Second-generation immigrants and labor market integration in Sweden

The matter of local context for explaining occupation status differences between ethnic groups

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Abstract

The focus of this paper is second-generation immigrants and their labor market performance. With increased immigration from a more diverse ethnic background during the latest decades, it has become apparent that there is a difference between immigrant ethnic groups in labor market performance, in which some groups are more disadvantaged. Now more of these children have grown up, and research shows that the difficulties their parents had, affects the second generation. It is therefore of interest to understand what causes problems and generates opportunities for the second generation and try to understand the division between groups. One theory regarding the integration over generations and the differences between groups is segmented assimilation theory, proposed by Portes and Zhou (1993). According to this theory, both individual characteristics, and the context of immigrant lives are important. Starting with this theory, this paper looks deeper into individual characteristics and context, with special attention towards the implication of the context and the labor market. The thesis does this by testing if “local context,” a concept by Ellis & Almgren (2009) branched to understand the local geographical dimension at a smaller scale than national matter, in the shape of regions. The focus toward context and labor market is due to a small degree of research that attempts to explain how well the second-generation succeeds, depending on the labor market.

The method for this is quantitative and builds on comparisons between regressions. A measurement called International Socioeconomic Index (ISEI) is used to explain the impact of the differences between ethnic groups. First are ordinary least square regressions with only ethnic groups, individual characteristics and no spatial aspect compared to a multilevel model based on labor market regions. Further are the spatial characteristics (whether a region is a big city or not), and the degree to which a region is knowledge-based. These factors are added in a multilevel regression to see if these spatial aspects can explain what it is about the regions that have an impact. The result shows a difference between both ethnic groups and regions, and that regions do explain some of the difference between the ethnic groups. The data also show that some non-European groups have higher status occupation than previous research has indicated. Other factors affecting immigrant groups are whether they live in a big city region or not, and how knowledge-based a region is, there it is an advantage living in regions with these factors. However, there is still an unexplained difference between ethnic groups, due to unknown factors. The result are also influenced of sample selection, it is therefore important to be aware that this result only show people with occupation and not labor market performance overall, as unemployment is not taken into account.

Keywords: Second-generation Immigrants, Integration, Labor Market Integration, Segmented Assimilation, Local Context, International Socioeconomic Index
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1. Introduction

Labor market performance among immigrants is an important dimension in research about integration. As the importance of investigation increases, particularly given the increase in immigration, it is often the refugees from countries at greater distance from Sweden (both geographically and culturally) who pose many new challenges to integration. The fact that there is a difference between immigrant groups and natives in labor market performance is well established by previous research (Hammarstedt & Shukur, 2006; Gustafsson & Jinghai, 2006). Concerning this, a big question in integration research is how some groups find it harder to establish and succeed in the labor market, and what are the driving forces behind that (Rydgren, 2004). One aspect that is of primary concern is the children of immigrants; the second generation finds it difficult to establish and succeed in the labor market. There are differences among native Swedes and there are differences among ethnic groups in their performance on the Swedish labor market (Behrenz, et al., 2007; Rooth & Ekberg, 2003; Tasirana & Tezicb, 2007). As the second generation is a growing part of the population, with the children of many prominent earlier immigrant cohorts having grown up, it is important to look deeper into these groups and their labor market performance. To a growing degree, children coming from countries farther away (outside Europe), with bigger differences to Sweden, often find, as their parents did, that it is especially hard to establish themselves (Rooth & Ekberg, 2003; Lundh, 2002). Second-generation immigrants and their achievement on the labor market also reveal how well their integration has gone in society over the long term and the rigidity of the class structure. They are the children of immigrants, they have grown up in Sweden and, unlike their parents, often speak Swedish, and were exposed to the Swedish society at an earlier age. Their condition is in many ways different from their parents, but still they meet much of the prejudice and difficulties their parents encountered (Portes, et al., 2009; Lundqvist, 2005). It is important to understand what causes problems and to generate opportunities for these groups, in order to contribute more knowledgeably how to meet these challenges and work toward a better labor market performance among them.

A theory that approaches the complexity in the integration process of the second generation is the Segmented Assimilation Theory. It is a theory that focuses on the second generation and explains the process of integration in a new host country, especially why there are differences between how immigrants integrate (Portes & Zhou, 1993). The core of this theory is described as that the process of growing up “oscillates between smooth acceptance and traumatic confrontation depending on the characteristics that immigrants and their children bring along and the social context that receives them”
(Portes & Zhou, 2009: p, 729). Many of the characteristics they bring are indeed individual. However, both characteristics and the reception from the social context are also related to the group that they belong to, which may make it harder or easier to succeed in the labor market. One aspect of the context, which also is associated with “external barriers,” is the labor market. The labor market is a central aspect of the context as it determines which occupations are available. The economic transformation toward an increased knowledge-based labor market has a major impact on availability of jobs for all immigrants. This is a development that Sassen (1988) states is especially apparent in big cities where the largest concentrations of immigrant populations are found. Although Portes has a big focus toward the labor market and other external barriers in general, Ellis & Almgren (2009) call attention to the need of a geographic dimension and research in the “local context.” Local context refers to smaller scales than national scales, as local contexts are the places people live their daily life, have the most contact with the local population, and experience the greatest geographic differences between places.

In Sweden, research about the second generation and the labor market performance is still restricted to a few studies, and a majority of them focus on individual characteristics. Most common are studies about the importance of human capital and intergenerational human capital transitions (Tasirana & Tezicb, 2007; Hammarstedt & Palme, 2006), but there is also research about discrimination (Carlsson, 2010; Nordin & Rooth, 2009), neighborhoods and networks effects (Neuman, 2016; Åslund & Fredriksson, 2009; Behtoui, 2008; Klinthäll & Urban, 2014; Grönqvist, 2006). The studies with a geographical dimension mainly focus on neighborhood effects in single urban location. There is an absence of research on other geographic scales. In studies of first-generation, research shows that other scales matter as the region or city in which a person lives has an impact on the labor market performance (Bevelander & Lundh, 2007; Hedberg & Tammaru, 2013). Regional differences in income and unemployment have also been shown in integration reports (SOU, 2004; SCB, 2010a), and Bevelander & Lundh (In SOU, 2004) have issued more research about integration at a regional level to understand better the impact labor market has on integration. By studying the issue at a regional and local level, it is possible to identify factors that reflect the conditions on the labor market, the economic structure and its effect on the labor market performance. This is particularly important among the second generation. This paper will analyze the local context in the shape of regions, whether regions are an important aspect in explaining the differences between ethnic groups in the labor market performance among the second generation, and how knowledge-based the labor market can explain a part of the regional impact. This paper, measures labor market performance through the
use of occupational status. This has the advantage of looking at higher or lower status, and at the complexity of the occupations (Goldthorpe, 2007; Demiral, et al., 2015).

1.2. Aim

The aim of this thesis is to assess the impact of regions on the differences between different ethnicities when it comes to labor market performance among the second generation. The thesis also examines the importance of individual characteristics in explaining the effect of the regional impact and what the regional context might affect.

1.3. Research questions

To investigate the aim of the paper, five questions are constructed, divided into three sections. The first section consists of two questions. It must be determined that differences between groups in order to assess the degree that regions can explain the differences. The questions build on the earlier research and reports that show how differences in income and unemployment can be dependent on ethnic background (Behrenz, et al., 2007; Rooth & Ekberg, 2003; Tasirana & Tezicb, 2007) and regions (Bevelander & Lundh, 2004; SCB, 2010b; Lundh, et al., 2002). The questions ask if there is a difference in occupation status for the second generation dependent on (1) ethnic background and (2) regions. The second section, consisting of questions three and four take into consideration Portes and Zhou’s (1993) argument that meetings between individual characters and the context are essential to understanding integration. To understand the impact of local context, it is, therefore, necessary to also control for the individual characteristics to be able to investigate the local context and regions, which are the focus of this paper. Therefore, this thesis investigates whether individual characteristics explain differences (question 3); also, the importance of the local context in the shape of regions (question 4) in explaining the difference between ethnic groups. The third section consists of question five, which looks deeper into what are the characteristics of the region that matter. Portes (1993) put a heavy weight in the transformation toward increased knowledge-based job market, often a development associated especially toward bigger cities (Sassen, 1988). The fifth question, therefore, looks at whether living in a big city and the degree to with the labor market is knowledge-based are important aspects of differentiating regions.

The questions in this thesis are the following:

Section 1

1. Is there a difference between the country groups in their occupational status?
2. Are there regional differences in occupational status?
Section 2

3. Can the difference between the ethnic groups be explained by individual characteristics?

4. In addition to individual characters, can local context in the shape of regions explain the difference between ethnic groups?

Section 3

5. Is the degree to how knowledge-based a region is and whether it is a big city area are some of the spatial characteristics that explain what is it about the region that has an impact?

1.4. Definitions

1.4.1. Immigrant, first and second generation

In research, an immigrant is mainly defined as a person born outside of the host country of study. However, this thesis talks about the “second generation” and will therefore mainly use “first and second generation immigrant” as the definition. The first generation are those who immigrated to the country and the second generation is the children of the first generation (Ellis & Almgren, 2009). To be count as a second generation a person needs to either be born in Sweden or to have immigrated before the age of 12. Those who have come to Sweden as children in this age have spent most of their childhood in Sweden. Further, they have good possibilities to attain education and get social skills as a child in the new country, giving them advantages later in working life. Furthermore, in this paper both of the parents have to be born outside of Sweden if their children are to count as second-generation immigrants.

1.4.2. Integration and Assimilation

In this paper are three terms used to describe how to adopt to a new society; integration, assimilation, and incorporation. These are the original terms used in theory and earlier studies. The most common term in this paper is integration, which describes the process of immigrant adoption into the host society. Integration is a process consisting of such dimensions as political, cultural, social, and labor market. This thesis focuses labor-market integration. Integration is a term that commonly uses in a European context, meanwhile, assimilation is mainly used in the United States of America. Both these terms describe a similar process of incorporation (Ellis & Almgren, 2009). In this thesis, they have the same meaning. Furthermore, incorporation is a

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1 In Sweden, the word “immigrant” is not used in statistics for those who have settled in the country, instead the definition is “foreign background” (SCB, 2002). However, there is no clear division between the first and second generation in this definition. Therefore, this thesis uses the more international definition of “first and second generation” to distinguish easier between the first and second generation.
term that in this paper only is used to describe the theoretical concept of “modes of incorporation” that has a more specific focus toward the integration of groups.

1.4.3. Local context of integration

Context refers to the environment in which an immigrant lives, including aspects related to physical places and to the social environment, for example racism and ethnic networks. Local context of integration focuses on what Ellis & Almgren (2009) discuss in their paper: “Thus, for us, local context of integration refers to institutional structures, labor market conditions, and other relevant factors which affect immigrants and which vary sub-nationally” (p, 1065). This thesis focuses on labor market conditions and the structure of the labor market. Another spatial definition used in the paper is “city scale.” This term has a more specific focus toward labor market reconstruction and uneven spatial processes between different cities and its interaction with migration. City scale is defined as: “cities as analytical entry points where neoliberal transformations become grounded in time and space” (Schiller & Çağlar, 2009, p 179). For this paper, it has important ideas of uneven development, and why different scales are relevant. However, as this thesis focuses on comparisons between regions rather than cities, this concept is used to understand and discuss the importance of comparative studies of the difference between places.
2. **Research context**

2.2. **Immigrants in Sweden**

Sweden has a short history of immigration in comparison with many other countries such as the US. It was not until after the Second World War that immigration became higher than the outmigration. Except for refugees from Second World War and later from the Soviet Union, the increase of immigration was a consequence of a higher demand of labor for the growing industry. A majority of the labor market immigrants was from Finland and other Scandinavian countries, but also from South Europe including Germany, Italy, Austria and the former Yugoslavia (Lundh & Ohlsson, 1994).

In the 1970s the structure of immigration changed as the industry sector decreased, leading to stricter rules for foreign workers and a decline in numbers of immigrants. At the same time, immigration for humanitarian reasons (refugees) and family unification increased. Compared to earlier immigration groups this group was more heterogeneous, both culturally and geographically, with more arriving from outside of Europe and Western countries. The new wave of immigrants were predominantly from the South America, Middle East, Africa and Eastern Europe, from countries such as Chile, Turkey, Iran, Lebanon, Poland and former Yugoslavia (SCB, 2016; 2017b; Lundh & Ohlsson, 1994). These groups consisted mainly of people with low education. Exceptions were political refugees from Iranian who fled the Ayatollah regime and the Chileans that fled Pinochet’s coup, who had a relatively high education.

These new immigrants have made Sweden into a multi-ethnic country today. In 2007 13% of the Swedish population was born abroad, a number that has increased to 15% in 2011 and 17% in 2016 (1.7 million). Therefore, a majority of the population increase in Sweden is the result of foreign-born immigrants and their children. Now, an increasing amount of the second generation of this group has reached adulthood (SCB, 2016; 2017a; 2008; 2013). People with a foreign background today have immigrated for many reasons such as asylum, studies, marriage, and labor. Half of the immigrants are from Europe (49%), the other half are from outside of Europe, with the distribution: Asia (34%), Africa (11%), South America (4%), North America (2%) and others (1%). In general it is more common that immigrants live in big city regions (SCB, 2016).

2.3. **Labor market development in Sweden**

Overall, the economic development in Sweden has since the 1950’s had a stable growth and a stable situation. Nevertheless, there have been both economic crises and years of record GDP growth. After the Second World War, Sweden had a very fast growing GDP as the rebuilding of
Europe had a high demand for industrial production, iron, and wood raw materials, for example. Since the 1970's, economic development in Sweden has been affected by labor market restructuring, mainly as tougher international competition and increased rationalized industry have decreased the labor demand in industry, agriculture and forestry (SCB, 2017b). This had a negative impact on the Swedish economic situation, and on the employment situation of immigrants. Until 1970, the prospect of getting work was good for immigrants, both for those coming as labor market immigrants or for asylum. However, after the 1970s the unemployment rate increased among immigrants, especially for those with a non-European background (Rooth & Ekberg, 2003; Bevelander, 1999; Scott, 1999; SOU, 2004). It became harder to get work for those with low education as the demand for more educated workers increased and specific knowledge of Swedish language and culture became more important (SOU, 2004; Bevelander, 1999). Since the 1990's the economic development has become more stable, and the economy has been affected but also recovered from the IT-crisis and the global financial crisis. Furthermore, in recent decades the Swedish labor market has become increasingly characterized by knowledge-based economy, a growing public sector, and a growing service sector (SCB, 2017b). In latest decades, immigrants are in general having more difficulties to enter the labor market compared to Swedes, and are lower paid (SCB, 2013). However, in the later years the number of those who are employed has increased, but as the immigration also increased, the proportion has remained stable (SCB, 2017c).
3. Theoretic framework

3.2. Segmented Assimilation theory

The theoretical framework in this paper is based on the “segmented assimilation theory.” This theory is a powerful tool to understand the process of assimilation into society. The strength of this theory is the focus on important concepts affecting assimilation into society for the second generation and the different outcomes relative to previous generations. Further conceptualizing gives it the shape of a useful framework (Portes & Zhou, 1993). It has been subject to many interpretations and received broad support (Brubaker, 2001; Piedra & Engstrom, 2009; Zhou, 1997).

The following section offers a general description of segmented assimilation theory a deeper presentation of individual characteristics and influence of local context and labor market characteristics.

3.3. The development of Assimilation theory

Research on assimilation started mainly in the US, in the mid-twentieth century and was primarily based on poor Europeans moving to US, most of whom eventually became totally assimilated. The dominating theoretical perspective was that immigration was a uniform process toward total assimilation and upward mobility. The process was often described as a pattern from hardship and discrimination towards increased knowledge of the culture, followed by an acceptance of the host society, in which the immigrant came to resemble the majority culture and became indistinguishable in the society (Gordon, 1964; Alba, 1985). This theory is referred to as the traditional assimilation theory or “straight-line assimilation”. Immigrants who arrived during the recession and from non-European countries, such as China and India, did not assimilate in the same manner as earlier European immigrants. They experienced more difficulties and increasingly established ethnic communities (enclaves). They became more isolated and visible, with both positive and negative implications (Portes & Manning, 2014). Thus, the changing pattern of immigration and integration in late 1980s America, as noted by Portes and Zhou (1993) hindered of assimilation of the second generation into the stratified society of the host community. They argued that assimilation is not a uniform process but rather “segmented.” Further, they showed that assimilation has many possible outcomes for the immigrants (Portes & Manning, 2014; Portes & Zhou, 2014; 1993). This led to two great perspectives on assimilation. One, a revision
of the classical understanding of “straight-line assimilation,” with a new definition\(^2\) of Alba and Lee (2003) Two, the development of the theory of segmented assimilation (Portes & Zhou, 1993). It is now common to talk about stratified integration, in which people assimilate into different segments of the society (Portes, et al., 2009; Brubaker, 2001). Segmented assimilation is now the dominant theory: “Segmented assimilation may be defined empirically as a set of strategic outcomes in the lives of young second-generation persons (Portes, et al., 2005, p. 1016).” It thus recognizes that integration may take different paths. The theory is multifaceted with various research areas in integration. It proposes that how well the second generation will succeed in the labor market depend upon what immigrants bring in their personal background and the “external barriers” immigrants meet.

The segmented assimilation theory is comprehensive, trying to explain as much as possible, both “background” and “external barriers” consisting of a variety of aspects (Portes, et al., 2009). This paper will only focus on a limited set of these numerous aspects. The focus of “external barriers” is the local context and labor market conditions, which in this paper are regions. However, background factors are also controlled and accounted for. Where the focus is on individual and family characteristics (mostly human capital), I refer to “individual characteristics.” Together with modes of incorporation (ethnic co-group) individual characteristics are one of the background aspects on which the heaviest emphasis is placed (Portes, 1993). To understand the impact of local context, it is necessary to analyze this in the interplay between background factors and local context.

3.4. Individual characteristics

Portes, et al (1993; 2009) put a heavy emphasis on the family, that group of people humans spend the most time with. Parents, spouses and potential partners have a big impact on attitudes, human- and social capital of the second generation.

Human capital is one of the single most important aspects of labor market outcome, as it determines the ability toward competitiveness in the host society and to succeed in obtaining status and wealth (Portes, et al., 2009; Portes & Zhou, 1993). The concept refers to the knowledge humans possess along with education and training (Becker, 1994). If the second generation has a good education, their prospects to do well on the labor market are good. For the

\(^{2}\) The new definition of assimilation in the straight line approach is the process of assimilation defined as a process of declining “ethnical distinction and its corollary cultural and social differences” (Alba & Lee, 2003; p. 11). Furthermore, they define the essence of assimilation as “decline of ethnico-racial origins in determining individual life chances and daily experiences” (ibid). This definition does not require putting focus on loss of identity or disappearance of ethnic cultures into the main culture (Alba, 1985; Alba & Nee, 2014; 2003).
second generation to achieve a good base of education, the influence of parents is important, and that is an advantage for those with parents with higher human capital (Portes & Zhou, 1993; Portes, et al., 2005). This is because parents have a significant influence on the children in the family, transferring knowledge, values, and skills (Becker, 1994). The importance of human capital among the parents is supported by earlier research both when it comes to educational achievement (Kao & Thompson, 2003; Gordon & Zimmermann, 2004; Heath, et al., 2008) and occupational outcomes (Heath, et al., 2008; Nielsen, et al., 2003) of the second generation.

Stable families are often an advantage, while broken and single parents are a disadvantage. Living as a couple often leads to stability, while single families have to struggle with lack of time and money (Portes & Rumbaut, 2001). Another aspect with the family is intermarriage. In the straight-line assimilation theory, intermarriage is an important part of overcoming cultural and structural barriers and becoming more similar to the majority population (Alba & Nee, 2003). In segmented assimilation, intermarriage is less in focus. However, it still has a role as Portes (1993) put a heavy emphasis on homogeneous social networks in which a common ethnic background is a primary source of values, contact network, and labor market opportunities. Intermarriage is in this context a means of establishing a strong connection toward the host country. The Swedish networks get stronger than the ethnic ones, and promote better possibilities of increasing the country specific knowledge as language, values, and culture.

3.4.1. Modes of incorporation

The way immigrants assimilate into society is closely linked to the group to which they belong. In this paper, ethnic groups are in focus, however, other factors as religion are common. The group, or what Portes (1993) calls “modes of incorporation”3 is built upon the fact that individuals in the same group share characteristics, meet similar prejudices and cultural obstacles, and are affected by different policies in a similar way. This often reveals a pattern where groups succeed differently, or find it easier or more difficult to get work in various industries. As an example, it is often possible to see that a different ethnic background has a higher unemployment, lower income or cluster in particular occupations. Ethnic communities are an important field of social networks, in which well established and diversified ethnic groups provide access to a range of moral and material resources that go beyond the support available by official assistance programs. For example, already established co-ethnics in the labor market increase the available network of connections to the job market (Portes & Zhou, 1993; 2014). This gives a theoretical standpoint in

3 Modes of incorporation are a way of theorizing how different groups integrates into society. Modes relates to “group” meanwhile incorporation relates to “integration”. Altogether, how different groups integrate into the society and what it means for an individuals to belong to the group (Portes & Zhou, 2014).
that it may be expected that people from different countries perform differently on the labor market. This is a major subject of research but is not a focus of this paper.

3.5. The Local context

A central aspect of the assimilation theory is the structure of the labor market and which opportunities it gives to succeed in that labor market. Portes (1993; 2001) notes that, in the past decade, economic restructuring on the labor market, with a technologically driven development and decreased industrial sector has increased the demand for well-educated workers. An argumentation related to neo-liberalism, globalization and reconstruction theories. According to the “Routine Based Technological Change” theory, machines have replaced routine-based occupations, commonly middle-status occupations (Goos, et al., 2009; Autor, et al., 2008). In which the labor market has become more bifurcated (Wright & Dwyer, 2003; Autor, et al., 2006; Goos & Manning, 2007). Also in Sweden, there has been a growing demand for highly educated labor, where the high and low-income occupations increase faster than the middle-income occupations (Åberg, 2015; 2016). In this increased knowledge-based industrial society big cities (global cities) in particular, have become centers of multinational corporate headquarters and related services, which require higher education, such as legal service, finance or management consulting. Immigrants are an important aspect, as higher demand for highly skilled labor requires both natives and immigrants. In this sense, global cities are places of opportunities and success. However, highly skilled labor also creates a demand to serve the highly skilled, and this often creates low-status work, often for immigrants with low possibilities of upward mobility (Sassen, 1988; 1991). For the second generation, therefore, higher education is critical for accessibility to better work, as more occupations require higher skills and education. Availability of higher education and success in school is, therefore, crucial for the labor market performance. With a limited access toward education, therefore also limit the possibilities of upward mobility. A majority of the second-generation generally does well in the labor market in which the growing demand for highly educated labor offers more opportunities for better paying jobs. However, it is also common that a large number are stuck in low-status occupations. A decreasing amount of available middle status employment means that the span to be crossed from low-status to high-status occupations gets bigger (Portes, et al., 2009).

In recent years, researchers have asserted the need for rethinking scale and location when it comes to understanding the relationship between places, labor market and integration (Ellis & Almgren, 2009; Schiller & Çaglar, 2009; Thomson & Crul, 2007). Schiller & Çaglar (2009) argue that national comparisons and global cities are indeed important, but write that there has been a
single focus on “methodological nationalism,” with a focus on global cities, international comparisons or comparisons within single cities. They argue that there is a need for more research on “city effect” and integration. Global processes happen everywhere, and there is a global hierarchy, in which unequal and uneven processes affect places differently. Therefore, it is important to increase the amount of research of different locations, different scale, between and within. (Schiller & Çağlar, 2009). Ellis and Almgren (2009) also call for more research with different scales, combinations, and especially sub-national contexts, to increase the knowledge on the various spatial conditions that affect the integration of immigrants and their children into society. With a starting point in Portes’s (1993) Segmented Assimilation Theory, Ellis and Almgren (2009) point out that “group differences in first- and second-generation social, economic and political trajectories in the US will reflect variation in their individual and collective resources and depend on the conditions of the sub-national places they inhabit and spaces they move through” (Ellis & Almgren, 2009, p. 1060). They assert that segmented assimilation theory is a very useful tool to understand the process of integration both for the first and second generation, a tool that puts a heavy emphasis on the “context of reception.” Adding that this is not only a national or global aspect but also sub-national, they introduce a concept they call “local context” in a multidisciplinary approach. They define “local context as any sub-national scale. They want to put amore emphasis on the impacts of sub-national and local context. Here, localities differ on a multitude of aspects as government support, communities, civil organizations, religions and, as it is the focus of this paper, labor market conditions. Similar to Schiller and Caglar (2009), they argue that the weakness with a large part of earlier research is that it focuses too much on single urban or intra-urban context. However, Ellis and Almgren (2009) have a clearer focus directly towards the local context implications on integration, unlike Schiller and Caglar, who, beyond integration, write about urban spaces and the interplay if migration, global hierarchies, and transnational networks.
4. Earlier research

4.2. Individual characteristics

Earlier literature has shown that for immigrants and their children, their country background is an added barrier to the labor market. Rooth and Ekberg (2003) found an unexplained difference among immigrants depending upon origin, with people outside of Europe and South Europe having both lower employment and income, while those from Scandinavian, Eastern Europe and other European countries doing better in Sweden. However, having two Swedish parents, followed by one Swedish parent was most favorable. Hammarstedt & Palme (2012) has similarly found that there is a difference between immigrant groups, and that intergenerational employment mobility is lower among immigrants in comparison with Swedes. However, they also concluded that even if there still is a big difference between Swedes and the second generation immigrants, the difference is smaller in the second generation compared with the first (Hammarstedt & Palme, 2012).

Some research tries to explain the differences. One of the single most important aspects of success in the labor market is parental labor market position and education (Heath, et al., 2008; Kao & Thompson, 2003; Gordon & Zimmerman, 2004; Nielsen, et al., 2003). Better labor market position increases the probability of continued education among the second generation (Tasirana & Tezicb, 2007; Lessard-Phillips, et al., 2012).

Furthermore, research shows that the average group educational level differs between different countries of origin (Heath, et al., 2008; Kao & Thompson, 2003; Rooth & Ekberg, 2003). For example, Heath, et al (2008) found that many immigrants in ten European countries on average have a lower level of education than the native-born population. One possibility is that lack of human capital limit parents’ opportunity to help the youth educate themselves, especially if they are coming from developing countries to western countries. In Sweden, immigration from countries with an average lower education has become more common after 1970, and the education level among foreign-born is generally lower compared with that of native Swedes (SCB, 2014; Bevelander, 2000). The difference in education can, according to Bevelander (1999; 2000), still not explain the difference in labor market outcome. Nordin & Rooth (2009) argue that education is not the only skill that matters. They explain the income gap by comparing scores on a cognitive test score taken by young males who have done military enlistment. Their results show that, primarily, verbal skills explain more of that gap. Cognitive ability alone, however, is not a sufficient explanation of the unemployment gap. Moreover, Casey and Dustman (2008) found that in the German context, a better language proficiency among the first generation...
improves labor market outcomes among female second generation. Another factor is that changes in the domestic labor market have increased demand for knowledge about Swedish norms, institutions and the market. In this case, those with one Swedish parent do better in the job market compared with those with two foreign-born parents, as having a Swedish parent offers a link to Swedish society. It increases knowledge of social rules and country-specific knowledge, and provides contact with the majority population and networks in the labor market (Dribe & Lundh, 2008, in Europe; Kantarevic, 2004).

Ethnic discrimination is another aspect on immigrant employment. In the US, people of different ethnicities often receive different treatment when searching for work (Portes & Rumbaut, 2005; Bertrand & Mullainathan, 2009). Also, in a Swedish context, discrimination in the labor and housing markets negatively affects people with Middle East background. Despite possessing equivalent work skills, applications indicating a Middle East background get fewer answers, both for the first (Carlsson & Rooth, 2007) and second generation (Carlsson, 2010).

4.3. Regional perspective

Research into regional differences about integration, and especially the second generation, are few but growing. In Sweden, the existing research is mainly about the first generation. To start are there papers that show regional differences in employment and income. Both Lundh, et al., 2002 and Bevelander & Lundh (2004), found a difference between regions in employment for men. Meanwhile, Lundh, et al. (2002) found a difference between counties, and Bevelander & Lundh (2004) found differences between Labor market areas (LA). In a later paper, Bevelander & Lundh (2007) show a geographical difference in employment, both dependent on Labor market areas and municipalities. A difference that exists for immigrants with a variety of ethnic background. The difference Bevelander & Lundh (2004; 2007) found was persisted after controlling for individual factors. Ekberg & Ohlson, (2000) found differences for Bosnian refugees between municipalities in employment and income. That there is a geographic difference when it comes to high-income earners is also shown by Andersson (1996), both between municipalities and NUTS areas.

The chances of getting a job for Swedes and for Scandinavian, West and South European immigrants were higher was in the major cities; smaller regions were more favorable for immigrants from East Europe and developing countries (Bevelander & Lundh, 2004). Ekberg & Ohlson (2000) found a smaller difference between different country backgrounds both in employment and income in regions with a strong small company environment. Andersson (1996) finds regions that are of advantage for Swedes are not necessarily of advantage for immigrants.
For Swedes, big city regions such as Stockholm have better opportunities for upward mobility, but the opportunity is more challenging for immigrants. Those with low education have better opportunities in Stockholm. Those with higher education are underrepresented in Stockholm when it comes to upward mobility in income. He also finds that the income gap between groups is greater in bigger municipalities, and that highly educated immigrants are more likely to succeed in smaller municipalities.

Hedberg & Tammaru (2013) have, in a Swedish context, seen that neighborhoods and cities matter for first generation immigrants entering the work force. It is more favorable to live in Stockholm then Malmö, although that is diminished by living in a depressed neighborhood, depending on the city. Ekberg (2004) finds that it is also more favorable to live in Stockholm than a smaller city like Malmö. Bevelander & Lundh (2007) have a Swedish regional perspective, finding that local factors affect the first work opportunity for first generation immigrants. Living in a place with high employment is favorable, as is a growing labor market. Municipalities with a big private and manufacturing sector have a positive effect on employment. All these studies add to understanding in how places affect integration, however, most of them look at unemployment and income in the first generation.

Studies of the second generation are very few but growing, and they are from outside of Sweden. Zhou (2001) with an American perspective does not find bigger differences in employment between some of the larger immigrant cities. However, she finds some differences in places for the Mexican group. Goodwin-White (2009) has seen a pattern that immigrants and their children are affected differently in different cities with declining manufacturing sector. It is common that different ethnic groups cluster into various occupation sectors and that the clustering often follows the change in the labor market in the different city regions. For some this an advantage that offers possibilities of upward mobility Many clusters are in low-status occupations, especially in bigger cities. Examples are in sectors like retail, construction, and service. Jobs in business services or health care have better possibility of upward mobility. He argues that a big reason for the difficulty with upward mobility was that many in low-status occupations struggled to provide a good education for their children (Goodwin-White, 2009).
5. Data and methods

Based on cross-section data, a series of comparable multilevel regressions (random intercept) is used to analyze the labor market structure. A central part of the segmented assimilation theory consists of both exogenous and external aspects. It is important to test the local labor market effects while also taking into account individual characteristics. Multilevel regression allows both individual characteristics and geographical aspects to be taken into account. An ordinary linear regression assumes that observations are independent of one another. In this analysis, individuals are assumed to share dependency based on locality. A multilevel analysis has the advantage that it builds on this dependency when there are many levels in the data. In comparison to OLS, a multilevel model enables investigation of regional characteristics, expressing unmeasured characteristics as a random effect that is common to all individuals in the same region. In this analysis the first level is individual data the second is labor market area. The model takes into account the region in which individuals were living.

The methodology described bellows presents the data, descriptions of the different variables and lastly details of the model design.

5.2. Data

The data from Statistics Sweden have been made available through the ASTRID database. ASTRID is a register database consisting of information from the labor market, educational and social sectors and demographic background for all individuals residing in Sweden. It provides links of individuals to their parents, occupations, and location. These data make it possible to take into consideration both individual and geographical aspects.

There are some main shortcomings with the data set that have affected the design of the analyses. The first is the limited availability of information about the exact country of origin or ethnicity for the parents. Instead, information about the parents’ origins are only available in bigger geographical units. Of this reason, is this thesis dividing the ethnic groups based upon bigger geographical units. It is therefore important to be aware that there are generalizations in the interpretations and that there might be variation within groups that this thesis does not observe.

The second limitation are reason of immigration, the available data do not reveal on what ground people have immigrated to Sweden. Because of this, it is important to take the history of immigration in Sweden into consideration, as it gives a hint on the reasons for which people from different geographical areas have come to Sweden. However, it is important to remember that not all individuals follow the same path as their co-inhabitants. The reasons to come to Sweden
are many, and therefore this is an additional argument to take into consideration individual characteristics in the analysis.

5.2. Sample

The sample is the total population with parents born abroad that became 35 in the years between 2005 and 2012; a total number of 22,207 observations since missing data are excluded from the analysis. Age 35 is an age by which most people have attained their first occupation. Furthermore, as occupational status is the dependent variable, detailed occupation classification is needed to measure occupational status. This occupational classification is, in Sweden, only collected from 2005 to 2012. Variables actual when the second generation is adult, is data from the year they were 35 year.

Earlier theories of integration (Portes, et al., 2009; Becker, 1994) and earlier research (Heath, et al., 2008; Kao & Thompson, 2003; Nielsen, et al., 2003) cite the importance of parents’ human capital and achievement for their children. Information on the parents’ characteristics when the children were young is therefore essential for the analysis. In particular, it is important to have parental information when the second generation were teenagers. This data is from 1985 to 1990 the years that occupational data is available. The second generation who are 35 between 2005 to 2008 are connected to their parental data from 1985 and those who were 35 between 2009 to 2012 are connected to their parental data from 1990. This means that the information on the parents is for when the adult children were in the ages between 14 and 19.

5.3. Dependent variable

5.3.1. Occupation, ISEI

To be able to analyze labor market outcome, it has to be operationalized in empirical research. Portes (1993) argues there are many ways of classifying and measuring the labor market success in society, among which income, unemployment, and occupation are common. The measurement in this paper is the occupation people hold. The occupation has the advantage of revealing more than income, which is otherwise a very common way of measure, especially in economic research. In society, income is far from the only indicator of inequality. Instead, inequality and people's position in society are mainly recognized as “multidimensional” with an uneven distribution of assets and status. Grusky & Ku (2014) present eight different types of assets; Economic, Power, Cultural, Social, Honorific, Civil, Human and Physical. The value with occupation as a measure is that it reflects more of these resources and one’s position in society (Goldthorpe, 2007; Demiral, et al., 2015). Occupation is a determinant aspect of status and social belonging. As Warren and Hauser (1996) say, the occupation is vital to a persons’s identity, in which one of the most
common ways to get to know people is through their work, as people tell and ask others about their work. One’s occupation may disclose social and technical skills, which play a crucial role in the social and economic spheres of society (Hauser & Warren, 1997).

There are many methods for using occupation as a measurement. A major challenge is that it requires rating different occupations, which often is determined by inference. Results may vary depending on the chosen approach, so it is essential consider different measurements of occupation. Regardless of the method, the values are used to compare occupations. The two most common methods are assigning occupations by class schemes or using an occupational scale. Each has implications on what methods are suitable (Ganzeboom, et al., 1992; Bihagen, 2007). This paper will use an occupational scale called ISEI (International Socioeconomic Index), which is a mix of education and income for different occupations in an international context (Ganzeboom, et al., 1992). It is also an occupational classification adapted for Swedish conditions (SCB, 2017d; Bihagen, 2007). ISEI assigns points between 0 and 100 to different occupations, where higher points indicate higher prestige, better career possibilities or other socio-economic advantages (ibid). An alternative occupational scale could have been SIOPS, which stands for “Standard International Occupational Prestige Scale” (Treiman, 1977). However, this scale has the main focus towards prestige and symbolic aspects as approval, admiration, and contempt. ISEI has a bigger focus towards status as measured by economic reward and human resources and skills. Another method is the well-established Goldthorpe class scheme “differentiation of employment contracts”4. The advantage of ISEI for this paper, is its continuous scale, which makes it simpler and more flexible for ordinary least squares regressions (OLS) and multilevel regressions.

5.3.2. Creation of the Occupation variable

Using occupation as a continuous variable is possible due to already existing keys adapted to the Swedish occupation classification (SSYK) code. The SSYK is a division of occupations that captures the present occupation structure at a detailed level, in which the occupation an individual has is defined by the employment that person has. It has been adapted to the international standard classification of occupations (ISCO), what makes it comparable to international standards (SCB, 2017d; SCB, 2001). The keys transform the SSYK code to ISCO and later the ISEI scale (SCB, 2017d; Bihagen, 2007). In this paper, the lowest value of ISEI are

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4 Goldthorpes class scheme focus upon employment relations to employees, with a first division of employers, self-employer and employed, to further separate the employees depending on skills and employment relation (Goldthorpe, 2007; Bihagen, 2007).
17 meanwhile the highest is 90 ISEI, as example the cleaners are having the lowest status and the judges the highest.

A difficulty with occupation classification is that the SSYK occupation classification did not exist before 2005. In 1980 and 1995, census occupational data, although not as detailed as the classification from 2005, are still quite accurate. To enable comparative research Bihagen (2007) has developed a key for comparing an older Nordic occupation classification (NYK), with the new SSYK. Many parents that were unemployed when the second generation were teenagers. In order to not lose these observations they are given the value 0. Although this does not cause major problems with the analysis. the parents’ ISEI should be interpreted with caution.

5.4. Ethnic background Variables

Based on modes of incorporation (Portes & Zhou, 1993; 2014), ethnic background is a major variable in this essay. To understand integration, it is important to understand group dynamics. Different groups give accessibility toward various social capital of the co-ethnic community. In this paper, ethnic background is a categorical variable using the mother country of origin as an approximation of ethnicity. Country of origin gives an overall good implication of shared ethnical attributes. However, it is not a perfect match as there is differences within a country and country groups, for example, religion, culture or language.

The groups in this paper consist of (1) Nordic countries, (2) West Europe, (3) Eastern Europe & Russia, (4) Africa & Middle East and (5) South and Central America. The distribution of the observations among the ethnic groups is presented in Table 1 below. A more detailed list of the countries in each group are presented in Appendix 1.

Table 1, distribution of observations between ethnic groups

<table>
<thead>
<tr>
<th>Ethnic groups</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scandinavian</td>
<td>11787</td>
</tr>
<tr>
<td>West Europe</td>
<td>2915</td>
</tr>
<tr>
<td>East Europe &amp; Russia</td>
<td>5424</td>
</tr>
<tr>
<td>South &amp; Central America</td>
<td>1033</td>
</tr>
<tr>
<td>Africa &amp; Middle East</td>
<td>1048</td>
</tr>
</tbody>
</table>

These groups are designed concerning two most important aspects: Limited accessibility of origin and shared characteristics and land areas. Scandinavia, West Europe, Eastern Europe and Russia, and South and Central America are quite natural divisions with established geographical,
historical and cultural land areas. However, the validity of combing Africa and the Middle East is far from clear. They are shown as one group because they not are big enough individually. Those with only one Swedish parent are excluded from the analysis, because they have more favorable conditions with the Swedish network and language compared with those without any Swedish parents (Rooth & Ekberg, 2003).

The hypothesis presented here is that the country group a person belongs to affects success in the labor market. The Scandinavian group (1) has most in common with the Swedish population. The countries have a shared history, similar language, are geographically close and represent the largest group that immigrated to Sweden in a historical perspective (SCB, 2016; 2017a; Lundh & Ohlsson, 1994). This group should, therefore, quite easily incorporate into society. Similar conditions are for many, but not all, of those with West European (2) background. They are also quite close to Swedish culture, and mostly belong to the Germanic language cohort. Both Scandinavian and West European populations are early labor market immigrants, especially during a time that there was a big need for industrial labor (SCB, 2016; 2017a; Lundh & Ohlsson, 1994). The Eastern Europe and Russia (3) group is a mix of labor market immigrants and refugees from the Soviet Union and the war in former Yugoslavia. The African and Middle East (4), and South America (5) groups are geographically far from Sweden and have immigrated mainly as refugees. In general, these groups have a lower educational level, have less favorable individual characteristics, and more likely to experience external prejudice (Heath, et al., 2008; Bevelander, 2000). These groups find it harder to incorporate in Swedish society than other groups.

5.5. **Individual Characteristics**

Both individual characteristics and context have an impact on the integration of the second generation of immigrants. Individual characteristics and knowledge prepare and determine how well a person manages in life in the context they experience. The education and partnership of the second generation is controlled for their education, occupation, and civil status when they were young, as well as that for their parents. Gender(X3) is a control variable because income and occupation outcomes often differ between females and males. The year they reach 35(X2) controls for economic and other changes in society that occurs between the years.

In human capital theory, educational level is one of the single most important factors for success in the labor market (Heath, et al., 2008; Nielsen, et al., 2003). The education variable (X4) is

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5 The coefficient of this variable (years) is not presented in the result, instead this information is possible to find in appendix 2.
divided into four sub-groups, those with no certification from the secondary education (secondary degree), those with a certification from secondary education, those with a shorter higher education or “professional” school and those with longer higher education. The division is based on the fact that a secondary education degree is critical in a Swedish context to enter the labor market and get employment (SOU, 2004; Lundqvist, 2005). Education beyond secondary level is advantageous as many of the most prestigious jobs demand a longer higher education. Civil status is also important, with being in a partnership having a positive effect on success in the labor market (Portes, et al., 2009). For the second generation, it matters who they are together with: having a Swedish partner does, for many, lead to relevant links into the Swedish society, to networks, and to better job opportunities. With this as a background, a categorical variable for the partner of the second generation as adult (X5) is divided into three subgroups: those that do not have any partner at all, those with a partner with foreign background, and those with a partner with a Swedish background.

Portes (1993), along with many other researchers, attach great importance to parental background and human capital for assessing prospects of the second generation. Parents who have a good educational background, stability and high-status occupation have a positive impact on their children. There are three primary variables for this, the education level, civil status, and occupational status. Both education (X7, X8) and occupation (X9, X10) have a variable for both mother and father. However, civil status is only for the mother (X6), because the civil status of the mother and father cause multicollinearity.

5.6. **Spatial variables**

5.6.1. Labor market area

The geographical dimension of labor market conditions includes Labor market(U) areas (LA-regions), developed by Statistics Sweden. It is a measurement designed to analyze the connection between housing and workplace, in which there is a local interplay of supply and demand of a labor market. LA regions are based on municipalities as their smallest dimension and on commuting pattern between these municipalities. In short, they identify (1) local centers, (2) non-independent municipalities, and (3) which municipality has the most commuters from other municipalities (SCB, 2010b).

Labor market regions are those where people live and the closest labor market. Identifying and measuring commuting patterns avoids the problem of using data of those who live in in one municipality and work in another. Another reason is to have enough observations in each geographical unit of each ethnic group. The total number of observations is sufficient as most
immigrants live in the major cities (~80%). As it is of interest to include the whole country and not only major cities, Using large geographical units and not only major cities allows inclusion of more immigrants and a broader national perspective. Using LA of different type and size and not only big cities, for example, increases the ability to look at the spatial processes on a sub-national scale that matters with space, which Ellis and Almgren (2009) discuss. In total, this classification of LA regions consists of 79 areas (SCB, 2010b.

5.6.2. Local context - knowledge based-labor market

The spatial variables are two\(^6\). First, whether an LA region is a big city or not (X12), second how knowledge-based a region is (X11). These are important aspects as an increased amount of work requires a higher education (Portes & Zhou, 1993; SOU, 2004; SCB, 2013). As many immigrant ethnic groups with a non-European background from developing countries have a lower level of education, they have difficulty obtaining high-status occupations. On the other hand, an increasing number of occupations with higher status opens up opportunities to get high-status occupations. Big cities are especially often nodes of the knowledge-oriented society, global and “successful,” in that they have a growing labor market and good business environments (Sassen, 1988). Places other than big cities have different positions in the economic restructuring (Schiller & Çaglar, 2009), and different places have a different degree of knowledge-based economic structure.

The regions of Stockholm, Malmö, and Göteborg are considered as big cities: all other regions are not big cities. The variable for the degree to which regions are knowledge-focused is based on how many in each region work on an occupation that requires a higher education. This is calculated based on the SSYK code in which SCB has divided occupations on the level of education that they require. Occupations with a shorter higher education include positions such as nurse, police, engineer and accountant. Occupations with a demand for a longer higher education include positions such as as medical doctor, civil engineer or lawyer (SCB, 2001).

\(^6\) The unemployment level in each region been controlled for. However as this variable is not significant and does not improve the model, it has been removed. Other aspects are more important for the opportunities for second generation immigrants to obtain worthwhile employment.
5.7. Table with variables

Tabell 2, description of the variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>ISEI</td>
<td>Continuous</td>
</tr>
<tr>
<td>X₁</td>
<td>Country groups</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scandinavia (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>South &amp; Central Europe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eastern Europe and Russia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Africa &amp; Middle east</td>
</tr>
<tr>
<td></td>
<td></td>
<td>South &amp; Central America</td>
</tr>
<tr>
<td>X₂</td>
<td>Control for period (Year when 35)</td>
<td>Categorical</td>
</tr>
<tr>
<td>X₃</td>
<td>Gender</td>
<td>Binary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>X₄</td>
<td>Educational level</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No secondary degree (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secondary degree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher education max 2 year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher education, minimum 3 year</td>
</tr>
<tr>
<td>X₅</td>
<td>Partner and background</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No partner (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner with foreign background</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner with Swedish background</td>
</tr>
<tr>
<td>X₆</td>
<td>Mother civil status</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Single (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Couple</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Divorced</td>
</tr>
<tr>
<td>X₇</td>
<td>Mother educational level</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same as “educational level”</td>
</tr>
<tr>
<td>X₈</td>
<td>Father educational level</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same as “educational level”</td>
</tr>
<tr>
<td>X₉</td>
<td>Mother ISEI</td>
<td>Continues</td>
</tr>
<tr>
<td></td>
<td>(when 2-generation was 14 - 19 years)</td>
<td>Occupation status</td>
</tr>
<tr>
<td>X₁₀</td>
<td>Father ISEI</td>
<td>Continues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Occupation status</td>
</tr>
<tr>
<td>X₁₁</td>
<td>Degree of knowledge based region</td>
<td>Continues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share of the people working that has a occupation that demand higher education. Based on SSYK</td>
</tr>
<tr>
<td>X₁₂</td>
<td>La type</td>
<td>Binary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No big city (control)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Big city (Malmö, Stockholm, Göteborg)</td>
</tr>
<tr>
<td>U</td>
<td>LA</td>
<td>Labor market area</td>
</tr>
</tbody>
</table>

5.8. Model design

The analysis is done in five regression models, mainly to see how the differences in ISEI and the partial effect of ethnic background change or remain when different spatial characteristics are
added. By comparing the models with each other, it is possible to see the effect that variables have on each other.

The first model (A) controls only for ethnic background and not for either spatial or individual characteristics. The second model (B) controls for individual characteristics. The third model (C) controls for labor market areas. The fourth model (D) combines both individual characteristics and labor market area. The fifth model (E) adds spatial variables. Model A and B are ordinary least square regressions, where the intercept is fixed. Models C to E are random intercepts model or “multilevel” models which let the intercept vary depending on LA region. With this series of regressions, it is possible to see how much of the impact ethnic background has changed when individual characteristics and labor marker regions are controlled for and possibly explain some of the differences between ethnic group backgrounds.\(^7\)

5.8.1. Equations
The first OLS regression is constructed as follows (X variables shown on Table 2):

\[
Y = \beta_0 + \beta_{1-10}X_{1-10} + r
\]

In the model, ISEI (Y), is measured by the influence of the individual beta-coefficients (\(\beta_{1-10}\)), which are in relation to the measure of each variable, representing the individual characteristics such as education, civil status and parental background (\(x_{1-10}\)). The intercept (\(\beta_0\)) is the value that Y would have when all Xes are set to zero. The residual error (r) is the part that is unexplained.

The multilevel regressions consist of level 1 (individuals) and level 2 (LA regions). The intercept at level 1 is a level 2 equation.

Level 1:

\[
\gamma_{ij} = \beta_{0j} + \beta_{1-13j}x_{ij} + \eta_j + r_{ij}
\]

\(^7\) The relevance of all the multilevel models tests through the random effects between the Labor market regions and their difference from zero. As the random effects term has a highly significant value, it indicates an unexplained variation between the regions. Further diagnostics of multicollinearity, heteroscedasticity, and normality, have revealed a problem with heteroscedasticity and normality of error term, and therefore are robust standard error used in all of the models.
In level 1 the dependent variable ISEI is calculated by the intercept by group ($\beta_{oj}$) and the group mean coefficients ($\beta_{ij-13j}$) which are in relation to the measure of each variable on level 1 ($x_{ij}$). Furthermore, the part that the model cannot explain is shown as the error term of the prediction at level 2 ($U_j$) and at the level 1 by group mean ($r_{ij}$).

Level 2:

$$\beta_{oj} = \gamma_{00} + u_{oj}$$

In level 2 the intercept ($\beta_{oj}$) for level 1 is calculated, by group mean of level 2, this by the overall intercept (grand mean ($\gamma_{00}$)) and intercept of the group component ($u_{oj}$).
6. Result

Results of the analysis are presented in three parts. The first section investigates the differences that depend on ethnic group (question 1) and regions (question 2) in occupational status (ISEI), which mainly are based on descriptive statistics. The second part addresses potential differences is possible to explain by individual characteristics (question 3), and local context (question 4) (LA regions). The third part investigates which aspects (question 5) of local context can explain the differences: the extent to which a region is knowledge-based and whether it is a big city.

6.2. Descriptive statistics

6.2.1. Ethnic group differences

Table 3 shows difference in occupation status by presenting the average ISEI dependent on country background. The highest average ISEI is found in the Middle East & African group, followed by East Europe & Russia, West Europe, South & Central America. The lowest average ISEI is in the Scandinavian group. The table also presents the percentage of the highest achieved education level among the country groups. The general pattern is that the country group with the highest share of immigrants with a higher education is also the group with highest ISEI. Those lowest share of higher education have the lowest ISEI. The Middle East & Africa group has the highest average ISEI and highest percentage with a higher education, second is the East European & Russian group. The Scandinavian group has the lowest average values. An exception is South & Central America, which has a higher average percentage with a longer education than West Europe, yet the West European group has a higher average ISEI. West Europe is furthermore the group with the biggest share of those with no secondary degree.

Table 3, mean value of ISEI, percentage of the co-ethnic group with different levels of highest achieved education.

<table>
<thead>
<tr>
<th>Country Groups</th>
<th>ISEI</th>
<th>No secondary degree</th>
<th>Secondary degree</th>
<th>Higher education≤2</th>
<th>Higher education&gt;2 ≤3year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scandinavia</td>
<td>42.97</td>
<td>8.2%</td>
<td>55.6%</td>
<td>6.2%</td>
<td>30.0%</td>
</tr>
<tr>
<td>West Europe</td>
<td>44.50</td>
<td>11.5%</td>
<td>51.4%</td>
<td>6.0%</td>
<td>31.2%</td>
</tr>
<tr>
<td>East Europe &amp; Russia</td>
<td>47.92</td>
<td>5.3%</td>
<td>48.1%</td>
<td>7.8%</td>
<td>38.8%</td>
</tr>
<tr>
<td>South &amp; Central America</td>
<td>43.29</td>
<td>8.4%</td>
<td>48.2%</td>
<td>8.3%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>48.07</td>
<td>9.7%</td>
<td>44.1%</td>
<td>6.4%</td>
<td>39.8%</td>
</tr>
</tbody>
</table>
Figure 1 shows the percentage of individuals in each country group with occupations in different sectors, identified by SSYK division (first digit). The difference between an occupation that requires a longer versus shorter education is that a longer education is longer than three years. Examples are a medical doctor, civil engineer and specialist nurse, which are occupations with a longer higher education. Meanwhile, police, nurse, and engineer require shorter higher education. Comparing the country groups, the Middle East & African group and East Europe and Russia groups have the highest percentage working in occupations requiring higher education. The South & Central America group has the highest percentage working in service, welfare, and sale. Those with a Scandinavian background have the highest share of the country groups working in construction, building, and transport. The lowest percentage of workers in service, welfare and sales are in the East Europe & Russian group. The South and Central America group and the Middle East & African group have the lowest percentage in construction, building, and transport. The Middle East & African and East European & Russian groups have a slightly lower percentage in the occupations with no requirement.

![Figure 1](image)

**Figure 1.** Percentage of the population within different ethnic background in different occupations sectors.

6.2.2. Difference between LA regions

Figure 2 shows the average ISEI in each labor market area. The average ISEI for all Labor market regions is 39.9, while the lowest is 33.7 and the highest 51, a difference of 17 digits between the region with the highest and lowest average ISEI. The highest ISEI are in the big city regions, and in some of the university regions. Meanwhile, regions from the Northern inlands to Dalarna have the lowest average ISEI. The rest of the labor market regions, Middle and South Sweden, have a varied pattern somewhere between the maximum and minimum values. Big city
regions and some of the University regions have high values, Stockholm, Malmö, and Gothenburg, as well as Umeå and Linköping, have the highest average ISEI. The exception is Jämtland which belongs to the northern inland region yet has a higher average ISEI. This may be due to the fact that Östersund is a city region. Kalmar is also an exception, as the labor market areas close to Kalmar have low ISEI.

This pattern returns when looking at the differences between labor market areas and the degree of knowledge-based occupation. The LA region with the highest proportion has a value of ~48%, while the lowest has a value of ~19%, and the mean is ~29%, a difference of 29 percentage between the region with lowest and highest rate of knowledge-based occupation.
6.3. **Multivariate analysis**

The five regressions, presented in table 4, answer the question of how individual character and local context can explain the differences between the ethnic groups.

6.3.1. **Individual characteristics**

If not controlling for neither region nor individual characteristics (Model A), both African & Middle East (5.9) background and Eastern Europe & Russian (5.3) background have an explanatory impact of around five points higher compared with Scandinavian. West Europe also has a bigger positive impact compared with Scandinavia at two points higher. A South and Central American background does not seem to affect the ISEI that is statistically different from the reference category. Controlling for individual characteristics (Model B), the difference between the country groups decreases, and the impact of East Europe & Russia and African & Middle East backgrounds decreases. The effect of a West European background is not explained: the coefficient increases from 2 to 2.5. Comparing this to table 3, reveals that have a generally high education along with African & Middle East and Easter Europe & Russian groups. West Europe has a low education level, but still a good ISEI value.

The variables representing the individual characteristics have the expected impact. Education has the significant single largest impact on increasing the outcome of ISEI. Having a secondary degree has a positive impact of 3.5, meaning that a secondary degree has a higher impact than all other individual binary variables. Moreover, having a shorter higher education has more than double the effect of a secondary degree with a value of 11.3 points. The largest effect is for having a longer higher education, which increases the average ISEI by 20.2 digits. A difference of 20 digits is the same value as the difference between a teacher and a medical doctor, or a computer engineer and computer technician. The effect of gender shows that it is an advantage being male with a positive impact of 1.9 on ISEI. Having a partner with Swedish background has a positive impact of 1.7.
<table>
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<th>Variables</th>
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</tr>
<tr>
<td>West Europe</td>
<td>1.974(0.348)*****</td>
<td>0.694(0.711)***</td>
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<td>East Europe and Russia</td>
<td>5.361(0.274)*****</td>
<td>5.110(0.752)*****</td>
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<td>0.992(0.542)</td>
<td>-0.594(0.482)</td>
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<tr>
<td>Africa &amp; Middle east</td>
<td>5.879(0.591)*****</td>
<td>4.182(0.350)*****</td>
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<tr>
<td><strong>Gender</strong></td>
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<td>(ref. = male)</td>
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<tr>
<td>Female</td>
<td>-1.905(0.186)*****</td>
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<tr>
<td><strong>Education</strong></td>
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<tr>
<td>Secondary degree</td>
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<td>3.716(0.515)*****</td>
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<td>11.34(0.443)*****</td>
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<td>High. education &gt;3 year</td>
<td>20.19(0.351)*****</td>
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<td>3.495(0.568)*****</td>
<td>3.047(0.555)*****</td>
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<tr>
<td><strong>Education Father</strong></td>
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<td></td>
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<tr>
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<tr>
<td>Secondary degree</td>
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<td>High. education &gt;3 year</td>
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<td>0.905(0.274)*****</td>
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<td>0.626(0.291)*</td>
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<td>ISEI Father</td>
<td>0.0406(0.006)*****</td>
<td>0.0398(0.004)*****</td>
</tr>
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<td><strong>Degree of knowledgebase</strong></td>
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<td><strong>LA Type</strong></td>
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<tr>
<td>(ref. no big city)</td>
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<tr>
<td>Big city</td>
<td></td>
<td>1.376(0.518)*****</td>
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<td><strong>Nonrandom intercept</strong></td>
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<td>29.43(0.560)*****</td>
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<td>192879.5</td>
</tr>
<tr>
<td><strong>BIC</strong></td>
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</tr>
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<td><strong>0.0114864</strong></td>
</tr>
</tbody>
</table>

Standard errors are in parentheses

Significance levels: * p<0.05, ** p<0.01, *** p<0.001

AIC = Akaike information criterion; BIC = Bayesian information criterion; ICC = Intraclass correlation

For more information about multilevel regression and the test see: Snijders & Roel, (2012); Rabe-Hesketh & Skrondal, (2012)

8 The ICC value of a null model is 0.03
The characteristics of the parents have, as expected, an important influence on the child, in which the variables representing the parents’ influence together have a big impact. The impact of the parents’ education level follow the same pattern as for the child’s education: the higher the education first generation has, the higher impact it has on the second-generation occupation status. A secondary degree has a positive value of around 1.2 for the mother and 0.9 for the father in comparison with no degree. A shorter higher education has an impact of 2.3 for the mother and 3.5 for the father. A longer higher education increases the value of ISEI by 3.5 for the mother and 3.7 for the father. Both the mother ISEI (0.050) and father ISEI (0.040) have a positive impact. The mother’s civil status also has an impact: being in a partnership when the second generation is young increases the ISEI by around 0.8 points.

6.3.2. Local context

The multilevel models on table 4 have significant random intercepts meaning that the multilevel model is motivated, as there is a difference between the regions. This supports the map in figure 2 in that there is a regional difference.

The regions by themselves (model C) explain some of the difference between the country groups. Compared with the Scandinavian group, the decreases in the Eastern Europe & Russia and Middle East & African groups. The coefficient for Eastern European and Russian background decreases from 5.4 to 5.1 and for African and Middle East background decreases from 5.9 to 4.2. West Europe loses it explanatory impact. South and Central America have an insignificant result, indicating that having a South and Central American background does not have an explanatory effect. When both LA regions and individual characteristics are controlled (Model D), there is the largest decrease of the difference between the groups. When controlling for individual characteristics and labor market regions, the difference decreases for most of the groups. The exception is the South & Central American group that goes from an insignificant to significant coefficient, meaning it gets an explanatory impact, with the biggest negative impact on ISEI. The negative impact of a South & Central American is expected with a negative coefficient of (-1.6) compared with a Scandinavian background. The impact of having another ethnic background still shows an unexpected result. The Scandinavian background has the second worst impact, third being West Europe (1.6). The highest positive coefficient is for African and Middle East (3.6) background and the second-best is for East European or Russian (2.7) background.

Controlling both LA regions and individual characteristics (Model D), a low AIC indicates that individual characteristics and regions provide the greatest explanatory together on ISEI and that some of the differences are because of which LA region the subjects live in. The Intra Class
Correlation (ICC) shows the degree to which the overall variation of ISEI is explained by the differences between LA regions: that is to what extent the overall variation is explained by people with similar ISEI living in similar places. ICC has a scale from 0 to 1, where 1 means that all people in an area are identical in regards to ISEI, and 0 meaning that there are no systematic differences in ISEI between LA regions. As the ICC value decreases from model C to D, from 0.027 to 0.011, we may say that the individual characteristics added in model D explain some part of the regional differences. This indicates that people that are similar in those characteristics tend to live in the same region. The ICC value also indicates how much of ISEI values are explained by the regional effect. With the help of ICC, it is possible to see that the regional effect is low, going from an explanatory effect of 3% in a null model to only 0.1% with the spatial variables in Model E. Despite that the regional impact in itself on ISEI is very low, regions still having an effect on the coefficient of country groups and seems to explain some of the difference between the groups.

6.4. Explaining the regional impact

The extent to which how knowledge-based a region is and whether it is a big city area provides some explanation of the impact of those regional factors, as indicated by lower AIC and ICC values in models E and D. A lower AIC means that this model has the least unexplained impact, and a low ICC implies that regional and individual characteristics together explain the larger part of the differences between regions. These contextual effects are partially explained by the two variables with regional characteristics. The model improves when the spatial characteristics are included (model E in Table 4) and the ICC decreases. Whether a region is a big city or not and the degree to which regions have a more knowledge-based labor market partly explain the regional effect. Individual and regional characteristics together thus make the greatest contribution to the differences between regions, as the ICC value is almost zero in model E.

The LA region that the individual lives in also impacts ISEI. A region with a high percentage of occupations that require higher education has a positive effect. Each percentage point increases the second generation’s ISEI by 0.15. Living in a big city labor market compared to all other LA areas has a positive significant value of 1.4, which is almost advantageous as it is to have a south or central European background. When looking how other variables change, the other variables are stable between model D and E.
7. Discussion & Conclusions

This discussion addresses difference between the ethnic groups (question 1), regional aspects (questions 2 to 4) and regional characteristics (question) 5. The conclusion discusses limitation of the study a proposal for future research.

7.2. Difference between country of origin

There is an ethnic difference for the second generation in occupational level, but it is not the expected difference. This is probably the most unexpected result, and deserves further attention and discussion although it is not a central part of the research. It suggests important questions for future research.

Contrary to earlier studies claiming that a non-European background is a disadvantage in the Swedish labor market (Rooth & Ekberg, 2003; Hammarstedt & Palme, 2012), this thesis shows an advantage of the Middle East and African background, after controlling for individual characteristics. Prior research has shown that this group had the biggest disadvantage in unemployment and income, also after controlling for individual characteristics. In addition, that a Scandinavia or West European background is not an advantage. Instead, a Scandinavian background has the second lowest values after controlling for individual characteristics. Only the South and Central America group does worse. This was probably the most expected outcome they have a non-European origin. East Europe and Russia also do well. The primary driver that explain the contrast with the conclusions of previous articles is likely sample selection. This thesis examines immigrants with an occupation, and only in one point of the year. Measurement of occupation does not take into account unemployment or temporary employment that may get an aggregated income. The thesis therefore includes only those who have a full-time occupation and in that sense have succeeded. Probably are there a division between those who succeed and those who have a high unemployment and temporary employment. That there is a division is also shown by a simpler Heckman model that estimates both unemployment and ISEI simultaneously. The Middle East & African group has the highest percentage of unemployment with 16 %. They may be unable to get work in occupations with a demand for higher education or experience discrimination or find it harder to get work for other reasons. They are often filtered out from the labor market, especially from low-status work. Supporting this theory, the data shows they have a lower percentage of work in construction, transport, building or

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9 Additional data on unemployment rates for the groups are: 9% Scandinavians, 12 % West Europa, 11% East Europa & Russia, 15% South & Central America and 16% for Africa and Middle East.
occupations with no education requirement (figure 1). Carlsson (2010) found discrimination against those with a Middle East background. Rooth (2003) stated that his data could not answer whether the income difference was a consequence of lack of opportunity in specific occupations or pay discrimination. Data from 2005 made it possible to investigate the occupations. Rooth (2003) argued that “blocking” (not hiring certain ethnicities for some occupations) is one possible reason for the income differences. According to the result in this paper, it is possible a blocking toward low-status work, at least for the Middle East and African group. The South and Central American group has many who do not get an occupation at all (15 % unemployment), with the big difference being that they have few in high-status work. Discrimination both towards low-status work and towards high-status work may be a cause.

Additional data show the most common occupations for the second generation among those who do well are medical doctors and computer engineers, especially for the Middle East and African group. What they have in common is that the occupations demand higher education and have a lack of qualified workers. Admission to universities in Sweden is primarily based on test scores and grades and does not identify the ethnicity of applicants: the system cannot discriminate. After removing these two occupations from the data set, the average value gets lower but is still higher than the Scandinavian group. These two occupations indeed have a big effect on the sample, but it does not fully explain the high value of ISEI for the Middle East and African group. There is something else affecting this, and this thesis cannot explain it. In addition, aggregated groups with very different subgroups. If a specific group is doing very well, it increases the average value for the whole group, skewing the data set.

7.3. The regional impact

Studies have shown a regional difference among groups, especially if considering both individual characteristics and regions. That there are regional differences in labor market performance is also in line with earlier reports (SOU, 2004; SCB, 2010b) and research (Andersson, 1996; Bevelander & Lundh, 2007). These investigate unemployment and income of the first generation in Sweden. Bevelander (2007) has used labor market regions, finding a difference in unemployment. The difference in this paper is consistent when controlling for individual background factors. This thesis further states that there is a labor market regional difference in occupational income for the second generation. This strengthens the conclusion by Ellis and Almgren (2009) in their research on intra-national differences for the second generation, that there are differences also within countries and between regions. However, the regional impact is limited. According to the ICC, the regions, when controlling for individual characteristics and
regions (model D), only explain around 2% of the ISEI difference between the groups. This indicates that region in itself is not particularly important in explaining ISEI in general for immigrants. Even if there are regional differences, they do not adequately explain the ISEI variance. A low ICC may offer only limited support for the argument by Ellis & Almgrens argumentation, at least not with the labor market regions as scale. This does not mean that labor market regions are not important, rather that it does not explain the ISEI for the immigrant by itself. Although region does not explain any substantial differences in the labor market performance, it still can explain some of the differences between the ethnic groups.

Individual characteristics and regions separately (models B and C) explain some of the differences between the ethnic groups. However, it is a relatively small change in coefficients, and some groups do not show any explanatory impact at all. This is particularly true when controlling for regions in which either South & Central America or West European background is significant. Although regions and individual characteristics separately explain only a small part of the difference is not the important point in this thesis. More important is that Portes and Zhou (1993) in their segmented assimilation theory argue that both external and exogenous aspects are important and together have an important explanatory impact. It is thus necessary to look at both individual characteristics and context and how they interact with each other to understand the difference in the labor market performance between groups and individuals. A reason for this is that people are meeting different contexts with different characteristics. In some contexts, individual characteristics are more or less important and following the result from earlier research according to this. With respect to previous research, only when individual characteristics are included is it possible to see how important the region people live in is to explain the difference between groups. This interaction is shown in the s of this paper (model D in Table 4), and it is this that shows that regions are important in explaining differences. In comparison with model A, when only country groups are controlled, model D with both individual characteristics and regions explains most of the difference between the groups of the models B, C and D. The difference between regions identified in this thesis contributes to earlier research that the labor market region in which second generation immigrants live can explain some of the difference between ethnic groups. This impact makes sense, as the population of immigrants is different in the regions and the big city regions have a much larger immigrant population (SCB, 2016). It supports the idea shown by earlier research that the region in which a person lives can explain labor market performance of the first generation (Ekberg & Ohlson, 2000; Bevelander & Lundh, 2007). It strengthens the contention about local context of Ellis and Almgren (2009) as it greater than a regional difference. Local labor market partly explain the difference between the ethnic
Reviewing the overall national labor market structure over time, it seems that regions as a scale help us understand labor market integration of the second generation.

7.4. The spatial characteristics

Knowledge based, large regions are slightly advantageous to those living in these regions in obtaining work in higher status occupation according to the ISEI scale. Big cities have a small positive effect on the labor market performance, a result also partly supported by Sassen (1998). Probably partly, a result of big cities having larger labor markets and being nodes in international business and transnational networks. A higher demand for a workforce with higher education, also opens up opportunities toward better career opportunities. Earlier research in a Swedish context has shown that growing labor (Bevelander & Lundh, 2007) market and living in Stockholm are more advantageous in obtaining the first job (Hedberg & Tammaru, 2013; Ekberg, 2004). This thesis shows a small, yet positive impact of living in a big city and in a region with larger knowledge-based labor market. These results are in line with Hedberg & Tammaru (2013), Ekberg (2004) and Bevelander & Lundh (2007). This applies not only to the opportunity for the first generation to obtain employment but also for the opportunity for the second generation to get a good occupations. Sweden has different conditions than other countries as the United States, including higher social mobility, a bigger welfare state, free education and a more regulated labor market. The difficulties of getting a education are a limitation for the second generation in US (Goodwin-White (2009). Free education opens up the possibility for upward mobility that demands higher education also among the weakest groups. Of course, there is the possibility that these results are due to successful people moving to such regions that are big cities or more knowledge based regions. Something that would demand more detailed investigation in future research.

According to theory, indeed these characteristics of a region are an advantage; however, for immigrants it is also common to have low income and low status occupations (Portes & Rumbaut, 2001; Sassen, 1988). Some research in the Swedish context also show that sometimes it can be an advantage to live outside of the big cities in getting a good employment (Andersson, 1996) or any employment at all (Lundh, 2004). Considering Portes & Rumbaut (2001) discussion that also down-ward intergenerational mobility occurs, it is possible that the result is affected by the fact that groups in the second generation that have high unemployment also are those with would have a high ISEI were they employed. With exception of the South & Central American group that has both a high unemployment and low average ISEI. This indicates a division in the labor market between those who succeed and those who end up in unemployment. A more
regulated labor market offers less low status and low-income work. Instead of getting low status occupations, it might be a pattern of not getting a employment at all for many. This pattern might be more or less common in different regions. In this thesis, it is not possible to tell if the same regions that are good for a high-status occupation for the second generation also are good for unemployment, a subject for future research.

7.5. Summary of conclusions
This thesis shows that, differences in immigrant success and integration are dependent (1) on ethnic background and (2) on regions. Controlling for individual characteristics explains differences that are dependent on ethnicity; controlling for labor market regions explains their influence. Together, individual characteristics and labor market regions explain most of the differences in immigrant assimilation. In line with assertions by Portes (1993), the thesis concludes that both individual characteristics and contextual factors are necessary to understand labor market integration. How well immigrants succeed is not only due, to their individual background but also, to the context they live in. This thesis contributes with indication that region impact, in specific the labor market, probably also has an effect on integration. It partly supports Ellis and Almgren’s (2009) argument that local context matters in explaining labor market outcomes for the second generation. The these also shows that the labor market region explains some of the difference between the ethnic groups. Other regional factors affecting integration are how knowledge-based a region is and whether it is a big city or not, which are a small advantage.

The impact of labor market regions have should be interpreted with caution. The overall impact that a region has on ISEI is small when individual characteristics are controlled for. Furthermore, there is still an unexplained difference between the ethnic groups due to unknown factors. It is important to be aware that this result is based primarily on those with an occupation and excludes those with no employment. In this sense, the result is probably only applicable to those with an occupation. For example, the Middle East & African group has high overall occupation value, but there is a sharp division between those with good occupations and those do not work at all.

7.6. Future research
Future research on second-generation immigrants is critical. The second generation is a fast-growing group that in many cases has difficulty succeeding in the labor market (Behrenz, et al., 2007; Rooth & Ekberg, 2003; Tasirana & Tezicb, 2007). There is little research in Sweden about
this group. Two main areas are of particular interest for future studies: The first is the unexpected difference between groups when looking at occupational status; the second is the local context.

When it comes to the unexpected difference between the groups, more research about occupations is important. Examining the occupations that people have difficulty entering could identity the factor that make it particularly hard for the second generation to enter these sectors. It might be a consequence of discrimination, which earlier research has pointed toward (Carlsson, 2010). It is difficult to get valid results on the impact of discrimination on employment opportunity, so research may not produce clear conclusions. More research on common occupations for different groups may yield valid observations. For example, if certain groups are overrepresented in some occupation; why this is; and what implications this has. Medical doctors and computer engineers are common high-status occupations for many immigrants. It is not clear whether these occupations are easier to access with an immigrant background or that they are prestigious occupations for many immigrant groups. A qualitative study maybe more appropriate than a quantitative examination. The primary interest is whether there is a division between those who get a good work and not at all, especially those with a Middle East & African background.

Another topic of research is the source of disadvantage of having a South & Central American background regarding ISEI and unemployment. Why do some immigrant groups value education more highly than others; is discrimination a factor. Immigrants with Scandinavian background may have a low average ISEI because it is easier for them to get low-status occupations. A Heckman model that takes both unemployment and ISEI into consideration could help evaluate the question.

Local context is indeed an interesting perspective of the contextual aspect of Portes and Zhou’s (1993) segmented assimilation theory. As Ellis and Almgren argue (2009), by looking into sub-national geographical condition, it is possible to increase the understanding of the differences in conditions and the impact locations have on integration. Similar Hedberg & Tammaru (2013) have an important argument that more than one scale is important. One approach could include more geographical levels in a multilevel regression. Looking deeper into the regional differences, and other scales, will increase the knowledge on what increases the opportunities for the second generation with the local context but also on what obstructs them. This thesis evaluated the relative effect of big city regions, or how much knowledge-based a region, but other spatial characteristics are also essential. One example could be how big the co-ethnic community is, in terms of how many immigrants with the different ethnic backgrounds live in the same region. In addition, this paper evaluated occupational status only in respect to regions. Only looking into occupation status limits the possibilities to deeply understand whether the same places that offer
good occupation are the same places that have more opportunities of employment. It is also interesting to know if labor market regions explain some of the differences between the ethnic groups in that regard.

Overall, more knowledge and possible above mention suggestion of future research is of importance as it increases our understanding of how to design future integration policy and how to plan optimally for a successful integration.
References


8. Appendix

Appendix 1

<table>
<thead>
<tr>
<th>$X_i$</th>
<th>Country groups</th>
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<tbody>
<tr>
<td>Sweden</td>
<td></td>
<td>Norway, Denmark, Island, Finland</td>
</tr>
<tr>
<td>Scandinavia</td>
<td></td>
<td>Germany, DDR, Belgium, France, Luxemburg, Netherlands, Austria, Great Britain, Ireland + Italy, Portugal and Greece</td>
</tr>
<tr>
<td>West Europe</td>
<td></td>
<td>Albania, Bulgaria, Romania, Slovakia, Czech, Hungary, Estonia, Latvia, Moldavia, Russia, White Russia, Ukraine</td>
</tr>
<tr>
<td>Eastern Europe and Russia</td>
<td></td>
<td>Lithuania, Bosnia-Herzegovina, Croatia, Macedonia, Slovenia, Poland, Moldavia, Russia, White Russia, Ukraine</td>
</tr>
<tr>
<td>Africa &amp; Middle east</td>
<td></td>
<td>Egypt, Libya, Tunisian, Algeria, Morocco, Israel, Palestine, Lebanon, Jordan, south Yemen, United Arabian emirate, Kuwait Bahrain, Qatar, Saudi-Arabia, other Africa, Iran, Iraq</td>
</tr>
<tr>
<td>South &amp; Central America</td>
<td></td>
<td>Central and South America minus USA &amp; Canada</td>
</tr>
</tbody>
</table>

Appendix 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>OLS</th>
<th>Multilevel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MODEL A</td>
<td>MODEL B</td>
</tr>
<tr>
<td>Country groups (ref. = Scandinavia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Europa</td>
<td>1.974(0.348)**</td>
<td>2.481(0.299)**</td>
</tr>
<tr>
<td>East Europa and Russia</td>
<td>5.361(0.274)**</td>
<td>2.803(0.238)**</td>
</tr>
<tr>
<td>South &amp; Central America</td>
<td>0.992(0.542)</td>
<td>-0.755(0.482)</td>
</tr>
<tr>
<td>Africa &amp; Middle east</td>
<td>5.879(0.591)**</td>
<td>4.607(0.505)**</td>
</tr>
<tr>
<td>Control year (ref. = 2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>0.270(0.442)</td>
<td>0.0829(0.371)</td>
</tr>
<tr>
<td>2007</td>
<td>0.266(0.464)</td>
<td>-0.393(0.393)</td>
</tr>
<tr>
<td>2008</td>
<td>1.080(0.479)*</td>
<td>-0.0667(0.405)</td>
</tr>
<tr>
<td>2009</td>
<td>1.163(0.494)*</td>
<td>0.199(0.430)</td>
</tr>
<tr>
<td>2010</td>
<td>-0.0208(0.416)</td>
<td>-0.128(0.363)</td>
</tr>
<tr>
<td>2011</td>
<td>-0.0126(0.418)</td>
<td>-0.929(0.359)**</td>
</tr>
<tr>
<td>2012</td>
<td>0.244(0.422)</td>
<td>-0.737(0.360)*</td>
</tr>
</tbody>
</table>

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