

Thesis title.

“The Role of Language in Immigrant Economic Integration and Assimilation in  
Sweden”

An honors thesis submitted in partial fulfillment of the requirements for the degree of

Degree.

B.S.B.A. in Business Economics

By:

[Full name here]

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University of Arkansas

Advisor: Dr. Raja Kali

Second Reader: Dr. Robert Stapp

The title page should appear exactly  
as shown above.

This abstract successfully informs readers not only of the topic but also of the relevance of the topic. Abstracts must also provide information about the methodology and data analyzed.

**Abstract:**

This research explores the significance of language upon immigrant incomes in Sweden, particularly elaborating on the potential of English as a lingua franca. With the pressing refugee crisis in Europe, particularly in Sweden, a greater understanding of the factors influencing immigrant economic integration is of vital concern. This is particularly important in formulating sustainable asylum policies. To this end, this research builds upon previous work regarding dominant language proficiency and immigrants' economic success to propose that a lingua franca may provide a possible substitute.

Utilizing data from the European Social Survey's Seventh Round, this paper proposes a linear model including explanatory variables representing age, birth country, sex, education, language, and the distance between an immigrant's origin country and Sweden. These arguments serve as predictors for the natural log of income as determined by the respondents' reported income decile. The results of the regression reveal language as a significant variable with varying degrees of significance for distance based upon differing immigrant origins. The research offers a series of suggestions for further efforts into exploring the role that a lingua franca could have in immigrant economic assimilation and the data required for such an undertaking.

More liberal requirements for language proficiency might minimize the role that dominant language proficiency plays for incoming immigrants. In conjunction with outlining and framing the question of language, it also explores immigration in the context of the Sweden's political history and legal frameworks.

Note how the final paragraph also points towards the long-term impacts of the thesis's findings.

This honors thesis is approved for recommendation.

Faculty Advisor:

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Dr. Raja Kali

Second Reader:

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Dr. Robert Stapp

## **Acknowledgements**

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The introduction provides relevant background about the topic and validates the research project. It addresses the methodology and gives an overview of the contents through a thesis statement.

A good introduction addresses *why* the research is needed.



## **Introduction**

The need for an understanding of the dynamics of international migration stands at an all-time high as growing migration movements challenge governments to create appropriate policies. One nation currently at the heart of this topic, Sweden, provides a unique case study in dimensions of immigrants' economic integration. The government there has dedicated itself to creating policies that encourage the integration of immigrants into their labor market, particularly through providing educational opportunities to promote Swedish language proficiency. At the core of this research is an empirical model utilizing data from the seventh round of the European Social Survey to test the dynamics upon which immigrants' incomes are determined. Particularly, this model focuses on the variable of primary language spoken at home. It also evaluates the role of the variable distance as a representation of Sweden's historical relationships with immigrants from different backgrounds.

This paper is divided into six separate sections: a literature review, the Swedish context, the model, data, analysis and results, and the conclusion. The literature review presents an overview of the research conducted regarding language. Section 2, the Swedish context, outlines some of the history at play in evaluating immigrants' earnings and also the current status of immigration to Sweden. In section 3, the paper introduces the empirical model that will be utilized to explore the variables of language and distance in immigrants' earnings, along with established variables such as age, sex, and education. The fourth section, Data, provides an overview and evaluation of the European Social Survey and the methods by which the data was used or derived for the regressions. Analysis and Results looks at multiple

regressions to make a final evaluation of the impact of language and distance for immigrants as a whole in Sweden. The conclusion presents a summary of the research and findings, with caveats and methods of improvement with new research opportunities.

While it may be useful to break down the sections, a brief synopsis would improve the introduction. Reiterate your argument/hypothesis with an overview of your evidence.

The literature review identifies and describes current scholarship through **synthesis** and **analysis**.

## I. Literature Review:

The link between dominant language fluency (whether oral or written) and immigrant economic integration has long been explored in economics (Chiswick, 1978). Studies have found that proficiency in the native language of the immigrant-receiving country has indeed resulted in narrower earnings gaps between natives and immigrants. However, the assumption of these studies has been that there exists only two results for immigrants' language skills: fluency or non-fluency in the dominant language. What if there exists a third language, a lingua franca that serves as a viable alternative for immigrants' integration into a new economic environment? That question is the focus of this research, with the Swedish immigrant market providing context.

Sweden provides an excellent starting point for exploring this topic for numerous reasons. The first and most important advantage of framing this question in the Swedish context is the high level of Swedish fluency in English. Eurobarometer, as of 2012, placed Swedish English proficiency as high as 86% of the population. Note that this fluency has been adopted willingly, having been introduced to Swedes as early as their third grade education and reinforced by the prevalence of English cinema with Swedish subtitles instead of dubbing. Meanwhile, for individuals exploring college options, Sweden offers numerous university degrees instructed in

Note how the topic sentences for these two paragraphs take a position that the rest of the paragraph defends, explains, or substantiates.

English. These variables lead to a favorable environment for evaluating the economic substitutability of a secondary language.

In a comprehensive overview of immigrant integration in Europe prepared for IZA (Institute for the Study of Labor), Aleksynska and Algan (2014) sought to address the complex and multifaceted nature of immigrant integration. Utilizing the European Social Survey (ESS) and Migrant Integration Policy Index (MIPEX), they devised an extensive statistical analysis of varied dimensions upon which immigrants assimilated across sixteen different Western European nations. The goal of their research, however, was not to explain why or how immigrants assimilated into Europe but rather to determine if they even were assimilating based upon the variables regressed. Of particular note is the gap between immigrants and native-born language fluency regressed to income of first generation immigrants. In their analysis, Aleksynska and Algan (2014) note the slight positive correlation between language fluency and earnings among first generation immigrants.

Note how the overview does not simply summarize but shows **how** the research question is informed by previous studies.

However, a closer inspection reveals an interesting observation: the correlation between language and income gaps in Sweden was relatively lower than the other nations in the sample. In fact, despite a high gap in language usage between first generation immigrants and native Swedish speakers, there was a much smaller gap in earnings between the two groups. This leads to an intriguing question: to what degree exactly does language impact immigrant earnings in Sweden, and what explanations are there for this lower gap? The correlation to earnings and language is not a new idea in economics. Two separate studies, one focused on the United States' labor market and another on Australia's (Chiswick, 1991 & Chiswick, 1995), found a significant

correlation between language fluency in English and earnings. This leads to the question of why Sweden would differ in this aspect.

Several studies have been conducted regarding the assimilation of immigrants into Sweden. Some have focused upon the role of the “Swedish Model,” the mixture of central, social democratic policies with corporatist influences (Soininen, 1999). Others have studied the integration of labor migrants versus refugees, days of unemployment, and wage differences among differing classes to conclude that low-skilled workers adapt more quickly than high-skilled workers in Sweden (Lundborg, 2007). This research provides substantial insight, especially after Sweden’s transition in the 1980s from “importing” migrant laborers to becoming a haven for refugees. Still other studies have focused on evaluating the surprising role that self-employment has played in the integration process among immigrants in Sweden (Hammarstedt, 2002).

Most modern research today rehashes much of what has been previously explored. The Migration Policy Institute, a migration think tank based in Washington, D.C., has released a series of papers exploring the policies enacted by nations in addressing migrants’ integration (Emilsson, 2014), access to middle-level jobs (Benton, 2014), and the degree to which labor market immigrants have achieved integration (Bevelander, 2014). In all this research, common threads are explored: education level of migrants, language proficiency in the dominant, official languages, and time spent within the country.

Note how the author identifies a gap in the field and positions this research as a way to fill it. A successful thesis **clearly** states its contribution.

In all this research, however, there is a gap in research addressing the specific dynamics of the relationship between language and earnings in Sweden among immigrants. The implicit assumption is that the relationship would follow the same trajectory of many other nations, that

attainment of the dominant language would lead to higher earnings. This is very likely the case over time. However, Sweden has a unique feature that sets it apart from many other major immigrant receiving nations: an ubiquity of English speakers.

Sweden, as opposed to many other nations with English as a lingua franca, has willingly adopted a fluent attainment. Fluency is believed to be as high as 86% of the population (Eurobarometer, 2012). The language is persistent throughout Swedish media, as many movies and television shows are of American and British origin and are subtitled instead of dubbed. This has led to a very favorable attitude towards the language among Swedes (Henry, 2016). Swedes also value English as a means of communicating internationally. This adoption of English fluency as a lingua franca has coincided with the language's increasing prevalence across the globe.

Studies have been done emphasizing the connection that proficiency in the domestic language has on earnings (Chiswick, 1995). Most of these studies have focused particularly on English proficiency in the United States or other nations where English is the dominant language. Where Sweden differs is that English is not its native/dominant language, nor has Sweden's acquisition been the result of a period of governance by English-speaking forces. For that reason, English can serve as a truly neutral bridge between immigrants who arrive with a degree of English proficiency and Swedish natives.

This literature review is effective because it reiterates the research question while also pointing out the exigence.

This provides an interesting question and opportunity: what role does a language really play in the facilitation of economic transactions? If it is simply a means of communicating to enact a transaction, there would exist grounds for thinking that immigrants fluent in English upon

arrival in Sweden should be able to more easily access the labor market. This access would be reflected by faster equalization (or at least a more equal starting point) in terms of wages and labor market integration. This question is the focal point of the research that follows.

Note how the topic sentence introduces the section by identifying the main idea.

## **II. The Swedish Context:**

In order to understand fully the purpose and results of this research, a greater perspective of the Swedish migrant context is necessary. Over the course of the 20<sup>th</sup> century, Sweden evolved from a relatively isolated nation to one of the world's largest actors in terms of migrant flows. Throughout the past six decades, Sweden's relationship to migrants has evolved through three distinct stages: a period in the 1950s and 1960s of labor migration from neighboring Nordic countries, a period in the 1980s and 1990s of asylum seekers from the Balkans and Middle East, and presently a period of a mix of new labor from EU nations and asylum seekers from the recent Middle East crises.

In the 1950s, in an effort to continue expanding its tax base to support social programs, Sweden started importing labor from nearby Finland, Denmark, and Norway. This was enabled through the establishment of a common labor area by the Nordic nations in 1952, along with the support of the LO (Sweden's main trade union). The workers that were recruited were entitled to the same rights guaranteed to Swedish citizens, and they were encouraged to join the established unions. In this sense of legal and economic equality, immigrant workers and Swedes were fairly indistinguishable, especially since language differences were more easily surmountable due to the commonality of Nordic tongues. In 1972, with economic pressures mounting, recruitment of non-Nordic labor ceased.

In 1975, Sweden solidified the privileges labor immigrants enjoyed as priorities with the enactment of the Swedish Immigrant and Minority Policy. Emphasizing “equality,” “freedom of choice,” and “partnership,” it was a stated goal of the government to offer as many public services as possible to integrate immigrants into Swedish society and markets. This policy was supplanted by a new law in 1986 that brought Swedish immigration law and policy more in line with international law, treating immigrants as a distinct group instead of an ethnic minority as the 1975 law had. Throughout this period, immigration was motivated by family reunification and refugees from developing countries (particularly Chile and Syria). However, more stringent policies were passed regulating migration from outside the Nordic common area. Despite ceasing recruitment of labor immigrants, the process of “chain migration” led to ever growing immigration as refugees’ and laborers’ families immigrated in reunification.

It is in the 1990s that the beginnings of the modern Swedish model of immigrant integration begin. With the dissolution of Yugoslavia, Sweden began to take on more and more refugees from the Balkans. Refugees from Bosnia-Herzegovina particularly found refuge in Sweden, with over 50,000 asylum seekers arriving. Sweden’s entering into the EU’s free movement agreement, the Schengen Area, further increased movement to the country. In 2008, in the face of greater economic uncertainty, Sweden went against the current and doubled down on immigration, passing new laws freeing up quota restrictions and making it much easier for immigrants to obtain a visa. They also granted Swedish businesses greater freedom in hiring labor from abroad.

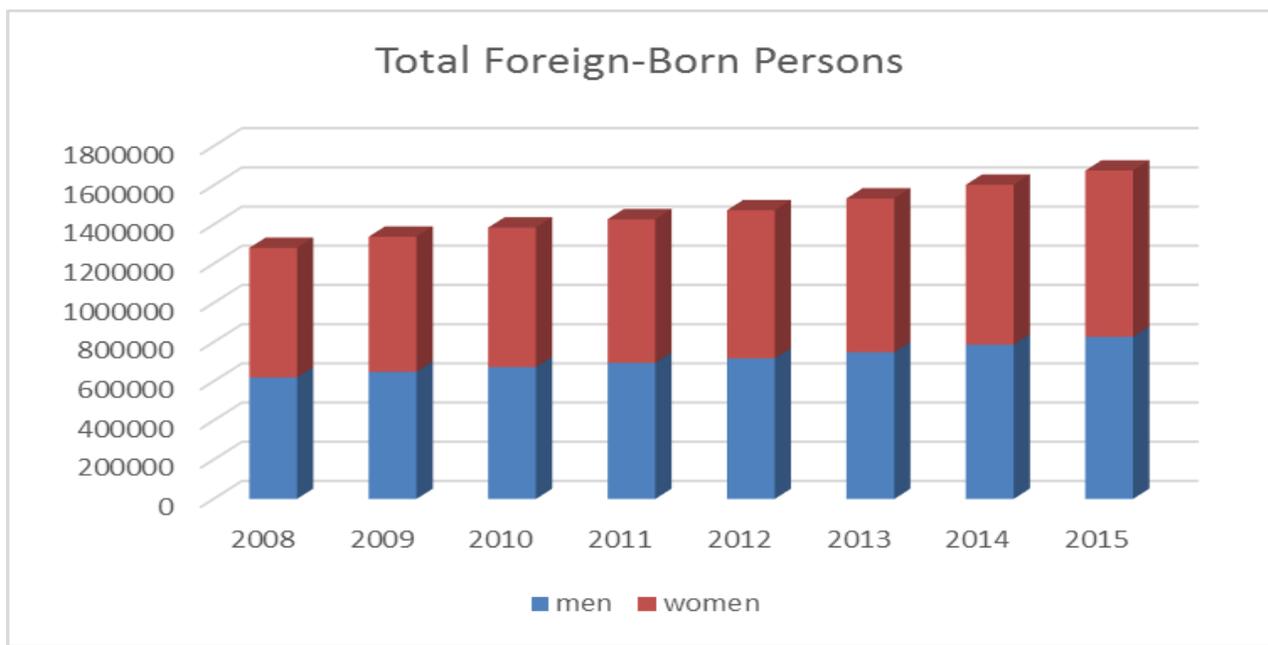
These new laws could not have predicted the increased pressure added to Sweden’s migration infrastructure. Since the laws were passed, global economic uncertainty has risen while mass flows of refugees have applied for asylum in Sweden. The proportion of the foreign

born population represented by fellow Nordic nations has continued to diminish and, as a whole, has led to an increasingly diverse and multicultural Sweden. This has led to fundamental shifts in Sweden's population. There has been a steady increase in the number of foreign-born persons in Sweden, who have come to account for a total of 16% of Sweden's population, according to Statistics Sweden (see Graph 1). Also, with growing crises in the Middle East and Africa, asylum applications have soared to new levels since 2008 (see Graph 2).

Note how the graphs are labeled.

Incorporate an explanation of graphs and tables in the text. The visual should function as an aid to the text. While the graphs are referred to here, it may be useful to offer an explanation of their purpose –provide a “take away.”

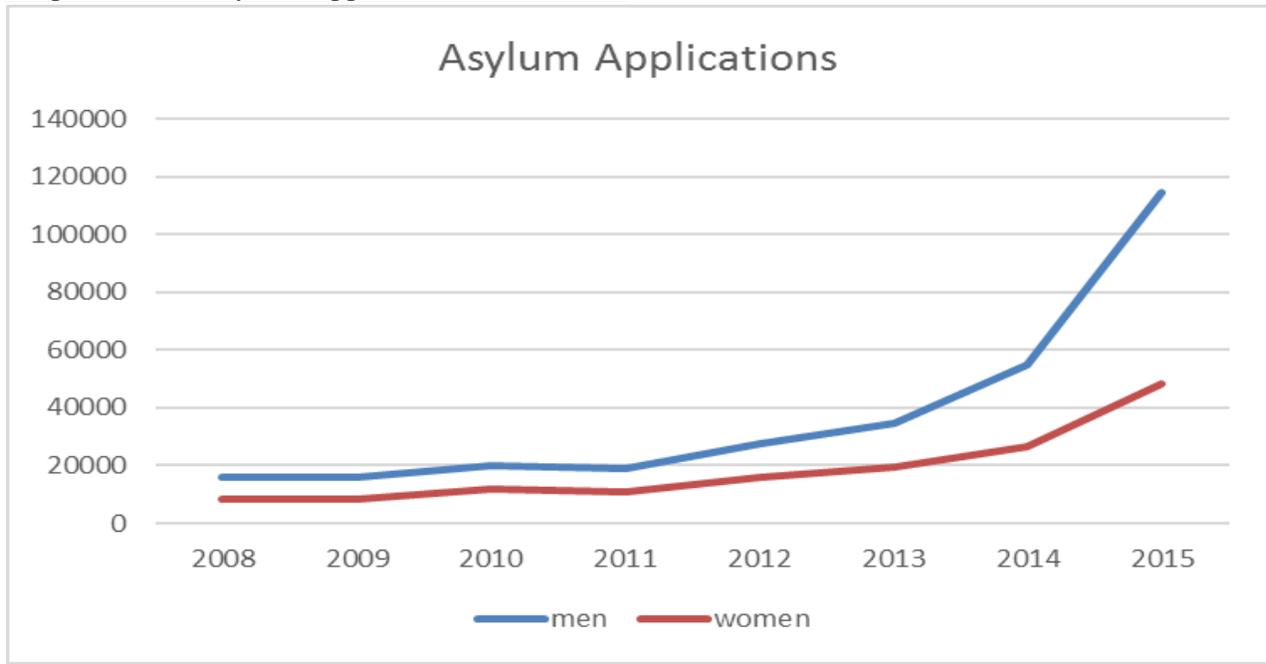
Graph 1: Total Foreign Born Population (2008-2015)



Data from Statistics Sweden

And the source is cited.

Graph 2: Total Asylum Application (2008-2015)



Data from Statistics Sweden

Understanding the dimensions upon which immigrants integrate becomes even more crucial when considering Sweden's current policies to integrate immigrants. Sweden has some of the most generous immigration policies in the world and holds the top rank in the Migrant Integration Policy Index (MIPEX). With a 98 out of 100 in labor integration, Sweden provides free classes in Swedish and reaches settlements with all immigrants regarding where they will locate and how much government support they will receive and for what duration upon arrival. It also provides job search support through the Swedish Public Employment Service.

This offers an opportunity to understand how immigrants might integrate upon different language dimensions. Sweden's policies have opened the door to greater multiculturalism, and Swedes themselves have made efforts to learn a variety of languages, yet Swedish remains the dominant tongue. Moreover, linguistic differences and the relative isolation makes Swedish a difficult language for foreign-born individuals to learn and adapt to, especially if those

individuals are from a linguistically distant background. Based upon this knowledge, a prediction can be made about which speakers would have the most difficulty learning Swedish (from easiest to most difficult): Nordic tongues, German, and Swedish's distant cousin, English (another Germanic language). Outside of linguistic similarities, it can be expected that immigrants from fellow countries along the Baltics (Estonia, Latvia, Lithuania, Poland, and Russia) would learn Swedish more easily thanks to their higher exposure to Swedish from trade. In the case of the Baltic nations (Estonia, Latvia, Lithuania), they benefit from a long history of interactions with Sweden, dating all the way back to being an acquisition of the Swedish Empire in the 1600s. Likewise, Russia has had a long history of diplomatic and trade relations with Sweden, leading also to higher exposure to the language. Outside of these nations, the difficulty of attaining Swedish increases dramatically.

As a final note, it is worth observing that in Sweden, the label of "immigrant" does not exist. Instead, anyone born outside of Sweden is referred to as "foreign born," and this remains a fairly simplistic way to summarize all statistics regarding these migrants. Furthermore, official statisticians remain reluctant to post any more data than education and employment rate of foreign born individuals (as a whole) by region in Sweden (Pettersen, 2013). With greater migration pressures, a need for more efficient policies grows apparent. Unemployment disparities remain prevalent between immigrant groups and native Swedes, and due to Sweden's open benefit policies, this places the government at even greater risk in welfare commitments if it is unable to fully harness this labor. In this context, the question persists: could a lingua franca provide an alternative to the dominant and isolated Swedish language for migrant workers, especially if that language is English?



See how the author reminds us of the research question before moving on to discuss methodology.

In addition to presenting your model, explain what each variable represents.

### III. The Model

In order to evaluate the relationship language has with immigrant earnings in Sweden, the functional relationship  $Y = F(O, G, X, E, L, D)$  will be evaluated with a linear, empirical model which will be utilized with the following specification:

$$\ln Y = \ln Y_0 + \beta_1 O + \beta_2 G + \beta_3 X + \beta_4 E + \beta_5 L + \beta_6 D + \varepsilon \quad (\text{Eq. 1})$$

Where  $Y$  signifies total household income,  $O$  denotes country of birth,  $G$  represents age at time of the survey,  $X$  provides a dummy variable for reported sex,  $E$  denotes the total years of formal education completed,  $L$  states the primary language spoken at home, and  $D$  characterizes the distance between an origin country and Sweden.

The dependent variable  $Y$  was selected as the most effective means of placing the impact of language in the economic terms of Sweden's currency, SEK.  $O$ , meanwhile, provides a dummy variable by which immigrants and natives can be clearly distinguished from one another within the regression. In coding this, the assumption for all dummy variables is to designate the trait that is expected to make higher earnings as "0" and the other category as "1." For  $O$ , this means that 0 = native born respondents and 1 = foreign born respondents.  $G$  provides a clear means of testing work-experience that contributes to earnings, while  $X$  is a dummy variable to reflect the possibility of an expected gender gap. For  $X$ , male is designated as "0" and female as "1." Formal education has consistently been a major determinant of earnings, and  $E$  is meant to reflect education's impact on immigrants and natives alike.

The final two variables are immigrant specific. The dummy variable  $L$  is core to this research and is meant to reflect the impact that language has on earnings. Building off prior research, the assumption that Swedish as the home language would lead to higher income means that 0 = Swedish, while 1 = any other language reported. While many immigrants reported

Swedish as the primary language at home, many others reported their primary language at home as being their native language. This has several implications. While not a direct evaluation of proficiency in the dominant language Swedish, immigrants who prefer their native tongues at home might feel less comfortable with Swedish. Also, this variable allows for dividing immigrants into language groups to determine if language has varying degrees of significance based upon native languages. Particularly, this separation can be used to evaluate if immigrants from English-speaking origins are impacted to the same degree as immigrants from differing lingual backgrounds.

The final variable, *D*, serves the unique purpose of reflecting Sweden's historical policies. Sweden's economic and immigration history has resulted in a close relationship among its fellow Nordic countries (Åland Islands, Denmark, Finland, Iceland, and Norway). To a lesser extent, it has also forged a degree of familiarity with the Baltic Nations, Germany, Poland, and Russia through a long history of Baltic Sea trade. The relatively close proximity of these countries to Sweden (with Iceland being the exception) provides the reasonable assumption that distance can accurately reflect the relative closeness and openness to foreign labor. This assumption would then follow that distance will grow more significant as immigrants move farther away. Immigrants can then be reasonably assigned to four categories (in order of *D*'s expected insignificance): first, Nordic nations; second, Baltic states; third, EU citizens; and fourth, immigrants and asylum seekers from the rest of the globe.

#### **IV. Data:**

Indicate what sources provided you with your data. Where is your information coming from?

The data utilized for regressions was drawn from the results of the seventh round of the European Social Survey (ESS) conducted in 2014. The survey is a cross-sectional study that

collects data from new samples on a semi-annual basis with the data gained through face-to-face interviews. At its core, the ESS seeks to plot the attitudes, behaviors, and circumstances of each European nation. To this end, the ESS asks questions from over seventy pages of questions ranging in categories from television habits to political views and participation, to economic circumstances, to ancestry, and more with questions specific to each nation.

It is the expansive list of queries that make the ESS an excellent foundational point for beginning to explore the impact that a lingua franca may have on immigrant earnings. Particularly significant is that the ESS provides data immediately for  $O$ ,  $A$ ,  $X$ , and  $L$ . Respondents to the ESS state their birth country, when they first arrived in Sweden, and their citizenship. Age is calculated from the date the survey is conducted less subjects' birthdays. For the purpose of the regression, however, the subjects regressed were limited to the age bracket of 25-65 to avoid pensions, retirement, and parental incomes from distorting the overall results. Sex is marked in the question category, with an area for interviewer details if the subject does not identify it themselves. While not a perfect measurement, the ESS also provides information regarding the primary language spoken at home, as well as space for a second home language if applicable.

Regarding  $Y$ , the survey provides qualitative data with respondents clarifying what decile they are a member of based monthly earnings denominated in SEK. The average annual income per decile, as reported by Statistics Sweden, quantified this data for the purposes of regression. In order to generate data for  $D$ , the distance by air between Stockholm and the capital of an immigrant's country of birth was selected as the closest approximation.

Admittedly, the use of ESS does have its drawbacks. Ideally,  $L$  would be in terms of proficiency, and one could evaluate the subject's proficiency in Swedish, their native tongue, or a

possible lingua franca like English. Regarding *Y*, the nature of responding with a decile prevents a fully and accurate depiction of a respondent’s income. Also, the fact that *Y* represents household income to a degree hampers results, particularly impacting the gaps that may exist between genders. Finally, the fact that the ESS is self-reported carries with it inherent risks that cannot be ignored. Though the presence of the interviewer to a degree minimalizes gross exaggerations, respondents could feel pressured to over-evaluate their incomes.

Still, in the face of these flaws, the ESS strengths and completeness make it an ample source of data for a preliminary exploration of this paper’s objectives.

Notice how the author acknowledges some of the shortcomings of the methodology. However, the author shows readers that despite these shortcomings, the methodology is sound.

**Table 1: Descriptive Statistics of Overall, Native, and Immigrant Samples**

| Descriptive Statistics (Overall/Natives/Immigrants) |                |          |           |               |          |            |                  |          |           |
|---|----------------|----------|-----------|---------------|----------|------------|------------------|----------|-----------|
|   | Overall Sample |          |           | Native Sample |          |            | Immigrant Sample |          |           |
|   | Mean           | Median   | Std. Err. | Mean          | Median   | Std. Error | Mean             | Median   | Std. Err. |
| Y   | 320102.9       | 302000   | 4289.358  | 325140.8      | 302000   | 4645.294   | 293577.7         | 267200   | 10938.39  |
| ln Y  | 12.57637       | 12.61818 | 0.014391  | 12.59595      | 12.61818 | 0.015408   | 12.47323         | 12.49575 | 0.03848   |
| O   | 0.159615       | 0        | 0.011362  | 0             | 0        | 0          | 1                | 1        | 0         |
| G   | 44.95481       | 46       | 0.379871  | 45.5881       | 46       | 0.407308   | 41.62048         | 42       | 0.995593  |
| X   | 0.514423       | 1        | 0.015505  | 0.519451      | 1        | 0.01691    | 0.487952         | 0        | 0.038914  |
| E   | 14.14231       | 14       | 0.100265  | 14.14073      | 14       | 0.106522   | 14.1506          | 14       | 0.283747  |
| L   | 0.091346       | 0        | 0.008938  | 0.009153      | 0        | 0.003223   | 0.524096         | 1        | 0.03888   |
| D   | 636.0578       | 0        | 61.9166   | 0             | 0        | 0          | 3984.94          | 3104.964 | 265.2587  |

Data from ESS – Round 7

Tables are consistent in formatting: headings are capitalized and abbreviated consistently, numbers are formatted in the same way (e.g., no commas), and entries are all right-justified.

**Table 2: Descriptive Statistics of Migrant Groups**

| Descriptive Statistics of Migrant Groups by Origin |               |          |           |               |          |           |                  |          |           |               |          |           |
|--|---------------|----------|-----------|---------------|----------|-----------|------------------|----------|-----------|---------------|----------|-----------|
|  | Nordic Sample |          |           | Baltic Sample |          |           | Mobile EU Sample |          |           | Non-EU Sample |          |           |
|  | Mean          | Median   | Std. Err. | Mean          | Median   | Std. Err. | Mean             | Median   | Std. Err. | Mean          | Median   | Std. Err. |
| Y  | 342955.2      | 302000   | 29556.01  | 281693.3      | 239100   | 39430.29  | 305803.6         | 326800   | 24394.86  | 279782.8      | 239100   | 14244.78  |
| ln Y   | 12.62115      | 12.61818 | 0.100101  | 12.42161      | 12.38464 | 0.133912  | 12.54046         | 12.69422 | 0.084153  | 12.4268       | 12.38464 | 0.050498  |
| O  | 1             | 1        | 0         | 1             | 1        | 0         | 1                | 1        | 0         | 1             | 1        | 0         |
| G  | 49.89655      | 51       | 2.075155  | 41.46667      | 41       | 3.015621  | 45.10714         | 45       | 2.245124  | 40.91398      | 40       | 1.036575  |
| X  | 0.551724      | 1        | 0.093984  | 0.8           | 1        | 0.106904  | 0.5              | 0.5      | 0.096225  | 0.483871      | 0        | 0.052101  |
| E  | 14.44828      | 14       | 0.72361   | 14.2          | 14       | 0.656107  | 14.39286         | 13       | 0.703993  | 14.26882      | 14       | 0.362817  |
| L  | 0.241379      | 0        | 0.080869  | 0.733333      | 1        | 0.118187  | 0.535714         | 1        | 0.095979  | 0.591398      | 1        | 0.05125   |
| D  | 478.6341      | 395.9137 | 60.52922  | 856.1388      | 810.8016 | 57.50809  | 1265.903         | 1317.406 | 89.78126  | 5683.614      | 345.7445 | 345.7445  |

Data from ESS – Round 7

**Table 3: Descriptive Statistics of English Natives**

| Descriptive Statistics of English Natives |          |          |           |
|---|----------|----------|-----------|
| English-Natives Sample                    |          |          |           |
|   | Mean     | Median   | Std. Err. |
| Y   | 285608.7 | 267200   | 27962.38  |
| ln Y                                      | 12.44848 | 12.49575 | 0.105933  |
| O   | 1        | 1        | 0         |
| G   | 39.73913 | 40       | 2.396652  |
| X   | 0.478261 | 0        | 0.1065    |
| E   | 13.78261 | 13       | 0.75432   |
| L   | 0.434783 | 0        | 0.10569   |
| D   | 6023.563 | 6636.081 | 689.7049  |

Data from ESS – Round 7

Note how the author previews the contents in sub-headings A – E in the first paragraph of Section V. These previews provide readers with the thematic arc of the data analysis *and* helps readers understand what the writer wants the reader to “get” from the discussion.

## **V. Results and Analysis**

These results will be analyzed in sections A through E. First, in section A, the results of the overall sample will be evaluated, followed by a regression of the native sample that will be used as a baseline for comparison in section B. Section C evaluates the results for the foreign-born sample. The foreign-born sample is then broken down into the four specified groups referenced earlier in this paper: Nordic migrants, migrants from other countries on the Baltic Sea, non-Nordic EU migrants, and all migrants not included in the preceding samples. The results of a regression of these individual group samples paired with the Swedish sample are reported in section D. Finally, section E evaluates a sample that pairs respondents from nations where English is prevalent with the Swedish sample. In this evaluation, special attention will be given to the significance of language to hypothesize about the benefits of lingua franca proficiency.

### A. Overall Regression

The results of the overall regression are promising (Fig. 1). The significance of language was established via multiple regression analysis that utilized Eq. 1 over all subjects in the sample. With a P Value far below .01 (.0007), it reflects as a significant variable yielding a negative correlation even at a confidence level of 99%. This finding confirms that Sweden falls in line with earlier studies demonstrating the impact of dominant language proficiency. Overall, there are several reasons for this impact. Most importantly, language proficiency opens the door for the Swedish Public Employment Office to place them in more positions. The ability to communicate fluidly is absolutely critical, especially for more demanding labor. Another possibility is that the primary language at home is not Swedish, which could be reflective of not just the respondent's

Note the brief reference to prior studies; these reminders help readers recall prior studies referenced in the thesis. They also add credibility to the writer's argument.

proficiency but also the proficiency of household members. If the household as a whole does not feel comfortable with Swedish, it might preclude some family members from fully participating in the labor market. At the opposite end, Swedish as the primary language at home connotes that household members are proficient, allowing for more contributions.

Along with language, Education and Experience prove predictably significant with positive correlations. Both contribute to human capital development, higher levels of which lead to higher productivity and therefore higher income.

It is worth noting that sex, a variable reflective of the gender gap, was not entirely significant in this regression, although it maintained a negative correlation. The simplest explanation for this is that the reported income was total household income, and it therefore is reflective of the income of both the spouse and the respondent. This fact could explain the mitigation of variable sex.

Even though this section focuses on results and analysis, you still need to make an argument and prove its merits to readers. Effective topic sentences will help you do so

Figure 1: Regression Results for the Overall, Native, and Immigrant Samples

Regression Results for In Income by Overall, Native, and Immigrant Samples

|          | Overall Sample         | Native Sample         | Immigrant Sample       |
|----------|------------------------|-----------------------|------------------------|
| Constant | 11.9257<br>(0.091)     | 11.8088<br>(0.1047)   | 12.2616<br>(0.1916)    |
| O        | 0.0593<br>(0.0638)     |                       |                        |
| G        | 0.0039***<br>(0.0012)  | 0.0054***<br>(0.0013) | -0.0006<br>(0.003)     |
| X        | -0.0416<br>(0.028)     | -0.0726**<br>(0.0302) | 0.1122<br>(0.0734)     |
| E        | 0.0365***<br>(0.0044)  | 0.0409***<br>(0.005)  | 0.0272***<br>(0.0102)  |
| L        | -0.2154***<br>(0.0635) | 0.0014<br>(0.1571)    | -0.2473***<br>(0.0733) |
| D        | -0.00001<br>(0.00001)  |                       | -0.00002*<br>(0.00001) |

\* Signifies significance at the 10% level. \*\* Signifies significance at the 5% level. \*\*\* Signifies significance at the 1% level. Data used for regression comes from the European Social Survey (ESS) Round 7 - 2014. The independent variables are those referenced in Eq. 1

### B. Native Regression Results

A regression composed of only native respondents was run as a validation of the Eq. 1 and as a baseline for comparison (Fig. 1). Origin and Distance variables were excluded as they were common for all Swedish respondents and dummy variables with a value of 0. The results were in line with expected predictions: G and E proved extremely significant and positively correlated, even at the 99%, and X was significant at a confidence level of 95%, with a P-value just shy of the 99%. Given these results, a more direct comparison could be drawn between the expected significance for immigrants to Swedes.

Don't hesitate to remind readers *why* your results are important. Always state if important comparisons (or differences) become evident as a result of your findings/analysis.

### C. Immigrant Regression Results

When immigrant respondents are isolated from natives, a fuller perspective of the variables impacting immigrants is realized. The regression results showed significance at a confidence level of 99% regarding E and L (Fig 1). When placed in the Swedish context, this is consistent with predictions. Considering that most immigrants coming to Sweden are currently coming in search of work opportunities or for asylum, the ability of Sweden to integrate these immigrants into its work force largely depends upon their skillsets. The ability to communicate makes Swedish a prerequisite, and educational proficiency allows for placement in a wider variety of positions. In the simplest way, these skills make it much easier for the Arbetsförmedlingen (Swedish Public Employment Office) to place newly arrived immigrants and asylum seekers. Once again, sex is found insignificant for immigrants as a whole, but this might be the result of the income being calculated by total household. Another influencing variable could be Sweden's ease of reunification for families. Immigrants reuniting with loved ones may, skill-wise, not be fully prepared for labor market integration, causing respondents' total income to be based upon one working spouse.

Note how section “D” explains “Figure 2” – **always** summarize and explain the significance of your results. Do not simply place the figure, table, or graph and assume it will “speak for itself.” Instead, explain how said figure, table, or graph informs your overall research question(s) or research goal(s).

Figure 2: Regression Results for In Income by Migrant Groups with Swedish Sample

Regression Results of Migrant Groups with Swedish Sample

|           | Nordic/Swedish<br>Sample | Baltic/Swedish<br>Sample | Mobile-<br>EU/Swedish<br>Sample | Non-<br>EU/Swedish<br>Sample |
|-----------|--------------------------|--------------------------|---------------------------------|------------------------------|
| Intercept | 11.8121<br>(0.1024)      | 11.826<br>(0.1044)       | 11.8568<br>(0.1016)             | 11.8333<br>(0.0985)          |
| O         | 0.1861<br>(0.1518)       | -0.9166*<br>(0.4872)     | -0.5418**<br>(0.2635)           | 0.0486<br>(0.1102)           |
| G         | 0.0054***<br>(0.0013)    | 0.0051***<br>(0.0013)    | 0.0049***<br>(0.0013)           | 0.0049***<br>0.0012          |
| X         | -0.0783***<br>(0.03)     | -0.0636**<br>(0.0301)    | -0.0662**<br>(0.0297)           | -0.0484*<br>(0.0288)         |
| E         | 0.0411***<br>(0.0049)    | 0.0402***<br>(0.005)     | 0.0391***<br>(0.0049)           | 0.04***<br>(0.0047)          |
| L         | -0.0823<br>(0.1219)      | 0.0813<br>(0.1348)       | -0.0883<br>(0.1162)             | -0.1974**<br>(0.0812)        |
| D         | -0.0004<br>(0.0003)      | 0.0008<br>(0.0005)       | 0.0004**<br>(0.0002)            | -0.00002<br>(0.00001)        |

\* Signifies significance at the 10% level. \*\* Signifies significance at the 5% level. \*\*\* Signifies significance at the 1% level. Data used for regression comes from the European Social Survey (ESS) Round 7 - 2014. The independent variables are those referenced in Eq. 1

#### D. Regression Results by Immigrant Group

The results of the overall regression do not, however, reflect the results of individual immigrant groups when broken down. Distinct shifts in significant variables are realized when evaluating groups based upon historical and policy considerations. When evaluating a regression that limits responses to those of Swedish respondents with their Nordic neighbors, variables O, L, and D are found insignificant. Just like natives, Nordic immigrants’ incomes are only significantly impacted by G, X, and E (Fig. 2). When considering the closeness of the Nordic languages, the familial nature of Nordic countries between each other, and the long existence of an open labor market, the interchangeability between labor migrants from the countries is sensible.

Immigrants from the other nations surrounding the Baltic had similar results (Fig. 2). L was found to be an insignificant variable, along with O and D at the confidence level of 95%. Meanwhile, G and E remained significant with a positive correlation even at the 99%, while X was significant at the 95% and held the expected negative correlation. This finding provides additional support for the argument that foreign-born citizens from nations with long histories with Sweden and familiarity with the Swedish language found their adjustment to Sweden relatively straightforward.

When evaluating migrants from other EU nations while excluding Nordic EU members, the results change dramatically. Though language remains insignificant, this sample holds a disparity in variables significant that had not been realized in the Nordic and Baltic regressions. O, G, X, E, and D all proved significant at a confidence level of 95% (Fig. 2). Where does this deviation come from? Despite the 2008 law opening up access for labor migrants, requirements remain high for the import of foreign talent. With relatively high official unemployment over the past few years (6.5%-8.5%), there could be more wage pressures on foreign EU migrants as opposed to Swedish labor, as well. The impact of distance might reflect fewer historical interactions between southern EU members or perhaps a mismatch of skills or lack of human capital by incoming migrants. Immigrants from the Balkans and Greece might fall into this category. Still, the question of why language is insignificant becomes curious. One possible explanation might be the preparedness of immigrants from fellow EU nations. Not arriving as asylum seekers but searching for employment, many of these immigrants could have been hired before arrival and therefore had skill sets and met language requirements before arrival.

The results of the regression for the remaining migrant respondents of a Non-Nordic-EU background show L, along with G and E, as being significant variables that are consistent with

their projected correlations (Fig. 2). This significance leads to interesting questions regarding the disparity in languages' impact on various groups of immigrants. Possible explanations lie in linguistic distances and the ease with which immigrants might acquire Swedish proficiency or proficiency in a suitable substitute language like English. Another possibility lies in preparedness for Swedish proficiency. Immigrants aiming to migrate to Sweden for labor would be more likely and able to prepare for life in Sweden by learning the language. Asylum seekers forced to Sweden, however, are likely underprepared for life abroad, and the acquisition of skills would therefore be more difficult. This difference, paired with the higher educational demands for imported labor, could demonstrate disconnects in immigrant earnings and the more significant adverse impact of language on household income.

#### E. Regression Results of English-Natives

For the purpose of exploring the possible significance of English in earnings in Sweden, immigrants from countries where English (referred to as English-Natives) is prevalent (either as an official or dominant language) were regressed with Swedish respondents in a comparison. Results indicated that language was not at all significant. Instead (and along with established significant variables of G, X, E), distance proved a significant factor and resulted in a negative correlation (Fig. 3). From these results, it might be suggested that the difficulty or necessity for English speakers in obtaining Swedish may be reduced, as opposed to immigrants of other backgrounds. At the very least, English might prove a useful tool in closing linguistic distance for immigrants from distant countries in order to acquire Swedish proficiency. The significance of distance suggests also that in the absence of language struggles, policies in Sweden make labor more difficult for immigrants outside of the EU. Possible explanations for this disconnect

rely on a variety of factors. In this case, it is important to evaluate the fields of employment for English-speaking migrants, as English has already taken on a lingua franca role in many Swedish universities. If English is employed in academic settings, this could certainly explain the insignificant results of language for English speakers overall. Still, this insignificance encourages further exploration into the economic role English provides in Sweden.

A comparison of the results for English background migrants with that of other non-Nordic EU migrants suggests that being an immigrant and being born farther away from Sweden has a negative and significant impact on income. This impact could reflect the difficulties in labor mobility to Sweden from outside Scandinavia due to previous policies or difficulties in integration and adaptation for migrants.

Figure 3: Regression Results for In Income for English-Natives with Swedish Sample

Regression Results for English-Natives with Swedish Sample

| English- Natives/Swedish Sample |                         |
|---------------------------------|-------------------------|
| Intercept                       | 11.7847<br>(0.102)      |
| O                               | 0.3012<br>(0.1957)      |
| G                               | 0.0056***<br>(0.0013)   |
| X                               | -0.0694**<br>(0.0299)   |
| E                               | 0.0418***<br>(0.0049)   |
| L                               | -0.1128<br>(0.1209)     |
| D                               | -0.00006**<br>(0.00003) |

\* Signifies significance at the 10% level. \*\* Signifies significance at the 5% level. \*\*\* Signifies significance at the 1% level. Data used for regression comes from the European Social Survey (ESS) Round 7 - 2014. The independent variables are those referenced in Eq. 1

The conclusion should reiterate the main argument, summarize the recommendations, and reinforce with evidence.

## **VI. Conclusion:**

This research provided a theoretical basis upon which English might serve as a lingua franca in Sweden for migrants and enable them to more quickly integrate into the Swedish labor market. It accomplished this through reviewing previous research regarding the role that dominant languages play in immigrant earnings and employment. It then outlined and presented an overview of migration to Sweden and its current state for the sake of context in explaining differing migrant outcomes.

From this research, an empirical model (Eq. 1) was proposed to evaluate the impact that migrant status, age, sex, education, language, and the distance of country of birth from Sweden had on a foreign-born individual's income. Data was then obtained from the seventh round of the European Social Survey, which provided cross-sectional data in 2014 for native-born respondents and foreign-born respondents. This data was regressed and analyzed, leading to the conclusions given below.

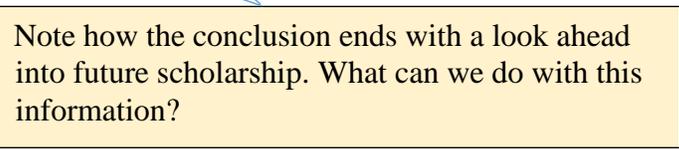
Overall, the standard variables of age and education remained consistently significant in this regression. Language, meanwhile, proved significant overall and highly significant in the regression isolated to all foreign-born respondents. When broken down into migrant groups, Nordic and Baltic migrants predictably were not affected by language in the regression. However, in support of this research's proposition of the role English can play as a lingua franca, migrants from English-speaking origins also found that language was an insignificant variable for determining their incomes.

This result begs further research into the topic of the economic function of a lingua franca. The purpose of this research was to create a theoretical foundation regarding language

proficiency and the economic viability of a lingua franca, which it has accomplished. However, the full extent to which English might serve as a lingua franca has not been explored. The data utilized by this research was drawn from a broad questionnaire targeting a wide variety of subjects. Approximations were made regarding the measurement of distance, along with overall language proficiency for migrants. Incomes had to be adjusted to the average values per decile provided by Statistics Sweden, not fully accounting for differences within deciles between migrants and native-born respondents.

Though requiring time and resources, these difficulties can be overcome through further, targeted surveys that address these specific categories. These future surveys could also provide a greater gauge of households' skillsets and language proficiencies, along with more accurate gauges of distance. A particular correction that could be added is an accurate calculation of linguistic difference and reorganizing foreign respondents' incomes based upon their native languages' distance from Swedish. Such a survey might prove a more accurate reflection of policies and language than the strict geographic distance between capitals that this paper utilized.

With this in mind, exciting opportunities for further research exist. As global migration continues to grow and produce more pressure on international markets demanding new approaches migrant labor integration, this paper's proposal of the role a lingua franca can play has some validity. To what extent, however, is for further research.



Note how the conclusion ends with a look ahead into future scholarship. What can we do with this information?

All citations for Walton thesis must be in APA format.

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