Borders of Opportunity: A Comparative Analysis of Migrant and Descendant Integration in Denmark and Sweden

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I. INTRODUCTION

According to the 2024 edition of the United Nations' *International Migrant Stock*, over 304 million individuals currently reside in a country different from where they were born (United Nations, 2024). The reasoning behind one's choice to relocate across international borders can take a number of forms, with the most commonly cited being that of work, family or study. In some cases, international migration occurs not by choice but rather as a result of extreme (and often tragic) events outside of an individual's control, such as persecution, warfare or natural disasters (International Organization for Migration, 2024). In any case, it holds true that a person who moves to a new country, whether for voluntary or involuntary reasons, wants this endeavor to result in beneficial outcomes for themselves and their family.

Migration and integration policies can vary significantly among major migrant-receiving nations due to disparate ideological, political and economic priorities. Some take a restrictive approach that limits the number of entries and imposes strict regulations on an individual's ability to permanently settle. This policy stance is generally supported by the notion that restricting migration to just those with a high integration potential will limit the amount of national resources dedicated to assimilating newcomers. In turn, these resources can instead be put toward uplifting the native-born population, which usually make up the large majority of an advanced, industrial nation's citizenry. Other countries may take a comparatively liberal (or sometimes even multicultural) approach to migration and integration, which usually involves some degree of recognition of and accommodation for the diverse ethnic backgrounds that characterize international migrants. From this, it is reasoned that these individuals may more easily engage in the social, political and economic institutions of their new country, all while having the ability to maintain their original cultural identity.

Analyzing migration and integration policies presents challenges, particularly within a framework of comparative politics. First, it must be addressed that the contentious political climate surrounding migration often lends itself to innumeracy biases and xenophobic fearmongering, which inevitably distort evaluations of the subject. Beyond this, it is also challenging to weigh respective migration and integration policy mixes, given the pronounced effect that certain factors may have on the formulation of such. These are often, in one way or another, unique to a given nation (e.g., constitutional mandates, cultural expectations, etc). Simply put, it is difficult to compare one country's restrictive approach to migration to another's liberal approach, given that the political or social foundations enabling these policy stances can be completely different from one another.

Despite these challenges, it is still the case that comparative analyses of migration/integration policies remain crucial for policymakers and academics alike. To mitigate the effect of confounding variables, it is advantageous to ensure that the countries subjected to these analyses are foundationally similar to one another, whether through culture, political structure or economic standing. From this, meaningful comparisons can be conducted and conclusions can be reached concerning the hypothesized effects produced by differing policy mixes.

This study selects Denmark and Sweden as the subjects of comparative analyses. Despite the high degree of similarity displayed by both countries in their electoral structures, populations, and economic conditions, these nations have adopted starkly different approaches to migration and integration since the 1970s (Abbas, 2021). Denmark has implemented a policy mix that is characterized by strict work/residency permits, mandatory declarations of faithfulness, citizenship tests, and a stated "zero refugee target" (DEMIG, 2015a; Abbas, 2021; Karakoç Dora

and Erdoğan, 2021, p. 518). In contrast, Sweden has historically followed a multicultural approach that gives migrants equal access to the state's welfare system, freedom of cultural choice, and the right to vote in municipal and provincial parliament elections after just three years of residency (DEMIG, 2015b; Abbas, 2021).

By comparing the labor market integration and human capital development of migrants and their descendants in Denmark and Sweden, this study aims to examine how restrictive and liberal policy mixes affect the socioeconomic outcomes of these subpopulations. A most similar systems design (MSSD) is employed to isolate policy effects, and rates of migrant/descendant employment and educational attainment are subjected to quantitative analyses. Denmark serves as a proxy for a restrictive policy mix, while Sweden represents the liberal/multicultural approach. Intersectional identities, such as one's region of origin and gender, are controlled for and subjected to respective analyses. Altogether, the findings of this study provide empirical insights into the real-world effects of a given policy approach, which can be hypothesized and refined through further research.

II.   LITERATURE REVIEW

Contextualization for this study is divided into four sequential topics: First, the fundamental economic theories/models that explain one's decision to migrate are presented. Second, the challenges faced by migrants and their descendants in their pursuits of education and employment are outlined. Third, the prior literature that comparatively analyzes restrictive and liberal policy mixes is explained. Finally, the Danish and Swedish approaches to migration and integration are detailed, with special attention given to how these states have developed such different stances despite their numerous similarities.

2.1　　Why Does Someone Migrate?

To evaluate which measures of migrant and descendant outcomes best serve these comparative analyses, it is essential to examine why individuals choose to migrate in the first place. From this, it becomes possible to infer which metrics are the closest to representing "successful" integration from the perspective of migrants and their descendants. This will ultimately guide the process of selecting dependent variables for this study.

Adam Smith was the first economist to theorize the root causes of migration, describing in *An Inquiry into the Nature and Causes of the Wealth of Nations* that "... as the price of provisions varies more from year to year than the wages of labour… the wages of labour vary more from place to place than the price of provisions" (Smith, 1776, p. 66, as cited in Bodvarsson et al., 2015). This statement, paired with his expanded explanation of the urban/rural wage differential across the United Kingdom, provided the theoretical framework upon which migration literature has built itself for nearly two and a half centuries. One of Smith's key observations was that, despite the substantial spatial disequilibrium in wages compared to prices, migration flows tend to be relatively small. While one may intuitively assume that migration flows would be robust if there is significant variation in regional wages, Smith asserted "... that a man is of all sorts of luggage the most difficult to be transported" (Smith, 1776, p. 67, as cited in Bodvarsson et al., 2015). This finding has proven true to this very day: Even though wages vary wildly on the international stage, it stands as a fundamental truth that the vast majority of the world's population currently resides within their country of origin (about 96.3% as of 2024, per the United Nations' International Migrant Stock of that year).

Prior to the 1960s, the most notable contribution to Smith's understanding of migration came from Ernst Georg Ravenstein, whose 1885 and 1889 papers delivered to the *Journal of the*

Statistical Society compared data from the British Censuses of 1871 and 1881. He ultimately constructed seven "Laws of Migration" based on his findings. In the context of this study, the most relevant laws are as follows: (1) Most migrants travel short distances, and (2) migrants tend to prefer destinations that are centers of commerce or industry (Corbett, 2003). While these laws were immediately criticized by his contemporaries as being nothing more than patterns, Ravenstein is now generally credited as the originator of several important theories of migration, specifically those of distance decay and spatial interaction (Corbett, 2003).

Smith's original understanding of migration and Ravenstein's laws regarding such served as the bedrock that scholars in the mid-20th century built upon. Everett S. Lee's (1966) push-pull model of migration provided a qualitative framework through which migration could be understood, while Larry Sjaastad's (1962) doctoral thesis pioneered the human capital model and its ability to analyze migration quantitatively. The neoclassical theory of migration, which postulates that individuals migrate due to a disparity in economic opportunities between their place of origin and ultimate destination, is rooted in these two models (Czaika and Reinprecht, 2022). Thus, it is essential to lay out their underlying principles and assumptions to contextualize labor participation and educational attainment as valid dependent variables within this study.

Ravenstein's laws profoundly influenced the push-pull model proposed by Lee (1966), who identified four types of factors that influence migration. Listed below and visualized in Figure 1, these attributes interact in a manner that qualitatively explains why individuals choose (or choose not to) migrate:

1. Push factors: Elements that encourage migrants to leave a region of origin, such as a lack of job opportunities, poor living conditions, or political instability.

2. Pull factors: Attributes that attract migrants to a country of destination, like better employment prospects, higher wages, or improved social conditions.

3. Intervening obstacles: Barriers that can hinder the migration process, such as distance, legal restrictions, or financial costs.

4. Personal factors: Individual characteristics that influence one's decision to migrate, including age, education, or risk tolerance.

CHART I
ORIGIN AND DESTINATION FACTORS AND INTERVENING OBSTACLES IN MIGRATION
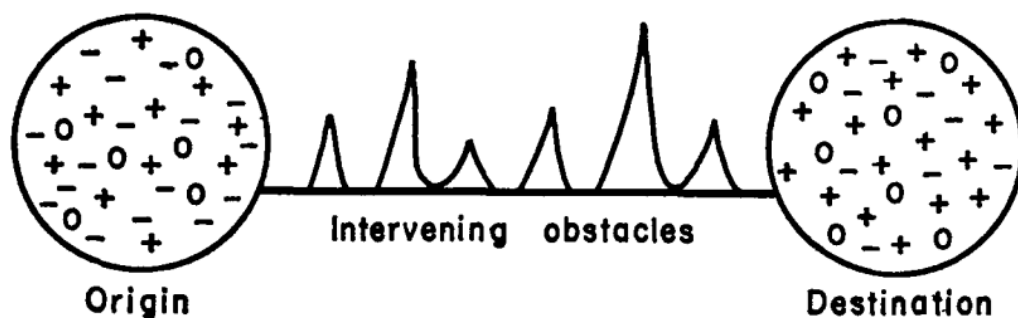
Figure 1: *Push-Pull Model of Migration* (Lee, 1966)

Based upon the assumptions of this model, Lee (1966) proposed a number of hypotheses. The most relevant to this study is that of migrant selectivity, or the idea that migration is not a random process and is instead influenced by the push and pull factors at play. From this, two distinct types of migrants can be conceptualized: (1) Those who are positively selected, or are moving to a destination due to "plus" factors, and (2) those who are negatively selected, or are moving from a location due to "minus" factors (Lee, 1966). In addition, he asserted that "... intervening obstacles tend to weed out some of the weak or incapable," which reinforces the

notion that restrictive migration policies improve the socioeconomic integration of migrants by filtering for those who are positively selected (Lee, 1966, p. 56).

Sjaastad's (1962) advancement of the human capital model provided a means to quantitatively analyze and explain the decision-making process behind migration. Much like job training or education, he argued that migration is an investment in oneself that is subjected to a cost-benefit analysis conducted by potential migrants. He clarified that migration does not occur solely due to wage differences between a destination and place of origin, and instead conceptualized an economic framework that weighs the present value of expected income against the total costs associated with relocation (Sjaastad, 1962). The mathematical expression of Sjaastad's model, as summarized by Bodvarsson et al. (2015), is provided in Appendix A. Concerning this study, the human capital model validates labor market participation and educational attainment as potential dependent variables due to its individual-level unit of analysis (Bodvarsson et al., 2015). Since both of these measures can be perceived as ways to augment an individual's earnings per period at a destination, this model confirms these dependent variables as appropriate assessments of migrant integration.

Taken together, the push-pull and human capital models serve as the backbone of neoclassical migration theory. Despite the usefulness of this theoretical framework for studies that analyze migration at a micro-level, it is essential to recognize its flaws and relative shortcomings. First and foremost, it is crucial to understand that this model is defined by its methodological individualism, and thus it fails to account for the effect that households, families or communities have on decisions involving migration (Czaika and Reinprecht, 2022). Some have argued that family structure and functions are explanatory variables that directly and indirectly affect the decision-making process of an individual. Others, including Harbison (1981,

as cited in Czaika and Reinprecht, 2022), have reasoned that one's family should be the unit of analysis when examining migration. This is because of the profound effect that families often have in shaping one's values, motivations and perception of the costs and benefits of migration (Czaika and Reinprecht, 2022). Separate models, such as the new economics of labor migration (Stark and Bloom, 1985, as cited in Czaika and Reinprecht, 2022) or network theory (Boyd, 1989, as cited in Czaika and Reinprecht, 2022), may better account for the function of family in the migration decision-making process. It is also necessary to recognize that the neoclassical theory of migration is a single-period model, and thus it does not explain why a small number of individuals choose to migrate multiple times within their life or how one's position within their life cycle may affect their decision to migrate (Bodvarsson et al., 2015). For example, perceived income disparities may be less relevant to an elderly decision-maker as compared to a young professional, and perhaps they may view climate or leisure opportunities as more relevant.

It must also be noted that there are incompatibilities between the push-pull and human capital models due largely to their respective qualitative and quantitative natures. Lee (1966, p. 51) stated that "The decision to migrate… is never completely rational, and for some persons the rational component is much less than the irrational." This is contrary to all theoretical applications of the human capital model, as any permutation of the base equation assumes that the decision-maker is rational and perfectly informed (Bodvarsson et al., 2015). Overcoming this flaw would require the calculation to account for the uncertainty and risk tolerance of the decision-maker. Moreover, the neoclassical theory of migration does not capture involuntary or forced migration, and does not examine determinants at the macro-level. Other models may better weigh the effects of these structures and forces, such as the world systems theory, which

asserts that capitalist systems have destabilized traditional economic structures and livelihoods, thus causing an 'age of migration' (Wallerstein, 1974, as cited in Czaika and Reinprecht, 2022).

In short, there are countless reasons why a person would choose to migrate, and perhaps just as many models that could be employed to analyze this decision-making process. Individuals or families may choose to relocate for improved economic opportunities or a superior quality of life, or they may be diverted from such due to the intervening obstacles at play. Some may be subjected to disasters or warfare, and thus have little or no decision-making process in determining whether to migrate. With that said, all forms of voluntary migration (whether rooted in economic or noneconomic determinants) are primarily influenced by conventional economic forces, specifically that of human capital investment (Bodvarsson et al., 2015). In selecting the appropriate measures of migrant outcomes, one must intuitively consider the most common ways an individual seeks to improve their current economic status. Generally, the answer is (a) they find a better job, or (b) they advance their education. From this, it can be reasoned that labor market participation and educational attainment stand as reasonable dependent variables in examining migrant and descendant outcomes.

2.2.1   Socioeconomic Outcomes Within Neoclassical Migration Theory

When viewed through the lens of neoclassical migration theory, labor market participation and educational advancement are conceptualized as the primary means to enhance one's return on this form of human capital investment. Therefore, it is essential to examine which factors, whether at the individual or structural level, may hinder migrants and descendants in their pursuits of work and education. From this, the interaction between these challenges and a given policy mix can be better contextualized.

2.2.2 Challenges and Barriers Faced by Migrants

Shirmohammadi et al. (2018) conducted a review that synthesized the findings of 106 empirical studies published between 1990 and 2017. These studies were specifically focused on skilled migrants, or "... people on the move who possess university degrees or extensive work experience in professional fields," and the multi-level factors that impact their ability to find qualification-matched employment (Shirmohammadi et al., 2018, p. 97). These factors were grouped into four distinct categories, as displayed in Figure 2:

1. Individual-level factors: The qualities that characterize an individual migrant and influence their success (or failure) in finding employment (e.g., their proficiency in the language(s) spoken within their destination country, the education credentials they have accrued before and following relocation, and the social network they have developed within their destination country).

2. Organizational-level factors: The elements associated with one's employer, such as the discriminatory biases that characterize an organization or, conversely, the successful implementation of equality and diversity policies within a workplace.

3. National-level factors: The policies and economic trends that characterize a destination country (e.g., the attainability of work/residency permits, the recognition of and regulations surrounding foreign credentials, the demand for non-native labor, etc).

4. International-level factors: The political relationship between a migrant's destination country and place of origin. An improvement to this relationship is noted to increase the likelihood of a migrant finding employment within their country of destination.
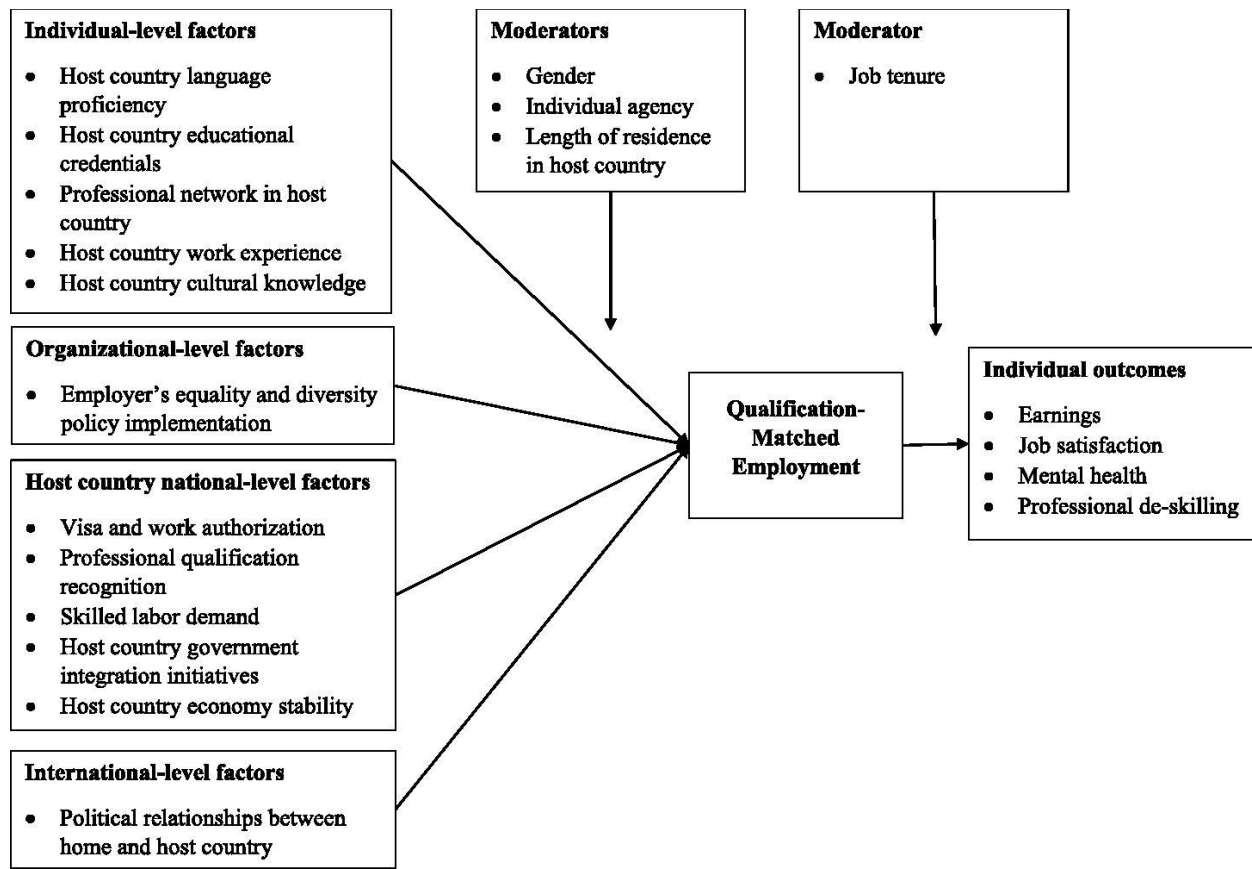
Figure 2: *Conceptual Model of Migrant Employment* (Shirmohammadi et al., 2018)

Although the review conducted by Shirmohammadi et al. (2018) focused specifically on skilled migrants in search of qualification-matched employment, it is inferred that many of its findings are relevant to not just this study, but any that seek to examine the challenges faced by migrants in their pursuit of employment. This is due to the significance and prevalence of certain overarching patterns. For example, it was found that discriminatory biases directly impact a migrant's likelihood of finding qualification-matched employment across the 46 studies that analyzed organizational-level factors. (Shirmohammadi et al., 2018). This suggests that a migrant's region of origin significantly affects their labor-related outcomes.

Gender was also discovered to be a notable moderator between each of the multilevel factors and access to qualification-matched employment: Across the 18 studies that examined the

interaction between gender and labor outcomes, the sole pattern observed was that of female migrants being less likely to find employment. This pattern was particularly evident when female migrants relocated as dependents (Shirmohammadi et al., 2018).

A total of 46 studies analyzed variables pertaining to visa configurations and employment authorization, with the accessibility of the latter being found to be particularly impactful to not just migrants' access to qualification-matched employment, but also job mobility, salary negotiations and professional development (Shirmohammadi et al., 2018). Although only six studies investigated the role of government-sponsored integration initiatives (e.g., high-quality language training programs, educational support and learning resources, etc), the findings indicated that such programs help migrants in finding qualification-matched employment (Shirmohammadi et al., 2018).

Altogether, the synthesis conducted by Shirmohammadi et al. (2018) confirmed the selection of labor market participation as a meaningful measure of migrant integration, while also providing several relevant factors that can be considered as potential covariates within this study. Empirical support was given to the notion that the policy approach of a given destination country influences the unique labor challenges faced by migrants. Moreover, particular intersectional identities (i.e., gender and region of origin) were found to moderate these national-level factors and the employment outcomes of this subpopulation.

With regard to educational attainment, 28 of the 31 studies that captured education-related factors concluded that receiving a bachelor's degree or beyond within a country of destination was the most positively impactful attribute that a migrant can have when searching for qualification-matched employment (Shirmohammadi et al., 2018). This positive effect was notably lessened when a migrant received their education at an institution outside their

destination country, and thus skilled migrants were found to frequently pursue new educational credentials following their relocation (Shirmohammadi et al., 2018).

The findings produced by Abdusamatov et al. (2025) suggest that a number of the factors that influence the labor outcomes of migrants similarly affect their ability to succeed in their educational pursuits. For example, intersectional identities such as ethnicity and gender were stated to compound existing barriers that worsen educational inequalities (Abdusamatov et al., 2025). Regarding ethnicity, this finding was supported by the description of a case study involving migrant students within Australia, wherein it was found that educational achievement varied significantly by one's region of origin: Migrant students of British and Northern/Western European descent overachieved relative to the Australian average, while those from Southern European and Mediterranean countries underachieved. Beyond such being the strongest negative predictor of scholastic performance, region of origin was also found to impact one's level of education, selection of academic subjects, and overall educational expectations (Kao and Tienda, 2022, as cited in Abdusamatov et al., 2025). As for gender, female migrant students surveyed by Abdusamatov et al. (2025) reported higher levels of social isolation as compared to their male peers. This was suspected to be a result of the inhibitive gender stereotypes that exacerbate the educational barriers faced by this demographic, particularly within subjects such as mathematics or science.

Beyond identity-related factors, Abdusamatov et al. (2025) found that the national-level policies of a given country can positively or negatively impact migrant students in their pursuit of education. Within Europe, for example, it was noted that individuals can legally attend government-sponsored universities without needing to be naturalized citizens. However, the strict limits imposed on the number of students who can be accepted into such programs create

an immensely competitive environment (Abdusamatov et al., 2025). Moreover, foreigners who receive a publicly-funded scholarship from their country of destination are often required to renounce their citizenship(s). This is stated by Abdusamatov et al. (2025) to frequently present additional economic barriers and/or stress for migrant students. Thus, while education is relatively accessible for migrant students within the European Union due to its Charter of Fundamental Rights (which regards education as a right to all children, regardless of status), varying approaches to policy at the state level can present challenges for this demographic and limit their access to affordable education (Abdusamatov et al., 2025).

2.2.3   Challenges and Barriers Faced by Descendants

Despite the various barriers that first-generation migrants face in the labor market, the traditional view of assimilation proposes that the children of migrants generally converge with the native population in terms of socioeconomic status and human capital (Gabrielli and Impicciatore, 2022). However, several studies have found these labor market disadvantages to persist across the second generation, often resulting in underemployment among the descendants of migrants (Algan et al., 2010; OECD, 2010; Maes et al., 2019, as cited in Gabrielli and Impicciatore, 2022). These disadvantages are often associated with 'ethnic penalties,' suggesting that one's region of origin can stand as an inhibitive factor among second-generation migrants. For example, descendants generally pursue a broader range of employment opportunities relative to their parents, who often occupy less desirable sectors. As a result of descendants being more likely to compete directly with the native population for jobs, they may be more likely to face racism and discrimination in the hiring process, thus worsening their labor market integration (Gabrielli and Impicciatore, 2022).

As with migrants, education provides an opportunity for descendants to augment their human capital. Unfortunately, second-generation migrants have been found to experience higher dropout rates and worse academic performance relative to native student populations (Alba et al., 2011; Heath and Brinbaum, 2014, as cited in Gabrielli and Impicciatore, 2022). Gabrielli and Impicciatore (2022) presented four reasons that can explain these discrepancies:

1. Migrant families, on average, earn a lower income than native families, which often prevents descendant students from accessing private tutoring, fruitful extracurricular activities, and prestigious educational institutions. This can result in worsened academic achievement and a lack of preparedness for advanced education among descendant students compared to their peers (Gabrielli and Impicciatore, 2022).

2. A lack of cultural capital among migrant parents can create educational barriers for descendant students (Portes and Zady, 2001; Heath and Cheung, 2007; Kogan, 2007, as cited in Gabrielli and Impicciatore, 2022). This can materialize in several ways: Certain factors may inhibit effective parent-teacher contact (Crozier and Davies, 2007, as cited in Gabrielli and Impicciatore, 2022), and others may prevent parent comprehension of educational practices, norms, and activities (Pfeffer, 2008, as cited in Gabrielli and Impicciatore, 2022).

3. According to the expectancy-value theory of motivation, a lack of belief in oneself can hinder descendants' academic achievement (Wigfield and Eccles, 2000, as cited in Gabrielli and Impicciatore, 2022). If migrant parents cannot offer educational support and their children subsequently experience low academic self-esteem, then it is likely that descendant students will struggle in the classroom (Miyamoto et al., 2018; Kao and Tienda, 1995, as cited in Gabrielli and Impicciatore, 2022).

4. Due to the limited financial resources of many migrant families, their children are often sent to poorly funded schools that lack vital technical/physical infrastructure, such as libraries, laboratories, and personal computers (Borman and Overman, 2004, as cited in Gabrielli and Impicciatore, 2022). Moreover, these institutions may not have robust academic support programs (i.e., homework help and tutoring services) and could struggle with fostering positive student-teacher relationships (Blomfield and Barber, 2011; Cheema and Kitsantas, 2014, as cited in Gabrielli and Impicciatore, 2022).

As proposed by Gabrielli and Impicciatore (2022), national-level policies may play a pivotal role in addressing the employment and educational inequalities faced by descendants. Language-support programs have been shown to better integrate second-generation migrants into the academic environment and labor market of a given country (Triventi et al., 2022, as cited in Gabrielli and Impicciatore, 2022). Additionally, policy initiatives that aim to connect migrant families to the education of their children generally have a positive effect on the integration outcomes of descendants (Gabrielli et al., 2022, as cited in Gabrielli and Impicciatore, 2022).

2.3   Examining the Restrictive and Liberal Approaches to Migration and Integration

The increase of migrant inflows to advanced, industrial states in recent decades has sparked considerable debate among the general public and policymakers alike. In characterizing national-level migration and integration policies, it should be understood that such generally fall on a spectrum between what can be considered restrictive or liberal. The restrictive approach aims to limit the entry and permanent residence of migrants through strict visa and asylum regulations, limited welfare benefits for non-citizens, and language/cultural integration requirements (Maksimović and Milosavljević, 2022). Conversely, the liberal approach seeks to facilitate migrant entry through reduced bureaucratic and socioeconomic barriers, such as easier

accessibility of work authorization, stronger social safety nets for newcomers, and government-sponsored integration initiatives (Maksimović and Milosavljević, 2022).

An important concept to remember when analyzing migration and integration literature is that of the 'liberal paradox,' or the idea that liberal democracies must balance the competing demands perpetuated by capitalism, democracy, and constitutionalism during their formulation of migration policies. Due to how these demands can frequently contradict one another, it is often most realistic to conceptualize migration approaches as that of a "policy mix" (Schultz et al., 2020). All liberal democracies must balance being both open and closed to migration, and thus none can be characterized as taking an approach that is purely restrictive or liberal. That said, certain tools or instruments can empirically measure the relative restrictiveness of migration policy mixes, such as MIPEX or the Migrant Integration Policy Index (Niessen and Huddleston, 2009, as cited in Maksimović and Milosavljević, 2022). In the 2020 index, Denmark received an overall score of 49 on the MIPEX 100-point scale, below that of most other EU/OECD countries. Denmark scored 65 and 45 on labor market mobility and education respectively, and a far-below average score of 51 on discrimination (Solano and Huddleston, 2020). Sweden, on the other hand, received an overall score of 86, which was within the top three of all the nations analyzed by MIPEX. In terms of labor mobility and education, Sweden received scores of 91 (2nd among all nations) and 93 (1st among all nations) respectively, as well as a score of 100 in discrimination (1st among all nations; Solano and Huddleston, 2020). While the MIPEX is far from an exhaustive source of context, metrics such as this are often an essential feature of migration and integration literature that compares national/individual-level outcomes.

In examining the core findings of the literature that examines restrictive and liberal approaches to migration policy, one can observe that restrictive systems are generally shown to

produce better integration outcomes. For example, a cross-national analysis of integration outcomes conducted by Koopmans (2009) found that multicultural policies resulted in lower rates of migrant labor market participation, as well as higher levels of ethnic segregation and crime committed by this demographic. This study specifically referenced Sweden as the nation with the highest degree of legal equality for migrants among those analyzed (Germany, France, the United Kingdom, the Netherlands, Switzerland, Sweden, Austria, and Belgium) and asserted that the country's policy approach has led to migrant dependency on its generous welfare system (Koopmans, 2009). Conversely, states such as Germany and Austria (which are comparatively restrictive with naturalization, residence permits and access to welfare benefits) had achieved better outcomes associated with migrant integration, evidenced through higher employment rates, lower levels of spatial segregation and decreased volumes of migrant incarceration (Koopmans, 2009).

Other studies have produced findings that are less definitive than those of Koopmans (2009). For example, Helbling et al. (2020) paired national-level data from the Immigration Policies in Comparison (IMPIC) database and individual-level data on migrant integration from the European Social Survey (ESS). Comparing the data across 22 European countries, they found that a restrictive policy approach to migration and integration did not increase the likelihood of educated migrants entering a given country. Instead, this approach seemed to create barriers based on migrants' region of origin, with those from European OECD states being more likely to acquire naturalization relative to migrants from other regions (Helbling et al., 2020). While restrictive systems were found to have produced better economic integration among migrants, this effect was limited to those from non-EU/OECD states. Additionally, the political integration of migrants, regardless of their region of origin, was worse within countries with a restrictive

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policy mix (Helbling et al., 2020). Thus, Helbling et al. (2020) concluded that, while migration policies do impact the integration outcomes of migrants, this effect is small and limited to migrants from certain regions of origin.

2.4   The Case of Denmark and Sweden

Denmark and Sweden present an intriguing case of two nations that employ wildly different policy approaches to migration and integration, despite being highly similar across various dimensions. The introductory chapter of Haider Abbas's book *Immigration and Integration Policy in Europe: Denmark and Sweden, 1970 - 2010* (2021) serves as the primary piece of literature in explaining the historical development of the Danish and Swedish approaches to migration/integration, as well as the frameworks that seek to justify the disparate policy mixes of these states.

The divergence between the Danish and Swedish approaches to migration and integration can be traced back to the late-1960s and 1970s. Sweden attracted a larger flow of migrants than Denmark even before this period, due largely to (1) the nation's admittance of 180,000 refugees during the Second World War, (2) its stronger post-war economy, and (3) a sizable demand for industrial labor developing within the country (DEMIG, 2015b). These factors led to a sizable migrant population in Sweden by the mid-20th century, and thus the Swedish Immigration Act of 1968 was passed to expand the country's universal welfare state to include newcomers (Abbas, 2021). While regulations to control the inflow of migrants were included, it is essential to recognize that this act fundamentally shifted the focus of Sweden's policy approach: Instead of migration being restricted by the needs of the labor market, Sweden's capacity to offer migrants housing, education and social care was now a factor to be taken into account (Abbas, 2021; DEMIG, 2015b). This liberal, multicultural approach was cemented by the 1975 Swedish

Immigrant and Minority Policy, which set forth three principal integration objectives that the state would seek to achieve. These can be summarized as follows (DEMIG, 2015b):

1. Equality: Under the 1968 Immigration Act, all permanent migrants to Sweden were entitled to the same rights as naturalized citizens, particularly regarding access to the state's welfare system.

2. Freedom of cultural choice: Migrants were allowed to choose the degree to which they assimilated into Swedish culture, and were given complete freedom to maintain their native culture. This objective also led to the introduction of state subsidies for immigrant organizations and the expansion of bilingual education.

3. Partnership: After three years of residency, migrants were granted the right to vote in municipal and provincial parliament elections.

Though Swedish political rhetoric has undergone notable changes in recent years, these two acts have largely defined the nation's approach to migration and integration since its incorporation (Abbas, 2021).

Denmark entered the European Union (then known as the European Economic Community, or EEC) at the beginning of 1973, which introduced a responsibility to guarantee EU nationals the right to free movement between member states. Considering that Sweden did not join this union until 1995, Denmark was therefore considered an easier destination country for EU citizens during this 22-year gap (DEMIG, 2015a; DEMIG, 2015b). Despite this, Denmark's eventual shift toward restrictivism was signaled through its bans on labor migration both in 1970 and 1973 (DEMIG, 2015a; Wiem Olesen et al., 2019). The first prohibition was broader in its enforcement, but was swiftly relaxed. The second limited the entry of migrant workers to just persons originating from the EU, and was not significantly altered until a decade

later (DEMIG, 2015a; Wiem Olesen et al., 2019). Overall, however, Denmark passed relatively few national-level migration and integration policies during the 1970s compared to the sweeping changes adopted by Sweden during this time frame. This was primarily due to the lack of political consensus regarding the issue of migration and the comparatively small number of migrants that entered the country (Abbas, 2021).

The 1980s oversaw a number of interesting developments in the migration and integration policies of both Denmark and Sweden, due in large part to the massive increase in asylum seekers during this decade (Abbas, 2021). The 1983 Danish Aliens Act slightly loosened the country's restrictions on labor migration, allowing individuals to gain work and residence permits so long as they carried specialized skills and no native residents were qualified for the job they intended to work (DEMIG, 2015a). More notable, however, was how this act granted asylum rights to any refugee with a pending case. This applied whether they were a refugee under the United Nations Convention on Refugees or a de facto refugee who did not fulfill these requirements. Considering as well that the new aliens act allowed children, spouses, parents and even distant family members to obtain the right to family reunification, it becomes clear how this act was considered to be among the most liberal migration policies in all of Europe (Wiem Olesen et al., 2019). This shift toward liberal policy did not last long, however, due chiefly to the growth it spurred in asylum seekers (8,700 in 1985, compared to just 300 in 1983). Certain municipalities began to refuse to allocate housing for migrants in an effort to impose their own ceiling on arrivals, and by the end of 1985 the new aliens act was revised to simplify the process of deportation and restrict the accessibility of asylum (Abbas, 2021; DEMIG, 2015a). Following the mid-1980s and through the 1990s, the policies and political rhetoric that characterized the Danish approach to migration and integration shifted further to the right and espoused a greater

degree of restrictivism. Right-wing political parties no longer needed to align themselves with center parties to win support, and subsequently the integration of Muslim migrants into Danish society entered the mainstream political conversation as a topic of intense debate (Abbas, 2021).

Sweden also oversaw a considerable rise in the volume of asylum seekers (peaking at an all-time high of 84,000 in 1992), though its starting position was already much higher than that of Denmark (Abbas, 2021). To accommodate the large influx of refugees, the Swedish Immigration Board developed an ambitious integration program in 1985 that established language/vocational training for this demographic and dispersed the allocation of their housing. The policy regarding residence permits was also altered that year to immediately grant any foreigner such as long as they were believed to be staying within Sweden for at least one year (DEMIG, 2015b). The early 1990s were characterized by high rates of unemployment and a deteriorating Swedish labor market, and from this the issues of migration and integration were increasingly politicized. The New Democracy party, known for its populist underpinnings and far-right rhetoric, was established before the 1991 election and managed to secure 25 parliamentary seats through a migration-critical platform (Abbas, 2021). That said, the Swedish approach to migration and integration remained largely unchanged throughout the 1990s, mainly due to the country's position as an exemplar of the international human rights and migration community (Abbas, 2021). Minor changes were made to the Aliens Act in 1994 to combat human smuggling operations, but the overall policies regarding residence permits and asylum remained unchanged. Moreover, an agreement made that same year between Sweden and the European Economic Area (EEA) allowed any European citizen to migrate to the country for purposes of work or family reunification (DEMIG, 2015b).

The 2000s brought about an increased degree of deviation between Sweden and Denmark regarding migration and integration, due chiefly to these issues taking a high position on the political agendas of both nations (Abbas, 2021). Within Sweden, most of the policies introduced during this period were either minor alterations of existing laws or renewals of the nation's liberal approach to migration and integration. For example, the 2005 Aliens Act allowed asylum seekers to gain work authorization if their case was expected to take longer than four months, and the 2008 Immigration Act removed any numerical limits, occupational restrictions, and educational minimums for labor migrants (DEMIG, 2015b). Migrant students specifically benefitted from the latter act, with them now being able to switch to the work-permit category of visas after completing six months of university credits (DEMIG, 2015b). Support for the far-right Swedish Democrats grew throughout the 2000s, though this party failed to gain a single parliamentary seat until 2010 (Abbas, 2021). As for Denmark, the country's 2001 election resulted in a right-wing majority that further shifted the mainstream political conversation regarding migration and integration. Most notably, a legislative update in 2002 introduced a requirement for all migrants to sign a declaration of faithfulness to Denmark, and for them to secure documentation that certifies their knowledge of the Danish language. This ultimately culminated in the introduction of citizenship tests on the country's history, culture and language in 2007 (Abbas, 2021; DEMIG 2015a). As a whole, this decade represents one of the most significant periods of deviation between Denmark and Sweden in regard to migration and integration policies, wherein most of the major changes implemented by these nations cemented their respective tendencies toward restrictivism and multiculturalism.

Both Denmark and Sweden have seen gradual shifts toward restrictivism throughout the 2010s and early 2020s, though their policy mixes can still be generalized respectively as

restrictive and liberal. Sweden introduced its own form of civic orientation in 2010, which is delivered in a language that could be understood by a given migrant and is comparatively broad in focus (emphasizing fundamental democratic values, human rights, and practical everyday skills; DEMIG, 2015b). Following the peak of the Syrian Refugee Crisis in 2015 and Sweden's decision to grant all Syrian refugees staying in or arriving to the country permanent residency, nativism and anti-immigrant sentiments have seen a dramatic rise in Swedish political discourse (DEMIG 2015b; Karakoç Dora and Erdoğan, 2021). This was particularly evidenced by the success of the far-right Swedish Democrats, who won unprecedented amounts of support in both the 2018 and 2022 elections (Abbas, 2021; Karakoç Dora and Erdoğan, 2021). Denmark, on the other hand, has seen Islam take a central position in the nation's debates regarding migration and integration. The nation's 2015 reduction of social assistance and banning of the burqa evidenced this trend, in addition to the Danish Prime Minister's announcement of a "zero refugee target" (Karakoç Dora and Erdoğan, 2021, p. 518). Although the Danish center-left narrowly won both the 2018 and 2022 elections, it is widely acknowledged that this coalition's shift to a more restrictive stance on migration played a key role in its continued success (Abbas, 2021).

A substantial body of academic literature has devoted itself to understanding the disparities between the Danish and Swedish approaches to migration and integration. This is primarily due to the value this case holds when formulating a most similar research design, being that these neighboring nations display a high degree of similitude regarding their political and electoral structures, population metrics, levels of secularization, and overall economic conditions (Abbas, 2021). Broadly, the academic literature analyzing this disparity in migration/integration policies can be grouped into one of three categories: (1) Those that attribute these policy differences to the distinct historical narratives and experiences of these states, specifically in how

such has affected their view of generating and maintaining social solidarity, (2) those that center around the role of political debate, and how having different "beasts" or enemies of the political mainstream (e.g., the far-right within Sweden and Islam in Denmark) has resulted in policy differences, and (3) those that focus on the structure of party competition, or how the Danish far-right is less dependent of coalitional support than similarly conservative parties in Sweden (Abbas, 2021).

2.5   Gaps in the Existing Literature

There are two significant gaps in the literature relevant to this study: First, there is a lack of scholarly literature that directly compares migrant outcomes in Denmark and Sweden specifically. While many studies have compared migrant outcomes across numerous European countries (Koopmans, 2009; Helbling et al., 2020), these largely fail to account for the national-level differences that transcend traditional policy mixes. Comparing the outcomes observed within, for example, the United Kingdom and Austria can undoubtedly provide interesting insights. However, the sheer number of differences between these two countries (e.g., those based on culture, population, history, geography, party structure, economic status, etc) highlight how difficult it is to isolate the effects of a specific policy approach. A focused comparison between Denmark and Sweden, therefore, offers stronger control over these variables within the framework of comparative migration studies.

Second, there is limited academic research on the outcomes of descendants within European states, let alone Denmark or Sweden explicitly. This is likely because this demographic is legally classified as native-born citizens by many nations. While this study fully acknowledges the process of naturalization experienced by most second-generation migrants, it must be acknowledged that certain barriers may persist in their pursuit of employment and education

(Gabrielli and Impicciatore, 2022). Moreover, an analysis of descendant outcomes can provide valuable insights into the long-term effectiveness of migrant integration within a given state. It can be hypothesized that the nativist principles underlying restrictive policy frameworks facilitate worse integration among descendants (particularly for those of minority ethnic groups), even though this approach is generally assumed to enable superior socioeconomic outcomes by filtering for migrants with high integration potential.

III.   THEORETICAL FRAMEWORK

This study foundationally bases itself upon the push-pull model of migration proposed by Lee (1966), as well as the human capital model pioneered by Sjaastad (1962). Taken together, these models conceptualize migration as a selective and rational act of human capital investment, taken when the "plus" factors of a destination outstrip the "minus" factors of an origin. Policy frameworks act as a key moderating factor between this human capital investment and the socioeconomic outcomes ultimately produced by such. Restrictive systems aim to improve positive selectivity among migrants by filtering for individuals with high integration potential, subsequently improving their labor market integration and human capital development (Koopmans, 2009; Helbling et al., 2020). Conversely, liberal or multicultural frameworks prioritize social inclusion and equal access to state resources. This policy stance theoretically reduces the barriers and challenges migrants face, thereby facilitating their long-term integration (Shirmohammadi et al., 2018; Abdusamatov et al., 2025).

The case of Denmark and Sweden carries enormous research potential due to the immensely different migration and integration policies employed by these nations, despite having high structural similarity. Denmark's restrictive model includes strict work/residency permits, expansive citizenship tests, and mandatory declarations of faithfulness (DEMIG, 2015a;

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Abbas, 2021). Sweden's liberal/multicultural model, in contrast, offers equal access to the country's welfare system and full freedom to maintain one's native culture (DEMIG, 2015b; Abbas, 2021). The moderating effect of these policy mixes is hypothesized to transcend the migrant subpopulation, also impacting their descendants in ways unique to that demographic (Gabrielli and Impicciatore, 2022). Thus, the following hypotheses can be subjected to empirical testing:

$$H_0: \mu_{Denmark} = \mu_{Sweden}$$

$$H_1: \mu_{Denmark} > \mu_{Sweden}$$

$$H_2: \mu_{Denmark} < \mu_{Sweden}$$

Where $\mu_{Denmark}$ represents mean rates of employment and educational attainment in Denmark, and μ_{Sweden} the mean rates of employment and educational attainment in Sweden. This design allows for the evaluation of whether a restrictive approach to migration/integration policies results in higher rates of employment and educational attainment among migrants and their descendants (H1), or if better socioeconomic outcomes are produced across these demographics under a liberal/multicultural system (H2).

While the selection of Denmark and Sweden enables control over various confounding variables (e.g., political/electoral structures, population metrics, overall economic conditions; Abbas, 2021), the role of intersectional identities must also be considered. The existing literature highlights how the socioeconomic outcomes of migrants and descendants are shaped not just by policy contexts, but also by individual-level identities such as ethnicity and gender (as visualized by Figure 3). Non-European migrants/descendants were shown to interact differently with integration policies relative to their European counterparts (Helbling et al., 2020; Gabrielli and

Impicciatore, 2022). Moreover, previous studies suggested that the barriers faced by female migrants are often compounded by their gender (Shirmohammadi et al., 2018; Abdusamatov et al., 2025). Therefore, region of origin (i.e., the proxy for one's ethnicity) and gender serve as control variables in the comparative framework examining Denmark and Sweden, while also standing as the key independent variables in the country-level analyses. This allows for a clean comparison between these policy mixes and a deeper glimpse into how intersectional identities impact migrants/descendants within a country-specific context.

Intersectional Identities
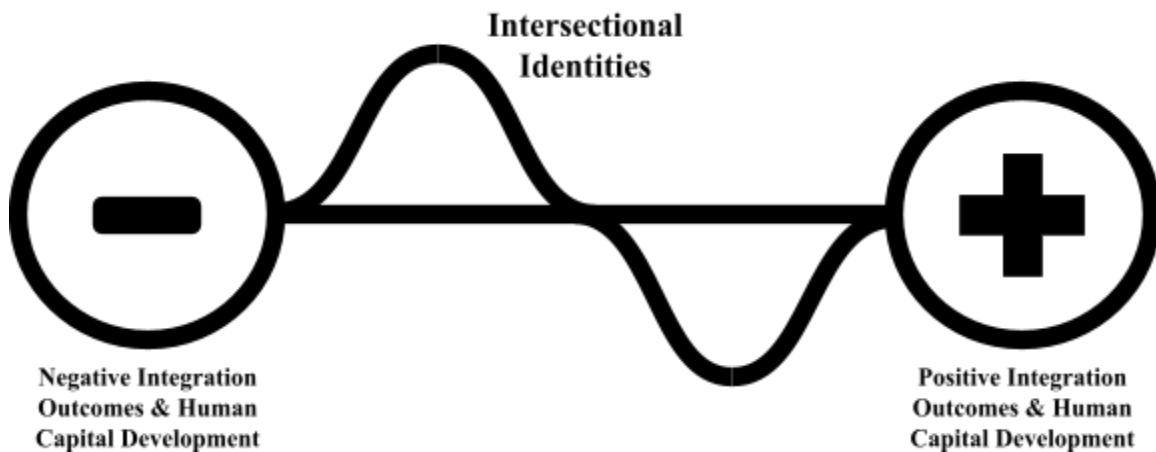
Figure 3: *The Moderating Effect of Intersectional Identities*

IV. METHODOLOGY

3.1 Research Design

This study applied a most similar systems research design (MSSD), leveraging the structural comparability of Denmark and Sweden to hypothetically isolate the impact of migration and integration policies. Through the utilization of t-tests, time-series graphs and multivariate regression analyses, the effect of policy frameworks on migrants and their descendants was examined. Two dependent variables served as the focus of this study: The first

was labor market integration, measured as the percentage of employed individuals within a specific demographic group. The second was educational attainment, treated as an ordinal variable with three categories (1. primary/lower secondary, 2. upper/post-secondary, and 3. tertiary education) and measured through the percentage of individuals in each demographic whose highest level of education fell into that category.

The independent variable of this study was one's country of residence, being that of Denmark or Sweden. These nations respectively served as proxies for the restrictive and liberal/multicultural approaches to migration and integration policies. Region of origin and gender served as control variables in the pooled regression analyses and independent variables in the country-specific analyses. This enabled comparison between the proxies, followed by more nuanced examinations of how each policy mix interacts with specific intersectional identities. It should be noted that every statistical test and analytical technique was applied separately to the two subpopulations, migrants and descendants.

3.2   Data Source

The study utilized datasets from the Nordic Statistics database, which has been funded by the Nordic Council of Ministers since the mid-1960s and gathers data from the Nordic Statistical Institutes, the Nordic Health and Welfare Statistics database, and international sources (i.e., Eurostat, OECD, and the UN). Both datasets ranged from 2016 to 2021, and covered two distinct population categories: (1) Foreign-born individuals with two foreign-born parents (i.e., first-generation migrants) and (2) Native-born individuals with two foreign-born parents (i.e., descendants). It should be noted that foreign-born individuals with native-born, adoptive parents were excluded from the datasets, and that refugees/asylum seekers were not automatically registered as residents within Denmark and Sweden during this time period (and thus may have

been underrepresented by the datasets). Employment and educational attainment rates among the native-born populations of Denmark and Sweden were incorporated to serve as a reference category.

The first dataset provided information on the labor market participation of migrants and descendants, collected by dividing the number of employed individuals within a given group by the total population of said group (e.g., frequency of foreign-born employed = (foreign-born employed) / (total foreign-born population)). The exact number of observations that constituted these aggregates was provided in Appendix B.1, though it must be acknowledged that these values were only displayed in the three most recent years of the dataset (i.e., 2019 to 2021). It should also be noted that there were slight differences between how Denmark and Sweden registered employment: Denmark defined such as persons who worked at least one hour during the week of reference, which can include employees, self-employed individuals or assisting spouses. Sweden, on the other hand, defined labor market participation as those who were registered as "gainfully employed" by administrative sources. Both nations included military service as employment.

The second dataset displayed the educational attainment of migrants and descendants, collected by taking the number of individuals that attained a certain level of education within a given group, and dividing such by the total population of said group (e.g., frequency of foreign-born who had attained a tertiary-level education = (foreign-born who attained tertiary education) / (foreign-born population)). The exact number of observations that composed these aggregates was provided in Appendix B.2, however these values were once again only available between 2019 and 2021. For both nations in this dataset, educational attainment was defined as the highest level of education that an individual had achieved. These levels were grouped into

three categories, informed by the International Standard Classification of Education (ISCED): (1) Primary and lower secondary, or ISCED 1+2, (2) Upper and post secondary, or ISCED 3+4, and (3) Tertiary (i.e., bachelor's, master's or doctoral degrees), or ISCED 5+6+7+8. It should be noted that the data measuring educational attainment did not differentiate between credentials gained pre- and post-migration.

Two control variables were included in the comparative analyses of this study. The first was one's region of origin, separated into seven categories that represented varied levels of cultural, political, and economic similarity to Denmark and Sweden. These were (1) Nordic countries (excluding the reporting country), (2) Countries in the European Union (EU27), European Free Trade Association (EFTA) and the United Kingdom, (3) European countries that are not in the EU27 or EFTA, or the United Kingdom, (4) Africa, (5) Asia (including Türkiye), (6) North America and Oceania, and (7) South and Central America, including Mexico and countries in the Caribbean. It should be noted that, for the descendant subpopulation, the region of origin was representative of their mother's region of birth. If this was unknown, then the father's region of birth was used instead. The second control variable was gender, coded as men and women in the datasets.

To improve the interpretability of the regression results, the following demographics were coded as the reference categories: (1) Denmark for country of residence, (2) native-born individuals for the region of origin, and (3) men for gender.

3.3   Analytical Techniques

Both datasets were imported into RStudio, separated by population category (i.e., migrants and descendants), and formatted into long structures. For those measuring labor market participation, an initial analysis was conducted using Welch's t-tests. Then, visual aids were

constructed in the form of time-series graphs that displayed the employment rates of migrants and descendants in both countries from 2016 to 2021. Finally, two types of linear regression models were estimated: The first was a pooled model, which directly compared migrant/descendant employment rates in Sweden to those in Denmark while controlling for region of origin and gender:

$$Y = \beta_0 + \beta_1(Country) + \beta_2(Region\ of\ Origin) + \beta_3(Gender) + \epsilon$$

The second regression model further separated the subpopulations by country of residence so that the impact of one's region of origin and gender in a Denmark/Sweden-specific context could be analyzed more closely:

$$Y = \beta_0 + \beta_1(Region\ of\ Origin) + \beta_2(Gender) + \epsilon$$

It should be noted that, due to the detection of heteroscedasticity in most of these regression models, robust standard errors (HC3) were applied. This adjustment improved the reliability of coefficient estimates and their associated levels of significance.

For the dataset measuring educational attainment, summary tables were generated to provide an initial assessment of how many migrants/descendants had attained each level of education in Denmark and Sweden (this was separated by country and displayed as proportions, e.g., 52.63% of the migrant subpopulation in Denmark had attained a tertiary education as their highest level of education). Following this, an ordinal logistic regression was estimated for both subpopulations:

$$logit(Y \leq ISCED\ 1 + 2) = \alpha_1 + \beta_1(Country) + \beta_2(Region\ of\ Origin) + \beta_3(Gender)$$

$$logit(Y \leq ISCED\ 3 + 4) = \alpha_2 + \beta_1(Country) + \beta_2(Region\ of\ Origin) + \beta_3(Gender)$$

This enabled an analysis of how each predictor (i.e., one's country of residence, region of origin and gender) affected the likelihood of being in a higher education category. Threshold values

were also produced to evaluate the level of predictor influence needed to progress between the education levels.

3.4   Assumptions and Limitations

The assumptions of non-multicollinearity, normality of residuals, homoscedasticity, and linearity were tested for the linear regression models estimating labor market integration. For the ordinal logistic regression models estimating educational attainment, non-multicollinearity and the parallel regression assumption were tested. As displayed in Appendix C, these tests ensured the validity of the regression models and interpretability of the results.

There are a number of limitations that characterized the study. As referenced earlier, both datasets only provided the number of observations in the three most recent years of the time period. While it can be assumed that the sample sizes for earlier years (i.e., 2016 to 2018) were comparable to those of 2019 onward, this limitation may have modestly impacted the precision and interpretability of the p-values generated by the regression models. Moreover, Denmark and Sweden registered employment differently: Denmark, for example, considered "assisting spouses" as being employed, while Sweden defined employment as any individual registered as "gainfully employed." This could have produced over- or underrepresentation within the data, though it is difficult to state which country would have benefited from this discrepancy.

There was also a significant potential for omitted variable bias: Numerous factors not directly captured by the models (e.g., the size of an individual's social network, levels of discrimination within their city of residence, etc) could have influenced the dependent variables within this study. Age is a notable factor that was omitted from the regression models due to the data's failure to capture how old an individual was when they migrated. It is conceivable, for example, that a 50-year-old who migrated in their 20s would be better integrated than someone

of the same age who migrated in the past decade. Since the data only captured the individual's age during the reference date, it was decided that the subpopulations would not be separated by age group during the testing of these hypotheses. In addition, the data did not directly capture why an individual migrated in the first place; it is entirely possible that persons who involuntarily migrate (i.e., refugees/asylum seekers) would have a more challenging integration process as compared to voluntary migrants, due in part to the different set of policy restrictions applied to this demographic. Paired with the fact that Denmark and Sweden did not automatically register refugees/asylum seekers as residents, it is clear that this omitted variable limited the comprehensiveness of this study's conclusions.

Given the time-series nature of both datasets, there was an inherent risk of serial correlations within demographic groups across the years captured by this study (i.e., 2016 to 2021). This could have biased the standard errors downward, thereby increasing the potential for inflated significance levels and Type I errors. The application of robust standard errors partially mitigated this concern, in addition to the unit of observation being aggregated rather than at the individual-level. As a whole, this study did not seek to establish time-based causal claims, and instead compared differences between countries and demographic groups.

It must also be acknowledged that this study could not definitively establish a causal relationship between migration/integration policies and the socioeconomic outcomes of migrants/descendants. The study did not apply randomized experimentation or disqualify alternative explanations. Causal inference could be constructed through the contextualization provided by the literature review and theoretical framework, but the only relationships that could be drawn between migration/integration policies and migrant/descendant outcomes were ultimately correlative in nature.

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V. RESULTS AND ANALYSES

5.1.1 T-Test Analyses of Employment Outcomes in Denmark and Sweden

A Welch two-sample t-test was used to provide an initial assessment of the differences in employment rates among migrants and descendants in Denmark and Sweden. It can be observed in Table 1 that the average employment rate for migrants in Sweden ($\mu = 68.36\%$) was significantly higher than those within Denmark ($\mu = 63.95\%$; $p = .002$). This suggested that, at the most basic level of comparison, migrants within Sweden were better integrated into the country's labor market. This employment gap was even more pronounced for second-generation migrants: In Denmark, descendants saw a lower average employment rate ($\mu = 68.23\%$) than even first-generation migrants in Sweden. The average employment rate of descendants within Sweden ($\mu = 74.49\%$) further cemented the overall trend that can be perceived from these t-tests ($p < .0001$).

T-Test Results: Labor Market Outcomes in Sweden and Denmark

	Group	Mean Sweden	Mean Denmark	t Value	p Value	CI Lower	CI Upper
1	Migrants	68.356	63.951	3.216	0.002	1.703	7.107
2	Descendants	74.488	68.231	6.422	0	4.335	8.178

Table 1: *T-Test Results - Labor Market Outcomes in Denmark and Sweden*

5.1.2 Employment Rates Over Time for Migrants and Descendants

The initial findings provided by the t-tests were supported and visualized through time-series line graphs for both subpopulations. Figure 4 displays the employment rate of foreign-born individuals aged 20-64 in Denmark and Sweden from 2016 to 2021. A gap between the two countries can be observed throughout the time period, with Sweden maintaining higher

employment rates overall. Denmark exhibited a clear upward trend, rising by approximately 10 percentage points throughout the time period and nearly closing the gap by the final year. Sweden also demonstrated an upward trend, though it was much more gradual than that of Denmark (rising by approximately five percentage points throughout the time period).
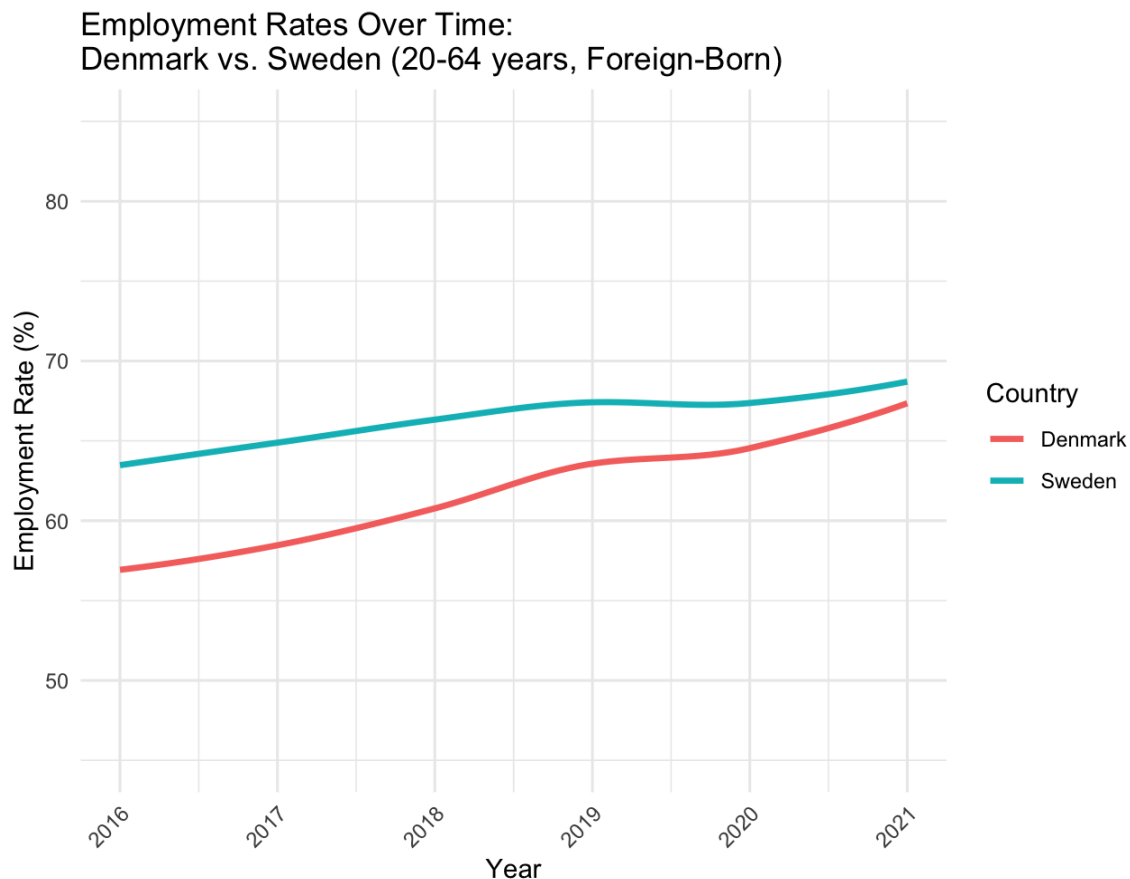
Figure 4: *Migrant Employment Rates - 2016 to 2021*

Figure 5 shows the employment rate of descendants within Denmark and Sweden from 2016 to 2021. The pattern was relatively similar to that exhibited by the migrant subpopulation, with descendants in Sweden having higher rates of employment throughout the time period. However, the upward trend displayed by Denmark was notably sharper in the later years, rising by approximately five percentage points from 2019 to 2021. Although Sweden displayed a

comparatively horizontal trend, the larger initial disparity resulted in a greater employment gap

by the final year of this time period when compared to the migrant subpopulation.
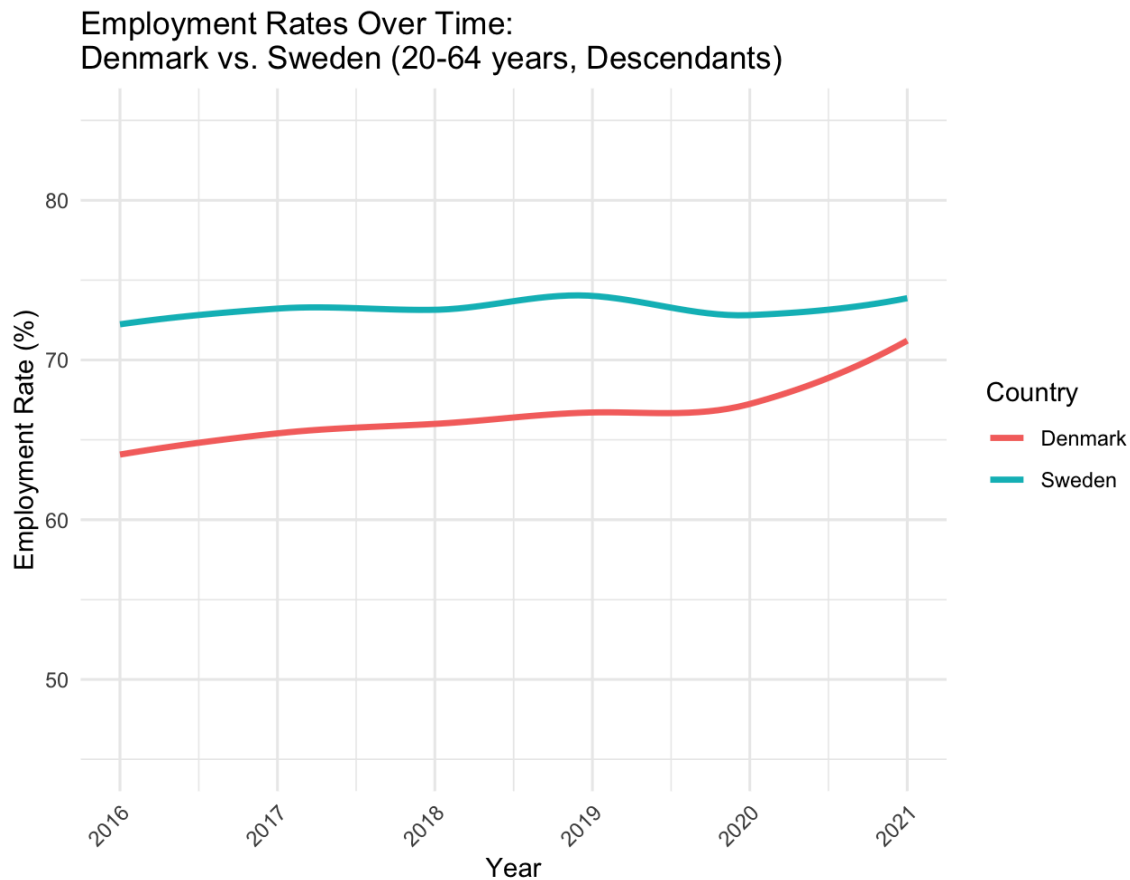
Figure 5: *Descendant Employment Rates - 2016 to 2021*

5.1.3   Regression Analyses: Comparing Employment Outcomes in Denmark and Sweden

Table 2 presents the pooled regression results for migrants, using male, native-born

individuals from Denmark as the reference category. The coefficient for Sweden was positive

and statistically significant ($b = 4.41$, $p < .01$), indicating that, on average, migrants in Sweden

had an employment rate that is approximately 4.41 percentage points higher than their

counterparts in Denmark while controlling for intersectional identities like region of origin and

gender. Migrants from Africa exhibited the lowest employment rates relative to natives ($b =$

-25.77, $p < .01$), followed by those from Asia and Türkiye ($b = -24.56$, $p < .01$). Migrants from the EU, EFTA and the United Kingdom had the smallest employment gap compared to the native population, though this discrepancy was still statistically significant ($b = -10.93$, $p < .01$). Additionally, female migrants were shown to have experienced lower employment rates compared to men, as reflected in their negative and significant coefficient ($b = -6.69$, $p < .01$).

Labor Market Outcomes for Migrants: Pooled Regression Results

	Dependent variable:
	Employment Rate
Country: Sweden	4.405***
	(0.632)
Region of Origin: Nordic countries (excl. reporting country)	-13.067***
	(1.102)
Region of Origin: Africa	-25.771***
	(1.226)
Region of Origin: Asia (incl. Turkiye)	-24.563***
	(1.021)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-10.925***
	(0.844)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-13.363***
	(0.926)
Region of Origin: North America and Oceania	-19.621***
	(0.965)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-12.062***
	(0.888)
Gender: Women	-6.689***
	(0.632)
Constant	82.217***
	(0.525)
Observations	192
R^2	0.816
Adjusted R^2	0.807
Residual Std. Error	4.266 (df = 182)
F Statistic	89.906*** (df = 9; 182)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 2: *Labor Market Outcomes for Migrants - Pooled Linear Regression Results*

Table 3 displays the pooled regression results for the descendants of migrants. Sweden's coefficient was positive and statistically significant ($b = 6.26$, $p < .01$), in addition to being higher than that observed in the pooled regression analysis for the migrant subpopulation. Region of origin seemed to remain as a significant driver of employment gaps among the descendant subpopulation: Descendants of African migrants still had the lowest employment rates relative to the native population ($b = -20.85$, $p < .01$), followed again by those of Asian origin ($b = -12.85$, $p < .01$). The descendants of migrants from other Nordic nations (excluding the reporting countries) now had the smallest employment gap, though it was still statistically significant ($b = -4.95$, $p < .01$). This was noteworthy, considering that this demographic group had a comparable coefficient to individuals from Europe (excluding the EU, EFTA and the United Kingdom) and South/Central America and the Caribbean among the migrant subpopulation. Gender also displayed a notable change, shifting from a negative coefficient among the migrant subpopulation to a positive, statistically significant coefficient for descendants ($b = 1.62$, $p < .01$). As a whole, it can be observed that the employment penalty associated with one's region of origin was present, but lessened for descendants relative to the migrant subpopulation, and the gender penalty appeared to flip (i.e., female descendants saw better labor outcomes compared to male descendants). Moreover, descendants in Sweden saw a slightly greater advantage based on their country of residence as compared to foreign-born individuals, though the positive coefficients associated with Sweden were separated by just 1.85 percentage points across the regression models.

	Dependent variable:
	Employment Rate
Country: Sweden	6.256***
	(0.488)
Region of Origin: Nordic countries (excl. reporting country)	-4.950***
	(0.858)
Region of Origin: Africa	-20.854***
	(1.134)
Region of Origin: Asia (incl. Turkiye)	-12.854***
	(0.948)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-6.342***
	(0.805)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-8.813***
	(0.959)
Region of Origin: North America and Oceania	-12.188***
	(1.183)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-11.725***
	(1.078)
Gender: Women	1.615***
	(0.488)
Constant	77.140***
	(0.854)
Observations	192
R^2	0.813
Adjusted R^2	0.804
Residual Std. Error	3.290 (df = 182)
F Statistic	87.944*** (df = 9; 182)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 3: *Labor Market Outcomes for Descendants - Pooled Linear Regression Results*

5.1.4 Country-Level Regression Analyses: Determinants of Employment Outcomes

Country-specific regression models were estimated for Denmark and Sweden to evaluate the extent to which region of origin and gender impacted labor market outcomes in a national context. Native-born males were once again used as the reference group for each of the regressions.

Migrants in both Denmark (Table 4) and Sweden (Table 5) exhibited lower employment rates relative to their respective native populations, though the size of these negative coefficients varied substantially by region of origin. Within both nations, African migrants ($b = -23.95$ in Denmark, $b = -27.59$ in Sweden; $p < .01$) and Asian migrants ($b = -22.70$ in Denmark, $b = -26.43$ in Sweden; $p < .01$) displayed the largest employment gaps. Migrants from nations within the EU, EFTA and the United Kingdom had the narrowest employment gap within Denmark ($b = -8.00, p < .01$), while those from South/Central America and the Caribbean ($b = -10.38, p < .01$) and non-EU/EFTA/UK European nations ($b = -10.77, p < .01$) fared the best in Sweden. While migrants within both nations lagged behind the native populations in labor market participation, the disparities seen in Sweden across many notable regions of origin (e.g., Africa, Asia, and countries in the EU/EFTA/UK) were more pronounced than those in Denmark. A gender penalty was observed for female migrants within both countries, though this was larger in Denmark ($b = -8.42, p < .01$) than in Sweden ($b = -4.95, p < .01$).

Labor Market Outcomes for Migrants in Denmark: Regression Results

	Dependent variable:
	Employment Rate
Region of Origin: Nordic countries (excl. reporting country)	-11.642***
	(1.462)
Region of Origin: Africa	-23.950***
	(1.910)
Region of Origin: Asia (incl. Turkiye)	-22.700***
	(1.417)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-8.000***
	(0.845)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-15.958***
	(1.148)
Region of Origin: North America and Oceania	-20.600***
	(1.727)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-13.742***
	(1.465)
Gender: Women	-8.423***
	(0.923)
Constant	82.736***
	(0.658)
Observations	96
R^2	0.817
Adjusted R^2	0.800
Residual Std. Error	4.303 (df = 87)
F Statistic	48.522*** (df = 8; 87)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 4: *Labor Market Outcomes for Migrants in Denmark - Linear Regression Results*

	Dependent variable:
	Employment Rate
Region of Origin: Nordic countries (excl. reporting country)	-14.492***
	(1.578)
Region of Origin: Africa	-27.592***
	(1.612)
Region of Origin: Asia (incl. Turkiye)	-26.425***
	(1.340)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-13.850***
	(0.743)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-10.767***
	(0.722)
Region of Origin: North America and Oceania	-18.642***
	(0.499)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-10.383***
	(0.522)
Gender: Women	-4.954***
	(0.694)
Constant	86.102***
	(0.497)
Observations	96
R^2	0.890
Adjusted R^2	0.880
Residual Std. Error	3.237 (df = 87)
F Statistic	88.298*** (df = 8; 87)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 5: *Labor Market Outcomes for Migrants in Sweden - Linear Regression Results*

Within both Denmark (Table 6) and Sweden (Table 7), employment disparities associated with one's region of origin persisted for the descendants subpopulation, though these penalties appeared to be less severe relative to first-generation migrants. African descendants had the largest employment gap within both Denmark (b = -21.40, p < .01) and Sweden (b = -20.31, p < .01). This suggests that, while African descendants see improved employment outcomes compared to their foreign-born counterparts, the degree of labor market integration among this

demographic group lags behind other regions of origin. For example, Asian migrants exhibited the second largest employment gaps in both Denmark and Sweden, having negative coefficients that were approximately one percentage point lower than those of African migrants. While Asian descendants still had the second largest gap within Denmark (b = -13.69, p < .01), the degree of improvement compared to their first-generation counterparts was notably greater than that observed among African descendants. The regions of origin with the narrowest employment gaps were descendants of EU/EFTA/UK migrants in Denmark (b = -6.21, p < .01), and descendants of Nordic migrants in Sweden (b = -3.02, p < .01). With the exceptions of North America/Oceania and nations within the EU/EFTA/UK, descendants from each region of origin saw a smaller employment gap in Sweden relative to Denmark, suggesting stronger long-term labor market integration within the former country. Employment disparities associated with gender seemed to disappear or slightly flip in both countries, though the degree of this change varied: In Denmark, the coefficient for female descendants was positive and not statistically significant (b = 0.95, p > .10). Notably, this was the only coefficient across all estimated models that was not statistically significant. Within Sweden, female descendants were shown to have a small, but positive coefficient (b = 2.28, p < .01), indicating that female descendants were actually better integrated into this labor market relative to their male counterparts.

	Dependent variable:
	Employment Rate
Region of Origin: Nordic countries (excl. reporting country)	-6.883***
	(1.302)
Region of Origin: Africa	-21.400***
	(1.895)
Region of Origin: Asia (incl. Turkiye)	-13.692***
	(1.613)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-6.208***
	(1.283)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-11.233***
	(1.515)
Region of Origin: North America and Oceania	-10.067***
	(1.586)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-12.867***
	(1.989)
Gender: Women	0.954
	(0.793)
Constant	78.048***
	(1.236)
Observations	96
R^2	0.737
Adjusted R^2	0.713
Residual Std. Error	3.701 (df = 87)
F Statistic	30.512*** (df = 8; 87)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 6: *Labor Market Outcomes for Descendants in Denmark - Linear Regression Results*

Labor Market Outcomes for Descendants in Sweden: Regression Results

	Dependent variable:
	Employment Rate
Region of Origin: Nordic countries (excl. reporting country)	-3.017***
	(0.974)
Region of Origin: Africa	-20.308***
	(1.378)
Region of Origin: Asia (incl. Turkiye)	-12.017***
	(1.041)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	-6.475***
	(0.990)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-6.392***
	(0.982)
Region of Origin: North America and Oceania	-14.308***
	(1.326)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	-10.583***
	(1.048)
Gender: Women	2.275***
	(0.475)
Constant	82.488***
	(0.953)
Observations	96
R^2	0.896
Adjusted R^2	0.887
Residual Std. Error	2.216 (df = 87)
F Statistic	94.021*** (df = 8; 87)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 7: *Labor Market Outcomes for Descendants in Sweden - Linear Regression Results*

5.2.1 Distribution of Educational Attainment in Denmark and Sweden

Summary tables were produced to provide an initial assessment of educational attainment among migrants and their descendants in both Denmark (Table 8) and Sweden (Table 9). Note that "Weighted Count" refers to the summation of the percentages observed at a given level of education, while "Percentage" denotes the proportion of migrants and descendants who had

completed that level as their highest degree of education (e.g., the highest level of education for 16.98% of migrants in Denmark was primary or lower secondary).

It can be observed that the proportion of migrants who had attained tertiary education was notably higher within Denmark (52.63%) than in Sweden (42.68%). Attainment of upper and post secondary education was nearly equivalent for migrants in both countries, whereas the proportion who had reached just the primary and lower secondary levels was higher in Sweden (26.25%) relative to Denmark (16.98%). A greater proportion of descendants in Denmark (45.09%) had attained tertiary education compared to those in Sweden (37.33%), though the gap between the two countries was smaller than that observed in the migrant subpopulation. Interestingly, attainment of upper and post secondary levels of education was higher among descendants in Sweden (48.29%), while the proportion of this subpopulation who had only attained a primary and lower secondary education was greater within Denmark (20.64%).

Educational Attainment Distribution by Country (Migrants)

Country	Education Level	Weighted Count	Percentage
Denmark	Primary and lower secondary (ISCED 1+2)	1520.0	16.98
Denmark	Upper & post secondary (ISCED 3+4)	2718.9	30.38
Denmark	Tertiary (ISCED 5+6+7+8)	4710.2	52.63
Sweden	Primary and lower secondary (ISCED 1+2)	2332.8	26.25
Sweden	Upper & post secondary (ISCED 3+4)	2761.4	31.07
Sweden	Tertiary (ISCED 5+6+7+8)	3792.6	42.68

Table 8: *Distribution of Educational Attainment by Country - Migrants*

Educational Attainment Distribution by Country (Descendants)			
Country	**Education Level**	**Weighted Count**	**Percentage**
Denmark	Primary and lower secondary (ISCED 1+2)	1793.0	20.64
Denmark	Upper & post secondary (ISCED 3+4)	2976.5	34.27
Denmark	Tertiary (ISCED 5+6+7+8)	3915.8	45.09
Sweden	Primary and lower secondary (ISCED 1+2)	1361.4	14.38
Sweden	Upper & post secondary (ISCED 3+4)	4572.3	48.29
Sweden	Tertiary (ISCED 5+6+7+8)	3535.0	37.33

Table 9: *Distribution of Educational Attainment by Country - Descendants*

5.2.2 Ordinal Regression Analysis: Comparing Migrant Educational Outcomes in Denmark and Sweden

An ordinal logistic regression model was estimated for the migrant subpopulation, with education level as the dependent variable and native-born males in Denmark as the reference group.

As observed in Table 10, Sweden exhibited a significant negative coefficient (b = -0.47, p < .01), indicating that migrants within the country were less likely to have attained higher levels of education. This was consistent with the findings of the summary tables initially presented, specifically, that a smaller proportion of migrants in Sweden had achieved upper/post secondary and tertiary levels of education compared to Denmark. Region of origin also appeared to have had substantial impact on one's educational attainment: Migrants from Africa (b = 0.84, p < .01) and Asia (b = -0.46, p < .01) exhibited significantly lower educational attainment compared to the reference category of native-born individuals. This was also the case with individuals from non-EU/EFTA/UK countries in Europe, though to a lesser extent (b = -0.10, p < .10).

Conversely, migrants from certain regions of origin (EU/EFTA/UK, Nordic Countries, Oceania and the Americas) exhibited positive, statistically significant coefficients, and thus were observed as being more likely to have achieved higher levels of education. Regarding gender, female migrants were more likely to have attained higher levels of education relative to their male counterparts ($b = 0.22$, $p < .01$).

Educational Attainment for Migrants: Ordinal Logistic Regression

	Dependent variable:
	Education Level
Country: Sweden	-0.468[***]
	(0.029)
Gender: Women	0.217[***]
	(0.029)
Region of Origin: Africa	-0.836[***]
	(0.055)
Region of Origin: Asia (incl. Turkiye)	-0.461[***]
	(0.055)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	0.566[***]
	(0.056)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-0.096[*]
	(0.054)
Region of Origin: Nordic countries (excl. reporting country)	0.457[***]
	(0.055)
Region of Origin: North America and Oceania	1.618[***]
	(0.065)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	0.482[***]
	(0.055)
True Observations	576
Observations	17,836
Note:	[*]p<0.1; [**]p<0.05; [***]p<0.01

Table 10: *Educational Attainment for Migrants - Ordinal Logistic Regression*

5.2.3   Ordinal Regression Analysis: Comparing Descendant Educational Outcomes in Denmark and Sweden

An additional ordinal logistic regression model was fitted for the descendant subpopulation, with education level again serving as the dependent variable. The reference category was the same as the previous models (i.e., native-born males in Denmark).

As seen in Table 11, the results indicated that a number of notable differences existed between the two subpopulations regarding educational attainment. The effect of being in Sweden was still negative ($b = -0.10$, $p < .01$), though the impact of one's country of residence was much smaller than that observed among migrants. Notably, the disadvantages that stem from being of African ($b = -0.08$, $p > .10$) or Asian descent ($b = 0.01$, $p > .10$) seemingly disappeared among the descendant subpopulation, though the coefficient associated with European nations outside of the EU, EFTA, and the United Kingdom ($b = -0.22$, $p < .01$) was actually more negative relative to migrants from the same region of origin. Most regions that saw an educational advantage among the migrant subpopulation retained such for descendants, though to a notably lesser extent (particularly among the descendants of migrants from Nordic countries; $b = 0.03$, $p > .10$). Female descendants exhibited a positive, statistically significant coefficient ($b = 0.57$, $p < .01$) that was greater than that of migrant women. Altogether, it can be observed that the education advantages and disadvantages stemming from one's country of residence and region of origin diminished or disappeared among second-generation migrants, while gender effects remained in favor of women.

Educational Attainment for Descendants: Ordinal Logistic Regression

	Dependent variable:
	Education Level
Country: Sweden	-0.104***
	(0.028)
Gender: Women	0.568***
	(0.028)
Region of Origin: Africa	-0.078
	(0.055)
Region of Origin: Asia (incl. Turkiye)	0.010
	(0.055)
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	0.305***
	(0.055)
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	-0.221***
	(0.054)
Region of Origin: Nordic countries (excl. reporting country)	0.030
	(0.055)
Region of Origin: North America and Oceania	0.591***
	(0.057)
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	0.217***
	(0.057)
True Observations	555
Observations	18,154
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 11: *Educational Attainment for Descendants - Ordinal Logistic Regression*

5.2.4   Threshold Values for Educational Attainment: Migrants and Descendants

In addition to the coefficient estimates associated with the covariates, the ordinal logistic regression produced threshold values between the ordinal categories (i.e., levels of educational attainment) for both migrants (Table 12) and their descendants (Table 13).

The higher values observed for descendants at both the first (-1.28) and second (0.70) thresholds suggested that, compared to the migrant subpopulation, a higher level of predictor influence (i.e., the impact of one's country of residence, region of origin, and gender) was required to progress between the educational levels.

Threshold Values for Migrants (Ordinal Logistic Regression)

Threshold	Estimate
Primary and lower secondary (ISCED 1+2)|Upper & post secondary (ISCED 3+4)	-1.337
Upper & post secondary (ISCED 3+4)|Tertiary (ISCED 5+6+7+8)	0.189

Table 12: *Threshold Values for Migrants - Ordinal Logistic Regression*

Threshold Values for Descendants (Ordinal Logistic Regression)

Threshold	Estimate
Primary and lower secondary (ISCED 1+2)|Upper & post secondary (ISCED 3+4)	-1.277
Upper & post secondary (ISCED 3+4)|Tertiary (ISCED 5+6+7+8)	0.699

Table 13: *Threshold Values for Descendants - Ordinal Logistic Regression*

VI.   DISCUSSION AND CONCLUSION

6.1   Key Findings and Interpretations

The most significant finding produced by this study is that, while restrictive migration/integration policies may result in a more highly educated population of migrants, this does not necessarily result in superior employment outcomes when compared to a more liberal policy mix. Moreover, the disparity observed between these systems regarding educational attainment narrowed or, in some cases, disappeared among second-generation migrants. This is particularly notable given that the observed employment advantage in Sweden increased slightly among the descendant subpopulation. One's region of origin and gender were found to have a significant effect on the employment outcomes and educational attainment of migrants and their descendants, though (1) the impact of these intersectional identities seemed to be less pronounced for second-generation migrants, and (2) some regions of origin (e.g., Africa, Asia,

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and non-EU/EFTA/UK European countries) had more of a negative effect than others (e.g., Nordic countries, as well as EU/EFTA countries and the United Kingdom).

The analyses of employment rates among migrants provided several findings that, as a whole, suggest the liberal policy mix employed by Sweden is associated with superior labor market outcomes relative to the restrictive approach taken by Denmark. When solely comparing the countries and not considering other factors, Sweden had a significantly higher employment rate among the migrant subpopulation. It should be acknowledged, however, that the mean employment rate observed among native Swedes ($\mu = 83.67\%$) was higher than that of native Danes ($\mu = 78.57\%$). Thus, certain demographic groups with a higher employment rate in Sweden actually exhibited a slightly larger employment gap compared to the native category of reference. For example, the mean employment rate among African migrants was marginally greater in Sweden ($\mu = 56.35\%$) than in Denmark ($\mu = 54.92\%$), but the negative coefficients associated with this region of origin (as seen in Tables 4 and 5) were harsher in Sweden in comparison to Denmark. This pattern occurred across four of the seven regions of origin included in the country-level regression models. Thus, it can be interpreted that even though migrants generally exhibited higher rates of labor participation in Sweden, this is in no small part attributable to the higher native employment rates in the country when compared to Denmark. As for gender, female migrants exhibited worse labor market integration relative to their male counterparts, with this negative effect being more pronounced in Denmark than in Sweden.

The regression models subsetting the descendant subpopulation showed that this demographic exhibited improved labor market integration compared to first-generation migrants, regardless of their country of residence, region of origin and gender. That said, the positive effect of being in Sweden was shown to have slightly increased among the descendant subpopulation,

suggesting that this country's policy approach produces better long-term integration outcomes when intersectional identities are controlled for. This was further supported by the country-level analyses, which showed that all regions of origin (except for North America and Oceania) had a smaller or near-identical employment gap in Sweden compared to Denmark. It should be acknowledged, however, that the region of origin with the largest employment gap observed among the migrant subpopulation (i.e., African migrants) only shrunk by five percentage points among second-generation migrants. This was a comparatively small shift relative to other regions of origin, suggesting that race-based discrimination is an inhibitive factor in the labor market integration of descendants. Interestingly, the gender penalty exhibited by the migrant subpopulation seemed to flip in favor of women during the pooled regression model estimated for descendants. Further examination through the country-level analyses showed that this shift was primarily exhibited in Sweden, while the effects associated with gender seemed to disappear entirely within Denmark.

The findings enabled by the summary tables, ordinal logistic regression models, and threshold values related to the educational attainment of migrants suggest that a greater proportion of this subpopulation has reached higher levels of education in Denmark than in Sweden. Region of origin was shown to have a highly significant impact on the educational attainment of migrants, with some (e.g., Africa and Asia) exhibiting far lower educational attainment relative to the native category of reference. Others (e.g., countries in the EU/EFTA and the United Kingdom, Nordic countries, Oceania, and countries in the Americas) displayed higher levels of educational attainment when compared to the native populations of Denmark and Sweden. The effect of gender was shown to favor women, though this positive coefficient was smaller than that associated with country of residence or any region of origin. Altogether

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though, these results are drastically limited by the fact that the country where a migrant received their education was not specified. Thus, it is impossible to determine whether Denmark's policy approach actually results in migrants having easier access to higher levels of education. Perhaps the smaller population of migrants within Denmark enables the country to better integrate this demographic group into the nation's education system. Alternatively, it can be interpreted that the restrictive migration system employed by this country filters for highly-educated individuals, which subsequently results in a greater proportion of this subpopulation having attained upper/post secondary and tertiary levels of education when compared to Sweden.

Among descendants, it was found that this subpopulation exhibited greater levels of educational attainment in Denmark than in Sweden, but to a notably lesser extent when compared to migrants. The positive and negative effects associated with one's region of origin seemed to shrink or disappear entirely (except for the descendants of migrants from non-EU/EFTA/UK European countries). This was particularly notable among the descendants of African and Asian migrants, which were the regions of origin with the most drastically negative coefficients estimated by the migrant-subsetted model. The educational disadvantage associated with these regions seemed to disappear among the second generation, evidencing a great degree of integration into the education systems of Denmark and Sweden. Interestingly, the positive effect of being a woman appeared to grow among the subpopulation of second-generation migrants, suggesting that female descendants are even more likely to attain higher levels of education relative to their migrant counterparts.

To summarize, it was found that migrants in Denmark had attained higher levels of education relative to those in Sweden, though this may have stemmed from restrictive migration policies favoring those who had already completed tertiary levels of education. This is supported

by the educational patterns observed among the descendant subpopulation: Although Denmark still held an advantage in the educational attainment of second-generation migrants (perhaps as a result of these individuals largely being raised by highly educated parents), the gap between the two countries was lessened. Still, the hypothesis that a restrictive approach to migration/integration policies results in better educational outcomes among migrants and their descendants (H1) seems to be supported overall:

$$H_1: \mu_{Denmark} > \mu_{Sweden}$$

It did not appear, however, that the higher levels of educational attainment seen across both subpopulations in Denmark contributed to improved labor market integration. Conversely, Sweden seemed to exhibit superior employment outcomes for both migrants and their descendants. This could have resulted from the Swedish government's embracing of multiculturalism, comparative lack of xenophobia/discrimination, or the comparatively high employment rate of native Swedes elevating those of migrants and descendants. That said, the findings of this study support the hypothesis that the liberal policy approach employed by Sweden results in superior labor market integration for both first and second-generation migrants (H2):

$$H_2: \mu_{Denmark} < \mu_{Sweden}$$

Region of origin was shown to play an important role in the educational and employment outcomes of migrants/descendants in both countries, though the impact of such seemed to vary region by region. In particular, African migrants and their descendants appeared not to be well integrated into the labor markets of either country, suggesting that racial discrimination or other social factors play an inhibitive role for first- and second-generation migrants in both Denmark and Sweden. Moreover, a gender penalty exists among migrant women in their pursuit of

employment, though (1) this seemed to be harsher in Denmark, (2) this penalty did not persist among their descendants, and (3) female migrants/descendants seemed to attain higher levels of education than their male counterparts.

6.2   Relation to Existing Literature

The findings of this study contribute to migration and integration literature due largely to its unique comparative focus on Denmark and Sweden (two highly similar nations with drastically different approaches to migration/integration policies). Much of the comparable, existing literature relied on broad cross-national comparisons of integration outcomes (Koopmans, 2009; Helbling et al., 2020). While this strategy may allow for expansive analyses and the identification of general trends, it risks overlooking the social, economic and political differences that shape integration outcomes at the country-specific level. By isolating Denmark and Sweden in a most similar research design, this study controlled for confounding variables such as political/electoral structures, population metrics and overall economic conditions (Abbas, 2021). From this, a more focused evaluation of restrictive and liberal approaches to migration/integration policies was enabled.

A frequent claim within the relevant literature is that liberal policy mixes lead to worse economic integration among migrants when compared to restrictivism. For example, Koopmans (2009) found that the multicultural policies employed by Sweden led to worse rates of migrant labor market participation when compared to nations with a restrictive policy approach, due largely to a hypothesized dependence on Sweden's welfare model. The conclusions drawn by this study challenge that assertion: Labor market participation was found to have been higher among migrants in Sweden than those in Denmark, a country with a restrictive policy mix. This dissimilarity could stem from Koopmans (2009) incorporating different proxy nations to

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represent the restrictive approach to migration/integration policies (i.e., Germany and Austria), though it is argued that a comparison between Denmark and Sweden allowed tighter control over confounding variables. Thus, it is suggested that multicultural integration policies facilitate superior labor market outcomes when the countries captured by the study are highly similar.

This study also found that migrants in Denmark exhibited higher levels of educational attainment than their counterparts in Sweden, which contrasts with Helbling et al. (2020) and their conclusion that restrictive policy approaches did not significantly increase the likelihood of highly educated migrants entering a country. It should be noted that the cross-national analysis conducted by Helbling et al. (2020) included 22 nations; therefore, their observed differences in the educational attainment of migrants may have appeared less drastic than the two-country comparison of this study. Moreover, it should be noted that states generally employ a "policy mix" rather than a purely restrictive or liberal approach (Schultz et al., 2020). It is therefore possible that the policy mix of Denmark uniquely facilitates the entry of highly educated migrants when compared to other countries that embody restrictivism. After all, the broader goal of restrictive migration systems is to increase the positive selectivity and integration potential of the migrants that enter a given country, as outlined by the push-pull model (Lee, 1966). However, given that this study does not distinguish between education obtained pre- and post-migration, it remains unclear whether Denmark is actively selecting for better-educated migrants or if differences emerge due to educational opportunities that arise after relocation.

Despite some of the differences observed between this study and the prior literature, numerous findings align with those produced by previously published works. In their synthesis of 106 empirical studies, Shirmohammadi et al. (2018) found that national-level policies (e.g., attainability of employment authorization and government-sponsored integration initiatives) had

a direct impact on the positive employment outcomes of migrants and that gender had a moderating effect that resulted in female migrants being less likely to find qualification-matched employment. Both of these observations are empirically supported by the findings of this study: When controlling for gender and region of origin, it was found that migrants in Sweden had a significantly higher rate of labor market participation relative to Denmark. This is highly notable, considering that Sweden has invested in vocational training and language support for migrants since 1985, while Denmark has frequently enacted policies that complicate the accessibility of work authorization (DEMIG, 2015a). Moreover, female migrants were found to have had a lower employment rate when compared to their male counterparts, confirming that gender may stand as an inhibitive factor that can moderate the labor market outcomes of migrants.

Regarding one's region of origin, Gabrielli and Impicciatore (2022) highlighted the role of 'ethnic penalties' among the descendants of migrants in their pursuit of employment and education. Indeed, certain regions of origin (particularly that of Africa and Asia) were found to face significant disadvantages in employment and educational attainment across the migrant subpopulation. Furthermore, this disadvantage was shown to be inherited by the descendant subpopulation, though it was observed that this penalty varied by country of residence (Sweden had slightly smaller employment gaps across most categories) and region of origin (African descendants had a notably larger employment gap among descendants than other regions). Considering, however, that Denmark and Sweden exhibited the same general patterns across the regions of origin captured by this study, it remains unclear whether multicultural integration policies meaningfully mitigate 'ethnic penalties.'

This study helped bridge the gap in the existing literature by comparing the long-term integration outcomes of two nations that (1) are highly similar, and (2) employ starkly different

approaches to migration policies. Some findings, such as the moderating effect of gender and the existence of 'ethnic penalties,' align with claims made within prior literature. Others, like the rate of labor market participation being higher in the multicultural policy mix employed by Sweden, seem to contrast with presumptions made in the existing literature on migration/integration. Through the utilization of a most similar research design and unique examination of both migrants and their descendants, this study highlighted the need for future research to further disentangle the mechanisms through which integration policies shape socioeconomic outcomes.

6.3   Implications on Policy

This study found that Denmark, a country that employs a restrictive approach to migration and integration policies, had a population of migrants with significantly higher levels of educational attainment. Additionally, it was found that rates of labor market participation were higher among first- and second-generation migrants within Sweden, a country that takes a comparatively liberal approach to migration. From this, a number of notable insights emerge for policymakers aiming to improve the long-term integration of migrants and their descendants.

It is clear that simply embracing restrictivism as a policy approach does not guarantee superior labor market integration, as evidenced by the comparison of migrants and their descendants in Denmark and Sweden. This could be for a number of hypothetical reasons, such as (1) the relative ease of attaining work authorization in Sweden, (2) government-sponsored language training and integration initiatives succeeding in their intended effect, or (3) the higher employment rate of the native Swedish population uplifting the labor market participation of migrants and descendants. These hypotheses must be tested through further research, as it may be the case that reducing the barriers associated with work authorization and investing in

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language/vocational training improves the long-term integration of migrant populations. Alternatively, it is possible that increasing the overall employment rate of a country (across natives, migrants and descendants) may stand as a viable means to improve economic integration, which can be hypothetically achieved through tax cuts on businesses, public works projects and/or hiring credits.

Denmark appeared to have had a significantly larger proportion of higher-educated migrants relative to Sweden, despite the latter country having higher employment rates among this demographic group. The importance of further research is once again apparent, as there is a hypothetical possibility that Denmark sees higher rates of qualification-matched employment or lower rates of underemployment. Alternatively, it may be the case that a large portion of highly educated migrants within Denmark attained their credentials outside of their country of residence, which could lead to issues of non-recognition. Therefore, it may be beneficial to craft policies that improve the recognition and validity of foreign credentials within Denmark, though this recommendation hinges on further research that more thoroughly examines educational attainment pre- and post-migration. Conversely, if Sweden sees high rates of migrant employment that is comparably low-skilled or non-qualification-matched, this country could (1) invest in education initiatives for migrants within their new country of residence, or (2) consider selective migration pathways that match high-skilled individuals with qualification-matched employment.

It was found that both Denmark and Sweden exhibited significant employment gaps across regions of origin, particularly for African/Asian migrants and African descendants. Migrant education gaps were also present, and seemed to persist among descendants from non-EU/EFTA/UK European countries. This suggests that neither policy model presents a

complete resolution to the issue of 'ethnic penalties:' Within Sweden, for example, the employment disadvantages associated with one's region of origin appeared less pronounced among second-generation migrants across almost every region of origin. Among the migrant subpopulation, however, the coefficient estimated for over half of the regions were more negative in Sweden than in Denmark. From this, it could be interpreted that both nations should implement targeted labor market interventions for migrants and their descendants from disadvantaged backgrounds (e.g., skill recognition programs, mentorship initiatives, affirmative action policies, etc). Moreover, anti-discrimination enforcement and workplace diversity initiatives could hypothetically limit 'ethnic penalties,' though Sweden's long history of adopting such policies raises questions about their overall ineffectiveness (DEMIG 2015b; Solano and Huddleston, 2020).

Gender was also found to be a factor that moderates the labor market integration of migrants/descendants, though to a varying effect (1) by country of residence and (2) by subpopulation. More specifically, female migrants appeared to face lower employment rates in both Denmark and Sweden, suggesting that structural barriers inhibit the labor market integration of this demographic group. This employment gap appeared to reverse among the descendants of migrants, and measures of educational attainment consistently favored women across both subpopulations. It could be hypothesized that a liberal policy mix facilitates the long-term integration of female migrants, evidenced by the significant, positive shift in employment from female migrants to female descendants seen in Sweden. However, it can be observed that both nations captured by the study saw a gender penalty observed within the migrant subpopulation, which may be a result of this demographic being less likely to obtain qualification-matched employment and/or facing barriers when they relocate as dependents (Shirmohammadi et al.,

2018). Altogether, both nations could hypothetically benefit from expanding support and reducing barriers for female migrants, whether through childcare subsidies, job training programs or gender-inclusive workplace policies.

6.4.1   Methodological Limitations

While this study provided a comprehensive comparison between Denmark and Sweden, there are several limitations that should be acknowledged and addressed with further research. This study relies on secondary data, which limited its ability to measure causal relationships and created potential biases due to reporting differences between Danish and Swedish statistical agencies. While this was not an issue with the dataset measuring educational attainment, there was a notable difference between the countries in defining employment: Denmark defined any individual who had worked at least one hour during the reference week as employed, while Sweden defined labor market participation as those who are registered as "gainfully employed" by administrative sources. It is difficult to assess which country would be over/under-represented by this potential source of measurement bias. Still, this difference stood as a noteworthy limitation of this study nonetheless. In addition, Denmark and Sweden do not automatically register refugees/asylum seekers as residents, and the datasets did not differentiate between migrants who relocated for voluntary or involuntary reasons. It is likely that an individual who is fleeing warfare or persecution would face an incredibly different integration process than someone seeking a better job or education. And since many of the policies enacted by both nations target specific types of migrants (e.g., refugees, asylum seekers, labor migrants, those reunifying with their families, etc), it is clear that this study is limited by its inability to separate individuals who moved for voluntary and involuntary reasons.

Beyond potential measurement biases, both datasets are also limited in some way by which variables they are capturing. The dataset reflecting the employment rates of migrants and descendants did not account for underemployment, and thus there is an argument to be made that the higher rates of labor market participation within Sweden did not reflect actual economic integration. In actuality, migrants/descendants in Denmark may have higher rates of qualification-matched employment. If so, this finding would not have been captured by this study. Moreover, the dataset measuring the educational attainment of migrants/descendants did not specify whether one's credentials were earned abroad or within their country of residence. Thus, the only conclusion that can be drawn from the analyses on this dataset is that educational attainment is proportionally higher in Denmark than in Sweden among migrants and, to a lesser extent, descendants. Whether this is due to filtering, superior educational integration or social factors can only be hypothesized within the context of this study.

Lastly, there was an expansive list of potential omitted variables that were not captured as covariates within this study. Language proficiency, for example, is a known determinant of integration outcomes among migrants that was not operationalized or measured (Shirmohammadi et al., 2018; Gabrielli and Impicciatore, 2022). In addition, moderating factors such as discrimination and the size of one's social networks have been shown to have a profound effect on the long-term integration of both migrants and their descendants (Shirmohammadi et al., 2018; Gabrielli and Impicciatore, 2022; Solano and Huddleston, 2020). While the country of residence, region of origin and gender of migrants/descendants stood as logical covariates within the scope of this study, there are a large number of omitted variables that limited its overall comprehensiveness.

6.4.2 Suggested Future Research

There are a number of ways in which the methodology of this study could be altered to further examine the socioeconomic outcomes of migrants/descendants in Denmark and Sweden. A future study that utilizes longitudinal data tracking the employment and educational outcomes of individual migrants would be incredibly enlightening. From this, researchers could account for whether education is attained pre- or post-migration, and how integration outcomes improve, decline and/or stagnate based on length of stay. This type of study would allow for a more nuanced understanding of how restrictive and liberal policy mixes affect the long-term integration of individual migrants and subsequently enable the formulation of more decisive conclusions.

This study used Denmark and Sweden as proxy nations that respectively embody the restrictive and liberal approaches to migration/integration policies. While this strategy is supported by the existing literature (Abbas, 2021), future studies could examine the effects of specific policies (e.g., job training programs, language acquisition support, citizenship tests, etc) and draw stronger conclusions. For example, researchers could investigate the economic and social integration of migrants before and after the passing of Sweden's 2010 law on civic orientation (DEMIG, 2015). This research method could be expanded to a comparative policy analysis between Denmark and Sweden, and subsequently enable more profound interpretations regarding the overall effectiveness of restrictive/multicultural policies.

One of the core limitations of this study was its lack of separating specific types of migrants (e.g., refugees, labor migrants, etc). Future research could isolate these groups and conduct comparative analyses between countries (e.g., Denmark and Sweden) or categories of migrants (e.g., high-skilled and low-skilled migrants, asylum seekers and labor migrants, etc).

The inclusion of descendants would also allow for fascinating insights, as it could be hypothesized that the children of labor migrants would face a less complicated integration process than the descendants of refugees. This research style could also focus on gender (e.g., female migrants who are dependents and non-dependents) and further investigate the gender-based inequalities discussed in the existing literature (Shirmohammadi et al., 2018).

The effect of one's region of origin was found to be significant by this study. Thus, future research should further investigate this finding within the contexts of restrictive and liberal policy systems. Survey data on perceived discrimination could be similarly separated by region of origin to test if a given policy approach has a significant, individual-level effect. Moreover, experiments could be conducted to test for hiring discrimination and if a given policy approach mitigates employer biases. It is believed that this type of research could play a key role in contextualizing the findings of this study (e.g., if higher rates of hiring discrimination are found for migrants/descendants of African or Asian descent).

While this study focused on employment and educational attainment, various other dependent variables could be analyzed through future research. Income disparities would be a critical outcome considering the findings produced by this study: While Sweden exhibited higher rates of migrant/descendant employment, it could be hypothesized that the larger proportion of highly educated migrants in Denmark translates to increased earnings. This would allow for research more aligned with Shirmohammadi et al. (2018) and their examination of qualification-matched employment. In addition, a study that examines social mobility between first- and second-generation migrants could provide important context for the lessened employment gaps observed among descendants: While it appeared that this demographic's labor market integration improved relative to migrants (particularly within Sweden), this may not

necessarily translate to heightened earnings. Beyond one's material well-being, health outcomes would also be a logical research subject, as it is conceivable that integration policies impact the well-being of migrants and, perhaps, their descendants.

6.5   Conclusion

This study sought to investigate how Denmark and Sweden's disparate approaches to migration and integration policies impact the socioeconomic outcomes of migrants and their descendants. It was found that migrants and descendants in Sweden exhibited higher rates of labor market participation than those in Denmark, challenging a common assumption in the existing literature that restrictive migration policies improve economic integration. A greater proportion of migrants in Denmark had higher levels of educational attainment, suggesting that a restrictive policy approach may have filtered for better-educated individuals. This pattern persisted among the descendants of migrants, though to a lesser extent. The existence of 'ethnic penalties' was empirically supported across both subpopulations, particularly among migrants and descendants of African/Asian descent. While the extent of this disadvantage seemed to lessen within the descendant subpopulation, this varied across demographic groups. Gender disparities were evidenced by the lower employment rates exhibited by female migrants, although female descendants in Sweden were notably found to have had higher rates of labor market participation relative to men.

Unlike the broad cross-national comparisons that make up a significant portion of the existing literature, this study isolated Denmark and Sweden using a most similar research design. This allowed for more confounding variables to be controlled for, and subsequently enabled a more precise evaluation of restrictive and multicultural policy mixes. The design of this study holds relevance to policymakers through its unique assessment of both first- and

second-generation migrants, in addition to the findings that suggest multicultural policies may facilitate superior labor market integration. This implication carries relevance beyond just Denmark and Sweden, since migration and integration are issues that characterize most advanced, industrial states across the globe. While the limitations of this study should be acknowledged, it is clear that these findings and those produced through future research can contribute to policy debates regarding migration and the long-term socioeconomic integration of the demographics involved.

VII.   BIBLIOGRAPHY

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VIII.   APPENDICES

A   Supplementary Notes on the Existing Literature

Though Sjaastad (1962) did not explicitly present a formal equation in his paper,

Bodvarsson et al. (2015) demonstrated that such can be expressed in discrete time as:

$$\pi = \sum_{t=1}^{T} \frac{W_t^B - W_t^A}{(1+i)^t} - \sum_{t=1}^{T} \frac{CL_t^B - CL_t^A}{(1+i)^t} - C(D, X)$$

where π represents the net present value of migrating, T the number of periods in which a person

will retire, W_t^B and W_t^A their earnings per period within the destination and origin respectively,

CL_t^B and CL_t^A the cost of living within the destination and origin respectively, i the discount rate,

C the cost of migrating (e.g., losses incurred by selling one's home), D the distance between

origin and destination, and X a vector for any other costs associated with migrating (e.g., cost of

obtaining a visa). In continuous time, this model can be expressed as:

$$\pi = \int_{t=0}^{T} [W_t^B - W_t^A - CL_t^B + CL_t^A]e^{-rt}dt - C(D, X)$$

In both time versions of this model, the decision-maker will only move if $\pi > 0$. They will

compute each equation and select the highest value if they are deciding between multiple

destinations (Bodvarsson et al., 2015).

B.1 Number of Observations in the Employment Dataset

Region of Origin	2019		2020		2021	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Nordic countries (excl. Reporting country)	7,918	11,935	7,879	12,019	8,264	12,618
EU27/EFTA/UK (excl. Nordic countries)	67,521	49,891	67,436	50,502	75,227	56,597
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	15,219	14,869	15,354	15,182	16,332	16,413
Africa	12,195	9,071	12,186	9,448	13,569	10,731
Asia (incl. Türkiye)	58,958	49,914	58,344	50,488	63,188	55,660
North America and Oceania	3,804	2,870	3,828	2,950	4,104	3,274
South and Central America (incl. Mexico and the Caribbean)	4,217	5,274	4,377	5,302	5,097	6,100

Table B1: *Number of Observations in Employment Dataset - Migrants in Denmark*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	32,811	41,720	31,021	39,479	30,164	38,234
EU27/EFTA/UK (excl. Nordic countries)	96,695	84,446	98,723	84,916	104,066	88,893
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	62,179	62,967	62,819	63,238	65,063	65,770
Africa	58,372	42,677	59,190	44,334	65,997	48,564
Asia (incl. Türkiye)	204,241	160,108	210,255	164,864	232,320	180,818
North America and Oceania	7,501	5,432	7,595	5,441	7,922	5,779
South and Central America (incl. Mexico and the Caribbean)	22,488	23,484	22,358	23,267	23,345	24,435

Table B2: *Number of Observations in Employment Dataset - Migrants in Sweden*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	868	808	832	794	878	847
EU27/EFTA/UK (excl. Nordic countries)	2,245	2,143	2,296	2,178	2,473	2,325
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	2,403	2,413	2,615	2,671	3,108	3,090
Africa	1,919	2,035	2,062	2,308	2,749	2,950
Asia (incl. Türkiye)	15,644	14,407	16,628	15,649	19,489	18,334
North America and Oceania	126	107	135	112	141	119
South and Central America (incl. Mexico and the Caribbean)	161	147	166	158	190	176

Table B3: *Number of Observations in Employment Dataset - Descendants in Denmark*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	32,883	32,373	31,938	31,360	31,687	31,269
EU27/EFTA/UK (excl. Nordic countries)	14,679	13,766	14,317	13,551	14,548	13,716
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	12,850	12,498	13,327	12,958	14,483	14,037
Africa	5,044	5,415	5,229	5,792	6,106	6,715
Asia (incl. Türkiye)	25,159	24,382	26,083	25,681	29,093	28,568
North America and Oceania	184	219	182	202	182	212
South and Central America (incl. Mexico and the Caribbean)	4,194	4,065	4,168	4,148	4,413	4,285

Table B4: *Number of Observations in Employment Dataset - Descendants in Sweden*

B.2 Number of Observations in the Education Dataset

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	785	1,029	763	941	724	873
EU27/EFTA/UK (excl. Nordic countries)	5,713	4,215	5,882	4,214	6,110	4,215
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	4,098	3,935	4,115	3,870	4,083	3,795
Africa	6,016	4,702	6,077	4,760	6,053	4,763
Asia (incl. Türkiye)	28,113	27,580	28,155	27,409	27,980	26,967
North America and Oceania	172	123	172	117	177	112
South and Central America (incl. Mexico and the Caribbean)	457	693	467	674	465	648

Table B5: *Number of Observations in Education Dataset - Migrants in Denmark at the Primary and Lower Secondary Levels (ISCED 1+2)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	2,483	3,350	2,455	3,266	2,380	3,201
EU27/EFTA/UK (excl. Nordic countries)	30,204	18,082	30,250	18,399	32,422	19,036
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	7,408	7,559	7,410	7,553	7,374	7,507
Africa	5,237	5,780	5,338	5,900	5,458	6,082
Asia (incl. Türkiye)	21,287	25,493	21,379	25,820	21,554	26,255
North America and Oceania	863	597	845	597	842	609
South and Central America (incl. Mexico and the Caribbean)	1,027	1,840	1,059	1,868	1,098	1,922

Table B6: *Number of Observations in Education Dataset - Migrants in Denmark at the Upper & Post Secondary Levels (ISCED 3+4)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	6,275	10,305	6,416	10,541	6,542	10,782
EU27/EFTA/UK (excl. Nordic countries)	40,097	39,605	41,099	41,184	44,769	44,448
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	8,139	11,252	8,296	11,647	8,888	12,309
Africa	5,263	4,140	5,365	4,333	5,592	4,577
Asia (incl. Türkiye)	29,287	31,126	29,473	32,007	30,943	33,759
North America and Oceania	3,981	3,644	3,968	3,700	4,153	3,949
South and Central America (incl. Mexico and the Caribbean)	3,987	5,120	4,083	5,371	4,550	5,685

Table B7: *Number of Observations in Education Dataset - Migrants in Denmark at the Tertiary Level (ISCED 5+6+7+8)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	9,622	9,116	8,974	8,297	8,330	7,444
EU27/EFTA/UK (excl. Nordic countries)	23,420	15,970	23,938	15,997	24,221	15,851
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	23,553	22,047	23,918	22,001	23,955	21,758
Africa	36,375	34,801	37,435	35,513	38,535	35,984
Asia (incl. Türkiye)	105,688	96,281	108,489	96,903	110,130	96,880
North America and Oceania	893	365	924	381	912	378
South and Central America (incl. Mexico and the Caribbean)	6,844	6,468	6,354	6,836	6,781	6,149

Table B8: *Number of Observations in Education Dataset - Migrants in Denmark at the Primary and Lower Secondary Levels (ISCED 1+2)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	19,771	19,777	18,793	18,826	17,733	17,728
EU27/EFTA/UK (excl. Nordic countries)	27,864	26,079	27,657	25,902	27,878	25,990
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	27,949	25,341	27,910	25,565	27,788	25,695
Africa	18,012	16,992	18,822	18,270	19,880	19,772
Asia (incl. Türkiye)	58,022	59,348	61,197	63,112	63,905	66,656
North America and Oceania	1,523	1,014	1,534	1,001	1,589	1,041
South and Central America (incl. Mexico and the Caribbean)	8,962	9,240	9,274	8,944	8,933	9,324

Table B9: *Number of Observations in Education Dataset - Migrants in Sweden at the Upper & Post Secondary Levels (ISCED 3+4)*

Region of Origin	2019		2020		2021	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Nordic countries (excl. Reporting country)	13,043	22,872	13,006	22,610	12,847	22,128
EU27/EFTA/UK (excl. Nordic countries)	48,316	58,331	49,826	59,843	51,336	61,541
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	20,759	34,213	21,354	35,463	21,831	36,594
Africa	19,684	14,254	20,353	15,269	21,093	16,374
Asia (incl. Türkiye)	93,184	98,776	96,706	103,589	100,715	108,966
North America and Oceania	6,537	5,531	6,717	5,764	6,911	5,999
South and Central America (incl. Mexico and the Caribbean)	10,519	13,879	14,520	11,013	11,516	15,191

Table B10: *Number of Observations in Education Dataset - Migrants in Sweden at the Tertiary Level (ISCED 5+6+7+8)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	179	150	180	144	183	140
EU27/EFTA/UK (excl. Nordic countries)	358	267	372	267	383	260
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	632	440	693	469	763	492
Africa	687	317	784	365	881	405
Asia (incl. Türkiye)	5,301	2,613	5,778	2,797	6,204	2,990
North America and Oceania	32	13	33	13	31	13
South and Central America (incl. Mexico and the Caribbean)	49	22	53	23	57	26

Table B11: *Number of Observations in Education Dataset - Descendants in Denmark at the Primary and Lower Secondary Levels (ISCED 1+2)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	318	268	313	265	324	265
EU27/EFTA/UK (excl. Nordic countries)	844	685	862	703	882	706
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	796	814	912	889	988	957
Africa	574	524	651	568	726	619
Asia (incl. Türkiye)	4,784	4,606	5,211	4,908	5,605	5,194
North America and Oceania	41	32	43	35	47	30
South and Central America (incl. Mexico and the Caribbean)	64	58	71	53	76	55

Table B12: *Number of Observations in Education Dataset - Descendants in Denmark at the Upper & Post Secondary Levels (ISCED 3+4)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	437	514	438	526	451	527
EU27/EFTA/UK (excl. Nordic countries)	1,034	1,216	1,088	1,283	1,128	1,356
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	550	729	670	916	830	1,098
Africa	548	806	640	952	750	1,141
Asia (incl. Türkiye)	4,900	6,863	5,613	7,891	6,411	8,962
North America and Oceania	58	74	58	74	65	79
South and Central America (incl. Mexico and the Caribbean)	71	86	75	93	77	98

Table B13: *Number of Observations in Education Dataset - Descendants in Denmark at the Tertiary Level (ISCED 5+6+7+8)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	7,468	5,806	7,306	5,622	7,078	5,395
EU27/EFTA/UK (excl. Nordic countries)	2,430	1,783	2,415	1,742	2,384	1,670
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	1,836	1,076	1,936	1,131	2,038	1,177
Africa	859	391	987	445	1,107	480
Asia (incl. Türkiye)	4,079	2,078	4,348	2,197	4,557	2,265
North America and Oceania	25	20	28	20	27	19
South and Central America (incl. Mexico and the Caribbean)	790	506	538	826	846	542

Table B14: *Number of Observations in Education Dataset - Descendants in Sweden at the Primary and Lower Secondary Levels (ISCED 1+2)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	23,721	19,017	23,451	18,783	23,071	18,418
EU27/EFTA/UK (excl. Nordic countries)	8,516	6,682	8,464	6,569	8,377	6,493
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	6,662	5,321	7,273	5,718	7,768	6,042
Africa	2,260	1,844	2,578	2,091	2,858	2,312
Asia (incl. Türkiye)	10,611	8,474	11,692	8,995	12,585	9,582
North America and Oceania	115	79	113	83	112	82
South and Central America (incl. Mexico and the Caribbean)	2,245	1,874	1,987	2,357	2,445	2,038

Table B15: *Number of Observations in Education Dataset - Descendants in Sweden at the Upper & Post Secondary Levels (ISCED 3+4)*

Region of Origin	2019		2020		2021	
	Men	Women	Men	Women	Men	Women
Nordic countries (excl. Reporting country)	8,070	13,390	8,098	13,481	8,139	13,558
EU27/EFTA/UK (excl. Nordic countries)	5,947	7,228	6,054	7,403	6,179	7,518
Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	3,075	4,343	3,536	4,989	3,978	5,596
Africa	1,265	1,930	1,537	2,305	1,820	2,726
Asia (incl. Türkiye)	7,866	10,320	9,009	11,918	10,235	13,505
North America and Oceania	78	115	83	121	85	125
South and Central America (incl. Mexico and the Caribbean)	1,070	1,497	1,636	1,209	1,332	1,791

Table B16: *Number of Observations in Education Dataset - Descendants in Sweden at the Tertiary Level (ISCED 5+6+7+8)*

C.1   Assumption Tests for Employment Regression Models

Assumption tests were conducted for each regression model estimated within this study. For the linear regression models (i.e., those fitted using the employment dataset), the assumptions tested were non-multicollinearity, normality of residuals, homoscedasticity, and linearity.

Non-multicollinearity was checked for each predictor (i.e., country of residence, region of origin, and gender) using variance inflation factor (VIF) tests, as displayed in Table C1. Note that a generalized VIF value below four is generally considered acceptable, while values exceeding 10 indicate severe multicollinearity (O'Brien, 2007). No predictor variables exceeded a GVIF of 1, and thus it was confirmed that the regression models did not suffer from significant multicollinearity. It should be noted that these GVIF values were roughly the same (i.e., they exhibited a difference less than .005) across the pooled/country-level models for both subpopulations.

Predictor	GVIF
Country	≈1.00
Region of Origin	≈1.00
Gender	≈1.00

Table C1: *Non-Multicollinearity (VIF) Tests on Predictors - Employment*

The Shapiro-Wilk normality test was conducted on the pooled and country-level regression models to evaluate whether the residuals followed a normal distribution, as shown in Table C2. Note that a p-value greater than .05 indicates that the residuals do not significantly deviate from normality. The p-values exceeded the .05 threshold for all of the regression models,

suggesting that the residuals of the employment models did not significantly deviate from normality.

Regression Model	W Statistic	p-value	Interpretation
Migrants (Pooled)	0.98754	.08976	$p > .05$; Residuals approximately normal
Descendants (Pooled)	0.98841	.1198	$p > .05$; Residuals approximately normal
Migrants in Denmark	0.99263	.88	$p > .05$; Residuals approximately normal
Migrants in Sweden	0.98461	.3247	$p > .05$; Residuals approximately normal
Descendants in Denmark	0.98379	.2842	$p > .05$; Residuals approximately normal
Descendants in Sweden	0.98198	.2108	$p > .05$; Residuals approximately normal

Table C2: *Shapiro-Wilk Normality Tests on Linear Regression Models*

To assess the assumption of homoscedasticity (constant variance of residuals), a Breusch-Pagan (BP) test was conducted for each of the regression models, as displayed in Table C3. Note that a p-value below .05 suggests that heteroscedasticity (non-constant variance) is present. Each of the models exhibited significant heteroscedasticity, except for that estimating the labor market outcomes of descendants in Denmark. Since the primary objective of this study is to provide interpretations (as opposed to predictions), it was decided that the application of robust standard errors was a sufficient solution to correct for heteroscedasticity in the coefficient estimates. Thus, every regression model that analyzed employment outcomes (Tables 2 through 7) was estimated with robust standard errors to ensure reliability.

Regression Model	BP Statistic	df	p-value	Interpretation
Migrants (Pooled)	25.306	9	.00265	$p < .05$; Heteroscedasticity present
Descendants (Pooled)	27.66	9	.001087	$p < .05$; Heteroscedasticity present
Migrants in Denmark	20.207	8	.009582	$p < .05$; Heteroscedasticity present
Migrants in Sweden	38.407	8	6.33e-06	$p < .05$; Heteroscedasticity present
Descendants in Denmark	12.479	8	.1311	$p > .05$; Heteroscedasticity not present
Descendants in Sweden	24.8	8	.00168	$p < .05$; Heteroscedasticity present

**Table C3:** *Homoscedasticity (Breusch-Pagan) Tests on Linear Regression Models*

Linearity was assessed by producing Residuals vs. Fitted plots for each regression model that estimated labor market participation, as shown in Figures C1 through C6. It should be noted that the appearance of distinct patterns (e.g., visible fan/cone shapes, clustering, etc) would indicate non-linearity, while a random scattering of points around zero suggests that the linearity assumption is met. The residuals appeared to be dispersed relatively randomly around the red reference line at zero. Some plots displayed clustering at higher fitted values (particularly within the country-level models for migrants in Denmark/Sweden), though the violation of heteroscedasticity was addressed earlier through the application of robust standard errors. Overall, these plots did not depict any strong visible trends and suggested that linearity was reasonably satisfied for the regression models.

Residuals vs. Fitted Plot: Pooled Migrants
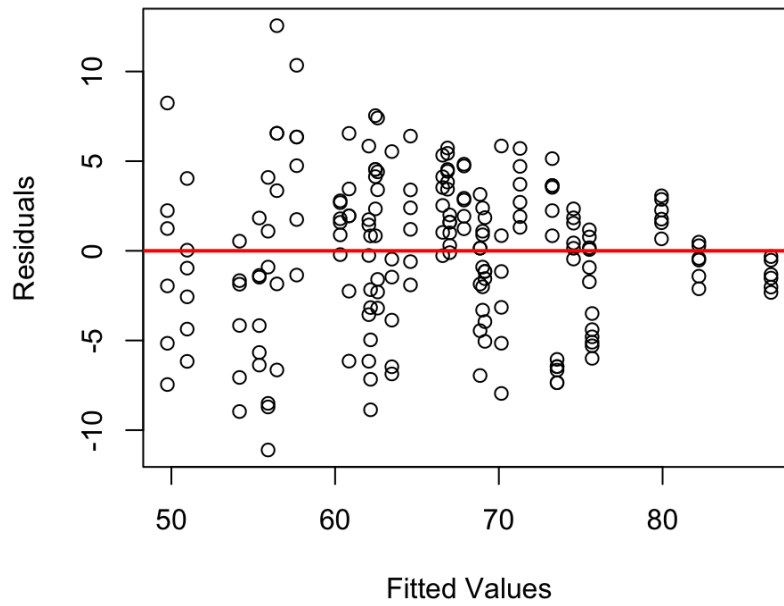
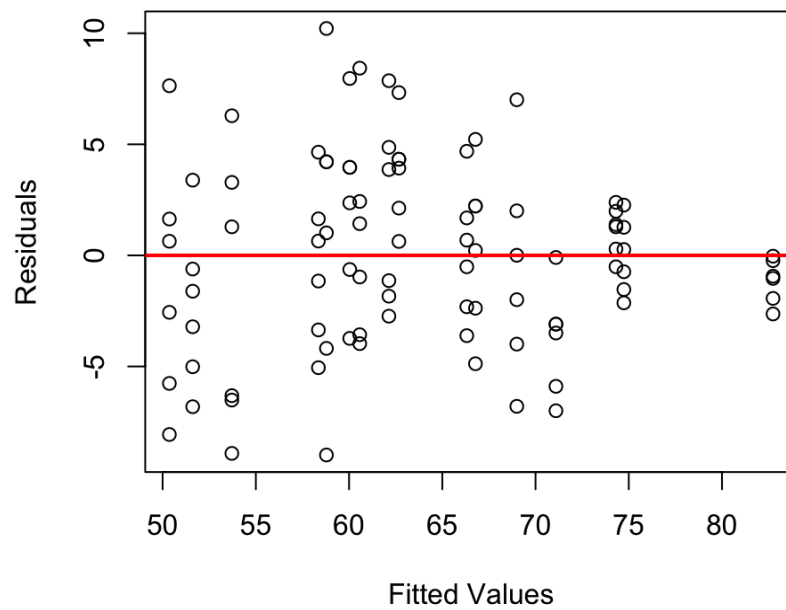**Figure C1:** *Residuals vs. Fitted Plot (Linearity Test) - Migrants*

Residuals vs. Fitted Plot: Pooled Descendants
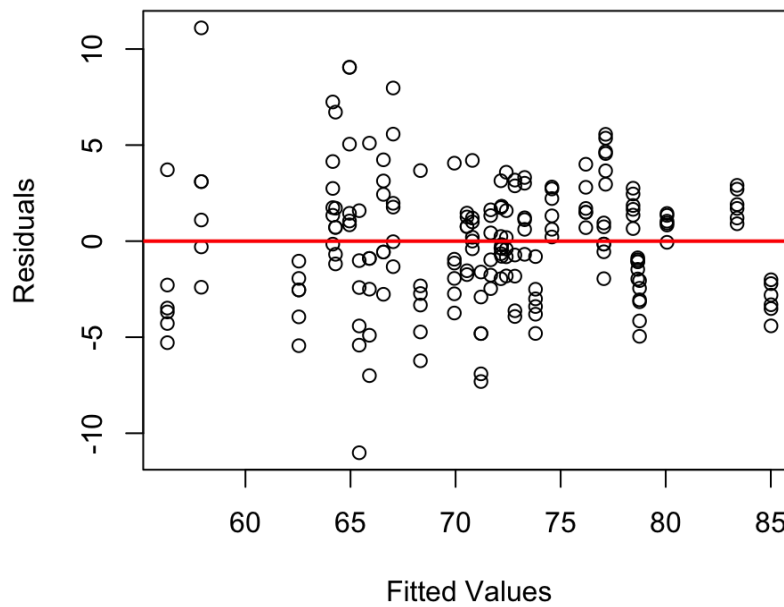
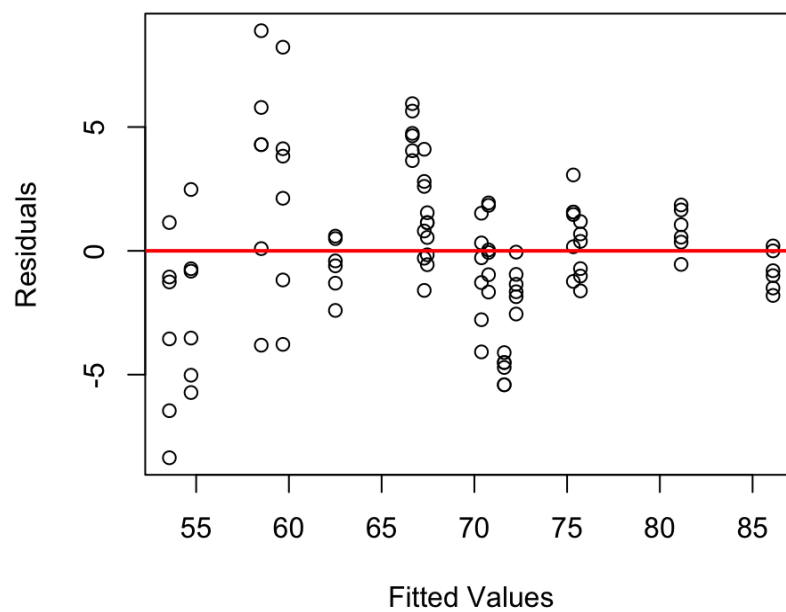**Figure C2:** *Residuals vs. Fitted Plot (Linearity Test) - Descendants*

Residuals vs. Fitted Plot: Migrants in Denmark

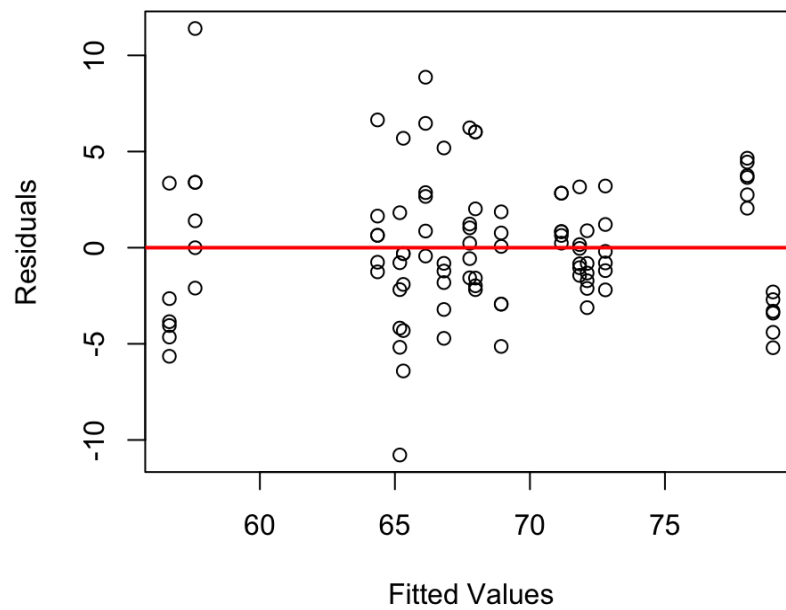

Figure C3: *Residuals vs. Fitted Plot (Linearity Test) - Migrants in Demark*
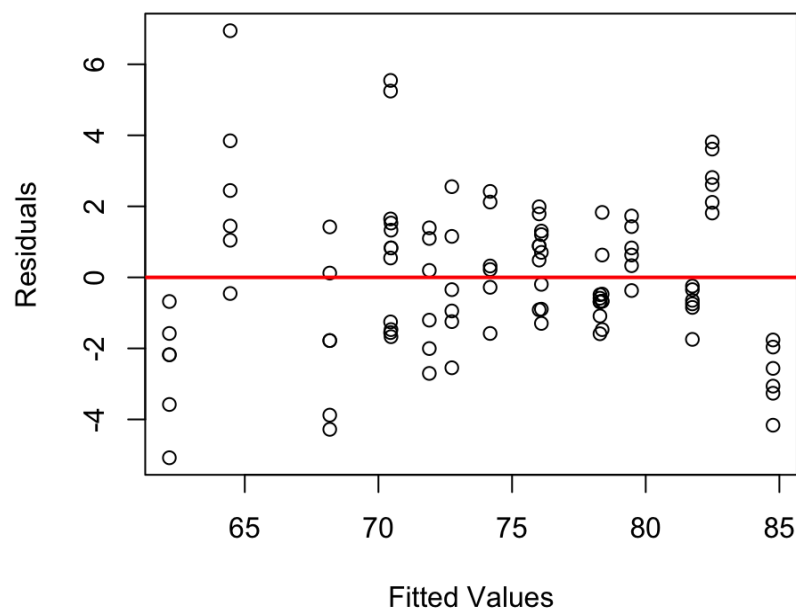
Residuals vs. Fitted Plot: Migrants in Sweden

Figure C4: *Residuals vs. Fitted Plot (Linearity Test) - Migrants in Sweden*

Residuals vs. Fitted Plot: Descendants in Denmark

Figure C5: *Residuals vs. Fitted Plot (Linearity Test) - Descendants in Demark*

Residuals vs. Fitted Plot: Descendants in Sweden

Figure C6: *Residuals vs. Fitted Plot (Linearity Test) - Descendants in Sweden*

C.2 Assumption Tests for Education Regression Models

For the ordinal logistic regression models (i.e., those fitted using the education dataset), the assumptions tested were non-multicollinearity and the parallel regression assumption. To assess multicollinearity, the GVIF values were once again calculated for each predictor within the regression model, as displayed in Table C4. Each predictor returned a generalized VIF value of approximately one, confirming that the ordinal logistic regression models estimating educational attainment did not violate the non-multicollinearity assumption. It should be noted that these GVIF values were roughly the same (i.e., they exhibited a difference less than .005) across the models for both subpopulations.

Predictor	GVIF
Country	≈ 1.00
Region of Origin	≈ 1.00
Gender	≈ 1.00

Table C4: *Non-Multicollinearity (VIF) Tests on Predictors - Educational Attainment*

Brant tests were conducted on both ordinal logistic regression models (Tables C5 and C6) to ensure that the relationship between each predictor and the dependent variable remained constant across the levels of the ordinal outcome (i.e., the parallel regression assumption; $p >$ .05). Every predictor held a p-value that exceeded the threshold of .05 (including the models as a whole, displayed by the omnibus tests), and thus the parallel regression assumption held for both models.

Variable (Migrant Subpopulation)	Chi-Square	df	p-value
Omnibus	0.00	9	1.00
Country: Sweden	0.00	1	1.00
Region of Origin: Africa	0.00	1	1.00
Region of Origin: Asia (incl. Türkiye)	0.00	1	1.00
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	0.00	1	1.00
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	0.00	1	1.00
Region of Origin: Nordic countries (excl. reporting country)	0.00	1	1.00
Region of Origin: North America and Oceania	0.00	1	1.00
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	0.00	1	1.00
Gender: Women	0	1	1.00

Table C5: *Brant Tests (Parallel Regression Assumption) - Migrants*

Variable (Descendant Subpopulation	Chi-Square	df	p-value
Omnibus	0.04	9	1.00
Country: Sweden	0.01	1	0.93
Region of Origin: Africa	0.00	1	1.00
Region of Origin: Asia (incl. Türkiye)	0.00	1	1.00
Region of Origin: EU27/EFTA/UK (excl. Nordic countries)	0.00	1	1.00
Region of Origin: Europe (excl. reporting country, Nordic countries and EU27/EFTA/UK)	0.00	1	1.00
Region of Origin: Nordic countries (excl. reporting country)	0.00	1	1.00
Region of Origin: North America and Oceania	0.00	1	0.97
Region of Origin: South and Central America (incl. Mexico and the Caribbean)	0.01	1	0.93
Gender: Women	0.02	1	0.88

Table C6: *Brant Tests (Parallel Regression Assumption) - Descendants*