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ABSTRACT

Determinants of Immigrants' Cash-Welfare Benefits Intake in Spain^{*}

Much of the literature on immigrants' cash-welfare benefits use has focused on countries with a large tradition of receiving immigrants and with well established Welfare states. This paper contributes to this literature by analyzing differences in cash-welfare benefits receipt between immigrants and natives and their determinants in Spain, a country with: (1) a small level of social assistance and a Welfare state heavily reliable on conditioned access to pensions; and (2) an unprecedented immigration boom. Different probit models of social program intake are estimated for immigrants and native-born individuals using pooled cross-sectional data from the 1999 to 2009 Spanish Labor Force Survey. Results show that a negative residual welfare gap exists and that it is mainly driven by recently arrived immigrants, whose legal status or insufficient contribution is likely to hamper participation in social programs. In addition, I find that immigrants with more than 5 years in the host country are more likely to receive unemployment benefits than natives, consistent with findings in other countries. These findings hold regardless of immigrants' continent of origin.

JEL Classification: J15, J61, J68, I38

Keywords: Southern European welfare state, immigrants' residual welfare use

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I. Introduction

Much of the literature on immigrants' cash-welfare benefits use has focused on countries with a large tradition of receiving immigrants and with well established Welfare states. This paper contributes to this literature by analyzing differences in cash-welfare benefits receipt between immigrants and natives and their determinants in Spain, a country with: (1) a small level of social assistance and a Welfare state heavily reliable on conditioned access to pensions; and (2) an unprecedented immigration boom.

Different probit models of social program intake are estimated for immigrants and native-born individuals using pooled cross-sectional data from the 1999 to 2009 Spanish Labor Force Survey (LFS). The model of welfare intake relates selection to observable characteristics, such as sex, age, family composition, the level of education, presence of co-ethnic networks and place of residence. In addition, for immigrants, welfare use is related to region of birth as well as the cohort of arrival in Spain.

The analysis focuses on the following three types of cash-benefit social programs: (i) unemployment insurance (UI) benefits, (ii) disability pension, and (iii) other social assistance, which includes survivors' pension, family allowances, and other social programs. Entitlement to the first two programs is conditional on having contributed to the Social Security system, while the third category involves mainly means-tested benefits offered to all persons legally residing in Spain.¹

Results show that a negative residual welfare gap is mainly driven by recently arrived immigrants, whose legal status and/or insufficient contribution is likely to hamper their participation in social programs. As is common in the literature, immigrants with more than 5 years in the host country are more likely to receive unemployment benefits than natives. These findings hold regardless of immigrants' continent of origin.

This paper is closer to Muñoz de Bustillo and Antón, 2009. Using data from the 2005 European Union Social Indicators on Living Conditions (EU-SILC 2005) and the 2003 Spanish Health Survey (SHS 2003), these authors analyze immigrants' welfare cash-transfers receipt (including public health care insurance) in Spain. They find that: (i) immigrants receive lower cash transfers and incur in lower health expenditures than natives, even when controlling for observable characteristics; (ii) there is no statistically significant difference in UI and health services take-up rates between immigrants and natives before and after controlling for observable characteristics; and (iii) immigrants are less likely to receive old-age pensions, even once observable characteristics are controlled for. Unfortunately, as the authors recognize, their EU-SILC 2005 sample size of non-EU immigrants is limited with close to 500 observations (of which, less than 5% received *any* social benefits), making inferences for the whole population difficult. The advantage of the present papers is that it uses a large sample of immigrants, allowing for heterogeneity analysis by continent of origin and cohort of arrival.

¹ Spain offers another means-tested program (public housing subsidies), as well as universal health care and education for *all* residents—including illegal immigrants. Unfortunately, due to data limitations, we were unable to analyze program intake for these important programs (see García, Gonzalez and Saez, 2007; Felgueroso *et al.*, 2009; and Jiménez *et al.*, 2009, for a thorough analysis of these programs). Finally, we exclude from our analysis the old age pension because most immigrants in Spain are young.

II. Immigration and Welfare in Spain

Spain has recently experienced an unprecedented immigration boom in a short period of time—with immigrants representing from less than 2% of the population in 1999 to 12% in 2009. At least four reasons explain this immigration boom. First, Spanish booming economy and the social promotion—in the form of increased education levels and higher labor force participation—of its national (especially female) population generated a demand for foreign workers (Carrasco *et al.*, 2008). Second, its physical proximity to northern Africa and Eastern Europe places Spain close to countries that supply immigrants. Third, its shared language and historical pass with Latin Americans facilitates the social and cultural assimilation of immigrants from this continent. Finally, the government's weak control on immigrants' inflows and several generous amnesties has *de facto* converted Spain in an immigrant friendly country (Dolado and Vázquez, 2007).

Several authors have analyzed immigrants' assimilation process in Spain in the last decade by looking at labor market assimilation. Fernandez and Ortega, 2008, find that although the Spanish labor market is able to absorb immigrants within five years after arrival, it does so at the expense of allocating them in temporary jobs for which they are overqualified. Izquierdo *et al.*, 2009, find that, despite a sizeable and significant wage gap reduction between immigrants and natives within the first five years after arrival to Spain, full assimilation of wages does not take place for male immigrants in the formal sector. More recently, Alcobendas and Rodríguez-Planas, 2010, find that there are little signs of occupational assimilation among female immigrants (regardless of their educational level); and that, among male immigrants, the degree of assimilation is higher the lower their education level.

Despite the considerable development of the Spanish welfare system in the last three decades, social protection expenditure in Spain remains among the lowest in Europe. In 2007, social protection expenditure accounted for 21% of the GDP in Spain, almost 6 percentage points less than the average for the EU-15. When the comparison is done by groups of functions, Spain is far from the European average in all functions but one: UI benefits. The importance of UI in Spain, with as much as 12% of the total social protection expenditures, contrasts with the 5% average observed for the EU-15. Another characteristic of the Spanish welfare system is that it is heavily reliable on conditioned access to pensions.

Legal immigrants are eligible for welfare, regardless of their citizenship. UI, disability and old-age pensions are *only* offered to contributors of the Social Security system—thus, both native individuals working in the informal labor market or illegal immigrants are excluded from this social insurance system for “insiders”. The Spanish Social Security system is a Defined Benefit Pay-as-you-Go System where the level of benefits depends mainly on the workers' employment history.

In addition, there is also a non-contributory component, financed through taxes, and offering means-tested benefits for citizens outside the Social Security system, as well as their dependents—this includes citizens and legal immigrants not working in the formal labor market. Finally, there is a universalistic component offering free health care and education for *all* residents—including illegal immigrants—and also financed through taxes.

III. Data and Descriptive Statistics

Our analysis is based on data from the second quarter of the Spanish LFS, which is a standard repeated cross-sectional LFS.² Our analysis focuses on the last decade, which is when Spain experienced this unprecedented immigration boom. The LFS gathers information on employment and socio-demographic characteristics for all individuals in the household. In addition, for immigrants—defined as foreign-born workers who do not have the Spanish nationality, the LFS collects information on the year of arrival and the country of birth.

Within each household, each member’s relationship to the householder is reported in the LFS. I can thus identify the primary individual and his or her related family, as well as unrelated adults or children living in the household. Because co-residence with non-family members is more common among immigrants than among natives, we have used the “minimal household” as the unit of analysis when building household variables such as number of children (by age group), number of elderly or disabled persons, and number of persons in the minimal household. The minimal household is the smallest unit within a household that has the potential to reside independent of others (see Ermisch and Overton, 1985; and Van Hook, Glick, and Bean 1999, among others). In this specific paper, it is defined as the primary individual and his or her related family.

In addition, for all individuals over 16 years old, the LFS reports the person’s employment status and whether she received unemployment benefits, a retirement or disability pension, or another type of pension.³

Finally, the location of the households enables us to construct variables at the province level and to match these variables to “minimal households”. In particular, we use three province level variables: (i) the unemployment rate, which captures the local labor market; (ii) a measure of co-ethnic contact, which represents co-ethnics’ support capacity, networks, and survival strategies; and (iii) a measure of co-ethnic economic inactivity, which captures the availability of information that helps to prevent welfare participation. For example, greater economic inactivity reduces the information about jobs, labor market opportunities, and job referrals, and thereby increases the need for welfare participation. The effects of co-ethnic networks and co-ethnic economic inactivity on immigrants being more or less reliant on welfare are not as straightforward. For instance, networks can assist immigrants in obtaining jobs, therefore reducing their need of welfare; however, immigrants may become part of networks that are excluded from mainstream society, and thus, becoming more needy of social assistance. The two latter variables are taken from Hao and Kawano, 2001. “Co-ethnic contact” is measured as:

$$P_x = \sum_i \frac{x_i}{X} \frac{x_i}{t_i}$$

where x_i is the number of members from a given ethnic origin in Province i , X is its total number in the *Comunidad Autónoma*, and t_i is the total population of Province i . And “co-ethnic economic inactivity” is measured as the proportion of the total number of adults aged 16 to 64 who are not working, for each immigrant and native ethnic group, at the province level.

² As is common practice in the research using this dataset, we only use the second quarter to avoid repeated observations. The LFS is carried out every quarter on a sample of around 60,000 households. Each quarter, one sixth of the sample is renewed. However, the dataset does not include a variable that allows identification of individuals along the six consecutive interviews.

³ Unfortunately, data on the cash amount of the benefits is not available. Moreover, the LFS only reports if a person was receiving cash benefits at the time of the survey. Hence the incidence and duration of welfare use cannot be studied.

The sample is restricted to include all individuals from 16 to 64 years old at the time of the relevant LFS and the unit of analysis used in this study is the individual level. Personal and household descriptive statistics for natives and immigrants by welfare receipt for the period 1999 to 2009 (available in the IZA working paper) show that individuals on welfare are older, less educated, live in a province with higher unemployment rate and have lower co-ethnic contacts as compared to individuals not on public assistance. For immigrants, we observe that welfare recipients have on average been in the country for a longer period of time than those households off public assistance. Interestingly, in the case of disability pension and other subsidies, immigrants in welfare live in areas with a higher co-ethnic economic inactivity. In addition, UI recipients are more likely to be Africans than non recipients; whereas recipients of the disability pension and the other social programs are much more likely to be from the EU-15 and less likely to be from Latin America. Finally, immigrants are more likely to have children and less likely to have co-ethnic contacts than natives.

Table 1 shows take up rates among immigrants and natives. In general, immigrants are (considerably) *less* likely to receive social assistance than natives. This result contrasts sharply with those from many countries with a longer tradition of receiving immigrants, where welfare intake is higher among immigrants than natives (Blau, 1984; Borjas and Trejo, 1991; Maani, 1993; Frick *et al.*, 1996; Bird *et al.*, 1999; Castronova *et al.*, 2001; Sinn *et al.*, 2001; Riphahn, 2004, among others). This difference is likely to be the result of a combination of factors, such as the reasons related to the recent Spanish immigration surge (namely a booming economy), the dual structure of the Spanish labor market, the weaker Spanish welfare state, and the relative high weight of social assistance programs offered *only* to contributors of the Social Security System in Spain.

Perhaps more disconcerting is that this lower intake among immigrants in Spain holds across the different types of social assistance programs, with the *only* exception of a higher unemployment benefit receipt among immigrants for the year 2009—most likely a reflection that immigrants have come to Spain to work and that they have been hit harder by the recent crisis than natives.⁴

Table 2 shows the distribution of immigrants by continent of origin and cohort of arrival. We observe that the origin of immigrants has varied over time, with a large influx of Latin Americans and non-EU-15 Europeans arriving at the turn of the century. Finally, Figure 1 plots the education levels by continents of origin and cohorts, and shows that, on average and with the exception of Africans, immigrants are more educated than natives.⁵ Figure 1 also reveals that across cohorts of arrival, the education level of immigrants has increased among EU-15 and Africans, and decreased among other Europeans.

⁴ The reason for this is that immigrants are more likely to have fixed-term contract jobs, which are the first jobs to disappear in a recession.

⁵ 33.78% of natives in our sample are high-school dropouts; 50.21% are high-school graduates, and 16.01% are college graduates.

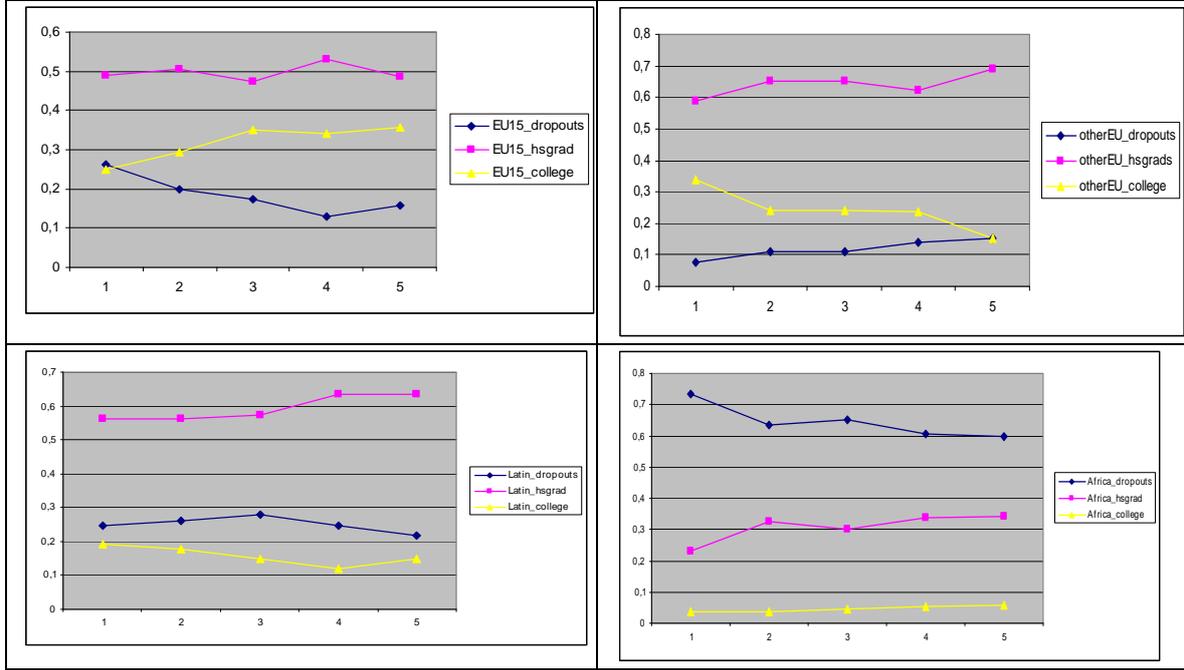
TABLE 1. Welfare Participation Trends for Individuals 16 to 64 Years Old, Immigrants versus Natives, by LFS Year

<i>LFS year</i>	<i>Unemployment insurance</i>	<i>Disability pension</i>	<i>Other social assistance</i>	<i>Sample size</i>
NATIVES				
1999	2.55%	2.32%	3.95%	128,230
2000	2.44%	2.42%	4.01%	118,057
2001	2.44%	2.55%	4.09%	112,836
2002	2.62%	2.86%	4.06%	111,063
2003	2.68%	2.66%	4.09%	112,200
2004	2.90%	2.61%	4.30%	111,315
2005	3.81%	3.01%	4.89%	97,237
2006	3.87%	3.42%	5.40%	100,474
2007	3.58%	3.46%	5.10%	102,490
2008	4.31%	3.55%	5.11%	102,436
2009	7.34%	4.02%	5.54%	100,757
Total	3.51%	2.99%	4.56%	1,197,095
IMMIGRANTS				
1999	1.24%	0.62%	2.18%	1,146
2000	1.91%	0.61%	1.71%	1,173
2001	1.04%	0.99%	1.99%	1,507
2002	1.39%	1.64%	1.42%	2,028
2003	1.27%	0.37%	0.91%	2,748
2004	1.42%	0.43%	1.11%	3,323
2005	2.43%	0.63%	1.27%	3,678
2006	2.02%	0.72%	1.15%	4,801
2007	2.68%	0.63%	1.23%	5,999
2008	3.66%	0.75%	1.15%	6,709
2009	9.89%	0.92%	1.48%	6,676
Total	3.57%	0.74%	1.30%	39,788

TABLE 2. Distribution Across Cohorts by Continent of Origin (percentages)

<i>Cohort</i>	<i>EU15</i>	<i>Other Europeans</i>	<i>Latin Americans</i>	<i>Africans</i>
<i>Pre-1990</i>	0.273	0.009	0.016	0.089
<i>1990-1994</i>	0.126	0.030	0.030	0.143
<i>1995-1999</i>	0.158	0.093	0.094	0.237
<i>2000-2004</i>	0.217	0.585	0.504	0.364
<i>2005-2009</i>	0.072	0.263	0.156	0.128
<i>Sample size</i>	6,803	8,463	20,321	8,392

FIGURE 1. Education Levels by Continent of Origin and Cohorts of Arrival



IV. The Welfare Residual

This section examines whether differences in observable characteristics explain differences in welfare participation. For this purpose, we estimate the following cross-sectional probit model of welfare participation (one for each type of program) adjusting the standard errors for intra-household correlation:

$$P_{it}^j = X_{it}\beta^j + H_{it}\alpha^j + Z_{it}\gamma^j + \delta_{it}^j I_{it} + \sum_{m=2000}^{2009} \lambda_t D_{itm}^j + \sum_{k=1}^{16} \eta_k R_{itk}^j + \varepsilon_{it}^j \quad (1)$$

where i indexes the individual, t indexes LFS year, k indexes the *Comunidad Autónoma*, and j indexes the social assistance program under analysis. The variable P_{it} is a dummy indicating whether the individual receives benefits from program j at the time of the survey, X_{it} is a vector of person-specific characteristics, H_{it} is a vector describing demographic characteristics of the person's minimal household, Z_{it} is a vector describing labor market characteristics, co-ethnic contacts and co-ethnic inactivity level at the province level, D_{it} is a LFS year effect, R_{itk} is a region effect, I_{it} is a dummy variable indicating if the individual is an immigrant, and ε_{it}^j is a normally distributed error term. In all regressions, sampling weights are used. Notice that the coefficient, δ_{it}^j , on the immigrant dummy captures differences between natives and *all* immigrants (regardless of their year of arrival). If lower welfare-participation rates among immigrants are simply due to differences in observable characteristics between natives and immigrants, the coefficient δ_{it}^j on the immigration dummy variable should not be significantly different from zero when these controls are included in the model.

The results in Tables 3 and 4 report the marginal effects calculated at the mean of the observables characteristics in the model for various specifications of equation (1). Table 3 pools all immigrants, and does not control for their continent of origin. Table 4 replicates the analysis from Table 3 separately by immigrants' continent of origin. More specifically, the specifications presented sequentially add the following controls: LFS year dummies (column 1); individual's sex and the minimal household composition—in particular, number of children aged 0 to 4 years old, number of children aged 5 to 9 years old, number of children 10 to 15, number of children 16 to 29 years old, and number of people in the minimal household (column 2); the individual's age and education dummies, and a dummy indicating whether he is married or living within a couple (column 3); *Comunidad Autónoma* of residence dummies, and the unemployment rate at the province level (column 4); co-ethnic contacts at the province level (column 5); co-ethnic inactivity at the province level (column 6); and a general time trend and 16 region time trends (column 7). In addition, to check the robustness of the results to the crisis, column 8 presents estimates with the same specification as in column 7, but without data from the year 2009.⁶

There are two main findings from Table 3. First, we observe that immigrants in Spain are *less* likely to participate in the social assistance programs even after observable characteristics are controlled for (in contrast with evidence from countries with a longer tradition of receiving immigrants and a more developed welfare state). Second, we observe that excluding the year 2009 from the sample *only* affects the coefficient of interest in the UI receipt regression, two-folding its size (but leaving the sign unaffected). This suggests that immigrants are differentially more likely to receive UI when the crisis hits, consistent with them being the first ones to lose their job during recessions.

Table 4 replicates the analysis by continent of origin and reveals the following four main results. First, African's unadjusted UI receipt differs from those of other *immigrants* since they are the only ones to be *more* likely than natives to receive unemployment benefits. As such, column 1 of Table 4 shows that Africans are 1 percentage point more likely to receive UI benefits than natives. However, much of this difference is explained by Africans observable characteristics. For instance, this difference in UI receipt drops by 30% once we control for household characteristics (column 2)—suggesting that Africans' household characteristics are more disadvantaged than the average population—, and becomes negative (and statistically significant so) after controlling for individuals' human capital characteristics (column 3)—suggesting that once age and education are held constant, Africans are *less* likely to use UI receipt than comparable natives. Adding controls for the province unemployment rate (column 4) changes the sign of the UI intake residual (and we cannot longer reject the null hypothesis of a zero residual), indicating that Africans tend to live in areas in which there is relatively higher economic activity. Finally, the UI African/natives gap becomes a significant and positive difference of six tenth of a percentage point once we control for the inactivity level of co-ethnics (column 6), suggesting that the inactive co-ethnicity of Africans is lower than that of natives.⁷

Second, Latin Americans are those with a lower unadjusted UI receipt difference relative to natives. This difference of half of a percentage points becomes positive and statistically insignificant when co-ethnic inactivity at the province level is controlled for, suggesting that differential network effects between Latinos and natives explain the small UI receipt differences observed.

⁶ Sensitivity analysis dropping additional years has been done with similar findings.

⁷ While the average co-ethnic inactivity is 45% for native, for Africans it is 30%.

TABLE 3. Immigrant-Native Welfare Receipt Differential, Probit Models of Welfare Participation, LFS 1999-2009

Definition of welfare receipt variable:	<i>Regression specification (Model)</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unemployment Insurance	-0.00578*** (0.000971)	-0.00698*** (0.000961)	-0.00860*** (0.000818)	-0.00588*** (0.000861)	-.00666*** (.0009108)	-0.00603*** (0.00114)	-0.00589*** (0.00114)	-0.00905*** (0.00104)
Disability	-0.0232*** (0.000492)	-0.0167*** (0.000560)	-0.0109*** (0.000403)	-0.0103*** (0.000397)	-0.00955*** (0.000455)	-0.00836*** (0.000669)	-0.00789*** (0.000659)	-0.00805*** (0.000658)
Other social assistance	-0.0310*** (0.000664)	-0.0257*** (0.000727)	-0.0148*** (0.000442)	-0.0139*** (0.000451)	-0.0135*** (0.000498)	-0.0114*** (0.000734)	-0.0112*** (0.000737)	-0.0115*** (0.000715)
LFS dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sex and HH composition	No	Yes						
Human capital and age	No	No	Yes	Yes	Yes	Yes	Yes	Yes
State FE and province UR	No	No	No	Yes	Yes	Yes	Yes	Yes
Province co-ethnicity	No	No	No	No	Yes	Yes	Yes	Yes
Province co-ethnic inactivity	No	No	No	No	No	Yes	Yes	Yes
Region time trends							Yes	Yes
Drops year 2009								Yes

Note: Robust standard errors in parentheses (adjusted for intrahousehold correlation). Regressions have 1,236,883 observations except in column (8), in which there are 1,122,367 observations. *** p<0.01, ** p<0.05, * p<0.1

TABLE 4. Immigrant-Native Welfare Receipt Differential, by Continent of Origin, Probit Models of Welfare Participation, LFS 1999-2009

<i>Model:</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Definition of welfare receipt:	EU 15 (N = 1,199,309)							N = 1,098,236
UI subsidy	-0.0119*** (0.00210)	-0.0142*** (0.00190)	-0.0102*** (0.00193)	-0.0105*** (0.00182)	-0.0104*** (0.00181)	-0.0103*** (0.00183)	-0.0102*** (0.00183)	-0.0104*** (0.00181)
Discapacity	-0.00878*** (0.00224)	-0.00783*** (0.00192)	-0.00273 (0.00166)	-0.00398*** (0.00145)	-0.00286* (0.00160)	-0.00221 (0.00166)	-0.00253 (0.00159)	-0.00259 (0.00162)
Other subsidy	-0.00535* (0.00306)	-0.00987*** (0.00251)	-0.00346* (0.00194)	-0.00476*** (0.00176)	-0.00456** (0.00180)	-0.00410** (0.00183)	-0.00447** (0.00179)	-0.00475*** (0.00179)
	Other Europe (N = 1,200,873)							N = 1,098,947
UI subsidy	-0.0125*** (0.00185)	-0.0128*** (0.00179)	-0.0119*** (0.00155)	-0.00950*** (0.00163)	-0.00870*** (0.00172)	-0.00491** (0.00240)	-0.00484** (0.00242)	-0.00999*** (0.00219)
Discapacity	-0.0259*** (0.000746)	-0.0201*** (0.000890)	-0.0115*** (0.000892)	-0.0106*** (0.000941)	-0.0101*** (0.00102)	-0.0118*** (0.000820)	-0.0108*** (0.000957)	-0.0108*** (0.000940)
Other subsidy	-0.0361*** (0.00101)	-0.0315*** (0.00112)	-0.0148*** (0.00101)	-0.0138*** (0.00107)	-0.0136*** (0.00112)	-0.0149*** (0.00105)	-0.0141*** (0.00116)	-0.0147*** (0.00105)
	Latin America (N = 1,208,033)							N = 1,105,042
UI subsidy	-0.00534*** (0.00147)	-0.00553*** (0.00151)	-0.00796*** (0.00124)	-0.00478*** (0.00134)	-0.00521*** (0.00137)	0.00200 (0.00244)	0.00203 (0.00244)	-0.00507** (0.00211)
Discapacity	-0.0261*** (0.000526)	-0.0196*** (0.000709)	-0.0131*** (0.000430)	-0.0123*** (0.000436)	-0.0118*** (0.000504)	-0.0132*** (0.000428)	-0.0124*** (0.000512)	-0.0122*** (0.000488)
Other subsidy	-0.0362*** (0.000737)	-0.0309*** (0.000881)	-0.0179*** (0.000427)	-0.0169*** (0.000458)	-0.0167*** (0.000473)	-0.0177*** (0.000439)	-0.0172*** (0.000499)	-0.0171*** (0.000409)
	Africa (N = 1,201,104)							N = 1,099,408
UI subsidy	0.00978*** (0.00264)	0.00583** (0.00249)	-0.00360** (0.00181)	0.00146 (0.00203)	0.00189 (0.00211)	0.00601** (0.00258)	0.00601** (0.00260)	0.000298 (0.00250)
Discapacity	-0.0236*** (0.00101)	-0.0170*** (0.00128)	-0.0129*** (0.000564)	-0.0121*** (0.000577)	-0.0116*** (0.000656)	-0.0124*** (0.000562)	-0.0119*** (0.000611)	-0.0120*** (0.000566)
Other subsidy	-0.0316*** (0.00130)	-0.0230*** (0.00188)	-0.0162*** (0.000666)	-0.0151*** (0.000720)	-0.0149*** (0.000754)	-0.0151*** (0.000816)	-0.0147*** (0.000862)	-0.0152*** (0.000688)

Note: Robust standard errors in parentheses (clustered at the household level). *** p<0.01, ** p<0.05, * p<0.1

Third, except for immigrants from the EU15, excluding the year 2009 has an important effect on the UI intake residual, as it overestimates it by 4 to 7 tenths of a percentage point (shown in Table 8). As a consequence, prior to being hit by the crisis all immigrants' (except for Africans) were, on average, less likely to receive UI than natives. Moreover, no UI differential was observed between natives and Africans. The sensitivity of these results to the exclusion of the 2009 data suggests that non-EU15 immigrants are the first ones to be laid-off, but also that many of them have contributed enough into the system to be able to receive UI benefits.

Fourth, the immigrants/natives gap in disability benefits and other social assistance receipt does not vary much across continents of origin or with the crisis: immigrants are about 2.5 (3.6) percentage points less likely than natives to receive disability (other social assistance) benefits, and this difference drops to 1.3 (1.5) percentage points (after observable characteristics have been controlled for). The only deviation is for immigrants from the EU15, for which the immigrant/native gap is considerably smaller all along.

The results thus far have not accounted for differences across different cohorts of immigrants. Table 5 shows results from a specification with the same covariates used in the specification of column (7) in Table 2 plus four cohort dummies indicating the time of arrival of immigrants.⁸ The analysis reveals an interesting insight, namely, that the lower intake is mainly driven by immigrants who have arrived in the last 5 years, regardless of their continent of origin. This is likely due to two factors. On the one hand, they are those most likely to be in more vulnerable positions; on the other, their legal status or insufficient contribution into the system may hamper their UI intake. In contrast, immigrants who arrived pre-2005 are more likely than natives to receive UI, consistent with findings from other countries.⁹ Moreover, there seems to be a monotonic pattern for immigrants arriving before 2005, with the earlier the arrival date the higher the UI intake relative to natives.¹⁰ These findings are robust to excluding the year 2009 from the data (results available from author upon request).

VI. Conclusion

This paper analyzes the immigrant-native gaps in cash-welfare benefits receipt and their determinants in Spain. We argue that the experience of Spain ought to be of interest to policymakers of other Southern European countries that share cultural affinities (such as, the strong family-orientated values associated with a low degree of individualization—Flaquer, 2000); similar socio-economic circumstances (such as, rigid labor and financial markets, important underground economy, and low productivity growth—Garicano, 2008; Andrés, 2009; de la Rica, 2009; and Cuñat and Garicano, 2009); and welfare commonalities (such as, the mix of universalistic health-care and education systems with professional pension schemes, the high degree of institutional fragmentation, and the lack of an explicit family policy as evidenced by a very limited number of family-friendly social provisions—Guillén, 1997; and Ferrera, 1996).

⁸ The cohort dummies are interaction terms of immigrant status and year of arrival. The reference group is immigrants arrived after 2004. Thus, to estimate the differential between an immigrant arriving in the year 2000 and a native, one needs to add the coefficient on the immigrant status plus that on the cohort 2000-2004.

⁹ Notice, however, that we do not observe that they are more likely to receive other type of welfare assistance than natives.

¹⁰ It is important to note that the mid-1990s marks the arrival of non-EU15 immigrants. Prior to that, very few came to Spain from outside the EU15.

TABLE 5. Immigrant-Native Welfare Receipt Differential, by Continent of Origin, Probit Models of Welfare Participation, LFS 1999-2009

Variables	Definition of welfare receipt variable:					
	Unemployment	Disability	Other	Unemployment	Disability	Other
	EU 15 (sample size: 1,199,309)			Other Europe (sample size: 1,200,873)		
Immigrant	-0.0272*** (0.000794)	-0.00312 (0.00540)	-0.00639 (0.00530)	-0.0155*** (0.00248)	-0.0112*** (0.00140)	-0.0173*** (0.000994)
Cohort pre-1990	0.241*** (0.0777)	0.00172 (0.00786)	0.00385 (0.00953)	0.0237 (0.0387)	0.0487 (0.0378)	0.116 (0.0758)
Cohort 1990-1994	0.165** (0.0699)	-0.000419 (0.00827)	-0.00407 (0.00784)	0.0307 (0.0247)	0.0232 (0.0345)	-0.0106 (0.00861)
Cohort 1995-1999	0.158** (0.0666)	0.00514 (0.0102)	0.00355 (0.0103)	0.0484** (0.0201)	0.0206 (0.0155)	0.0355 (0.0244)
Cohort 2000-2004	0.139** (0.0600)	-0.00224 (0.00676)	0.00505 (0.0105)	0.0238*** (0.00917)	-0.00432 (0.00477)	0.0204 (0.0138)
	Latin America (sample size: 1,208,033)			Africa (sample size: 1,201,104)		
Immigrant	-0.0126*** (0.00269)	-0.0133*** (0.000835)	-0.0186*** (0.000694)	-0.0122*** (0.00337)	-0.0116*** (0.00165)	-0.0190*** (0.000816)
Cohort pre-1990	0.0374* (0.0193)	0.0477* (0.0285)	0.0394 (0.0285)	0.0424** (0.0178)	0.00663 (0.0110)	0.0666 (0.0415)
Cohort 1990-1994	0.0469** (0.0193)	0.0200 (0.0237)	0.0438 (0.0273)	0.0601*** (0.0176)	0.00226 (0.00916)	0.0616 (0.0399)
Cohort 1995-1999	0.0353*** (0.0116)	0.00314 (0.00849)	0.0240 (0.0149)	0.0363*** (0.0128)	-0.00167 (0.00679)	0.0558 (0.0362)
Cohort 2000-2004	0.0257*** (0.00743)	0.00527 (0.00766)	0.00921 (0.00951)	0.0213** (0.00991)	-0.00541 (0.00550)	0.0390 (0.0298)

Note: Regressions control for all controls used in the regression specification shown in column 7 of Table 3. Robust standard errors in parentheses (clustered at the household level). *** p<0.01, ** p<0.05, * p<0.1

Our paper highlights the relevance of accounting for cohort of arrival in the host country, especially when welfare benefits are based on workers' contribution. Indeed, failure to account for this would lead to conclude that immigrants are less likely to receive UI than natives. However, once cohort of arrival is included as a covariate, this paper finds that the lower UI intake is explained by the most recent immigrants as their legal status and lower contributions hampers participation in social programs.

Return migration related (or not) to an amnesty may be worrisome, as both return migration and under-reporting of immigrants may generate deterministic biases in our analysis. Although the direction of the biases caused by return migration is not always obvious (see Amuedo-Dorantes and de la Rica, 2007), sensitivity analysis has been undertaken to evaluate the extent of this problem by comparing the population sizes for the different entry cohorts of immigrants at each LFS. While there is some variation in sizes across LFS, no clear pattern is observed that would raise major concerns of return migration (as there are no regular patterns for decreases in cohort sizes). Nonetheless, for this to be a problem, it needs to generate a deterministic bias in our analysis. Analyzing the demographic characteristics of the different cohorts of immigrants at each of the different LFS only reveals small changes across surveys, in essence the socio-demographic characteristics of the cohort remains quite stable across surveys, implying that no deterministic bias would emerge in our analysis.¹¹

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¹¹ This result is consistent with findings of Fernández and Ortega, 2008, which use the same dataset to analyze the assimilation of immigrants in terms of labor force participation, and temporality.

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