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Immigration, the welfare state and income inequality in sixteen OECD countries, 1970-2007

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IMMIGRATION, THE WELFARE STATE AND INCOME INEQUALITY
IN SIXTEEN OECD COUNTRIES, 1970-2007

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This dissertation is dedicated to:

my parents, XU Hao and LI Yongji, for all the love they have had in me, and all the sacrifices that they have made for me;

and

my grandparents, XU Jiacai, and the late ZHANG Sizhen, for a very special childhood that they gave me.

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ABSTRACT

Many western democracies witnessed roaring levels of immigration and inequality in the past four decades. In spite of speculations that immigration is a contributing factor of the rising income inequality, existing studies do not have a consistent finding relating to this relationship. This dissertation utilizes new data sources to explore the relationship between immigration and inequality.

My initial exploration points to the fact that immigration significantly leads to increases in post-redistribution income inequality in 16 OECD countries, but does not have any effect on pre-redistribution income inequality. I contend that it is because immigrants as non-citizens are often times not entitled to welfare benefits that are easily provided to citizens. Since immigrants are systematically disadvantaged in the distributive process, their presence inevitably widens the income differentials after redistribution.

In order to test this thesis, I first study the evolution of immigrant welfare policy in the 16 OECD countries from 1970 to 2007 to verify that immigrants are largely excluded from the welfare system. I create an indicator-the "Immigrant Welfare Eligibility Score" - to measure the strictness of immigrant welfare policy. I find that immigrants only had limited access to the welfare systems, and their access had been further restricted in 16 OECD countries since 1970's. I also explore the determinants of immigrant welfare policy and find that factors like partisan control of the government and other factors influence the strictness of immigrant welfare policy.

Then I explore why western developed countries would exclude immigrants from the welfare system from the public opinion perspective. I use survey data from the International Social Survey Program (ISSP) and find that how much the public likes immigrants directly determines public support for welfare spending on immigrants. In other words, the prevalent

anti-immigrant sentiment is a motivation for the policy-makers to limit or even exclude

immigrants from participating in certain welfare programs. Lastly, I use data from 16 OECD

countries to test if the extent to which immigration brings up inequality differs in countries with

strict and relaxed immigrant welfare policy. I have found that the strictness of immigrant welfare

policy does influence the extent to which immigration influences post-redistribution income

inequality.

CHAPTER 1: INTRODUCTION

Ever since the end of the World War II, massive numbers of migrants have moved from less developed countries to more developed ones. Among the motivations for people to migrate across borders, there are "post-war reconstruction, the end of the colonial era, the oil crisis in 1973, the rise and fall of the Iron Curtain, the ageing of the baby-boom generation, and the general demographic and economic imbalances between more and less developed countries" (OECD 2007). It is highly likely that the presence of immigrants has had a major influence on the distribution and redistribution of resources in the destination countries. Interestingly, during the same time period, many western countries also witnessed sharp increases in their levels of income inequality. Whether or not the large scale of immigration influences the level of income inequality in western developed countries has become an interesting research question.

However, little research has been done to study this question, especially on a cross-national level. Among the scant previous literature on this topic, there is no consensus achieved on what direction immigration influences income inequality. For instance, by using empirical data from 16 OECD countries from 1964 to 1992, Alderson and Nielsen (2002) find that immigration has a modest positive effect on post-redistribution income inequality.[1] Bradley et al. (2003) build their studies on Alderson and Nielsen (2002) but do not find any effect of immigration on either pre- or post-redistribution income inequality at all. One reason for the lack of research, as well for the inconsistent findings in previous research, is the availability of data

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[1] OECD is short for Organization for Economic Co-operation and Development. It was established in 1960 and now comprises 32 countries committed to democracy and market economics from around the world: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. Its purpose is to enhance economic strength and prosperity, preserve individual liberty and increase general well-being.

on immigration and income inequality. This dissertation utilizes new data sources to explore the relationship between immigration and inequality. More importantly, I discover a much more complicated relationship between immigration and inequality than what has been suggested by previous literature.

I start with an exploration on whether or not the massive scale of immigration has any influence on income inequality in western developed countries by using new data sources from the 16 OECD countries. I intentionally differentiate pre-redistribution income inequality from post-redistribution income inequality. While pre-redistribution income inequality refers to inequality in the incomes among the members of a society before taxation and transfers, post-redistribution income inequality refers to inequality in the incomes among the members of a society after taxation and transfers. I utilize statistical data on immigration, pre- and post-redistribution income inequality, as well as data on a full set of control variables to test the connection between immigration and inequality.

My initial exploration points to the fact that immigration significantly leads to increases in post-redistribution income inequality in these 16 OECD countries, but immigration does not have any effect on pre-redistribution income inequality. In other words, the presence of immigrants does not polarize the incomes that is earned by members of the society, but does polarize the income after members of the society receive governmental transfers and pay taxes.

This finding seems to be quite contradictory with what has been documented in previous literature-that is, immigrants are highly bifurcated into high- and low-skill groups, and therefore easily form up into high- and low-end income groups (Borjas 1994a; Hanson 2004; Husted et al. 2000; Marciano 1975; kee 1995; Seifert 1997; Bradley et al. 2003). If that is true, the presence of immigrants should polarize the income distribution among members of the society. After

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receiving welfare benefits and paying taxes, the gap between rich and poor immigrants should be reduced, and thereafter, the inequality after redistribution should be smaller. However, the initial empirical result of this dissertation seems to be just the opposite. Immigrants do not seem to widen the income differentials in terms of how much they earn; instead, they do enlarge income differentials after redistribution.

The rest of this dissertation centers on searching an answer for this puzzle. In a theoretical chapter, I analyze why it is the case that immigrants do not enlarge pre-redistribution income inequality, but make the post-redistribution income inequality increase. I contend that it is because immigrants as non-citizens or even non-residents are often times not entitled to welfare benefits that are readily provided to citizens or residents. The increasing presence of immigrants has resulted in mounting "xenophobia" and anti-immigration sentiment in the western world, which leads to declining support for welfare spending on immigrants (Banting and Kymlicka 2004; Crepaz 2007; Gilens 1999; EUMC 2005; Gang et al. 2002; Lee and Fiske 2006; Banting 2000). Policy-makers therefore choose to change eligibility rules to limit or even exclude immigrants from participating in certain welfare programs (Xu 2007; U. S. House of Representatives Committee on Ways and Means 1998). Since immigrants are systematically disadvantaged in the redistributive process, their presence inevitably widens the income differentials after redistribution.

I try to test this theoretical contention empirically in Chapters 4 through 6. In Chapter 4, I study the evolution of immigrant welfare policies in western developed countries. I maintain that many western democracies have changed their immigrant welfare policies in order to exclude immigrants from welfare programs since the 1970s. For instance, the United States adopted a major welfare reform act with the Personal Responsibility and Work Opportunity Reconciliation

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Act of 1996 (PRWORA), which barred all legal immigrants from federal financed food stamps and Supplemental Security Income. Immigrants entering the United States after August 22, 1996 are also barred from Medicaid, Temporary Assistance for Needy Families (TANF), and the Social Services Block Grant (SSBG) program benefits for the first five years after their entry (U. S. House of Representatives Committee on Ways and Means 1998).[2] The Australian central government also adopted immigration reforms in 1995-1996 and restricted access to welfare benefits for newly arrived immigrants. After the reform, only immigrants with permanent residence can receive welfare benefit; but during the first two years of residence, they can only apply for social security benefits (Xu 2007).

Based on content analyses of a policy document *Social Security Programs Throughout the World*, I create an "Immigrant Welfare Eligibility Score" (the "IWE" score) to measure the strictness of the immigrant welfare policy in 16 western developed countries from 1970 to 2009. The result shows that immigrants indeed only had limited access to the welfare system in these 16 OECD countries. In addition, many countries tightened up their immigrant welfare policies during this time period. Chapter 4 also explores the determinants of immigrant welfare policy changes and discovers that factors such as partisan politics, union density, constitutional structure, voter turnout, connections between interest groups and governments, as well as total trade, GDP per capita all influence the strictness of the immigrant welfare policy in particular countries.

In Chapter 5, I try to explore why western developed countries excluded immigrants from the welfare system from the public opinion perspective. As we know, in democracies public

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[2] TANF provides federal funds to States for temporary cash assistance for needy families; it replaces Aid to Families with Dependent Children (AFDC). The SSBG program is also a state block grant program, providing Federal funds to states for social services aimed at preventing dependency and remedying problems associated with it.

opinion on a certain policy issue has an influence on the actual policy-making outcome.

Therefore, how much the public supports welfare spending on immigrants might exert a large

influence on policy-making of the immigrant welfare policy. In Chapter 5, I study how much the

general public supports allocating welfare to immigrants by using survey data. I utilize data from

three cross national surveys-the International Social Survey Program (ISSP), the European Social

Survey (ESS), and the Eurobarometer. Results from the surveys show that (1) there is a prevalent

aversion toward immigrants in the western world; (2) public support for welfare spending on

immigrants is also very low in the western world; (3) public support for welfare allocations and

spending on immigrants directly depends upon how much the public likes immigrants in their

society. These findings verify the supposition from previous literature that the perception of

immigrants' overrepresentation in welfare programs not only results in public aversion toward

immigrants, but also erode public support for welfare, especially welfare spending on immigrants

(Banting and Kymlicka 2004; Crepaz 2007; Gilens 1999; EUMC 2005; Gang et al. 2002; Lee

and Fiske 2006; Banting 2000).

From both the public policy and public opinion perspectives, Chapters 4 and 5 verify that

immigrants are indeed largely excluded from the welfare programs in the western world. In

Chapter 6, I continue to consider the degree to which such a fact is the explanation for

immigrants to have an influence on post-redistribution inequality. My intention is to demonstrate

that in countries with a strict immigrant welfare policy, immigration has a large positive effect on

post-redistribution income inequality; in countries with a relaxed immigrant welfare policy, the

effect of immigration on inequality is not as large. In a pooled time series and cross sectional

analysis, I consider whether the strictness of the immigrant welfare policy mediates the

relationship between immigration and post-redistribution income inequality. Statistical results

show that the strictness of the immigrant welfare policy does influence the extent to which immigration influences post-redistribution income inequality.

In Chapter 7, I conclude the dissertation with major findings of this dissertation and their implications. The conclusion of this dissertation is threefold. First, immigration has an influence on income inequality. More specifically, immigration leads to increases in post-redistribution inequality in western developed countries, but does not seem to have an effect on pre-redistribution inequality. Second, there seems to be a prevalent aversion toward immigrants and a relatively low public support for welfare spending on immigrants in the western world. In addition, how much the public likes immigrants in their society directly influences how much they support welfare spending on immigrants. The more the public favors immigrants as a group, the more likely the public will support welfare spending on immigrants. Third, western developed countries have largely restrained immigrants' access to welfare since the 1970s. The policy change is dependent upon several factors, for example, partisan politics, union density, constitutional structure, voter turnout, connections between interest groups and governments, as well as total trade, GDP per capita of the country. The policy change also partially explains why immigration leads to increases in post-redistribution income inequality only.

In the rest of the introductory chapter, I first define the major concepts of this dissertation, which include immigration, the welfare state, and income inequality. I then introduce the research design of the dissertation. Lastly, I lay out the structure of the dissertation.

The Concept of Immigration: Definition, Types, Origins, and Trends

The OECD International Migration Outlook (OECD 2007) defines an immigrant as "a person of foreign nationality who enters the permanent resident population either from outside the country or by changing from a temporary to a permanent status in the country." By a broader

definition, immigration could also refer to "foreign-born population," which does not only include permanent resident immigrants but also includes naturalized citizens, temporary legal foreign-born residents and illegal immigrants.

Types of Immigrants

A broad definition of immigration can be roughly divided into naturalized citizens, permanent residents, temporary legal immigrants, and illegal immigrants depending upon their legal status. Table 1.1 includes the definition and possible entry types for each of the category. Naturalized citizens are immigrants who are granted citizenship in the destination country after fulfilling citizenship requirements. Therefore, they can enjoy all the welfare benefits and political rights that native-born citizens enjoy.

Table 1.1: Types of immigrants, their definition and entry types

Types	Definition	Entry types
Naturalized citizens	Immigrants who are granted citizenship in destination countries	Family-related migration, free-movements, labor migration, humanitarian migration,etc
Permanent immigrants	Immigrants who are holding permanent residence permit and are allowed to live in destination countries permanently	Family-related migration, free-movements, labor migration, humanitarian migration,etc
Temporary legal immigrants	Immigrants who are staying only for temporary purposes like visits, temporary working and study	International students, tourists, trainees, and temporary labor migrants
Illegal immigrants	Immigrants who do not have legal documents to support their stay	Attempt to cross borders illegally, or have legal entries but stay overtime and become illegal

Source: OECD 2008; 2010

Permanent residents instead are the immigrants who have obtained permanent residence in the destination countries. According to the *International Migration Outlook*, permanent immigrants can enter a destination country through five different ways -- family-related migration, free-movements, labor migration, humanitarian migration, and other types of migration (OECD 2008, 2010). Figure 1.1 shows the proportion of each type of immigrants in 16 OECD countries in 2008 (2007 for Switzerland) (OECD 2008).
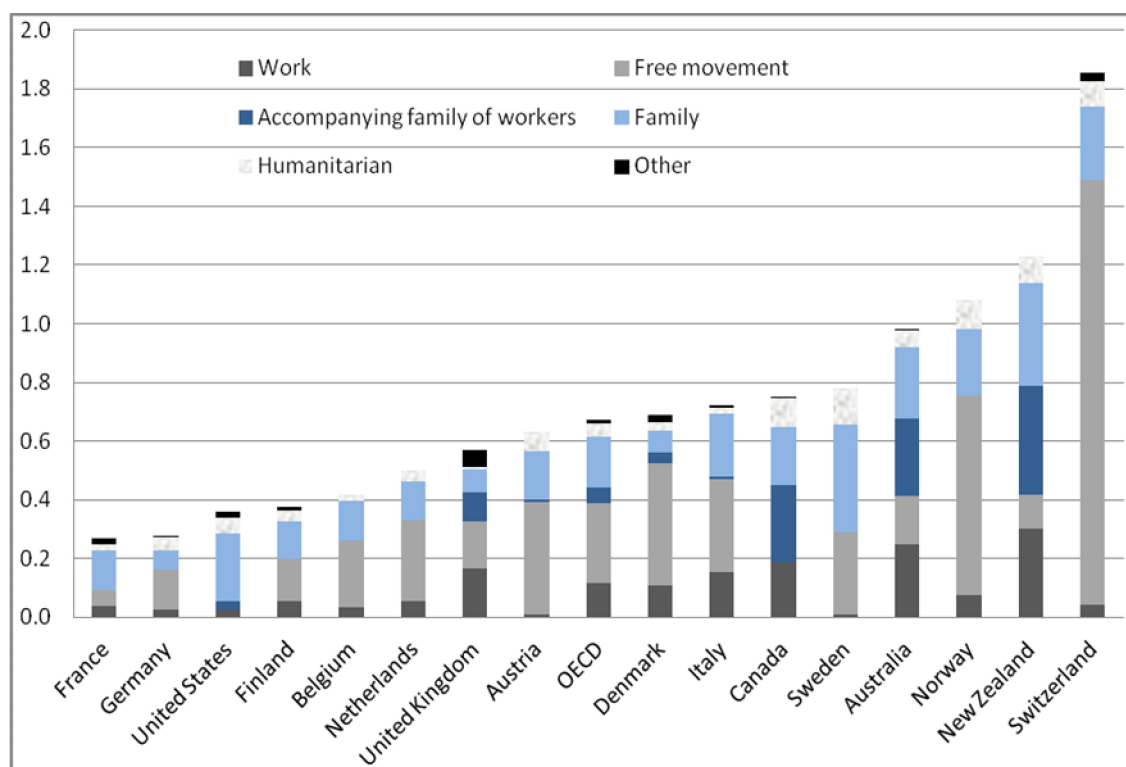
Figure 1.1: Permanent-type migration by category of entry, 2008 (% of total population)
Figure directly cited from OECD 2010, *International Migration Outlook,* p30

Family-related migration includes both family reunification and marriage migration of the native-born citizens or residents, but also accompanying family or other types of immigrants (OECD 2010). This is the largest type of migration in OECD countries. In 2006, about 44% of total migration to the OECD countries was family-related (OECD 2008). In the United States

and France, family-related migration makes up about 60% of all permanent movement types (OECD 2008).

Free movement migration refers to migration within the European Economic Area or between Australia and New Zealand (OECD 2008). Since the European Union enlargements in 2004 and 2007, increasing number of migrants have moved from newly admitted EU countries to the other European Union member states; free movement has ever since then become the second largest migration type in OECD countries (OECD 2010). In 2008, about 25% of all permanent migration in OECD countries was free movement migration (OECD 2010). The percentage can be extremely high in many European countries. For example, free-movement migration accounted for almost 70% of permanent migration in Switzerland, almost 50% in Austria, Belgium, Denmark, and Germany in 2008 (OECD 2010).

Labor migration is another important permanent migration type in OECD countries. In 2008, about 20% of all migration is composed of discretionary labor migration (OECD 2010). In Australia, New Zealand, Canada, Italy, and the United Kingdom, labor migration comprises of a high proportion of all permanent migration; the proportion varies from 15% to 33% in these five countries (OECD 2010). Humanitarian migration including asylum seekers and refugees is the last major type of permanent migration in western developed countries. In OECD countries in 2006, humanitarian migration makes up about 12% of all migration types (OECD 2008). In some countries like the Netherlands and Sweden, humanitarian migration accounted for over 20% of all movements in 2006 (OECD 2008).

In addition to permanent immigrants, there are also temporary legal immigrants and illegal immigrants. Temporary legal migration includes a variety of migration types like international students, tourists, trainees, and temporary labor migrants. Destination countries

attract both international students and temporary labor migrants because international students are potential source of high-skill labor and temporary labor migrants are a solution for labor shortage problems (OECD 2008). From 2000 to 2005, the OECD countries witness a 50% increase in the number of international students (OECD 2008). The number increased by about 120,000 in both the United States and the United Kingdom, about 100,000 in France, and about 85,000 in Australia in these six years (OECD 2008). According to OECD, there were over 2.5 million temporary labor migrants entering OECD countries in 2006, which were three times as many as permanent labor migrants (OECD 2008). In both Switzerland and New Zealand, temporary labor migrants make up a big proportion in the total population (Switzerland-2.11%, New Zealand-1.57%); the United States takes about one-fourth of all temporary labor migrants of OECD countries (OECD 2008).

Illegal immigrants differ from permanent and temporary legal immigrants, insofar that they do not have legal documentation to stay in the destination country. They either attempt to cross borders illegally or have made legal entry but stay overtime and become illegal. According to the OECD, the overstayers make up a big proportion of the illegal immigrant population (OECD 2008). For example, in Italy, about 60-65% of illegal immigrants are overstayers; in the United States, about 45% of the unauthorized population is comprised of overstayers (Pew 2006). It is estimated that the United States had about 11.6 million illegal immigrants in 2006, and this makes up 4% of the total population (OECD 2008).

In this dissertation, immigration is used to capture both permanent residents and temporary legal immigrants. Naturalized citizens and illegal immigrants are not counted as immigrants in this dissertation due to two reasons. First of all, naturalized citizens' legal status is

citizens, and therefore they are all eligible to receive welfare benefits; illegal immigrants without

legal status are not eligible to receive any types of welfare benefits. Both of the two types do not

fall into the discussion of immigrant welfare eligibility.[3] Secondly, none of the OECD countries

counted naturalized citizens or illegal immigrants as immigrants when they create the

immigration measurement.

Origins of Immigrants

From where do the immigrants in western developed countries originally come?

According to OECD, in 2006, the top 20 countries of origin account for 60% of all immigrants

inflows into OECD countries (OECD 2008). These 20 countries include China, Poland, Romania,

Mexico, Philippines, United Kingdom, India, Morocco, United States, Germany, Brazil, Ukraine,

Bulgaria, Colombia, Vietnam, Russian Federation, Bolivia, Korea, France, and Turkey (OECD

2008). Figure 1.2 shows the percentage of immigrant inflows to OECD countries from each of

the 20 countries in 2006. As one can see, Chinese immigrants make up 11% of the total inflows

in OECD countries; individuals from Poland, Romania, and Mexico each make over 4% of the

total inflows (OECD 2008).

There are systematic patterns when immigrants choose their destination countries.

Geographical proximity appears to be one of the factors used by migrants when they choose

destination countries. Simply, immigrants tend to choose geographically close countries to

migrate in. For instance, about 50% of the total migration flows into European countries are from

other EU member states. Immigrants to the United States are largely from Mexico and other

Latin American countries (OECD 2008). Europe is also "the destination for about 85% of

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[3] In some countries, illegal immigrants might be eligible for some humanitarian assistance like assistance in disasters and emergencies, or assistance that saves human lives.

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movements from North Africa" (OECD 2008: 40). Likewise, Asia sends four to seven times

"more immigrants to non-European than European OECD countries" (OECD 2008: 40).

Top 20 countries of Origin for Immigrants, 2006
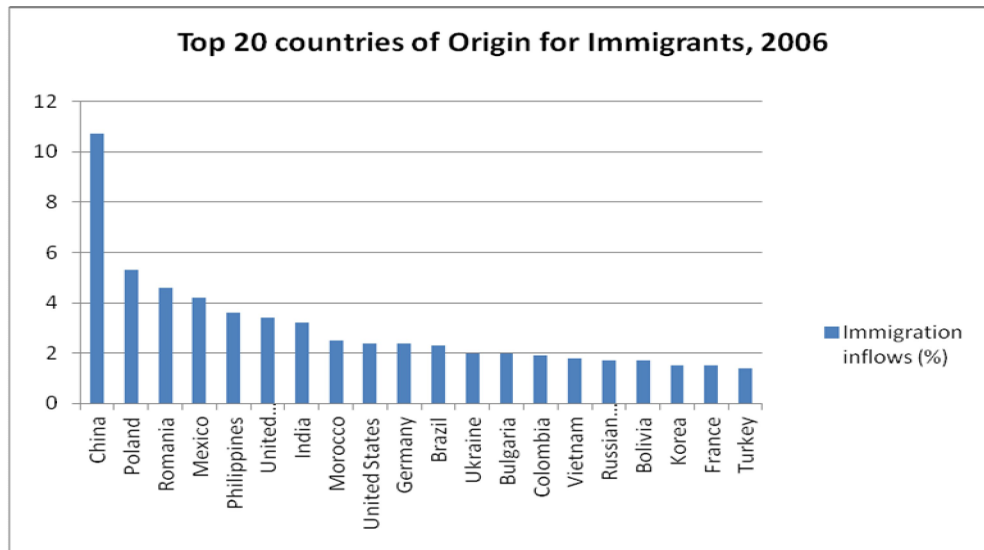
Figure 1.2: Top 20 countries of origin for immigrants and percentage of inflows, 2006
Data Source: OECD 2008

Trends of Immigration in OECD Countries

International migration has taken place in a more frequent and massive manner since the

early 1950s, and these migration movements have usually been from less developed countries to

more developed ones. According to OECD, the average annual net migration to OECD countries

was about 790,000 persons between 1956 and 1976; it increased to about 1.24 million from 1977

to 1990, and then to 2.65 million from 1991 to 2003 (OECD 2007). Up until 2006, about three

million legal immigrants entered OECD countries every year, and the number continues to

increase (OECD 2006).

Table 1.2 shows the net migration rates in the major western democracies in 1970 and

2008 as well as the percentage change in these two years. Net migration rate is a measure of the

scale of immigration, which is calculated by the following formula:

$$\text{Net Migration Rate} = \frac{\text{Inflow of Immigrants-Outflow of Immigrants}}{1,000 \text{ Inhabitants}}$$

Table 1.2: Net migration rate in 1996 and 2008 in 20 OECD countries

Country	1970 (‰)	2008(‰)	Change(‰)
Australia	8.9350	14.0049	5.0699
Austria	1.4581	4.1305	2.6724
Belgium	0.9010	.	.
Canada	3.1421	8.4033	5.2613
Switzerland	2.4346	5.3278	2.8933
Germany	-7.8159	2.6350	10.4509
Denmark	3.5453	1.2039	-2.3414
Spain	9.3465	.	.
Finland	-1.0144	.	.
France	-0.8572	.	.
United Kingdom	2.9485	15.7577	12.8092
Ireland	2.5310	1.6199	-0.9111
Italy	0.2829	0.9362	0.6533
Luxembourg	-0.2579	9.0185	9.2764
Netherlands	-13.7760	.	.
Norway	-0.4430	10.0975	10.5406
New Zealand	6.0926	6.0741	-0.0186
Portugal	-2.8735	12.8362	15.7097
Sweden	-0.2660	.	.
United States	2.1349	2.8511	0.7161

Net migration rate is the net number of immigrants divided by the total inhabitants. It is calculated by the following formula:

$$\text{Net Migration Rate} = \frac{\text{Inflow of Immigrants-Outflow of Immigrants}}{1,000 \text{ Inhabitants}}$$

Column one (1970) in this table is the net migration rate in 1970. Column two (2008) is the net migration rate in 2008. Column three (Change) is the difference between the net migration rates in 1970 and 2008.
Data source: OECD Statistics

As one can see, only three countries have shown a decrease in net migration rate per year: Denmark, Ireland, and New Zealand. All other OECD countries listed here exhibit a net increase in migration rates.[4] Figure 1.3 shows the average net migration rate of 16 major western democracies from 1970 to 2008. As one can see, the average net migration rate of all these major western democracies also shows an increasing trend during this time period. The average net migration rate in these countries began at about 0.8‰, increased to about 3‰ in 1974, and then

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[4] Net migration rate is the net number of immigrants as a proportion of total population every year. It is calculated by the following formula: (immigrants-emigrants)/total population *1000 ‰. Data on net migration rate are collected from OECD International Migration Statistics.

dropped to 1‰ in the late 1970s and early 1980s. From the mid-1980s, it continuously increased to 3.8‰ in 1990, and then to 6.8‰ in 2008. The average net migration rate increased most rapidly after the 1980s. In Appendix 1, I also present the net migration rate in each of the 16 OECD countries.
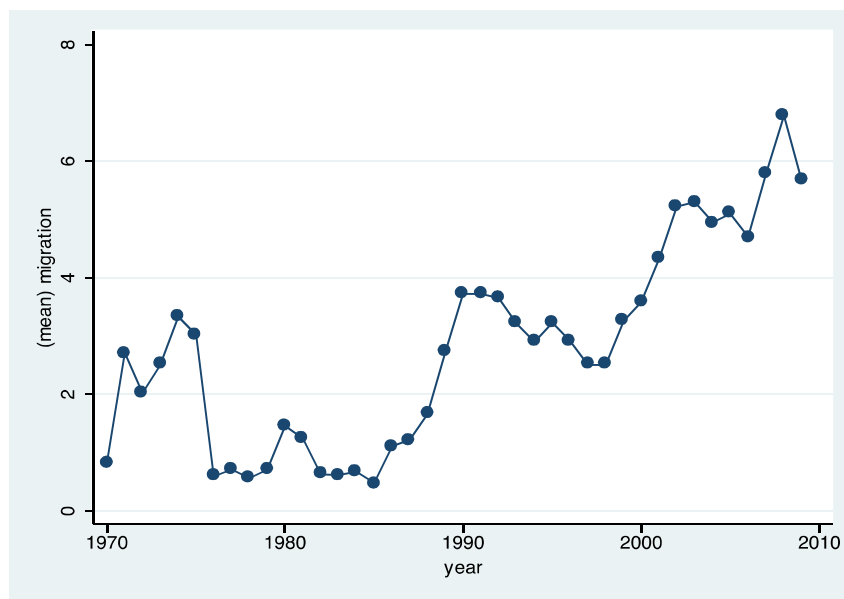
Figure 1.3: Mean net migration rate in 16 OECD countries 1970-2007
The line in this figure shows the average net migration rate in the 16 OECD countries. Net migration rate is the net number of immigrants divided by the total inhabitants in thousands. It is calculated by the following formula:

$$\text{Net Migration Rate} = \frac{\text{Inflow of Immigrants-Outflow of Immigrants}}{1.000 \text{ Inhabitants}}$$

Data source: OECD Statistics

The increasing number of net migration inflows every year results in a large stock of foreign-born population in most western developed countries. Foreign-born populations comprise a considerable share of the total population in all 20 western developed OECD countries, as shown in Table 1.3. In the country with the smallest foreign-born population, Finland, there were 202,500 foreign-born individuals, who made up 3.8% of the total population.

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Table 1.3: Stock of foreign-born population in OECD countries, 2007

Country	Foreign-born Population (Thousands)	Total Population (Thousands)	Percentage of Foreign-born population (%)
Australia	5292.6	21086.1	25.1
Austria	1246.2	8308.0	15.0
Belgium	1380.3	10617.7	13.0
Canada	6331.7	31345.0	20.2
Switzerland	1882.6	7560.6	24.9
Germany	..	..	..
Denmark	378.7	5488.4	6.9
Spain	6044.5	44774.1	13.5
Finland	202.5	5328.9	3.8
France	5147.8	62021.7	8.3
United Kingdom	6192	60705.9	10.2
Ireland	682.0	4343.9	15.7
Italy	..	..	..
Luxembourg	172.6	476.8	36.2
Netherlands	1751	16364.5	10.7
Norway	445.4	4688.45	9.5
New Zealand	915.0	4236.15	21.6
Portugal	648.0	10623.0	6.1
Sweden	1227.8	9162.7	13.4
United States	41099.6	302202.9	13.6

Data source: OECD Statistics

Table 1.4: Share of the foreign-born in total labor force and employment, 15-64 years old, 2006

Country	Share in total labor force (percent)	Share in total employment (percent)
Australia	25.7	25.6
Austria	16.2	15.4
Belgium	12.3	11.1
Canada	21.2	..
Switzerland	25.4	24.4
Germany	..	..
Denmark	6.0	5.8
Spain	15.1	14.6
Finland	3.1	2.8
France	12	11.2
United Kingdom	11.2	11.0
Ireland	13.9	13.7
Italy	8.6	8.5
Luxembourg	44.6	43.8
Netherlands	11.0	10.3
Norway	7.8	7.4
New Zealand	..	..
Portugal	7.9	7.8
Sweden	13.5	12.5
United States	15.7	15.8

Data source: OECD Statistics

The labor force is also comprised a large number of foreign-born individuals. As shown in Table 1.4, as of 2006, the foreign-born labor force makes up to 44.6% of the total labor force in Luxembourg, about 25.7% in Australia, 25.4% in Switzerland, 21.2% in Canada, 16.2% in Austria, 15.7% in the United States, and 15.1% in Spain. The foreign-born labor force makes up a considerable percentage of total labor force in other countries as well.

The Concept of the Welfare State

According to Pierson (2007: 10), the welfare state refers to "state measures for meeting key welfare needs," which covers areas like "health, education, housing, income maintenance and personal social services;" welfare is given either through "service" or "transfers" by the state. Welfare can also be provided by sources other than the state, for example, churches, non-profit organizations, or even families. In a broader sense, the welfare state can also refer to "(1) a particular form of state; (2) a distinctive form of polity; or (3) a specific type of society" (Pierson 2007: 10). In this dissertation, I only use the welfare state in a narrow sense, meaning welfare provisions funded by the state; therefore, I do not discuss welfare provided through other channels, nor do I discuss the welfare state as a particular form of state or society. Specifically, I examine various types of welfare programs like pension, family allowance, unemployment benefits and sickness benefits, as well as whether or not immigrants are eligible for receiving these types of welfare benefits. In the rest of this section, I briefly introduce the historic development of the welfare state in western developed countries.

In the late 19th and early 20th century, many western developed countries already established social insurance schemes, which were the initial forms of the welfare state. In Germany, Bismarck introduced compulsory social insurance against sickness, accidents, old age and invalidity by the 1882, 1884 and 1889 law (Pierson 2007). Other countries like France,

Austria, New Zealand, Switzerland, Italy, Denmark, Norway, Australia, and Belgium all introduced major welfare state programs into their countries in the late 1890s and early 1900 (Pierson 2007).

In the first half of the 20th century, the welfare states in some countries expanded substantially in spite of the wars. For example, in the US, as a response of the Great Depression, the government led by the Democratic Party implemented the New Deal, part of which was the expansion of the welfare state. According to the 1935 Social Security Act, the United States for the first time had a "federal-state unemployment insurance program" and "a federal old age insurance program" (Pierson 2007: 124). In addition, the federal government grants the states aid for assistance to "needy dependent children, the blind and the elderly," and matches federal funds for state spending on "vocational rehabilitation, infant and maternal health, and aid to crippled children" (Pierson 2007: 124). In Sweden, the social democratic government also expanded welfare provisions and created new welfare programs like "a new employment creation programs," "a housing program," "pensions, maternity benefits, free maternity and childbirth services, state loans to newly married couples, and two weeks' holiday for all public and private employees" (Pierson 2007: 126-127). In Britain, the Labor Party implemented William Beveridge's Report and established National Health Service and the National Insurance Scheme (Pearsall and Trumble 1996).

From the 1960s to 1980s, the welfare states witnessed "a thirty year golden age," where many countries created a more universal welfare state based on "the idea of shared citizenship;" they also expanded the social welfare by committing more resources to welfare benefits and coverage (Pierson 2007: 129). However, starting from the 1990s, many western democracies have experienced serious welfare retrenchment. Scholars have found that "unemployment

benefits were cut in the US and the UK during the 1980s, and they were also cut in Sweden and Finland in the early 1990s" (Pierson 2007: 196). Allan and Scruggs (2004) find that replacement rates for the unemployed decreased in sixteen out of eighteen OECD countries in the 1990s.[5] According to OECD, social expenditure fell about 1.5% across OECD countries from 1993 to 2005. Especially, in countries like the United States, due to the passage of the PRWORA, "welfare rolls were slashed from over 5 million before 1994 to around 2 million families after 1996" (Pierson 2007: 197).

To summarize, the development of the welfare state in the western world has experienced ups and downs ever since its emergence. With the speculation that the presence of immigrants in the western world might dampen the viability of the welfare state, in this dissertation I systematically study how immigration has influenced the welfare policies in the western industrial democracies.

The Concept of Income Inequality

Equality is one of the economic outcomes that governments try to achieve through redistribution efforts such as taxation, transfers, and provisions of service. I differentiate two types of income inequality in this dissertation: one is pre-redistribution income inequality, and the other is post-redistribution income inequality. Pre-redistribution income inequality refers to inequality in the incomes that are earned by the members of the society, while post-redistribution income inequality refers to inequality in the incomes of the members of the society after they receive welfare benefits (mostly governmental transfer) and pay taxes.

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[5] Replacement rate refers to the "proportion of expected income from work which is replaced by unemployment and related welfare benefits" (Martin 1996:100)

The paucity of consistent measurements of income inequality in different countries has been a setback for cross-national study on income inequality. One way to examine the level of income inequality is to look at a standard inequality measure like the Gini coefficient. The Gini coefficient normally ranges from 0 (i.e., all incomes are equal) to 1 (or 100) (i.e., all income is held by one person), and it is calculated based on individual/family/household incomes from survey data. Many countries carry out national level surveys asking about people's income and calculate income inequality indicators like Gini coefficient on the national level. However, it is nearly impossible to obtain a Gini coefficient consistently compiled across countries and over time for two reasons: (1) individual countries differ in the unit of measures when they carry out surveys, and (2) countries often use different income definitions.[6]

The Luxembourg Income Study has carried out consistent surveys in western democracies and has compiled the most consistent Gini coefficient, but it only has five waves of data.[7] The United Nations University's World Income Inequality Database (UNU-WIDER WIID) has greater coverage across countries and over time, but lacks comparability across observations. For a long time, scholars studying income inequality suffered from not having a sound cross-national indicator of income inequality.

Given this lack of comparability, scholars have strived to come up with comparable inequality indicators that are measured across countries and over a long time frame. For example, Solt (2009) uses a custom missing data algorithm to standardize the income inequality measure from the UNU-WIDER WIID with the LIS dataset as the standard, and the results is the

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[6] Countries use different units of measures in the survey questions they ask. Some use family income, others use household income, still others use individuals' income. They also use different income definitions, for instance, some use gross income (or pre-redistribution income), but others use net income (or post-redistribution income).
[7] LIS carry out surveys once every five years in 1985, 1990, 1995, 2000 and 2005, but in some countries, surveys were also carried out one year before or after the standard survey year.

Standardized World Income Inequality Dataset (SWIID). This dataset therefore includes both

pre-redistribution and post-redistribution income inequality measures that are relatively

comparable across countries and over time. Solt (2009) uses Gini coefficients based on gross

income (i.e. income before taxes/transfers) as the measure of pre-redistribution income

inequality, and Gini coefficients based on net income (i.e. income after taxes/transfers) as the

measure of post-redistribution income inequality.
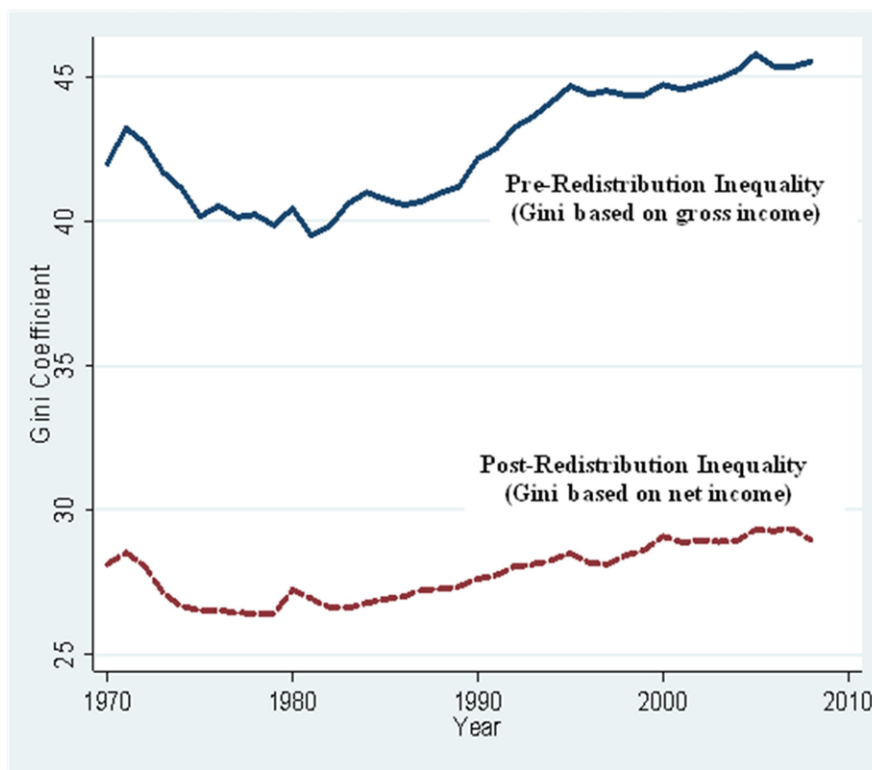
Figure 1.4: Mean Gini coefficient based on gross income and net income in 16 OECD countries,
    1970-2007
Data source: Frederick Solt, 2008-09, "The Standardized World Income Inequality Database,"
http://hdl.handle.net/1902.1/11992 V3 [Version]

In Figure 1.4, I present trends in the mean of two types of Gini coefficients—the Gini

coefficients based on gross income and the Gini coefficients based on net income-in 16 OECD

countries from 1970 to 2007. As one can see, the average income inequality of both types

dropped slightly in the late 1970s and then increased substantially after the 1980s. Gross Gini coefficients increased from around 40 in 1980 to almost 46 in 2008. Net Gini coefficients are lower than gross Gini coefficient, but it also increased from 27 in the late 1970s to almost 30 in 2008. As one can see, income inequality increased sharply in the 1980s and the 1990s, and the growth rate slowed down slightly after 2000. In Appendix 2, I also present the Gini coefficients in each of the 16 OECD countries over time.

Table 1.5: Income inequality of 18 OECD countries in 1980,1985,1990,1995, 2000, and 2005

Country	1980	1985	1990	1995	2000	2005	Change*
Australia	0.281	0.292	0.304	0.308	0.317		+
Austria		0.227		0.277	0.257	0.269	+
Belgium		0.227	0.232	0.266	0.279		+
Canada	0.289	0.284	0.281	0.284	0.315	0.318	+
Switzerland	0.309		0.307		0.28	0.268	-
Germany	0.244	0.268	0.257	0.273	0.275	0.278	+
Denmark		0.254	0.236	0.218	0.225	0.228	-
Spain	0.318		0.303	0.353	0.336	0.315	+
Finland		0.209	0.21	0.217	0.246	0.252	+
France	0.288	0.292	0.287	0.288	0.278		-
United Kingdom	0.27	0.303	0.336	0.344	0.347	0.345	+
Ireland		0.328		0.336	0.313		+
Italy		0.306	0.303	0.338	0.333	0.338	+
Luxembourg		0.237	0.239	0.235	0.26	0.268	+
Netherlands		0.26	0.266	0.257	0.231		-
Norway	0.223	0.233	0.231	0.238	0.25	0.256	+
Sweden	0.197	0.218	0.229	0.221	0.252	0.237	+
United States	0.301	0.335	0.338	0.355	0.368	0.372	+

*: + means income inequality increased in between the earliest and latest year shown, while – means income inequality has decreased in between the earliest and latest year shown.
Data source: Luxembourg Income Study Project

Although the SWIID dataset has data for more years, the income inequality measure from the LIS project is based on an original survey that is consistently compiled and carried out across countries. In order to check the robustness of the SWIID data, I have checked the correlation between the two measures. It turns out that the two measures are correlated 100%. I also present

the Gini coefficients that are based on surveys from the LIS project in Table 1.5. There are only Gini coefficients at six time points: 1980, 1985, 1990, 1995, 2000, and 2005, and the Gini coefficients are based on post-redistribution income. As one can see, in the 16 OECD countries that LIS examines, the Gini coefficient only decreased in four countries: Switzerland, Denmark, France, and the Netherlands. In the remaining 12 OECD countries, income inequality had either increased continuously, or shown a mixed trend with an overall increase during this time period.

Research Design

In order to answer the research questions guiding this research, I use game theory, quantitative analyses, and policy analysis. I first reveal the puzzle that immigration leads to increases in post-redistribution income inequality, but does not influence pre-redistribution income inequality by an initial quantitative analysis. Then I establish a theoretical framework to explain the mechanisms through which immigration could possibly influence income inequality.

I contend that even though some immigrants, i.e. low-skill immigrants, might earn less than average citizens, this group of immigrants cannot represent the whole immigrant population. Therefore, the lack of skills is not the sole reason that immigrants polarize post-redistribution income. Instead, immigrants' non-citizen (or even non-resident) status often renders them ineligible to participate in welfare programs. Since immigrants more or less all have limited or no access to welfare benefits, their economic situation can unanimously lag behind after redistribution. The restricted access of immigrants to welfare programs explains why immigration influences post-redistribution inequality, but not pre-redistribution on the macro level.

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That being said, the restricted access of immigrants to welfare programs is the key to the puzzle. In order to test this contention, I first analyze immigrant welfare policies to determine whether or not immigrants only have limited access to welfare programs in western developed countries. The Social Security Administration of the United States publicizes a policy document, *Social Security Programs throughout the World*, once every two years. This publication includes information on welfare policies relating to the five welfare programs: old-age pension, sickness benefits, work injury, unemployment and family benefits for each of the 16 OECD countries in each edition. By using content analysis, I code the following two questions for four welfare programs-old-age pension, sickness benefits, unemployment and family benefits-in each country for each edition: (1) what types of immigrants are eligible to receive benefits in this welfare program? (2) is there any time limit for immigrants to benefit from this program? Based on answers collected for these two questions, I create an "immigrant welfare eligibility score" (IWE score) to measure the strictness of the immigrant welfare policy in each country each year.

By examining the quantified IWE score and its trends, I discover that immigrants indeed only have limited access to welfare programs in these 16 OECD countries. In addition, immigrant welfare policy has become much stricter in many countries over the past four decades. I also further explore the determinants of the variability of immigrant welfare policy in the 16 OECD countries from 1970 to 2007. Since this question was seldom explored previously, I borrow evidence broadly from party platforms of political parties, media reports, and literature on immigration studies and institutional studies to support my arguments. I hypothesize that immigration, domestic politics, and contextual factors all explain the changes of immigrant welfare policies. More specifically, central secular parties and Christian Democratic parties seem to support immigrants' rights, while left wing parties and right wing parties do not seem to be

enthusiastic with supporting immigrants' rights. Constitutional structure and labor unions should also influence the policy-making process. Contextual factors like needy population, economic resources, and public political participation should also influence the policy-making process of immigrant welfare policies. By using a pooled time series and cross sectional analysis in which I use the IWE score as the dependent variable, with immigration, domestic political variables and social demographic variables serving as independent variables, I try to explore the determinants of immigrant welfare policy.

One might be curious about why western developed countries were motivated to change their immigrant welfare policies in the past four decades. Previous literature discovers that public opinion and policy preferences influences public policy-making. Based on this finding, it is natural for us to think that public support for welfare spending on immigrants might directly influence policy-making of the immigrant welfare policy. Therefore, I also study the connection between public opinion on immigrants and public support for welfare spending on immigrants. My argument is that the prevalent anti-immigration sentiment (or so called "xenophobia") in the contemporary western world might directly result in declining support for the welfare state in general, and low supports for welfare spending on immigrants particularly. In order to test this contention, I utilize data from three surveys—(1) the International Social Survey Program (ISSP), (2) the European Social Survey (ESS), and (3) the Eurobarometer surveys—to examine people's general attitudes toward immigrants in 16 OECD countries. I specifically examine people's attitudes on (1) immigrants' role in the national economy, (2) whether or not immigrants improve the society, (3) whether or not the number of immigrants should be reduced. I find that there is indeed a prevalent aversion toward immigrants. I quantify people's attitudes toward

immigrants on the above-mentioned three issues into three measures "Attitude 1," Attitude 2,"

and Attitude 3." I also generate a factor score "General Attitude" based on these three indicators.

I then study individuals' attitudes toward the welfare system and their support for giving

welfare benefits to immigrants. I particularly look at individuals' response to the following

questions: (1) How proud are you with the social security program in your country? (2) Does the

governments spend too much money assisting immigrants? For question (1), based on the

possible answers, I code respondents who answer "very proud" as 4, "somewhat proud" as 3,

"not very proud" as 2, and "not proud at all" as 1. Therefore, a higher value in this measure

indicates a higher level of support for the social security system in the respondent's home

country. I also quantify people's response to the question on "government spends too much

money assisting immigrants" into an indicator of "support for welfare spending on immigrants,"

with -2 meaning strongly agree, -1 meaning agree, 0 meaning neither agree nor disagree, 1

meaning disagree, and -2 meaning strongly disagree.

Lastly, I use quantitative analyses to study the connections between people's attitudes

toward immigrants and their support for social security programs based on the quantified

indicators. In two sets of ordered logit models, I try to determine if attitude toward immigrants

influences individuals' support for the social security programs in general, and for giving welfare

benefits to immigrants specifically. In other words, I try to determine if individuals who think

more highly of immigrants are more likely to be proud of the social security system in their

country, and whether or not they are more likely to support immigrants to receive welfare

benefits.

If I get the expected outcomes, up to this point, it is tested that immigrants are indeed

largely excluded from welfare programs in the western world, though there is some variation

across countries. It is not clear, however, if this is the reason that immigration influences post-redistribution income inequality. It would be ideal if one can gather data on the average welfare benefits received by a typical immigrant and a typical non-immigrant citizen in each country. That way we will be able to know whether or not immigrants fall behind economically on taking welfare benefits. However, this task is nearly impossible due to data availability issues. How do we know that immigrants' restricted access to welfare benefits is the reason that immigration only influences post-redistribution inequality? Again, I test this contention in a statistical analysis where I use immigrant welfare policy as the mediator variable between immigration and inequality.

In a pooled time series cross sectional analysis, I try to determine if the quantified "IWE score" (a measure of the strictness of immigrant welfare policy) mediates the relationship between immigration and post-redistribution income inequality. Theoretically, in countries with stricter immigrant welfare policy, immigration should have a larger positive effect on post-redistribution income inequality, because immigrants who are largely excluded from welfare programs would fall behind economically after redistribution. On the other hand, in countries with more generous immigrant welfare policy, immigration should have a smaller positive effect on inequality. The reason is that immigrants who can receive welfare benefits to some extent could catch up economically after redistribution. Statistical results should show that the strictness of immigrant welfare policy mediates the relationship between immigration and post-redistribution income inequality.

Plan of Dissertation

This dissertation project aims to provide insights on how immigration, as an important feature of globalization, influences pre- and post-redistribution income inequality. It contributes

to the research fields of both globalization, income inequality, and the welfare state. The structure of the dissertation is as follows.

In Chapter 2, I review plausible explanations for rising income inequality provided in previous literature. I also study the relationship between immigration and income inequality. In a statistical analysis with new data sources, I reveal the puzzle that immigration has a systematic influence on the post-redistribution income inequality, but not on pre-redistribution income inequality.

In Chapter 3, I discuss the theoretical framework in which I contend that western developed countries have largely restrained immigrants' access to welfare since the 1970s. Since immigrants are not eligible to receive various welfare benefits, they fall behind economically compared to native-born citizens after the redistributive process.

In Chapter 4, I systematically study the evolution of immigrant welfare policies in 16 OECD countries from 1970-2007. I also investigate the determinants of immigrant welfare policy changes in the western world.

In Chapter 5, I use survey data to show the connection between the attitudes toward immigrants and support for welfare spending on immigrants.

In Chapter 6, I further explore whether or not the lack of access to welfare programs is the major reason for immigrants to have an influence on post-redistribution income inequality. In a pooled time series and cross sectional analysis, I try to determine if immigrant welfare policy is a mediating factor for the relationship between immigration and inequality.

In Chapter 7, I conclude the dissertation with major findings of this dissertation and a discussion of the policy implications of these findings.

CHAPTER 2: A PUZZLE

Since the early 1970s, income inequality has increased substantially in many western developed countries (Morris and Western 1999; Ellwood 2000; Gottschalk and Danziger 2005; Mishel 2007; Piketty and Saez 2007; Goldin and Katz 2008; Bourguignon and Morrisson 2002; Milanović 2007). For instance, in the United States, the income gap between the rich and the poor has been rising steadily ever since the early 1970s (Atkinson 2003; Jacobs 2005; Bartels 2008; McCall 2005). Inequality has also risen dramatically in the UK since 1980; the Gini coefficient in the UK rose by 10 from 1984 to 1990 (Atkinson 2003). In the 1990s, inequality increased in about half of the OECD countries (Atkinson 2003).

Some scholars suggest that rising income inequality could be a threat to the workings of democracy (Jacobs 2005). Therefore, many scholars have strived to ascertain explanations for inequality. One notable explanation for changes in income inequality is economic development. According to Kuznets, who has studied patterns of income inequality in industrial countries, income inequality is supposed to first increase and then decrease as economy develops (Kuznets 1955; Kuznets 1953b). The relationship between economic development and income inequality should therefore be an inverted U-shape pattern. Such a pattern is called a "Kuznets curve," and is well tested with empirical data from many western developed countries. For instance, in the United States, inequality "peaked in the 1890s, remained stable for a few decades, and then turned to decline after the 1920s" (Alderson and Nielsen 2002; Kuznets 1955; Kuznets 1953a).

Most western developed countries should have passed the peak point in their income inequality level before 1970. Rising income inequality in these countries after the 1970s is a

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radical reversal to the "Kuznets curve" (Alderson and Nielsen 2002). In order to explain such a reversal, scholars have offered a variety of explanations. For example, Alderson and Nielsen (2002) ascribe the recent increase of income inequality to the integration of the world economy and globalization. According to Anderson and Nielsen, increasing foreign direct investment, "north-south" trade, and migration all contribute to rising income inequality in developed countries. Other scholars try to associate income inequality with the "distribution of power resources in society or civil society," which they argue "determines distributive outcomes directly in the market and indirectly through the state" (Bradley et al. 2003; Korpi 1978; Stephens 1976). Therefore, incumbent political parties, union density and constitutional structure should all determine who has power, and therefore influence distributive and redistributive outcomes. Other alternative explanations that have been studied in previous literature include changes in the labor force, sector dualism, demographic transitions, and corporatism.

In two previous cross-national studies which explore causes for the rising inequality, Bradley et al. (2003) and Alderson and Nielsen (2002) have both considered the effect of immigration. However, their respective findings regarding the effect of immigration on income inequality are contradictory. Alderson and Nielsen (2002) conclude that immigration has a significant positive effect on income inequality in OECD countries after the 1970s. Yet, Bradley et al. (2003) find that immigration does not have any influence on inequality in OECD countries after the 1970s. It remains a puzzle whether or not immigration accounts for the rising income inequality in western developed countries in the period following the 1970s.

In this chapter, I explore explanations for the rising income inequality in the western world after the 1970s, with the goal of finding out whether or not immigration contributes to the

rising inequality. I try to replicate the statistical analyses in the two previous cross-national studies as much as possible, but I use new and more comprehensive data sources for immigration and inequality. I differentiate two different types of income inequality-pre- and post-redistribution income inequality. Pre-redistribution inequality indicates the inequality of the incomes before redistribution (or income that is before taxation and transfers), while post-redistribution inequality indicates the inequality of the incomes after redistribution (or income that is after taxation and transfers).

This chapter contains five sections. In the first section, I introduce plausible explanations for rising income inequality that have been studied in previous literature. In section two, I examine the relationship between immigration and income inequality based on previous studies. I also develop two working hypotheses that are applied to the connection between immigration and pre- and post-redistribution inequality. In section three, I introduce the data and method that I use to test the two working hypotheses. In section four, I present the models and results of the empirical analyses. Finally, in the last section I discuss why the result of this initial exploration on the effect of immigration on inequality turns out to be a puzzle.

Plausible Explanations for Rising Income Inequality

The recent increase in income inequality in many western countries has attracted attention from many political scientists. Plausible explanations that have been suggested in recent studies include globalization such as rising foreign direct investment, "north-south" trade, and migration (Alderson and Nielsen 2002), economic development factors like labor force changes, sector dualism, and demographic transition (Kuznets 1955; Alderson and Nielsen 2002), political institutional factors like ideology of incumbent parties, labor institutional factors like

union density (Stephens 1976; McCarty et al. 2006; Bartels 2008), and other institutional factors like the constitutional structure and corporatism. Scholars have made explicit arguments about why these factors are linked with income inequality, and I briefly summarize these arguments in this section.

Globalization

Foreign Direct Investment Alderson and Nielsen (2002) summarize the three reasons why foreign direct investment (FDI) by multinational enterprises (MNEs) might lead to increases in income inequality in developed countries.[8] First, with FDI, MNEs transfer capital from developed countries to developing countries, which might result in deindustrialization in developed countries (Bluestone and Harrison 1982; Alderson and Nielsen 2002). Deindustrialization will possibly entail the movement of industrial workers to other sectors, or it can result in some industrial workers losing their jobs. Such change in the labor market consequently leads to a decline in workers' earnings, and in turn, a rising level of income inequality (Alderson and Nielsen 2002).

The second reason is that the bargaining position of labor under MNEs is weak, because the labor under MNEs is dispersed, fragmented, and hard to organize (Alderson 1997; Ietto-Gillies 1992; Alderson and Nielsen 2002). With FDI, the bargaining power of labor under MNEs will be even weaker when the MNEs dispatch some labor abroad. Since wage bargaining power of the labor is an important mechanism to depress income differentials between blue-collar and white collar workers, the expansion of MNEs is associated with a potentially high inequality level.

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[8] Multinational enterprises (MNEs) here refer to enterprises or corporations that operate in multiple countries. They can also be called international enterprises sometimes.

The third reason is that FDI might cheapen domestic labor. With FDI, MNEs can insulate competition by hiring labor abroad (Huizinga 1990; Alderson and Nielsen 2002). The competition will possibly result in a wage drop of domestic labor. Since FDI outflow normally focuses on "low-skill jobs." FDI might in turn reduce the demand for low-skill labor domestically (Lee 1996). Low-skill workers at home will experience a decline in their earnings, which will directly make income inequality increase. Since FDI takes capital out of the country on one hand, and hires less domestic labor, on the other hand, in a long run there will be less capital and excessive labor in the home country. Therefore, "the marginal product of labor will fall and the marginal product of capital will rise" (Alderson and Nielsen 2002). In other words, people who make money with capital will have higher returns, but people who make money with labor will make less money than before. The diverging returns of capital and labor will also result in rising income inequality.

To sum up, FDI outflow may lead to rising inequality in western developed countries because it "prompts deindustrialization," "weakens the bargaining power of labor," "redistributes income from labor to capital," "reduces the demand for low-skill labor," and "cheapens labor at home" (Alderson and Nielsen 2002).

International Trade Alderson and Niesen (2002) and Wood (1994) also suggest that international trade might lead to increasing income inequality in developed countries, especially trade with developing countries. According to these scholars, there are two reasons that international trade might influence inequality. First, importation of goods and products from developing countries brings workers in developed countries into direct competition with workers in the developing countries. Such competition might bring down domestic workers' wages and

salaries; or even sometimes put job opportunities in developed countries at risk (Alderson and

Nielsen 2002). Second, international trade might enlarge the income gap between high- and low-

skill workers. Wood (1994) shows that in OECD countries, international trade with developing

countries induces a domestic demand for high-skill labor relative to low-skill labor, which results

in a diverging return to high- and low-skill labor.

Migration According to Alderson and Nielsen (2002), Bradley et al. (2003) and Borjas

(2000), migration might also be an explanation for the rising income inequality. There are two

possible explanations. First, the rising trends of immigration coincide with increasing inequality

in many western countries (Alderson and Nielsen 2002). This fact that immigration and

inequality increase at the same time shows a possibility of a connection between the two.

Secondly, scholars have also pointed out that the skill sets of immigrants to OECD countries are

highly bifurcated, meaning that many immigrants are either with low skill sets or high skill sets,

but relatively few immigrants have medium skill sets (Borjas 2000; Alderson and Nielsen 2002;

Bradley et al. 2003). Therefore, when immigrants with bifurcated skill sets enter a destination

country, the gap between the rich and poor will increase.[9]

All in all, globalization is believed to have an influence on income inequality. Features of

globalization like foreign direct investment, international trade, and international migration are

all believed to be associated with rising income inequality. Just like Hatton and Williamson

(1998; c.f. Alderson and Nielsen 2002: 1256) point out, two periods of the human history—the

period from 1870 to 1913 and the second half of the 20th century—are both characterized by

"expanding international trade, convergence between poor and rich nations, and large population

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[9] More detailed discussion about immigration and inequality in OECD countries will be presented in the next section.

movements." Such features all lead to increasing inequality in the "relatively rich, people-importing nations of the time, including Argentina, Australia, Canada, and the United States" (Alderson and Nielsen 2002; Hatton and Williamson 1998).

Economic development

Scholars have found that economic development is associated with changes in income inequality; especially, factors like the level of economic development, changes in the labor force, sector dualism, and demographic transitions can all influence income inequality.

Level of economic development The Kuznets hypothesis suggests that as the economy develops, income inequality should first increase, and then peak, level off, and finally decrease (Kutznets 1953; 1955). Therefore, the relationship between economic developments on income inequality should be an inverted U-shape. For societies that are at relatively high levels of development, income inequality should be declining as the economy further develops. Since the western developed countries that I examine in this dissertation should all have passed their peak point in the income inequality level, they are supposed to have a declining income inequality as their economy further develops (Alderson and Nielsen 2002). Therefore, the relationship between the level of economic development and inequality is expected to be negative in the countries examined in this dissertation.

Changes in the labor force Changes in labor force participation or unemployment might influence both pre- and post-redistribution income inequality. A large unemployed population will enlarge the low-income group, and therefore widen the income differentials of the society (Alderson and Nielsen 2002). A high unemployment rate is therefore associated with a high level of pre-redistribution income inequality. However, a high unemployment rate will also result in

more unemployed workers claiming unemployment benefits and other income replacements. With many people claiming welfare benefits, the amount of redistribution will enlarge. Consequently, post-redistribution income inequality might even decrease (Alderson and Nielsen 2002). In other words, the relationship between unemployment and pre-redistribution inequality can be positive, but the relationship between unemployment and post-redistribution income inequality can be negative.

Sector dualism Kuznets (1955) points out that the agricultural and non-agricultural sectors have different productivity levels and wages. Productivity and wages are both low in the agricultural sector, but they are high in non-agricultural sectors. Such a wage and productivity difference among sectors is called "sector dualism." Under industrialization, as the agricultural sector shrinks and non-agricultural sectors expand, the labor force shifts from the agricultural sector to non-agricultural sectors. When such a shift takes place, income levels between agricultural labor and non-agricultural labor will diverge, and income inequality will in turn increase (Alderson and Nielsen 2002; Kuznets 1955). Considering that most western developed countries have not yet completed the transition out of agriculture, sector dualism might still be a contributing factor to inequality (Alderson and Nielsen 2002). A higher proportion of labor in agriculture should be associated with lower levels of inequality.

Demographic transition Demographic transition is another feature of development that might exert some influence on income inequality. There are three demographic factors that belong to this category. First of all, the age distribution of the population influences the income distribution of the society. A large young population in a society makes a large low-income group, and therefore widens the income differentials. The proportion of young population should

therefore have a positive effect on income inequality (Kuznets 1955; Lindert and G. 1985; Williamson 1991). Secondly, population growth might influence income inequality. If a society has a fast-growing population, it means that there will be a large group of young population entering labor force, which will contribute to rising income inequality in a long run (Kuznets 1955; Lindert and Williamson 1985; Williamson 1991). Therefore, the population growth rate should also have a positive effect on income inequality.

Third, the proportion of female who participate in the labor force can also influence income inequality, however, the effects on income inequality among individuals and households are different. More female participating in the labor force could lead to an increase in individual level income inequality, but leads to decreases in family or household income inequality. According to Thurow (1987), women on average earn less than men; therefore, their joining in the labor force will enlarge the low income group and lead to rising individual income inequality. However, Cancian, Danziger, and Gottschalk (1993) claim that, more female participating in the labor force will "produce more families with incomes near the middle of the income distribution, leading to a reduction of inequality" (c.f. Alderson and Nielsen 2002: 1261; Cancian et al. 1993). Since this dissertation examines income inequality among households, one can therefore expect female labor force participation to have a positive effect on household income inequality.

Institutional factors

Korpi (1978) and Stephens (1976) establish a "power resources theory" to connect the power distribution with income inequality. According to the power resources theory, the "distribution of power resources in a society determines distributive outcomes" through two channels—"directly through the market and indirectly through the state" (Bradley et al.

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2003:197). In democracies, freedom of association allows different classes to organize, mobilize, and lobby, which generates a balance to the state power. For example, unionization results in "a shift of power in the market toward the union members," while social democratic parties together with "the support of unions and allied parties of the left" leads to "shifts in political power that direct state policy toward more redistribution" (Bradley et al. 2003: 197). Factors like leftist parties, Christian Democratic parties, unionization, corporatism, and constitutional structure can all influence inequality.

Social Democratic Parties and other Leftist Parties Leftist political incumbent parties often represent the poor and the working class, and therefore support more redistribution. According to the power resources theory, "longer periods of rule by the left will be associated with greater social spending ceteris paribus and that the distributive profile of the welfare state will be more favorable to lower-income groups. Taxes are more progressive and transfers and publicly provided services are more equally distributed in welfare states developed under social democratic governments" (Bradley et al. 2003: 197). Therefore, there should be a negative relationship between the rule of leftist parties and income inequality. A typical example is the Social Democratic Party in Sweden, which ruled Sweden for more than 40 years in the 20th century. Sweden consequently developed the most generous welfare state, and achieved one of the lowest income inequality levels in the world (Huber and Stephens 2001; Bradley et al. 2003).

Sawyer (1976) and Bradley et al. (2003) both collect data on advanced industrial countries to examine how institutional factors influence pre- and post-redistribution income inequality. According to these scholars, the strength of leftist parties in the government is negatively associated with post-redistribution income inequality. Therefore, I expect that partisan

incumbency like Social Democratic parties or other leftist parties to have a negative effect on post-redistribution income inequality.

Christian Democratic Parties Christian Democratic parties can also support more social welfare spending, although the welfare state under Christian democratic parties is less redistributive (Bradley et al. 2003). According to Kalyvas (1996), Christian democratic parties have a unique identity-on one hand, they are secular (rather than religious); on the other, they are not like conservative parties because they have connections with trade unions and they support welfare and social policies. Because of Christian Democratic Parties' support for welfare spending, one can also suppose that it has a negative effect on income inequality, although the effect might not be as obvious as the leftist parties.

Union density A strong union is directly associated with strong wage bargaining power, and lower "wage differential between blue- and white-collar workers" (Alderson and Nielsen 2002:1263). Instead, a weak union is associated with large wage differentials. Several scholars have argued that the recent experience of rising income inequality in western developed countries is due to declining unionization (Freeman 1993; ILO 1996; Western 1995). For example, Freeman (1993) finds that inequality increases the least in countries with the strongest unions, while deunionization accounts for about 1/5 of the rising inequality in the 16 OECD countries in the 1980s (c.f. Alderson and Nielsen 2002: 1263). Sawyer (1976) and Bradley et al. (2003) find that union density is strongly associated with pre-redistribution income inequality in advanced industrial countries. Therefore, one can expect a negative effect of union density on pre-redistribution inequality.

Corporatism (wage bargaining coordination) Corporatism refers to "a set of institutional arrangements designed to achieve cooperation and consensus between labor, capital, and the state in the setting of national economic and social policy" (Alderson and Nielsen 2002; Schmitter 1974; Cameron 1984; Lehmbruch 1984; Gary 1986). The level of corporatism in a country directly influences the wage setting mechanism. In a country with strong corporatism, centralized business associations, trade unions, and the state have strong ties and could well coordinate with each other on setting the wages (Alderson and Nielsen 2002: 1263). Strong corporatism is therefore associated with "flatter distribution of earnings, a smaller blue-collar/white-collar wage differential, and, ultimately, lower household income inequality" (Alderson and Nielsen 2002: 1263; Cameron 1984). Instead, in a country with low levels of corporatism, "wage differentials within and across firms and industries and, ultimately, within nations" are supposed to be wide (Alderson and Nielsen 2002: 1263; Cameron 1984). Empirical evidence also shows that wage-bargaining systems have a strong effect on wage inequality among workers who work full-time (Wallerstein 1999; Pontusson et al. 2002). Therefore, one can expect a negative effect of corporatism on pre-redistribution income inequality.

Constitutional structure veto points Constitutional structure veto points refer to "points in the political process at which legislations can be blocked" (Bradley et al. 2003: 199). For instance, federalism, presidential system, proportional representation electoral system, bicameralism, and systems with referendum, judicial review, and relatively weak authoritarian legacies all provide points where legislations can be obstructed (Huber and Stephens 2001; Bradley et al. 2003). Typical examples of systems with very few veto points are "the unicameral, unitary parliamentary systems of Scandinavia in which the party or coalition of parties with a single-seat majority in the national legislature can pass any policy it desires." (Bradley et al.

2003: 199-200) An example of a country with many veto points is "the strongly bicameral, federal, presidential system of the United States, in which legislation may find itself not only blocked by either house or the president but also not even under the full control of the federal government" (Bradley et al. 2003: 199-200). The presence of more constitutional structure veto points could prevent a welfare state from expanding or retrenching because policy changes or legislative initiatives can be easily obstructed (Bradley et al. 2003; Huber and Stephens 2001). Since constitutional structure veto points makes policy changes difficult, more veto points in a system makes reversing the existing policies extremely hard. Constitutional structure veto points partially explain why the welfare state in countries like the United States did not expand as much as Scandinavia countries in the second half of the 20th century.

Linking Immigration with Inequality

A large influx of immigrants might very possibly lead to changes in domestic economic outcomes. Previous literature shows that in some western developed countries, immigrants are paid on average less than citizens because of their low skill sets, language barriers, or various other reasons (Borjas 2000, 1994a; Borjas and Tienda 1987; Hanson 2007; Borjas 1987). They might also reduce the already low salary of the native low-skill workers because of the added competition that they bring to the low-wage labor market (Borjas 2004). Even though there might be high-income or highly skilled immigrants, such as intellectuals or engineers, they might enlarge the income differentials as well. All in all, evidence seems to show that immigration increases the income differentials between the rich and the poor in destination countries. However, low-skill immigrants might receive some welfare benefits from the government, while the high-skill immigrants have to inevitably pay more taxes. Therefore, after receiving welfare benefits and paying taxes, the income gap might actually be reduced by expanded immigration.

In this section, I address these issues and discuss the effect of immigration on pre- and post-redistribution income inequality.

Immigration and pre-redistribution income inequality

Depending on their contribution to the economy in destination countries, immigrants entering OECD countries can be categorized as two groups. First, there is what I call the "immigrant asset" scenario, in which immigrants are assets to the destination countries. This scenario occurs either when immigrants are highly skilled or when immigrant labor is in demand. Immigrants who are an asset do not normally threaten job opportunities for native workers, nor do they bring a fiscal burden to the government. For example, international students who stay after their study and work in professions like the law, medicine, science and technology, and other highly-paid industries all belong to this category. According to OECD data, in 2000 highly-educated immigrants in both Canada and New Zealand outnumbered poorly-educated or moderately-educated immigrants and became an important asset of both countries (OECD 2000). This group of high-skill and highly educated immigrants might make a high-income immigrant group in the destination countries.

On the other hand, there are many immigrants who belong to the "immigrant as a burden" group. First of all, because of their language differences and relatively low skill, many immigrant workers are disadvantaged in the labor market and paid less than their native counterparts. This might potentially enlarge income differentials, both by introducing new members of the labor force who have relatively low wages and by lowering the wages of native citizens who are in the low-wage labor market. Many researchers have studied the income status of immigrants, finding that on average immigrants earn less than their native counterparts. For example, Borjas (1994a) finds that newly arrived immigrants earn about 17 percent less than native-born Americans in the

United States. Hanson (2004) also finds that "immigrants earn less than US natives and tend to be employed in low-wage occupations." Similar evidence has been found in other countries. For instance, in Denmark refugee immigrants make much less than non-refugee immigrants and Danish-born workers (2000). In France, immigrants earn less than native French workers. In 1970, the average income of a native-born French worker was 2400 Francs, but on average immigrant workers only earned 1300 to 1700 francs (Marciano 1975). In the Netherlands, scholars find that natives earn 11.8% more than the Antilleans immigrants, 22.9% more than the Surinamese immigrants, 36.9% more than Turks, and 42.9% more than Moroccans (Kee 1995). In Germany, Seifert (1997) finds that about 60% of the foreign-born population was hired as low skilled or semi-skilled workers in 1993, and the likelihood that they would move to high-skill occupations was relatively low.

To summarize, in previous literature, immigrants are often depicted either as high-skill or low-skill. Both of the two immigrant groups will increase income differentials of the labor force. Therefore, I speculate that there is a positive relationship between immigration and pre-redistribution income inequality.

Immigration and post-redistribution income inequality

Due to their low-income status, many low-income immigrants are eligible to participate in means-tested welfare programs before the destination country restrains immigrants' access to welfare. This causes immigrants to be overrepresented in the welfare programs of many western developed countries in the early ages (Hanson 2004; Defoort and Drapier 2010; Peterson and Rom 1990; Levine and Zimmerman 1999; Frey et al. 1996; Riphahn 2004). Evidence has shown that immigrants disproportionally participate in welfare programs before any welfare reforms in

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countries like the United States, United Kingdom, Germany, Sweden, and Australia. For example, Borjas (1994) finds that in the United States, the percentage of immigrants participating in welfare programs continued rising, and the dollar cost on immigrant welfare recipients rose even faster throughout 1970-1990. According to Borjas, "only 8.4 percent of the households are foreign-born, but these households accounted for 10.1 percent of all households that received public assistance, and for 13.1 percent of the total cash assistance distributed" (Borjas 1994).

Riphahn (2004) finds that "the share of immigrants in the German social assistance program exceeds their population share and continues to grow." In Sweden, by studying a large panel data set for the years 1990 to1996, Hansen and Lofstrom (2003) find that "immigrants use welfare to a greater extent than natives and that differences cannot be explained by observable characteristics". In Australia, Khoo (1994) finds that immigrants are more likely to depend on welfare than native Australians. According to Khoo, immigrants from Vietnam, Lebanon and Turkey, as well as refugees, were more likely than others to be dependent on welfare (Khoo 1994). In the United Kingdom, the same evidence is revealed by Barrett and McCarthy (2008), who find that immigrants in the United Kingdom also "use welfare more intensively than natives".

Since immigrants participate in welfare programs even more than citizens, at least before the destination countries set eligibility requirements for immigrants, low-skill immigrants should catch up economically after redistribution. The income differentials after redistribution should be reduced. Based on these arguments, I develop the following two hypotheses:

H1: Immigration should have a positive effect on pre-redistribution income inequality.

H2: The positive effect of immigration on post-redistribution income inequality should be

smaller than the one on pre-redistribution income inequality.

Data and Methods

In order to test the two hypotheses, I utilize data from 16 OECD countries from 1970 to

2007. I estimate two pooled time series and cross sectional models by using panel corrected

standard errors (PCSE), because of the autocorrelated errors and heteroskedasticity problems

associated with panel data (Beck and Katz, 1995). The models estimated assume a

heteroskedastic error structure across panels and are estimated using panel-specific estimates of

first-order autocorrelation.

In the first model, I use pre-tax/transfer income inequality as the dependent variable,

while in the second model I use post-tax/transfer income inequality as the dependent variable. In

both models, I use net migration rate as the key independent variable, and also include a full set

of political institutional variables, labor institutional variables, and social demographic variables

as control variables. Descriptions of the key variables are listed as follows. Detailed

measurements and data sources of the variables are specified in Appendix 3.

Pre-tax/transfer income inequality and post-tax/transfer income inequality I utilize the

gross gini coefficient and net gini coefficient from SWIID as a measure of pre-tax/transfer

income inequality and post-tax/transfer income inequality. The gross gini coefficient is based on

gross income, i.e. income before taxes/transfers; while net gini coefficient is based on net income,

i.e. income after taxes/transfers. Both measures are calculated by Solt (2009), who uses a custom

missing data algorithm to standardize the income inequality measure from the UNU-WIDER

WIID by using the LIS dataset as the standard.

Net migration rate Net migration rate is used as a measure of immigration. It is calculated by the following equation: (Inflow of migrants-outflow of migrants)/1000 inhabitants. Data on migration rates are collected from OECD International Migration Statistics.

Left seats Left seats is calculated as the percentage of total seats in parliament for left parties. Data on left seat are from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Christian Democratic seats Christian Democratic seats is calculated as the percentage of total seats in parliament for Christian Democratic parties. Those parties contain all center and right "Christian" and "Catholic" parties. Data on Christian Democratic seat are from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Constitutional structure veto points Constitutional structure veto points is a summation of seven factors: federalism, presidential system, electoral system (single member districts, or proportional representation), strength of bicameralism, referendum, judicial review and authoritarian legacies. Veto points is measured for each country and each year, however, the number of veto points did not change over time in all countries except for Belgium, Italy and New Zealand. Data on the seven factors are from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Union density Union density is measured as net union membership as a percentage of total wage and salaried employees. Data on union density are also collected from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Corporatism (Wage coordination power) Wage coordination power is measured as a 1-5 scale wage setting coordination scores with 1 meaning fragmented wage coordination, and 5 meaning coordination with a strong union concentration, high level of pattern setting and coordination between industries. Wage coordination power is measured for each country and each year, however, it did not change in France, Germany and Switzerland over the entire time frame. Data on wage coordination power are also collected from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Unemployment rate Unemployment rate is measured by total labor unemployed as a percentage of total labor force. Data on unemployment rate are collected from the Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).

Population growth Population growth is the growth rate of population; it is calculated by subtracting the population from the previous year from the population in the current year, then dividing the difference by the population from last year. Data on population growth rate are from OECD Statistics and Penn World Table.

Female labor participation Percentage of female age 15 to 64 in the labor forces. Data on female labor participation are from OECD Statistics, CWS Dataset.

Agricultural labor Percentage of agricultural productions in all sectors. Data on agricultural labor are from OECD Statistics.

Total trade Total trade as a percentage of GDP. Data on total trade are from OECD Statistics.

Youth population Youth population is the population under 15 years old divided by total population. Data on youth population are from CWS Dataset.

Capital openness Liberalization of inward and outward capital account transactions. It ranges from 0 to 4. Capital openness is measured for each country and each year. Data on this variable are from CWS Dataset.

FDI inflow Inward foreign direct investment as a percentage of GDP. Data on this variable are from the International Monetary Fund and Swank (1998).

FID outflow Outward foreign direct investment as a percentage of GDP. Data on this variable are from the International Monetary Fund and Swank (1998).

Real GDP per capita Real GDP per capita is a measure of the level of economic development. Data on this variable are from the OECD Statistics and World Bank.

Fixed effects I include a variable called linear trend to control the fixed time effects. Linear trend is coded as 1970=1, 1971=2,…2009=40.

Findings

The results of the two models are shown in Table 2.1. In model (1) of Table 2.1, I use pre-redistribution income inequality as the dependent variable, and net migration rate as the independent variable. I have included left seat, Christian Democratic seat, constitutional structure veto points, union density, wage coordination power, population growth, young population, capital openness, female labor force participation, agriculture labor, total trade, FDI inflows, FDI outflows, and real GDP per capita as control variables. To my surprise, net migration rate does not have any significant effect on pre-redistribution income inequality. Instead, factors like left

seat (b=0.032, z=1.89), constitutional structure veto points (b=0.665, z=2.62), wage coordination power (b=0.118, z=2.13), union density (b=0.069; z=3.37), agriculture labor (b=0.470, z=4.53), capital openness (b=0.785, z=3.00) and linear trend (b=0.116, z=1.76) all have a positive and significant effect on pre-redistribution income inequality.

More specifically, one unit increase in left seat is associated with 0.032 unit increase in pre-redistribution income inequality. One unit increase in constitutional veto points is associated with 0.665 unit increase in pre-redistribution income inequality. One unit increase in wage coordination power leads to 0.118 unit increase in pre-redistribution income inequality. One unit increase in union density leads to 0.069 units increase in pre-redistribution income inequality. One percentage increase in agriculture labor corresponds with 0.470 unit increase in pre-redistribution income inequality. One unit increase in capital openness leads to 0.785 unit increase in pre-redistribution income inequality. One unit increase in the linear time trend is associated with 0.116 unit decrease in pre-redistribution inequality.

The findings are quite contradictory from my expectation. Not only does immigration not have a significant effect on pre-redistribution inequality, the effects of left seat, wage coordination power, union density, and agriculture labor are all with an opposite direction. Left seat, wage coordination power, union density, and agriculture labor are all supposed to have a negative effect on pre-redistribution income inequality, but the results for these coefficients turn out to be the opposite. The coefficients of constitutional structure veto points and capital openness are within my expectation. It seems like more veto points is associated with higher levels of income inequality. The fact that capital openness has a positive effect on pre-redistribution income inequality indicates that globalization leads to increasing income inequality.

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Table 2.1: Pooled time series vs. cross national analysis on pre- and post-tax/transfer income inequality

Variable	Pre-redistribution inequality		Post-redistribution Inequality	
	b	z	b	z
Net Migration Rate [+]	0.044	1.55	0.051	2.91**
1-year lag Left Seat [-]	0.032	1.89*	-0.002	-0.27
1-year lag Christian Democratic Seat [-]	0.021	0.85	-0.038	-3.10
1-year lag Veto Points^{+/-}	0.665	2.62**	1.010	7.17***
Wage Coordination[-]	0.118	2.13*	0.013	0.35
Union Density[-]	0.069	3.37***	-0.057	-5.58***
Population Growth [+]	-0.002	-0.03	0.002	0.09
Youth Population[+]	0.100	0.71	0.197	2.74**
Unemployment Rate[+]	0.041	0.63	0.002	0.05
Female Labor Participation[-]	0.018	0.70	-0.076	-4.22***
Agricultural Labor[-]	0.470	4.53***	0.516	9.47***
Total Trade[+]	0.029	1.25	0.007	0.51
FDI Inflow[+]	0.039	0.50	0.035	0.77
FDI Outflow[+]	0.007	0.14	-0.013	-0.43
Capital Openness[+]	0.785	3.00**	0.116	1.08
Real GDP per capita^{+/-}	-0.0003	-0.31	0.00002	0.51
Linear trend[+]	0.116	1.76*	0.172	4.52***
Intercept	21.407	3.80***	17.560	5.60***
N	327		327	
Number of groups	16		16	
Wald χ^2	70.36		772.72	
Prob (χ^2)	0.0000		0.0000	

***prob< 0.001 one-tail test   ** prob< 0.01 one-tail test   * prob< 0.05 one-tail test

In model (2) of Table 3.1, I use post-redistribution income inequality as the dependent variable, with net migration rate as the primary independent variable. I also include the same set of control variables in this model. It turns out that net migration rate shows a positive and strongly significant effect on post-tax/transfer income inequality (b = 0.051; z = 2.91). One unit increase in net migration rate is associated with 0.051 unit increase in post-redistribution inequality. It seems that a higher level of immigration indeed leads to increasing inequality. Among the control variables, constitutional structure veto points (b = 1.010; z = 7.17), youth population (b=0.197, z=2.74), agricultural labor (b = 0.516; z = 9.47), and linear trend (b=0.172, z=4.52) all have a positive and significant effect on post-redistribution inequality. One unit increase in veto points is associated with 1.010 unit increase in post-redistribution Gini coefficient. One unit increase in youth population leads to 0.197 unit increase in post-redistribution inequality. One unit increase in agricultural labor is associated with 0.516 unit change in post-redistribution inequality. Post-redistribution inequality also increases 0.172 unit every year, even after considering all other factors.

On the other hand, factors like union density (b= -0.057; z= -5.58) and female labor force participation (b = -0.076; z = -4.22) both have a negative and significant effect on post-redistribution inequality. One unit increase in union density is associated with 0.057 unit decrease in post-redistribution income inequality, while one unit increase in female labor force participation leads to 0.076 unit decrease in post-redistribution inequality.

These results are almost all within my expectations. To be more specific, the result on net migration rate shows that migration does lead to an increasing post-redistribution inequality level. The result on constitutional veto points shows that more veto points leads to higher income

inequality levels, which indicates that the current policies in the western world are not leaning toward lower classes. The fact that union density has a negative effect on the dependent variable shows that union density does help lower class to receive more benefits and catch up with the other income groups economically. The result of youth population also verifies that young people as a low-income groups contributes to large income differentials. The fact that female labor force participation leads to decreases in post-redistribution income inequality verifies that more female joining in labor force equalizes the income among households. However, the result on agricultural labor is contradictory with the expectation- agricultural labor is supposed to have a negative effect on post-redistribution income inequality, but it turns out that the effect is positive.

All in all, the results from Model (2) verify that globalization (migration), institutions (union density), and demographic transitions (youth population and female labor force participation) all have an effect on income inequality. The direction of the effect of agriculture labor is not consistent with my expectations. It might be that the relationship between agriculture labor and inequality should be a U-shape pattern, as suggested by the Kuznets hypothesis. In other words, when agriculture labor exits to non-agriculture sectors to some extent, inequality should achieve equilibrium; further labor exiting agricultural sector will lead to decreases in inequality.

Conclusion

What does the result tell us? First and foremost, immigration does contribute to rising income inequality. However, immigration only influences post-redistribution income inequality,

but not pre-redistribution income inequality. This is exactly the opposite from what one would expect.

The reason might be that, although some types of immigrants (i.e. low-skill immigrants and high-skill immigrants) might polarize the incomes between the rich and the poor, all the immigrants as a whole group do not have a systematic influence on the pre-redistribution income inequality. It might also be true that immigration has a significant and positive effect on pre-redistribution in some countries, but when I aggregate data from all 16 countries, the effect of immigration is cancelled out.

However, immigration does have a positive and significant effect on post-tax/transfer income inequality. In other words, immigrants polarize the income among members of the society after everyone pays tax and receives welfare benefits. At first glance, the result does not seem to make logical sense. However, with some further consideration, the result actually makes perfect sense. Although the literature dominantly depicts immigrants as "needy welfare dependents," many western countries actually have made adjustments to their immigrant welfare policies. Many of the national governments require immigrants to have permanent residence in order to receive welfare benefits, or governments sometime set a waiting time for immigrants to be eligible to claim welfare benefits. As a result, in recent years many immigrants are denied or restricted access to welfare benefits in the destination countries. Such an exclusion from the welfare programs sets their economic situation back and enlarges the income differentials between immigrants and citizens. In the next chapter, I discuss in a theoretical sense why the destination countries choose to change their immigrant welfare policies and exclude immigrants from the welfare system.

CHAPTER 3: IMMIGRATION, CHANGES IN THE WELFARE POLICY, AND INCOME INEQUALITY

As we know from Chapter 2, immigration does not seem to have an effect on pre-redistribution income inequality but rather leads to increases in the post-redistribution income inequality. In this chapter I explore this puzzle from a theoretical perspective. The central theme is that the presence of immigrants leads to a prevalent anti-immigrant emotion among the general public, which results in eroding public support for welfare. In order to balance the budget and relieve the fiscal burden that is caused by immigrants' over participation in welfare programs, policy makers are motivated to find solutions. A typical policy change that destination countries adopt is to change the eligibility rules and exclude immigrants from welfare programs.

I also contend that the effect of immigration on the big picture of income distribution varies in countries with different immigrant welfare policies. In countries that largely exclude immigrants from the welfare system, income inequality increases due to immigration because there is not a safety net to guarantee the basic income of the newcomers. In contrast, in countries that generously incorporate immigrants in welfare programs, immigration does not have as much effect on income inequality because immigrants are guaranteed a safety net income.

There are four sections in this chapter. In section 1, I discuss the possible influence of immigrants on the national economy after they arrive to destination countries. In section 2 I contend that the large influx of immigrants, combined with the fact that immigrants are regular participants in welfare programs, increases the resentment toward immigrants and corrodes public support for the welfare system. In section 3, I discuss possible welfare policy changes that destination countries make to respond to declining levels of support for welfare, and I then use

game theory to explain why the easiest policy solution for destination countries is to restrain immigrants' access to welfare programs. Finally, in section 4 I discuss the implications of welfare policy changes on the overall level of income inequality in destination countries. I contend that rising income inequality is more likely to occur in countries with more stringent immigrant welfare policies, and less likely to occur in countries with more relaxed immigrant welfare policies, and I explain why that is the case.

Immigrants as a Threat and Burden

As noted in Chapter 2, immigrants entering OECD countries can be categorized as two basic groups. First, there is what I call the "immigrant asset" scenario, in which immigrants are assets to the destination countries. For example, high-asset immigrants include the highly-educated immigrants that are attracted to Canada and New Zealand, as well as seasonal agricultural workers from Bulgaria and Romania that are attracted to the United Kingdom (OECD 2008; OECD 2000).[10] Although there are many immigrants who belong to the "immigrant asset" group, immigrants in OECD countries are still dominantly perceived as a "threat" to the destination countries. In the "immigrant threat" scenario, immigrants are depicted to cause more competition in the domestic labor market, threaten job opportunities for native workers, rely on social welfare benefits, and bring a fiscal burden to the destination countries. One major reason for immigrants to be perceived as a "threat" or "burden" is because of their over participation in various welfare programs.

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[10] According to OECD data, in 2000 highly-educated immigrants in both Canada and New Zealand outnumbered poorly-educated or moderately-educated immigrants and became an important asset of both countries. The United Kingdom uses its Seasonal Agricultural Workers Scheme and the Sector-Based Scheme to attract seasonal workers from abroad to satisfy its low-skill labor shortage.

Due to their low-income status, low-skill immigrants are overrepresented in means-tested welfare programs, especially before the destination countries set eligibility rules to exclude immigrants from welfare programs (Hanson 2004; Defoort and Drapier 2010; Peterson and Rom 1990; Levine and Zimmerman 1999; Frey et al. 1996; Riphahn 2004). Evidence that immigrants disproportionally participate in welfare programs has been documented in many countries like the United States, United Kingdom, Germany, Sweden, and Australia. Such a fact has been well covered by the media, which triggers a prevalent anti-immigrant emotion.

There are several reasons that prompt the public to perceive immigrants as a threat. First, immigration results in greater competition in labor markets, and this could potentially lead to job losses among the natives and reduction of wages and salaries of native labor. Such effect has been shown to happen in European countries as well as the United States. Angrist and Kugler (2003) find that in European countries, immigrants have a negative effect on the job opportunities of native citizens, although the effect is mediated by the labor and product market institutions. According to Borjas (2004), immigrant workers coming to the United States between 1980 and 2000 reduced the average annual salary of native-born Americans by about $1,700, or 4 percent. Native-born Americans without a high school education are affected even more severely, with a 7.4 percent drop in their salary.

Second, the unemployment rate among immigrants is higher and increases at a faster rate than that for natives. This can be a potential risk for economic health, public safety, and societal stability (Camarota 2004; Camarota and Jensenius 2009b). OECD data indicate that in most OECD countries since the 1970s, immigrants have a higher unemployment rate than natives (OECD 2007). Backlund (2002) finds that in Sweden, the unemployment rate among immigrants

has been much lower than native Swedes. Backlund also claims that immigrants have a higher unemployment rate than native citizens in most European Union States. Funkhouser (2000) and Husted et al. (2001) find that in both Denmark and the United States, employment probabilities among immigrants are much lower than natives, especially during the first years after their arrival. Roed and Zhang (2000)find that immigrants have higher unemployment rate than natives in Norway. In the United States, the unemployment rate among immigrants reached 9.7 percent in the first quarter of 2009, the highest level since 1994, which is 1.1 percent higher than the unemployment rate among natives (Camarota and Jensenius 2009b).

Third, undocumented immigrants are widely perceived to be a threat to safety and security. Undocumented immigrants are paid much less than their documented immigrant or native counterparts. This is due to their modest labor market experience, lower-job-related skills, employer discrimination, and a lack of political, economic and social rights (North and Houston 1976; Espenshade 1995). Moreover, a higher proportion of immigrants are reported to be arrested for crimes in countries like the United States. Previous studies find that from 1985-1986 in San Diego, 12% of those arrested for serious crimes were illegal immigrants (1996). In 1993, it is estimated that illegal immigrants make up only 7.9% of the total population, but 22% of the felony arrestees in San Diego County (1997). Martens (1997: 183) also finds that "immigrants generally have higher crime rates than do indigenous Swedes, particularly for violence and theft, and are likelier to be victims of violence. Both first- and second-generation immigrants have higher crime rates than indigenous Swedes, but second-generation immigrants have lower rates than first-generation immigrants-a finding contradicting results in other countries."

In this dissertation, I use evidence from news reports, political speech, and public opinion surveys to show how and why the public view immigrants as a "threat", as well as how the "immigrant threat" is translated to prevalent aversion and resentment toward immigrants. Next, I will discuss how views on immigration are related to support for the welfare system.

Erosion in Support for Welfare Spending on Immigrants

In this section, I take a further step to contend that the prevalent "immigrant as a threat" view that many native-born citizens hold results in eroding support for the welfare state. This contention is largely built on previous literature on racial diversity and welfare; I also borrow the psychological literature on "relative deprivation" to analyze the formation of attitudes toward immigrants and eroded support for welfare.

Previously, scholars have found that racial diversity and ethnic heterogeneity corrodes public support for social welfare (Miguel 1999; Miguel and Gugerty 2005; Habyarimana et al. 2007; Hero and Preuhs 2007; Gilens 1996; 1999). The logic behind this thesis is that people in a society with a high level of racial diversity have low interpersonal trust; simply, they do not trust people from other racial groups to contribute to public goods. In addition, native citizens are less willing to give away their own goods in order to benefit people from other racial groups. Consequently, people in a racial heterogeneous society are not as motivated to contribute to public goods as people in a homogeneous society. This may be particularly true if citizens perceive that immigrants are overrepresented among welfare recipients.

The situations of immigrants in western developed countries fit the scenario described above closely. As discussed in Chapter 1, many immigrants entering OECD countries in recent years are from countries like China, Romania, and Mexico. In most cases, they differ in their racial and ethnic identity with their native-born citizens; therefore, the presence of immigrants

can add to racial diversity but can also create an erosive effect on welfare support. After immigrants arrive to destination countries, citizens of the destination countries might simply do not want to give away resources to benefit a group of people who essentially look different from them. As a result, with the entry of immigrants, native-born citizens will have an aversion toward welfare programs and show less support for welfare spending.

Another explanation for the declining support for welfare in general and welfare spending on immigrants lies in the "relative deprivation" explanation. If it turns out that one racial group disproportionally benefits from public goods, other racial groups will feel a sense of injustice; consequently, they will resent the racial group who benefits the most from public goods, and their support for public goods will also decrease. This is particularly the case if certain public goods disproportionally benefit a minority group, then the majority group will experience erosion in their support for the public goods; thus, the viability of public goods is in question. Just as Banting (2000: 15, 16) argues, when a rising number of minority welfare recipients enter a community, the majority might simply "withdraw support from programs that channel resources to communities they do not recognize as their own". This can be accomplished by "denying benefits to newcomers, reducing programs that disproportionately serve minorities, or restricting social programs in general" (Banting 2000: 16).

This psychological phenomenon can be explained by the "relative deprivation" theory brought up by Gurr (1968), who used it to explain collective actions. According to Gurr, people always compare the "goods and conditions of life to which they believe they are justifiably entitled" with the goods and conditions received by other people in their "social and physical environment." If they find a discrepancy between the two, they will feel somewhat deprived and discontented (Gurr 1968). Therefore, relative deprivation refers to "actors' perception of

discrepancy between their value expectations and their environment's apparent value capabilities" (Gurr 1968). Simply put, it is a perceived gap by people between what they have and what they think they should have. This feeling of "relative deprivation" provides a psychological "frustration-aggression" mechanism, and even possibly serves as motivation for violence.

"Relative deprivation" is a true reflection of the perceptions of some native-born citizens, especially the ones who are exposed with "multicultural policies (MCPs)." In many OECD countries, the national governments adopt MCPs in order to make their countries a better and friendlier place for immigrants to live. These MCPs, which target the racial, ethnic, or at least citizenship status of beneficiaries, could very easily trigger the race/ethnicity erosion effect. These multiculturalism policies include, but are not limited to, "exemptions from dress codes, Sunday closing legislation, etc", "allowing dual citizenship", "the funding of ethnic group organizations or activities", "the funding of bilingual education or mother-tongue instruction", and "affirmative action" (Banting and Kymlicka 2004; Crepaz 2007:176). Countries like Canada, the Netherlands, United Kingdom, Australia, Germany, and the United States have all adopted multiculturalism policies to some degree. For instance, in the 1980s, the Dutch government extended welfare provisions like unemployment benefits, housing allowances, public assistance and health care to "guest workers" (Crepaz 2007). Canada passed its Canadian Multiculturalism Act in 1988 to promote recognition and understanding of diverse culture (Canadian Multiculturalism Act 1975). The United Kingdom had multiculturalism policies in place until 2004 (Portillo 2005).

These multiculturalism policies are widely criticized as being problematic; many countries adopting these policies faced disastrous outcomes and needed to denounce them

(Crepaz 2007). Critics suggest that the MCPs violate "fundamental principles, values, and ideological premises such as basic fairness, individualism, and similar beliefs" (Barry 2001; cited from Hero and Prehs 2007: 500). In terms of the impact on the welfare state, scholars argue that multiculturalism policies, which give immigrants more access to welfare benefits, are likely to erode support for the welfare state (Gilens 1999; Hero and Preuhs 2007; Banting and Kymlicka 2005). People's perception that welfare policies benefit other racial groups more than their own racial group results in frustration with the welfare state (Gilens 1999; Hero and Preuhs 2007; Banting and Kymlicka 2005). Therefore, one can make the argument that immigration—especially the overrepresentation of immigrants in welfare programs—can cause erosion in public support for the welfare state. In this dissertation, I also use survey data to estimate the connection between attitudes toward immigration and support for welfare in different types of welfare states.

<div align="center">**Immigrant Welfare Policy Changes**</div>

As we know, public opinion exerts an influence on actual policy making in democracies. Erikson, MaCkuen and Stimson (2002) find that "government policy making responds over time to movements in public opinion" in the United States. By using the average scores of "ADA and ACA/ACU rating" as the measurement of "public policy", and using the ratings on four ideological relevant questions from the General Social Survey (GSS) as the measurement of "policy mood", they compare the trajectories of the two. They discover that from 1956 to 1996, "policy mood" and "public policy" share the same currents; in other words, public opinion liberalism produces liberal public policies, and public conservatism produces conservative policies. There are many explanations about why public opinion influences policy making. The

most obvious one is that policy-makers in democracies obtain their offices through elections; in order to get re-elected, they have to be somewhat responsive to the needs of the public.

In the face of public outcry and support for cutting back welfare benefits granted to immigrants, the legislature is motivated to change welfare policies, especially the regulations governing immigrant welfare recipients. For many countries, an easy policy solution is to restrain the immigrant access to welfare programs. In this section, I contend that eroding public support for welfare will possibly result in changes in destination countries' welfare policies. Excluding immigrants from welfare programs is normally the most preferred policy solution by citizens and policy-makers.

According to Habyarimana et al. (2007), individuals are always more likely to support people who look like themselves to receive welfare benefits, but less likely to support people who do not look like themselves to receive benefits. In a society with both immigrants and citizens, it is not likely that citizens would want to share the welfare resources with immigrants. When a large group of newcomers enters the society, the pool of welfare recipients increases because many immigrants also participate in the welfare programs. Policy-makers face the dilemma that the taxes levied cannot support demands for welfare. In order to solve the problem, policy-makers have to either (1) cut the per person welfare benefits, or (2) cut welfare from immigrants, or (3) levy more taxes. Among the three policy alternatives, citizens will always prefer policy (2), because in that way rich citizens do not have to pay more taxes for the welfare benefits given to immigrants, and poor citizens won't have to compete with immigrants for welfare.

Policy-makers will choose the policy that citizens prefer because citizens are the ones who have voting rights and can determine their fate in the re-elections. Therefore, the easy solution is to simply set restrictions for immigrants to receive welfare benefits. Policy-makers can either set a time restriction by regulating that immigrants are not allowed to receive welfare benefits for a certain period of time after they enter the destination country, or directly set a requirement for immigrant types, i.e., only permanent residents are allowed to receive welfare benefits. Of course, in reality, the policy-making process is much more complicated. For instance, immigrants can be naturalized as citizens after staying in destination countries for a period of time. In some countries like Sweden and Denmark, even non-citizen immigrants are granted voting rights. In those situations, immigrants might have some influence on the policy-making process. However, in most situations, restraining immigrant access to welfare benefits is a most straightforward policy solution preferred by both citizens and policy-makers. It could relieve fiscal burdens that are brought by immigrants' over-participation in welfare programs on one hand, and could accommodate citizens' anti-immigrant sentiment.

In this dissertation, I will examine the immigrant welfare policies in the 16 OECD countries over the course of forty years. My goal is to verify whether or not immigrant welfare policies were changed in the past forty years, and whether or not immigrants were excluded from welfare programs. In addition, I also explore the determinants of the immigrant welfare policy changes.

Immigrant Welfare Policy as an Important Context

What are the implications for immigrant welfare policy changes on economic outcomes? Will excluding immigrants from welfare benefits enlarge the gap in between the rich and poor in

destination countries? In this section, I take a further step to explore the relationship between immigration, immigrant welfare policy, and income inequality.

Immigration should influence the fairness of income distribution and redistribution in the destination countries. In countries with mostly low-skill immigrants, immigration will possibly enlarge the gap in between the rich and the poor. However, the impact of immigration on changes of income inequality should also differ in countries with different immigrant welfare policies. In countries with more stringent immigrant welfare policies, where immigrants are largely barred from various welfare programs, their income is largely determined by the market. Disadvantaged from languages and skill levels, low-skill immigrants are very likely to be paid less than average citizens. Therefore, they will contribute to the gap between the rich and the poor. In countries with a more relaxed immigrant welfare policy, however, low-skill immigrants will have a social safety net. They will possibly receive a relatively high minimum wage, unemployment benefits, and child allowance, and other social programs. The impact of immigration on income inequality should therefore be weakened because of the social safety net given to immigrants.

The relationship can be interpreted in Figure 3.1 and Figure 3.2 below. Figure 3.1 shows the income distribution of a society. The X-axis represents the income levels, and Y-axis represents the number of people at a certain income level. The dashed bars represent the citizens—as one can see, relatively more citizens of the society are at lower income levels, while less citizens are at higher income levels. The solid bars denote immigrants, and the location of the solid bars represents the income levels of the new arrivals. As mentioned earlier, since immigrants are highly bifurcated in their skills, they are located in low-income and high-income

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levels. Income inequality based on the incomes earned by the members of the society should therefore be enlarged.
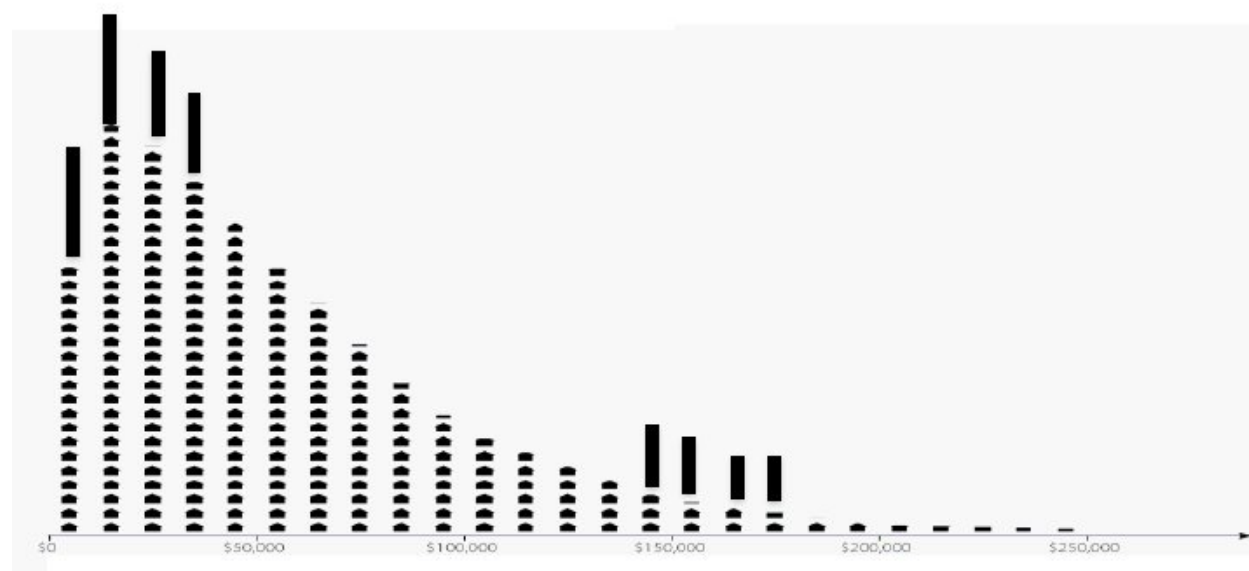
Figure 3.1: Income distribution of a society with immigrants before redistribution
Note: The dashed bars denote citizens, and the solid bars represent immigrants.

However, in the redistributive process, immigrants are largely excluded from the welfare system. According to the immigrant welfare policies, immigrants cannot enjoy the same welfare benefits as citizens do. Therefore, as shown in Figure 3.2, low-income citizens can receive various welfare benefits, but low-income immigrants cannot. After redistribution, the economic situation of the low-income immigrants will be left behind from everyone else in the society. Hence income inequality after redistribution should be even larger considering the existence of immigrants.

Previously, a number of economists have connected immigration with rising wage inequality in the United States, but did not go further to examine the effect of political institutions on this relationship (Borjas 2000, 1994a; Borjas and Tienda 1987; Hanson 2007; Borjas 1987). Several political scientists also try to connect inequality with immigration, but did

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not account for the possibility that the effect of immigration on income inequality is very

possibly dependent upon domestic politics and policy (McCarty et al., 2006; Alderson and

Nielsen 2002; Bradley et al. 2003).
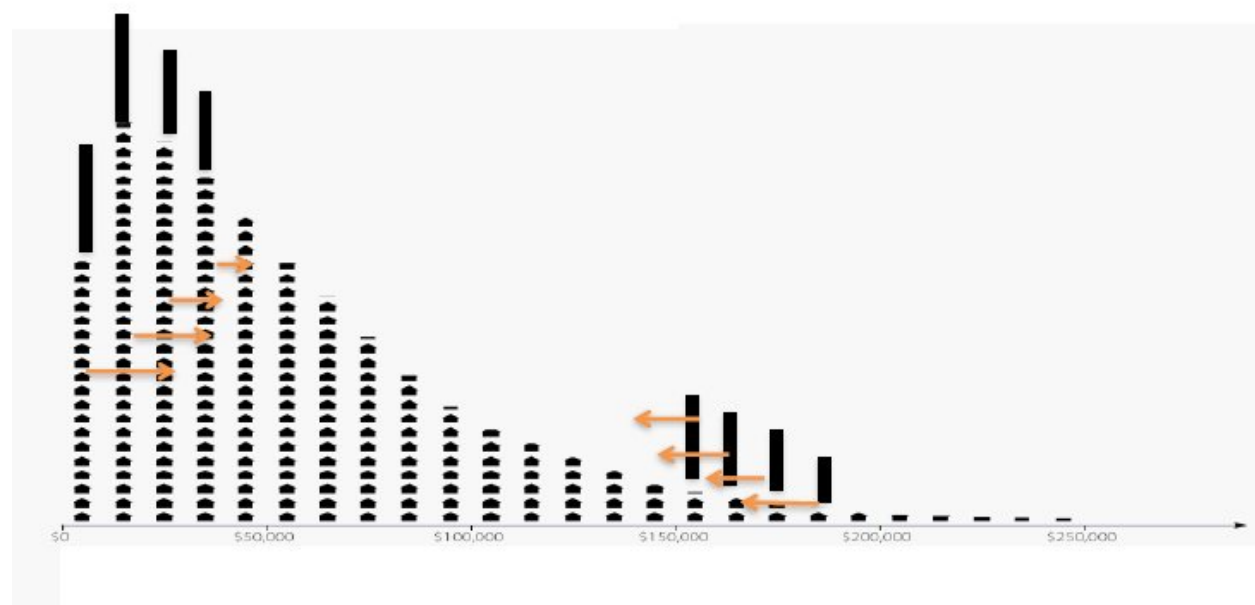
Figure 3.2: Income distribution of a society with immigrants after redistribution
Note: The dashed bars denote citizens, and the solid bars represent immigrants. The yellow arrows denote the redistributive process. The arrows on the left side represent low-income citizens receiving welfare benefits, while the arrows on the right side represent wealthy citizens and immigrants paying for taxes. After the redistributive process, the low-income immigrants will be left behind from everyone else in the society.

Considering that few scholars have considered how well immigrants' economic

interests are protected by the welfare states may affect the relationship between immigration and

inequality, I study this possibility in this dissertation. I contend that the relationship between

immigration and income inequality should be different in countries with different immigrant

welfare policies. In chapter 6, I collect data and test this contention empirically, where I estimate

post-tax/transfer income inequality as a function of immigration, the strictness of immigrant

welfare policies, and an interaction of the two. My goal is to determine whether or not

immigration has an impact on income inequality, and whether domestic politics and policy

mediates the relationship.

CHAPTER 4: THE EVOLUTION OF IMMIGRANT WELFARE POLICIES IN 16 OECD COUNTRIES

With the integration of the world economy, the number of people moving across borders has increased tremendously. Whether or not immigrants have full economic, social and political rights in the destination countries is an important issue, because it directly determines how immigration influences the national economy and politics. Without full economic rights or social rights, the economic situation of immigrants might fall behind that of native-born citizens. If immigrants do not have full political rights, they might be underrepresented politically. In this chapter, I examine social welfare rights for immigrants in western developed countries or, specifically, whether or not immigrants are eligible to receive welfare benefits. I investigate the evolution of the immigrant welfare policy in 17 OECD countries from 1970 to 2009. My argument is that, generally speaking, immigrants do not have full access to welfare programs; many western developed countries even further restrained immigrants' access to welfare benefits in the past forty years. I also explore the determinants of the immigrant welfare policy changes in this chapter.

This chapter contains five sections. In section one, I introduce the concept of the immigrant welfare policy, and present how immigrant welfare policies have changed over time in each of the 17 OECD countries. In section two, I explore the determinants of changes in immigrant welfare policy. I hypothesize that: (1) countries with more immigrants are more likely to restrain immigrant access to domestic welfare programs; (2) domestic politics also determines changes in immigrant welfare policy. Left wing parties, right wing parties,

Christian democratic parties, labor unions, and veto points could all influence policy-making

relating to immigrant welfare policy; and (3) contextual factors like voter turnout,

connections between the government and interest groups, population growth, youth

population, old population, globalization factors, economic development, government

revenue and deficits should all influence immigrant welfare policy as well. In section three, I

introduce the data and methods that I use to test the hypotheses. I utilize data on 17 OECD

countries from 1970 to 2009 and test the hypotheses in a pooled time series and cross

sectional model. In section four, I present the results of the model and discuss the

implications of the results. In the last section, I conclude the chapter with major findings and

a prospect of future studies.

Changes in Immigrant Welfare Policies

As noted in Chapter 2, before the destination countries changed their immigrant

welfare policies immigrants were often times overrepresented in welfare programs. In some

countries, scholars find that a higher ratio of immigrants participate in welfare programs

compared to native-born citizens; in others, scholars find that immigrants consume more

welfare benefits than citizens on average (Marques 2010; Borjas and Tienda 1987; Bolin

2006; Defoort and Drapier 2010; Nannestad 2007; Borjas 2002; Lipsmeyer and Zhu 2011).

Such evidence has been documented in countries like France, Germany, the United Kingdom,

and the United States (Riphahn et al. 2010; Barrett and McCarthy 2008; Dorr and Faist 1997).

The overrepresentation of immigrants in welfare programs has also led to massive media

coverage and has subsequently triggered a prevalent "anti-immigraiton" and "xenophobia" in

the western world.[11] As a result, policy makers in western democracies might adjust the

policies and restrict immigrants' accesses to welfare programs.

As I mentioned in Chapter 3, facing the financial burden caused by immigrants,

policy makers might simply choose to exclude immigrants from the welfare programs, simply

because they want to prioritize financial resources and governmental budget on citizens.

Policy-makers can achieve this goal by either explicitly regulating the types of immigrants

who are ineligible to receive welfare benefits, or setting a waiting period for immigrants,

during which immigrants are not allowed to receive welfare benefits. For instance, the United

States adopted *"The Personal Responsibility and Work Opportunity Reconciliation Act"*

(PRWORA) in 1996. According to this act, legal immigrants are barred from federal financed

food stamps and Supplemental Security Income. Immigrants entering the United States after

August 22, 1996 are also barred from federally-funded welfare benefits for the first five years

after their entry (U. S. House of Representatives Committee on Ways and Means 1998). The

Australian central government also adopted immigration reforms in 1995-1996 and restricted

newly arriving immigrants' access to welfare benefits. Only permanent residents could have

full access to welfare benefits two years after their entry to Australia, although they could still

enjoy social security benefits in the first two years (Xu 2007).

In order to investigate how western developed countries have changed their

immigrant welfare policies over time, I collect information on the two above-mentioned

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[11] I will specifically examine the prevalent "anti-immigration" and "xenophobia" in western developed countries by studying survey data in the next chapter.

aspects of immigrant welfare policy based on a policy document *Social Security Program*

throughout the World. This policy document, published by the U.S. Social Security

Administration and the International Social Security Association, includes information on the

following four welfare programs: old-age pension, sickness benefits, unemployment and

family benefits. I collect information on two aspects for each of the four programs: (1) the

types of immigrants that are eligible to receive benefits; and (2) the waiting periods set for

immigrants. On the first aspect, I use the following coding scheme:

> 5=no immigrants are eligible;
>
> 4= only permanent residents are eligible;
>
> 3=permanent residents and refugees, asylum seekers, deportees and parolees;
>
> 2=immigrants in category 3, and non-resident immigrants with working visas;
>
> 1=immigrants in category 2, and temporary immigrants like international students and tourists;
>
> 0=all immigrants including illegal immigrants.

In other words, observations are coded on this variable ranging from 0 to 5, with 0

meaning the most relaxed regulation and 5 meaning the strictest regulation on this aspect. On

the second aspect, I use the following coding scheme based on the number of years before

immigrants can participate in welfare programs:

> 0= immigrants can access welfare benefits as soon as they enter the destination country;
>
> 1=immigrants can access welfare a year after immigrants' entry;
>
> 3=two years after their entry;
>
> …..;
>
> n=n years after their entry.

Since I am examining both aspects for four different welfare programs in each country, each question will have four scores. I average the four scores for aspect (1), and use it as the first component of the Immigrant Welfare Eligibility (IWE) score—denoted "IWE-1".[12] IWE-1 is a measure on what types of immigrants are allowed access to welfare programs in each country each year. It varies from 0 to 5, with 0 meaning all immigrants are eligible to receive welfare benefits, and 5 meaning no immigrants are eligible.

The actual IWE-1 score for the 17 OECD countries from 1970 to 2009 varies from a low of 1.25 (Finland 1970-2009; Italy 1970-1987; The Netherlands 2006-2009; Canada 1979-2002) to a high of 3.625 (Australia 1997-2006). Appendix 4 contains a figure showing how IWE-1 changed in each country from 1970 to 2009. In Figure 4.1, I include a trend line showing the average IWE-1 of all countries from 1970 to 2009. As one can see, on average, the regulation on what types of immigrants are eligible to participate in welfare programs in the 17 OECD countries was quite relaxed from 1970-1974, with an IWE-1 score of around 2.05. From 1975 to 1982, the regulation became even more relaxed in these 17 OECD countries, as the mean IWE-1 score dropped to almost 2.0. After 1982, regulations became much stricter in these countries. Up to early 1990s, the IWE-1 score increased to about 2.08; in early 2000s, the IWE-1 score increased to about 2.15. Although mean regulations loosened up a bit after 2004, the IWE-1 score was relatively stricter than thirty years ago.

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[12] The IWE score is a score that I create in order to measure the strictness of the immigrant welfare policy in each country each year. It is a factor score based on two components-IWE-1 and IWE-2.
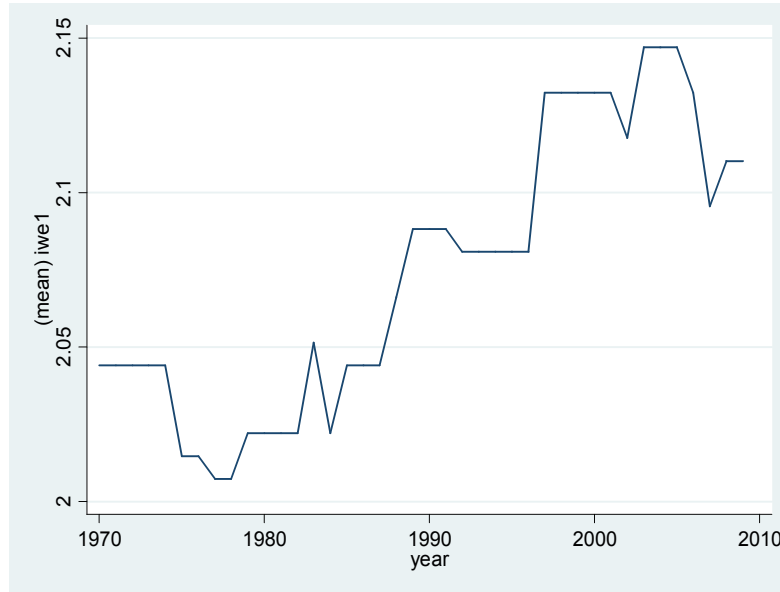
Figure 4.1: Average of the IWE-1, the first component of the immigrant welfare policy for 17 OECD countries

Note: IWE-1 is a measure of what types of immigrants are allowed welfare access, with a higher value meaning more immigrants excluded from welfare programs, and therefore a higher value indicates a strict immigrant welfare policy on this aspect.

I average the four scores for aspect (2), based on which I calculate IWE-2, the second component of the IWE score.[13] IWE-2 is a measure of the waiting period for immigrants to be able to claim welfare benefits. It varies from 0 to 11, with 0 meaning immigrants can participate in welfare programs as soon as they arrive to the destination country (no waiting time; i.e., the United States before 1996), and 11 meaning immigrants are required to wait 11 years before they are allowed full access to welfare benefits in their destination country (Germany 2003-2004). Appendix 5 contains a figure showing how IWE-2 has changed in each country from 1970 to 2009.

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[13] I take an average of the four scores for question (2), 0-11, and use it as the second component of the IWE score.
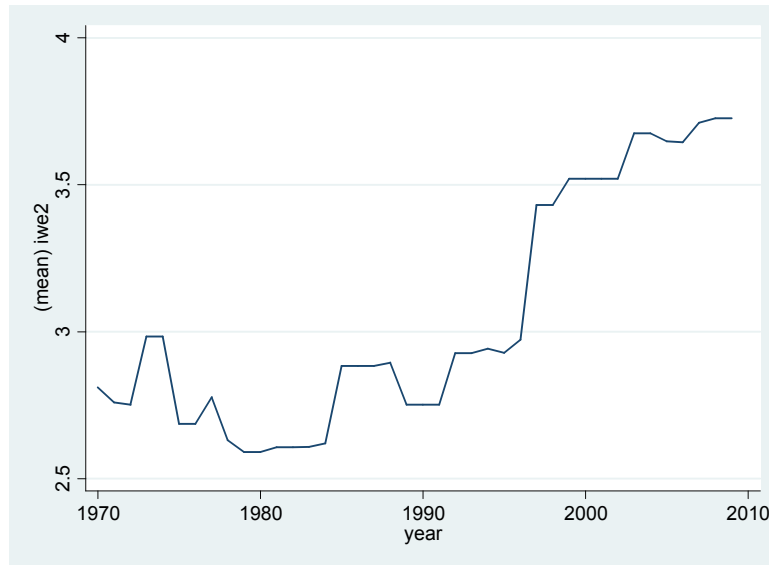
Figure 4.2: Average of the IWE-2, the second component of the immigrant welfare policy for 17 OECD countries

Note: IWE-2 is a measure of the time limits when immigrants are not allowed welfare access, with a higher value meaning immigrants are excluded from welfare programs for a longer time after they arrive to the destination country, and therefore a higher value indicates a strict immigrant welfare policy on this aspect.

In Figure 4.2, I present a trend line showing the average IWE-2 of all countries from 1970 to 2009. As one can see, in the 1970s, the pattern of IWE-2 is similar with the pattern of IWE-1. Both components of the immigrant welfare policy became much stricter after 1980. In the 1970s, immigrants entering the 17 OECD countries on average did not have to wait too long to receive welfare benefits; the IWE-2 score was around 2.75, meaning that the average waiting time was 2.75 years. After 1980, this regulation increased rapidly and continuously in the 17 OECD countries until 2009, at which time the average waiting time for immigrants before they can claim welfare benefits was 3.74 years.

In order to comprehensively measure the strictness of the immigrant welfare policy in each country, I generate a score based on the two components, which I call the IWE score.[14]

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[14] I compress IWE-1 and IWE-2 to 0-1 scale measures IW-1 and IW-2, and then add the IW-1 and IW-2 up, and then compress the sum into a 0-1 scale measure, which is the IWE score.

The IWE score is a measure of the overall strictness of the immigrant welfare policy. It ranges from 0 to 1, with a higher value indicating a stricter immigrant welfare policy and a lower value indicating a less strict immigrant welfare policy. In Table 4.1, I present the IWE score for each of the 17 OECD countries for the years 2008 and 2009.[15]

As one can see, countries like Finland, the Netherlands, Norway, Sweden, Switzerland, Ireland, Canada, and the United Kingdom all had very generous immigrant welfare policy, with IWE scores of less than 0.3. In other words, immigrants were given relatively generous access to welfare programs in those countries. Countries like Italy, Belgium, Denmark and Australia have policies that are not too strict, nor too generous, with IWE scores between 0.3 and 0.6. Immigrant welfare policies were much stricter in countries like New Zealand, Austria, the United States, Germany and France, where the IWE scores are greater than 0.6. In these countries, immigrants' access to welfare programs is most restrained. Table 4.1 also includes the IWE factor score, which is generated by a principal-component factors analysis based on IWE-1 and IWE-2. The Eigenvalue is for the IWE factor score is 1.07, which means that the total variance accounted by the IWE factor score is 1.07. 53.57% of the variances in "IWE-1" and "IWE 2" are explained by the IWE factor score. It turns out that the IWE score and the IWE factor score are highly correlated (correlation=0.9939); the IWE factor score is also highly correlated with IWE-1 and IWE-2

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[15] In Table 4.1, I also include the IWE factor Score that is generated based on a factor analysis of the IW-1 and IW-2. It turns out the IWE score and the IWE factor score are highly correlated (correlation=0.9939). Therefore, I use the IWE score (0-1 scale) for simplicity reasons.

(correlation=0.7319 for both). In this dissertation, I only use the IWE score (0-1 scale) for

simplicity reasons.

Table 4.1: Immigrant Welfare Eligibility Scores in 20 OECD countries, 2008-2009

Country	IW-1*	IW-2*	IWE score**	IWE Factor score***
Finland	0.345	0.148	0.015	-1.303
Netherlands	0.345	0.149	0.016	-1.300
Norway	0.448	0.070	0.039	-1.135
Sweden	0.448	0.091	0.057	-1.071
Switzerland	0.552	0.040	0.105	-0.820
Ireland	0.483	0.203	0.190	-0.585
Canada	0.483	0.238	0.221	-0.476
United Kingdom	0.690	0.072	0.258	-0.174
Italy	0.448	0.500	0.427	0.203
Belgium	0.552	0.372	0.404	0.213
Denmark	0.793	0.277	0.537	0.876
Australia	0.862	0.227	0.554	0.993
New Zealand	0.690	0.545	0.686	1.301
Austria	0.793	0.491	0.730	1.542
United States	0.828	0.477	0.749	1.635
Germany	0.483	0.932	0.848	1.684
France	0.655	0.926	0.998	2.349

* IW-1 is a 0-1 scale measurement of the first component of the IWE score. It is converted from IWE-1. It measures the types of immigrants who are eligible to receive welfare benefits. IW-2 is a 0-1 scale measurement of the second component of the IWE score. It is converted from IWE-2, which measures the waiting periods that immigrants have to wait to be able to receive welfare benefits.
** IWE score is the sum of IW-1 and IW-2, but converted to a 0-1 scale measure.
*** IWE factor score is generated from a factor analysis of the IW-1 and IW-2. IWE score and the IWE factor score are highly correlated (correlation=0.9939). In this dissertation, I only use the IWE score (0-1 scale) for simplicity reasons.
Data source: IW-1, IW-2, IWE score, and IWE factor scores are all based on content analysis of *Social Security Throughout the World, 2008-2009 and 2009-2010 editions by the author.*
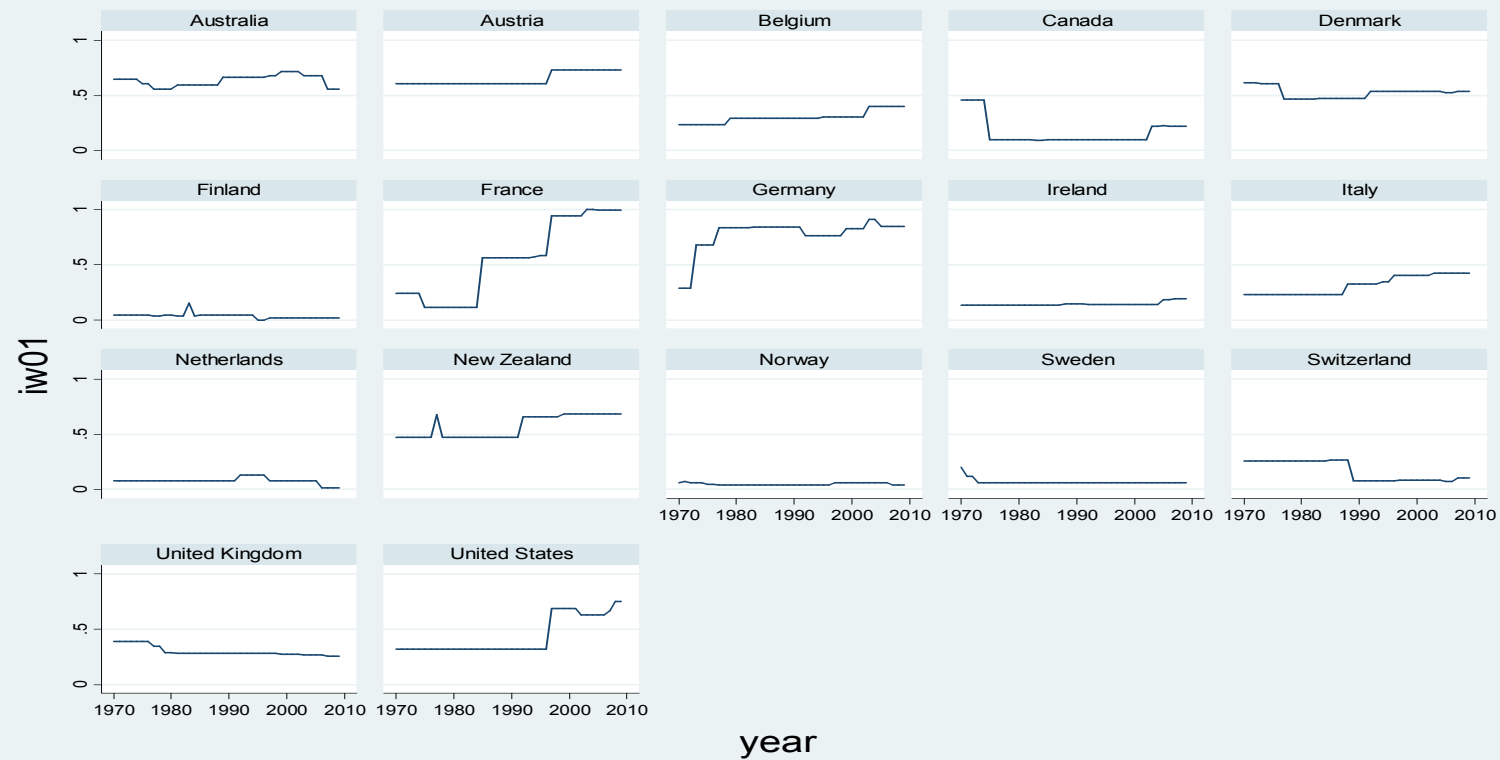
Figure 4.3: Immigrant Welfare Eligibility Score (IWE score) for 17 OECD countries
Data Source: Self-coded IWE score

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In Figure 4.3, I also present how the immigrant welfare policy changed in each of the OECD countries from 1970 to 2009. As one can see, over the course of 40 years, the immigrant welfare policy became stricter over time in 9 out of the 17 countries. These countries are Australia, Austria, Belgium, France, Germany, Ireland, Italy, New Zealand, and the United States. In countries like Finland, the Netherlands, Norway, Sweden and the United Kingdom, the immigrant welfare policy was relatively stable and did not change that much. Alternatively, in countries like Canada, Denmark, and United Kingdom, the immigrant welfare policy became more relaxed over time. Generally speaking, countries like Belgium, Canada, Finland, Ireland, Norway, Sweden, and Switzerland have relatively generous immigrant welfare policies. Countries like Australia, Austria, Denmark, France, Germany, New Zealand, US, and UK all have relatively strict immigrant welfare policies. The immigrant welfare policy experienced the largest increases in France, Germany and the United States.

In order to show the average strictness of the immigrant welfare policies over time, I present the average IWE score for the 17 OECD countries in Figure 4.4. As one can see, the IWE score decreased in the 1970s to a bottom at almost 0.28 in the early 1980s. However, it increased continuously and steadily after 1980. The IWE Score soared up to about 0.40 in the late 2000s. In other words, overall, the immigrant welfare policies in western developed countries became much stricter after 1980; immigrants in western developed countries nowadays have much more restricted access from the welfare programs than forty years ago.
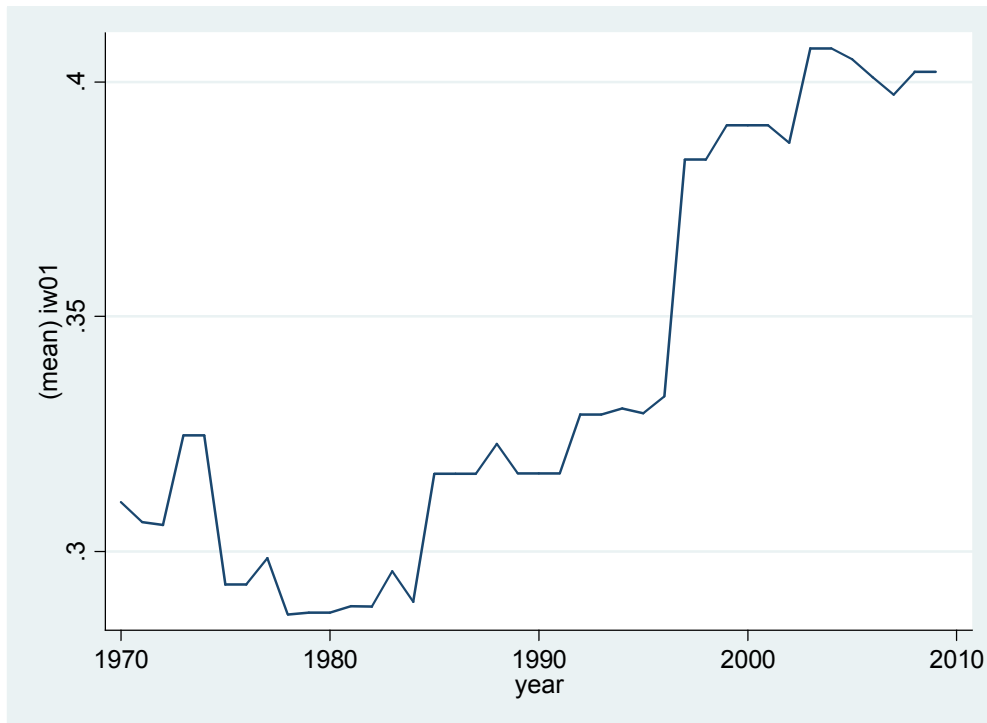
Figure 4.4: Average Immigrant Welfare Eligibility Score (IWE score) for 17 OECD countries
Data Source: Self-coded IWE score

Determinants of the Immigrant Welfare Policy

Although the immigrant welfare policies in western developed countries have

generally become stricter, countries still differ in their own immigrant welfare policy-making.

One might be curious why some countries in some years restricted their immigrant welfare

policies, while other countries did not. What determines immigrant welfare policy changes is

an interesting research question that is worth exploration. As noted in Chapter 3, immigration

might have an effect on the changes of welfare policy, merely because the presence of a large

number of immigrants might trigger anti-immigration sentiment and lead to declining support

for welfare spending on immigrants. Furthermore, factors like which party rules the

government, whether or not labor unions are strong, and other institutional and

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demographical factor might also determine the policy-making process. In this section, I

explain why each of the factors might influence immigrant welfare policy.

Immigration as an explanation

As noted in Chapter 2, even though many immigrants are an "asset" to the destination

countries, many immigrants are still deemed as a burden to the national economy in most

western developed countries. Many immigrants who are low-skill are paid less than their

native counterparts, cause more competition in the domestic labor market, and even threaten

job opportunities for native low-skill workers (Borjas 1994a; Borjas 1994b; Borjas 2000,

2004; Hanson 2004). Furthermore, the unemployment rate among these low-skill immigrants

is higher than that for high-skilled immigrants or native residents (Camarota 2004; Camarota

and Jensenius 2009b). Therefore, low-skill immigrants are also more heavily dependent on

social welfare benefits and could create a fiscal burden to their host countries (Hanson 2004;

Defoort and Drapier 2010; Peterson and Rom 1990; Levine and Zimmerman 1999; Frey et al.

1996). In this scenario, the governments are likely to exclude immigrants from the welfare

system, because the financial burden caused by immigrants has become overwhelming, and

immigrants as non-voters are often times not the priority for policy-makers (U. S. House of

Representatives Committee on Ways and Means 1998; EUMC 2005; Gang et al. 2002; Lee

and Fiske 2006). Based on this thesis, I hypothesize that a larger influx of immigration leads

to a stricter immigrant welfare policy in western developed countries.

Institutions matter as well

Changes in immigrant welfare policies involve policy-making processes. Domestic political and labor institutions both play an important role in shaping the immigrant welfare policy. Therefore, I contend that characteristics of domestic political and labor institutions determine the immigrant welfare policy as well. These characteristics of institutions include strength of different political parties, constitutional structure, and strength of labor institutions.

Strength of political parties Scholars have long associated partisanship of incumbent political parties to welfare generosity (Hibbs 1977; Tufte 1980; Bradley et al. 2003; Bartels 2008). Since the left parties increasingly draw their support from lower and working classes, they are also highly likely to support generous redistribution in order to win votes from their working class electorate (Bartels 2008; Hibbs 1977; Tufte 1980). Christian Democratic parties also support the welfare state, although the welfare state supported by Christian Democratic parties are not as redistributive as the ones that are supported by the left wing parties (Huber and Stephens 2001). Right wing parties, however, are often times linked with low levels of support for welfare spending and high levels of inequality (Bartels 2008; Hibbs 1977; Tufte 1980).

I intentionally examine party platforms of these parties to verify such a contention raised in previous literature. In Table 4.2, I present the average frequencies for political party mentions of expanding/limiting the "welfare state" in their party platforms in each election

from 1945 to 2011. Information in this table is collected from the Manifesto Project.[16] As

one can see, the left wing parties including ecology parties, communist parties, and social

democratic parties all mentioned "welfare state expansion" more often than the average times

for all parties (M=7.03), but did not mention "welfare state limitation" as nearly as often as

other parties (average for all parties M=0.49). From 1945 to 2011 in the 17 OECD countries,

ecology parties on average mentioned "welfare state expansion" 7.09 times in each election,

communist parties as an extremely left party mentioned it 8.06 times, and social democratic

parties mentioned it 8.67 times, all of which are higher than the average for all parties

(M=7.03). On the other hand, ecology parties and communist parties on average only

mentioned "welfare state limitation" 0.05 times in each election, and social democratic

parties on average only mentioned "welfare state limitation" 0.19 times, all of which are

much lower than the average for all parties (M=0.49).

   Christian democratic parties also tend to mildly support increased welfare spending.

They mentioned "welfare expansion" 7.05 times, which is also slightly higher than the

average for all parties (M=7.03). Christian Democratic parties only mentioned "welfare state

limitation" 0.42 times, which is lower than the average for all parties (M=0.49). Such results

point to the fact that left wing parties and Christian democratic parties both support generous

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[16] The Manifesto Project has analyzed party platforms of different political parties in more than 50 countries since 1945. I specifically study two issues that were examined by the Manifesto Project: (1) welfare state expansion, and (2) welfare state limitation. The project counts the number of times each party mentions each issue in their party platform during each election. The project also groups political parties into party families based on their ideology, i.e., social democratic parties, liberal parties, Christian democratic parties, conservative parties, etc. I have calculated the average number of times that each party group mentions each issue based on their data.

welfare spending, although Christian democratic parties do not support it as enthusiastically as left wing parties.

By contrast, right wing parties (including conservative parties and nationalist parties) are less likely to support the expansion of the welfare state. As one can see, the conservative parties on average mentioned "welfare expansion" 6.11 times in each election, and the nationalist parties mentioned it 5.03 times, both of which are lower than the average for all parties (M=7.03). The conservative parties mentioned "welfare state limitation" 0.73 times, while the nationalist parties mentioned it 0.70 times, both of which are much higher than the average for all parties (M=0.49).

However, supporting welfare benefits for immigrants is a quite different issue than supporting welfare spending in general. Which parties support welfare benefits for immigrants remains a bit of a puzzle. In order to find out an answer to this puzzle, I collect information on how different political parties mention multiculturalism in their party platforms. Multiculturalism is a type of policy that specifically benefits immigrants and racial minorities, and I suggest that political parties with strong platforms supporting multiculturalism will be more likely to support granting social welfare benefits and services to immigrants and racial minorities. Typical multiculturalism policies include "exemptions from dress codes, Sunday closing legislation," "allowing dual citizenship," "the funding of ethnic group organizations or activities," "the funding of bilingual education or mother-tongue instruction," and "affirmative action." (Banting and Kymlicka 2004; Crepaz 2007) If

a political party supports multiculturalism, it is more likely to support immigrants' right of receiving social welfare.

Table 4.3 shows the average frequency for different political parties to mention "multiculturalism" positively and negatively in each election from 1945 to 2011.[17] As one can see, the left wing parties and right wing parties mentioned "multiculturalism" positively less often than the average for all parties (M=0.88), but they also do not mention "multiculturalism" negatively as often. Christian democratic parties seem to be the only parties which consistently support "multiculturalism."

As one can see, among the left wing parties, ecology parties on average mentioned "multiculturalism" positively 0.88 times in each election, communist parties mentioned it 0.50 times, and social democratic parties on average mentioned it 0.49 times, all of which are either the same or lower than the average for all parties (M=0.88). However, they also do not mention "multiculturalism" negatively very often. Ecology parties on average only mentioned "multiculturalism" negatively 0.16 times in each election, communist parties mentioned it 0.11 times, and social democratic parties mentioned it 0.29 times, all of which are lower than the average for all parties (M=0.49).

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[17] Information on how many times "multiculturalism" is mentioned positively or negatively is also collected from the Manifesto Project. The two issues examined by the Manifesto Project are: (1) multiculturalism: positive, and (2) multiculturalism: negative. The project counts the number of times each party mentions each issue in their party platform during each election. The project also groups political parties into party families based on their ideology, i.e., social democratic parties, liberal parties, Christian democratic parties, conservative parties, etc. I have calculated the average number of times that each party group mentions each issue based on their data.

Table 4.2: Political parties and their platforms on the welfare state

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Political Parties	Observations	Mean*	Std. Dev.	Min	Max
Welfare State Expansion					
Ecology parties	79	7.09	4.34	0	18.58
Communist parties	178	8.06	6.02	0	35.14
Social democratic parties	416	8.67	6.76	0	43.90
Liberal parties	300	5.65	5.83	0	45.40
Christian Democratic parties	233	7.05	4.79	0	24.82
Conservative parties	264	6.11	6.47	0	58.33
Nationalist parties	57	5.03	4.20	0	15
All parties	**1796**	**7.03**	**6.29**	**0**	**65.85**
Welfare State Limitation					
Ecology parties	79	0.05	0.20	0	1.47
Communist parties	178	0.05	0.26	0	2.8
Social democratic parties	416	0.19	0.75	0	9.30
Liberal parties	300	0.86	2.00	0	16.67
Christian Democratic parties	233	0.42	1.29	0	13.1
Conservative parties	264	0.73	1.50	0	11.5
Nationalist parties	57	0.70	1.11	0	4.32
All parties	**1796**	**0.49**	**1.43**	**0**	**16.67**

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Table 4.3: Political parties and their platforms on multiculturalism

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Political Parties	Observations	Mean*	Std. Dev.	Min	Max
Multiculturalism: Positive					
Ecology parties	79	0.88	1.07	0	4.88
Communist parties	178	0.50	1.16	0	6.67
Social democratic parties	416	0.49	1.10	0	10.2
Liberal parties	300	0.89	1.74	0	9.43
Christian Democratic parties	233	1.45	2.29	0	11.06
Conservative parties	264	0.48	0.99	0	8.3
Nationalist parties	57	0.80	2.42	0	16.33
All parties	**1796**	**0.88**	**2.11**	**0**	**32.97**
Multiculturalism: Negative					
Ecology parties	79	0.16	0.46	0	2.30
Communist parties	178	0.11	0.42	0	3.14
Social democratic parties	416	0.29	1.20	0	11.83
Liberal parties	300	0.64	1.80	0	12.86
Christian Democratic parties	233	0.22	1.06	0	13.07
Conservative parties	264	0.25	1.10	0	13.89
Nationalist parties	57	2.02	3.81	0	15.07
All parties	**1796**	**0.39**	**1.43**	**0**	**15.07**

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*: The values in this column is the average times that "welfare state expansion" (or "welfare state limitation", "multiculturalism: positive" and "multiculturalism: negative") is mentioned in each party's platform

The right wing parties--conservative parties and nationalist parties—tend not to mention

"multiculturalism" positively as often, but can mention it negatively very often. As one can see,

the conservative parties on average mentioned "multiculturalism" positively 0.48 times in each

election, and the nationalist parties mentioned it 0.80 times, both of which are lower than the

average for all parties (M=0.88). The nationalist parties mentioned "multiculturalism" negatively

2.02 time, which is much higher than the average for all parties (M=0.39). The conservative

parties, however, only mentioned "multiculturalism" negatively 0.25 times, which is lower than

the average for all parties (M=0.39).

Christian Democratic parties are the only ones that seem to support "multiculturalism"

consistently. As one can see in Table 4.3, Christian Democratic parties mentioned "welfare

expansion" positively 1.45 times, which is much higher than the average for all parties (M=0.88);

the average number of times that they mentioned "multiculturalism" negatively (n=0.22) is also

much lower than the average for all parties (M=0.39). This set of numbers in Table 4.3 speaks to

the fact that Christian Democratic parties support "multiculturalism" enthusiastically and

consistently. However, neither left wing parties nor right wing parties seem to support

immigrants to receive welfare benefits. The left parties do not enthusiastically support

multiculturalism, nor do they oppose to the idea. The right wing parties do not support

multiculturalism, but also oppose to it.

Based on the policy preferences of these political parties, I contend that if a government

has a strong Christian Democratic party that supports more welfare spending and immigrants'

social rights, it is not as likely for the government to restrict immigrant welfare policy. Therefore,

I hypothesize that a stronger Christian Democratic party in the government depresses the

likelihood that countries will adopt strict immigrant welfare policies. However, if a government

has a strong left wing party or right wing party that does not support immigrants' social rights, it

will be highly likely for the government to restrict the immigrant welfare policy. Therefore, I

hypothesize that a stronger left wing party or right wing party in the government increases the

likelihood that countries will adopt strict immigrant welfare policies.

Constitutional structure veto points. The constitutional structure of a country might also

influence the immigrant welfare policy. If a political system has one or more of the following

features--presidentialism, proportional representation electoral system, bicameralism,

referendum, judicial review, and relatively weak authoritarian legacies—it will be harder to

make policy changes, because all these features can provide more veto points where legislation

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can be blocked. Therefore, legislative initiatives to change the current immigrant welfare policy

will be difficult to pass. However, the effect of veto points on the strictness of the immigrant

welfare policy can be either positive or negative, because policy changes to either open up or

restrict immigrants' access to welfare programs will be hard to achieve. Based on this contention,

I hypothesize that the constitutional structure veto points can influence the strictness of the

immigrant welfare policy, but the direction is not clear.

Strength of labor institutions Labor institutions like union density might also influence

immigrant welfare policy. Bradley et al. (2003) contend that strong unionization can result in

more redistribution because a strong union helps workers to bargain higher wages, more benefits,

transfers and services. However, whether or not labor unions also incorporate immigrant workers

and support them to bargain for more rights and benefits remains unclear.

According to Jacobson and Geron (2011), labor unions could have both anti-immigrant

and pro-immigrant attitudes, depending on the situation. They use the American labor union as

an example, and point out that the American Federation of Labor and Congress of Industrial

Organizations (AFL-CIO) historically "favored restrictive immigration policy and tough

enforcement of immigration laws." However, today, in contrast, "unions are frequently vocal

supporters of immigrant rights" (Jacobson and Geron 2011). For example, in 1986, the AFL-CIO

was "central in writing and passing the 1986 immigration law which for the first time put

sanctions on employers hiring undocumented immigrants;" however, in 2000, the AFL-CIO

called for repeal of the sanctions (Jacobson and Geron 2011:1). Later, the AFL-CIO even

supported "pro-immigrant policies such as a pathway to citizenship for undocumented

immigrants already in the country," and it also opposed to "raids by Immigration Control

Enforcement in workplaces, homes and schools" (Jacobson and Geron 2011:1). Part of the

reason why the AFL-CIO transitioned from an anti-immigrant to a pro-immigrant policy,

according to Jacobson and Geron (2011:1), is that "unions facing a stunning decline in

membership and an increase in immigrant populations" had to adopt a stance of incorporating

immigrants or else face extinction (Jacobson and Geron 2011: 1).

Since labor unions could have either an anti-immigrant or pro-immigrant stance, I argue

that union density should influence the strictness of the immigrant welfare policy, but the

direction could be either positive or negative depending on their attitudes toward immigrant

issues.

Contextual factors also matter

Contextual factors like population growth, youth population, elderly population, unemployment rate, voter turnout, connection between the government and interest groups, development level, government revenue and deficit, and globalization factors should all influence the making of the immigrant welfare policy. Here I explain why and in what direction each factor is expected to influence the immigrant welfare policy.

Population growth If the population of a country grows very fast, there will be a large group of newborn and young population who are more likely to be part of the social welfare system. They might add to the fiscal burden for the national economy. Consequently, there might be more pressure for the national government to restrict immigrants' access to welfare in order to relieve the fiscal burden. Therefore, a fast growing population is associated with likelihood that the government will restrict immigrants' access to welfare benefits.

Youth population As noted above, youth population has a high demand for welfare resources. A large youth population, therefore, has to compete with immigrants for welfare resources, and add to the fiscal burden to the national economy. In a country with a large youth population, citizens might be more likely to resent immigrants, and the national government is

also more pressed to restrain immigrant welfare policy. Therefore, the youth population is expected to have a positive effect on the strictness of the immigrant welfare policy.

Elderly Population The elderly population is another group that has a high demand for welfare resources. A large elderly population also has to compete with immigrants for welfare resources, and add to the fiscal burden to the national economy. Therefore, the national government might also be more likely to adopt strict immigrant welfare policies. The elderly population is also expected to have a positive effect on the strictness of the immigrant welfare policy.

Unemployment rate If a country has a large unemployed population, it is more likely for the general public to resent immigrants for taking jobs from domestic workers. Citizens in these countries will also be more likely to want existing jobs to go to unemployed citizens. Therefore, it is more likely for the citizens in this country to oppose immigrant's rights to receive welfare. I expect a positive relationship between the unemployment rate and the strictness of immigrant welfare policy.

Voter turnout Since public opinion influences policy-making, policy preferences of the public (i.e., how much the public supports welfare spending on immigrants) should influence

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immigrant welfare policies. The influence of public opinion on policy-making can only be realized if the general public participates in the political process—for example, when they cast votes in elections and referendums. If the general public is anti-immigrant, they will vote against policies that grant welfare benefits to immigrants in a referendum, or vote for political parties and candidates who hold anti-immigrant policy preferences. A higher voter turnout will make the translation of anti-immigrant public opinion into policy-making process more likely.[18] Therefore, I argue that the strictness of the immigrant welfare policy should also be influenced by the percentage of eligible citizens who cast votes. A high voter turnout is linked with a higher possibility that the immigrant welfare policy becomes stricter.

Government and Interest Group Connections The connection between the government and interest groups is also important to the making of public policy. If interest groups have a closer connection with the government, they might have more influence on the policy-making process. For instance, if an immigrant-based interest group has a close connection with the government, it might persuade the policy-makers to adopt a more relaxed immigrant welfare policy. Instead, if an anti-immigrant or nationalist-based interest group has a close connection

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[18] Based on Chapter 5 of this dissertation, the general public in western developed countries indeed has a prevalent anti-immigrant sentiment.

with the government, they might persuade the policy-makers to make a more stringent immigrant welfare policy. Therefore, I contend that the connections between the government and interest groups should influence the immigrant welfare policy. Depending on the types of interest groups, the effect can be either positive or negative.

Economic development levels Economic development levels should also influence immigrant welfare policies. A more developed society should have more economic resources. Consequently, in this case the economically-developed country is better able to handle any burdens associated with expanded immigration and expanded participation of immigrants in welfare programs. The national government, therefore, will not have the pressure to initiate policy changes and exclude immigrants from welfare programs. Hence economic development should have a downward effect on the strictness of the immigrant welfare policy. Conversely, countries that are struggling economically will be more likely to have strict immigrant welfare policies.

Government Revenue and Deficit Government revenue and deficits should also affect immigrant welfare policies. Often the direct motivation for policy-makers to exclude immigrants from welfare programs is the budget problems related to increased immigration. For instance, the

1996 welfare reform in the United States was due to the "increasing concern about both welfare

dependence and the budget" caused by immigrants' disproportionate participation in one welfare

program-i.e., the Supplemental Security Income (U. S. House of Representatives Committee on

Ways and Means 1998). It was estimated that changing the alien eligibility in the welfare law

would "save almost $23.7 billion over 6 years;" therefore, the Congress decided that "citizens

should take priority over noncitizens in allocating limited budget resources and that the primary

responsibility for assisting needy immigrants should be borne by the immigrants' sponsors rather

than the government" (U. S. House of Representatives Committee on Ways and Means 1998). I

argue that governments with high revenues and low levels of deficit are less likely to have the

pressure to change their immigrant eligibility rules. Therefore, government revenue is expected

to have a negative effect on the strictness of the immigrant welfare policy, while government

deficits are expected to have a positive effect on the strictness of the immigrant welfare policy.

Globalization factors Globalization might also influence immigrant welfare policy-

making. In societies that are well integrated into the world economy (i.e., countries with

extensive trade with other countries, that have large amounts of foreign direct investment, and

have high levels of capital openness), immigration is an inevitable phenomenon; people in such a

society should be more likely to be pro-immigrant. Therefore, higher levels of globalization factors—such as high levels of international trade, high foreign direct investment, and capital openness—are all expected to have a negative effect on the strictness of the immigrant welfare policy.

Data and Methods

In order to find out what influences immigrant welfare policy, I collect data on 17 OECD countries from 1970 to 2009. In a pooled times series and cross sectional analysis, I use the self-coded "immigrant welfare eligibility score" (IWE score) as the dependent variable, as independent variables I use immigration and domestic institutional variables. I also include a set of contextual variables as control variables. Descriptions of the key variables are listed as follows:

Immigrant Welfare Policy (the IWE score) The dependent variable, the IWE score, is a measure of the strictness of the immigrant welfare policy. It measures the extent to which immigrants are allowed access to four welfare programs- old-age pension, sickness benefits, unemployment benefits, and family benefits for each of the 17 OECD countries. The value of the IWE score varies from 0 to 1, with 0 meaning a most generous immigrant welfare policy, and 1

meaning a very strict immigrant welfare policy. As mentioned earlier, the IWE score is based on

two components- (1) the types of immigrants that are excluded from welfare programs; and (2)

the waiting period that immigrants have to wait till they are eligible to receive welfare benefits.

Data on this variable are coded through content analyses of *Social Security Programs throughout*

the World.

Net migration rate The net migration rate is used as a measure of magnitude of

immigration entering a country every year. It is calculated using the following formula:

(migration inflows-migration outflows)/1,000 inhabitants. Data on net migration rate are

collected from OECD International Migration Statistics.

Strength of political parties Strength of political parties is measured by three variables:

left party seats, right party seats, and Christian Democratic seats. Left seats is calculated as the

percentage of total seats in parliament taken by left secular parties. Right seats is calculated as

the percentage of total seats in parliament taken by right secular parties. Since Christian

Democratic parties seem to support immigrants' social rights consistently, I also include

Christian Democratic seats as an additional variable. This measure is calculated as the percentage

of total seats in parliament for Christian Democratic parties. Christian Democratic parties contain

all center and right "Christian" and "Catholic" parties. Data on these three variables are from the

Comparative Welfare State (CWS) Dataset (Huber 1997; Brady 2004).The excluded category is

for centrist seats, which is the percentage of total seats in parliament taken by centrist secular

parties.

Constitutional structure veto points The variable "constitutional structure veto points" is a

general measure of the characteristics of political institutions. It is a summation of seven factors:

federalism, presidential system, electoral system (single-member districts, or proportional

representation), strength of bicameralism, referendum, judicial review, and authoritarian legacies.

The value of this measure varies from 1 to 9, with 1 meaning the least number of veto points in

the constitutional structure, and 9 meaning the most number of veto points. Data on the several

factors of veto points are from the Comparative Welfare State (CWS) Dataset (Huber 1997;

Brady 2004).

Strength of labor institutions Strength of labor institutions is measured by union density.

Union density is measured as net union membership as a percentage of total wage and salaried

employees. Data on union density are also collected from the Comparative Welfare State (CWS)

Dataset (Huber 1997; Brady 2004).

Control variables Control variables include population growth, youth population, old

population, unemployment rate, voter turnout, connection between governments and interest

groups, globalization factors like total trade, capital openness, FDI inflow, and FDI outflow, real

GDP per capita, government revenue, and government deficit. Data on population growth and

total trade are from OECD statistics. Data on voter turnout, connection between governments

and interest groups, youth population, old population, government revenue, government deficit,

and capital openness are from the CWS dataset. Data on FDI inflow and FDI outflow are from

the IMF. Data on real GDP per capita are from the Penn World Table

(http://pwt.econ.upenn.edu/).

I estimate the models by using panel corrected standard errors (PCSE) because of the

auto correlated errors and heteroskedasticity problems associated with panel data (Beck and Katz,

1995). The models estimated assume a heteroskedastic error structure across panels and are

estimated using panel-specific estimates of first-order autocorrelation.

Findings

In Table 4.4, I present the results of the pooled time series cross sectional analysis. As

one can see, among the independent variables, immigration turns out not to have any significant

effect on the strictness of the immigrant welfare policy. This might have something to do with the measure of immigration. The measure of immigration is the net immigration inflow in each country every year, not the stocks of immigrants in the country. The total number of immigrants in a country might be the factor that influences public opinion toward immigrants. However, due to data availability issues, I was not able to test such a contention.

Other independent variables like left seats, right seats, veto points, Christian Democratic seats, and union density all have a significant effect on the strictness of immigrant welfare policies. Among these variables, left seats (b = 0.005; z = 9.10) has a positive and significant effect on the dependent variable. This indicates that the more seats the left parties take in the parliament, the stricter are the immigrant welfare policies adopted by the government. Right seats also has a positive and significant effect on the dependent variable (b = 0.003; z = 4.93), which indicates that the more seats the right parties takes in the parliament, the stricter the immigrant welfare policies adopted by the government. The left out category, centrist seats, therefore should have a negative effect on the dependent variable.[19] These results demonstrate

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[19] In an additional analysis where I include left seat and central seat and leave out right seat, it turns out that left seat has a positive and significant effect on the IWE score, and the central seat has a negative and significant effect on the dependent variable.

support for my hypotheses that both left wing and right wing political parties tend to oppose

immigrants to receive welfare benefits.

Table 4.4: Pooled time series vs. cross national analysis on Immigrant Welfare Eligibility
Score (IWE score)

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Variables	b	z
Net Migration Rate (1-year lag)	0.0003	0.35
Left Seat (1-year lag)	0.005	9.10***
Right Seat (1-year lag)	0.003	4.93***
Veto Points (1-year lag)	0.097	10.48***
Christian Democratic Seat (1-year lag)	0.002	2.19*
Union Density	0.119	1.71*
Population Growth	0.004	1.30
Youth Population	-0.444	-1.27
Old Population	0.001	0.00
Unemployment Rate	-0.218	-1.26
Voter turnout	0.005	5.82***
Connection b/w Gov. and Interest Groups	-0.164	-5.23***
Total Trade	0.003	4.40***
FDI Inflow	0.003	0.94
FDI Outflow	-0.004	-1.48
Capital Openness	-0.005	-0.76
Real GDP per capita	-4.78e-06	-2.64**
Government Revenue	0.000	0.43
Government Deficit	1.48e-07	0.64
Intercept	-0.700	-3.61***

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N	326
Number of groups	16
Wald χ^2	2916.97
Prob (χ^2)	0.0000

***prob < 0.001 one-tail test; ** prob < 0.01 one-tail test; * prob < 0.05 one-tail test

Christian Democratic seats, however, also has a positive and significant effect on the dependent variable (b = 0.002; z = 2.19). Christian Democratic seats is a measure of the seats taken by all the Christian Democratic political parties (Catholic and Christian). Originally I speculated that these parties support granting immigrants access to welfare benefits, based on their party platforms. But it turns out that a stronger Christian Democratic party in the parliament also leads to a stricter immigrant welfare policy. Such a result indicates that although Christian Democratic parties comment on "multiculturalism" fairly positively in their party platforms, they do not actually support policy-making that allows more welfare access to immigrants, compared to central secular parties. Such a finding points to the fact that many political parties (Christian Democratic parties in this case) tailor their platforms and use campaign rhetoric to win more votes, but they do not actually take actions after they are elected.

Veto points (b = 0.097; z = 10.48) has a positive and significant effect on the dependent variable. This indicates that political systems with more veto points are associated with stricter immigrant welfare policies. Union density (b = 0.119; z = 1.71) has a positive and significant effect on the dependent variable, which indicates that countries with stronger labor unions also support more stringent immigrant welfare policies. In other words, the labor unions in these 16

OECD countries generally have an anti-immigrant stance, although it is possible that labor

unions are pro-immigrant in some countries and some years.

Among the control variables, voter turnout, total trade, real GDP per capita, connections

between governments and interest groups all have a significant effect on the dependent variable.

For example, voter turnout (b = 0.005; z = 5.82) has a strong positive and highly-significant

effect on the dependent variable, which demonstrates support for my contention that a higher

voter turnout results in more stringent immigrant welfare policies. The connection between the

government and interest groups has a negative and significant effect on the dependent variable (b

= -0.164; z = -5.23). It demonstrates that the closer connections the interest groups have with the

government, the less likely the government will restrain immigrants' access to welfare programs.

Total trade (b = 0.003; z = 4.40) has a positive and significant effect on the dependent

variable, which is the opposite from what I have expected. It seems like a higher international

trade is associated with a stricter immigrant welfare policy. If a country has more trade with

other countries, it might also have a stricter immigrant welfare policy. This suggests that

countries with high amounts of trade are concerned about expanded immigration and its effects

on the welfare system. Real GDP per capita also has a negative and significant effect on the

dependent variable (b= -4.75e-06; z = -2.64), which is within my expectation. The richer a

country is, the more likely that it will have a more relaxed welfare policy for immigrants. Neither

government revenue nor government deficit has a significant effect on the dependent variable.

Conclusion

In this chapter, I examine how western developed countries have (or have not)

incorporated immigrants in their welfare system, and how such policies have changed since the

1970s. I find that countries treat immigrants differently, with some more inclusive and other

more exclusive in their immigrant welfare policies. A general trend, however, is that western

developed countries have largely restricted their immigrant welfare policies. Immigrants did not

have full access to the welfare system in all the 17 OECD countries, and many countries have

made it harder for immigrants to participate in the welfare programs. The time that these

countries adjusted their policy somehow overlaps the time period of the sharp increase in income

inequality and immigration.

I also explore the determinants of the immigrant welfare policy in these 17 OECD

countries from 1970 to 2009. It turns out that both left wing and right wing parties have a

positive effect on the strictness of immigrant welfare policies. In other words, if left wing parties

(or right wing parties) take a large proportion of seats in the parliament, it is likely that they will support limiting immigrants' access to welfare benefits. A political system with more veto points (federal systems, parliamentary systems, etc) is also more likely to have a stricter immigrant welfare policy. Although Christian Democratic parties sound pro-immigrant in their party platforms, they do not actually support pro-immigrant policy making, at least on the issue of immigrants' access to the welfare system. Stronger labor unions are associated with more stringent immigrant welfare policies as well.

In addition, I have found that voter turnout, the connection between interest groups and the government, total trade, and real GDP per capita all influence the strictness of immigrant welfare policy. Higher voter turnout and more international trade are associated with a stricter immigrant welfare policy. Alternatively, a higher level of real GDP per capita and a closer connection between the government and the interest groups have a downward effect on the strictness of the immigrant welfare policies. Variables like population growth, youth population, old population, unemployment rate, FDI inflow, FDI outflow, capital openness, government revenue and deficits are all expected to have an effect on the dependent variable. However, their effects turn out not to be significant.

Although both Christian Democratic seats and total trade have an effect that is opposite from my expectation, my hypotheses on left wing parties, right wing parties, centrist parties, veto points, union density, voter turnout, connection between governments and interest groups, and economic development are all supported by the empirical analyses. This initial exploration of immigrant welfare policy is with scholarly significance in many ways. First of all, it is the first time ever that immigrant welfare policies are studied and compared cross nationally and over time. The IWE score provides us a quantifiable measure to compare how much immigrants are included in the welfare systems in the western world.

Second, this is also the first time that political scientists have considered the determinants of an important policy area—i.e., immigrant welfare policy. The results of this study provide us with important directions to further consider this research question. Without a doubt, political parties, constitutional structure, and labor unions all play an active role in the making of immigrant welfare policies. The public also plays a role in influencing the policy-making of immigrant welfare policies. The voter turnout and connections between governments and interest groups both influence the policy-making process of the immigrant welfare policy.

Economic development level of a country also puts/relieves fiscal pressure for immigrant welfare policy changes.

Third, this study for the first time systematically links partisanship with policy preferences on immigrant issues. In this chapter, I examine the policy preferences of different political parties by examining their party platforms, and then test it in a statistical model. I find out that there is a "U-shape" relationship between political parties' left-right ideology and support for immigrants' receiving welfare, in the sense that both left wing and right wing political parties tend to oppose immigrants to receive welfare, but central parties tend to support immigrants to receive welfare. This endeavor is especially valuable given the fact that immigrants are often under heated debate in political arenas in the western world. It provides us a clear picture which parties are pro-immigrant, which ones are anti-immigrant, and which ones sound pro-immigrant but not actually support immigrant related issues.

It is apparent that more work has to be done to investigate why immigration itself does not have a significant effect on the immigrant welfare policy, as well as what other factors might influence the immigrant welfare policy. As noted earlier, it might be the total number of immigrants that really influences public opinion toward immigrants, instead of the net migration

inflows every year. Therefore, there is need to develop a proxy for stocks of immigrants, so that I

can further explore the effect of immigration on the immigrant welfare policy.

In order to complement this study and further explore the impact of immigrants on the

immigrant welfare policy, I turn to study the public opinion side of the story. In the next chapter,

I study individuals' attitudes toward immigrants, and how that affects public support for

allocating welfare spending on immigrants.

CHAPTER 5: EXPLAINING SUPPORT FOR WELFARE ASSISTANCE FOR IMMIGRANTS

Many western countries have witnessed mounting anti-immigrant since the 1970s. The following text selected from various media reports and political speeches illustrates such "xenophobia" in western developed countries.

In a news report from BBC News on October 17, 2010, a reporter said that:

"The German chancellor, Angela Merkel, has courted growing anti-immigrant opinion in Germany by claiming the country's attempts to create a multicultural society have 'utterly failed'." (BBC 2010)

A news article from The Guardian on 17 October 2010 reported a similar story, in which the reporter also mentioned that:

"One recent poll showed one-third of Germans believed the country was 'overrun by foreigners'. It also found 55% of Germans believed that Arabs are 'unpleasant people', compared with the 44% who held the opinion seven years ago...A former central banker Thilo Sarrazin published a highly-controversial book in which he accused Muslim immigrants of lowering the intelligence of German society." (Weaver 2010)

In a video titled "Open your eyes, Sweden" posted on the YouTube site, an anti-immigration group utters:

"I knew Sweden as the technological cutting edge, the industrialized country, with great innovators, good healthcare, schools....... Sweden was rich and now all the wealth is lost to hundreds of thousands of immigrants who depend on social welfare for the rest of their life. The cost is staggering. They are allowed to bring their clans and tribes and hundreds of family members. They go back on vacation to the country they "fled" from. Is that "refugees"?" (Youtube 2008)

The anti-immigration sentiment can be also found in various political speeches and party platforms. For example, in a public speech, Jean Marie Lepen, the founder and former president of the National Front party of France in 1992 said:

> "There are simply too many immigrants, and they make who knows how many children whom they send into the streets and then claim welfare." (Alesina and Glaeser 2004: 176; Crepaz 2007: 55)

> When claiming the stance of his party, Jörg Haider, Leader of the Austrian Freedom Party (FPÖ), uttered that:

> "My party could no longer support a system in which some citizens had to pay more and more taxes with their hard earned money to allow others to have a good time in the hammock of the welfare state". Later on, he said, "we have not led wars in past centuries against the Turks so that they now fill our school classes." (Betz 1994: 113, 114, 115; Crepaz 2007: 55)

> The Swiss Automobile Party, also called for a cutback of the welfare state by blaming immigrants who are dependent on welfare, by arguing that:

> "Social safety net 'must not become a hammock for those who do not want to make an effort and work." (Betz 1994: 115; Crepaz 2007: 55).

As one can tell, anti-immigration sentiment is often associated with the perception that immigrants are highly likely to be involved in the welfare system and take too much welfare benefits. What is the general public opinion about welfare provisions to immigrants? Do they support or oppose to it? What determines public support for governmental welfare spending and welfare provisions to immigrants? Based on arguments from Chapter 3, one can suggest that the

perception that immigrants benefit from welfare more than native-born citizens could lead to

erosion in public support for welfare (Hansen and Lofstrom 2003; Khoo 1994; Barrett and

McCarthy 2008). Evidence has shown that in many countries, immigrants indeed participate

disproportionally in welfare programs (Hansen and Lofstrom 2003; Khoo 1994; Barrett and

McCarthy 2008; Borjas 1994; Riphahn 2004). To what extent do attitudes toward immigrants

influence support for welfare spending on immigrants is theoretically sound but empirically

untested.

In this chapter, I take a further step and explore how individuals' attitudes toward

immigrants influence support for welfare spending on immigrants by using empirical evidence

from public opinion surveys. The structure of the chapter is as follows. In section one, I describe

individuals' general attitudes toward immigrants in 16 OECD countries. In section two, I

describe individuals' support for governments' welfare provisions to immigrants, and their

general support for government-funded welfare programs. In section three, I present the data and

methods that I use to test the hypothesis that there is a connection between individuals' attitudes

toward immigrants and their support for giving welfare to immigrants. In section four, I discuss

the results of the models, from which I find that individuals' attitudes toward immigrants are

related to their support for giving welfare to immigrants. The last section provides some

concluding remarks.

Public Opinion on Immigrants: Hate or Love?

How does the mass public view immigrants, and to what extent do individuals love or

hate the newcomers? A systematic way to find out the answers to these questions is through

surveys. The International Social Survey Program (ISSP), the European Social Survey (ESS),

the Eurobarometer have all conducted surveys to investigate public opinion toward immigrants.

The ISSP National Identity Module conducted in 2003 asked its respondents three

questions about their general attitudes toward immigrants. The wording of the three questions is

as follows:

(1) Do you agree that immigrants are generally good for the national economy?
(2) Do you agree that immigrants improve the society by bringing in new ideas and
cultures?
(3) Do you agree that the number of immigrants should be reduced in your country?

For each of the three questions, the respondents have five answers to choose from:

"Strongly Agree," "Agree," "Neither Agree or Disagree," "Disagree," and "Strongly Disagree." I

assign five codes (-2, -1, 0, 1, 2) to the five answers, with a larger value indicating a more

positive attitude toward immigrants. In other words, for questions (1) and (2), I assign 2 to

"Strongly Agree," 1 to "Agree," 0 to "Neither Agree or Disagree," -1 to "Disagree," and -2 to "Strongly Disagree." Since question (3) itself is worded in a negative way, I assign 2 to "Strongly Disagree," 1 to "Disagree," 0 to "Neither Agree or Disagree," -1 to "Agree," and -2 to "Strongly Agree."

In Table 5.1, I present respondents' answers to question (1) based on their country of origin. As one can see, in nine out of the sixteen countries (Denmark, Finland, France, Germany-East, Germany-West, Great Britain, Ireland, Netherlands, and Norway), on average, respondents have a negative attitude toward immigrants. In other words, in these countries, on balance respondents generally do not think that immigrants are good for the national economy. Especially, in Denmark, Finland, France, East Germany, and Great Britain, more than 40% of respondents either strongly disagree or disagree that immigrants are good for their national economy. In Denmark, 23.64% of respondents strongly disagree and 22.31% disagree with the statement that immigrants are good for the national economy. 12.8% of the Finnish respondents strongly disagree that immigrants are good for the Finnish economy, and 32.81% of the Finnish respondents disagree with it. In East Germany, 11.98% of the respondents strongly disagree with the statement, and 32.27% of the respondents disagree with it. In Great Britain, 8.08% of the respondents strongly disagree with the statement, and 33.53% disagree with the fact.

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However, in countries like Australia, Austria, Canada, New Zealand, Sweden,

Switzerland, and the United States, the average score for this question is positive. In other words,

on average, on balance respondents in these seven countries think that immigrants are good for

the national economy. What is worth mentioning is that the percentage of respondents who

answered "neither agree nor disagree" is high in all countries. On average, 29.67% of

respondents neither agree nor disagree with the statement; the number is up to 39.43% in

Germany-West, and 38.35% in Norway.

In Table 5.2, I present the answers to question (2) do you agree that immigrants improve

the society by bringing in new ideas and cultures. It turns out that all countries have a general

positive opinion toward immigrants on this issue. Especially, in countries like Australia

(74.74%), Denmark (59.96%), the Netherlands (57.08%), New Zealand (60.48%), Sweden

(58.55%), Switzerland (76.80%), and the United States (57.21%), more than half of the

respondents either agree or strongly agree that immigrant improve the society by bringing in new

ideas and cultures. Again, there are a high percentage of respondents who answered "neither

agree nor disagree" for this question. The average for answering "neither agree nor disagree" is

22.93%.

In Table 5.3, I present answers to question (3) do you agree that the number of immigrants should be reduced in your country. It turns out that the average score for all countries is -0.714. In other words, the general opinion leans toward reducing the number of immigrants in all countries. Especially, in countries like Germany-East (78.36%), Germany-West (70.34%), Great Britain (77.82%) and Norway (71.29%), more than 70% of respondents either agree or strongly agree that the number of immigrants in their countries should be reduced. In the Netherlands (69.94%), almost 70% of respondents agree with the statement.

Generally speaking, the respondents in the sixteen OECD countries examined in this chapter have a strong anti-immigrant attitude. Although many people think that immigrants improve the society by bringing new ideas and culture, the high percentage of positive responses to this question might have something to do with the wording of the question itself. In order to further prove the anti-immigrant sentiment among the general public in the western world, I examine questions on specific issues relating immigrants from the European Social Survey (ESS) and the Eurobarometer. In 2002, the ESS asked their respondents if they think (1) immigrants take out more than they put in, (2) immigrants bring down the average wages/salaries.

Table 5.1: Attitudes on whether or not immigrants are good for the national economy

Country	Strongly Agree (=2)	Agree (=1)	Neither Agree Nor Disagree (=0)	Disagree (=-1)	Strongly Disagree (=-2)	Mean
Australia (AU)	10.27% (215)	60.27% (1262)	21.16% (443)	7.21% (151)	1.10% (23)	0.714
Austria (AT)	7.17% (68)	31.01% (294	29.22% (277)	23.31% (221)	9.28% (88)	0.035
Canada (CA)	11.33% (132)	51.33% (598	24.81% (289	11.33% (132)	1.20% (14)	0.603
Denmark (DK)	8.26% (100)	22.40% (271)	23.39% (283)	22.31% (270)	23.64% (286)	-0.307
Finland (FI)	1.80% (22)	19.03% (232)	33.55% (409)	32.81% (400)	12.80% (156)	-0.358
France (FR)	7.05% (109)	28.01% (433)	29.04% (449)	20.70% (320)	15.20% (235)	-0.090
Germany-East (DE-E)	0.98% (4)	21.03% (86)	33.74% (138)	32.27% (132)	11.98% (49)	-0.333
Germany-West(DE-W)	1.44% (11)	27.15% (208)	39.43% (302)	24.28% (186)	7.70% (59)	-0.097
Great Britain (GB)	1.21% (10)	20.39% (169)	36.79% (305)	33.53% (278)	8.08% (67)	-0.269
Ireland (IE)	3.59% (37)	36.02% (371)	21.17% (218)	35.05% (361)	4.17% (43)	-0.002
Netherlands (Renshon)	1.65% (27)	25% (408)	38.24% (624)	28% (457)	7.11% (116)	-0.139
New Zealand (NZ)	5.67% (57)	53.33% (536)	25.87% (260)	12.74% (128)	2.39% (24)	0.472
Norway (NO)	1.56% (21)	28.93% (390)	38.35% (517)	22.26% (300)	8.90% (120)	-0.080
Sweden (SE)	6.08% (65)	38.17% (408)	35.45% (379)	13.28% (142)	7.02% (75)	0.230
Switzerland (CH)	4.37% (44)	49.01% (493)	22.76% (229)	22.76% (229)	1.09% (11)	0.328
United States (US)	6.76% (80)	38.68% (458)	29.98% (355)	19.93% (236)	4.65% (55)	0.230
Average	5.43% (1002)	35.85% (6617)	29.67% (5477)	21.36% (3943)	7.70% (1421)	0.099

Questions asked: There are different opinions about immigrants from other countries living in [respondent's resident country]. How much do you agree or disagree with the following statement? Immigrants are generally good for [respondent's resident country's] economy?

(Source: International Social Survey Program National Identity Module II, 2003)

Table 5.2: Attitudes on whether or not immigrants improve the society

Country	Strongly Agree	Agree	Neither Agree Nor Disagree (=0)	Disagree	Strongly Disagree	Mean
	(=2)	(=1)		(=-1)	(=-2)	
Australia (AU)	16.95% (361)	57.79% (1231)	17.18% (366)	6.71% (143)	1.36% (29)	0.823
Austria (AT)	10.74% (104)	35.85% (347)	23.97% (232)	20.25% (196)	9.19% (89)	0.187
Canada (CA)	13.80% (162)	53.41% (627)	20.36% (239)	10.14% (119)	2.30% (27)	0.663
Denmark (DK)	19.83% (251)	40.13% (508)	16.90% (214)	10.58% (134)	12.56% (159)	0.441
Finland (FI)	7.10% (90)	40.25% (510)	28.57% (362)	16.26% (206)	7.81% (99)	0.226
France (FR)	10.56% (165)	30.73% (480)	24.71% (386)	18.37% (287)	15.62% (244)	0.022
Germany-East (DE-E)	4.88% (20)	45.37% (186)	25.85% (106)	17.07% (70)	6.83% (28)	0.244
Germany-West(DE-W)	7.14% (56)	49.36% (387)	24.87% (195)	13.01% (102)	5.61% (44)	0.394
Great Britain (GB)	3.70% (31)	29.87% (250)	35.60% (298)	24.61% (206)	6.21% (52)	0.002
Ireland (IE)	5.68% (59)	51.45% (534)	15.41% (160)	23.31% (242)	4.14% (43)	0.312
Netherlands (Renshon)	6.67% (115)	50.41% (869)	22.10% (381)	15.49% (267)	5.34% (92)	0.376
New Zealand (NZ)	10.28% (104)	50.20% (508)	22.92% (232)	14.23% (144)	2.37% (24)	0.518
Norway (NO)	4.81% (68)	37.62% (532)	30.55% (432)	19.45% (275)	7.57% (107)	0.127
Sweden (SE)	10.45% (118)	48.10% (543)	27.02% (305)	9.57% (108)	4.87% (55)	0.497
Switzerland (CH)	11.90% (121)	64.90% (660)	13.47% (137)	8.85% (90)	0.88% (9)	0.781
United States (US)	9.98% (119)	47.23% (563)	24.66% (294)	14.77% (176)	3.36% (40)	0.457
Average	10.27% (1944)	46.16% (8735)	22.93% (4339)	14.61% (2765)	6.03% (1141)	0.400

Questions asked: There are different opinions about immigrants from other countries living in [respondent's resident country]. How much do you agree or disagree with the following statement? Immigrants improve the society by bringing in new ideas and cultures.

(Source: International Social Survey Program National Identity Module II, 2003)

Table 5.3: Attitudes on whether or not the number of immigrants should be reduced

Country	Strongly Disagree (=2)	Disagree (=1)	Neither Agree Nor Disagree (=0)	Agree (=-1)	Strongly Agree (=-2)	Mean
Australia (AU)	6.10% (123)	17.34% (350)	37.56% (758)	21.11% (426)	17.89% (361)	-0.274
Austria (AT)	1.05% (10)	5.75% (55)	32.22% (308)	27.62% (264)	33.37% (319)	-0.865
Canada (CA)	6.94% (75)	22.13% (239)	38.70% (418)	20.83% (225)	11.39% (123)	-0.076
Denmark (DK)	1.31% (16)	8.50% (104)	38.84% (475)	23.39% (286)	27.96% (342)	-0.682
Finland (FI)	3.55% (44)	21.05% (261)	40.81% (506)	17.18% (213)	17.42% (216)	-0.239
France (FR)	2.67% (38)	5.07% (72)	26.18% (372)	24.98% (355)	41.10% (584)	-0.968
Germany-East (DE-E)	1.00% (4)	1.74% (7)	18.91% (76)	23.88% (96)	54.48% (219)	-1.291
Germany-West(DE-W)	0.92% (7)	4.46% (34)	24.28% (185)	26.51% (202)	43.83% (334)	-1.079
Great Britain (GB)	2.08% (17)	3.68% (30)	16.42% (134)	24.14% (197)	53.68% (438)	-1.237
Ireland (IE)	1.28% (13)	7.89% (80)	32.05% (325)	30.28% (307)	28.50% (289)	-0.768
Netherlands (Renshon)	1.02% (17)	2.75% (46)	26.30% (440)	29.41% (492)	40.53% (678)	-1.057
New Zealand (NZ)	3.52% (34)	12.22% (118)	27.74% (268)	28.88% (279)	27.64% (267)	-0.649
Norway (NO)	1.27% (17)	5.82% (78)	21.63% (290)	32.36% (434)	38.93% (522)	-1.019
Sweden (SE)	2.72% (29)	9.18% (98)	30.27% (323)	29.90% (319)	27.93% (298)	-0.711
Switzerland (CH)	0.41% (4)	5.31% (52)	49.69% (487)	27.55% (270)	17.04% (167)	-0.555
United States (US)	4.12% (45)	7.14% (78)	32.39% (354)	30.92% (338)	25.43% (278)	-0.664
Average	2.73% (493)	9.43% (1702)	31.68% (5719)	26.05% (4703)	30.11% (5435)	-0.714

Questions asked: There are different opinions about immigrants from other countries living in [respondent's resident country]. How much do you agree or disagree with the following statement? The number of immigrants to [respondent's resident country] nowadays should be reduced?

(Source: International Social Survey Program National Identity Module II, 2003)

Table 5.4: Public opinion on whether or not immigrants (1) take out more than they put in;
(2) bring down wages; (3) increase unemployment, and (4) abuse social benefits

Country	Take more (%)	Bring down wages (%)	Increase unemployment (%)	Abuse social benefits (%)
Austria	47	36	47	46
Belgium	53	29	64	66
Denmark	52	21	46	52
Finland	53	39	34	55
France	41	48	53	65
Germany	56	38	61	57
Ireland	28	39	45	56
Italy	48	36	44	42
Netherlands	39	22	51	49
Norway	40	15	-	-
Sweden	47	44	42	46
Switzerland	56	37	-	-
United Kingdom	-	-	47	58

Exact question wording: (1) Taxes and services: immigrants take out more than they put in or less [0=generally take out more, 10=generally put in more; the numbers reflect the cumulative percentages from answer categories 0-4]; (2) average wages/salaries are generally brought down by immigrants. (3)For each of the following opinions, please tell me whether you tend to agree or tend to disagree: the presence of people from these minority groups increases unemployment in a country; (4) people from these minority groups abuse the system of social benefits. The percentage shown is those who indicated agree to each of the above four questions.

(Data Source: Questions (1) and (2) are from European Social Survey 2002; questions (3) and (4) are from Eurobarometer (53) 2000, data cited from Crepaz 2007, p. 70-71)

Additionally, in 2000, the Eurobarometer asked the respondents whether or not they think

that minority groups (1) increase the unemployment rate in a country, and (2) abuse the system

of social benefits.[20] The following Table 5.4 shows the percentage of respondents who agree

with these four statements.

As one can see, for the ESS question (1), in five out of twelve countries-Belgium,

Denmark, Finland, Germany, and Switzerland, over half of the respondents think that immigrants

take more than what they contribute to the economy. Germany and Switzerland have the highest

proportion of their respondents agree that immigrants take out more than what they put in (both

56%). Compared with question (1), not as many people thought that immigrants bring down

wages and salaries in their own countries. France has the highest percentage of respondents who

agree that immigrants bring down wages (48%), but countries like Norway only had 15% of the

respondents agree with the statement.

As to the responses for the Eurobarometer questions (1), over half of the respondents

from East Germany (65%), Belgium (64%), West Germany (57%), France (53%), and the

Netherlands (51%) thought that minority groups increase unemployment rates in their home

countries. For the Eurobarometer question (2), over half of the respondents in Belgium (66%),

France (65%), East Germany (60%), United Kingdom (58%), Ireland (56%), Finland (55%),

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[20] Since European countries mostly have homogeneous societies, racial minorities are most of the time either immigrants, or their descendants. Therefore, the questions on attitudes toward racial minorities are also relevant for studying attitudes toward immigrants.

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West Germany (54%) and Denmark (52%) agree that minority groups abuse social benefits. The

percentage of people who agreed with the Eurobarometer question (2) was pretty high in other

countries too.

Based on answers from survey questions from the European Social Survey,

Eurobarometer, and the International Social Survey Program, one can conclude that there is a

prevalent perception that immigrants abuse welfare benefits in destination countries and that they

take out more than they put in. The public from all countries generally agree to reduce the

number of immigrants in their countries, and they do not think that immigrants are good for the

national economy. Although not as many respondents perceive that immigrants take away jobs or

bring down wages and salaries, and they largely agree that immigrants bring in new ideas and

culture, which improves the society, the general attitude toward immigrants is still quite negative.

Support for Welfare Provisions Granted to Immigrants

As noted in Chapter 3, a large amount of literature has documented the fact that

immigrants are overrepresented in certain welfare programs in countries like the United States,

France, Germany, Denmark, France, the Netherlands, and the United Kingdom (Borjas 1994;

Defoort and Drapier 2010; Peterson and Rom 1990; Camarota 2003; Nannestad 2007; Riphahn

2004; Hansen and Lofstrom 2003; Khoo 1994; Barrett and McCarthy 2008). However, how does

the general public view this issue? Do they support the right of immigrants to receive welfare

from the government? Furthermore, how does their attitude toward immigrants influence their

general support for the welfare system? In order to answer these questions, we must examine

individuals' support for welfare, as well as their support for immigrants' receiving welfare.

The ISSP asked a specific question on individuals' support for granting welfare benefits

to immigrants. The question is framed as: Do you think that your government spends too much

money assisting immigrants? The respondents can choose from the following answers: "Strongly

Agree," "Agree," "Neither Agree or Disagree," "Disagree," and "Strongly Disagree." Again, I

assign a larger value to indicate a higher level of support for the government assisting

immigrants. In other words, I assign 2 to "Strongly Disagree," 1 to "Disagree," 0 to "Neither

Agree or Disagree," -1 to "Agree," and -2 to "Strongly Agree." In the following Table 5.5, I

present the distribution of responses to this question.

As one can see, on average, individuals in each of the sixteen OECD countries think that

their national governments spend too much assisting immigrants. The average score of the

answer from each country is uniformly negative. Specifically, in nine out of the sixteen countries

examined over half of the respondents either agree or strongly agree that the number of

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immigrants in their country should be reduced. For example, in Germany-East, a total of 78.35%

of respondents either strongly agree or agree that their national government spends too much

assisting immigrants, with 35.07% of all respondents strongly agreeing and 43.28% agreeing

with the statement. In Germany-West, a total of 68.03% of respondents either strongly agree or

agree that their government spends too much on immigrants, with 28.42% of all the respondents

 strongly agreeing with the statement, and 39.61% agreeing with it. In Great Britain, 67.03% of

the respondents either agree or strongly agree that the British government spends too much

money assisting immigrants; the number is 63.35% for Ireland, 60.46% for Norway, 52.49% for

New Zealand, and 51.57% for the United States.

Instead, individuals who strongly disagree that their governments spend too much

assisting immigrants only make up 5.67% of all respondents, while individuals who disagree

with the statement also only make up 16.98% of all respondents. If we characterize individuals

who disagree or strongly disagree with this statement as being pro-spending on immigrants, then

less than a quarter of all respondents are pro-spending on immigrants. In countries like East

Germany (9.7%), Great Britain (13.33%), Norway (15.2%), West Germany (15.27%), United

States (15.27%) and New Zealand (18.25%), the percentages of respondents who are pro-

spending on immigrants are all less than 20%. Countries like Switzerland (35.21%) and

Denmark (31.65) have the highest percentage of respondents who are pro-spending on

immigrants, but the percentages are still not very high.

Table 5.5: Attitudes on whether or not the national government spends too much assisting immigrants

Country	Strongly Agree (=-2)	Agree (=-1)	Neither Agree Nor Disagree (=0)	Disagree (=1)	Strongly Disagree (=2)	Mean
Australia (AU)	17.44% (361)	26.67% (552)	29.76% (616)	20.82% (431)	5.31% (110)	-0.301
Austria (AT)	31.81% (286)	28.81% (259)	17.35% (156)	14.46% (130)	7.56% (68)	-0.628
Canada (CA)	17.87% (200)	29.40% (329)	30.38% (340)	19.66% (220)	2.68% (30)	-0.401
Denmark (DK)	24.96% (310)	22.79% (283)	20.61% (256)	16.59% (206)	15.06% (187)	-0.260
Finland (FI)	25.41% (312)	28.34% (348)	26.14% (321)	16.04% (197)	4.07% (50)	-0.550
France (FR)	27.18% (418)	22.50% (346)	23.80% (366)	13.07% (201)	13.46% (207)	-0.369
Germany-East (DE-E)	35.07% (141)	43.28% (174)	11.94% (48)	7.21% (29)	2.49% (10)	-1.012
Germany-West(DE-W)	28.42% (216)	39.61% (301)	16.71% (127)	12.11% (92)	3.16% (24)	-0.780
Great Britain (GB)	31.79% (267)	35.24% (296)	19.64% (165)	10.95% (92)	2.38% (20)	-0.831
Ireland (IE)	22.45% (231)	40.91% (421)	15.45% (159)	18.37% (189)	2.82% (29)	-0.618
Netherlands (Renshon)	15.91% (258)	31.69% (514)	29.84% (484)	18.43% (299)	4.13% (67)	-0.368
New Zealand (NZ)	21.91% (216)	31.03% (306)	28.80% (284)	15.92% (157)	2.33% (23)	-0.543
Norway (NO)	26.32% (360)	34.14% (467)	24.34% (333)	12.06% (165)	3.14% (43)	-0.684
Sweden (SE)	17.10% (184)	23.61% (254)	32.90% (354)	17.47% (188)	8.92% (96)	-0.225
Switzerland (CH)	11.56% (109)	35.42% (334)	17.82% (168)	32.13% (303)	3.08% (29)	-0.203
United States (US)	20.61% (243)	30.96% (365)	27.06% (319)	17.64% (208)	3.73% (44)	-0.471
Average	22.47% (4112)	30.32% (5549)	24.57% (4496)	16.98% (3107)	5.67% (1037)	-0.469

Questions asked: Do you agree that ethnic minorities should be given government assistance to preserve their customs and traditions?

(Source: International Social Survey Program National Identity Module II, 2003)

In order to find out whether or not attitudes toward immigrants influence the general

support for the welfare system, I also examine individuals' attitudes toward government-funded

welfare programs-social security programs. In the 2003 National Identity Module, the ISSP

asked about respondents' attitudes toward the social security system. The question is worded as:

(1) how proud are you with your country's social security system?" I code the answers into a 1-4

scale, with 4 meaning "very proud", 3 meaning "somewhat proud", 2 meaning "not very proud",

and 1 meaning "not proud at all." Therefore, a higher value in this four-scale measure indicates a

higher level of support for the social security system in the respondent's home country. In the

following Table 5.6, I present the results of people's answers to this question questions.

As we can see, the majority of the respondents are proud of their country's social security

system in all countries but East Germany. More than 70% of respondents are either somewhat

proud or very proud of the social security system in Canada (79.04%), Finland (78.66), France

(77.71%), Denmark (77.74%), Austria (76.35%), and the Netherlands (71.34%). Contrastly, in

East Germany, there was only 42.72% of respondents who are either somewhat proud or very

proud of their social security system.

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Table 5.6: How proud are you with the social security system in your country?

Country	Not proud at all (=1)	Not very proud (=2)	Somewhat proud (=3)	Very proud (=4)	Mean
Australia (AU)	11.17% (225)	29.13% (587)	46.80% (943)	12.90% (260)	2.614
Austria (AT)	5.17% (49)	18.48% (175)	47.31% (448)	29.04% (275)	3.002
Canada (CA)	4.55% (53)	16.41% (191)	54.64% (636)	24.40% (284)	2.989
Denmark (DK)	3.40% (43)	19.16% (242)	51.15% (646)	26.29% (332)	3.003
Finland (FI)	5.88% (76)	15.47% (200)	52.67% (681)	25.99% (336)	2.988
France (FR)	8.02% (123)	14.28% (219)	48.11% (738)	29.60% (454)	2.993
Germany-East (DE-E)	17.42% (73)	39.86% (167)	39.86% (167)	2.86% (12)	2.282
Germany-West(DE-W)	10.76% (85)	25.95% (205)	51.52% (407)	11.77% (93)	2.643
Great Britain (GB)	11.77% (93)	35.44% (280)	41.01% (324)	11.77% (93)	2.528
Ireland (IE)	7.43% (73)	28.79% (283)	48.02% (472)	15.77% (155)	2.721
Netherlands (Renshon)	7.06% (122)	21.60% (373)	49.74% (859)	21.60% (373)	2.859
New Zealand (NZ)	13.55% (129)	33.72% (321)	41.60% (396)	11.13% (106)	2.503
Norway (NO)	8.22% (116)	27.90% (394)	50.07% (707)	13.81% (195)	2.695
Sweden (SE)	10.84% (122)	27.64% (311)	48.62% (547)	12.89% (145)	2.636
Switzerland (CH)	8.40% (84)	21.00% (210)	48.20% (482)	22.40% (224)	2.846
United States (US)	11.31% (132)	34.02% (397)	41.82% (488)	12.85% (150)	2.562
Average	8.60% (1589)	24.51% (4555)	48.12% (8941)	18.77% (3487)	2.771

Questions asked: Do you agree that ethnic minorities should be given government assistance to preserve their customs and traditions?

(Source: International Social Survey Program National Identity Module II, 2003)

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Data and Methods

What is the connection between individuals' attitudes toward immigrants and their support for welfare spending on immigrants? In previous research, many scholars portray the picture of an ignorant general public, characterized by low levels of knowledge, low attitudinal constraint, and non-ideological attitude sets (Converse 1964; Sullivan et al. 1979; Jennings 1992; Delli-Carpini and Keeter 2001; Compbell et al. 1960; Jacoby and Norpoth 2007). However, other scholars find that the ignorant public can successfully use heuristics, informational and decisional short cuts, and information from their environment (media, elites, etc.) to make "correct" decisions (Zaller 1992; Lupia 1994; Sniderman et al. 1991). Moreover, the fact that immigrants benefit from welfare more than native-born citizens could lead to erosion in public support for welfare, especially welfare spending on immigrants. How do individuals' perceptions of immigrants influence their support for the welfare system? In other words, how are individuals' attitudes toward immigrants translated to their policy preferences on immigrant welfare policy? In addition, do individuals' attitudes toward immigrants influence their support for the welfare state in general?

In order to explore these questions, I utilize survey data from the ISSP-2003 to test the

hypothesis that individuals' attitudes toward immigrants directly influence public support for

welfare spending on immigrants. In a set of models, I use "support for welfare spending on

immigrants" as the dependent variable. The question "Do you think that your government spends

too much money assisting immigrants?" is used as the indicator of the dependent variable. The

independent variable is people's attitudes toward immigrants. I use three indicators to measure

the independent variable: (1) attitudes on whether or not immigration is good for the national

economy, which I refer as "Attitude 1," (2) attitudes about whether or not immigrants improve

the society by bringing in new ideas and cultures, which I refer as "Attitude 2," and (3) attitudes

about whether or not the number of immigrants should be reduced, which I refer as "Attitude 3."

I also generate a factor score of the three indicators, which I refer as the "General Attitude."

In order to check the robustness of the effect of attitudes on immigrants on support for

welfare, I also try to test that attitudes toward immigrants influence general public support for the

welfare system. In a second set of models, I use support for the social security program as the

dependent variable. The question "Are you proud with the social security system in your

country?" is used as the indicator of the dependent variable. I include the same four indicators of

attitudes toward immigrants as my independent variables-"Attitude 1," "Attitude 2," "Attitude

3," and the "General Attitude." A description of the key variables and their measures are as follows. More detailed descriptions of the variables are included in Appendix 6.

Dependent Variables

Support for Welfare Provisions to Immigrants The following question was asked in the ISSP-2003: "do you agree that the government spends too much money on assisting immigrants. In this variable, I code "strongly disagree" as 2, "disagree" as 1, "neither disagree nor agree" as 0, "agree" as -1, and "strongly agree" as -2. Therefore, a negative value in this 5-scale measure indicates opposition to welfare provisions to immigrants, while a positive value indicates support for welfare given to immigrants. The higher the value is, the more the respondent supports welfare spending on immigrants.

Support for the Social Security System The following question was asked in the ISSP-2003: "are you proud of the social security system in your country?" In this variable, I code the answer "very proud" into 4, "somewhat proud" into 3, "not very proud" into 2, and "not proud at all" into 1. Therefore, a larger value of this 4-scale measure indicates higher level of support for the government funded welfare system.

Independent Variable

Attitude 1 I use respondents' answer to the question "do you agree that immigration is good for the national economy?" as the first indicator of their general attitudes toward immigrants. This variable is a five-scale measure, with -2 meaning "strongly disagree", -1 meaning "disagree", 0 meaning "neither disagree nor agree", 1 as "agree", and 2 meaning "strongly agree". A positive value indicates favorable affect toward immigrants on economic issues, while a negative value indicates a negative attitude toward immigrants on economic issues. The higher the value is, the more favorable the affect that the respondent has toward immigrants on economic issues.

Attitude 2 I use respondents' answer to the question "do you agree that immigrants improve the society by bringing in new ideas and cultures" as the second indicator of their general attitudes toward immigrants. This variable is a five-scale measure, with -2 as "strongly disagree", -1 as "disagree", 0 as "neither disagree nor agree", 1 as "agree", and 2 as "strongly agree". Therefore, a positive value indicates favorable attitudes toward immigrants, while a negative value indicates aversion in immigrants. A large value indicates greater positive affect toward immigrants on cultural issues.

Attitude 3 I use respondents' answer to the question "do you agree that the number of

immigrants should be reduced" as the third indicator of their general attitudes toward immigrants.

This variable is a five-scale measure, with -2 as "strongly agree", -1 as "agree", 0 as "neither

disagree nor agree", 1 as "disagree", and 2 as "strongly disagree". A larger value in this variable

indicates more favorable attitudes toward immigrants.

The General Attitude I use a factor analysis and generate a factor score based on the three

indicators "Attitude 1," "Attitude 2," and "Attitude 3." This factor score which I refer to as "the

general attitude" varies from -2. 2 to 2.4, with -2.2 indicating an extremely negative attitude

toward immigrants and 2.4 indicating an extremely positive attitude toward immigrants. The

Eigenvalue for the factor score is 2.07, which means that the total variance accounted by the

factor score is 2.07. 68.84% of the variances in "Attitude 1," "Attitude 2," and "Attitude 3" are

explained by the factor score.

Control Variables

The control variables that I include in the ordered logistic models include citizenship

status, parents' citizenship status, gender, age, education, union membership status, employment

status, family income, party affiliation, and church attendance. The scales of all the control

variables are described in Appendix 6. Data on all variables are recoded from the National

Identity Module II that the ISSP conducted in 2003.

Since the two dependent variables are both ordinal variables, I use ordered logit to

analyze the effect of the independent variables on the dependent variables. In the first set of

models, I use "support for welfare spending on immigrants" as the dependent variable in all three

models. In Model 1, I did not include any of the attitude variables; in Model 2, I included

"Attitude 1," "Attitude 2," and "Attitude 3" as my independent variables; in Model 3, I included

the "General Attitude" as my independent variable. Each of the three models has included the

same set of control variables. In the second set of models, I use "support for the social security

system" as the dependent variable. Like the first set of models, I do not include any of the

attitude variables in Model 1, but in Model 2 I include all three attitudes variables, and in Model

3 I include the "General Attitude" variable.

Results

The results of the two sets of ordered logit models are presented in Table 5.7 and Table

5.8. In the three ordered logit models presented in Table 5.7, the dependent variable for all three

models is "support for welfare provisions to immigrants." As one can see, in Model 1,

citizenship, parents citizenship, education, union, employment status, income, party affiliation on

a left-right scale, and church attendance all have a significant effect on support for welfare

provisions to immigrants.

In Model 2 of Table 5.7, Attitude 1 (b = 0.328, Z = 9.60), Attitude 2 (b = 0.522, Z =

14.41), and Attitude 3 (b = 0.929, Z = 28.28) all have a positive significant effect on the

dependent variable. In other words, people who think that immigrants are good for the economy

are more likely to support welfare spending on immigrants. People who agree that immigrants

improve the society are also more likely to support welfare spending on immigrants. Likewise,

people who disagree with reducing the number of immigrants are also more likely to support

welfare spending on immigrants.

Among the control variables, citizenship status, gender, education, union membership,

income, party affiliation, and church attendance all have significant effects on the dependent

variable. Citizens, females, more educated people, union members, rich people, and liberals are

more likely to support welfare provisions to immigrants.

In Model 3 of Table 5.7, I substitute the general attitude variable for the three immigrant

attitude variables. As one can see, the "General Attitude" variable has a positive and significant

effect on the dependent variable (b = 1.561, Z = 42.41). The more individuals like immigrants on

all three aspects (economic, cultural, number wise), the more likely they are to support their

government assisting immigrants. Citizen, gender, education, union, income, party affiliation,

and church attendance all have significant effects on the dependent variables. In other words,

noncitizens, female, less educated individuals, union members, poor people, liberals, and

religious people are more likely to support governmental assistance to immigrants.

Table 5.7: Ordinal logistic regression analyses on support for welfare spending on
immigrants and attitudes toward immigrants, 2003

Variables	Model 1		Model 2		Model 3	
	b	z	b	z	b	z
Attitude1			0.328	9.60***		
Attitude2			0.522	14.41***		
Attitude3			0.929	28.28***		
General Attitude					1.561	42.41***
Citizen	-0.267	-1.65*	-0.358	-2.01*	-0.227	-1.96*
Parents citizen	-0.705	-8.75***	-0.003	-0.04	0.066	0.25
Gender	-0.022	-0.43	-0.145	-2.61**	-0.073	-2.46**
Age	0.003	1.57	0.002	1.10	-0.009	0.26
Education	0.021	9.28***	0.012	5.03***	-0.000	6.05***
Union	0.100	1.70*	0.323	5.01***	0.038	5.82***
Employment Status	0.126	1.66*	-0.052	-0.63	0.124	-0.21
Income	0.146	11.49***	0.131	9.51***	-0.153	8.60***
Party Affiliation	-0.397	-13.86***	-0.242	-7.83***	-0.277	-7.99***
Church Attendance	0.057	4.81***	0.028	2.20*	0.105	2.72**
/cut1	-1.115	-	-1.660	-	-2.287	-
/cut2	0.340	-	0.430	-	-0.359	-
/cut3	1.533	-	2.006	-	0.686	-
/cut4	3.396	-	4.279	-	3.045	-
Number of obs.	5357		4930		4947	
Pseudo-R^2	0.0344		0.1909		0.1798	

***prob < 0.001 one-tail test; ** prob < 0.01 one-tail test; * prob < 0.05 one-tail test

In order to make sure that the effect of attitudes toward immigrants on support for giving welfare to immigrants is not due to the endogeneity issue, I also test whether or not attitudes toward immigrants influence support for welfare spending in general. In Table 5.8, the three ordered logit models all have "support for social security system" as the dependent variable. As one can see, in Model 1, age, education, union membership, employment status, and church attendance all have a significant effect on support for social security programs.

In Model 2 of Table 5.8, Attitude 1 (b = -0.056, Z = -1.70) has a negative and significant effect on the dependent variable. Attitude 2 (b = 0.083, Z = 2.40) and Attitude 3 (b = 0.226, Z = 7.40) both have a positive significant effect on the dependent variable. In other words, people who think that immigrants are good for the economy are less likely to be proud of their social security system. People who disagree that immigrants improve the society are less likely to be proud of the social security system in their country. Likewise, people who agree with reducing the number of immigrants are also less likely to support welfare spending on immigrants. Among the control variables, age, education, union membership, and church attendance all have significant effects on the dependent variable. Old people, more educated people, union members, and religious people are more likely to be proud of the social security system in their country.

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Table 5.8: Ordinal logistic regression analyses on support for welfare in general and attitudes toward immigrants, 2003

Variables	Model 1		Model 2		Model 3	
	b	z	b	z	b	z
Attitude1			-0.056	-1.70*		
Attitude2			0.083	2.40**		
Attitude3			0.226	7.40***		
General Attitude					0.221	7.57***
Citizen	0.057	0.33	0.083	0.46	0.078	0.43
Parents citizen	0.018	0.22	0.144	1.58	0.154	1.69*
Gender	0.031	0.58	0.021	0.38	0.024	0.43
Age	0.013	6.45***	0.015	7.11***	0.014	6.73***
Education	0.013	6.27***	0.013	5.18***	0.014	5.73***
Union	0.345	5.63***	0.355	5.51***	0.377	5.86***
Employment Status	0.148	1.89*	-0.125	1.53	0.137	1.69*
Income	-0.017	-1.27	-0.022	-1.62	-0.024	-1.78*
Party Affiliation	-0.026	-0.90	0.015	0.50	0.012	0.38
Church Attendance	0.069	5.54***	0.065*	4.96***	0.067	5.09***
/cut1	-1.043	-	-0.952	-	-0.818	-
/cut2	0.728	-	0.829	-	0.956	-
/cut3	2.929	-	3.051	-	3.168	-
Number of obs.	5378		4930		4930	
Pseudo-R^2	0.0104		0.0191		0.0164	

***prob < 0.001 one-tail test; ** prob < 0.01 one-tail test; * prob < 0.05 one-tail test

In Model 3 of Table 5.8, the factor score "General Attitude" (b=1.561; Z=42.41) has a positive and significant effect on "support for social security programs." In other words, individuals who think positively of immigrants are more likely to be proud of the social security program in their country compared to individuals who think negatively of immigrants. Among

the control variables, parents' citizenship, age, education, union membership, employment status, income, and church attendance all have significant effects on the dependent variable. In other words, individuals whose parents are citizens, old people, more educated people, union members, employed people, poor people, and religious people are more likely to be proud of the social security system in their country.

The results show that anti-immigrant sentiment indeed corrodes support for social welfare. The connection I find between attitudes toward immigrants and support for giving immigrants welfare is not due to the endogeneity issue. Although "Attitude 1" has a negative effect on the general support for the social security system, the "General Attitude" still has a positive effect on support for the social security system. Therefore, the contention that attitudes toward immigrants influence support for welfare in general, and specifically for immigrants holds.

In order to interpret the relationship between attitudes toward immigrants and support for welfare provisions on immigrants more intuitively, I plot the predicted probabilities of "support for welfare provisions to immigrants" across different values of "Attitude 1", "Attitude 2" and "Attitude 3", while the other variables are held constant at their means. As one can see from Figure 5.1, as the value of Attitude 1 increases, the probability that individuals agree or strongly

agree that the national governments spend too much assisting immigrants decreases, while the

probability that individuals disagree or strongly disagree that governments spend too much

assisting immigrants increases. In other words, a person who thinks that immigrants are good for

the national economy is more likely to support government action to spend money assisting

immigrants. On the other hand, individuals who do not think that immigrants are good for the

national economy are more likely to oppose governmental spending on assisting immigrants.

Figure 5.1: Effect of "Attitude 1" on predicted probability of "support for welfare provisions to immigrants," based on results from Table 5.6 Model (2)

Figure 5.2 depicts the predicted probability of "support for welfare provisions to

immigrants" across different values of Attitude 2, while the values of the other variables are held

at their means. As one can see, as the value of Attitude 2 increases, the probability that

individuals agree or strongly agree that national governments spend too much assisting

immigrants decreases, while the predicted probability that individuals disagree or strongly

disagree that national governments spend too much assisting immigrants increases. In other

words, individuals who think that immigrants contribute to the society by bringing new ideas and

cultures are more likely to support governmental spending on immigrants; individuals who do

not think immigrants contribute to the society by bringing new ideas and cultures are less likely
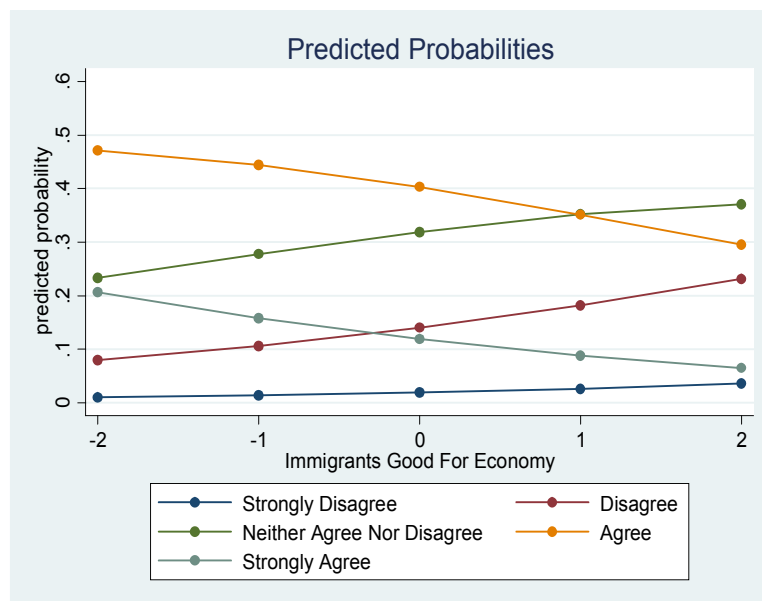
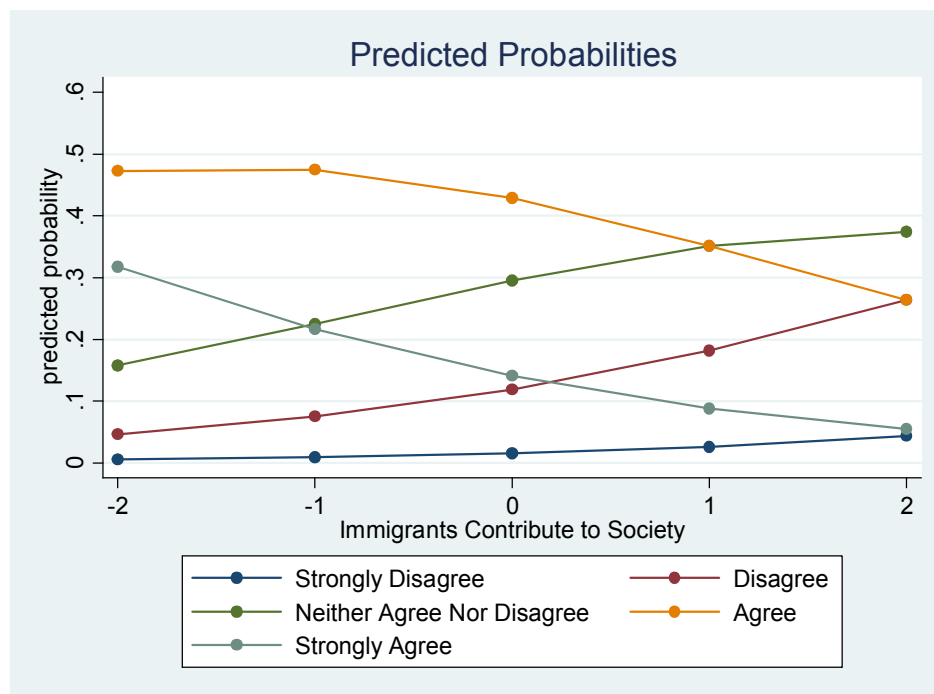to support governmental spending on immigrants.

Figure 5.2: Effect of "Attitude 2" on predicted probability of "support for welfare provisions to
immigrants," based on results from Table 5.6 Model (2)

In Figure 5.3 I plot the predicted probability of "support for welfare provisions to immigrants" across different values of Attitude 3, while the values of the other variables are held at their means. As one can see, as the value of Attitude 3 increases, the probability that individuals agree or strongly agree that national governments spend too much assisting immigrants decreases, while the predicted probability that individuals disagree or strongly disagree that national governments spend too much assisting immigrants increase. In other words, individuals who more strongly disagree with reducing the number of immigrants are more likely to support governmental spending on immigrants; conversely, individuals who more strongly agree with reducing the number of immigrants are less likely to support governmental spending on immigrants.

In order to describe the relationship between individuals' general attitude toward immigrants and their support for welfare spending on immigrants, in Figure 5.4 I plot the predicted probability of "support for welfare provisions to immigrants" across different values of the general immigration attitude variable. The values of all the control variables are held at their means. As one can see, as the value of "General Attitude" increases from the lowest to the highest, the probability that individuals strongly agree that national governments spend too much

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assisting immigrants decreases drastically from 0.85 to almost 0. The substantive meaning for

this relationship is that if a person's general attitude toward immigrants changes from "extreme

negative affect" to "extreme positive affect," the probability that this person strongly agrees that

his or her government spends too much assisting immigrants will decrease from 85% to near 0%.

Figure 5.3: Effect of "Attitude 3" on predicted probability of "support for welfare provisions to
immigrants," based on results from Table 5.6 Model (2)

   As the value of the "General Attitude" increases from the lowest to the highest, the

probability that individuals agree that national governments spend too much assisting immigrants,

however, first increases, and then decreases. In other words, if individuals have an extreme

negative attitude toward immigrants, the probability that they agree that their government spends too much assisting immigrants is about 12%. Individuals who have a neutral attitude toward immigrants have approximately a 40% probability to agree that their government spends too much assisting immigrants. Individuals with an extremely positive attitude toward immigrants will have almost 0% probability of agreeing that their government spends too much assisting immigrants.
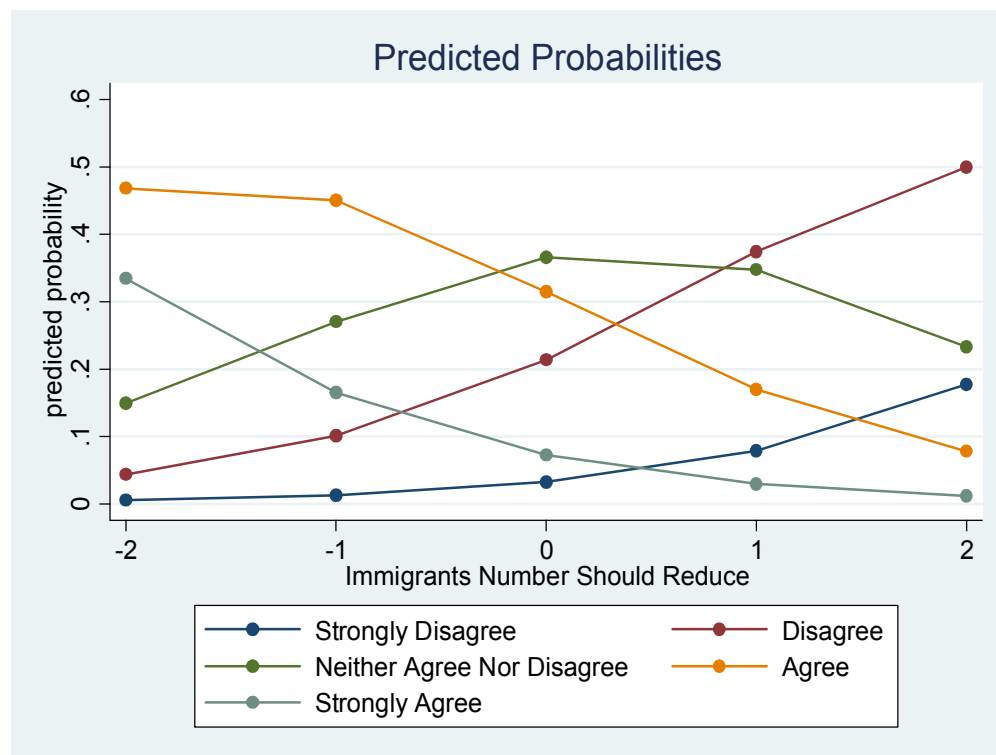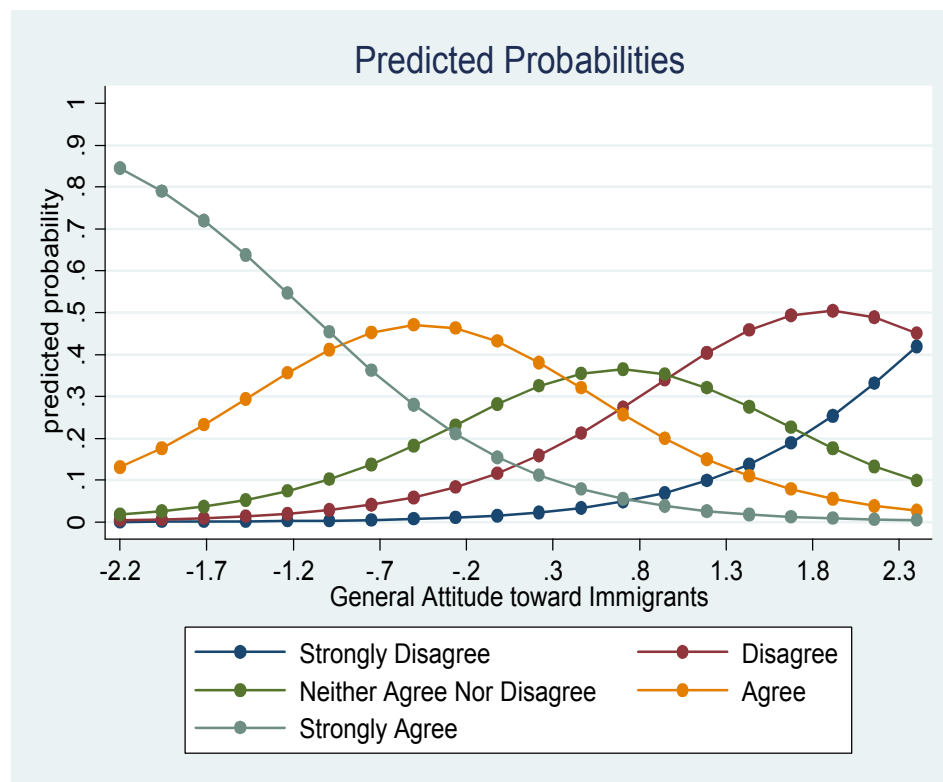

Figure 5.4: Effect of the "General Attitude" on predicted probability of "support for welfare provisions to immigrants," based on results from Table 5.6 Model (2)

As the value of the "General Attitude" increases from the lowest to the highest, the probability that individuals strongly disagree that their national government spends too much assisting immigrants increases. If individuals have an extremely negative attitude toward immigrants, the probability that they strongly disagree that their government spends too much assisting immigrants is almost 0%. On the other hand, individuals who have an extremely positive attitude toward immigrants have approximately a 30% probability of strongly disagreeing that their government spends too much assisting immigrants.

As the value of "General Attitude" increases from the lowest to the highest, the probability that individuals disagree that their national government spends too much assisting immigrants first increases and then decreases. If individuals have an extremely negative attitude toward immigrants, the probability that they strongly disagree that their government spends too much assisting immigrants is almost 0%. Individuals who have a very positive but not the most positive attitude toward immigrants (i.e., when general attitude = 1.94) will have the highest probability (about 50%) of disagreeing that their government spends too much assisting immigrants. However, individuals who have an extremely positive attitude toward immigrants

will have only about 40% probability of disagreeing that their government spends too much

assisting immigrants.

All in all, the conclusion that can be reached from the results of the two sets of ordered

logit models is that attitudes toward immigrants significantly influence people's support for

welfare assistance allocated to immigrants; it also influences people's support for the welfare

system in their country. The more people have a general positive attitude toward immigrants, the

more likely they will support welfare spending on immigrants, and the more likely they will be

proud of the social security programs in their country, especially if they think that immigrants

improve the society or that immigrants in their country are not over-numbered.

Conclusion

In this chapter, I first examine public opinion toward immigrants by utilizing survey data

from the International Social Survey Programs (ISSP), the European Social Survey (ESS), and

the Eurobarometer. The descriptive statistics of the survey results show that on balance people

do not have very positive opinion on immigrants. Many people disagree with the assertion that

immigrants are good for the economy, and most people think that the number of immigrants in

their country should be reduced. Although many people think that immigrants contribute to the

society by bringing new ideas and new cultures, the overall attitudes toward immigrants still

tends to be on the negative side of the spectrum.

I also examine how the general public views governmental social security programs and

governmental assistance to immigrants in western industrial democracies. It turns out that the

general public are proud of the social security programs in their country, but at the same time

they also think that their governments spend too much on giving welfare to immigrants.

Furthermore, I explore the determinants for public support for welfare spending on immigrants

on the individual level. Statistical evidence shows that individuals' support for governmental

spending on immigrants is directly influenced by the favorability of their attitudes toward

immigrants. Their opinion on whether or not (1) immigrants are good for the national economy,

(2) immigrants contribute to the society by bringing new ideas and cultures, and (3) the number

of immigrants should be reduced all directly influence how much they support governmental

spending on immigrants. The more they approve immigrants, they more likely they support

governmental assistance given to immigrants. I also carry out analyses to verify that the

existence of this connection is not due to an endogenous relationship between attitudes toward

immigrants and support for immigrants to receive welfare. Instead, individuals' attitudes toward

immigrants do corrode their general support for the welfare system.

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Up to now, it is clear that the general public in the western world seems to have a prevalent anti-immigrant sentiment. Such an anti-immigrant sentiment directly determines that the public feels the government spends too much assisting immigrants. Certainly, further research needs to be done to link the low public support for welfare spending on immigrants and the restrained immigrant welfare policies. However, to answer the big puzzle raised in Chapter 2, I still need to test that a restricted immigrant welfare policy explains why immigration influences post-redistribution income inequality. In the next chapter, I study the mediating effect of the immigrant welfare policy on the relationship between immigration and post-redistribution income inequality.

CHAPTER 6: SOLVING THE PUZZLE-IMMIGRATION AND INCOME INEQUALITY IN THE WESTERN WORLD

In the era of globalization, international migration has taken place in a more frequent and massive manner. Modern migration trends feature movements from developing countries to developed ones. Such migration movements possibly lead to political, social, and economic changes in western developed countries. One possible consequence is that migration might change how economic resources are distributed and redistributed within the society. Both economists and political scientists have pointed out that immigrants, especially low-skill immigrants, are paid less than average native-born citizens, and this might widen the income differentials between the haves and the have-nots (Borjas 2000, 1994a; Borjas and Tienda 1987; Hanson 2007; Borjas 1987).

However, among the few empirical studies exploring the relationship between immigration and income inequality on a cross national level, scholars do not reach the same conclusion. For example, Alderson and Nielsen (2002) finds that immigration has a modest positive effect on post-redistribution income inequality in 16 OECD countries from 1964 to 1992. Bradley et al. (2003) build their studies on Alderson and Nielsen (2002) but do not find any effect of immigration on income inequality at all. According to Bradley et al., unemployment rate and union density are the two most significant factors determining pre-redistribution income inequality; political and labor institutional characteristics explain the reduction of inequality by redistribution.

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As I point out in Chapter 2 and 3, the relationship between immigration and post-redistribution income inequality is a much more complex one than what has been documented in previous literature. In Chapter 4 and 5, I have shown that most western developed countries made their immigrant welfare policies more stringent in the past forty years. Consequently, immigrants were largely excluded from the welfare systems, and therefore, might fall behind economically in the redistributive process. This, I argue, might be the explanation for immigrants' influence on post-redistribution income inequality.

In order to test such a contention, I utilize data on income inequality, immigration, and the strictness of immigrant welfare policies across countries and over time to test the hypothesis that the immigrant welfare policy mediates the relationship between immigration and post-redistribution income inequality. The structure of the chapter is as follows: section one articulates the relationship between immigration, immigrant welfare policy, and income inequality and develops an original hypothesis. In section two, I introduce data and methods that I use to test the mediating effect of the immigrant welfare policy on the relationship between immigration and post-redistribution income inequality. In section three, I present the results of the empirical analyses, and then in section four, I discuss the findings and conclude the chapter.

Immigrant welfare policy as a mediator

As we know from Chapter 1 and Chapter 3, the incomes that immigrants receive do not only depend upon their skill sets, but also the welfare benefits that they receive and the taxes that they pay. Although most previous literature on immigrants and inequality stress that immigrants are paid less than native-born citizens because of their low skill-set, language barriers and

cultural reasons (Borjas 1994a; Hanson 2004; Husted et al. 2000; Marciano 1975; Kee 1995; Seifert 1997), the story of immigration and inequality is far from ending. The extent to which immigrants are included in the social welfare system also plays an important role in the relative income of immigrants.

First, while immigrants' incomes are primarily determined by their skill sets, they are also determined by policies like minimum wage policy. Second, except for salary, immigrants also receive various welfare benefits. Particularly, low-skill immigrants and immigrants without jobs are reported to be heavy welfare consumers and stereotype welfare recipients in developed countries. Welfare benefits are an important component for low-income and unemployed immigrants. The more access immigrants have to welfare programs, the less likely they will bring inequality up. Therefore, just like what I have argued in Chapter 3, the relationship between immigration and inequality should be mediated by the immigrant welfare policy.

Based on this contention, I hypothesize that in countries with stringent immigrant welfare policies, immigration should have a large positive effect on post-redistribution income inequality. On the other hand, in countries with relaxed immigrant welfare policies, immigration should have a moderate effect on post-redistribution income inequality.

Data and methods

In order to test the hypothesis, I pool data on post-redistribution income inequality, net migration rate, the strictness of immigrant welfare policies, and a series of control variables for 16 OECD countries from 1970 to 2008. In a panel data analysis, I estimate a model in which I depict post-redistribution income inequality as a function of net migration rate, the IWE score, the interaction of immigration and the IWE score, as well as the control variables. Descriptions

of the key variables are listed as follows. Measurements and data sources of all the variables were specified in Appendix 3 and Appendix 4.

Post-redistribution income inequality I use the net Gini coefficient from the Standardized World Income Inequality Dataset (SWIID) as the dependent variable. The SWIID dataset is compiled by Solt (2009), who uses a custom missing data algorithm to standardize the income inequality measure from the UNU-WIDER WIID with the LIS dataset as the standard.

Net migration rate Net migration rate measures the magnitude of immigration entering a country every year. It is calculated by the following formula: (immigrants-emigrants)/total population *1000 ‰. Data on net migration rate are collected from OECD International Migration Statistics.

IWE Score The IWE score measures the strictness of immigrant welfare policies in 16 OECD countries from 1970 to 2009. It varies from 0-1, with 0 indicating the most relaxed immigrant welfare policy and 1 indicating the most stringent immigrant welfare policy. Data on the IWE score are from content analyses of the policy document *Social Security Programs Throughout the World.*

Migration * IWE Score The interaction term of net migration rate and the IWE score, which is used to test if the strictness of immigrant welfare policies mediates the relationship between immigration and inequality.

Control variables Control variables include population growth, female labor participation, agricultural labor, total trade, youth population, capital openness, FDI inflow, FID outflow, and

real GDP per capita. The reason why these factors influence inequality has been stated in Chapter 2. Data on population growth, female labor participation, agricultural labor, and total trade are from OECD statistics. Data on youth population and capital openness are from the CWS dataset. Data on FDI inflow and FDI outflow are from the IMF. Data on real GDP per capita are from the Penn World Table (http://pwt.econ.upenn.edu/).

Time effect I have included linear and quadratic trend variables to control the fixed time effect. Linear trend is used to control the linear time effect, while the quadratic trend variable is used to control the non-linear time effect. Linear trend is coded as 1970=1, 1971=2, … , 2009=40. Quadratic trend is coded as 1970=1, 1972=4, …, 2009=1600.

Country dumm variables I have also included country dummy variables to capture the country differences.

I estimate the models by using panel corrected standard errors (PCSE) because of the autocorrelated errors and heteroskedasticity problems associated with panel data (Beck and Katz 1995). The models estimated assume a heteroskedastic error structure across panels and are estimated using panel-specific estimates of first-order autocorrelation.

Findings

I present the results of the models in Table 6.1. In model (1) of Table 6.1, I use post-redistribution income inequality as the dependent variable, as independent variables I use net migration rate and the IWE score. In model (2) of Table 6.1, I also include the interaction term of immigration and the IWE score as an independent variable.

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In model (1), net migration rate shows a positive and significant effect on post-redistribution income inequality. This is consistent with expectations. These results suggest that country-year observations with higher levels of immigration have higher levels of post-redistribution income inequality, holding the effects of other independent variables constant. More specifically, one unit increase in net migration rate leads to 0.036 unit increase in the net Gini coefficient ($b = 0.036$; $z = 2.24$). Moreover, the IWE score does not seem to have a significant effect on the dependent variable. I speculate that strict limits on immigrant welfare eligibility can have an effect on income inequality, but there is no evidence of this assertion in the results from Model (1).

Among the control variables, Christian Democratic seat, agricultural labor and real GDP per capita all have a significant effect on the dependent variable. If the seats taken by the Christian Democratic party in the parliament increases by 1%, the net Gini coefficient is expected to decrease by 0.072 unit. Moreover, a 1% increase in agricultural labor is associated with 0.632 unit increase in the net Gini coefficient. Clearly, country-years characterized by strong rural agricultural economies have significantly higher levels of post-redistribution income inequality. Increases in real per capita GDP also have a positive effect on income inequality. A one unit increase in the real GDP per capita is associated with 0.0001 unit increase in the net Gini coefficient ($b = 0.0001$, $z = 1.95$). The hypothesis that Christian Democratic parties support more redistribution due to their religious beliefs still holds in this model. The economic development hypothesis still holds, and it shows that the higher economic level is associated with a higher post-redistribution income inequality level.

Table 6.1: Pooled time series vs. cross national analysis on post-redistribution income inequality (net Gini coefficient)

Variable	(1) b	(1) z	(2) b	(2) z
Net Migration Rate	0.036	2.24*	0.017	0.70
IWE Score	-0.770	-1.41	-1.027	-1.74*
Net migration rate* IWE score			0.064	1.00
Left Seat	-0.003	-0.35	-0.004	-0.39
Christian Democratic Seat	-0.072	-2.87**	-0.071	-2.83**
Veto Points	0.089	-0.19	-0.071	-0.16
Wage Coordination	0.001	0.03	0.0004	0.01
Union Density	-2.584	-1.45	-2.483	-1.40
Population Growth	0.001	0.05	0.007	0.27
Youth Population	4.964	0.53	3.995	0.43
Unemployment Rate	5.425	1.27	5.666	1.36
Female Labor Participation	-0.940	-0.43	-0.385	-0.18
Agricultural Labor	0.632	10.45***	0.617	10.30***
Total Trade	-0.021	-1.17	-0.020	-1.13
FDI Inflow	0.034	0.77	0.038	0.88
FDI Outflow	-0.011	-0.41	-0.014	-0.52
Capital Openness	0.926	0.80	0.071	0.63
Real GDP per capita	0.0001	1.95*	0.0001	1.98*
Linear trend	-0.062	-2.94**	-0.287	-3.20***
Quadratic trend	0.012	5.70 ***	0.013	5.90***
Australia	-5.059	-3.28***	-4.998	-3.34***
Austria	-5.468	-2.55**	-5.385	-2.59**
Canada	-3.896	-2.73**	-3.864	-2.82**
Denmark	-7.551	-3.01**	-7.546	-3.10***
Finland	-13.005	-4.88***	-12.972	-5.07***
France	-4.782	-2.12*	-4.593	-2.12**
Germany	-1.170	-0.74	-1.221	-0.78
Ireland	-4.468	-1.49	-4.180	-1.43
Italy	-1.565	-0.71	-1.333	-0.62
Netherlands	-3.625	-1.26	-3.522	-1.27
New Zealand	-5.606	-1.99*	-5.283	-1.94*
Norway	-9.508	-3.06***	-9.482	-3.18***
Sweden	-8.454	-3.65***	-8.561	-3.83***
Switzerland	2.122	1.37	1.589	1.13
Intercept	28.022	5.71***	28.120	5.89***
N	327		327	
Number of groups	16		16	
Wald χ^2	6386.95		6325.50	
Prob (χ^2)	0.0000		0.0000	

***prob< 0.001 one-tail test   ** prob< 0.01 one-tail test   * prob< 0.05 one-tail test

In Model (2) of Table 6.1 I include the interaction term of net migration rate and the IWE score. It turns out that the net migration rate still has a positive effect on the dependent variable, but the effect is not nearly significant (b = 0.017; z = 0.70). The IWE score has a negative and significant effect (b = -1.027; z = -1.74); this suggests that for countries with no net migration, increases in the IWE score are associated with decreases in income inequality. The interaction term of the net migration rate and the IWE score has a positive coefficient, but it is not significant on a 95% confidence level (b=0.064; z=1.00). According to Brambor, Clark and Golder(2007), when interpreting multiplicative interaction models one should include all constitutive terms instead of merely looking at the significance level of the interaction term. Therefore, one can not declare that the IWE score does not have a significant mediating effect on the relationship between immigration and post-redistribution income inequality just based on the fact that the interaction term does not have a significant coefficient.

In order to interpret the effect of immigration and the IWE score on post-redistribution income inequality, I plot the marginal effect of immigration on post-redistribution income inequality when the IWE score changes from 0 to 1 in Figure 6.1. As one can see, the marginal effect of immigration on post-redistribution income inequality is positive, which means that every unit increase in immigration is associated with increases in post-redistribution income inequality. Furthermore, as the IWE score increases, the marginal effect of immigration increases as well. The effect of immigration on post-redistribution income inequality is only significant when IWE is larger than 0.2 and smaller than 0.79. If a country has a relaxed immigrant welfare policy (IWE=0.2), the marginal effect of immigration on post-redistribution income inequality is 0.03. In other words, one unit increase in immigration will result in 0.03 unit increase in the net

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Gini coefficient. However, in a country with a most stringent immigrant welfare policy (IWE=0.8), the marginal effect of immigration is 0.07; in other words, one unit increase in immigration is associated with 0.07 unit increase in net Gini coefficient.
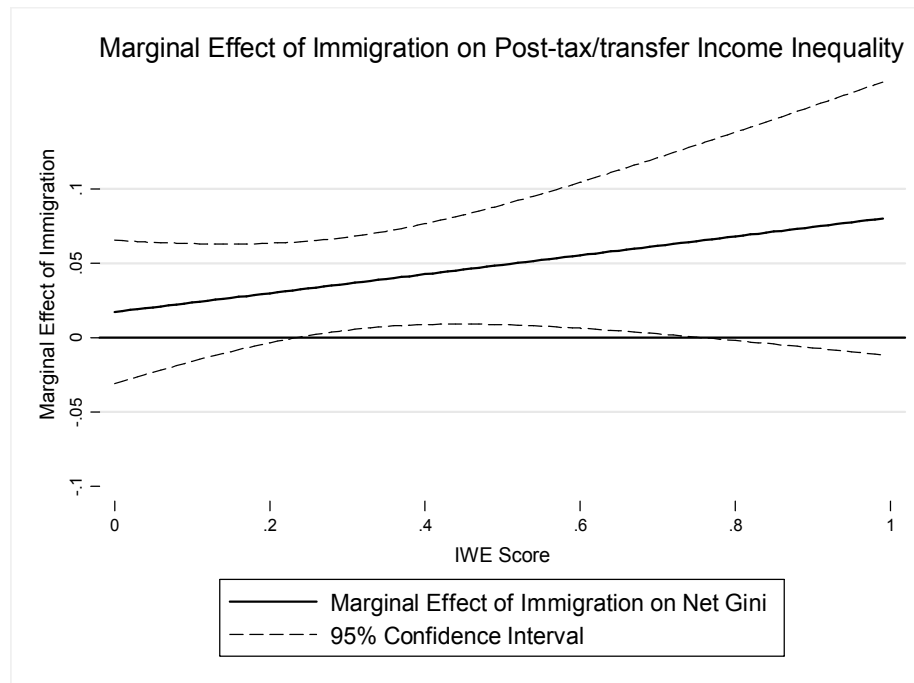

Figure 6.1: Marginal effect of immigration on post-redistribution income inequality as the IWE score changes (Based on Model (2) of Table 6.1)

In Model (2), the same set of control variables including Christian Democratic seat, agricultural labor, real GDP per capita, linear trend, quadratic trend all have a significant effect on the dependent variable. More specifically, if the seats taken by the Christian Democratic Party in the parliament increases by 1%, the net Gini coefficient decreases by 0.071 unit. Hence Christian Democratic parties contribute to reduced post-redistribution income inequality. I also find that a 1% increase in agricultural labor is associated with 0.617 unit increase in the net Gini coefficient; here again, this suggests that income inequality is higher in country-year cases

characterized by agrarian economies. As before, a one unit increase in the real GDP per capita is associated with 0.0001 unit increase in the net Gini coefficient. Again, the results show that the hypotheses about Christian democratic parties and economic development are accepted. Linear trend has a negative and significant effect (b=-0.287; z=-3.20), while quadratic trend has a positive and significant effect (b=0.013; z=5.90). The coefficients of the linear trend and quadratic trend show that post-redistribution income inequality changes over time regardless of the other factors. Over time, post-redistribution income inequality first increases but then increases at a marginally-decreasing rate.

Conclusion

In this chapter, I examine how immigration and the immigrant welfare policy combine to influence post-redistribution income inequality. My theory, as pointed out in Chapter 3, is that immigration influences post-redistribution income inequality, but not pre-redistribution income inequality. The reason is that immigrants are largely excluded from the welfare system in many western democracies, which results in their falling behind economically from native-born citizens after the redistributive process. I utilize empirical data from 16 OECD countries from 1970 to 2009 to test my theory. The results have shown that the relationship between immigration and post-redistribution is mediated by immigrant welfare policy when the 0.2<IWE<0.8. In countries with stringent immigrant welfare policies, one unit increase in net migration inflows leads to a large increase in post-redistribution income inequality; while in countries with relaxed immigrant welfare policies, one unit increase in net migration inflows leads to a small increase in post-redistribution income inequality. The effect of immigration on

post-redistribution income inequality is not significant when the immigrant welfare policy is extremely stringent or extremely relaxed.

Up to now, I have demonstrated that (1) immigration indeed leads to increases in post-redistribution income inequality, and (2) the extent to which immigrants are included in the social welfare system partially influences how much immigration influences post-redistribution income inequality. In countries with fairly relaxed immigrant welfare policies, immigration only has a moderate positive effect on post-redistribution income inequality. By contrast, in countries with fairly stringent immigrant welfare policies, immigration has a large positive effect on post-redistribution income inequality.

CHAPTER 7: CONCLUSION

In the past three decades, many western developed countries have witnessed increases in both income inequality and immigration levels. Previously, scholars have tried to determine if immigration contributes to rising inequality, but they have found contradictory evidence. In this dissertation, I argue that the inconsistent findings from previous studies are due to a more complicated relationship between immigration and inequality. Immigration, as a product of globalization, does have an effect on the post-redistribution income inequality, but the relationship is also mediated by domestic politics and policies. Particularly, whether or not immigrants are included in the social welfare system in destination countries can influence immigrants' income relative to their citizen counterparts. This dissertation has shown that many western developed countries have limited immigrants' access to welfare programs since the 1970s. Therefore, migration inflows enlarge the income differentials between immigrants and citizens, and consequently escalate income inequality after redistribution.

In order to support this story, in Chapter 2 of this dissertation I use empirical data and statistical analysis to show the positive effect of immigration on post-redistribution income inequality. In two pooled time series and cross sectional analyses, I demonstrate that immigration does not have a significant effect on pre-redistribution income inequality but does have a significant effect on post-redistribution income inequality. In other words, the presence of immigrants does not enlarge the gap in the incomes that are earned by people from the market, but instead escalates the gap in the income after redistribution. Such a finding contradicts our intuition because redistribution is supposed to *decrease* income inequality.

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In order to find an answer to this puzzle, in Chapter 3 I review previous literature and contend that immigrants were overrepresented in welfare programs in many western developed countries in the 1970s, 1980s, or early 1990s. By using a simple game setting, I argue that, facing a fiscal burden caused by immigrants' overparticipation in certain welfare programs, policy-makers might simply exclude immigrants from the social welfare system. The exclusion of immigrants from the welfare system might be the reason why immigrants influence post-redistribution income inequality, but not pre-redistribution income inequality. With limited or no access to welfare benefits, immigrants are left behind economically in the redistributive process. Consequently, they will widen the income differentials after redistribution.

In Chapters 4-6 I further explore and test if this theory is true. In Chapter 4, I examine the extent to which immigrants are included in the social welfare systems in 17 OECD countries from 1970 to 2009. I collect information on (1) what types of immigrants are eligible for welfare programs like old-age pension, sickness benefits, unemployment benefits and family allowances, and (2) how long is the waiting period for immigrants to be able to receive welfare benefits from each of the program. Based on the collected information, I have created an IWE score, which measures the stringency of the immigrant welfare policy for each of the 17 OECD countries in each year. I find that the immigrant welfare policies on average have become more stringent in these OECD countries over time. I also explore the determinants for changes in immigrant welfare policies, and found that left wing and right wing parties both tend to make more stringent immigrant welfare policies. Christian democratic parties might sound supportive on immigrant issues in their party platforms, but are also linked with making more stringent immigrant welfare policies. More constitutional structure veto points and higher union density can lead to more

stringent immigrant welfare policies. Contextual factors like vote turnout and the connection

between the government and interest groups, total trade, and real GDP per capita all influence

immigrant welfare policy.

Based on the findings from Chapter 4, it seems like levels of immigration do not

influence the policy-making of immigrant welfare policies. In other words, the government does

not adopt more stringent immigrant welfare policies just because the number of immigrants

increases every year. In order to explore the connection between immigration and the change of

the immigrant welfare policies, I turn to examine the public opinion side of the story. Based on

survey data from the ISSP, ESS, and Eurobarometer, I discover that there is a prevalent anti-

immigrant sentiment among the general public in western developed countries. In all the western

developed countries that I examine, a large proportion of respondents (1) agree that the number

of immigrants in their countries should be reduced, (2) disagree that immigrants are good for the

national economy, and (3) perceive that immigrants take more than what they put in. Although

not as many respondents perceive that immigrants take away jobs or bring down wages and

salaries, and they largely agree that immigrants improves the society by bringing in new ideas

and culture, the general attitudes toward immigrants are still quite negative. I also use statistical

evidence to show that such negative attitudes toward immigrants directly determine individuals'

low support for welfare provisions to immigrants.

In Chapter 6, I demonstrate that immigration and the immigrant welfare policy indeed

combine to determine post-redistribution income inequality. In a pooled time series and cross

sectional analysis, I use post-redistribution income inequality as the dependent variable; as

independent variables I use immigration, immigrant welfare policy, and the interaction term of immigration and the immigrant welfare policy, as well as control variables. The results have shown the relationship between immigration and post-redistribution is mediated by the immigrant welfare policy when 0.2<IWE<0.8. In countries with more stringent immigrant welfare policies (when the IWE score is larger than 0.2), one unit increase in net migration inflows leads to a large increase in post-redistribution income inequality. In countries with relaxed immigrant welfare policies (when the IWE score is smaller than 0.8), one unit increase in net migration rate only leads to moderate increases in post-redistribution income inequality. The effect of immigration on post-redistribution income inequality is not significant when the immigrant welfare policy is extremely stringent (IWE<0.2) or extremely relaxed (IWE>0.8).

This dissertation tells a story that the stringency of the immigrant welfare policy determines how immigrants influence domestic economic outcomes. These findings speak to the relationship between domestic politics and globalization. In previous literature, the "globalization school" argues that globalization has a significant influence on income inequality because openness means more threat, risk, and competition with workers from abroad. The "institutional school," on the other hand, argues that political institutions and labor institutions have independent effects on the level of redistribution and income inequality. The results of this paper show that there is truth in both arguments — globalization (in terms of immigration) and domestic politics (partisanship, political, and labor institutions) both have an influence on income inequality. The finding that immigration significantly influences post-redistribution income inequality shows that globalization does have an effect on domestic economic outcomes.

However, immigration does not influence domestic economic outcomes all by itself; instead, domestic political and labor institutions mediate the effect of immigration on economic outcomes.

This dissertation contributes to the fields of the welfare state, income inequality, and globalization. First of all, this dissertation answers the question of why previous literature has contradicting findings on the effect of immigration on inequality. The results from this dissertation challenge previous findings on the relationship between globalization and inequality by bringing up the mediating effect of domestic politics and policy. Secondly, immigration is a most understudied topic in globalization and political science literature. By exploring how immigration influences domestic policy-making and domestic economic outcomes, this dissertation contributes to globalization and political science research. Thirdly, the IWE score that I have coded and created is the first systematic measure of the strictness of immigrant welfare policies across countries and over time. Researchers can use this measure to compare how immigrants are treated by the western welfare states.

This initial exploration on how immigration influences domestic policy-making and economic outcomes also triggers a series of interesting research questions. For example, more research needs to be done on how immigration and immigrant welfare policies influence the survival of the welfare state. This dissertation also suffers from a lack of country-specific studies, i.e. case studies on individual countries. Future research on how immigration influences the immigrant welfare policy, the welfare state, and inequality is called for. Despite all the limitations, I hope this dissertation still provides insights on the study of immigration and inequality.

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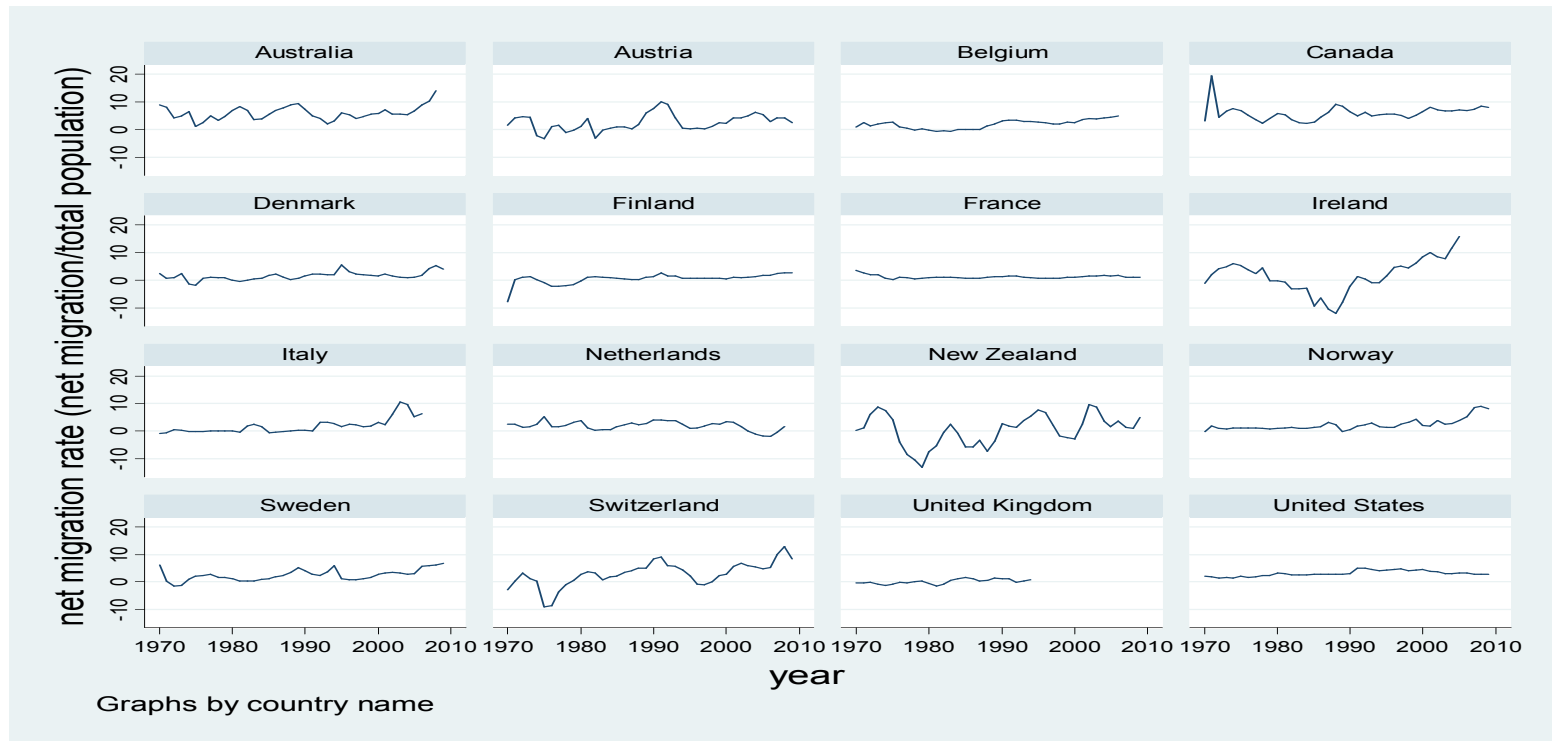
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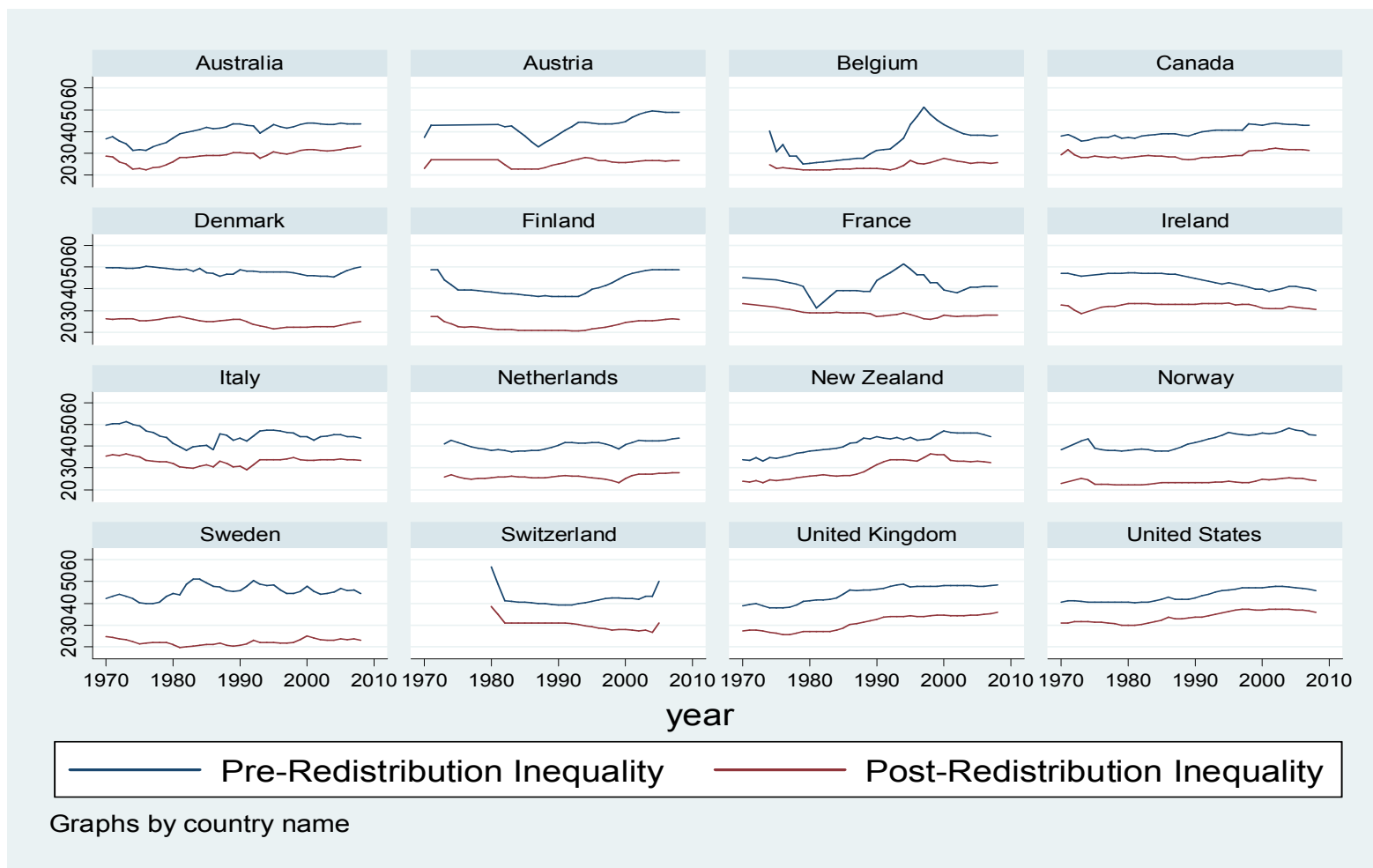
APPENDIX

1: Net migration rate in 16 OECD countries, 1970-2007

Graphs by country name

Net migration rate is the net number of immigrants divided by the total inhabitants. It is calculated by the following formula:

$$\text{Net Migration Rate} = \frac{\text{Inflow of Immigrants-Outflow of Immigrants}}{1,000 \text{ Inhabitants}}$$

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**2: Pre- and Post-redistribution income inequality in 16 OECD countries, 1970-2007**

Graphs by country name

3: Specifications of Variables

_____

Variable	Description

_____

Dependent variables

Gross Gini coefficient   Gini coefficient based on gross household incomes *Source: Standardized World Income Inequality (Solt, 2009)*

Net Gini coefficient   Gini coefficient based on net household incomes *Source: Standardized World Income Inequality (Solt, 2009)*

Independent variables

Net migration rate   (Immigrants-Emigrants)/total population *Source: OECD Statistics*

Control variables

Population growth   (Current year population-last year population)/last year population. *Source: OECD Statistics, Penn World Table*

Unemployment rate   Total labor unemployed / total labor force. *Source: OECD statistics*

Left seat   Percentage of total seats in parliament for left parties *Source: CWS Dataset (Huber 1997; Brady 2004)*

Christian Democratic seat   Percentage of total seats in parliament for Christian Democratic parties. *Source: CWS Dataset (Huber 1997; Brady 2004)*

Constitutional structure veto points   Sum of federalism, presidential system, electoral system, strength of bicameralism, referendum, judicial review, and authoritarian legacies *Source: CWS Dataset (Huber 1997; Brady 2004)*

Union density   Net union membership as a percentage of total wage and salaried employees. *Source: CWS Dataset (Huber 1997; Brady 2004)*

Wage bargaining power   Wage setting coordination scores (1=fragmented wage bargaining, 5=strong union concentration, high level of pattern setting and coordination between industries) *Source: CWS Dataset (Huber 1997; Brady 2004)*

Youth population   Total population under 15 years/total population *Source: CWS Dataset (Huber 1997; Brady 2004)*

Capital openness   Liberalization of inward and outward capital account transactions. It ranges from zero to four. *Source: CWS Dataset (Huber 1997; Brady 2004)*

Female labor force participation   Percentage of female age 15 to 64 in the labor forces. *Source: OECD Statistics, CWS Dataset*
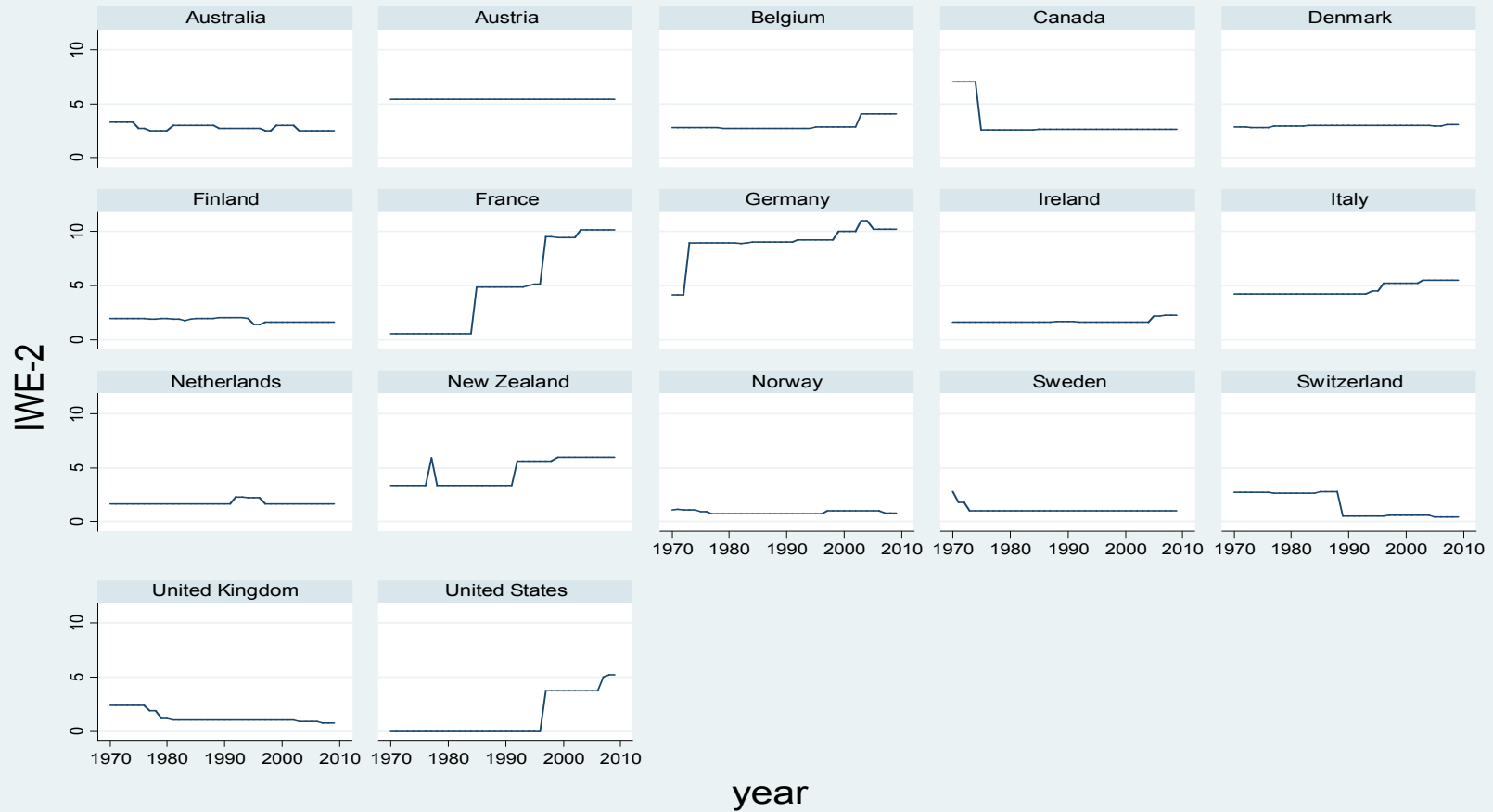
3: Specifications of Variables (continued)

Variable	Description
Control variables (Continued)	
Agriculture labor	Percentage agricultural productions in all sectors. *Source: OECD Statistics*
Total trade	Total trade as a percentage. *Source: OECD Statistics*
FDI inflows	Inward foreign direct investment as a percentage of GDP *Source: IMF, Swank, 1998*
FDI outflows	Outward foreign direct investment as a percentage of GDP. *Source: IMF, Swank, 1998*
Real GDP per capita	Real GDP per capita *Source: OECD Statistics, World Bank*
Linear trend	Linear time effect (1970=1, 1971=2……)
Quadratic trend	Quadratic time effect (Linear trend square; 1970=1, 1971=4…..)

4: Change of IWE-1, the first component of immigrant welfare policy in each of the 17 OECD countries, 1970-2009

Graphs by country name
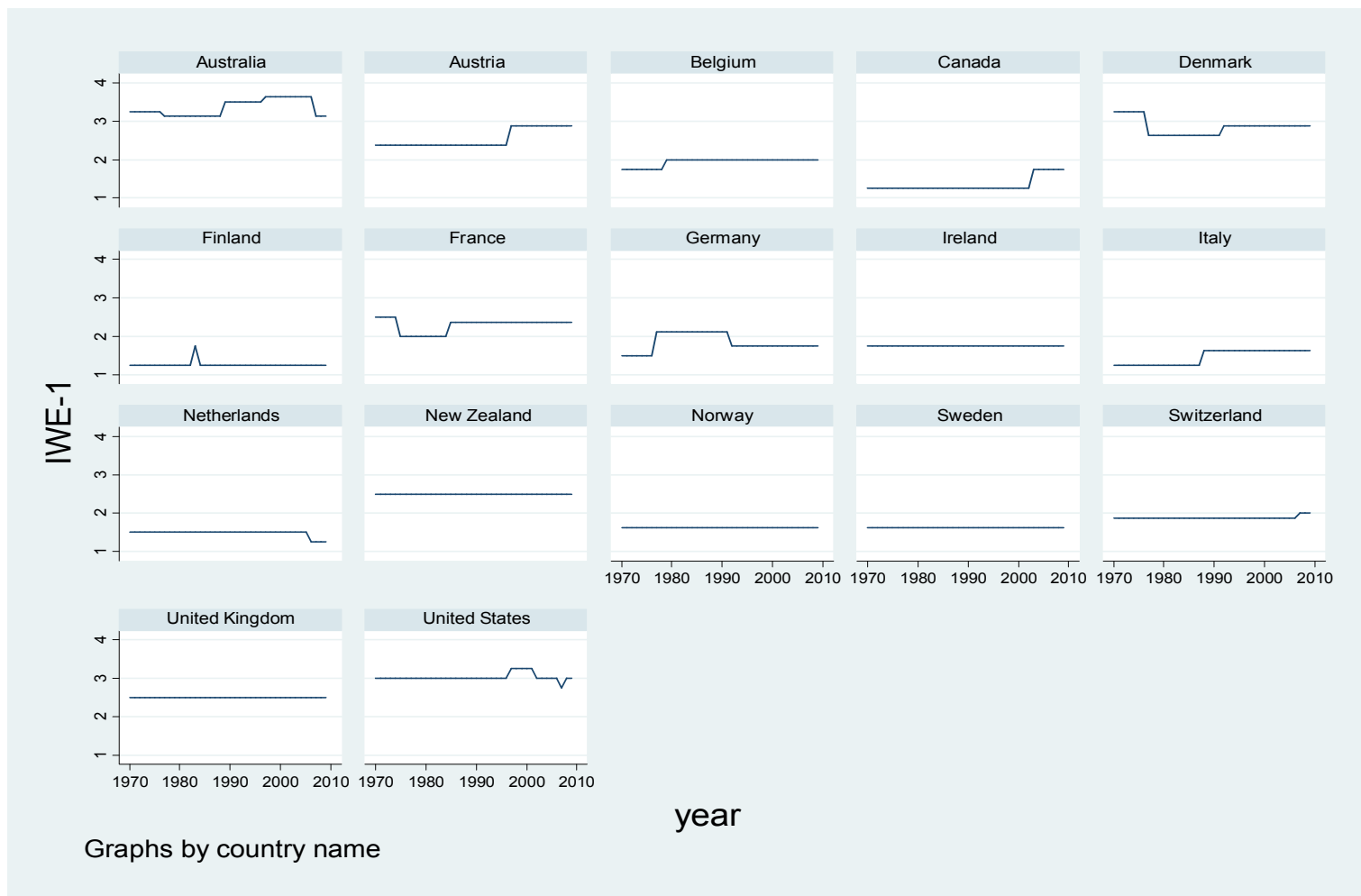
5: Change of IWE-2, the first component of immigrant welfare policy in each of the 17 OECD countries, 1970-2009

Graphs by country name

6: Specifications of Variables

_____

Variable	Description

_____

Dependent variable

Support for welfare provisions to immigrants — Do you think the national government spends too much assisting immigrants? Strongly disagree (=2); disagree (=1); neither agree nor disagree (=0); agree (=-1); strongly agree (=-2)
Source: ISSP 2003

Independent variables

Attitude 1 — Do you agree that immigrants are good for the national economy? Strongly agree (=2); agree (=1); neither agree nor disagree (=0); disagree (=-1); strongly disagree (=-2)
Source: ISSP 2003

Attitude 2 — Do you agree that immigrants improve the society by bringing new ideas and cultures? Strongly agree (=2); agree (=1); neither agree nor disagree (=0); disagree (=-1); strongly disagree (=-2)
Source: ISSP 2003

Attitude 3 — Do you agree that the number of immigrants should be reduced? Strongly disagree (=2); disagree (=1); neither agree nor disagree (=0); agree (=-1); strongly agree (=-2)
Source: ISSP 2003

General Attitude — Factor score of Attitude 1, Attitude 2, and Attitude 3
Source: ISSP 2003

Citizen — 1=Respondent is a citizen of the country he/she resides in; 0=Respondent is not a citizen. *Source: ISSP 2003*

Parents citizen — 1=Both parents of the respondent are citizens of the country that the respondent resides in; 0.5=one of the parents of the respondents is not a citizen; 0=none of the parents of the respondent is a citizen. *Source: ISSP 2003*

Gender — Gender of the respondent: 1=Male, 0=Female *Source: ISSP 2003*

Age — Age of the respondent *Source: ISSP 2003*

Education — Number of schooling for the respondent *Source: ISSP 2003*

Union — Respondents' union membership: 1=is currently a union member; 0.5= was once a union member but currently not; 0=never a union member *Source: ISSP 2003*

6: Specifications of Variables (continued)

Variable	Description
Control variables	
Employment status	Employment status of the respondent: 1=currently full-time employed; 0.5=part time; 0=unemployed *Source: ISSP 2003*
Income	Income level of the respondent (0-7 scale) *Source: ISSP 2003*
Party affiliation	Party affiliation of the respondent: -1=left; 0=neutral; 1=right *Source: ISSP 2003*
Church attendance	Frequency of attending church (1-8 scale) *Source: ISSP 2003*

VITA

Ping Xu was born in Hubei, China, in October 1983, to Mr. and Mrs. XU Hao and LI Yongji as a second child after her sister XU Dian. She attended primary school and middle school in her home town-Baiyang Town, Zhijiang County in China. After graduating from Zhijiang No. 1 High School, she was admitted to Wuhan University. She obtained her bachelor's degree from School of Economics and Management at Wuhan University in China in 2005. In the same year, she left her home country to go to the Netherlands, and obtained a master's degree with honors in Public Administration and Public Affairs at Leiden University. In 2007, she came to the United States to study Political Science and became a PhD student in LSU.

Ping Xu's areas of study are comparative politics and American politics. She has a particular interest in political economy, public policy, Chinese politics, disaster management, and political methodology. While at LSU, she has published two journal articles—one article entitled "Economic Contexts and Americans' Attitudes toward Income Inequality" in the *Social Science Quarterly* (with Jim Garand), and another one entitled "From Resistance to Advocacy: Political Representation for Disabled People in China" in *The China Quarterly* (with Xi Chen). She has three forthcoming book chapters, one on fiscal policy in American states, a second entitled "Breaucrats, Policy Attitudes, and Political Behavior: A Reappraisal," and a third on the Wenchuan earthquake in China. Ping Xu has also published in two Chinese-language journals, and has written two chapters in an edited book *Research Colloquium on Social Management and Policy in the Aftermath of Wenchuan Earthquake* (in Chinese).

Ping Xu has received numerous awards to conduct her research. She was awarded the LSU Doctoral Dissertation Fellowship for the 2011-2012 academic year. She was selected by the National Science Foundation to attend EITM summer institute in 2011. She also received the Warren Miller Scholarship from University of Michigan to attend the ICPSR summer program in 2010, and was funded by Texas A&M University to attend a Bayesian statistics workshop in early 2011.

In the fall of 2012, Ping Xu will begin a tenure-track assistant professor position in the Department of Political Science and Women's Studies at University of Rhode Island where she will teach and conduct research.