

IZA DP No. 6450

Welfare Migration

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March 2012

Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor

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Discussion Paper No. 6450 March 2012

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IZA Discussion Paper No. 6450 March 2012

ABSTRACT

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This chapter reviews and discusses major theories and empirical studies about the welfare magnet hypothesis, i.e. whether immigrants are more likely to move to countries with generous welfare systems. Although economic theory predicts that welfare generosity affects the number, composition and location of immigrants, the empirical evidence is rather mixed. We offer possible explanations for the existence of such mixed evidence and highlight that the literature so far has overlooked the presence of different migration regimes, as well as the possibility of reverse causality between welfare spending and immigration.

JEL Classification: H53, J61, J68

Keywords: immigration, welfare spending

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^{*} Forthcoming in "International Handbook of the Economics of Migration". The authors are grateful to an anonymous referee and to the editors Amelie F. Constant and Klaus F. Zimmermann for valuable suggestions and comments on an earlier draft.

1 Introduction

For a long time economists have analyzed the consequences of immigration in the host countries, and they have always been interested in why migration occurs and what its determinants are. Yet while there is a well-established body of literature focusing on the push and pull factors of immigration, such as wage differentials, macroeconomic conditions and social networks (see Mayda, 2010 for a survey), only recently has the topic of "welfare migration" – i.e. whether immigrants are more likely to move to countries with generous welfare systems – generated substantial interest among scholars (a seminal work being Borjas, 1999; see also the forthcoming 2012 special issue of the International Journal of Manpower on "Migration, the Welfare State, and European Labor Markets").

At the same time, however, public worries about welfare migration have been growing. In recent years a controversial debate has erupted on whether immigrants are exploiting the welfare system. The concern is that immigrants move to countries with generous welfare and receive social benefits without sufficiently contributing to the system. As an example of this widespread perception, the 2009 Eurobarometer – a survey which monitors public opinion in the European Union – reports that as many as 51 per cent of the individuals in the sample believe that immigrants do not contribute to taxes as much as they benefit from social services (such as health) and welfare programs (European Commission, 2010). Despite the intrinsic caveats implied by the use of opinion surveys – e.g. public opinions towards immigrants are somewhat influenced by the business cycle (Boeri, 2010) – this figure is symptomatic of the widespread perceptions about welfare migration. (For further reference about public opinions on immigration, see the chapter on attitudes towards migrants in this volume).

This chapter contributes to the debate on this topical question in two ways. First we review and discuss major theories and empirical studies on the welfare magnet hypothesis; and second we critically assess how the literature has developed and what the major challenges for future research in this topic are.

The chapter is organized as follows: in Section 2 we provide an overview of welfare and immigration in a selected group of Member States of the Organisation for Economic Co-operation and Development (OECD). In Section 3 we review major theoretical works that model the relationship between welfare and immigration. These studies predict that welfare programs affect the number, composition and location of immigrants. We then survey two strands of the empirical literature on the welfare magnet hypothesis in Sections 4 and 5, where we first examine studies on whether immigrants are more likely to be welfare users than natives and then review studies on whether immigrants choose countries or regions with generous welfare systems. The empirical evidence is rather mixed. Several studies have found no evidence that welfare attracts immigrants; others document the existence of a welfare magnet effect – albeit the economic impact is often moderate. We outline possible reasons behind such contrasting evidence and emphasize that the majority of the studies have overlooked the existence of different migration regimes, as well as the possibility of reverse causality between welfare spending and immigration. We conclude in Section 6.

2 Immigration and welfare: patterns and trends

2.1 Social expenditure patterns

Welfare refers to public programs with "social transfers" or "social benefits" (Adema and Ladaique, 2009). In general it is possible to define two broad types of benefits: contributory and non-contributory. The former includes unemployment insurance, which is compulsory in most OECD countries, and old-age public pensions (in countries where there is a public provision). The latter comprises of both universal income support programs, conceived as the financial assistance of last resort (e.g. social assistance) and means-tested programs designed to reduce the impact of vulnerable economic and social conditions (e.g. unemployment assistance and housing benefits).¹ Eligibility and coverage of these benefits vary from one country to another. The standard approach in the welfare migration literature is to consider measures that capture welfare state generosity. While several measures have been considered in the literature, the descriptive statistics presented in this section are based on social expenditure in per cent of gross domestic product (GDP), as this is thought to capture well the extent of resources that a government devotes to social protection and it is also a measure which is fairly comparable across countries and over time.²

A snapshot of welfare generosity is outlined in Figure 1, where the social expenditure and its components in OECD countries with the highest immigration incidence are depicted for 2007, the most recent period for which data are available. The figure provides a picture of welfare expenditure and includes major areas of spending (both cash and in-kind benefits). These areas have been defined as in Adema et al. (2011) and consist of: pensions, income support, health and other expenditure. Figure 1 shows that there is substantial variation in social expenditure across countries. The highest social expenditure is found in France, where spending is nearly twice as high as that of Australia, Ireland and the United States – the three countries with the lowest welfare spending in 2007.

There are also substantial differences in welfare components. Italy has the largest relative spending on pensions, absorbing nearly 60 per cent of the total resources. Pension spending is also particularly high in other Southern European countries, such as Greece and Portugal, but also in Austria and France. These high levels reflect both a different mix of welfare policies as well as the particular demographic trends of these countries. Spending on income support – which includes unemployment insurance benefits as well as active labor market policies – is relatively higher in Scandinavian countries. Countries with larger economies such as Canada,

 $^{^1\}mathrm{For}$ a more detailed classification see: A dema and Ladaique, 2009

²A recent study by De Giorgi and Pellizzari (2009) investigates the welfare migration hypothesis, focusing on an indirect measure of spending, the net replacement rate (NRR), defined as the share of working income that is transferred, through unemployment benefits, to individuals who become unemployed. Another possibility to classify welfare generosity would be to look at the duration of the benefits or at their eligibility criteria. Nevertheless it transpires that these alternative measures are highly correlated with spending. As an exercise, we have accessed OECD data about a particular type of welfare – unemployment insurance – and obtained measures about total spending, NRR and durations. Comparing data for 27 countries, we find a correlation of 0.53 between spending and NRR and a correlation of 0.61 between spending and durations.

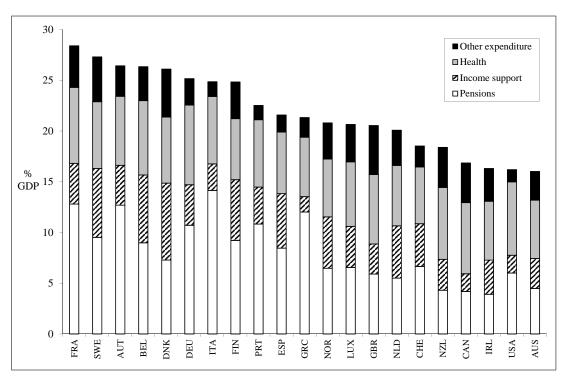


Figure 1: Social expenditure and spending components in per cent of GDP, 2007

Source: SOCX database (http://stats.oecd.org), own elaborations. Pensions include spending on "old age" and "survivors". Income support includes spending on "incapacity", "active labor market policy" and "unemployment". Other expenditure includes spending on "family", "housing" and "other social policy areas". ISO country codes are: AUS=Australia, AUT=Austria, BEL=Belgium, CAN=Canada, CHE=Switzerland, DEU=Germany, DNK=Denmark, ESP=Spain, FIN=Finland, FRA=France, GBR=United Kingdom, GRC=Greece, IRL=Ireland, ITA=Italy, LUX=Luxembourg, NLD=Netherlands, NOR=Norway, NZL=New Zealand, PRT=Portugal, SWE=Sweden and USA=United States.

Italy and the United States allocate a small share of the GDP to this type of welfare program. Expenditure on health is relatively high in some Western European countries, such as Belgium, France and Germany. Nevertheless, relatively high figures are also recorded for Canada, New Zealand and the United States, where expenditure on health accounts for about 40 per cent of total spending.

The remaining expenditure components mainly comprise of social assistance schemes, including housing and family benefits, as well as unemployment assistance. The countries with largest social assistance spending are Denmark, Sweden and the United Kingdom. Strikingly, countries such as Italy and the United States devote a very marginal share of GDP to these programs.

Using social expenditure in per cent of GDP to describe time trends in welfare generosity, Figure 2 reports social expenditure patterns for major immigration countries aggregated into three groups (EU-15/CHE/NOR, US and AUS/CAN/NZL).³ As the figure shows, spending increased in all OECD countries from 1980 to 2010. After a sharp rise in the beginning of the 1990s, however, expenditure remained constant. Interestingly, spending patterns of the EU-15/CHE/NOR region and the United States were rather similar. However, the determinants of such changes were somewhat different between the two regions. An inspection of expenditure components reveals that while most of the increase in the EU-15/CHE/NOR region is attributable to pen-

³The EU-15 comprises of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

sions, in the United States the area that contributed the most to the increase was health. In the following we focus on immigration trends and the skill composition of immigrants and examine whether immigration has evolved in the same manner as welfare spending.

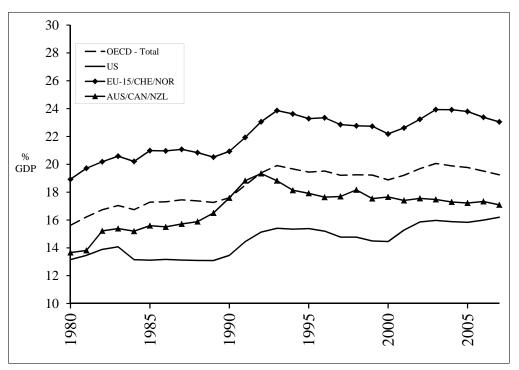


Figure 2: Social expenditure in percentage of GDP over time

Source: SOCX database (http://stats.oecd.org), own elaborations.

2.2 Recent immigration patterns

From 1990 to 2010 26 million people migrated to Europe compared with 23 million to the United States, 1.6 to Australia and 0.5 to Japan (Boeri, 2010). Countries such as Ireland and Spain experienced a doubling of their foreign to domestic population ratios in the period 2000 to 2010. Table 1 reports most recent information about immigration flows.⁴ Overall, Western Europe has attracted more immigrants than the United States. Within Europe Germany, Spain and the United Kingdom had the largest number of immigrants, although the largest inflow rates (i.e. normalized by population in the host country) are found in Australia, Austria and Spain.

The composition by origin varies substantially, even within the EU-15 Member States (which alone accounts for more than 90 per cent of the current immigrant population residing in the whole European Union). For example the majority of immigrants in France are from African countries, while more than half of the immigrants in the United Kingdom are from Asia. For the United States the two major sending regions are Asia and Central and South America. Asia

⁴Throughout the chapter we use the term "immigrant", bearing in mind that the definition varies across countries. For example the United Kingdom defines immigrants using a definition based on country of birth; in Germany the definition is based on nationality. For more information on the data used see http://stats.oecd.org.

is also the source of the majority of recent inflows to Australia, Canada and Japan. The table suggests that both historical ties, as well as different level of economic development, appear to be the main factors behind the substantial cross-country differences in the composition of recent immigration flows.

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	Total	Inflow		Other	North	Central			
Country	inflow	rate	EU-15	Europe	America	& South	Africa	Asia	Other
						America			
Austria	91.8	0.011	26.6	47.0	2.0	1.6	3.8	18.4	0.6
Belgium	102.4	0.009	30.0	32.7	3.2	3.5	17.5	12.6	0.5
Denmark	30.8	0.006	24.1	40.5	3.1	2.2	4.0	23.3	2.8
Finland	18.1	0.003	11.8	27.4	1.9	2.0	10.9	43.7	2.3
France	126.0	0.002	0.3	7.2	2.4	6.4	61.8	21.5	0.5
Germany	599.1	0.007	15.1	50.8	3.4	2.9	4.2	22.8	0.8
Italy	267.4	0.004	9.9	20.4	2.9	10.7	28.0	28.0	0.0
Luxembourg	14.5	0.029	72.6	12.6	2.2	2.4	4.6	5.1	0.6
Netherlands	104.4	0.006	28.4	25.5	3.7	4.2	6.3	20.0	11.9
Portugal	31.0	0.003	20.8	38.6	1.5	9.5	20.8	8.9	0.0
Spain	469.3	0.010	14.9	18.9	1.1	32.5	21.2	11.3	0.1
Sweden	82.8	0.009	17.2	22.7	1.9	2.9	15.6	37.2	2.5
UK	329.0	0.005	16.7	12.8	5.2	0.0	6.1	54.1	5.2
Australia	222.9	0.010	18.7	2.1	2.2	1.4	9.2	50.2	16.2
Canada	251.9	0.007	10.0	4.7	3.9	10.6	12.0	58.0	0.8
US	1129.7	0.004	3.9	4.6	1.4	40.8	11.2	37.3	0.6

Table 1: Immigration inflows by region of origin, selected OECD countries, 2009

Source: OECD International Database (http://stats.oecd.org). Flows for Italy and Denmark refer to 2008. The inflow rate corresponds to immigration inflow over the total population in the country.

Yet there are substantial differences across countries in terms of the skill and education level of immigrants. Hence it is important to also consider the patterns of immigration by education level. The most recent and accurate estimates are available for 2001.⁵ Figure 3 depicts how patterns of high- and low-skilled immigration have evolved during the period 1991-2001. The top panel of the figure represents the stocks of both immigrants with primary education (low-skilled) and those with tertiary education (high-skilled) in 1991.⁶ Stocks are represented in the map in percentage of the total population. As can be seen, largest immigrant stocks with primary education were found in Australia, Canada, New Zealand and regions of Western Europe. In the United States, as well as in the remainder of Western Europe and Sweden, the percentage of immigrants with primary education was between 2 and 4 per cent, while in all remaining countries the relative stocks were below 2 per cent. In Australia, Canada, Japan and the United States the stocks of immigrants with tertiary education were broadly similar in size to those with primary education. A different picture appears in Europe, where in all countries except Switzerland the percentage of highly educated immigrants was below 2 per cent.

The lower panel of Figure 3 depicts changes in the relative stocks of immigrants between 1991 and 2001. During this period overall immigration increased substantially; however the patterns

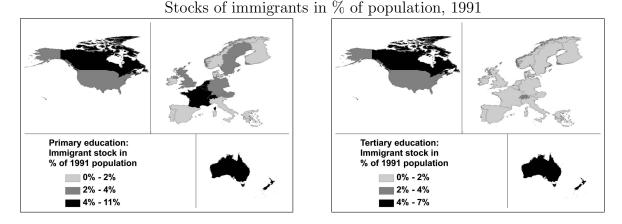
⁵Migration estimates are obtained from the "Data Set 1990-2000 with Gender Breakdown (Rel. 2.1)" (http://perso.uclouvain.be/frederic.docquier/oxlight.htm). These estimates are obtained combining sources such as censuses and population registers. For more details see Docquier and Marfouk (2006) and Docquier et al. (2009).

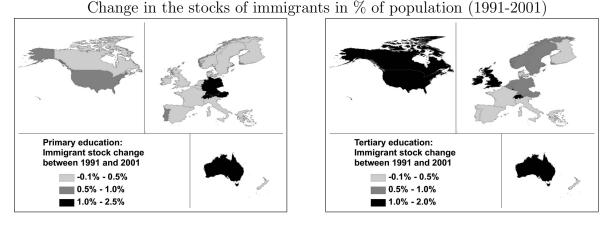
⁶The dataset also provides information on immigrants with secondary education, which are not considered in the figure. Yet comparing primary and tertiary educated immigrants provides insight for understanding the patterns of high- and low-skilled immigration during 1991 to 2001.

differed for the groups of immigrants with low and high education. While it is possible to observe a strong association between the stock of immigrants with tertiary education and its decennial change (the correlation for the countries in the map is 0.61), there seems to be a major redistribution across countries of low-educated immigrants (the correlation between the 1991 stock and the 1991 to 2001 change is 0.10). Hence countries which had relative large stocks of low-educated immigrants in 1991 have actually experienced a less than proportional increase in the stock of immigrants with primary education.

There are many factors behind these different trends, including differences in how the composition of skills across sending countries has evolved, but also changes in both pull and push factors of immigration, such as welfare spending, macroeconomic conditions, and immigration policies in both sending and receiving countries.

Figure 3: Immigration: relative stocks (1991) and changes in relative stocks (1991-2001)





"Data Set 1990-2000 With Gender Source: own elaboration from the Breakdown (Rel $(2.1)^{n}$ (http://perso.uclouvain.be/frederic.docquier/oxlight.htm). Population data are from the OECD (http://stats.oecd.org.). Boundaries data are from http://www.gadm.org/world. Upper panel: immigration stocks for Denmark, Finland, France, Norway, Spain, Sweden, Switzerland and the United States refer to year 1990. Stocks for the Netherlands refer to 1996. Stocks for the remaining countries refer to 1991. Lower panel: immigration stocks for Denmark, Finland, the Netherlands, Spain, Sweden, Switzerland and the United States refer to year 2000. Stocks for France refer to 1996. Stocks for the remaining countries refer to 2001.

An important question is whether welfare spending has acted as a magnet for immigration and potentially altered the skill distribution of immigrants. Indeed when examining the proportion of unskilled immigrants – defined as the share of those with primary education out of the total stock of immigrants – and welfare – measured as social expenditure as a percentage of GDP – Figure 4 shows a positive relationship. This might suggest a possible welfare magnet effect.

The empirical studies that we review in the following sections investigate whether welfare generosity in developed countries is actually one of the determinants of the changes in immigration patterns and whether immigrants of certain skills have been more prone to move to destinations with more generous social spending systems. Before surveying these empirical works, however, we briefly outline major theories linking welfare and immigration.

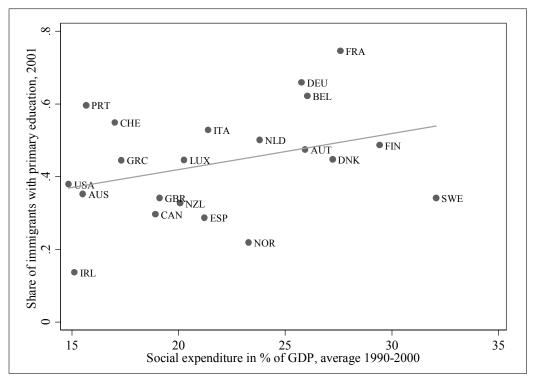


Figure 4: Low-skilled immigration and social expenditure

Source: own elaborations from the "Data Set 1990-2000 With Gender Breakdown (Rel 2.1)" (http://perso.uclouvain.be/frederic.docquier/oxlight.htm) and SOCX database (http://stats.oecd.org).

3 Theories on welfare and migration

3.1 The welfare magnet hypothesis

The welfare magnet hypothesis was first coined in a seminal paper by Borjas (1999). This hypothesis refers to how welfare generosity acts as a pull factor for migration and how it influences the skill composition of immigrants. More specifically, it states that immigrants prefer to locate in countries with generous welfare provisions to insure themselves against labor market risks. This effect may not be necessarily limited to unskilled immigrants, since also high-skilled immigrants may prefer to live in countries with larger social benefit systems, e.g. because economic fluctuations might affect their employment perspectives irrespective of the skill level. Borjas (1999) argues that welfare could influence immigration through several channels. First more generous welfare countries might attract immigrants who otherwise would have not immigrated. Second the existence of social safety nets might also retain immigrants who would have otherwise returned to their country of origin. To prove his point, Borjas uses the example of the United States, claiming that substantial interstate dispersion in welfare benefits has affected the residential location choices of international immigrants. Immigrants to the United States are individuals who have already borne the cost of immigration. Hence the cost of choosing one state or the other is negligible. This implies that immigrants who receive welfare tend to choose, and thus be clustered in, states which offer the highest social benefits. On the other hand, welfare will not be a strong incentive to migrate across states for US natives because they still have to bear the costs of moving. As a consequence, native welfare recipients tend to be more dispersed across states.

While it efficiently explains the potential role of welfare in attracting immigrants, Borjas' model ignores the importance of the role other determinants of immigration play, such as social networks. Networks provide information about labor market opportunities and thus reduce the cost of migration (see Beine et al., 2011). On the other hand they can also be a source of information on welfare benefits for potential immigrants who are still in the source country. Another important factor is immigrants are restricted in their choices: they are not free to move to the country with the most generous welfare system – even if they wished to. This may be

to the country with the most generous welfare system – even if they wished to. This may be because of certain barriers to migration – such as language and physical distance – but more importantly, as we discuss below, because of restrictive immigration policies.

3.2 Migration regimes, welfare and selective immigration

In a recent paper Razin and Wahba (2011) argue that the generosity of the welfare state may affect the skill composition of immigrants, depending on the type of immigration policy adopted. In a free-migration regime a typical welfare state with relatively abundant capital and high total factor productivity (implying relatively high wages for all skill levels) attracts both unskilled and skilled immigrants. On the other hand the generosity of the welfare state attracts unskilled immigrants, as they expect to gain more from welfare benefits than what they expect to pay in taxes for these benefits, i.e. they are net beneficiaries of the generous welfare state. In contrast, potential skilled immigrants are deterred by the generosity of the welfare state. Thus the welfare state would tilt the skill composition of immigrants towards the unskilled.

In the restricted-migration regime these same considerations lead voters to favor skilled immigration and restrict unskilled immigration. Voters are motivated by two considerations: how immigration affects their wages and how it bears on the finances of the welfare state. Typically one would expect unskilled immigration to depress wages of (substitutable) low-skilled workers and to increase wages of (complementary) high-skilled workers. The opposite is true of skilled immigration. The effect of immigration on the finances of the welfare state is common to voters of all skills, since more skilled immigrants are net contributors to the welfare state, whereas unskilled immigrants are net beneficiaries. From a public finance point of view native-born voters of all types of skills would therefore favor skilled immigration and support restrictions for unskilled immigration. Hence the welfare state in a managed immigration regime would favor skilled immigration.

To sum up, the welfare magnet hypothesis put forward by Borjas (1999) predicts that immigrants are attracted by the generous welfare state. Razin and Wahba (2011) extend Borjas' idea and argue that the welfare magnet hypothesis is only expected in free-migration regimes, where migrants are free to self-select and the generosity of the welfare state attracts mainly unskilled immigrants. In a managed-migration regime, however, demand for immigrants would favor the high skilled as net contributors to the welfare system.

4 Are immigrants more likely to be welfare recipients?

The theoretical frameworks presented suggest that welfare systems are potential pull factors for international migration. More specifically, welfare systems influence migration decisions and migration selection, potentially leading to an adverse selection of immigrants. This section examines the empirical evidence on the welfare magnet hypothesis.

A number of papers address this hypothesis by asking whether immigrants are more likely to be welfare recipients, i.e. they test the welfare dependency of immigrants.

4.1 Evidence from the United States

Using information on immigrant participation in the welfare system derived from the 1970 and 1980 US Censuses Studies, Borjas and Trejo (1991) show that recent immigrant cohorts use the welfare system more intensively than earlier cohorts. In addition they find that immigrant households "assimilate" into welfare the longer they have been in the United States. Further evidence is provided by Borjas and Hilton (1996), using data drawn from the Survey of Income and Program Participation (SIPP). They find that immigrants are more likely to receive cash benefits than natives and that the immigrant-native gap increases when non-cash transfers are included. Furthermore immigrants appear to receive welfare more frequently and for longer spells than natives. Finally the authors find evidence that there is a correlation between the type of welfare benefits received by earlier immigrants and those received by newly arrived immigrants. This suggests that immigrant social networks may disseminate information about the opportunity of receiving welfare benefits.

Borjas (1999) shows that immigrants who receive welfare benefits tend to concentrate in states with higher benefits – contrary to natives. This is taken as evidence that immigrants are more responsive to changes in welfare than natives. Yet Borjas recognizes that his findings are relatively weak in terms of statistical significance.

Although the literature on the welfare magnet hypothesis initially focused on international migration, many studies on the United States investigate welfare migration of natives across states, obtaining mixed results. For example, Levine and Zimmerman (1999) find no substantial evidence of welfare migration. Using the National Longitudinal Survey of Youth (NLSY) between 1979 and 1992, they examine the extent to which cross-state differences in welfare generosity is associated with interstate migration. Their approach is to compare patterns of internal migration of a group which is eligible to welfare receipt (poor, single women with children) with a similar group, albeit not eligible to welfare (other poor households).

A similar approach is also implemented in other studies, where the migration behavior of single mothers – a welfare-prone group – is compared with the migration behavior of groups less prone to receiving welfare, such as married mothers. Gelbach (2000) argues that welfare migration should occur mainly among mothers with young children. He provides evidence of the existence of "life cycle welfare migration". However, statistical results for the 1990 Census are somewhat weaker than the evidence for the 1980 Census. Enchautegui (1997) explores the effects of several determinants – including welfare payments – on women's interstate migration. She finds that welfare is positively associated with the probability of moving from state to state and that the effect is larger for single mothers with young children and for women who have not recently participated in the labor market.

A similar approach using the 1980 and 1990 Censuses is adopted by Meyer (1998). He compares inter-regional migration of single mothers with moves by single women without children and married mothers. He finds evidence of moderate welfare migration, particularly when the sample of high-school dropouts is considered. More recently McKinnish (2005, 2007) provides evidence of welfare migration by focusing on cross-border migrations (i.e. short-distance moves). Her strategy is based on comparing the welfare use of individuals residing close to state borders with that of individuals living in the inner part of the state. Although imprecisely estimated, the results of her study indicate that welfare benefits affect the migration decision of individuals more likely to receive welfare.

4.2 Evidence from Europe

The issue of welfare dependency of immigrants has also been examined in European countries. Using panel data for Sweden for the years 1990 to 1996, Hansen and Lofstrom (2003) compare the welfare use of immigrants and natives. Their findings indicate that after controlling for observable characteristics, welfare participation is higher among immigrants than among natives. However welfare use among immigrants tends to decrease with time spent in Sweden. This "assimilation out of welfare" for Sweden somewhat contrasts with the findings of Borjas and Trejo (1991) for the United States. Riphahn et al. (2010) investigate a similar research question, focusing on Turkish immigrants using the German Socio-Economic Panel (SOEP). They show that this particular group is more prone to welfare use than natives. However after controlling for a set of individual and household characteristics, evidence of residual welfare dependency is statistically significant only for second-generation immigrants. Barrett and McCarthy (2008) provide a review of studies that compare immigrants' and natives' welfare use and conclude that the evidence across countries is mixed. As further indication of such contrasting results, they compare the case of the United Kingdom, where immigrants use welfare more intensively than natives, and of Ireland, where instead natives are more likely to participate in welfare programs. Boeri (2010) uses the EU Survey of Income and Living Conditions (EU-SILC) and finds evidence that unskilled immigrants are net recipients of non-contributory benefits, particularly in countries with generous welfare systems. Focusing on Italy Pellizzari (2012) combines data from the EU-SILC (containing information on welfare use) with administrative data (containing information on applications for locally provided welfare programs). His results show that immigrants from outside the EU are more prone to apply for welfare benefits, although once controlling for individual and household characteristics, such an effect decreases substantially. Pellizzari discusses that geographical sorting is a likely explanation of such results, since immigrants tend to self-select to wealthier regions of Italy, which are also the most generous in terms of welfare. Evidence on Europe also comes from the recent enlargement of the European Union to include Central and Eastern European countries (new Member States). While the majority of the old Member States imposed a period of "transitional rules" – adopting restrictions on the immigrations of workers from the new Member States – a few countries (Ireland, Sweden and the United Kingdom) freely opened their labor markets to immigrants. This raised the question of whether immigrants coming from relatively lower income countries would have "abused" the welfare system of the receiving countries. Kahanec et al. (2009) summarize the findings of studies which examine welfare access in Ireland and Sweden during the post-enlargement period. In Ireland no evidence of excess welfare use by immigrants is found; in Sweden, while immigrants are more likely to receive social assistance, they are less likely to participate in other welfare programs such as unemployment or sickness benefits. Blanchflower and Lawton (2009) analyse the special case of the United Kingdom, where the government imposed restrictions on welfare access to immigrants from the new Member States. On the one hand the authors provide confirmation that only few immigrants from accession countries obtained welfare benefits such as the "Income Support" or the "Jobseeker Allowance". At the same time, however, they show that these immigrants exhibit a higher probability of being in work when compared to natives and immigrants from other origins. This leads them to conclude that "[t]hey came to work and not to claim benefits" (Blanchflower and Lawton, 2009, p.188). Similarly, Constant (2011), in her discussion about the effect of EU enlargement, concludes that no evidence of excess welfare use can be found. Further discussion about the consequences of EU enlargement is provided in the chapter "EU Enlargement and the European Labor Markets" in this volume.

To summarize, studies about the United States provide somewhat more consistent evidence of immigrants' residual welfare dependency. These studies, however, exploit variation across US states, where interstate mobility is relatively higher compared to mobility within Europe. Immigrants in the United States are free to choose the state where to locate and can select the one with most generous welfare benefits (Nannestad, 2007). On the other hand the evidence that immigrants in Europe are more likely to be welfare recipients than natives is rather mixed. This is not surprising given the difference in the types of benefits offered and the heterogeneity in welfare eligibility criteria across European countries. Furthermore, if evidence of immigrant welfare dependency is found, it appears to be rather small.

It is important to note that most of the studies cited (one exception being Borjas, 1999) ex-

amine the welfare dependency of immigrants as an indication for the welfare magnet. However immigrants' excess welfare use does not necessarily imply that generous welfare states attract immigrants. In other words, studies that examine welfare dependency among immigrants (or the welfare use gap between immigrants and natives) do not convincingly test the magnet hypothesis, i.e. whether immigrants' decisions to migrate and their destination choice are affected by the generosity of the welfare systems. There might be several reasons behind immigrants using welfare more intensively than natives. For example immigrants may have unobservable characteristics that make them more prone to be on welfare. Furthermore welfare dependency could be triggered by labor market discrimination in accessing jobs (see Barrett and McCarthy, 2008). A more direct approach to test the welfare magnet hypothesis comes from another branch of literature, which we survey in the next section.

5 Is welfare a magnet for immigrants?

Several papers examine the welfare magnet hypothesis by focusing on the locational choice of migrants. Southwick (1981) presents one of the earliest studies about welfare migration. He uses data drawn from a US study about the Aid to Families with Dependent Children (AFDC) program and presents several tests for the welfare migration hypothesis. He finds that migration flows between regions with large differentials in terms of benefits consist mostly of women who are AFDC recipients. Using information on the states of residence in 1975 and 1979 for a sample of welfare recipients from the Panel Study of Income Dynamics, Gramlich and Laren (1984) show that AFDC beneficiaries, although exhibiting very low interstate mobility, are more likely to move to a welfare generous state than to a low-benefit state. More recent evidence about Europe is provided by De Giorgi and Pellizzari (2009), who combine data from the European Community Household Panel (ECHP) with information from the OECD Database on Unemployment Benefit Entitlements and Replacement Rates. Welfare generosity in their paper is measured using the net replacement rate (NRR), i.e. the ratio between the income received when not working (e.g. unemployment benefits) and the average wage. They test the welfare magnet hypothesis by considering immigration in the EU-15 and find that welfare generosity influences migration decisions, albeit the effect is small. In a study about the determinants of immigration flows to OECD countries Pedersen et al. (2008) find that while social networks are an important pull factor for immigrants, welfare - measured by social expenditure in per cent of GDP – does not exert a significant role in attracting immigrants. They argue that immigration policies might have prevented the potential adverse selection of immigrants.

Focusing on the skill composition of immigrants, Brücker et al. (2002) find that welfare-generous countries attract low-skilled workers, whilst countries with low social spending are more likely to be a magnet for high-skilled workers, since taxes are also low in these countries. As a consequence, welfare generosity may induce a negative sorting of immigrants.

One important issue that is seldom addressed in the empirical literature on the welfare magnet hypothesis is the endogeneity between welfare and immigration. A few studies have shown that actually immigration might affect welfare generosity. Using OECD panel data for the period 1990 to 2001, Böheim and Mayr (2005) find that low-skilled immigration decreases public spending, while high-skilled immigration produces the opposite effect. The recent work by Giulietti et al. (2012) tackles the question directly of whether there exists reverse causality between welfare and immigration. The welfare magnet hypothesis is explored in the context of a particular program – unemployment insurance – and two potential sources of endogeneity are discussed. First, immigrants might affect spending by directly influencing the spending on unemployment benefits in per cent of the GDP (through participation in welfare programs, but also through taxes and consumption). Second, welfare policy could react to increasing immigration, and policymakers could encourage or discourage welfare participation of immigrants by intervening in aspects such as eligibility criteria or welfare duration. To address the endogeneity issue, the authors use the number of parties in the government coalition as an instrumental variable for unemployment benefits. The rationale is that public sectors are larger when coalitions are formed by a greater number of political parties. At the same time this instrument is thought to be uncorrelated with immigration. Using a sample of 19 European countries over the period 1993 to 2008, the ordinary least squares estimates show that unemployment benefit is positively correlated with immigration flows from non-EU countries, but not with inflows from EU origins. However, instrumental variables and generalized method of moments techniques yield an essentially zero causal impact of unemployment benefits on immigration inflows from both areas. Another recent paper that also investigates the endogeneity of welfare generosity is Razin and Wahba (2011). They control for the endogeneity of total social spending per capita and find strong support for the magnet hypothesis under the free-migration regime (as represented by migration within the EU), and for the "fiscal burden hypothesis" under the restricted-migration regime (as represented by migration from outside the EU). Their results are robust to using total social spending as a percentage of GDP and for correcting for differences in educational quality as well as for returns to skills between the source and host countries.

To summarize, although empirical evidence on the welfare migration hypothesis is rather mixed, there are at least two potential important factors behind these unclear results. The first is that the majority of the studies above have ignored the endogeneity of the welfare system and immigration. This might have produced biased results in the estimations. Immigration may affect directly or indirectly the level of social spending, depending on many factors, such as the skill level of immigrants, the composition of the immigrant households, their proclivity to be in welfare programs, and also the duration and eligibility conditions of the programs. Indeed several papers have modeled the potential influence of immigration on redistribution and welfare spending (Dolmas and Huffman, 2004; Razin et al., 2011). The second reason behind the mixed empirical findings might be the result of ignoring the immigration regime (i.e. whether immigration is free or restricted), which tends to underestimate the implications of immigration selectivity within the context of the welfare magnet hypothesis.

6 Conclusion and policy implications

According to the studies reviewed in this chapter, it is plausible to conclude that fears about immigrant abuse of welfare systems are somewhat unfounded or at least exaggerated. Overall the empirical evidence on the welfare magnet hypothesis is mixed. However when evidence of a magnet effect is found, the impact tends to be rather exiguous.

We have explored two potential sources for the conflicting empirical results: the endogeneity of welfare and immigration and whether immigration in the country is free or restricted. Recent empirical evidence suggests that reverse causation between welfare and immigration potentially exists. Thus further exploring the issue of reverse causality between immigration and social spending constitutes a potential avenue for future theoretical and empirical work aiming to test the welfare magnet hypothesis. Further research will also need to consider explicitly the immigration policies and their implications.

It is also important to note that welfare is one of the many pull factors of immigration. Future research should attempt to accurately quantify the role of welfare generosity in relation to other factors, such as wage differentials, labor market conditions, tax systems and social networks.

Our review suggests that the number and characteristics of immigrants are potentially affected by not only immigration policies – which are meant to directly affect immigration flows – but also by other policies, such as welfare programs. Hence policymakers should be aware of the interactions between immigration and welfare policies. One of the major findings of a recent study by Zimmermann et al. (2012) is that while raw statistics show that welfare receipt is higher among immigrants in most of the European Union, when controlling for socio-economic characteristics, such welfare dependency persists in only a few Member States. This suggests that characteristics of immigrants directly influenced by immigration policies – such as their skill level – are important determinants of immigrants welfare use. Hence policymakers should focus on the design of selective immigration policies and at the same time should intervene on welfare programs attributes (e.g. contributory nature and eligibility criteria) by taking into account a country's immigration pattern and the characteristics of immigrants.

How well the two types of policies are integrated will have consequences on the important issues which are at the core of current debate about immigration, such as the sustainability of the welfare systems versus the potential of immigration to alleviate labor shortages and counteract the effects of an aging population.

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