

The Pennsylvania State University

The Graduate School

College of the Liberal Arts

SOURCES OF ANTI-IMMIGRANT ATTITUDES IN EUROPE

A Dissertation in

Sociology and Demography

by

Elisa Rustenbach

© 2009 Elisa Rustenbach

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

August 2009

The dissertation of Beth A. Rustenbach was reviewed and approved* by the following:

Alan Booth
Distinguished Professor of Sociology, Human Development and Demography
Dissertation Adviser
Chair of Committee

Nancy Landale
Professor of Sociology and Demography
Director of the Population Research Institute

Glenn Firebaugh
Distinguished Professor of Sociology and Demography

Susan McHale
Professor of Human Development and Family Studies
Director of the Social Science Research Institute

John McCarthy
Professor of Sociology
Department Head

*Signatures are on file in the Graduate School.

ABSTRACT

In the last decade, the relationship between natives and migrants in Europe has been an important issue due to events such as the riots in France (2005 & 2008) and anti-Muslim cartoons published in Denmark (2005). Many of these events might have been prevented had there been a more positive climate of receptivity for the migrants. Understanding sources of natives' anti-immigrant attitudes is important for creating effective policies that will create more positive attitudes toward immigrants.

This dissertation explores three aspects of native's attitudes toward immigrants using data from the European Social Survey and Eurostat/OECD. These combined datasets allow for analysis of individual, regional and national level factors that are related to natives' attitudes toward immigrants. The three substantive chapters (Chapters 2-4) examine the relationship between nine individual level factors and anti-immigrant attitudes: educational achievement, income, unemployment experience, political interest, left/right political leaning, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination. In addition, the second and fourth chapters include regional and national explanations for anti-immigrant attitudes: national foreign direct investment and regional and national gross domestic product (GDP) and unemployment rates.

The first chapter is an introductory chapter that provides an overview of the dissertation. Chapter two explores which explanations for anti-immigrant attitudes are weakest and which are strongest. The third chapter identifies six categories of individuals as it relates to their attitudes toward immigrants by applying latent class analysis to the individual level variables. The fourth chapter explores a controversial finding from the second chapter: why economic explanations for

anti-immigrant attitudes are not more salient. Finally, the fifth chapter provides a summary of the findings and my dissertation process.

Across the substantive chapters, findings indicate that interpersonal trust is the strongest explanatory factors for anti-immigrant attitudes. Higher education and political interest are also consistently related to lower anti-immigrant attitudes. In contrast, economic explanations and number of immigrants are weak predictors of anti-immigrant attitudes. These findings indicate that policies aimed at increasing community involvement and multi-cultural events at the local level would be most effective in lowering anti-immigrant attitudes.

TABLE OF CONTENTS

LIST OF TABLES.....	VII
LIST OF FIGURES	VIII
ACKNOWLEDGEMENTS	IX
CHAPTER 1: INTRODUCTION.....	1
DATA.....	1
SUMMARY OF SUBSTANTIVE CHAPTERS	2
CHAPTER 2: SOURCES OF NEGATIVE ATTITUDES TOWARDS IMMIGRANTS IN EUROPE: A MULTI-LEVEL ANALYSIS	5
INTRODUCTION	5
<i>Explanations for Anti-Immigrant Attitudes</i>	<i>6</i>
<i>Cross-National Analysis and Individual, Regional, and National Level Variables.....</i>	<i>14</i>
METHODS.....	15
RESULTS	18
<i>Results by Explanation Type.....</i>	<i>18</i>
<i>Results by Unit of Analysis.....</i>	<i>20</i>
DISCUSSION AND CONCLUSIONS	22
<i>Strongest to Weakest Explanation Type</i>	<i>22</i>
<i>Unit of Analysis</i>	<i>25</i>
<i>Overall Conclusions.....</i>	<i>27</i>
<i>Policy Implications.....</i>	<i>27</i>
<i>Future Studies</i>	<i>28</i>
REFERENCES.....	30
CHAPTER 3: ANTI-IMMIGRANT ATTITUDES: WHO HAS THEM AND WHO DOESN'T?	37
INTRODUCTION	37
<i>Explanations for Anti-Immigrant Attitudes</i>	<i>39</i>
<i>Differences by Country.....</i>	<i>44</i>
METHODS.....	44
RESULTS	47
DISCUSSION AND CONCLUSIONS	52
<i>Age and Gender.....</i>	<i>56</i>
<i>Characteristics across Categories.....</i>	<i>57</i>
<i>Differences across Countries</i>	<i>59</i>
<i>Policy Implications.....</i>	<i>61</i>
<i>Future Studies</i>	<i>62</i>
REFERENCES.....	64

CHAPTER 4: ECONOMIC EXPLANATIONS FOR ANTI-IMMIGRANT ATTITUDES: HOW MUCH DO THEY MATTER?	66
INTRODUCTION	66
<i>Why Economic Variables Influence Anti-Immigrant Attitudes</i>	67
<i>Multi-Level Economic Explanations for Anti-Immigrant Attitudes</i>	68
<i>Other Explanations for Anti-Immigrant Attitudes</i>	70
METHODS	73
RESULTS	79
<i>Interactions</i>	81
Interactions with Individual Income Per Capita.....	83
Interactions with National Unemployment Rate.....	85
DISCUSSION AND CONCLUSIONS	87
REFERENCES.....	92
CHAPTER 5: CONCLUSION	95
HOW THE PAPER TOPICS WERE CHOSEN.....	96
VARIABLES CONSIDERED AND NOT USED.....	97
OVERALL FINDINGS ACROSS PAPERS	98
FINDINGS UNIQUE TO EACH CHAPTER	98
<i>Chapter 2. Sources of Negative Attitudes toward Immigrants in Europe: A Multi-Level Analysis</i>	98
<i>Chapter 3. Anti-Immigrant Attitudes: Who Has Them and Who Doesn't?</i>	99
<i>Chapter 4. Economic Explanations for Anti-Immigrant Attitudes: How Much do they Matter?</i>	100

LIST OF TABLES

CHAPTER 2: SOURCES OF NEGATIVE ATTITUDES TOWARDS IMMIGRANTS IN EUROPE: A MULTI-LEVEL ANALYSIS

TABLE 1. ANTI-IMMIGRANT EXPLANATIONS, VARIABLES USED IN THE ANALYSIS AND THEIR PREDICTED EFFECTS	8
TABLE 2. STANDARDIZED COEFFICIENTS GROUPED BY EXPLANATION TYPE ON ANTI-IMMIGRANT ATTITUDES	19
TABLE 3. STANDARDIZED COEFFICIENTS AND VARIANCE COMPONENTS SHOWING EFFECTS GROUPED BY INDIVIDUAL, REGIONAL AND NATIONAL LEVEL EXPLANATIONS ON ANTI-IMMIGRANT ATTITUDES.....	21
APPENDIX A. ADDITIONAL REFERENCES TO THE ONES INCLUDED I THE PAPER FOR ANTI-IMMIGRANT ATTITUDES EXPLANATIONS.....	34
APPENDIX B. COUNTRIES AND CASES INCLUDED AND EXCLUDED FROM THE FINAL SAMPLE.....	35
APPENDIX C. OPERATIONALIZATION OF VARIABLES	36

CHAPTER 3: ANTI-IMMIGRANT ATTITUDES: WHO HAS THEM AND WHO DOESN'T?

TABLE 1. DESCRIPTIVE STATISTICS	47
TABLE 2. ANTI-IMMIGRANT CLASSIFICATION WITH SIGNIFICANT DIFFERENCES BETWEEN CATEGORIES FOR EACH VARIABLE ACCORDING TO T-TESTS	48
TABLE 3. ANTI-IMMIGRANT CLASSIFICATION WITH CHARACTERISTICS COMPARED TO ONE ANOTHER.....	49

CHAPTER 4: ECONOMIC EXPLANATIONS FOR ANTI-IMMIGRANT ATTITUDES: HOW MUCH DO THEY MATTER?

TABLE 1. DESCRIPTIVE STATISTICS	78
TABLE 2. STANDARDIZED COEFFICIENTS AND VARIANCE COMPONENTS SHOWING EFFECTS OF A NULL MODEL, ECONOMIC, AND NON-ECONOMIC VARIABLES ON ANTI-IMMIGRANT ATTITUDES	80
TABLE 3. SUMMARY OF SIGNIFICANT INTERACTIONS BETWEEN ECONOMIC AND NON-ECONOMIC EXPLANATIONS FOR ANTI-IMMIGRANT ATTITUDES.....	82
APPENDIX A. VARIANCE COMPONENTS FOR FINAL REGRESSION MODEL WITH ALL VARIABLES REGRESSED ON ANTI-IMMIGRANT ATTITUDES.....	94

LIST OF FIGURES

CHAPTER 3: ANTI-IMMIGRANT ATTITUDES: WHO HAS THEM AND WHO DOESN'T?

FIGURE 1. PERCENTAGE OF INDIVIDUALS IN EACH CATEGORY BY NATION..... 60

CHAPTER 4: ECONOMIC EXPLANATIONS FOR ANTI-IMMIGRANT ATTITUDES: HOW MUCH DO THEY MATTER?

FIGURES 1-5. INTERACTIONS WITH INDIVIDUAL INCOME PER CAPITA 84

FIGURES 6-11. INTERACTIONS WITH NATIONAL UNEMPLOYMENT RATE 86

ACKNOWLEDGEMENTS

I would like to thank you God, for your love, perfection, wisdom, and hope. Thank you for being a God that is ever present in every area of our lives, including the world of Sociology. I am ever blessed to be your child and look forward to continued growth in and through you.

I would like to thank my family. Mom, you are my best friend and counselor; I love that we can talk about everything and still have a lot of fun together. Being able to call you at any time and know you will be there has helped me through many moments of the graduate school process; this accomplishment is as much yours as mine. Also, thank you for becoming a huge Penn State fan with me! Dad, thanks for all your love and support and introducing me to Pennsylvania! Becky and Chris, you are a great example of what it means to desire to follow God faithfully. Also, thanks for all the good food you cooked over the years! Cristina and Bobby, thanks for coming to visit and sharing in college life with me: Penn State tailgating and football, beer Olympics, and ... beer. Also, thanks for all the good talks about how to be real about integrating our faith into our crazy lives. Mike, thanks for sharing all these years with me in our love for similar things such as computer games and The Office. I always love all the fun we have together and watching you go for your crazy dreams: 125" screen, the souped-up car, etc. It has been and will continue to be legen..... (wait for it) dary! Michelle, you are the person with which I am the biggest dork (which means a lot in our family). I love hanging out with you and that you are quiet but have such great insight into life and creativity. I only have one problem... that you're my sister. I also want to thank you Aunt Betsy and Uncle Mel for being my parents in Pennsylvania. Thank you for always hosting and loving me, introducing me to Penn State since my birth, and throwing great parties. I love you guys.

I would like to thank my advisor; Alan, you have made my graduate school experience a challenge and a joy. Although I can never thank you enough for all the time, energy and thought you have put in to all the work we have done together, I am most thankful to call you my friend. You are the best advisor anyone could have. I look forward to many more years of friendship.

And last but not least, my friends. At Penn State I need to thank all members of the ITK fraternity, as well as New Hope Church, and ICF. Kristin, Julie and Ashley, thank you for being there for me from the beginning. It would be so exiting if we are all in D.C. together. I hope that our friendship will continue for many more years. I keep all our great memories: monster truck rallies, bullride mania, season football tickets, tailgating, Ireland, and the giant shoe house amongst others. I will miss happy-hour every Thursday! Nicole, I am so grateful to have you as my sister in Christ. I always learn so much from you and am so thankful that I get to keep living with you and your OCD! Ashlee, I don't know how I will live without you (and not just for your closet). Every time I see The Hills and people being sappily disgusting I will think of you. Isaac, Jason, and Andy, thank you for being the men in my life – my wonderful Christian brothers that I have had a lot of fun and great conversation with. Johanna and Dana, thank you so much for being my sisters in Christ, teaching me how to do my makeup, and having great and deep conversation. Little, being in Spain with you is a memory I will treasure forever. Dana, I love you even though you like the French, you are an amazing woman. There are many more people I am very thankful to: Matt and Krissy (thanks for loving Spain with me and always being such great servants), LMS and Jonathan (for all the great beer), LB (for being my roomie for a summer), Kristen (for all the great talks and fun), Amber (for the amazing light for Christ that you are) and Cara (for your servant heart and good parties). In Spain, doy gracias a Lara, Antia,

Ainhoa, Jordi, y Carol– os echo mucho de menos! And in other places, I thank Joy, Aimee, and Beth – thank you for ministering to my heart even from afar.

Finally, thank you to Penn State, for giving me an obsession with football, a school to be very proud of, and some of the best memories of my life. We are ...

Chapter 1:

Introduction

In recent years, problems concerning immigrants have risen in Europe. France experienced riots related to Muslims feeling discriminated against in 2005 and 2008. In 2006, immigrant youth also rioted in Brussels and riots against immigrants broke out in Almeria, Spain in 2005. A paper in Denmark published cartoons that were offensive to many Muslims which resulted in multiple public protests and violence (2005). Many of these tensions arise from negative attitudes natives have towards immigrants. Creating a more positive context of reception for immigrants is key to lowering tensions between immigrants and natives.

A number of studies have examined causes for anti-immigrant attitudes. However, these papers have an important shortcoming because they represent a splintered set of explanations for anti-immigrant attitudes by looking at variables one or two at a time, rather than combining a large number of potential explanations in a single analysis. In addition, very few examine multiple explanations at once or at various geographic levels of analysis. In the following three chapters, I examine nine individual level factors that may influence anti-immigrant attitudes: educational achievement, income, unemployment experience, political interest, left/right political leaning, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination. In addition, the second and fourth chapters include regional and national explanations for anti-immigrant attitudes: national foreign direct investment and regional and national gross domestic product (GDP) and unemployment rates.

DATA

Historically, the problem with considering multiple explanations for anti-immigrant attitudes in a single study has been a shortage of available data. However, the European Social

Survey (ESS) and the ability to match it up to regional and national Eurostat and OECD data has solved this problem. This dissertation used data from Waves 1 and 2 of the European Social Survey (ESS), a representative dataset including 21 European nations and over 80,000 respondents. Wave 1 was collected in 2002-3 and Wave 2 in 2004-5. This survey covered a wide variety of measures concerning values, attitudes and behavior concerning a range of topics such as politics, culture, economics, and migration. Data were collected via an hour long face to face interview and contain samples of between 1000 and 3000 respondents per country. Respondents were randomly selected representatives of private household residents aged 15 or older within regions in Europe.

ESS data can be matched up with regional and national level data collected by Eurostat and the Organization for Economic Co-Operation and Development (OECD). Region selection for the ESS was based on the European Union's nomenclature of territorial units for statistics (NUTS), which divides countries into regions according to population size, and economic, geographic and cultural factors (Eurostat), similar to census tracts. The samples collected in each of these regions by the ESS are representative of that geographical area.

SUMMARY OF SUBSTANTIVE CHAPTERS

Chapter 2: Sources of Negative Attitudes Towards Immigrants: A Multi-level Analysis

The second chapter aims to analyze most of the explanations for anti-immigrant attitudes that are regularly found in the literature. The ESS and Eurostat/OECD data allow for the analysis between anti-immigrant attitudes and nine individual level variables (educational achievement, income, unemployment experience, political interest, left/right political leaning, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination), three regional level variables (regional gross domestic product, unemployment rate, and number of

immigrants) and four national level variables (national gross domestic product, unemployment rate, foreign direct investment, and number of immigrants). Using hierarchical linear modeling (HLM) I examine which explanation has the largest impact on anti-immigrant attitudes and which one explains most of the variance.

Chapter 3: Anti-Immigrant Attitudes: Who has them and who doesn't?

Most analyses that examine anti-immigrant attitudes do so in a linear fashion or by looking at the impact of variables independently of each other. However, in reality various factors combine to influence anti-immigrant attitudes. That is, an individual's anti-immigrant attitudes are not likely to be influenced by their level of income alone, but their income level interacts with their education level and political interest to determine their overall attitudes toward immigrants. Thus, rather than linear or interactive effects, there may be categories of individuals with a specific set of characteristics that combine to explain their feelings toward migrants. To this end, chapter three conducts latent class analysis using M-Plus on eight individual level variables: educational achievement, income, unemployment experience, political interest, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination. The resulting categories are then associated with differing levels of anti-immigrant attitudes.

Chapter 4: Economic Explanations for Anti-Immigrant Attitudes: How much do they matter?

Chapter four delves into a notable finding from the second chapter: the weak relationship between economic explanations and anti-immigrant attitudes. The analysis for this chapter involves two steps: 1) a step by step regression in HLM that analyzes the influence of economic variables over other (cultural and economic) explanations for anti-immigrant attitudes and 2)

examining whether the influence of economic variables is obscured because the economic variables interact with cultural and political variables to influence anti-immigrant attitudes.

Chapters two through four add important contributions to understanding explanations for anti-immigrant attitudes. The second chapter pinpoints the most important factors in explaining anti-immigrant attitudes, which will aid in making policy that attempts to lower negative attitudes toward immigrants more effective. The third chapter provides categories of individuals as it relates to their anti-immigrant attitudes. This chapter reveals findings concerning which variables cluster together to determine higher or lower levels of anti-immigrant attitudes. Finally, chapter four challenges common wisdom that economic variables have a prime influence on anti-immigrant attitudes.

Chapter 2:

Sources of Negative Attitudes towards Immigrants in Europe:

A Multi-level Analysis

INTRODUCTION

In recent decades, immigration has become an increasingly salient issue considered problematic by natives of most developed nations. Many of these countries have seen the rise of anti-immigrant sentiments, which are often related to economic conditions and increasing numbers of immigrants (Scheve and Slaughter, 2001; Gang, Rivera-Batiz and Yun, 2002). Various researchers have attempted to provide an explanation for the development of anti-immigrant attitudes. This paper tests eight viable explanations for anti-immigrant attitudes: cultural marginality theory, human capital theory, political affiliation, societal integration, neighborhood safety, contact theory, foreign investment, and economic competition. The explanations include individual, regional and national level variables.

Although each of these explanations has been tested to some extent, this is the first paper to my knowledge that tests all of the proposed explanations for anti-immigrant attitudes at one time. This is important because examining eight explanations at once allows for the identification of the variables that have the strongest and weakest effects on anti-immigrant attitudes, which has important policy implications. For example, if the unemployment rate has the strongest effect on attitudes toward immigrants, then decreasing unemployment or dissociating the link between job loss and immigrants would be an effective policy to promote pro-immigrant attitudes. If, on the other hand, education is the strongest predictor, different policy implications, such as increasing information about immigrants in media, would be more effective.

The newly available European Social Survey (ESS), in conjunction with data from Eurostat, enables examination of all these explanations simultaneously. Consequently, the first aim of this paper is to examine all of these explanations to determine which ones provide the best explanations for native's anti-immigrant attitudes. Another strength of this study is that it incorporates three levels of analysis: individual, regional, and national. The regions are defined by Eurostat and are similar to census tracts in the U.S. (see methods section for description).

As the number of worldwide migrants increases, understanding the root causes for the existence of anti-immigrant sentiment is becoming increasingly important. Understanding these causes may have implications for policy makers; it may help nations be more effective in incorporating immigrants in ways that have cultural and economic benefits with less conflict and upheaval.

Explanations for Anti-Immigrant Attitudes

In Europe, violent or reactionary responses to immigrants appear to have increased in the last decade. Examples such as the riots in France (October & November 2005) or the anti-Muslim cartoons in Denmark (2005) are often cited. Also, anti-immigrant attitudes on the part of natives appear to be increasing, as is exemplified in the rising support of anti-immigrant political parties such as *Freiheitliche Partei Österreichs* in Austria or *Front National* (FN) in France. There is no unified theory for public opinion on immigrant attitudes (Chandler and Tsai, 2001, Price and Oshagan, 1995). In fact, multiple explanations for increasing anti-immigrant trends have been presented in the literature, and although some papers address more than one justification, to my knowledge no studies have undertaken a comprehensive analysis of the multiple explanations. Although authors vary in the terminology they apply to their theories, most of the explanations can be grouped into eight categories. Five of these explanations are

measured at the individual level: cultural marginality theory, human capital theory, political affiliation, societal integration, and neighborhood safety. Two explanations, contact theory and foreign investment, are measured at national and regional levels. Finally, economic competition is measured at all three levels of analysis: national, regional and individual. A summary of all the theories being presented, how they were measured, and their predicted relationship to anti-immigrant attitudes is presented in Table 1. Due to the multitude of theories being presented in this paper, only an introductory explanation of each theory is possible. However, references for further understanding of these theories beyond those included in the paper are provided in appendix A. Missing from this list of explanations of anti-immigrant attitudes is racism because the ESS did not contain any direct measure of this variable. Given that this study concerns natives attitudes toward immigrants, the final sample excludes those who were born in a foreign country.

Methodologically, few studies have examined anti-immigrant attitudes at multiple levels of analysis. Consequently, it is unclear which variables are influential and at what level. For example, certain variables, such as interpersonal trust, may be more strongly associated with attitudes towards immigrants on a regional versus a national level. National level interpersonal trust may be too far removed from the individual's immediate sphere of influence to influence an individual's attitudes towards immigrants. In contrast, when interpersonal trust is higher at a regional level, it is likely to influence individuals themselves to be more trusting of immigrants. To test for possible relationships, all individual level variables were aggregated to the regional and national level and their association with anti-immigrant attitudes was examined.

Cultural marginality theory has various forms, but ultimately it proposes that people will be more likely to have anti-immigrant attitudes when they cannot relate to immigrants due to

Table 1. Anti-Immigrant Explanations, Variables Used in the Analysis and their Predicted Effects.

Explanation	Variables Utilized	Predicted Effect
<i>Cultural Marginality Explanation</i>	Individual Ever Been Discriminated Against	-
<i>Human Capital Explanation</i>	Individual Education Level	-
<i>Political Affiliation Explanation</i>	Individual Interest in Politics	-
	Individual Left/Right Political Leaning	+
	National Left/Right Political Leaning ¹	+
<i>Societal Integration Explanation</i>	Individual Interpersonal Trust	-
	Regional Interpersonal Trust ¹	-
	Individual Lives with Family	+
<i>Neighborhood Safety Explanation</i>	Individual Does Not Feel Safe After Dark	+
<i>Contact Theory Explanation</i>	Regional Number of Immigrants	+
	National Number of Immigrants	+
<i>Foreign Direct Investment Explanation</i>	National Foreign Direct Investment	-
<i>Economic Competition Explanation</i>	Ind. Been Unemployed in the last 5 yrs	+
	Individual Income Per Capita	-
	Regional Unemployment Rate	+
	Regional Gross Domestic Product	-
	National Unemployment Rate	+
	National Gross Domestic Product	-

¹ These variables were created by aggregating the corresponding individual level measure. Only aggregated variables that were significant in the final model were included in this table.

having different cultures or experiencing different struggles, such as suffering persecution or discrimination. Huntington’s (1996) “clash of civilizations” proposes that nations from historically different civilizations are more likely to be in conflict with each other because the respective societies form their identities based on different languages, religions, customs, and history. On an individual level, anti-immigrant sentiments may arise when natives feel they have a lack of common factors on which to build trust with immigrants.

On the other hand, when individuals can relate to immigrants based on some factor, meaning they feel some cultural affinity, this will promote more pro-immigrant attitudes. Allport (1954) found evidence that groups that experience discrimination at times develop sympathy for

other groups who are also discriminated against. Cultural affinity can exist for various reasons, such as coming from an immigrant background or being a member of an ethnic minority.

Espenshade and Calhoun (1993) measured cultural affinity by whether the respondent was foreign born of a racial/ethnic minority and found it had some influence on attitudes toward undocumented immigrants in the United States. Cultural marginality was measured using whether or not an individual has ever been part of a group that has been discriminated against.

According to *human capital theory*, natives with less education are more likely to have anti-immigrant attitudes. This has been the most tested of all the theories and the finding that education reduces anti-immigrant attitudes is widely accepted (i.e. Gang, Rivera-Batiz, and Yun, 2002). There are two main explanations for the relationship between education and attitudes toward immigrants. One school of thought proposes education is linked to pro-immigrant attitudes because: a) it provides the individual with skills so that they do not have to compete with immigrants for jobs, and b) a higher proportion of unskilled immigrants implies higher wages for skilled workers (Mayda, 2006). An alternative explanation is that higher levels of education are related to higher tolerance toward different races and cultures and a more international outlook (i.e. Espenshade and Calhoun, 1993). A recent study (Hainmueller and Hiscox, 2007), pitted these explanations against each other and found that individuals at higher levels of education were more likely to favor immigration regardless of the skill level or origin of the foreigners. Non-labor related factors that are related to higher levels of education (i.e. decreased racism and increased emphasis on cultural diversity) accounted for 65% of the effect of education on pro-immigrant attitudes. In this study, human capital was measured using level of educational achievement.

Political affiliation has also been linked to anti-immigrant sentiments. Espenshade and Hepstead (1996) found that people who are alienated politically may be looking for others to blame and consequently, may be more negative toward immigrants. Also, interest in politics is correlated with higher education and involvement in society, both of which may also lead to lower anti-immigrant sentiments. Although overall levels of political involvement tend to be low (i.e. voting), individual and regional variations may impact overall sentiment toward natives. Left-versus-right political leaning has also been linked to anti-immigrant attitudes. In various countries in Europe, there has been a recent trend whereby right-wing parties, who support immigration control, are gaining support from the people and control of the government (i.e. France). Many of these movements have been tied to racist sentiments. An exploration of the specific regions and nations where right or left political leaning is prevalent may clarify why differences in anti-immigrant sentiments occur. Political affiliation is measured in two ways: political involvement and left-versus-right political leaning.

Societal attachment has been associated with anti-immigrant attitudes in various ways. Within the U.S. inter-personal trust (measured by items such as ‘in general, people can be trusted’) tends to be lower in more ethnically diverse communities (Hooghe et al., 2006). Higher trust should also be related to not blaming immigrants unless one has had a personal negative experience with them. That is, some natives blame many societal problems on immigrants, such as high crime rates or unemployment, and this should occur less for individuals with high trust levels. In northern European countries national trust levels are higher than in Southern Europe (Inglehart, 1990). Consequently, trust could impact anti-immigrant attitudes regionally or nationally, as well as individually. Individuals who have a spouse or children should be more integrated in society and more interested in the future of society itself. From this perspective,

living with family might increase anti-immigrant attitudes because these individuals would be interested in assuring that society remains culturally stable and economically viable (Jackson et al., 2001). Societal attachment is measured through interpersonal trust and whether or not an individual lives with family (spouse or children).

Neighborhood safety may also be linked to anti-immigrant sentiments because immigrants introduce an element of uncertainty into society by which many of society's ills may be attributed to their presence. Although personal victimization within neighborhoods is unusual (Ross and Mirowsky, 2009), minor delinquencies are associated with a larger sense of insecurity regardless of whether or not one has been personally victimized (Roché, 1993, Ross and Mirowsky, 2009). A lack of feeling of safety in one's neighborhood may be correlated with natives attributing higher levels of violence or crime to immigrants. Although few studies have examined this relationship, Chandler and Tsai (2001) found a weak positive relationship between an individual feeling their personal safety is threatened and anti-immigrant attitudes.

Neighborhood safety is measured by how safe one feels in their neighborhood after dark.

Contact theory proposes that when people come in contact with immigrants over time in a casual manner, without really developing intimate relationships or friendships, they develop suspicion and hostility, which would lead to higher anti-immigrant sentiments (Fetzer, 2000). This theory originated with Allport (1954) and has been updated (i.e. Pettigrew, 1998) and widely tested (i.e. Voci and Hewstone, 2003). At times this is presented as group position theory (Blumer, 1958), where members of a dominant group develop prejudice toward a subordinate group (in this case immigrants) as they develop their sense of group identity and position in opposition to the minority group. The feeling of having to create a group identity that is opposed to another arises from feeling threatened. With respect to anti-immigrant sentiments, Quillian

(1995) argues that the perceived threat can occur for two reasons: 1) if the size of the minority group increases, the majority may feel they are going to have to compete for scarce resources or cultural hegemony, 2) that prejudice increases in times of economic recession because the majority group blames the subordinate people group for the economic problems. In this way, high concentrations of immigrants at the local level (i.e. neighborhoods) have been associated with anti-immigrant sentiments in Germany and the UK (Gang, Rivera-Batiz and Yun, 2002). On the other hand, Scheve and Slaughter (2001) found that low-skilled people are not more opposed to immigration in regions where there is a higher number of immigrants. Contact theory is measured by the number of immigrants at the regional and national level.

Foreign direct investment can also play a role in determining anti-immigrant attitudes. World systems theory proposes that migration begins when capitalist countries go into poor nations to try to make a profit from benefits such as cheaper labor or raw materials (Massey et al., 1993). When nations in Europe decide to invest overseas, information concerning poorer countries becomes more prevalent in media and business. Increased knowledge about who the immigrants actually are and the harsh conditions they face in their nations of origin may increase understanding and lower anti-immigrant attitudes.

Economic competition is another commonly used explanation for discrimination toward immigrants. It is presented and measured in one of two ways that differ in the unit of analysis. First, on an individual level various researchers hypothesize that lower skilled natives will be more likely to have anti-immigrant attitudes because they are in competition with the low skilled immigrants that are entering the country (Scheve and Slaughter, 2001). The link between economic competition and anti-immigrant attitudes may occur because immigrants are overrepresented in lower-skilled jobs. Consequently, it may simply be true that immigrants are

taking native jobs at the bottom of the labor hierarchy. Whether due to fear that they will lose their own jobs or anger that immigrants are taking away jobs they should not have rights to, natives will have higher anti-immigrant attitudes in these situations. An alternative reason individuals may increase in anti-immigrant attitudes is that they perceive economic competition exists. That is, there are many portrayals in the media of poor immigrants moving to richer countries to attempt to improve their life styles. Whether it is true for specific natives that immigrants are threatening their jobs or not, it may be simply that they are more likely to perceive that immigrants are in competition with them and, consequently, they would have higher anti-immigrant attitudes. Economic competition at the bottom of the labor hierarchy was measured by native's income per capita and unemployment.

In addition to measuring economic competition at the individual level, it can be measured at a regional and national level. Natives will have higher anti-immigrant attitudes when, regardless of their skill level, they live in regions where there is high competition for jobs due to factors such as high unemployment. Various studies have shown that whether or not immigrants actually have a negative impact in the form of lower wages or fewer unemployment opportunities is inconclusive (Gang, Rivera-Batiz, and Yun, 2002). However, people's perceptions may be very different from reality. That is, rumors or specific cases can provoke a general feeling that immigrants are to blame for economic hardships. An alternative explanation for the link between economy and attitudes toward immigrants is that in times of recession, natives are simply looking for someone to blame (Espenshade and Hempstead, 1996). Economic competition was measured by regional and national unemployment and gross domestic product.

Cross-National Analysis and Individual, Regional and National Level Variables

Cross-national studies of anti-immigrant attitudes indicate that there are patterns which hold across nations. For example, Mayda (2006) found that across 22 nations individual skills is related to positive attitudes toward immigrants even after controlling for a variety of factors (i.e. racism). This indicates that studying cross-national patterns of anti-immigrant attitudes is important and viable. This is the first study to my knowledge that explores the influence of eight types of explanations on anti-immigrant attitudes across nations.

Although the number of studies that utilize regional and national level variables to study anti-immigrant attitudes has been increasing, the inclusion of national level variables is still relatively new and studies that include regional level variables are scarce. Findings from studies that include national level variables have been mixed. For example, Sides and Citrin (2007) found small or non-significant effects when examining the relationship between number of immigrants and unemployment rate at the national level and individual anti-immigrant attitudes. On the other hand, Scheepers, Gijsberts and Coenders (2002) found that higher percentages of non-EU citizens present in a nation were related to higher opposition toward granting immigrants civil rights. This study addresses a wider array of variables at the national level: foreign direct investment, unemployment rate, gross domestic product, and number of immigrants.

Anti-immigrant attitudes have rarely been studied at the regional level. In a recent study, Schlueter and Wagner (2008) found that larger immigrant populations at the regional level was related to anti-immigrant attitudes if there was little personal contact with these immigrants, and more positive views toward immigrants if there was personal contact. These studies indicate that the inclusion of regional and national level variables is essential to fully understanding anti-immigrant attitudes.

METHODS

This paper used data from the European Social Survey (ESS) and Eurostat. All analysis was conducted using Hierarchical Linear Models in the program HLM with level 1 being the individual level, level 2 being the region and level 3 the nation. Initially each variable was regressed separately to test whether each explanation was significant. However, having all variables in at once produced similar results, which indicated that there were few or no mediating effects among these variables and that each contributed to explaining variations in anti-immigrant attitudes independently. Exceptions were individual unemployment and national gross domestic product, which become non-significant with the inclusion of individual interpersonal trust.

The European Social Survey (ESS) included representative data for 21 European nations and over 80,000 respondents (see Appendix B for details about countries and excluded cases). Currently, two cross-sectional waves of data are available. Wave 1 was collected in 2002-3 and Wave 2 in 2004-5. The waves were combined in order to include the highest number of cases and a dummy variable was created that indicated to which wave the respondent belonged. This survey covered a wide variety of measures concerning values, attitudes and behavior concerning a range of topics such as politics, culture, economics, and migration. Data were collected via an hour long face-to-face interview and each wave contains samples of between 1000 and 3000 respondents per country. Respondents were randomly selected representatives of private household residents aged 15 or older within regions in Europe.

Region selection for the ESS was based on the European Union's nomenclature of territorial units for statistics (NUTS), which divides countries into regions according to population size, and economic, geographic and cultural factors (Eurostat). The samples collected

in each of these regions by the ESS are representative of that geographical area. The fact that respondents in the ESS are grouped within NUTS regions means that the ESS data can be linked with various region level indicators collected by Eurostat and the Organization for Economic Co-Operation and Development (OECD). Also, certain variables of interest that were included in the ESS can be aggregated to construct regional level indicators. The NUTS are classified into three hierarchical subdivisions, where NUTS 1 represents a broader classification of regions and NUTS 3 a more detailed classification. The ESS was collected by each country independently, which led to variation in the NUTS level employed, with half the countries choosing NUTS 2 and about a quarter choosing NUTS 1 and 3. Thus, the number of regions per country varies from 3 to 40 and the sample size per region from 10 to 1234. Eurostat compiles most of its regional data at NUTS levels 1 and 2, with about 50% of the variables also including NUTS 3. For purposes of this study, all NUTS 3 will be recoded into NUTS 2 so that all Eurostat data can be at a similar level. The exceptions are five countries (Denmark, Finland, France, Luxembourg and Great Britain) that were only measured at NUTS 1 in the ESS. Various cases or countries had to be eliminated due to miscoding or incomplete data (see Appendix B for details). Preliminary analysis with a reduced number of variables indicated that eliminating these countries did not significantly change the results. Expectation maximization algorithms were used to deal with remaining missing data. For most variables, less than 1% of the data was missing. Exceptions were political leaning (10%), educational achievement (5.5%), and income (27.5%). Appropriate weights provided by ESS were used in the analysis. Given that the study concerns natives attitudes toward migrants, those who were born in a foreign country were eliminated from the sample. The final sample size was 42,887.

The dependent variable, *anti-immigrant attitudes* was based on three items measured on a scale of 1(bad) to 10(good) asking if it is bad or good when people come to live from other countries for the economy, the country's cultural life, and the country in general (e.g. "Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?") (Alpha=.81). Items were reverse coded so that high scores signify more anti-immigrant attitudes. Descriptive characteristics for all variables are presented in Table 2.

The operationalization of the independent variables is included in Appendix C. All individual level variables were aggregated and tested at both the regional and national levels. Two variables emerged as contributing significantly to the model: national left-right political leaning and regional levels of trust.

Cultural marginality was measured by whether or not an individual had ever been discriminated against. *Human capital* was measured by education level. *Political affiliation* was measured by political interest and individual and national left/right political leaning. *Societal integration* was measured by individual and regional interpersonal trust and whether or not the individual lived with a child or a spouse. In separate analyses (not shown), the influence of living with a child was measured and the results were not significantly different.

Neighborhood safety was measured by how safe the respondent felt walking in their neighborhood after dark. *Contact theory* was measured utilizing the number of immigrants living in a region or nation as reported by Eurostat. *Foreign Direct Investment* was only available at the national level and was defined by Eurostat as "the category of international investment made by an entity resident in one economy (*direct investor*) to acquire a lasting interest in an enterprise operating in another economy (*direct investment enterprise*)." *Economic competition* was

measured using individual unemployment experience and income per capita, and regional and national gross domestic product and unemployment rate.

Controls used were gender, age, domicile (coded as two dummies for rural and town with urban as the reference group), as well as a dummy variable for the round of the survey each individual belonged to. Results for the control variables were not included in the final tables in order to simplify the paper.

RESULTS

Results are presented in two ways. Table 2 shows the effects all the variables have on anti-immigrant attitudes grouped by the eight types of explanations tested in this paper. Table 3 shows the effects the variables have on anti-immigrant attitudes grouped by individual, regional, and national levels as well as the individual, regional and national level variance components.

Results by Explanation Type

Of the eight explanations tested, four were fully supported by the data, two partially supported, and two not supported by our findings (Table 2). Higher education was related to more pro-immigrant attitudes, which supports *human capital theory*. Having a left leaning political orientation, as well as being interested in politics was associated with being pro-immigrant. In addition, being part of a left leaning nation was associated with positive attitudes toward migrants. These findings support explanations concerning *political affiliation*.

Explanations concerning the link between anti-immigrant attitudes and *neighborhood safety* were also supported, given that not feeling safe in one's neighborhood after dark was positively associated with being more opposed to immigrants. Finally, individuals in nations with higher levels of *foreign direct investment* tend to have more positive attitudes toward immigrants.

Table 2. Standardized Coefficients Grouped by Explanation Type on Anti-Immigrant Attitudes¹

	Standardized Coefficients
<i>Cultural Marginality Explanation</i>	
Ever Been Discriminated Against	-.02
<i>Human Capital Explanation</i>	
Education Level	-.18***
<i>Political Affiliation Explanation</i>	
Interest in Politics	-.14***
Left/Right Political Leaning	.10***
National Left/Right Political Leaning ¹	.11***
<i>Societal Integration Explanation</i>	
Interpersonal Trust	-.22***
Regional Interpersonal Trust ¹	-.19**
Lives with Family	.01
<i>Neighborhood Safety Explanation</i>	
Does Not Feel Safe After Dark	.09***
<i>Contact Theory Explanation</i>	
Regional Number of Immigrants	.01
National Number of Immigrants	.01
<i>Foreign Direct Investment Explanation</i>	
National Foreign Direct Investment	-.12***
<i>Economic Competition Explanation</i>	
Been Unemployed in the last 5 yrs	.01
Income Per Capita	-.02***
Regional Unemployment Rate	-.04*
Regional Gross Domestic Product	-.07*
National Unemployment Rate	-.10***
National Gross Domestic Product	-.009
Variance Explained when all Variables are Added (from null model with controls)	16%
N	42,887

¹ All analyses include controls for gender, age, domicile (rural & town with urban as the reference group) and round of survey.

² These variables were created by aggregating the corresponding individual level measure.

Two explanations were partially supported by the results. *Societal integration* explanations were supported in that higher levels of interpersonal trust, both on the individual and regional levels, were negatively associated with anti-immigrant attitudes. However, the relationship between living with family and attitudes towards immigrants was non-significant. The *economic competition* explanation was partially supported given that lower income per

capita and regional gross domestic product were associated with higher anti-immigrant attitudes. However, neither individual unemployment experience nor national gross domestic product were significantly related to anti-immigrant attitudes, and regional and national level unemployment rates influenced anti-immigrant attitudes in the opposite direction as hypothesized. That is, as regional or national unemployment rates increased, anti-immigrant attitudes decreased.

Two explanations were not supported by the results. *Cultural marginality* theory is called into question because there is no significant relationship between having been a part of a group that is discriminated against and anti-immigrant attitudes. *Contact theory* was also not supported given that number of immigrants at the regional and national level was not related to anti-immigrant attitudes.

The standardized coefficients indicate that interpersonal trust (societal integration explanation) at the individual and regional level were the two strongest predictors of anti-immigrant attitudes, followed by education (human capital explanation), national foreign direct investment and political interest (political affiliation explanation). Other strong predictors were regional and national left/right political leaning (political affiliation explanation), national unemployment rate (economic competition explanation), and feeling safe after dark (neighborhood safety explanation). When all variables are included in the regression, they explain 16% of the individual level variance in anti-immigrant attitudes.

Results by Unit of Analysis

In addition to grouping the results by explanation type, grouping them by unit of analysis provides further insight into anti-immigrant attitudes (Table 3). Anti-immigrant attitudes are higher among *individuals* who are politically right leaning (political affiliation) and who don't feel safe in their neighborhoods after dark (neighborhood safety). Anti-immigrant attitudes are

Table 3. Standardized Coefficients and Variance Components Showing Effects Grouped by Individual, Regional and National Level Explanations on Anti-Immigrant Attitudes¹

	Standardized Coefficients	Regional Variance Components ³	National Level Variance Components ³
Individual Level Variables			
Ever Been Discriminated Against	-.02	.08***	.19***
Education Level	-.18***		.002***
Interest in Politics	-.14***	.01***	.006*
Left/Right Political Leaning	.10***	.001***	.004***
Interpersonal Trust	-.22***	.002***	.002***
Lives with Family	.01	.03*	
Does Not Feel Safe After Dark	.09***	.008***	.005**
Been Unemployed in the last 5 yrs	.01	.06**	
Income Per Capita	-.02***		
Regional Level Variables			
Regional Unemployment Rate	-.04*		
Regional Gross Domestic Product	-.07*		.000001**
Regional Interpersonal Trust ²	-.19**		.20***
Regional Number of Immigrants	.01		
National Level Variables			
National Unemployment Rate	-.10***		
National Gross Domestic Product	-.009		
National Foreign Direct Investment	-.12***		
National Left/Right Political Leaning ²	.11***		
National Number of Immigrants	.01		
Intercept		.02***	
	Individual Level	Regional Level	National Level
Total Variance	2.93	0.33	0.51

1 All analyses include controls for gender, age, domicile (rural & town with urban as the reference group) and round of survey.

2 These variables were created by aggregating the corresponding individual level measure.

3 Only Variance Components that were significant were included in the final model.

lower among individuals who have higher levels of education (human capital) or income per capita (economic competition), as well as those that had higher levels of interpersonal trust (societal integration) and more interest in politics (political affiliation).

From a regional perspective, individuals are more likely to be pro-immigrant if they live in regions with high levels of interpersonal trust (societal integration explanation), regional gross

domestic product, and unemployment rates (economic competition explanation). Finally, from a national level perspective, individuals will have more positive attitudes toward immigrants if they live in nations that are more left leaning (political affiliation explanation) and have high levels of foreign investment (foreign direct investment) and unemployment rates (economic competition). Variance components indicate that most of the variance in anti-immigrant attitudes is present at the individual level, followed by the national and regional levels.

DISCUSSION AND CONCLUSIONS

This paper examines sources of negative attitudes toward immigrants by testing eight explanations at the individual, regional and national level which heretofore have not been examined collectively. Three findings stand out: 1) across Europe, anti-immigrant attitudes are strongly related to interpersonal trust, education, foreign direct investment, and political explanations, 2) economic variables and number of immigrants, variables which are often thought to predict anti-immigrant attitudes, were weakly or not at all related to attitudes against immigrants, and 3) most of the variation in anti-immigrant attitudes is present at the individual level, as opposed to the national and regional level of analysis. It is clear from these results that research that examines anti-immigrant attitudes must jointly address multiple explanations and include individual, regional, and national level variables (Table 3).

Strongest to Weakest Explanation Type

Among the six explanations that contributed most significantly to anti-immigrant attitudes, *societal integration* had the clearest connection given that individual and regional interpersonal trust were the strongest predictors of anti-immigrant attitudes. Immigrants bring with them many factors that are unknown to natives, such as different customs, culture, and language, among others. Some natives may develop anti-immigrant attitudes because they are

uncertain what consequences these different characteristics the immigrants have could bring. Individual with high levels of interpersonal trust may be more likely to overcome the uncertainty associated with the unknown and either establish relationships with immigrants or simply trust that the differences will not have to have negative consequences. In addition, living in regions where interpersonal trust is high may create a positive context of reception toward immigrants where, as a whole, they are perceived more positively which would, in turn, influence an individual toward more a more positive view. The fact that living with family is not significantly related to anti-immigrant attitudes may occur because immigrants tend to be concentrated in certain neighborhoods and consequently, may not be coming in contact often with a natives spouse or child. It may be that this variable does not accurately measure societal integration as it affects anti-immigrant attitudes.

Human capital is also an important explanation for anti-immigrant attitudes, as education was the third strongest predictor of attitudes toward. As individuals gain more knowledge concerning immigrants and are exposed to a wider variety of experiences, they are able to identify with them more. An alternative explanation is that individuals in society with high status are not as threatened by immigrants because they don't have to compete with them, given that immigrants usually enter society at the lower rungs of the hierarchy.

Foreign direct investment had the fourth strongest relationship to anti-immigrant attitudes. Nations with higher levels of *foreign investment* were more likely to have citizens with more positive attitudes toward immigrants. This probably occurs because involvement in foreign nations is associated with more media coverage and information being spread about the citizens of those countries, as well as a feeling of personal investment in the nations being helped. Both of these lead to more sympathetic views concerning why immigrants are moving to Europe. An

alternative explanation is that higher levels of foreign investment create more personal interactions between businessmen, where individuals learn that people from foreign cultures share many of the same values, such as attaining profit or maintaining effective businesses.

Political affiliation is associated with anti-immigrant attitudes in that people with right leaning politics at both the national and individual level and less personal interest in politics are more opposed to immigrants. Right leaning political parties tend to promote stricter policies toward immigrants and reinforce negative stereotypes concerning immigrants being a threat to economic or cultural stability. Political interest is associated with higher levels of education, so it's possible that those who are more knowledgeable about politics are simply more pro-immigrant for the same reasons as educated people.

The *neighborhood safety* explanation was supported in that feeling safe in one's neighborhood after dark was negatively associated with anti-immigrant attitudes. One possible explanation is that individuals that don't feel safe live in neighborhoods with higher numbers of immigrants. On the other hand, people who don't feel safe may be blaming criminal or violent behavior on immigrants and simply associate feeling unsafe with anti-immigrant attitudes.

The *economic competition* explanation was partially supported in that individuals with higher levels on income in regions with higher GDP are likely to be more pro-immigrant. This may occur because these factors are associated with having to compete less for jobs in an economy where there are more employment opportunities. Regional and national unemployment rate were also related to anti-immigrant attitudes, but in the opposite way as hypothesized. That is, the higher the unemployment rate at the regional and national level, the lower the individual's anti-immigrant attitudes. Anti-immigrant attitudes may be negatively related to higher unemployment rates for two reasons. First, in the face of a bad economy, immigrants may be

seen as a new influx of spenders and workers that could provide a boost for the economy. Second, immigrants may be taking jobs at the lowest rungs of the labor market that natives themselves do not want and, consequently, may help revitalize the economy. Individual income per capita and national GDP were not significantly related to anti-immigrant attitudes. Also, overall the effects of the economic variables on anti-immigrant attitudes were relatively weak.

The results indicated no significant relationship between being a part of a group that has been discriminated against. *Cultural marginality* may not be a central determinant of anti-immigrant attitudes in Europe because there are too few natives that have multi-ethnic roots. Thus, there may not be enough people that can personally relate to the hardships and discrimination immigrants face to affect anti-immigrant attitudes.

Number of immigrants at the regional and national level also had no significant relationship with anti-immigrant attitudes, calling *contact theory* into question. The lack of relationship may occur because natives do not have a good idea of the number of immigrants that are actually living in their country (Sides and Citrin, 2007). Given that an individual should have a greater grasp of the number of migrants living in his/her immediate region, one would think a relationship would be found between number of immigrants and attitudes toward migrants in regions with higher concentrations of immigrants. That this relationship was not found is a subject for further research.

Unit of Analysis

As the deviance test (not shown) and variance components indicate, breaking the analysis into three levels is necessary to specify the model correctly and all three levels add significantly to the model. Most of the variance is present at the individual level, which indicates that in order to change anti-immigrant attitudes, one must appeal to the individual. Particularly, influencing an

individual's interpersonal trust, education level, political interest and left-leaning orientation as it pertains to immigrants would be most effective in promoting pro-immigrant attitudes (see policy section below).

Three variables are significant at both the regional and the national level. However, more variance is explained at the national than the regional level. This may indicate that media or information present across nations may be more influential than local beliefs and problems concerning immigration. That is, unless one has personal factors that influence their views of immigrants, national level factors associated with anti-immigrant attitudes are more significant than regional ones. That national level factors are more important than local or regional factors in explaining attitudes supports research by other scholars. For example, Watkins (1991) argued that the influence of national governments has become more powerful and pervasive in the 20th century.

It is noteworthy that certain aggregated variables are significant at some levels and not others. Interpersonal trust (*societal integration explanation*) is significant at the regional variable but not national and the opposite is true for the left-right leaning political scale. It seems that, above and beyond personal trust, regional levels of trust can lead the individual to be more tolerant toward immigrants. That is, if one lives in a region where people generally trust each other, they will be more likely to trust outsiders such as immigrants. The reason national level trust is not associated with anti-immigrant attitudes is that the nation may be too big of a unit of analysis to pick up on how trust directly affects an individual. In other words, levels of trust may be common at local levels, but the national level may be too large for trust to be consistent across all individuals.

As far as left-right political leaning (*political affiliation explanation*), most individuals usually have strong opinions concerning the direction their nation should head, and this would include how their nation or government should deal with immigration. However, individuals may be less in touch with local government, as would be indicated by lower numbers of voters in local versus national elections. An alternative explanation is that policies concerning immigration in Europe are almost always decided at the national and not the regional level.

Overall Conclusions

The effects of six variables at three levels of analysis on anti-immigrant attitudes were clear and independent of each other. Anti-immigrant attitudes were influenced by regional and national interpersonal trust, education level, political interest, individual and national left-right political leaning and foreign direct investment, among others. On the other hand, sheer numbers of immigrants, having been discriminated against or economic variables as a whole, were not consistently associated with anti-immigrant attitudes. Future studies should examine the influence of multiple variables at individual, regional and national levels in order to gain the whole picture concerning anti-immigrant attitudes.

Policy Implications

These findings have several policy implications. Based on the assumption that rise in anti-immigrant attitudes are linked to economic concerns or the sheer number of immigrants, various nations are developing policies that attempt to attract highly skilled immigrants or limit the overall number of immigrants (Bauer, Lofstrom and Zimmerman, 2001; Chiswick, 2005). Our findings indicate that, although bringing in high-skilled immigrants may have economic benefits for the country, it should have little effect on the native citizen's anti-immigrant attitudes. In addition, trying to limit the number of immigrants is also unrelated to anti-immigrant

attitudes. It may be that individuals do not have clear perceptions of the number of immigrants that are in their nation or region (Sides and Citrin, 2007) and, consequently, numbers of immigrants is unrelated to increasing or decreasing anti-immigrant attitudes.

In contrast, policies oriented at increasing interpersonal trust may be more beneficial in promoting pro-immigrant attitudes. A recent paper by Putnam (2007) proposes that this may be accomplished by establishing community or civic organizations within local contexts where two purposes are accomplished: 1) providing a place of community for immigrants to express their culture and 2) providing a space where different cultures can come together (i.e. natives and migrants). He points out that this will only occur if natives and migrants come together over a period of time, so that trust may be built. Given that education is also strongly associated with attitudes toward immigrants, policies aimed at providing more information concerning foreign cultures or problems that are mistakenly associated with immigrants may aid in lowering anti-immigrant attitudes. For example, common misconceptions about immigrants, such as the belief that they have a negative impact on the economy and labor market (Card, 2005), could be dispelled by presenting findings that contradict these beliefs.

Future Studies

This study would have benefited from having complete data concerning certain variables such as number of foreigners or race/ethnicity. In addition, a wider array of regional and national level variables (e.g. racial composition) may have provided more complete explanations concerning how anti-immigrant attitudes vary and are affected by factors at these levels. Finally, having data from a wider array of countries, such as African or Asian countries would erase the Western nation bias that is present in the current results.

Future research is needed to examine how the relationship between the explanations presented in this paper and anti-immigrant attitudes vary on a regional or national level. That is, education may be more important in one country than another. This would further our knowledge of anti-immigrant attitudes. Also, examining whether the trends found in this paper are specific to Europe or expandable to other contexts, such as the U.S., would be important. Finally, future research that examines the effectiveness of policies that influence individual anti-immigrant attitudes in the ways proposed would be of interest (i.e. expanding information concerning immigrants).

This is the first paper to date that examines eight different explanations of anti-immigrant attitudes at once and combines variables at the individual, regional, and national level. Previous papers have only looked at one or two explanations at a time. Findings indicate that individual and regional interpersonal trust, education level and political affiliation variables (individual and national left-versus-right political leaning and political interest) are key to understanding anti-immigrant attitudes. In addition, variables at each level of analysis (individual, regional, and national) also contribute significantly to the understanding of anti-immigrant attitudes. In order to fully understand anti-immigrant attitudes, future studies must address multiple explanations at various levels of analysis.

REFERENCES:

- Allport, G.W. 1954. *The Nature of Prejudice*. Reading, MA: Addison-Wesley.
- Bauer. T.K., M. Lofstrom, and K.F. Zimmerman. 2001. Immigration Policy, Assimilation of Immigrants, and Natives' Sentiments Towards Immigrants: Evidence from 12 OECD Countries. *The Center for Comparative Immigration Studies Working Paper*, no. 33.
- Blumer, H. 1958. Race prejudice as a sense of group position. *Pacific Sociological Review*, 1(1):3-7.
- Card, D. 2005. Is the New Immigration Really so Bad?. *The Economic Journal*, 115(507):300-323.
- Chandler, C. R. and Y. Tsai. 2001. Social Factors Influencing Immigration Attitudes: an Analysis of Data from the General Social Survey. *The Social Science Journal*, 38:177-188.
- Chiswick, B.R. 2005. High Skilled Immigration in the International Arena. *IZA Discussion Paper Series*, no. 1782.
- Espenshade, T. J. and C. A. Calhoun. 1993. An Analysis of Public Opinion toward Undocumented Immigration. *Population Research and Policy Review*, 12(3):189-224.
- Espenshade, T. J. and K. Hempstead. 1996. Contemporary American Attitudes toward U.S. Immigration. *International Migration Review*, 30(2):535-570.
- Eurostat. Introduction to NUTS and the Statistical regions of Europe, retrieved August 7, 2007 from http://ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html
- Fetzer, J. S. 2000. *Public Attitudes toward Immigration in the United States, France, and Germany*. New York: Cambridge University Press.

- Gang, I. N., F. Rivera-Batiz, and M. Yun. 2002. Economic Strain, Ethnic Concentration and Attitudes Toward Foreigners in the European Union. *IZA Discussion Paper Series*, no. 578.
- Hainmueller, J. and M.J. Hiscox. 2007. Educated Preferences: Explaining Attitudes Toward Immigration in Europe. *International Organization*, 61(2):399-442.
- Hooghe, M., T. Reeskens, D. Stolle, and A. Trappers. 2006. Ethnic Diversity, Trust and Ethnocentrism and Europe: A Multilevel Analysis of 21 European Countries. *Paper presented at the 102nd Annual Meeting of the American Political Science Association*. Philadelphia, August 31-September 3, 2006.
- Huntington, S. P. 1996. *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster.
- Inglehart, R. 1990. *Culture Shift in Advanced Industrial Society*. Princeton, NJ: Princeton University Press.
- Jackson, J. S., K. T. Brown, T. N. Brown, and B. Marks. 2001. Contemporary Immigration Policy Orientations among Dominant-Group Members in Western Europe. *Journal of Social Issues*, 57(3):431-456.
- Jowell, R. and the Central Co-ordinating Team. 2003. *European Social Survey 2002/2003: Technical Report*. London: Centre for Comparative Social Surveys, City Univ.
- _____. 2005. *European Social Survey 2004/2005: Technical Report*. London: Centre for Comparative Social Surveys, City University.
- Massey, D. S., J. Arango, G. Hugo, A. Kouaouci, A. Pellegrino and J. E. Taylor. 1993. Theories of International Migration: A Review and Appraisal. *Population and Development Review*, 19(3):431-466.

- Mayda, A.M. 2006. Who is Against Immigration? A Cross-Country Investigation of Individual Attitudes toward Immigrants. *Review of Economics and Statistics*, 88(3):510-530.
- Pettigrew, T.F. 1998. Intergroup Contact Theory. *Annual Review of Psychology*, 49:65-85.
- Price, V. and H. Oshagan. 1995. Social-Psychological Perspectives on Public Opinion, In *Public Opinion and the Communication of Consent*. Ed. T. Glasser and C. Salmon. New York: Guilford.
- Putnam, R. D. 2007. E Pluribus Unum: Diversity and community in the twenty-first Century. *Scandinavian Political Studies*, 30:137-174.
- Quillian, L. 1995. Prejudice as a Response to Perceived Group Threat: Population Composition and Anti-Immigrant and Racial Prejudice in Europe. *American Sociological Review*, 60(4):586-611.
- Roché, S. 1993. *Le Sentiment d'Insécurité*. Paris: Presses Universitaires de France.
- Ross, C.E. and J. Mirowsky. 2009. Neighborhood Disorder, Subjective Alienation, and Distress. *Journal of Health and Social Behavior*, 50:49-64.
- Scheepers, P., M. Gijsberts and M. Coenders. 2002. Ethnic Exclusionism in European Countries: Public Opposition to Civil Rights for Legal Migrants as a Response to Perceived Ethnic Threat. *European Sociological Review*, 18(1):17-34.
- Scheve, K.F. and M.J. Slaughter. 2001. Labor Market Competition and Individual Preferences Over Immigration Policy. *The Review of Economics and Statistics*, 83(1):133-145.
- Schlueter, E. and U. Wagner. 2008. Regional Differences Matter: Examining the Dual Influence of the Regional Size of the Immigrant Population Derogation of Immigrants in Europe. *International Journal of Comparative Sociology*, 49:153-173.

- Sides, J. and J. Citrin. 2007. European Opinion about Immigration: The Role of Identities, Interests and Information. *British Journal of Political Science*, 37:477-504.
- Voci, A., and M. Hewstone. 2003. Intergroup Contact and Prejudice toward Immigrants in Italy: The Mediation Role of Anxiety and the Moderation Role of Group Salience. *Group Processes and Intergroup Relations*, 6:37–54.
- Watkins, S.C. 1991. *From Provinces into Nations: Demographic Integration of Western Europe, 1870–1960*. Princeton: Princeton University Press.

Appendix A. Additional References to the ones included in the Paper for Anti-Immigrant Attitudes Explanations. When possible, includes works with an overview of the theory and recent empirical papers.

<p>CULTURAL MARGINALITY Myrdal, G. 1944. <i>An American Dilemma</i>. New York : Harper & Row. Fetzer, J. S. 2000. <i>Public Attitudes toward Immigration in the United States, France, and Germany</i>. New York: Cambridge Univ. Press. Hayes, B. & Dowds, L. 2006. Social Contact, Cultural Marginality or Economic Self-Interest? Attitudes towards Immigrants in Northern Ireland. <i>Journal of Ethnic and Migration Studies</i>, 32(3):455-476.</p> <p>HUMAN CAPITAL EXPLANATION Dustmann, C., and Preston, I. 2006. Is Immigration Good or Bad for the Economy? Analysis of Attitudinal Responses, <i>Research in Labor Economics</i>, 24, 3-34. McLaren, L.M. 2001. Immigration and the New Politics of Inclusion and Exclusion in the European Union. <i>European Journal of Political Research</i>, 39: 81-108.</p> <p>POLITICAL EXPLANATION Ivarsflaete, E. 2008. What Unites Right-Wing Populists in Western Europe? <i>Comparative Political Studies</i>, 41 (1) 3-23. Oesch, D. 2008. Explaining Workers' Support for Right-Wing Populist Parties in Western Europe: Evidence from Austria, Belgium, France, Norway, and Switzerland. <i>Intl. Political Science Review</i>, 29 (3) 349-373. Popkin, S.L., & Dimock, M.A. 2000 . Knowledge, Trust, and International Reasoning in McCubbins, M.D. & Lupia, A. (eds.) <i>Elements of reason: Cognition, choice, and the bounds of Rationality</i>. NY:Cambridge Univ.</p> <p>SOCIETAL INTEGRATION Herreros, F. 2008. Do Social Trusters like Immigrants? The Impact of Social Capital on People's Attitudes towards Immigration. In K.R. Gupta, G.L.H. Svendsen & P. Maiti (eds.). <i>Social Capital Vol. 2</i> New Delhi, India: Atlantic. Kehrberg, J.E. 2007. Public Opinion on Immigration in Western Europe: Economics, Tolerance, and Exposure. <i>Comparative European Politics</i>, 5(3)264-282. Herreros, F. & Criado, H. 2008. Social Trust, Social Capital and Perceptions of Immigration. <i>Political Studies</i>, 1-19.</p> <p>NEIGHBORHOOD SAFETY (CRIME) Simon, R. 1993. Old Minorities, New Immigrants: Aspirations, Hopes, and Fears. <i>Annals of the American Academy of Political and Social Science</i>, 530 :61-73.</p>	<p>Palmer, D. 1996. Determinants of Canadian attitudes towards immigration: more than just racism. <i>Canadian Journal of Behavioral Science</i>, 28, 180-192.</p> <p>CONTACT THEORY Hewstone, M., & Brown, R. 1986. <i>Contact and conflict in intergroup encounters</i>. Oxford, UK: Blackwell. Pettigrew, T.F., & Tropp, L.R. 2005. Allport's intergroup contact hypothesis: Its history and influence. In J.F. Dovidio, P. Glick, & L.A. Rudman (Eds.), <i>On the nature of prejudice: Fifty years after Allport</i>. Malden, MA: Blackwell Publishing. McLaren, L.M. 2003. Anti-Immigrant Prejudice in Europe: Contact, Threat Perception, and Preferences for the Exclusion of Migrants. <i>Social Forces</i>, 81(3):909-936. Pettigrew, T.F., Christ, O., Wagner, U. & Stellmacher, J. 2007. Direct and Indirect Intergroup Contact Effects on Prejudice: A Normative Interpretation. <i>International Journal of Intercultural Relations</i>, 31:411-425.</p> <p>FOREIGN DIRECT INVESTMENT Ivlevs, A. 2006. Migration and Foreign Direct Investment in the Globalization Context: The Case of a Small Open Economy. <i>Social Science Research Network Working Paper</i>. Available at SSRN: http://ssrn.com/abstract=912227 Sauvant, K.P., Mallampally, P. & Economou, P. 1993, Foreign Direct Investment and International Migration, <i>Transnational Corporations</i> 2(1):33-69. United Nations (UN), 1996, <i>Foreign Direct Investment, Trade, Aid and Migration</i>, United Nations Publication: Geneva.</p> <p>ECONOMIC COMPETITION Olzak, S. 1992. <i>The Dynamics of Ethnic Competition and Conflict</i>. Stanford: Stanford University Press. Citrin, J., Green, D., Muste, C., & Wong, C. 1997. Public Opinion Toward Immigration Reform: The Role of Economic Motivations. <i>Journal of Politics</i> 59(3):858-81. Malchow-Moller, N., Munch, J.R., Schroll, S. & Skaksen, J.R. 2008. Attitudes toward Immigration: Perceived Consequences and Economic Self-Interest. <i>Economic Letters</i>, 100:254-257 Dustmann, C. & Preston, I. 2006 Is Immigration Good or Bad for the Economy? Analysis of Attitudinal Responses. <i>Research in Labor Economics</i>, 24:3-34.</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Appendix B. Countries and Cases Included and Excluded from the Final Sample

Countries	Reason	N of Cases
AT, BE, CH, CZ, DE, DK, ES, FI, FR, GB, GR, HU, IE, IT, LU, NL, NO, PL, PT, SE, SI ¹	Original Countries	80959
IT	Misidentification of European Regions	2736
GR	Missing on National FDI, and Misidentification of European Regions	4972
CH, SI	Missing on Regional and National GDP	7142
BE, DE	Missing on Regional and National Number of Immigrants	9466
AT, GB ²	Missing Education Level in One Wave (AT = Wave 1), GB (Wave 2)	4528
FR, IE, HU ²	Missing Income in Wave 1	5551
	Eliminated Because Born in Another Country ³	2790
	Missing on Dependent Variable ³	887
AT, CZ, DK, ES, FI, FR, GB, HU, IE, LU, NL, NO, PL, PT, SE	Final Sample Size	42887

¹ AT=Austria, BE=Belgium, CH=Switzerland, CZ=Czech Republic, DE=Germany, DK=Denmark, ES=Spain, FI=Finland, FR=France, GB=Great Britain, GR=Greece, HU=Hungary, IE=Ireland, IT=Italy, LU=Luxembourg, NL=Netherlands, NO=Norway, PL=Poland, PT=Portugal, SE=Sweden, SI=Slovenia

² Various tests were conducted to see whether eliminating only one wave of data changed the results. Results with and without these waves were not statistically different.

³ The N's for these two exclusions were measured once the previous exclusions had already been done.

Appendix C. Operationalization of Variables

Variable	Question/Origin	Values/Notes
Cultural Marginality Theory		
Discriminated Against	Would you describe yourself as being a member discriminated against in this country?	1=yes, 2=no
Human Capital Theory		
Education Level	What is the highest level of education you have achieved?	0=not completed primary ed. to 6=completed second stage of tertiary ed. (Standardized across countries)
Political Affiliation		
Political Interest	How interested would you say you are in politics?"	1 = not at all interested to 4 =very interested
Left/Right Political Leaning	In politics people sometimes talk of 'left' or 'right'. Using this card, where would you place yourself on this scale	0=Left - 10=Right
Societal Integration		
Interpersonal Trust	Mean of three items (i.e. "...would you say that most people can be trusted, or that you can't be too careful in dealing with people?")	0 (no trust) to 10 (trusting)
Lives with Family	Used residential roster	
Neighborhood Safety		
Safe after Dark	How safe do you feel walking alone in this area after dark?	1=very safe to 4=very unsafe
Contact Theory		
Reg & Nat # of Immigrants	Obtained from Eurostat	From 2001 regional/national census.
Foreign Direct Investment		
National Foreign Direct Investment	Obtained from Eurostat	Longitudinal, matched up with the round of the survey so that (Wave 1=2002-3 and Wave 2=2004-5)
Economic Competition		
Income Per Capita	Using this card, if you add up the income from <u>all</u> sources, which letter describes your household's total <u>net</u> income?	The category was divided by the number of household members (standardized across countries)
Unemployment Experience	Have any of these periods [of unemployment] been within the past 5 years?	1=yes, 2=no
Reg & Nat unemployment rate	Obtained from Eurostat	Longitudinal, matched up with the round of the survey so that (Wave 1=2002-3 and Wave 2=2004-5)
Reg & Nat GDP	Obtained from OECD	Longitudinal, matched up with the round of the survey so that (Wave 1=2002-3 and Wave 2=2004-5)

Chapter 3:

Anti-Immigrant Attitudes: Who Has Them and Who Doesn't?

INTRODUCTION

Multiple studies have examined reasons anti-immigrant attitudes arise. However, most studies look at one or two explanations at a time. This paper will explore eight explanations for anti-immigrant attitudes in conjunction. For example, although Gang, Rivera-Batiz and Yun (2002) find that educational and economic explanations for anti-immigrant attitudes are important, they ignore the influence of other variables such as political interest. The reality is that for the individuals whose anti-immigrant attitudes we are examining, these explanations are not independent of each other. Although some explanations may be more important than others, it is the interplay of them all that drives their anti-immigrant attitudes. For example, an unemployed individual is more likely to have high anti-immigrant attitudes, but only when that individual also has low income and low interpersonal trust.

This paper applies latent class analysis to data from the European Social Survey (ESS) to determine categories or types of individuals based on eight common factors that have been used to explain anti-immigrant attitudes. Given that the study concerns natives attitudes toward immigrants, those who were born in a foreign country were eliminated from the study. The variables associated with anti-immigrant attitudes are: educational achievement, income, unemployment experience, political interest, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination. The goal is to derive a set of categories of individuals that explain differences in anti-immigrant attitudes. The categories will include factors such as experience, achievement,

and values. These categories are then used to explain country differences in overall levels of anti-immigrant attitudes.

Understanding which common characteristics of individuals are related to higher versus lower levels of anti-immigrant attitudes is important for three reasons. First, it will help identify the common characteristics for individuals who have the highest levels of anti-immigrant attitudes. This is important for formulating policies that reduce negative attitudes toward immigrants which will increase the effectiveness of integrating foreigners into the culture and the workforce and reduce alienation. That is, if the individuals who have the highest opposition to immigrants all have low levels of education and interpersonal trust, then a policy that promotes an informational campaign to increase trust toward immigrants might be implemented. If, on the other hand, the highest levels of anti-immigrant attitudes exist amongst individuals who feel unsafe in their neighborhoods and are politically uninvolved, then campaigns to increase security and citizen involvement might be more appropriate.

The second reason a classification for anti-immigrant attitudes can be helpful is to determine which characteristics are clustered together to determine attitudes toward immigrants. That is, lack of political involvement could be associated with various other explanations for anti-immigrant attitudes, such as low education, unemployment or feeling discriminated against. Which ones of these variables come together in the latent class analysis could have policy implications. That is, if the same individuals that are politically inactive are those with lower income or unemployment, it may be that anti-immigrant attitudes arise out of a feeling that society and government is pitted against them. That is, society has not helped them make a decent income and they have trouble

finding a job, so they remain politically uninvolved and, in turn, feel that immigrants will just be another burden they will be made to bear. On the other hand, if political un-involvement is clustered with feeling discriminated against, then it may be that anti-immigrant attitudes for these individuals arise out of a feeling of being purposefully shunned by society. Those who feel discriminated against feel shunned in favor of the immigrants, who do get political attention, whether due to the fight for immigrant rights or for their incorporation into society. Because these natives do not receive such attention, they feel detachment from society and anger toward immigrants.

Explanations for Anti-Immigrant Attitudes

Anti-immigrant attitudes have long been a topic of concern in research literature. Most research focuses on examining reasons why anti-immigrant attitudes arise by looking at one or two variables at a time. Other research looks at the consequences of anti-immigrant attitudes. To my knowledge, however, no paper has categorized individuals into different groups that reflect the complexities of features that all individuals possess that lead to differing levels of anti-immigrant attitudes. A classification of individuals based on eight commonly used explanations for anti-immigrant attitudes is important because it provides a more comprehensive view of the factors associated with differing types of feelings toward immigrants. Although it is clear in the literature that factors such as education, political interest, and interpersonal trust all influence an individual's level of anti-immigrant attitudes (i.e. Espenshade & Calhoun, 1993; Scheve & Slaughter, 2001), these factors do not exist independently of each other within individuals. That is, people with higher education tend to have higher

levels of political activism and interpersonal trust and all three of these factors interact to determine their overall level of anti-immigrant attitudes.

In order to develop this classification of individuals, I use latent class analysis and focus on the variables commonly associated with anti-immigrant attitudes. Although they are often examined independently, there are reasons to believe that they work together to determine various levels of anti-immigrant attitudes for each individual. Based on the present literature, eight variables are used to develop a classification on individuals as it related to their anti-immigrant attitudes: educational achievement, income, unemployment experience, political interest, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination.

Educational achievement is associated with human capital theory, which poses that natives with more education will be more likely to have more pro-immigrant attitudes (Card, Dustmann, & Preston, 2005). This has been the most tested of all the theories and the finding that education reduces anti-immigrant attitudes is widely accepted (i.e. Gang, Rivera-Batiz, and Yun, 2002). There are two main explanations for the relationship between education and attitudes toward immigrants. One school of thought proposes education is linked to pro-immigrant attitudes because: a) it provides the individual with skills so that they do not have to compete with immigrants for jobs, and b) a higher proportion of unskilled immigrants implies higher wages for skilled workers (Mayda, 2006). An alternative explanation is that higher levels of education are related to higher tolerance toward different races and cultures and a more international outlook (i.e. Espenshade and Calhoun, 1993). A recent study (Hainmueller and Hiscox, 2007), pitted these explanations against each other and found that individuals at higher

levels of education were more likely to favor immigration regardless of the skill level or origin of the foreigners. Non-labor related factors that are related to higher levels of education (i.e. decreased racism and increased emphasis on cultural diversity) accounted for 65% of the effect of education on pro-immigrant attitudes. In this study, human capital was measured using level of educational achievement.

Income per capita is often also associated with human capital theory and thought to work in much the same way as education level (Gang, Rivera-Batiz & Yun 2002), as level of education and income tend to be correlated. However, there is reason to believe that there may be cases where education will not cluster with income to determine anti-immigrant attitudes. Individuals with high levels of education may decide to use their skills to improve society and often take a job that does not pay as well. In this case, education may be clustered with political involvement rather than income.

An alternative reason that individuals with low income may have higher anti-immigrant attitudes is that they perceive economic competition exists. That is, there are many portrayals in the media of poor immigrants moving to richer countries to attempt to improve their life styles. Whether it is true for specific natives that immigrants are threatening their jobs or not, it may be simply that they are more likely to perceive that immigrants are in competition with them and, consequently, they would have higher anti-immigrant attitudes. Thus, low income could be clustered with low interpersonal trust.

Unemployment experience is often related to lower levels of household income per capita and, in this way, may work in many of the ways described above. That is, unemployment may be related to lower levels of income per capita because natives feel

they have to compete with immigrants for jobs (Scheve & Slaughter, 2001)., whether this is actually true or not.

Political involvement has also been associated with anti-immigrant attitudes. Espenshade & Hepstead (1996) found that people who are alienated politically may be looking for others to blame and consequently, may be more negative toward immigrants. That is, individuals who feel that they have been alienated by society and, as a consequence, feel politically detached, often look for a scapegoat group on whom to blame their problems. This may lead individuals who are alienated politically to blame groups such as the immigrant population for their problems. At the other end of the spectrum, interest in politics is correlated with higher education and involvement in society, both of which may also lead to lower anti-immigrant sentiments. In addition, political involvement is often related to understanding the plight of the needy and oppressed, an example of which are many immigrants.

Interpersonal trust has been associated with attitudes toward immigrants in a positive direction (Herreros, 2008). Individuals with higher levels of interpersonal trust will be more likely to be welcoming to immigrants. Higher trust should also be related to not blaming immigrants unless one has had a personal negative experience with them. On the other hand, lower interpersonal trust may be associated with higher anti-immigrant attitudes. Within the U.S. inter-personal trust (measured by items such as ‘in general, people can be trusted’) tends to be lower in more ethnically diverse communities (Hooghe et al. 2006). That is, some natives blame many problems on immigrants, such as high crime rates or unemployment, and this should occur less for individuals with high trust levels.

In a similar way, *feeling safe* is also linked to anti-immigrant sentiments because immigrants introduce an element of uncertainty into society by which many of society's ills may be attributed to their presence. Consequently, a lack of feeling of safety in one's neighborhood may be correlated with natives attributing higher levels of violence or crime to immigrants. Alternatively, although immigrants may not raise or lower crime themselves, their presence could lead to increased inter-racial tensions or violence within their neighborhood (Card, Dustmann, & Preston, 2005). Neighborhood safety is measured by how safe one feels in their neighborhood after dark.

Individuals who *reside with a family member* (spouse or child) should be more integrated in society and more interested in the future of society itself. From this perspective, living with family might increase anti-immigrant attitudes because these individuals would be fearful that immigrants might increase cultural instability and economic uncertainty (Jackson et al. 2001).

Finally, *experiencing discrimination* has been associated with anti-immigrant attitudes. Cultural affinity theory poses that when individuals can relate to immigrants based on some factor, this will promote more pro-immigrant attitudes. Cultural affinity can exist for various reasons, such as coming from an immigrant background or being a member of an ethnic minority. Espenshade & Calhoun (1993) measured cultural affinity by whether the respondent was foreign born or of a racial/ethnic minority and found it had some influence on attitudes toward undocumented immigrants to the U.S. On the other hand, individuals who have experienced discrimination sometimes develop an opposition to society, and especially to other groups who compete with them to gain more rights in

society. This has been found in studies that examine antagonism between Latino and Black communities in the U.S. (Gay, 2006).

Differences by Country

Once the classification of individuals corresponding to different levels of anti-immigrant attitudes has been created, descriptive analysis concerning the extent to which each of these categories are present in each country will be conducted. Levels of anti-immigrant attitudes vary by nation across Europe, with Nordic nations tending to be more positive toward immigrants, and Mediterranean nations more negative (Inglehart, 1990). Because the classification identifies characteristics of people with different levels of anti-immigrant attitudes, it is logical to assume that the distributions of the categories in each country will vary. That is, nations who tend to be more negative toward immigrants should have a larger percentage of citizens that fall into the category corresponding to higher levels of anti-immigrant attitudes.

METHODS

This paper used data from Waves 1 and 2 of the European Social Survey (ESS), a representative dataset including 21 European nations and over 80,000 respondents. Wave 1 was collected in 2002-3 and Wave 2 in 2004-5. The waves were combined in order to include the highest number of cases and a dummy variable was created that indicated which wave the respondent belonged. This survey covered a wide variety of measures concerning values, attitudes and behavior concerning a range of topics such as politics, culture, economics, and migration. Data was collected via an hour long face-to-face interview and contains samples of between 1000 and 3000 respondents per country.

Respondents were randomly selected representatives of private household residents aged 15 or older within regions in Europe.

For five countries (i.e. Austria, Hungary) one of the two waves of data was excluded from the analysis because the variable measuring education or income was either incorrectly collected or did not match the question format for the other countries. Preliminary analysis with a reduced amount of variables indicated that eliminating these countries did not significantly change the results. Preliminary analysis with a reduced number of variables indicated that eliminating these waves of data for these countries did not significantly change the results. Also, because the study was concerned with native's attitudes toward immigrants, all non-native born respondents were eliminated from the sample (approximately 8%). Expectation maximization algorithms were used to deal with missing data. For most variables, less than 1% of the data was missing. Exceptions were political leaning (10%), educational achievement (5.5%), and income (27.5%). Appropriate weights provided by ESS were used in the analysis. The final sample size was 64,663.

The dependent variable, *anti-immigrant attitudes* was based on three items measured on a scale of 1 to 10 asking if it is bad or good when people come to live from other countries for the economy, the country's cultural life, and the country in general (e.g. "Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?") (Alpha=.81).

Education level was measured by the education level standardized across European countries, ranging from 0=not completed primary education to 6=completed second stage of tertiary education. Income was measured by a the question: "Using this

card, if you add up the income from all sources, which letter describes your household's total net income?”, the answers were twelve possible income ranges that were standardized across countries. The category was divided by the number of household members to obtain *income per capita*. The influence of *unemployment* was measured by a question that asks whether the individual had been unemployed in the past 5 years.

Political involvement was measured by the question “How interested would you say you are in politics?” from 1 = very interested to 4 =not at all interested. *Interpersonal trust* was composed by three items on a scale of 0 (no trust) to 10 (trusting) “...would you say that most people can be trusted, or that you can’t be too careful in dealing with people?”, “would most people try to take advantage of you if they got the chance?” or “would they try to be fair, and do most of the time people try to be helpful or are they mostly looking out for themselves?”. *Neighborhood safety* was measured by the item “how safe do you feel walking alone in this area after dark?” on a scale of 1=very safe to 4=very unsafe.

Whether or not the respondent *lives with family* is obtained from a residential roster individuals are asked to fill out. *Having been discriminated against* was measured by a question that asked whether individuals would consider themselves as being a member of a group that is discriminated against in this country? (1=yes, 2=no).

Descriptive characteristics for all variables are presented in Table 1.

Age and *gender* were not included in the M-Plus analysis to determine categories of individuals. However, mean age and gender are presented in the results.

Analysis was conducted in M-Plus using mixture latent class analysis, which

Table 1. Descriptive Statistics (N=64,663)

	Minimum	Maximum	Mean	Std. Deviation
Anti-Immigrant Attitudes	0	10	5.08	2.02
Education	0	6	2.81	1.45
Political Interest	1	4	2.35	0.90
Interpersonal Trust	0	10	4.89	1.87
Do you feel safe after dark (4=no)	1	4	2.10	0.82
Income Per Capita	0	12	2.60	1.63
Ever been discriminated against.	0	1	0.05	0.23
Lives with Family	0	1	0.68	0.46
Ever been unemployed	0	1	0.13	0.34
Age	14	100	45.58	18.12
Gender (0=Female)	0	1	.48	.50

allows a combination of continuous and categorical latent variables. Models that allowed from 2 to 10 classes were tested. Bayesian information criterion (BIC), entropy, and the Lo-Mendell-Rubin likelihood ratio test were used to determine the best solution. The Lo-Mendell-Rubin likelihood ratio test of model fit compares the estimated model with a model with one less class than the estimated model to determine if adding a class improves the fit.

RESULTS

Although there is much research exploring reasons anti-immigrant attitudes arise among natives, no paper has combined the common explanations for anti-immigrant attitudes to construct a classification of individuals. Latent class analysis reveals that there are six categories of individuals as they relate to anti-immigrant attitudes, which are identified by their most prominent characteristic from highest to lowest level of anti-

Table 2. Anti-Immigrant Classification with significant differences between categories for each variable according to t-tests (N=64,663)

	Disadvantaged (Category 1)	Low Education, mid-income (Cat. 2)	Middle (Category 3)	High Income (Category 4)	Educated (Category 5)	Politically Interested (Category 6)
Education	1.91 A	2.33 A	2.56 A	3.79 A	4.93 A	4.7 A
Political Interest	1.82 A	2.33 A	2.66 a,b,e,f	2.79 a,b,e,f	2.71 A	3.05 A
Trust	4.1 A	5.04 A	5.38 A	5.38 A,e*	5.29 A,d*	5.7 A
Safe after dark	2.25 c,d,e,f	2.27 c,d,e,f	1.97 A	2.02 A,e*	1.97 A,d*	1.87 A
Income per Capita	1.6 A	4.62 A	2.31 A	8.21 A	2.19 A	4.47 A
Discriminated against	0.05 c,d,e,f	0.06 c,d,e,f	0.04 A	0.08 a,b,c	0.07 a,b,c	0.08 a,b,c
Lives with Family	0.67 A	0.36 A	0.79 a,b,d,f	0 A	0.81 a,b,d,f	0.78 A
Ever Unemployed	0.2 A	0.11 A	0.08 a,b,e	0.07 a,b,e	0.14 A	0.07 a,b,e
N	24585	6699	18866	1788	8156	4569
Proportion of Total Population	38.0	10.4	29.2	2.8	12.6	7.1
Age	42.56 A	54.91 A	46.46 A	49.80 a,b,c,e	41.48 A	50.25 a,b,c,e
Gender (1=Male)	.43 c,d,e,f	.43 a,d,e,f	.53 A	.56 a,b,c,e	.49 A	.58 a,b,c,e

a - t- test sig different from category 1
b - t- test sig different from category 2
c - t- test sig different from category 3
d - t- test sig different from category 4
e - t- test sig different from category 5
f - t- test sig different from category 6
A - t-test sig different from all other categories

Table 3. Anti-Immigrant classification with characteristics compared to one another.

	Disadvantaged (Category 1)	Low Education, mid-income (Cat. 2)	Middle (Cat. 3)	High Income (Cat. 4)	Educated (Category 5)	Politically Interested (Category 6)
Education	Lowest	Lower	Low	High	Highest	Higher
Political Interest	Lowest	Low	High	High	High	Highest
Trust	Lowest	Low	Higher	Higher	High	Highest
Safe after dark	Least	Least	High	High	High	Most
Income per Capita	Lowest	Mid	Low	Highest	Low	Mid
Discriminated Against	0.05	0.06	Lowest	0.08	0.07	0.08
Live with Family	Mid	Few	Most	None	Most	Most
Ever Unemployed	High	High	Lowest	Lowest	Higher	Lowest
Age Gender (1=Male)	Young More Females	Oldest More Females	46.46 .53	49.80 More Males	Youngest .49	Old More Males
N (Total=64,663)	24585	6699	18866	1788	8156	4569
Anti-Immigrant Attitudes	5.61	5.39	4.93	4.58	4.2	4.12

immigrant attitudes as: 1) disadvantaged, 2) low education/mid-income, 3) middle category, 4) high income, 5) educated, and 6) politically interested (see table 2). Dummy variables were created for each category and regressed on anti-immigrant attitudes, which revealed that all classes are significantly different from each other on their average level of anti-immigrant attitudes (results not shown). Whether or not the means for each characteristic of the resulting classes were significantly different was tested by conducting t-tests for equality of means. That is, this test indicates whether the mean

level for a characteristic such as political interest was significantly different for each class (see table 2). Table 3 summarizes the characteristics across categories.

The group with the highest level of anti-immigrant attitudes (disadvantaged) is characterized by ranking lowest on education, political interest, interpersonal trust, and income. People in this group also rank low on feeling safe in their neighborhood after dark and high on unemployment. A little over half of them live with family. Although they are significantly different from four of the other categories on whether or not they have been discriminated against, they fall in the mid-range for this characteristic. People in this category are the second youngest of any group and are more likely to be female than people in other groups. Based on the fact that this group ranks lowest on many of the characteristics, this category will be referred to as the disadvantaged category. People in this category represent the largest group, with 38% of the total population.

The second highest level of anti-immigrant attitudes (low education/mid-income) corresponds to the group of people who have low education, political interest and trust. These are also the individuals that feel least safe in their neighborhoods after dark. Few of them live with a child or spouse and they have a higher than average level of unemployment. Finally, this group has mid-levels of income. On average, people in this category are older and more likely to be female than those in any other group. Because this group is characterized by having a higher level of income than corresponds to their education, they are referred to as the low education, mid-income category. People in this category comprise 10.4% of the population.

The group of people with the third highest (middle category), or mid-higher level of anti-immigrant attitudes has very low levels of unemployment and rates lowest on

being part of a group that has ever been discriminated against. This group has low levels of income and education but higher levels of political interest, interpersonal trust, and feeling safe in one's neighborhood after dark. Most of them live with family. People in this category are more or less of average age for this sample and no more likely to be male than female. Because the positive and negative characteristics of this group seem to offset each other, this group is referred to as the middle category. Approximately 29.2% of the total population falls into this category.

Individuals with the next level of anti-immigrant attitudes (high income), mid-low or third lowest, are characterized by having the highest level of income. They also have high levels of education, political involvement, interpersonal trust, and feeling safe in their neighborhoods after dark. None of them live with family and they have one of the lowest levels of unemployment. People in this category are slightly older than the mean and more likely to be male than female. Due to their distinguishing characteristics they are referred to as the high income category. This is the smallest category, with 2.8% of the population.

The second lowest level of anti-immigrant attitudes (educated) is found among individuals with the highest level of education. These people also have high levels of political interest, interpersonal trust and feeling safe in their neighborhoods after dark. In contrast, they have low levels of income and have higher than average experience with unemployment. Most of them live with family. People in this category are on average the youngest across groups and equally likely to be male or female. From these characteristics, people in this group are referred to as the high education category. Of the total population, 12.6% fall into this category.

Finally, the individuals with the lowest level of anti-immigrant attitudes (politically interested) are characterized by having the highest levels of political interest, interpersonal trust and feeling safe after dark. They also have high levels of education and middle levels of income. Most of them live with family and few of them have experience with unemployment. People in this category are on average older than most other groups and are the most likely to be male. Due to their distinguishing characteristics, people with the lowest levels of anti-immigrant attitudes are referred to as politically interested. Individuals in this group represent 7.1% of the total population.

DISCUSSION AND CONCLUSIONS

The purpose of this paper is to create a classification of individuals related to their level of anti-immigrant attitudes based on eight variables that have commonly been used to explain attitudes toward immigrants. The eight variables are: education, political interest, interpersonal trust, feeling safe after dark in one's neighborhood, income per capita, ever having been a part of a group who has been discriminated against, living with family (spouse or child) and experience with unemployment. Results indicate that there are six different categories of individuals as these variables relate to anti-immigrant attitudes. Although all variables contribute significantly to the understanding of who has higher versus lower levels of anti-immigrant attitudes, it is the combination of all eight of them through latent class analysis that provides a fuller understanding of what explains anti-immigrant attitudes and, consequently, leads to implications for policy.

The *disadvantaged* category rates lowest on five of the eight variables: education, political interest, interpersonal trust, feeling safe in their neighborhood after dark, and income per capita. This group is clearly disadvantaged in terms of status (education and

income) within society. Immigrants usually enter society at the lower status rungs, which may make these natives feel like they are in competition with them for resources such as money and jobs. This possibility is reinforced by the fact that individuals in this category are likely to have had experience with unemployment. In addition, natives in this category feel distrust of the society around them. Natives with low interpersonal trust may have especially negative attitudes toward immigrants because they often come from cultures with a race or religion that is different from their own, making it harder to trust them. This distrust of immigrants may be reinforced by blaming them for feeling unsafe in their neighborhoods after dark. Because both these natives and many of the immigrants are at the lower rungs of the societal hierarchy they are much more likely to live in the same neighborhoods, and these neighborhoods probably have higher levels of crime. In the presence of crime that people can't explain, they are likely to blame those most different from themselves, in this case, the immigrants. Low political involvement may again be exacerbating the anti-immigrant attitudes among individuals in this category either because: 1) they don't place a lot of value on fighting for causes concerning the oppressed or 2) feel like they are oppressed just as much as immigrants yet immigrants get more political attention and they are resentful of this. Finally, over half of these respondents live with a spouse or child, which is also related to higher anti-immigrant attitudes because having a family makes individuals more protective of their society and less open to change. By using latent class analysis, we know that each of these factors does not affect the individual's level of anti-immigrant attitudes separately but that these variables relate to one another in a unique way. Thus, the combination of feeling oppressed because they have low education and income, in combination with being

fearful of immigrants due to their distrust of society and feeling unsafe, and the alienation that results from low political involvement, work together to lead these individuals to feel most opposed to immigrants.

The *low education, mid-income group* has many of the same characteristics of the disadvantaged group: low education, political interest, trust, and feeling safe after dark. However, they differ in three key ways: 1) their overall levels on all of these variables, except feeling safe in their neighborhood, are slightly higher than those in the disadvantaged category, 2) they have middle levels of income, and 3) few of them live with family. These three factors may offset some of the things that drive them toward having negative attitudes toward immigrants just enough that they fall into a category that is slightly less anti-immigrant than those in the disadvantaged category. The middle levels of income may make them feel like they do not have to compete with immigrants for resources such as money and jobs and the fact that fewer of them live with family may make them feel like they need to protect society a little less. On the other hand, their low level of education, political involvement, interpersonal trust and feeling safe still lead them to overall feel negative toward immigrants.

The *middle category* has the level of anti-immigrant attitudes that is closest to the overall mean level of the sample (Table 1 & 2). They are characterized by a mix of factors that are associated with both positive and negative attitudes toward immigrants. As far as characteristics that are usually associated with negative attitudes toward immigrants, people in this category have low income, education, and have experienced unemployment. In contrast they have the following characteristics that are commonly associated with positive attitudes toward immigrants: high political interest, trust and

feeling safe after dark. It is probably the combination of characteristics that are both positively and negatively related to anti-immigrant attitudes that leads people in this group to have a middle level of anti-immigrant attitudes.

The *high income* category has slightly lower anti-immigrant attitudes than those in the middle category but are still more opposed to immigrants than two other categories of people (the educated and politically interested). Most of the characteristics present in this category are related to positive attitudes toward immigrants: high income, education, political interest, interpersonal trust, feeling safe after dark, not living with family, and little experience with unemployment. The combination of these characteristics leads to low anti-immigrant attitudes perhaps because individual in this category have little reason to dislike immigrants: they are not competing with them for jobs or other resources, their feelings of safety or trust are not threatened by immigrants. However, because they also do not have reason to actually be more actively pro-immigrant, such as high education or political involvement, people in the high income category still fall into the third lowest level of anti-immigrant attitudes.

Individuals in the *educated* category are similar to those in the high income category with four exceptions: 1) they are more educated, 2) they have low income, 3) they have more experience with unemployment, and 3) most of them live with a spouse or child. Low income, unemployment, and living with a spouse or child are associated with higher anti-immigrant attitudes. However, it seems that education offsets their effects to the extent that people in this category have the second lowest level of anti-immigrant attitudes. It may be that education has led people to be more aware that the link between economic problems and immigrants is not clear and consequently, they are

less likely to feel in competition with immigrants for resources and jobs. Also, education is related to the individual having a broader set of experiences that may lead them to see experiences with other cultures, religions and races as positive. Consequently, these individuals may see immigrants as a positive way to influence their families to be more cross-national.

Finally, the category of people with the lowest level of anti-immigrant attitudes is characterized by having the highest *political involvement*, interpersonal trust, and feeling of safety in their neighborhood after dark. Again, these factors seem to be more salient than a high level of income in leading to lower levels of anti-immigrant attitudes. People who are politically involved tend to be more informed and passionate about groups who are discriminated against. Because immigrants tend to be one of these groups, they may be more likely to actively engage in their defense. Their high levels of interpersonal trust and feeling safe also cause them to be more accepting of immigrants.

Age and Gender

Across categories there does not seem to be a pattern related to age and the only pattern linked to age is that females are more represented than males in groups with higher anti-immigrant attitudes. As far as age is concerned, the two groups with the highest levels of anti-immigrant attitudes (disadvantaged and low education/mid-income) are on average, the oldest and the second youngest. So age does not seem to be leading individuals to higher or lower anti-immigrant attitudes. The overall youngest group is the educated category. It may be that these individual have lower anti-immigrant attitudes due to their age, in addition to their education level. However, since the politically interested group is the second oldest and has the lowest anti-immigrant attitudes, it does

not seem that being younger is necessarily related to more tolerant attitudes toward immigrants.

As far as gender is concerned, the two categories with the highest percentage of females are the most anti-immigrant (disadvantaged and low education/mid-income), and the group with the most positive attitudes toward immigrants (politically interested) has the highest percentage of males.

Characteristics across categories

Across categories, six of the eight characteristics examined generally increase or decrease in the direction hypothesized with the exception of one category (Table 2). That is, education increases as anti-immigrant attitudes decrease by category with the exception of the educated category. Political interest and trust also increase as anti-immigrant attitudes decrease, with the exception of the educated category. In contrast, whereas unemployment decreases with anti-immigrant attitudes, it is higher for the educated category. This may indicate that the educated category is different from the rest in that, as has been noted, although there are certain factors present in this category that are related to increased anti-immigrant attitudes (i.e. higher unemployment and lower income), education overcomes these factors to lead to lower anti-immigrant attitudes. This has important implications from a policy perspective. The three categories that have the lowest levels of anti-immigrant attitudes may be most easily influenced by increasing education. That is, although it is difficult to raise overall levels of income per capita and control an individual's level of political interest, the government can provide cheaper and better pathways to education. It may also be that a government does not need to increase the overall level of education of the population but that simply providing education that is

related to lowering prejudice toward immigrants would lower overall anti-immigrant attitudes. Given that education seems to overcome the negative implications of unemployment and low income, this would make increasing education even more important, as it may reach individuals in several of the categories related to higher levels of anti-immigrant attitudes (i.e. disadvantaged and low education, mid-income).

Two of the characteristics do not correspond to anti-immigrant attitudes in any linear way: income per capita and living with family. It may be that, although both of these characteristics matter, they are superseded by others in influencing anti-immigrant attitudes. That is, although income is related to being more tolerant of immigrants, individuals with low income can develop tolerant attitudes when they are politically involved or educated. In the same way, although living with family is generally related to higher anti-immigrant attitudes, in the presence of education that leads people to want to have a broader view of the world both for themselves and their family, living with a spouse or child may be related to positive attitudes toward immigrants. These findings strengthen the argument that policies leading to increased education may be effective in lowering anti-immigrant attitudes

The finding that income and education did not fall into the same clusters at higher levels may be counterintuitive. Often in the literature these two variables are considered in similar ways. However, in this paper individuals with high income do not have the same levels of anti-immigrant attitudes as individuals with high education. It seems education goes a long way to developing tolerance toward immigrants, whereas income is important but not equally effective. Finally, the findings indicate that attitudinal variables

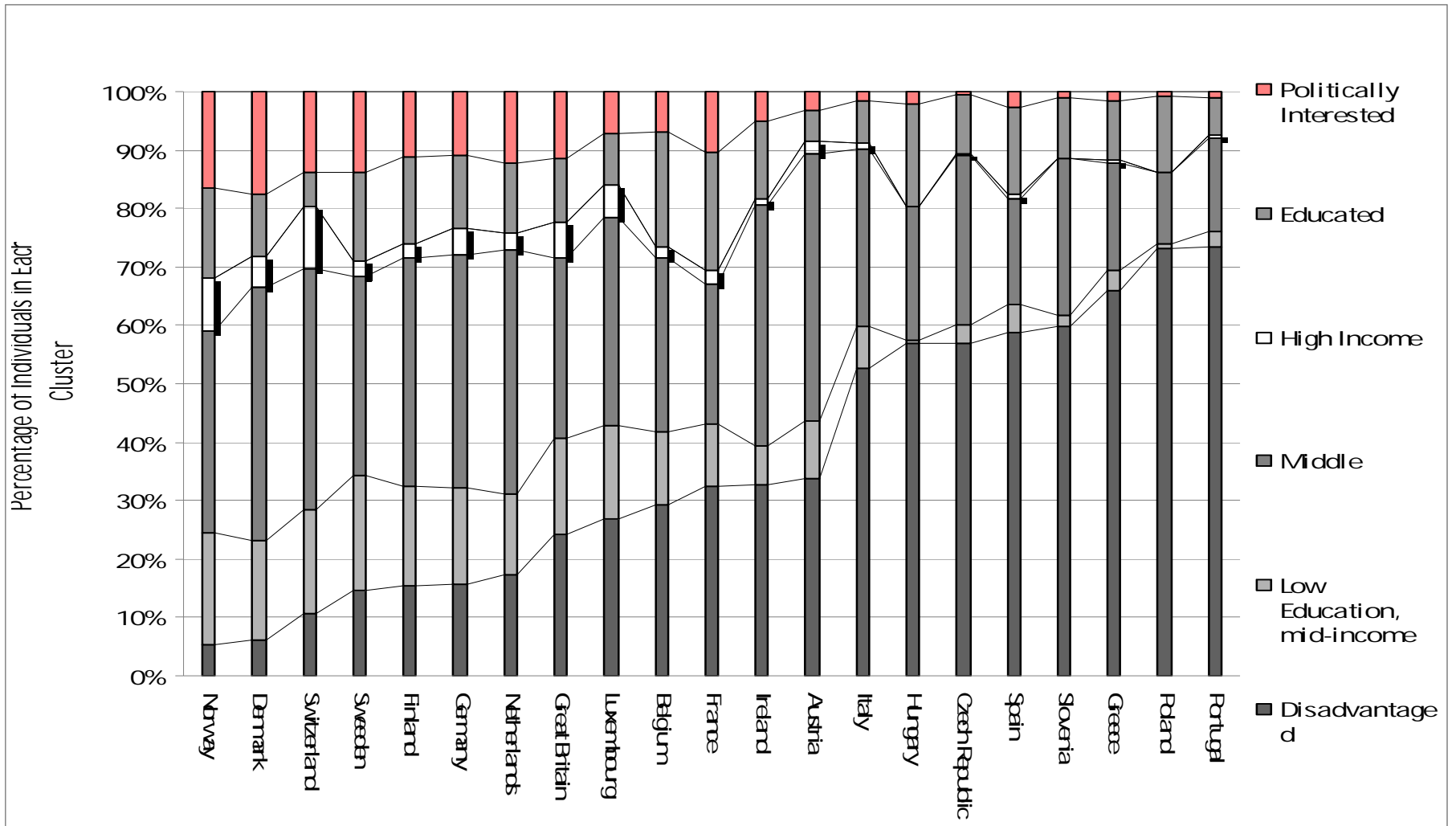
such as interpersonal trust and political involvement are also more related to lower anti-immigrant attitudes than is income.

As far as the proportion of the population that is present in each category, almost half of the population (48.4%) fall into the two categories with the highest levels of anti-immigrant attitudes, with another 29.2% falling into the category with the third highest level of anti-immigrant attitudes (middle category). That less than a quarter of the population falls into the categories that have the lowest levels of anti-immigrant attitudes indicates that overall the climate of receptivity toward immigrants in Europe is very negative. This could be causing many of the violent incidents that have occurred recently in various countries in Europe, such as the ghetto uprising in France (2005 and 2007). Increasing the percentage of the population with positive attitudes toward immigrants may go a long way toward lowering problems with immigrants and encouraging assimilation. As has been noted, increasing education levels in the country, or simply education concerning immigrants, may be the most effective way for policy makers to decrease negative attitudes toward immigrants.

Differences across countries

Because the European nations differ in their overall levels of anti-immigrant attitudes (Inglehart 1990), there is reason to believe that the categories would be present in different percentages across the European nations. Figure 1 shows the percentage of people in each category that are present in each nation. The nations are ordered by the percentage in the disadvantaged category from lowest to highest. As is evident by the ordering of the countries, the Nordic nations have the lowest percentage of people in the disadvantaged category and the higher percentage in the politically interested category.

Figure 1. Percentage of Individuals in Each Category by Nation



At the other end of the spectrum, the Eastern European and Mediterranean nations have the highest percentage in the disadvantaged category and the least in the politically interested and high income category. Moving from Nordic countries to Eastern European and Mediterranean nations, the disadvantaged category increases and all other categories except one steadily decrease. The educated category remains relatively stable across nations, which indicates that regardless of income or political interest in each nation, there is a category present in each nation with positive attitudes toward immigrants.

Policy Implications

Overall, the clearest implication for policy is that promoting a politically interested or educated society will go further towards promoting pro-immigrant attitudes than will increasing income. This is important, because often it is easier for governments to offer incentives toward education or do more political campaigning at a local level than it is for governments to increase the overall income of its citizens. On the other end of the spectrum, among the categories that have higher anti-immigrant attitudes, increasing income even slightly, so that individuals go from low to middle levels of income, or decreasing other disadvantages people face, such as unemployment, can help move people from being highly anti-immigrant to being more in the middle of the spectrum.

The difference in the percentage of each category that is present in each nation indicates that the implications for policy might vary by country. Across all nations approximately 60% or more of the population fits into the three categories that have the higher anti-immigrant attitudes. However, whereas in a country like Norway, only 5% of these are in the disadvantaged category, in Portugal, over 70% of the population is in this

category. Also, Norway has 15% of their population in the politically interested category, whereas Portugal has less than 1%. Consequently, when aiming to decrease anti-immigrant attitudes, Portugal needs to work on reducing at least one of the ills that the disadvantaged category faces. That is, having a mid-level of income or less experience with unemployment is associated with more positive attitudes toward immigrants, as is clear from the latent class analysis. On the other hand Norway already has many people in the middle income/low education category and the middle category. In order to promote pro-immigrant attitudes, Norway may want to promote education or political involvement.

Future Studies

This study would have benefitted by having more variables concerning migration from which to construct the typologies. For example, there was no question in the ESS concerning neither racial/ethnic origin nor racism, which are known to influence anti-immigrant attitudes. In addition, a broader array of countries may have yielded different results, as a classification of individuals concerning their anti-immigrant attitudes across Europe may be different from that of other World regions.

There are several implications for further research. First, most studies look at determinants of anti-immigrant attitudes one at a time and in a linear fashion, and this classification indicates that there are many factors which interact with each other to determine anti-immigrant attitudes. Also, further research should explore what causes people to end up in each category. Whereas being high or low income may be a clearly measured, how one comes to have higher or lower interpersonal trust and how that relates to immigrants necessitates further research.

This paper creates a classification of individuals based on eight factors that have commonly been used to explain attitudes toward immigrants. Latent class analysis indicates there are six categories of individuals whose characteristics are related to different levels of anti-immigrant attitudes. The six categories from highest to lowest anti-immigrant attitudes are: disadvantaged, low education/mid income, middle, high income, high education, and politically interested. Results indicate that studies that try to explain anti-immigrant attitudes by examining one variable at a time or by assuming linear relationships are incomplete. Findings indicate that policy that promotes education, especially education concerning immigrants, may be the most effective way of lowering anti-immigrant attitudes, as education overcomes the negative link between unemployment or low income and anti-immigrant attitudes.

REFERENCES

- Card, D., C. Dustmann, and I. Preston. 2005. Understanding attitudes to Immigration: The Migration and minority module of the first European Social Survey. Center for Research and Analysis of Migration Discussion Paper Series CDP No 03/05.
- Espenshade, T.J. and C.A. Calhoun. 1993. "An Analysis of Public Opinion toward Undocumented Immigration." *Population Research and Policy Review* 12, no. 3: 189-224.
- Gang, I.N., F. Rivera-Batiz, and M. Yun. 2002. "Economic Strain, Ethnic Concentration and Attitudes Toward Foreigners in the European Union," *IZA Discussion Paper Series* no. 578.
- Gay, C. 2006. Seeing Difference: The Effect of Economic Disparity on Black Attitudes Toward Latinos. *American Journal of Political Science*, 50 (4) 982-997.
- Hainmueller, J. and M.J. Hiscox. 2007. "Educated Preferences: Explaining Attitudes Toward Immigration in Europe" *International Organization*, 61(2):399-442.
- Herreros, F. 2008. Do Social trusters like immigrants? The impact of social capital on people's attitudes towards immigration in (Gupta, K.R., Gunnar Lind Haase Svendsen & Prasenjit Maiti, eds.) *Social Capital Vol. 2*. New Delhi, Atlantic.
- Inglehart, R. 1990. *Culture Shift in Advanced Industrial Society*. Princeton, NJ: Princeton University Press.
- Jowell, R. and the Central Co-ordinating Team. 2003. *European Social Survey 2002/2003: Technical Report*. London: Centre for Comparative Social Surveys, City Univ.
- _____. 2005. *European Social Survey 2004/2005: Technical Report*. London: Centre for Comparative Social Surveys, City University.

Mayda, A.M. 2006. "Who is Against Immigration? A Cross-Country Investigation of Individual Attitudes toward Immigrants," *Review of Economics and Statistics*, 88(3):510-530.

Scheve, K.F. and M.J. Slaughter. 2001. "Labor Market Competition and Individual Preferences Over Immigration Policy," *The Review of Economics and Statistics* 83, no. 1: 133-145.

Chapter 4:

Economic Explanations for Anti-Immigrant Attitudes:

How much do they matter?

INTRODUCTION

In most developed nations, immigration and its problems are often approached from an economic standpoint. However, there are mixed findings concerning how much the economy actually influences immigration. There are three ways the effects of economics on natives' anti-immigrant attitudes may be obscured or diminished: 1) it may simply be that other variables are more significant in explaining anti-immigrant attitudes (i.e. political affiliation), 2) national and regional economic variables may be more significant in influencing anti-immigrant attitudes than individual level economic variables, and 3) economic variables may affect anti-immigrant attitudes through interactions with variables such as interpersonal trust rather than linearly.

Economic explanations are featured prominently in explanations for anti-immigrant attitudes (Kessler & Freeman, 2005). However, recent studies have found that economic variables are weak in the presence of other justifications for attitudes toward immigrants (i.e. educational achievement or interpersonal trust). Furthermore, whether national, regional or individual economic variables are most salient in affecting individual attitudes toward migration is in question. Historically most studies examine the impact of economic variables on anti-immigrant attitudes by examining individual level variables (i.e. occupation status in Citrin et al., 1997). However, recent studies indicate that national or regional level variables may be more important in influencing anti-immigrant attitudes. Lahav (2004) indicates that perceptions of national unemployment may be more predictive of attitudes toward immigrants than personal

unemployment. The lack of research concerning regional and national level predictors of anti-immigrant attitudes may have obscured the impact of economic variables.

Finally, it is possible that the effects of economic variables on anti-immigrant attitudes are being obscured because most studies only examine linear effects and ignore the idea that economics may interact with other variables to affect attitudes toward immigrants. For example, O'Rourke & Sinnott (2006) found that individuals who are high skilled are less opposed to immigration in countries that are rich than in countries that are poor.

The purpose of this study is two-fold: 1) to examine the impact of individual, regional and national economic variables on natives anti-immigrant attitudes in comparison to the impact of non-economic (e.g. social and political) variables and 2) to evaluate whether individual, regional or national level economic explanations for anti-immigrant attitudes are being obscured because there are interactions between economic and other explanatory variables at work.

Why Economic Variables Influence Anti-Immigrant Attitudes

There are two ways economic variables may influence individual anti-immigrant attitudes: by natives suffering financially due to immigrants (i.e. immigrants taking the jobs of natives) or by natives being led to believe immigrants are financially harmful by media or politicians (i.e. blaming immigrants for societal problems, such as unemployment). That is, economic variables may influence attitudes toward immigrants, not because they have actually suffered economically due to the presence of natives, but simply because they believe immigrants are hurtful to the economy.

Studies that address the impact of immigrants on various economic indicators have mixed findings. Studies have found that the impact of immigration on the European labor markets is inconclusive, as is the effect of immigration on unemployment, the labor market, and individual

wages (i.e. Gang, Rivera-Batiz, & Yun, 2002; Card, Dustmann, & Preston, 2005). On the other hand, De New & Zimmermann (1994) found that immigrants depress wages of German workers at all levels except for white collar employees with less than 20 years experience.

A different way that economic variables may influence anti-immigrant attitudes is through media or politicians that create a belief that immigrants are harmful to the economy. Most political rhetoric opposes illegal immigration, supports increased border security and proposes limiting the number of immigrants from the standpoint that immigrants could be harmful to the economy in one of two main ways: 1) by taking away native jobs or 2) by using governmental resources, such as welfare, in higher quantities than natives. The few who support immigration do so from the standpoint that immigrants may help the economy by taking jobs that natives don't want. In the end, there are few, if any, arguments concerning immigration policy which do not deal with economic reasons.

The worries of politicians and policy makers filter down to the public, shaping their opinions on immigration. Research indicates that opinions concerning anti-immigrant attitudes may be more driven by media and politics than personal factors or actual knowledge concerning how immigrants affect the economy (Ugur, 1995; Freeman 1995). For example, when Jean-Marie Le Pen was running for president in the 1995 French elections, he promised to solve the nation's unemployment problem by deporting three million immigrants in order to regain their jobs for French citizens. Political propaganda which blames a nation's unemployment problem on immigrants is important in shaping individual attitudes toward anti-immigrant attitudes.

Multi-Level Economic Explanations for Anti-Immigrant Attitudes

On an individual level, it is widely theorized that low income and having experienced unemployment is related to having higher anti-immigrant attitudes. Initially, it would seem that

regional and national level variables should be related to attitudes toward immigrants in the same way. That is regions or nations with higher unemployment rates or lower income (gross domestic product) should have higher anti-immigrant attitudes. However, this relationship is more complex than it would appear.

Economic theory indicates that a large influx of low-skilled immigrants could lead to an increase in gross domestic product (GDP) and lower the unemployment rate by creating more jobs. That is, economic theory suggests that, if immigrants are taking the jobs at the lowest tier of the economic ladder which natives don't want, they will stimulate the economy and this will create more jobs at the higher levels of the labor hierarchy that would be open to natives (Gang, Rivera-Batiz, & Yun, 2002). In this way, immigrants would stimulate the economies that are suffering and, consequently, regional and national economic variables would be related to anti-immigrant attitudes in a way opposite to that of individual variables. Thus, economic variables must be examined at individual, regional and national levels in order to fully understand how they affect anti-immigrant attitudes.

There are also questions concerning at which level of analysis the economic variables will most significantly impact anti-immigrant attitudes. Mostly due to data constraints, most studies have only examined individual level variables. Economic competition theory would indicate that individual level variables should be most important in determining anti-immigrant attitudes, as negative attitudes toward immigrants would arise from having to compete for jobs with them, especially at the lowest levels of the labor market hierarchy (Scheve & Slaughter, 2001). However, other studies find that national level economic variables, such as belief about the national economy, are more important in determining anti-immigrant attitudes than personal factors (Citrin, Green, Muste & Wong, 1997). To my knowledge, no study addresses regional

level explanations for anti-immigrant attitudes. However, other studies have found that regional level variables (number of immigrants at the regional level) do influence anti-immigrant attitudes (Schlueter & Wagner, 2008). These studies indicate that economic variables must be examined at individual, regional and national levels in order to fully understand how they affect anti-immigrant attitudes.

Other Explanations for Anti-Immigrant Attitudes

Other factors have been used to explain anti-immigrant attitudes in the literature, such as education level, political interest, right/left political leaning, interpersonal trust, neighborhood safety, lives alone, having been discriminated against, foreign direct investment and number of immigrants. These variables may interact with economic indicators in ways that better explain an individual's attitudes toward immigrants.

Studies have found that higher levels of education are linked to more tolerant attitudes toward immigrants (e.g. Scheve and Slaughter 2001). There are several explanations for this relationship. First, those who are highly educated are more exposed to information concerning various cultures, whether it is through education itself or through travel, and this helps them understand immigrants better. Second, education widens people's views concerning many subjects, including racial/cross-cultural prejudice (Card, Dustmann, & Preston, 2005). Third, individuals with higher education are less likely to be competing with immigrants, who tend to enter the low skill labor market. In this way education may interact with anti-immigrant attitudes. That is, individual who have experienced unemployment, but have a high level of education may be more likely to have more positive attitudes toward immigrants than an individual who has been unemployed and is uneducated. In addition, people who live in a low income nation may be

more likely to be pro-immigrant if they are educated and believe that immigrants have little impact on the economy.

Individuals with high levels of political interest tend to be more pro-immigrant. Individuals with high political interest not only tend to have higher levels of education, but they also tend to be more involved in society. Being interested in the well-being of society motivates them to become more informed about immigrants, which in turn leads them to be more sympathetic toward their problems. Political interest may interact with unemployment in that understanding the hardships immigrants face may lead them to be more positive toward immigration even if the individual has a low income.

Right-wing parties are generally associated with anti-immigrant policies. In recent years, support for right wing parties in certain countries in Europe has been increasing. In Austria and France, but not in the United Kingdom or Netherlands, the percentage voting for right-wing parties has increased (Lubbers, Gijsberts & Scheepers, 2002). Individuals with lower income are more likely to vote for the right-wing because these parties claim to protect the interests of the classes who are being threatened. However, individuals who are low income who are left-leaning in their political orientation may hold more positive views toward immigrants. Furthermore, left-leaning nations or regions may be more positive toward immigrants even in the presence of economic hardship.

Individuals with higher levels of interpersonal trust tend to be more welcoming of immigrants and are more likely to expect the best of others. In this way, they are less likely to blame immigrants for their economic woes. Consequently, people with high interpersonal trust should be more positive toward immigrants even when they have experienced unemployment. In

a similar manner, individuals who live in regions where interpersonal trust is high should be more welcoming of immigrants even when the economy is bad.

Living with family members may be associated with higher anti-immigrant attitudes in that people become more protective and less open to change in society. Immigrants introduce an element of potential change into a society that could produce economic or cultural instability and people with family members are more afraid of that change (Jackson et al. 2001). Living with family members could interact with economic variables in that people who live with a spouse or child would have higher anti-immigrant attitudes even if they have never experienced unemployment and have high income. Living with family may produce even higher anti-immigrant attitudes when one lives in a nation or region with a high unemployment rate or low GDP.

Having experienced discrimination is also associated with anti-immigrant attitudes. According to cultural affinity theory, individuals who have experienced discrimination should be more pro-immigrant because they can identify with their problems. In contrast, individuals who have experienced discrimination may be more anti-immigrant because it creates inter-group competition for scarce resources. An example of this is antagonism between Blacks and Latino's in the U.S. (Gay, 2006). Since it is unclear how experiencing discrimination is related to anti-immigrant attitudes, it is also unclear how it might interact with economic variables.

Nations with large amounts of foreign direct investment (FDI) tend to be more pro-immigrant. This occurs because FDI is associated with a nation having more information of foreign cultures and being more interested in their well-being. In nations or regions with low GDP or high unemployment rates, FDI could be linked to higher anti-immigrant attitudes because natives may be angry that local money is being sent overseas when it is needed at home.

Finally, higher numbers of immigrants at the regional and national level are associated with more negative attitudes toward immigrants (Gang, Rivera-Batiz and Yun, 2002). This may occur because immigrants often bring with them their own culture, language, and religion that are different from those of natives, and the local's feel that their regional or national identity may be threatened. An alternative explanation is that natives feel that immigrants are a threat to the economy because immigrants may compete with them for jobs or use more welfare resources. From this perspective, negative economic circumstances, whether it be at the individual, regional, or national level, in combination with higher numbers of immigrants, should be associated with higher anti-immigrant attitudes.

Analysis is conducted in two steps. First, four linear regressions on anti-immigrant attitudes are conducted using HLM: 1) a null model with only the control variables, 2) a model with economic variables, 3) a model that includes all the non-economic variables, and 4) a model with all economic and non-economic variables in the equation. All regressions include control variables. These four models will identify which economic variables significantly influence anti-immigrant attitudes, whether any mediating effects are at work, and whether more variance in attitudes toward immigrants is explained by economic or non-economic variables. In the second step, all possible interactions between economic and non-economic variables as they relate to anti-immigrant attitudes will be conducted. These analyses will clarify if there are any moderating effects at work.

METHODS

This paper used data from Waves 1 and 2 of the European Social Survey (ESS), a representative dataset including 21 European nations and over 80,000 respondents. Wave 1 was collected in 2002-3 and Wave 2 in 2004-5. The waves were combined in order to include the

highest number of cases and a dummy variable was created that indicated which wave the respondent belonged. This survey covered a wide variety of measures concerning values, attitudes and behavior concerning a range of topics such as politics, culture, economics, and migration. Data was collected via an hour long face to face interview and contains samples of between 1,000 and 3,000 respondents per country. Respondents were randomly selected representatives of private household residents aged 15 or older within regions in Europe.

Region selection for the ESS was based on the European Union's nomenclature of territorial units for statistics (NUTS), which divides countries into regions according to population size, economic, geographic, and cultural factors (Eurostat). The samples collected in each of these regions by the ESS are representative of that geographical area. The fact that respondents in the ESS are grouped within NUTS regions means that the ESS data can be linked with various region level indicators collected by Eurostat and the Organization for Economic Co-Operation and Development (OECD). Also, certain variables of interest that were included in the ESS can be aggregated to construct regional level indicators. The NUTS are classified into three hierarchical subdivisions, where NUTS 1 represents a broader classification of regions and NUTS 3 a more detailed classification. The ESS was collected by each country independently, which led to variation in the NUTS level employed, with half the countries choosing NUTS 2 and about a quarter choosing NUTS 1 and 3. Thus, the number of regions per country varies from 3 to 40 and the sample size per region from 10 to 1234. Eurostat compiles most of its regional data at NUTS levels 1 and 2, with about 50% of the variables also including NUTS 3. For purposes of this study all NUTS 3 will be recoded into NUTS 2 so that all Eurostat data can be at a similar level. The exceptions are five countries (Denmark, Finland, France, Luxembourg and Great Britain) that were only measured at NUTS 1 in the ESS.

Six countries (Italy, Greece, Switzerland, Slovenia, Germany, and Belgium) were eliminated from the analysis due to errors in data collection or missing large amounts of data. The region variable for Italy in the ESS was coded incorrectly and consequently, cannot be matched up to Eurostat/OECD data. On certain key variables (i.e. foreign direct investment), Eurostat/OECD data for Greece, Switzerland, Belgium, Germany, and Slovenia was missing for the entire nation and all regions. In addition, for five countries (i.e. Austria, Hungary) one of the two waves of data was excluded from the analysis because the variable measuring education or income was either incorrectly collected or did not match the question format for the other countries. Preliminary analysis with a reduced amount of variables indicated that eliminating these countries did not significantly change the results. Finally, because the study was concerned with native's attitudes toward immigrants, all non-native born respondents were eliminated from the sample (approximately 8%). Expectation maximization algorithms were used to deal with missing data. For most variables, less than 1% of the data was missing. Exceptions were political leaning (10%), educational achievement (5.5%), and income (27.5%). Appropriate weights provided by ESS were used in the analysis. The final sample size was 42,887.

The dependent variable, *anti-immigrant attitudes* was based on three items measured on a scale of 1 to 10 asking if it is bad or good when people come to live from other countries for the economy, the country's cultural life, and the country in general (e.g. "Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?") (Alpha=.81).

Income was measured by a the question: "Using this card, if you add up the income from all sources, which letter describes your household's total net income?". The answers were twelve possible income ranges that were standardized across countries. The category was divided by the

number of household members to obtain *income per capita*. The influence of *unemployment* was measured by a question that asks whether the individual had been unemployed in the past 5 years.

Regional and national unemployment rates were obtained from Eurostat and regional and national GDP was provided by OECD. Both of these variables were available longitudinally and their values at the year of the survey (Wave 1=2002-2003) and Wave 2=2004-2005) were used in the analysis. The GDP was measured in Purchasing Power Parity (PPP), which is a method of equalizing the purchasing power of currencies across nations. It is based on the principle that identical goods must have one price. PPP sets the U.S. dollar as the standard and calculates how much it would cost to buy a basic set of goods in the U.S. and then compares how much it would cost in another currency and then adjusts the GDP to reflect the different purchasing power of the respective currencies. The currencies are also set to a year 2000 standard so they are comparable across countries and across time.

Other individual level variables used in the analyses were education level, political interest, interpersonal trust, neighborhood safety, lives with family, and having been discriminated against. For ease of interpretation in the interactions, individual level variables were recoded so that high values indicate characteristics associated with pro-immigrant attitudes. *Education level* was measured by the education level standardized across European countries, ranging from 0=not completed primary education to 6=completed second stage of tertiary education. *Political interest* was measured by the question “How interested would you say you are in politics?” from 1 = very interested to 4 =not at all interested? *Right or Left political leaning* was measured by the question “In politics people sometimes talk of ‘left’ or ‘right’ . Using this card, where would you place yourself on this scale” from 0 to 10. This variable was

reverse coded so that right=0 and left=10. *Inter-personal trust* was composed by three items on a scale of 0 (no trust) to 10 (trusting) "...would you say that most people can be trusted, or that you can't be too careful in dealing with people?", would most people try to take advantage of you if they got the change or would they try to be fair, and do most of the time people try to be helpful or are they mostly looking out for themselves". *Neighborhood safety* was measured by the item "how safe do you feel walking alone in this area after dark?" on a scale of 1=very safe to 4=very unsafe. This item was reverse coded.

Whether or not the respondent *lives alone* is obtained from a residential roster individuals are asked to fill out and was coded as 0=lives with spouse or child and 1=lives alone. *Having been discriminated against* was measured by a question that asked whether individuals would consider themselves as being a member of a group that is discriminated against in this country? (1=yes, 2=no). This item was reverse coded. Descriptive characteristics for all variables are presented in Table 1.

At the regional and national level four additional variables were used: regional trust, national left-right political leaning, national foreign direct investment, and regional and national number of immigrants. In preliminary analysis (not shown) all variables were aggregated to the regional and national level. Only regional trust and national right/left political leaning were found to significantly influence anti-immigrant attitudes. A variety of other regional and national level indicators from Eurostat and OECD were also tested. Foreign Direct Investment and number of immigrants was the only variable that was not too highly correlated with other variables that were significantly related to the dependent variable. *Foreign Direct Investment* was only available at the national level and was defined by Eurostat as "the category of international investment made by an entity resident in one economy (*direct investor*) to acquire a

Table 1. Descriptive Statistics (N=42,887)

	Minimum	Maximum	Mean	Std. Deviation
Anti-Immigrant Attitudes	0.0	10.0	5.05	2.01
Economic Variables				
Income Per Capita	0.0	12.0	2.66	1.63
Ind. Ever been Unemployed	0.0	1.0	0.13	0.34
Regional Unemployment Rate	2.8	25.6	8.29	6.02
Regional GDP (/100) ¹	79.9	900.0	252.35	144.78
National Unemployment Rate	2.6	19.9	6.79	4.42
National GDP (/100)	109.7	643.3	292.38	140.87
Other Variables				
Education Level	0.0	6.0	2.87	1.56
Political Interest	1.0	4.0	2.38	0.88
Right/Left Political Leaning	0.0	10.0	5.11	2.14
Interpersonal Trust	0.0	10.0	5.01	1.88
Feel Safe after Dark	1.0	4.0	1.90	0.84
Lives Alone	0.0	1.0	0.31	0.46
Never been discriminated Against	0.0	1.0	0.94	0.25
Regional Trust	3.4	6.8	5.01	1.88
National Foreign Direct Investment ¹	0.6	12	3.81	2.94
National Left/Right Political Leaning	0.0	10.0	4.90	0.35
Regional # of Immigrants (/1000) ¹	12.0	1000.0	159.33	203.27
National # of Immigrants (/1000)	50.1	589.5	202.6	145.9
Controls				
Gender	0	1	.48	.50
Age	14.0	100.0	45.85	18.34
Rural	0.0	1.0	0.35	0.48
Town	0.0	1.0	0.35	0.48
Round Dummy	0.0	1.0	0.53	0.50

¹ Variables that were highly skewed (skewness>2.0) were coded down at the top to eliminate outliers.

lasting interest in an enterprise operating in another economy (*direct investment enterprise*).”

Measures for *regional and national number of immigrants* were provided by Eurostat.

Controls used were gender, age, and urban versus rural region of living, as well as a dummy variable for the round of the survey each individual belonged to.

Analysis was conducted using Hierarchical Linear Models in the program HLM with level 1 being the individual level, level 2 being the region and level 3 the nation. Analysis is conducted in two steps. Initially, linear regressions were used to examine the effects of economic and non-economic variables on anti-immigrant attitudes. Four models were tested using linear regression in HLM: 1) a model that includes only control variables, 2) a model that adds economic variables, 3) a model including non-economic variables, and 4) a model including economic and non-economic explanations for anti-immigrant attitudes (Table 2). These models identify the variance explained and moderating effects of economic versus non-economic factors. In separate analysis (not shown) the economic and non-economic variables were regressed one by one. The coefficients did not change significantly from the bi-variate regression to the regression where all variables are included. Variance components for the final model are included in Appendix A. In the second step, the moderating effect of the economic variables on the association between non-economic variables and anti-immigrant attitudes were analyzed. Controls are included in all regressions and interactions. In other analysis (not shown) curvilinear relationships were also tested and were not significant.

RESULTS

As the 2nd column of table 2 indicates, five economic variables are significant when they are the only ones included in the regression. Individuals are more pro-immigrant when they have higher income, have never experienced unemployment, live in regions or nations with higher gross domestic product and in nations with higher unemployment rates. The results indicate that most of the variance is present at the individual level, followed by the national and the regional level. The addition of all economic variables only explains 1% of the variance present at the individual level. The regional and national variance added cannot be determined because the

Table 2. Standardized Coefficients and Variance Components Showing Effects of a Null Model, Economic and Non-Economic Variables on Anti-Immigrant Attitudes (N=42,887)

	Null Model ¹	With Economic Variables ¹	With Non-Economic Variables ¹	With All Variables ¹
Economic Variables				
Been Unemployed in the last 5 yrs		0.03***		.01
Income Per Capita		-.07***		-.02***
Regional Unemployment Rate		-0.06		-.04*
Regional Gross Domestic Product		-0.07***		-.07*
National Unemployment Rate		-0.09*		-.10***
National Gross Domestic Product		-0.07**		-.009
Other Variables				
Never Been Discriminated Against			.01	.02
Education Level			-.19***	-.18***
Interest in Politics			-.14***	-.14***
Right/Left Political Leaning			-.10***	-.10***
Interpersonal Trust			-.22***	-.22***
Lives Alone			-.02**	.01
Feels Safe After Dark			-.10***	-.09***
Regional Interpersonal Trust ²			-.18*	-.19**
Regional Number of Immigrants			-.01	.01
National Foreign Direct Investment			-.19***	-.12***
National Right/Left Political Leaning ²			-.16***	-.11***
National Number of Immigrants			.0006*	.01
Individual Variance	3.5	3.47	2.94	2.93
Regional Variance	0.42	0.28	0.27	0.33
National Variance	0.32	0.33	0.65	0.51
Ind Var Explained		1%	16%	16%

¹ All regressions include controls for age, domicile (rural and urban dummy variables with urban as reference group), gender and a dummy variable for the round of the survey.

² These variables were created by aggregating the corresponding individual level measure.

random coefficients allow variation across the regional and nations in the individual level slopes.

The third column contains the results of the non-economic variables regressed on anti-immigrant attitudes. They explain 16% of the variation in anti-immigrant attitudes. In the final column all variables are included in the regression. Two of the economic variables are mediated by the inclusion of other explanatory factors. Individual unemployment and national gross domestic product become non-significant with the inclusion of interpersonal trust. Three

economic factors remain significant: individual income, regional gross domestic product and national unemployment rate. Also, regional unemployment is marginally significant, but only in the final model. However, the standardized coefficients for these economic variables indicate they are some of the weaker predictors of anti-immigrant attitudes, with the possible exception of national unemployment rate.

As far as the other variables are concerned, only two of the non-economic factors are rendered non-significant by the inclusion of economic variables. Living alone becomes non-significant when income per capita is added to the regression. National number of immigrants was only significant at a .045 level, so its lack of significance in the final model is not surprising. Overall, the inclusion of the economic variables does little to mediate the effects of the non-economic variables on anti-immigrant attitudes. In addition, the non-economic variables alone explain 16% of the variation in anti-immigrant attitudes, and the inclusion of the economic variables has no additional explanatory power.

Overall, the strongest predictors of anti-immigrant attitudes are low individual and regional interpersonal trust, followed by a low education level. In addition, lower levels of political interest, leaning right politically, and not feeling safe after dark are related to higher anti-immigrant attitudes. People also tend to be more anti-immigrant when they live in a nation that is right leaning and has low levels of foreign direct investment.

Interactions

Following the linear regression, interaction terms were created for each possible combination of economic and non-economic variables. The purpose of the analysis was to see where economic variables moderated the influence of non-economic variables on anti-immigrant attitudes. Table 3 summarizes the interaction analysis. Three findings stand out. First, less that

Table 3. Summary of Significant Interactions between Economic and Non-Economic

Explanations for Anti-Immigrant Attitudes. Each cell includes the sign for the interaction and the p-value (N=42,887).¹

	Ind. Unemp. Exp.	Ind. Income Per Capita	Regional Unemp. Rate	Regional GDP	National Unemp. Rate	National GDP	Total Number of Sig. Inter.
Never Been Discriminated Against					— (p=.012)		1
Education Level							0
Interest in Politics		+ (p=0.041)	+ (p=.001)		+ (p=.007)		3
Right/Left Political Leaning		— (p=.001)			+ (p=.013)	— (p=.001)	3
Interpersonal Trust			+ (p=.001)		+ (p=.001)		2
Lives Alone		+ (p<.001)					1
Feels Safe After Dark			+ (p=.001)		+ (p<.001)		2
Regional Interpersonal Trust ²				— (p<.001)	+ (p=.048)	— (p=.010)	3
Low Regional Number of Immigrants ³		+ (p=.049)	+ (p=.026)				2
National Foreign Direct Investment				— (p<.001)			1
National Right/Left Political Leaning ²		+ (p=.028)					1
Low National Number of Immigrants ³				— (p<.001)			1
Total Number of Sig. Inter. Of Total Possible	0/12	5/12	4/12	3/12	6/12	2/12	20/72
Percentage of Significant Interactions	0%	42%	33%	25%	50%	17%	28%

¹All regressions include controls for age, domicile (rural and urban dummy variables with urban as reference group), gender and a dummy variable for the round of the survey.

²These variables were created by aggregating the corresponding individual level measure.

³Signs for the interactions with regional and national number of immigrants were reversed so that the direction of the regression was the same as the others, where ranking high on the non-economic characteristic is associated with pro-immigrant attitudes.

one third of the total possible interactions were statistically significant (20 of 72). Relative to the amount of research that is conducted using economic variables to explain anti-immigrant attitudes, the number of interactions that are significant seems modest. Only a minority of the

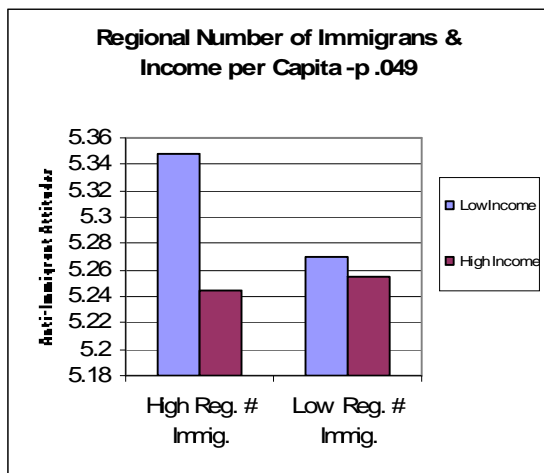
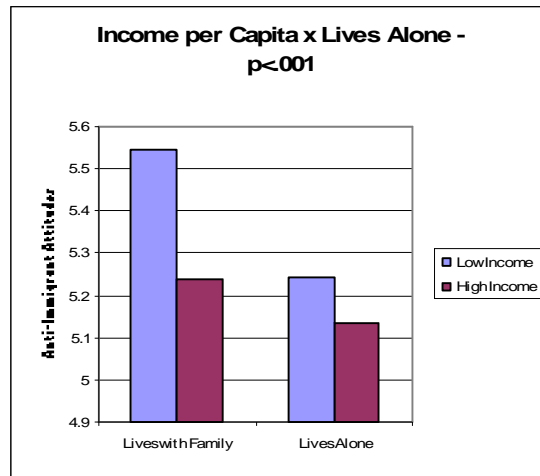
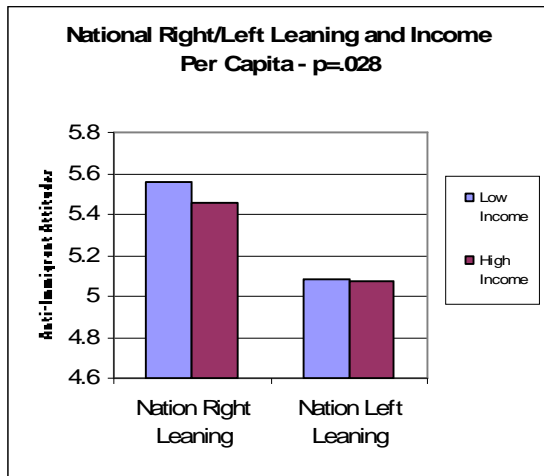
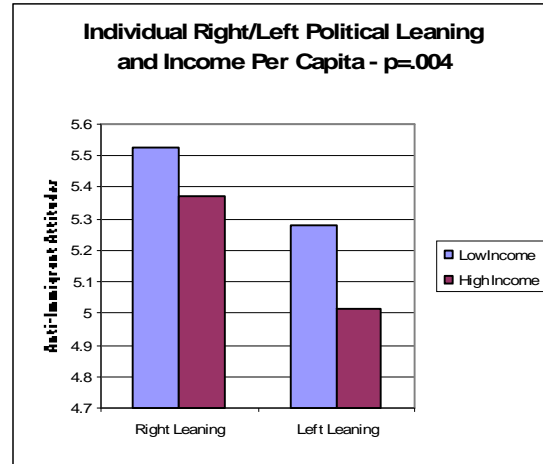
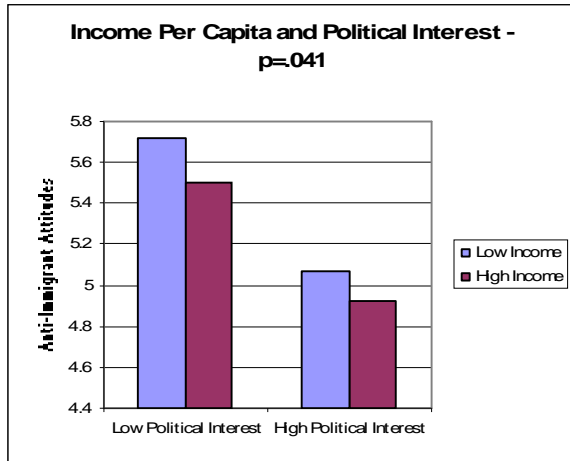
economic variables moderate the link between non-economic variables and anti-immigrant attitudes. Second, when looking at each of the economic variables and how they moderate non-economic variables, four out of the six economic variables (individual unemployment experience, regional unemployment, and regional and national GDP) moderate a third or fewer of the possible relationships between non-economic variable and attitudes toward immigrants. This indicates that for these four economic variables, interactions provide little additional information concerning their relationship with anti-immigrant attitudes than what was found with the linear regression. Finally, only two of the six economic variables (individual income per capita and national unemployment rate) moderate more than a third of the possible relationships between non-economic variables and anti-immigrant attitudes. Figures 1-11 were created to present the interactions in graphic detail. For the figures, high versus low on each characteristic examined was defined by setting the value of the variable in question at a standard deviation above and below the mean.

Interactions with Individual Income Per Capita

Low income moderated the influence of non-economic variables on anti-immigrant attitudes (Figures 1-5). The overall trend was that anti-immigrant attitudes were higher for low income individuals with low political interest, who were right leaning or lived in a nation that was right leaning, lived with family, and lived in regions with higher numbers of immigrants.

Interactions for income with political interest and individual and national political leaning follow roughly the same pattern (Figures 1-3). Regardless of the level of income, individuals with low political interest, who are right leaning or live in a right leaning nations have higher levels of anti-immigrant attitudes than those who have high political interest, are left leaning or live in a left leaning nation. Income does help reduce anti-immigrant attitudes slightly but it does

Figures 1-5. Interactions with Individual Income Per Capita.



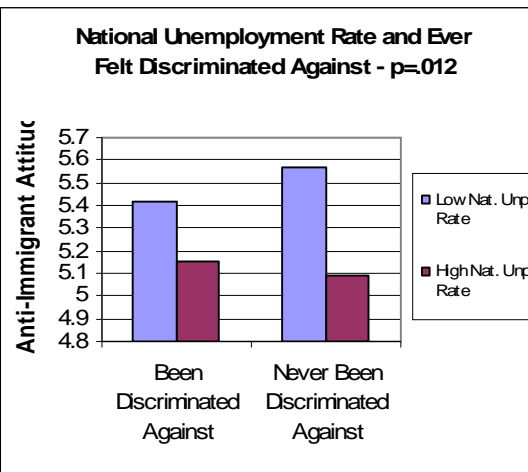
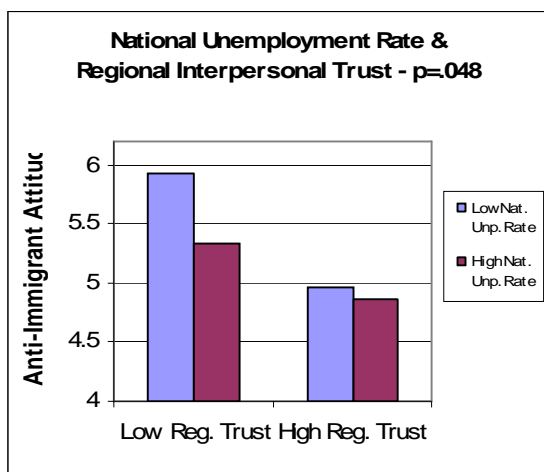
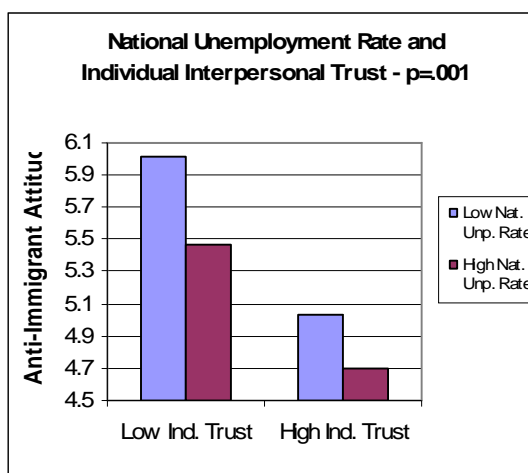
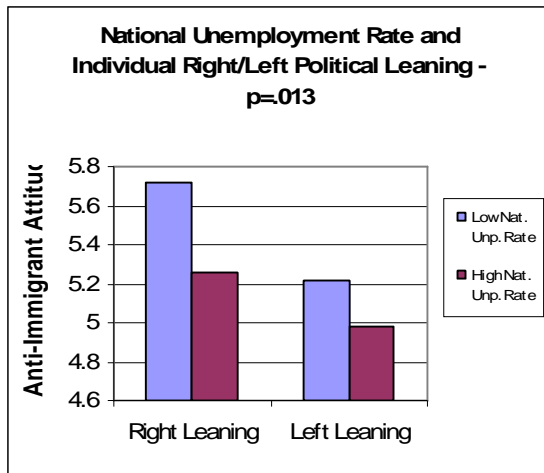
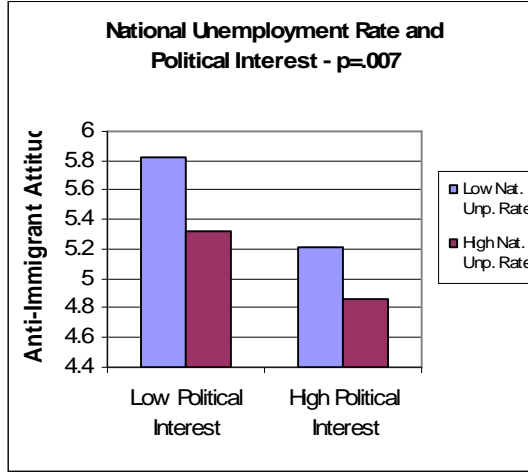
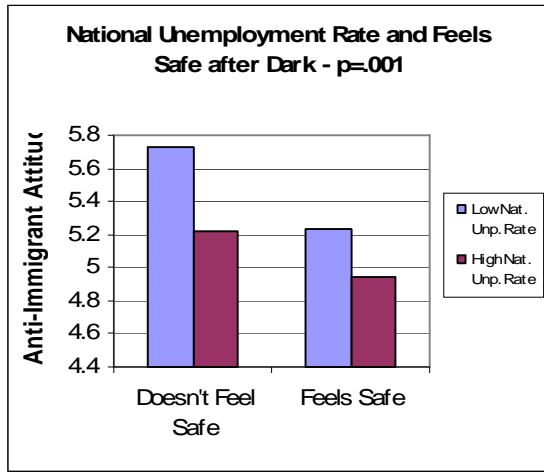
not overcome the effect of the non-economic variable.

The interaction between income per capita and two variables, lives alone and regional number of immigrants, follows a different pattern (Figures 4-5). In these interactions the highest level of anti-immigrant attitudes is found among those who have low income and either live with a family member or in a region with high numbers of immigrants. All other categories in these regressions have similar levels of anti-immigrant attitudes. These findings indicate that higher income does aid in lowering anti-immigrant attitudes for those who live with family and for those in regions with high numbers of immigrants.

Interactions with National Unemployment Rate

National unemployment rate also moderates the relationship between non-economic variables and anti-immigrant attitudes (Figures 6-11). Contrary to labor market competition hypotheses, in all six interactions anti-immigrant attitudes are higher for individuals in nations low unemployment rates. In addition, for five of the six interactions (all except national unemployment rate and experienced discrimination), anti-immigrant attitudes are higher when those individuals also have a non-economic characteristic that is associated with negative attitudes toward immigrants. That is, among those in nations with low unemployment the highest levels of anti-immigrant attitudes are found for those with low political interest, low individual or regional trust, who are right leaning or don't feel safe after dark (Figs. 6-10). The lowest levels are found among those in nations with high unemployment rates and characteristics associated with pro-immigrant attitudes: high political interest, individual and regional trust, left-leaning politically and feel safe after dark (Figs. 6-10). Outside of these two groups, only individual interpersonal trust seems to have a greater influence on anti-immigrant attitudes than national unemployment rates in lowering anti-immigrant attitudes.

Figures 6-11. Interactions with National Unemployment Rate.



The interaction between national unemployment rate and discrimination experience is the only one among all of those examined where the economic variable overrides the non-economic variable in influencing anti-immigrant attitudes (Fig. 11). That is, individuals in nations with low unemployment rates have higher anti-immigrant attitudes than those in nations with high unemployment rates regardless of their experience with discrimination. Having been discriminated against slightly lowers anti-immigrant attitudes among respondents in nations with low national unemployment rates.

DISCUSSION AND CONCLUSIONS

This paper seeks to examine whether economic explanations for anti-immigrant attitudes are as salient as the literature would suggest. Six economic variables at three levels of analysis are examined: individual unemployment experience and income per capita, and regional and national GDP and unemployment rates. The linear regression findings indicate that, in general, the impact of economic variables on anti-immigrant attitudes is weak. In the final model that included both economic and non-economic variables, only four of the six economic variables were significantly related to anti-immigrant attitudes. The strength of their coefficients was weak and they only explained one percent of the variance in attitudes toward immigrants at the individual level. As far as the interactions are concerned, less than one third of all possible interactions are significant. Only income per capita and national unemployment rate moderated the relationship between over a third of the non-economic variables and anti-immigrant attitudes. Overall, the results indicate that analysis and policies that utilize economic variables to explain anti-immigrant attitudes must look at a wider array of variables to understand the source of negative attitudes toward immigrants.

The linear analysis indicates that high income, high regional gross domestic product, and living in a nation with a high unemployment rate or GDP are related to lower anti-immigrant attitudes even when all other explanations are added to the model. However, the economic variables as a whole explain less than 1% of variance at the individual level and no additional variance once the non-economic variables were included. Individual unemployment and national GDP were significant before other variables were added to the model, but the inclusion of individual interpersonal trust made them non-significant. This may indicate that the influence of unemployment or national GDP on anti-immigrant attitudes is actually occurring through interpersonal trust. That is, individual who experience unemployment may tend to be more distrustful of society in general, because they feel it has let them down, and this distrust extends to society being able to guarantee them jobs once immigrants have arrived. In a different way, individual in nations with low GDP have to adjust policy to take into account the tendency to associate economic hardship with negative attitudes toward immigrants if they have lower levels of interpersonal trust.

When the economic variables are added to non-economic explanation, eight out of ten of the non-economic variables remain significant. Living alone and national number of immigrants are mediated by income per capita. The protective effects associated with living with family members that lead individuals to be against immigrants may disappear when they are financially secure. Individuals with high income may live in communities where the numbers or effects of immigrants are less noticeable, which would explain why income mediates the relationship between national number of immigrants and attitudes toward immigrants

It is noteworthy that the economic variables have relatively small standardized coefficients when all variables are included in the model. As a consequence, policies that are

aimed at lowering anti immigrant attitudes by modifying economic factors, such as lowering labor competition with immigrants or increasing the income level of immigrants may not be as effective as policies focusing on non-economic factors.

Although the linear effects of economic variables on anti-immigrant attitudes are weak, it is a possibility that they are being suppressed because the economic variables interact with others to determine anti-immigrant attitudes. The findings, however, indicate that this is not the case for four of the economic variables: individual unemployment experience, regional unemployment rate and regional and national GDP.

Only income per capita and national unemployment rate moderate a third of the relationships between non-economic variables and anti-immigrant attitudes. Overall, these findings indicate that the relationship between economics and anti-immigrant attitudes has been greatly overstated and that economic variables are, in fact very weak predictors of attitudes toward immigrants.

The only possible exception is national unemployment rate. The linear strength of its effect on anti-immigrant attitudes falls about half-way down the list even when all non-economic variables are included. In addition, half of the possible interactions with non-economic variables were significant. Contrary to what is commonly expected, lower levels of anti-immigrant attitudes were associated with higher unemployment rates. This trend would contradict labor competition theory, because it theorizes that natives will be anti-immigrant when they have to compete with them for jobs, and competition should be higher in nations with higher unemployment rates. There is an alternative explanation, however. Higher national unemployment rates tend to be associated with lower immigration levels (Pedersen, Pytlikova & Smith, 2004). This occurs because migrants often move for economic reasons and it would not be beneficial for them to move to nations where it might be difficult to find a job. Consequently,

the negative relationship between national unemployment rate and anti-immigrant attitudes may be spurious and due to the history of immigration.

There are several policy implications that can be derived from these findings. At present, there are many nations that are moving toward policies aimed at attracting a higher number of high skilled immigrants (Bauer, Lofstrom & Zimmerman, 2001). Although these policies may have other positive consequences, these findings indicate that increasing the skill level of immigrants in order to lower anti-immigrant attitudes may not be effective because economic considerations do not greatly influence attitudes toward immigrants.

This study would have benefitted from having additional economic variables such as whether or not an individual had actually ever lost a job to an immigrant or actual number of immigrants in each sector of the economy. In addition, a wider array of national and regional level variables would have been beneficial, such as whether there are immigrant neighborhoods in the region or measures of how immigrants are treated in national media.

Future studies should examine the relationship between national unemployment rate and anti-immigrant attitudes. In addition, studies would benefit from including a wider array of variables to explain attitudes toward immigrants. Finally, it would be useful to test whether policies that promote higher levels of interpersonal trust are actually effective in lowering levels of anti-immigrant attitudes.

Although the number of variables used to study anti-immigrant attitudes has been increasing, economic explanations and theories concerning attitudes toward immigrants are still very common in the literature. The findings from this study indicate that economic variables at three levels of analysis have a weak impact on anti-immigrant attitudes, with the possible exception of national unemployment rate. Less than one third of all possible interactions between

economic and non-economic explanations for anti-immigrant attitudes significantly predicted anti-immigrant attitudes. Overall, the impact of economic variables cannot be completely discounted as certain measures such as income per capita and national unemployment rate were related to anti-immigrant attitudes. However, exploring only economic explanations for anti-immigrant attitudes could produce biased and weak results. A wider array of variables must be used in order to fully understand anti-immigrant attitudes.

REFERENCES:

- Bauer, T.K., M. Lofstrom, and K.F. Zimmerman. 2001. Immigration Policy, Assimilation of Immigrants, and Natives' Sentiments Towards Immigrants: Evidence from 12 OECD Countries. *The Center for Comparative Immigration Studies Working Paper*, no. 33.
- Card, D., C. Dustmann, and I. Preston. 2005. Understanding attitudes to Immigration: The Migration and minority module of the first European Social Survey. Center for Research and Analysis of Migration Discussion Paper Series CDP No 03/05.
- Citrin, J., D. Green, C. Muste, and C. Wong. 1997. Public opinion toward immigration reform: The role of economic motivations. *Journal of Politics*, 59, 858-881.
- De New, J.P. and K.F. Zimmermann. 1994. Native wage Impacts of Foreign Labor: A Random Effects Panel Analysis. *Journal of Population Economics*, 7 (2) 177-192.
- Eurostat. "Introduction to NUTS and the Statistical regions of Europe," retrieved August 7, 2007 from http://ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html
- Freeman, G. 1995. Modes of immigration politics in liberal democratic states. *International Migration Review*, 29, 881-908.
- Gang, I.N., F. Rivera-Batiz, and M. Yun. 2002. Economic Strain, Ethnic Concentration and Attitudes Toward Foreigners in the European Union. IZA Discussion Paper Series No. 578.
- Gay, C. 2006. Seeing Difference: The Effect of Economic Disparity on Black Attitudes Toward Latinos. *American Journal of Political Science*, 50 (4) 982-997.
- Jackson, J.S., K.T. Brown, T.N. Brown, and B.Marks. 2001. "Contemporary Immigration Policy Orientations among Dominant-Group Members in Western Europe," *Journal of Social Issues* 57, no. 3: 431-456.
- Jowell, R. and the Central Co-ordinating Team. 2003. *European Social Survey 2002/2003: Technical Report*. London: Centre for Comparative Social Surveys, City Univ.

- _____. 2005. *European Social Survey 2004/2005: Technical Report*. London: Centre for Comparative Social Surveys, City University.
- Kessler, A.E. and G.P. Freeman. 2005. Public opinion in the EU on immigration from outside the community. *Journal of Common Market Studies*, 43 (4) 825-850.
- Lahav, G. 2004. Public Opinion toward immigration in the European Union: does it matter? *Comparative Political Studies*, 37 (10) 1151-1183.
- Lubbers, M., M. Gijsberts, and P. Scheepers. 2002. Extreme right-wing voting in Western Europe. *European Journal of Political Research*, 41:345-378.
- O'Rourke, K., and R. Sinnott. 2006. The Determinants of Individual Attitudes Toward Immigration. *European Journal of Political Economy*, 22 (4) 838.
- Pedersen, P.J., M. Pytlikova, and N. Smith. 2004. Selection or Network Effects? Migration Flows into 27 OECD Countries, 1990-2000. IZA Discussion Paper, no. 1104.
- Scheve, K.F. and M.J. Slaughter. 2001. "Labor Market Competition and Individual Preferences Over Immigration Policy," *The Review of Economics and Statistics* 83, no. 1: 133-145.
- Schlueter, E., and U. Wagner. 2008. Regional Differences Matter: Examining the Dual Influence of the Regional Size of the Immigrant Population on Derogation of Immigrants in Europe. *International Journal of Comparative Sociology*, 49: 153-173.
- Ugur, M. 1995. Freedom of movement vs. exclusion: A reinterpretation of the "insider-outsider" divide in the European Union. *International Migration Review*, 29, 965-999.

Appendix A. Variance Components for Final Regression Model with all Variables Regressed on Anti-Immigrant Attitudes (N=42,887).

	Regional Variance Components ₂	National Level Variance Components ²
Economic Variables		
Been Unemployed in the last 5 yrs	.06**	
Income Per Capita		
Regional Unemployment Rate		
Regional Gross Domestic Product		.000001**
National Unemployment Rate		
National Gross Domestic Product		
Other Variables		
Never Been Discriminated Against	.08***	.19***
Education Level		.002***
Interest in Politics	.01***	.006*
Right/Left Political Leaning	.001***	.004***
Interpersonal Trust	.002***	.002***
Lives Alone	.03*	
Feels Safe After Dark	.008***	.005**
Regional Interpersonal Trust ¹		.20***
Regional Number of Immigrants		
National Foreign Direct Investment		
National Right/Left Political Leaning ¹		
National Number of Immigrants		
Controls		
Gender		.03***
Age	.00002**	.00003***
Rural Domicile	.05***	0.008
Town Domicile	.04**	.02*
Round of Survey	.02***	.04***
Intercept	.02***	

¹ These variables were created by aggregating the corresponding individual level measure.

² Only variance components that were significant were included in the final model.

Chapter 5:

Conclusion

Three aspects of explanations for natives' attitudes toward immigrants have been explained in the previous three chapters. Chapter two examines eight types of explanations at three levels of analysis (individual, regional, and national) which have been used to understand anti-immigrant attitudes. Although each of these explanations has been looked at previously, this is the first time they have all been looked at in conjunction with each other. Chapter three explores a categorization of individual's based on eight individual level variables that have been used to explain differing levels of anti-immigrant attitudes. Latent class analysis allows explanatory variables to fall into various categories that better define an individual's level of anti-immigrant attitudes that is often missed in linear analysis. Finally, chapter four expands upon an interesting finding from chapter two, the weak influence of economic variables on anti-immigrant attitudes. Economic explanations are commonly used to explain attitudes toward immigrants. This chapter examines linear relationships and interactions with non-economic variables in order to clarify how important economics are to understanding anti-immigrant attitudes.

These three paper topics were not the only ones explored; there were other paper ideas along the dissertation process that did not work out. In addition, there were variables that were considered but not utilized due to multicollinearity or too much missing data. Finally, there are findings that stand out across all three substantive chapters, as well as findings that emerge from each chapter that are not found in the other two.

HOW THE PAPER TOPICS WERE CHOSEN

For the dissertation I wanted to explore anti-immigrant attitudes in cross-national perspective. There are few datasets that include a measure of anti-immigrant attitudes. Few of those that do are nationally representative or measure multiple countries. The European Social Survey is a nationally representative study across twenty two countries that contained the measures necessary to explore anti-immigrant attitudes. In addition, it has the added benefit that it can be matched up with regional and national level variables from Eurostat and OECD.

The first paper (chapter 2) originated from a basic gap existent in the literature. Many researchers have examined various aspects of anti-immigrant attitudes. However, most studies look at one or two explanations at a time, such as economic explanations or number of immigrants. However, no study had examined all the common explanations for anti-immigrant attitudes at once. The ESS, in conjunction with data from Eurostat/OECD, allows for the exploration of eight different explanations for anti-immigrant attitudes that include nine individual level variables, four regional level variables and five national level variables: cultural marginality theory (experienced discrimination), human capital theory (education level), political affiliation (political interest and individual and national political leaning), societal integration (lives with family and individual and regional interpersonal trust), neighborhood safety (feels safe in their neighborhood after dark), contact theory (regional and national number of immigrants), foreign investment, and economic competition (income per capita, unemployment experience and regional and national GDP and unemployment rate).

Initially the second paper (chapter 3) was going to build on the first paper by examining differences across countries in the main factors that explained anti-immigrant attitudes. However, when running the analysis separately for each country in the dataset, the overall

patterns found in paper one (chapter 2) did not change, indicating that the main explanatory factors did not change much across countries.

Along a different train of thought, the first paper explored anti-immigrant attitudes from a variable centered approach. However, people are not driven by one or two variables alone, but rather by the interplay of all variables explored in the first paper. That is, each individual in society has a certain level of income, interpersonal trust, education, political interest and experience with unemployment which, in conjunction, determine his or her overall feelings toward immigrants. Latent class analysis revealed that there are in fact six different categories of individuals as it related to their level of anti-immigrant attitudes so this became the topic of the second paper (chapter 3).

The third paper (chapter 4) arose out of questions related to the first paper. In the first paper, economic measures were only weakly related to anti-immigrant attitudes. Given the prominence of economic variables in studies and policies relating to anti-immigrant attitudes, these findings deserved further exploration.

VARIABLES CONSIDERED AND NOT USED

In choosing the variables for the analysis, a multitude for measures were considered and not used. There were two main reasons possible variables were eliminated from the analysis: multicollinearity and insufficient data. These problems applied to regional and national data, not individual level data. In addition to the final economic variables utilized in the analysis (regional and national gross domestic product and unemployment rate) variety of measures that measured economics in some way were considered: national poverty rate, national harmonized consumer price inflation, national household income, regional and national household income, and regional and national economic activity rate. All of these variables were too highly correlated with each

other or with economic variables at the individual level (unemployment experience and income per capita). In the end, regional and national gross domestic product and unemployment rate were chosen for the final analysis because they were not too highly correlated with the individual level variables or each other and because they represent two different but important aspects of economics.

Other variables at the regional and national level were eliminated because there was insufficient data available. For example national crime rate and the number of national citizenship acquisitions could not be incorporated into the analysis because the data was missing for too many countries.

OVERALL FINDINGS ACROSS PAPERS

Several findings emerge as important across all three substantive chapters. First, in all three chapters it is clear that utilizing multiple explanations are necessary in order to better understand anti-immigrant attitudes. Chapters two and four also indicate that variables at multiple levels of analysis (individual, regional and national) also aid in obtaining a fuller understanding of attitudes toward immigrants. Second, interpersonal trust emerges as the strongest and most consistent factor in understanding anti-immigrant attitudes. Education level and political explanations are also consistently related to attitudes toward immigrants. Other key findings emerge when looking at each chapter individually.

FINDINGS UNIQUE TO EACH CHAPTER

Chapter 2. Sources of Negative Attitudes towards Immigrants in Europe: A Multi-Level Analysis.

This chapter explores eight different explanations for anti-immigrant attitudes and reveals which are the weakest and strongest explanations for attitudes toward immigrants. The variables

utilized include nine individual level variables, four regional level variables and five national level variables: cultural marginality theory (experienced discrimination), human capital theory (education level), political affiliation (political interest and individual and national political leaning), societal integration (lives with family and individual and regional interpersonal trust), neighborhood safety (feels safe in their neighborhood after dark), contact theory (regional and national number of immigrants), foreign investment, and economic competition (income per capita, unemployment experience and regional and national GDP and unemployment rate).

Three findings stand out: 1) regional and interpersonal trust, education level, foreign direct investment, and political variables are especially important for understanding anti-immigrant attitudes, 2) although economic variables are commonly used to explain anti-immigrant attitudes, findings from this chapter indicate they are only weakly related to the dependent variable, and 3) the individual level variation in anti-immigrant attitudes is highest, followed by the national and regional level.

Chapter 3. Anti-Immigrant Attitudes: Who Has Them and Who Doesn't?

This chapter takes a person centered rather than a variable centered approach to understanding anti-immigrant attitudes. The variables used in this analysis are individual level variables and are: educational achievement, income, unemployment experience, political interest, interpersonal trust, feeling safe, resides with a family member, and ever experienced discrimination. Latent class analysis revealed that there are six categories of individuals that best explain anti-immigrant attitudes. The six categories from lowest to highest level of anti-immigrant attitudes are named by their most distinctive characteristic and are: 1) interested in politics, 2) highly educated, 3) high income, 4) middle category (rates average on all characteristics), 5) low education/mid-income, and 6) disadvantaged category.

The most important finding that emerges from this chapter, which is not present in the other two, is the role that education plays in changing levels of anti-immigrant attitudes. The highly educated category has lower anti-immigrant attitudes even in the presence of factors that are commonly associated with negative attitudes toward immigrants such as experience with unemployment and lower income per capita. This finding indicates that increasing education can overcome other factors associated with anti-immigrant attitudes, whereas other variables such as income or political interest do not have this power. From a policy perspective, when income levels cannot be increased due to factors such as an economic recession, increasing access to education may still be effective in lowering anti-immigrant attitudes.

Another interesting finding from this chapter is that these categories are present to a different extent across nations in Europe. For example, among those in the disadvantaged category, the lowest percentage is present in Nordic nations and the highest percent in Eastern European and Mediterranean nations. Consequently, based on the percentage of people in each category that are present in a nation, nations would want to adopt different policies.

Chapter 4. Does the Economy Matter after all? Economic Explanations for Anti-Immigrant Attitudes

Economic explanations for anti-immigrant attitudes are still largely present in the literature. Although the findings from chapter two indicated that the effects of economic variables on anti-immigrant attitudes are weak at best, the analysis regarding the influence of economics on attitudes toward immigrants was not conclusive. That is, the finding that the linear effects are weak is not enough to discard the influence of economic variables on anti-immigrant attitudes. Additional analysis is necessary to reach this conclusion. For this chapter, the same variables from chapter two were used. Six economic variables were examined: income per

capita, unemployment experience and regional and national gross domestic product and unemployment rate. The non-economic variables utilized were: education level, political interest, individual and national right/left political leaning, individual and regional interpersonal trust, neighborhood safety, lives alone, having been discriminated against, national foreign direct investment and regional and national number of immigrants.

The analysis was conducted in three steps. In the first step, linear analysis indicated that economic variables were weakly related to anti-immigrant attitudes. The only exception is the national unemployment rate. Also, economic variables only explained one percent of the variance in anti-immigrant attitudes at the individual level. Second, curvilinear effects were only significant for income per capita and this relationship was also very weak. Finally, interactions between all economic variables and non-economic variables were conducted. Less than one third of all possible interactions were significant, and only national unemployment had at least half of its interactions with non-economic variables significantly predict attitudes toward immigrants. Findings from this study indicate that, with the possible exception of national unemployment rate, economic explanations do not contribute significantly to the understanding of anti-immigrant attitudes.

The three substantive chapters (chapters 2-4) explore different aspects of explanations for natives' attitudes toward immigrants. Chapter two examines eight different explanations for anti-immigrant attitudes. Chapter three utilizes latent class analysis to identify six different categories of individuals as it relates to their level of anti-immigrant attitudes. Finally, chapter four explores the relevance of economic variables in understanding attitudes toward immigrants. Across chapters it is evident that: 1) multiple explanations should be used in order to fully understand

anti-immigrant attitudes, 2) interpersonal trust is the variable that is most strongly and consistently related to anti-immigrant attitudes, and 3) variables at three levels of analysis, individual, regional, and national level variables, are important to understanding anti-immigrant attitudes.

CURRICULUM VITAE

Elisa Rustenbach

RESEARCH INTERESTS

Migration, migration policy, assimilation & integration of migrants, cross-national research among developed countries, social networks, family, demography, transition to adulthood, and methods.

EDUCATION

Doctor of Philosophy in Sociology & Demography 2006 – Present
The Pennsylvania State University

Dissertation Topic: Negative Attitudes Toward Immigrants: Sources and Individual, Inter-regional and International Comparisons.

Dissertation Committee: Alan Booth (Chair), Glen Firebaugh, Nancy Landale, and Susan McHale.

Expect to complete PhD in 2009.

Master of Arts in Sociology & Demography 2006
The Pennsylvania State University

Thesis topic: Friendship Network Quality & Structure and Adolescent Romantic Relationships.

Committee: Alan Booth (Chair), Nancy Landale, Valarie King.

Bachelor of Science in Sociology 2001
University of Colorado

RELEVANT PREVIOUS EMPLOYMENT

Research Assistant to Dr. Alan Booth Investigating the process through which friendship quality and structure is linked to sexual behavior. 2007-Present
The Pennsylvania State University.

Statistician (Intern), Immigration Statistics Staff, Population Division Summer 2008
United States Census Bureau, Washington D.C.

Research Assistant, Family Formation in an Era of Family Change 2004 – 2007
The Pennsylvania State University

Research Assistant 2001-2004
CIDEFA (Center for Investigations and Family Development)
Santiago de Compostela, Spain

PUBLICATIONS

Booth, Alan; Rustenbach, Elisa; McHale, Susan. 2008. "Early Family Transitions and Depressive Symptoms Changes from Adolescence to Early Adulthood". *Journal of Marriage and Family*, 70(1) 3-14.

Rustenbach, Elisa. "Sources of Anti-Immigrant Attitudes Across Europe: A Multi-Level Analysis". *Review & Resubmit at International Migration Review*.

Rustenbach, Elisa; Booth, Alan. Adolescent Friendship Networks and the Development of Romantic Relationships. Draft Available.

KNOWLEDGE OF STATISTICAL SOFTWARE PACKAGES

STATA, SAS, SPSS, AMOS, HLM

SELECTED PRESENTATIONS

Rustenbach, Elisa. "Sources of Anti-Immigrant Attitudes Across Europe: A Multi-Level Analysis" presented at a session at the Annual Meeting of the Population Association of America in Detroit, MI. (April 2009)

Rustenbach, Elisa. "Early Family Transitions and Depressive Symptoms" presented at the Annual Meeting of the Population Association of America in New Orleans, LA (April, 2008).

LANGUAGES

Spanish: Fluent in reading, speaking and writing; native proficiency.

English: Native tongue.
