster represents 13% of the sample and is characterized by a large share of Komvux enrollment. Participation in SFI courses combined with other education is particularly prominent in the second year, whereafter this declines significantly. Towards the end of the observation window, employment becomes the dominant state. This cluster is labelled “long Komvux & late career”. Refugees in this cluster are often tertiary educated and comparatively have spent a longer time on parental leave.

Cluster 5, representing 4% of the study population, is characterized by a high share of enrollment in SFI for a rather short period. From year 3, 16% of refugees in this cluster have emigrated from Sweden, and after 10 years, almost all of them left Sweden (95%). This cluster is named “emigration” and consists of a high proportion of men and refugees with tertiary education. Compared to other clusters, the proportion of refugees having children in the last part of the observation window is significantly lower in this cluster.

The findings from Figure 1 reveal the diversity of post-migration trajectories of integration activities undertaken by refugees. Some refugees participate in municipal adult education and language courses for a short time before entering the job market. Others follow more prolonged educational pathways before transitioning to employment, while some become inactive after having been enrolled in education. A small proportion chooses to emigrate from Sweden, after some years of educational activities. In the following section, the characteristics of refugees associated with these five clusters are examined using multivariate modelling.

5.2. Determinants of trajectories

To analyze how trajectories of education are shaped by refugees’ background characteristics, a multinomial logit model was estimated. The results are presented in Table 3, showing how each background characteristics is associated with the likelihood to belong to each cluster.

Table 3 Results of a multinomial logit model of refugee educational trajectories, average marginal effects (N=39,708)

	Cluster 1: Exclusion	Cluster 2: Short SFI & early career	Cluster 3: Mixed	Cluster 4: Long Komvux & late career	Cluster 5: Emigration
Gender (ref: male)					
Female	0.131***	-0.127***	-0.072***	0.073***	-0.004*
Age at arrival (ref: 25-30)					
31-35	0.037***	-0.004	-0.001	-0.034***	0.002
36-45	0.119***	-0.053***	0.004	-0.068***	-0.002
46-55	0.340***	-0.144***	-0.050***	-0.132***	-0.013***
Pre-migration educational level (ref: Primary/Lower secondary)					
Upper secondary	-0.113***	0.071***	-0.029***	0.069***	0.002
Tertiary	-0.165***	0.082***	-0.076***	0.150***	0.009***
Missing	0.132***	-0.057***	-0.055***	-0.036***	0.015***
Region of origin (ref: Other Africa)					
Afghanistan	0.123***	-0.046***	0.015	-0.104***	0.013*
Iran	0.000	-0.007	0.017	-0.009	-0.015**
Iraq	0.135***	-0.051***	0.04***	-0.133***	0.009*
Middle East	0.093***	-0.001	0.041***	-0.134***	0.002
Other Asia	-0.044*	0.092***	0.077***	-0.125***	-0.000
Horn of Africa	0.107***	-0.039***	0.028*	-0.091***	-0.005
Balkan, EU	0.016	0.148***	0.022*	-0.140***	-0.015***
Former Soviet Union	-0.032*	0.108***	0.029*	-0.092***	-0.014**
South and Latin America	-0.115***	0.108***	0.081***	-0.075***	0.001
Intake category of refugees (ref: Refugees' family)					
ABO refugees	-0.033***	0.033***	0.006	0.001	-0.006
EBO refugees	-0.061***	0.079***	0.001	-0.005	-0.013***
Quota refugees	0.047***	-0.054***	0.016	-0.003	-0.008
Region of settlement in Sweden (ref: Metropolitan areas)					
Larger cities	-0.026***	0.014**	-0.025***	0.035***	0.002
Small towns	-0.012	0.017**	-0.027***	0.022***	-0.000
Sparsely populated areas	-0.002	0.001	-0.028*	0.032***	-0.003
Annual proportion of days taken as parental leave					
Average over the first three years	0.242***	-0.306***	-0.010	-0.012	0.086***
Presence of children in different phases after arrival (ref: No children)					
Early phase	-0.003	-0.016**	-0.006	0.013**	0.012***
Middle phase	0.004	0.001	0.014	-0.029***	0.010***
Late phase	0.003	0.097***	0.047***	0.055***	-0.202***
R²	0.1364***				

Note: Levels of significance: *p< .05, **p< .01, ***p< .001

Source data: Register data, author's calculations

Table 3 shows a distinct gendered division in the educational paths followed by refugees. Female refugees, compared to their male counterparts, have a 13.1% higher risk of following the exclusion pathway. This suggests that a significant portion of female refugees, despite dedicating considerable time to language courses, do not find the route to the labor market but rather become inactive. Furthermore, the results also indicate that women are 7.2% more likely than men to follow a late-career trajectory, often after an extended period of enrollment in municipal adult education. Additionally, women are 12.7% less likely than men to pursue the early career path. Taken together, these findings imply that, relative to men, women appear to gain fewer advantages from their involvement in adult education and language programs, and they face a higher risk of long-term disadvantages, including unemployment. Conversely, men seem to address challenges for establishing in the labor market by participating in language courses and establishing themselves in the labor market more quickly.

These results can be attributed to prevailing gender norms in certain countries, where women are primarily responsible for the household, caregiving, and childbearing duties (Grönlund & Fairbrother, 2022; Landell, 2021) which impedes or delays their access to education and employment opportunities. Furthermore, gender-based discrimination in the labor market (Ayres et al., 2013; Liebig & Tronstad, 2018), along with inadequate support in labor market programs (SOU 2012), may also have detrimental effects on integration outcomes of female refugees. However, the available data does not allow for a precise understanding of the underlying mechanisms. Women refugees have a lower likelihood of emigrating, which can be attributed to their relatively improved social status in Sweden compared to their country of origin (Wanner et al., 2021) which is an incentive for them to stay in Sweden.

Refugees' educational paths are also greatly influenced by stage in the life course. The older the refugees, the more likely they end up being excluded from the labour market. Conversely, older refugees have a lower probability of pursuing career-oriented pathways. Furthermore, middle-aged refugees (ages 46-55) are less likely to choose emigration as compared to younger refugees. These findings may be attributed to the limited years left until retirement, which may be a disincentive for older refugees to obtain local human capital. Additionally, the lower productivity levels among older refugees could also explain the high likelihood to end up in exclusion from the labour market, despite having participated in SFI for substantive time periods. Contributing to previous research (e.g., Adamuti-Trache et al., 2013; Banerjee & Verma, 2012; Damelang & Kosyakova, 2021), these results underscore the pivotal influence of age on the engagement of adult refugees in education, and consequently, their entrance into the labor market.

The results further show strong associations between refugees' education level obtained prior to migration and their educational enrollment trajectories in Sweden. The estimates suggest that refugees with tertiary education pre-migration are 16.5% less likely to end up in the exclusion pathway compared to those who are lower educated. The likelihood for higher educated refugees of pursuing early and late career pathways increases by 8.2% and 15% respectively. A similar trend is observed for refugees with upper secondary educational backgrounds, albeit to a lesser extent. Furthermore, refugees with tertiary education have a higher likelihood of emigrating from Sweden. Conversely, for refugees with missing education, a contrasting trend compared to those with higher educational backgrounds emerges: they are less likely to end up in early or late career pathways and more often end up excluded from the labour market. However, similar to the higher educated, they are more prone to emigrate from Sweden. The higher likelihood of emigration among higher educated refugees may be related to the mismatch between their educational attainment and demands in the local labor market (Wanner et al., 2021), motivating them to seek opportunities elsewhere.

Region of origin also matters for educational enrolment pathways. The findings demonstrate that refugees from the Balkan or the EU, the former Soviet Union, South and Latin America, and Asia other than the Middle East are more likely to make an early transit to the labor market after a short period of attending language courses. In contrast, refugees from Afghanistan, Iraq, the Middle East, and the Horn of Africa are less likely to pursue this early career trajectory and instead, have a higher likelihood of experiencing the exclusion pathway. However, with the exception of those originating from the Middle East, this specific group of refugees is also less likely to follow the late career pathway. Building on the cultural differences hypothesis discussed by Lundborg (2013), this finding suggests that refugees from regions with greater cultural similarities to Sweden, like the Balkan region, the EU, and the former Soviet Union, tend to adapt more quickly to Swedish work culture and social norms, resulting in an early transition to the labour market after a shorter period of language training. Furthermore, the presence of ethnic discrimination within the Swedish labor market (e.g., Carlsson & Rooth, 2007) might also play a role in restricting the labor market integration for specific groups of refugees, regardless of their participation in language course.

With respect to the dispersal policy refugees are subject to, quota refugees have a 5.9% higher likelihood of experiencing exclusion and a 6.2% lower likelihood of following an early career pathway compared to refugees' family members. Conversely, refugees who were assigned housing, and even more those who chose their own accommodation (ABO and EBO refugees respectively) show the opposite pattern. This difference may be explained by the selection process i.e., self-selection as well as selection through policy mechanisms and social networks, which facilitate faster employment integration for refugees' families than resettled refugees, as highlighted by Bevelander (2011).

I have also examined the influence of parental leave use, measured as the annual proportion of days in a year taken as parental leave, averaged over the first three years, on the integration trajectories of refugees. The results suggest that a longer duration of parental leave is associated with a higher probability of following the exclusion (23.9%) and emigration trajectory (8.6%), while decreasing the likelihood of pursuing the early career pathway (30.4%). The results regarding parenthood demonstrate that refugees with children early after arrival are 1.6% less likely to experience an early career path but are 1.3% and 1.2% more likely to pursue late career and emigration trajectories, respectively. Conversely, refugees with children in the later phase after migration are more likely to experience the early (9.7%) and late career (5.5%) trajectories. These findings suggest that for refugees, having children may prolong the integration process, potentially leading to periods of inactivity, long periods of educational enrolment, and a delayed labor market entry. Furthermore, refugees who become parents later are 20.3% less likely to emigrate, signifying a substantial effect on labour market integration. This could possibly be due to the increased sense of stability associated with parenthood, which may encourage refugees to stay in Sweden to guarantee the well-being of their children.

Finally, the findings reveal that refugees who initially settled in large cities and small towns, as opposed to metropolitan areas, have a higher probability of pursuing career-oriented pathways, while those who initially resided in large cities are less likely to follow exclusion pathway. Similarly, those residing in sparsely populated areas are more likely to follow a late career pathway. These findings align with earlier research (e.g., Bevelander & Lundh, 2007 in Sweden) indicating that refugees who initially reside in non-metropolitan areas have more favorable labor market integration outcomes. This can be attributed to the presence of low-skilled and less competitive labor market out of metropolitan areas, that facilitate a quicker entry for refugees into the labor market.

6. Conclusion and discussion

Adult refugees often encounter challenges in effectively utilizing their pre-migration education in a new country, leading to labor market adversities such as lower employment rates and earnings. Various factors hinder refugees' integration into the labor market, including discrimination, limited social networks, extended waiting times for asylum claim decisions, and notably, a devaluation of their pre-migration education alongside a lack of local human capital. Participation in adult education, gives refugees a second chance to acquire local language, skills, and knowledge, while interacting with other students and teachers. This, in turn, facilitates their integration into the labor market and society (Nordin, 2011; Nordlund et al., 2015; Månsson & Delander, 2017; Söhn, 2016). Sweden, through the provision of a diverse range of free courses for all adults, stands out among European countries. This study aimed to contribute to existing research by utilizing a longitudinal approach to explore the educational enrollment trajectories of adult refugees and the diversity of the pathways being pursued. Sequence analyses was applied to the population of all adult refugees who came to Sweden in the period 2000-2006, who were subsequently followed over a 10-year period. The results revealed five distinct educational and labour market pathways, with the two most prominent pathways reflecting opposite patterns: inactivity in the labor market and early transition to the labor market.

Over a third of refugees (38%) follow an exclusion cluster, characterized by substantial inactivity in the labor market and education despite of large share participating long-term in language courses, particularly within the initial three years. This trajectory resembles a trap-like situation where refugees, despite of economic promises of learning the local language, end up being inactive. Contrary to this trajectory, 23% of adult refugees experience an early career pathway, spending a relatively short period in language courses before quickly transitioning into employment. 22% of refugees pursue a mixed pathway, marked by extensive participation in language courses, with almost an equal share being inactive or employed by the end of observation. Another 13% followed a career trajectory, albeit late entry to the labor market after devoting substantial time to municipal adult education before eventually entering the labor market. A very small proportion of refugees opt for emigration, leaving Sweden after a relatively short duration in language courses and municipal adult education.

Using a multinomial logit model, results revealed that refugees' participation in adult education and labor market integration is a gendered issued with women, as compared to men, being more likely to end up in exclusion, despite dedicating a considerable time to language courses. Female refugees are also more likely to follow the late career route, whereas they are less likely to pursue an early career path. This result implies that women, as compared to men, gain less from participating in adult education and language programs, and are at higher risk of inactivity, while men are more successful in rapidly establishing themselves in the labour market after having engaged in language courses and local education programs. The gendered disparities observed in educational pathways can be attributed to several factors. Many refugees come from countries where women primarily engage in household responsibilities, childcare, and childbearing. These cultural norms in origin countries potentially continue to influence them even after migration (Landell, 2021). Consequently, women may prioritize labor market and education involvement to a lesser extent than men. Moreover, ethnic discrimination practices within the Public Employment Service and the Swedish labor market may lead women to be subject to dual disadvantages (Ayres et al., 2013; Liebig & Tronstad, 2018; SOU, 2012).

Refugees' age also determines the paths they follow. The exclusion cluster, characterised by inactivity in the labor market, is mostly followed by older refugees, in particular those aged

46-55. Conversely, older refugees are less likely to pursue career-oriented pathways. The results also demonstrate that refugees with tertiary education prior to migration tend to follow the early career cluster. This means they engage in a short period of language training and then promptly enter the labor market. This suggests that refugees who were already higher education before migrating, through participation in adult education in Sweden, may acquire language and other skills faster, fostering a speedier entry to the labour market.

Refugees' region of origin is another significant factor influencing their educational pathways. The early career trajectory is disproportionately followed by refugees originating from more privileged countries including the EU, the Balkan area, the former Soviet Union, South and Latin America, and Asia other than the Middle East. Conversely, refugees from Afghanistan, Iraq, the Horn of Africa and the Middle East are the most commonly represented groups that follow the exclusion cluster, suggesting the possibility of employment discrimination against certain groups of migrants.

Results further reveal a strong positive association between taking longer parental leave early after arrival and the likelihood of ending up in the exclusion cluster. This suggests that while Swedish parental leave is commonly utilized for childcare and settling in Sweden before seeking employment, it may prolong the integration process of refugees (Duvander & Mussino 2021). Longer time spent on language courses, possibly due to interruptions due to childbirth(s), may hinder future employment prospects. Thus, integration and family policies are interrelated and should be developed together to minimize negative effects on each side. The paper also showed that refugees who arrived with children or became parents shortly after arrival are less likely to pursue an early career pathway, possibly due to childcare responsibilities. Conversely, those who have children in a later phase after migration are more likely to enter the labour market soon after arrival. Furthermore, the likelihood of pursuing the late career pathway is higher among refugees with children, whether it is at the beginning or later stages. Taken together, these findings suggest that having children soon after migration might hinder (exclusion cluster) or postpone (late career cluster) refugees' integration.

The results highlight that younger refugees, those with higher levels of pre-migration education, men, refugees without children upon arrival, and those from more privileged countries such as the Balkan region, the EU, Asia other than the Middle East and South and Latin America tend to be more likely to establish themselves early in the labor market after a relatively short period of participation in Swedish education. In contrast, refugees who are at a higher risk of vulnerability upon arrival in Sweden, due to coming from areas with more traditional gender norms, including female refugees, older refugees, those with lower levels of pre-migration education, and refugees originating from less developed countries like Iraq, Afghanistan, the Middle East, and the Horn of Africa, often experience marginalization in Sweden. Their educational trajectories do not lead to labor market integration but instead result in exclusion, suggesting a continuation of vulnerability in their integration pathways in Sweden.

It is also essential to recognize the potential impact of both state and structural barriers, which, in addition to individual characteristics, play a significant role in shaping the integration trajectories of refugees. Although language courses represent the primary form of education pursued by most refugees in Sweden and have been a key government priority, the results of this paper indicate that participation in these courses does not necessarily pave the way to labor market integration. This is especially evident among refugees who find themselves in the exclusion cluster, ending up in inactivity in the labor market despite having been enrolled in Swedish language courses for an extended time period. This can be attributed to several challenges associated with Swedish language courses, such as low teacher competence, an emphasis on achieving grades rather than fostering fluency in Swedish, and an inadequate

approach to addressing the needs of lower-educated and illiterate migrants (Bucken et al., 2018; Öbrink Hobzová, 2021). Furthermore, despite the 2010 reform and the shift in the focus of introduction program towards the labor market (Qi et al., 2021), language courses are still organized by municipalities. Consequently, the quality of these courses may vary from one municipality to another, and in some instances, the course content may not be adequately aligned with the goal of facilitating entry into the labor market (OECD, 2014).

Moreover, another reason underpinning the greater integration challenges for some groups of refugees, particularly women, is the extent of support from integration programs, which may be inadequate. Female refugees who participated in introduction programs prior to 2010 received fewer hours of language training, limited follow-up, and less labor market training compared to their male counterparts (Andersson et al., 2016; SOU 2012). Moreover, even though many female refugees may have a strong desire to work, the jobs they are offered sometimes do not align with their preferences, educational backgrounds, or work experience from countries of origin (Leibig & Tronstad, 2018; Thomsson & Hoflund, 2000).

7. References

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