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**Immigrant assimilation beyond
the labor market**

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Immigrant Assimilation Beyond the Labor Market *

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Abstract

Immigrants are not just workers, they are also consumers. Yet most of the literature studying immigration has focused on the former. This paper uses detailed Spanish consumption survey data to characterize how immigrant consumption differs from that of natives. Immigrants are much more likely to rent than native households, even when controlling for many observable characteristics. Decompositions of the differences in consumption patterns between immigrants and natives show that most of the differences cannot be accounted for standard socio-economic characteristics like income, household size, and geography. Variation from the amnesty program implemented in Spain in 2005 suggests that a small part of the differences in housing tenure status depend on the fact that many immigrants lack work permits, and potentially, formal access to mortgage credit.

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1 Introduction

Most studies view immigrants as workers (Borjas, 2016). When immigrants are viewed, primarily, as workers, the relevant questions are whether immigrants work in the same types of jobs than natives, and if such, whether they compete for these jobs. This view has shaped two prominent literatures: the immigrant assimilation and the labor market effects of immigration.

The immigrant assimilation literature has investigated to what extent immigrant workers “converge” to similar natives as they spend time in the host economy. Much of the debate in this literature has been about the speed of immigrant assimilation, i.e., focusing on questions such as how long does it take for immigrants to do the same types of jobs and earn the same wages than the native born (Chiswick, 1978; Borjas, 1985; Albert et al., 2025). The view behind this literature is that immigrants are like natives, except that they lack some skills specific to the host economy, something that they learn over time.

Similarly, the literature that studies the effects of immigration on the host economy labor markets has focused on understanding whether immigrants compete or complement native labor. Earlier studies, compared cities receiving immigrants to those that did not, to study wage trends across locations (Card, 1990, 2001). Later studies, compared, instead, different skill cells, focusing both on the direct and indirect effects of immigrants across groups (Borjas, 2003; Ottaviano and Peri, 2012). The key distinction between immigrants and natives in this literature is that immigrants and natives are either distributed differently over characteristics that matter for the labor market – like education –, or that they are fundamentally different factors of production. In either case, though, the view is that immigrants affect host economies via the labor market.

However, immigrants are not just workers. They are also consumers. And yet, except for a handful of cases that I discuss in detail below, we know relatively less about the effects of immigration on host economies once we think of immigrants as consumers. This paper uses data from the Spanish Encuesta de Presupuestos Familiares (EPF) to characterize immigrant consumption patterns, and hence, the extent to which immigrants may affect host economies because their consumption patterns differ from those of natives.

The first part of the paper focuses on documenting whether immigrants consume in the same types of sectors than native workers. For this exercise, I first document large differences between the two groups in a number of characteristics. Immigrant households are younger, live in larger households, tend to have lower incomes, are more urban, slightly less educated, and above all, much more likely to rent rather than own the housing unit where they reside. Indeed, the fraction of natives in market rental units in

Spain is around 7%, while the fraction in market rentals among EU and non-EU migrant households is 51% and 68%, respectively.¹ As a result, immigrants, especially non-EU immigrants, are disproportionately important for the rental market, accounting for more than 37% of total expenditures in the rental market.

These differences in the propensity to rent between immigrants and natives could be due to the differences in characteristics. Being young, in urban areas, having lower incomes, are all among the characteristics that are highly correlated with the propensity to rent. In the second part of this paper, I investigate whether the differences in spending patterns between immigrants and natives are related to observable characteristics, or are instead related to unobservables, which I label as “tastes”. For this exercise, I propose a decomposition of spending across characteristics that holds income elasticities fixed (and that of other characteristics) across groups while allowing for a group specific intercept. Perhaps surprisingly, a large part of spending differences between immigrants and natives are accounted for taste differences. Comparing all immigrants and natives, results suggest that 100% of the variation in expenditures across sectors is related to taste shifters. Part of this reflects the fact that immigrants are more likely to rent relative to natives who share the same observable characteristics. Even among renters, though, taste differences account for the bulk of the variation. More than 85% of the variation is accounted for taste differences.

One hypothesis is that differences in housing tenure decisions are related to informality. After all, many immigrants in Spain lack work permits, and hence, are unlikely to be able to access housing credit. The final part of the paper investigates whether the amnesty program implemented by the first Zapatero government lead to changes in consumption patterns between non-EU immigrants and native workers, with a particular focus on housing tenure decisions.

One of the first policies implemented by the unexpectedly elected Zapatero government was granting work permits to almost 600,000 non-EU migrants already residing in Spain in early 2005. Comparing non-EU immigrants to EU migrants, and provinces in Spain with higher and lower prevalence of non-EU migrants, past research already documents that the amnesty program 1) did not led to magnet effects; 2) improved immigrant trajectories in the labor market; 3) increased immigrant fertility; and 4) induced migrants to move to smaller, less urban provinces (Elias et al., 2025; Monras et al., 2025). Prior literature did not investigate, however, whether immigrant consumption patterns converged to those of native households. While limited by the fact that the EPF only identifies non-EU migrants starting in 2006, i.e., a few months after the amnesty took

¹I define as market rentals, rentals units excluding long-term rent controlled units

place, the data suggests that immigrant and native consumption patterns did not converge, except for one crucial category. The share of immigrants in rental units declined by about 10 to 15 percentage points after 2007, both when compared to native households sharing the same characteristics, and when compared to EU migrants. The bulk of this effect can be accounted for increases in the share of non-EU migrants buying housing units with mortgages. While the gap in housing tenure decisions is reduced once non-EU immigrants gain work permits, a substantial gap remains, suggesting that differences in housing tenure decisions between immigrants and native reflect not only labor market opportunities, but also fundamental taste differences.

Overall, this paper points to the fact that immigrants, especially non-EU immigrants, and natives have marked differences in their consumption patterns. In particular, it highlights that immigrants are substantially more likely to rent, even when compared to observationally similar native households. This in turn, implies that immigrant households are disproportionately important in the rental market. Policies such as the amnesty program seem to encourage immigrant workers to move to the homeownership market, but, at best, close one fourth of the initial gap.

Relation to the literature.

Most of the literature on migration views immigrants as workers, and explores the consequences this may have for host economies. As such, many papers in the literature document how immigrants workers are distributed over characteristics that matter for the labor market, such as education and then study how immigration affects the labor market. There is ample literature, as well, on how immigrant skill evolve over time while in the host economy.

There is a much smaller literature that considers consumption decisions of immigrant workers, and an even smaller one that studies the effects that this may have for the labor market. Perhaps the closest paper is [Adamopoulou and Kaya \(2020\)](#) which studies whether household consumption increases among immigrants who gained EU citizenship following the EU expansion of the mid 2000s. In contrast to this paper, I provide a more comprehensive analysis of the composition of immigrant consumption.

Two papers use retail shop or scanner data to compare immigrant and native consumption. [Guidotti et al. \(2021\)](#) measures how different is immigrant from native consumption and proposes an interesting classification into five different groups to characterize immigrant similarity to natives. [McCully et al. \(2024\)](#) use scanner data to study how different immigrant and native consumption is. [Atkin \(2013\)](#) uses instead survey data to show that migrant workers' consumption retains tastes from origin, making consumption of calories more expensive to migrants compared to natives.

One of the main points in this paper is that immigrants may be disproportionately important in the housing market. There is some literature investigating the causal effects of migration on housing prices, including [Gonzalez and Ortega \(2013\)](#), [Sa \(2015\)](#), [Saiz \(2007\)](#), [Saiz and Wachter \(2011\)](#) and [Monras \(2020\)](#).

2 Data and Descriptive evidence

The main data set used in this paper is the Encuesta de Presupuestos Familiares (EPF). The EPF, or Household Budget Survey, is a comprehensive dataset compiled and published by Spain's National Statistics Institute (INE). It captures detailed information on the income, expenditure, and consumption habits of households across Spain. The survey is conducted annually and covers a nationally representative sample of households.

The EPF data contains information on consumption and various household characteristics such as household income, types of expenditure (e.g., food, housing, transportation, education), and socio-demographic information like household size, age, and employment status of members. It provides microdata, enabling disaggregated analysis and comparisons across time and regions. Geographically, the EPF records autonomous community (Comunidad Autonoma), and whether the household lives in a province capital.

The EPF enables the study of immigrant status beginning in 2006, when it introduced a variable distinguishing between individuals from EU and non-EU countries of origin. Although the dataset does not provide detailed country-of-origin information, this binary classification allows to compare household expenditure patterns, income levels, and consumption behavior between EU and non-EU immigrant households.

The EPF organizes household expenditures according to the 12 COICOP (Classification of Individual Consumption by Purpose) categories, which provide a standardized framework for analyzing consumption. These categories include essentials such as Food and Non-Alcoholic Beverages, Housing, Water, Electricity, Gas and Other Fuels, and Transport, as well as other areas like Health, Education, Recreation and Culture, and Restaurants and Hotels. This structure allows for consistent comparisons of spending patterns across households and over time.

2.1 Descriptives

Table 1 presents descriptive statistics for three population groups—Natives, EU Migrants, and Non-EU Migrants—based on four key variables: age, education, household size, and annual income. The data show that natives have the highest average age (53.55 years),

Table 1: Summary statistics by nativity

Group	Age	Education	Household Size	Annual Income
<i>Natives</i>				
Mean	53.55	3.98	2.90	25,200.95
SD	14.70	2.09	1.24	16,385.78
N	202,569			
<i>EU Migrants</i>				
Mean	44.26	4.71	2.92	24,960.16
SD	14.56	1.98	1.38	18,253.13
N	4,528			
<i>Non-EU Migrants</i>				
Mean	39.85	4.04	3.52	20,584.71
SD	10.43	1.95	1.64	12,410.57
N	10,326			
<i>Total</i>				
Mean	52.78	4.00	2.93	24,996.77
SD	14.85	2.08	1.27	16,299.25
N	217,423			

Notes: This tables provides summary statistics by nativity using data from the Encuesta de Presupuestos Familiares (EPF).

while non-EU migrants are the youngest group on average (39.85 years). Education levels are highest among EU migrants, with a mean of 4.71 on the education scale, followed by non-EU migrants (4.04), and natives (3.98). Household size is notably larger among non-EU migrants (3.52), compared to the near-identical averages of natives and EU migrants (2.90 and 2.92, respectively). In terms of income, natives and EU migrants report similar annual earnings 25,201 and 24,960 euros, respectively—while non-EU migrants have a significantly lower average income of 20,585 euros. The total sample comprises 217,423 individuals, with 202,569 natives, 4,528 EU migrants, and 10,326 non-EU migrants. These summary statistics highlight distinct demographic and socioeconomic profiles across groups, which I use in the subsequent analysis.

Panel A of Table 2 provides a more detailed analysis of the age distribution of the same three population groups. It shows significant differences in demographic structure across them. Natives are substantially older on average, with 46.57% of them aged 56 or older, compared to only 13.04% of EU foreigners and just 2.77% of non-EU foreigners in the same age range. In contrast, the majority of non-EU foreigners (69.09%) and EU foreigners (59.23%) are under 46 years old, indicating that these migrant populations are predominantly of working age and younger than the native population.

The particularly high share of non-EU foreigners in the 36-45 age group (36.43%) and the 16-35 group (32.66%) is in line with standard migration profiles and migration booms. International migrants tend to migrate when young, and a fraction return home after a few years. Hence, migration booms translate into an increase of disproportionately younger households. EU foreigners also concentrate heavily in the same younger age categories, though to a slightly lesser extent. The native population, by contrast, is more evenly distributed across age groups, but with a clear tilt toward older cohorts: 28.08% are aged 66 and above, compared to just 5.6% of EU foreigners and 0.84% of non-EU foreigners.

Panel B of Table 2 presents the distribution of household sizes among natives, EU foreigners, and non-EU foreigners, revealing notable differences in living arrangements across these groups. Native households are more likely to be smaller: nearly half (48.47%) consist of one or two people, reflecting trends of aging, single living, and lower fertility. EU foreigners show a somewhat similar pattern, with 47.40% of households falling into the one- or two-person categories. In contrast, non-EU foreigners are far more likely to live in larger households, with just 30.85% living in one- or two-person households and over 44.77% living in households of four or more.

The most striking contrast is in the share of large households (5 or more people): only 6.09% of natives and 8.92% of EU foreigners live in such arrangements, compared to a

Table 2: Detailed distributions

Panel A: Age distribution			
Age Category	Natives	EU Foreigners	Non-EU Foreigners
16–35	10.65	29.82	32.66
36–45	20.65	29.41	36.43
46–55	21.81	16.81	21.18
56–65	18.81	10.92	6.96
66–75	15.60	9.37	1.93
76+	12.48	3.67	0.84
Panel B: Household size distribution			
Household Size	Natives	EU Foreigners	Non-EU Foreigners
1 person	17.19	15.41	10.84
2 persons	31.28	31.99	20.01
3 persons	24.18	24.01	24.38
4 persons	21.26	19.67	23.19
5+ persons	6.09	8.92	21.58
Panel C: Education distribution			
Education Group	Natives	EU Foreigners	Non-EU Foreigners
Low	38.68	33.67	48.73
Medium	36.84	47.23	36.31
High	24.48	19.10	14.96
Panel D: Tenure status distribution			
Tenure Status	Natives	EU Foreigners	Non-EU Foreigners
Homeowners	93.27	49.17	32.47
Renters	6.73	50.83	67.53

Notes: This tables provides the distribution of natives EU Foreigners and non-EU For-
 eigners for a number of key characteristics. Panel A shows the distribution over age
 categories, panel B over household sizes, Panel C over education groups (restricted
 to individuals younger than 46 years old), and Panel D by tenure status. In Panel D
 Renters include all market rents. Homeowners include home owners with and without
 mortgage and old rents.

substantial 21.58% of non-EU foreigners. This likely reflects both cultural factors and economic constraints, such as a greater reliance on shared housing to reduce costs or accommodate extended family structures among non-EU migrants. It may also reflect credit constraints to access the homeownership market. The higher prevalence of medium- to large-sized households among migrants, especially non-EU groups, may have implications for housing demand, public services, and per capita income or consumption metrics, underscoring the need for policies that account for varying household compositions across demographic groups.

Panel C of Table 2 displays the distribution of educational attainment among natives, EU foreigners, and non-EU foreigners, using three categories: low, medium, and high education. Natives have a more balanced educational profile, with 38.68% in the low category, 36.84% in medium, and 24.48% in high. EU foreigners stand out for having the highest share of medium education (47.23%), suggesting they are relatively well positioned in terms of vocational or secondary qualifications, possibly reflecting labor mobility within the EU for skilled work. However, they have a slightly lower proportion of individuals with high education (19.10%) compared to natives.

Non-EU foreigners, by contrast, exhibit a more polarized educational profile: nearly half (48.73%) have low education, while only 14.96% have high education—the lowest share among all groups. This pattern may reflect barriers in educational access in countries of origin, as well as issues related to the non-recognition of foreign credentials or migration channels that favor lower-skilled labor. Overall, the data reveal that while EU migrants are somewhat more concentrated in the middle of the education distribution, non-EU migrants are disproportionately overrepresented in the lowest education group. These disparities have important implications for labor market integration, earnings potential, and access to upward mobility, particularly for non-EU migrants.

Finally, Panel D presents the housing tenure status—specifically, the shares of homeownership vs. renting—by population group: natives, EU foreigners, and non-EU foreigners. The data reveal a stark contrast in housing situations across groups. Homeownership is overwhelmingly common among natives, with 93.27% owning their homes and only 6.73% renting.² In contrast, the majority of EU foreigners (50.83%) and an even greater share of non-EU foreigners (67.53%) are renters, suggesting much lower access to property ownership among migrant populations.

These disparities likely reflect differences in length of residence, economic resources, and legal or institutional barriers to homeownership. Natives, having typically accumu-

²In this categorization I combine all types of home ownership and long-term rent controlled units into the same category.

lated assets over time and facing fewer barriers, are far more likely to be homeowners. EU foreigners show a relatively balanced split between ownership and renting, possibly due to greater mobility or shorter average stays in Spain. Non-EU foreigners, by contrast, face the most precarious housing situations, with only 32.47% owning homes—less than half the rate of EU foreigners—indicating potential vulnerabilities linked to income insecurity, legal status, or discrimination in the housing market. This tenure gap underscores the role of housing as a key dimension of social and economic integration.

Table 3: Immigrant share of total expenditures, by category

Category	EU Foreigners	Non-EU Foreigners
Food & Non-Alc.	0.030	0.062
Alcohol & Tobacco	0.050	0.054
Clothing & Footwear	0.028	0.073
Housing & Utilities	0.055	0.132
Furnishing	0.028	0.046
Health	0.027	0.046
Transport	0.036	0.071
Communication	0.038	0.079
Recreation & Culture	0.032	0.056
Education	0.019	0.062
Hotels & Restaurants	0.031	0.056
Miscellaneous	0.031	0.053
Total	0.035	0.070

Notes: This tables displays the share of total expenditures, i.e. total expenditures of a group of immigrants in a particular sector divided by the total expenditures of both immigrants and natives in that sector, done by EU and non-EU foreigners for each COICOP category.

Table 3 presents the share of total expenditures in various consumption categories made by EU and non-EU foreigners, relative to the combined expenditures of both immigrants and natives in each category. Non-EU foreigners consistently contribute a higher share across all categories compared to EU foreigners, with particularly large shares in Housing and Utilities (13.2%), Communication (7.9%), and Clothing and Footwear (7.3%). These numbers are similar to the ones obtained with Norway by [Galaasen et al. \(2025\)](#). EU foreigners show relatively smaller but more evenly distributed shares, reflecting, potentially smaller differences in their income allocation relative to natives, something that I investigate in more detail in the next section.

3 Differences in consumption patterns between natives and immigrants

In this section, I investigate the differences driving the consumption patterns of natives and immigrants. To guide the empirical analysis it is useful to first use a simple framework based on standard consumer demand theory. Standard consumer demand theory assumes individuals maximize utility over a bundle of goods, subject to a budget constraint. Each consumer type i chooses consumption across sectors j , leading to a demand function $x_{ij}(w_i, p)$, where w_i is income and p is the vector of prices. This demand can be log-linearized around income and prices, yielding expressions for both quantity demanded and total expenditure. The log of expenditure for each good depends on consumer income, the good's own price, cross-prices, and an intercept term that captures tastes. In equations, one for quantities demanded, the other for expenditures:

$$\ln x_{ij}(w_i, p) = \mu_{ij} + \beta_j \ln w_i - \gamma_j \ln p_j + \sum_{k \neq j} \gamma_k \ln p_k$$

$$\ln \mathcal{E}_{ij} = \ln p_j x_{ij}(w_i, p) = \mu_{ij} + \beta_j \ln w_i + (1 - \gamma_j) \ln p_j + \sum_{k \neq j} \gamma_k \ln p_k$$

In this framework, I have already made one important assumption: income and price elasticities (β_j and γ_j) are the same across consumer types. If this is the case, then differences in preferences are captured by variation in the intercepts (μ_{ij}). These intercepts represent group-specific tastes, which can vary systematically between, for example, natives and immigrants. We can use this framework to study whether differences in consumption are mostly due to income differences (or differences in observable characteristics), or whether instead the bulk of the difference is related to differences in μ_{ij} . I discuss this in a couple of steps.

3.1 Differences in income elasticities

The first step is to test whether indeed income elasticities vary by group. For this, I use the following regression:

$$\begin{aligned} \ln(\text{Expenditure}_{ij}) = & \mu_{g(i),j} + \beta_j \ln(\text{income}_i) + \beta_j^I \times \mathbb{1}_{i=\text{immigrant}} \times \ln(\text{income}_i) \\ & + \delta_{jt} + \delta_{j,caa} + \eta_j X_i + \varepsilon_{ij} \end{aligned}$$

where the dependent variable is the log of household expenditure on a given good, regressed on log income, an interaction between income and immigrant status, fixed effects for time and region, and a set of demographic controls. Group-specific intercepts are included to account for taste differences, and weights ensure the estimates are representative. The key parameter of interest is β_j^I , which measures whether immigrants respond differently to income changes in their consumption choices.

Given the potential for measurement error in income, the analysis employs an instrumental variable (IV) strategy using education as an instrument, following the approach of [Aguiar and Bils \(2015\)](#). This helps ensure that observed differences in income elasticities across groups are not driven by noise in reported income.

Table 4 presents estimated income elasticities across 13 expenditure categories for three household groups: Natives, EU migrants, and Non-EU migrants. The data is shown separately for all households and for renter households, capturing how each group's consumption in various categories responds to income changes. For example, necessities such as food and housing exhibit lower elasticities (below 1), while other categories like education and recreation have much higher elasticities. Across most categories, differences in elasticities between migrants and natives are statistically significant, as indicated by asterisks. These differences suggest that EU and Non-EU migrants tend to adjust their spending patterns differently from natives in response to income changes.

Among renter households, income elasticity is generally higher than in the overall sample for categories like alcohol, health, and communication, likely reflecting greater budget sensitivity within this subgroup. Notably, Non-EU migrants often show slightly lower elasticities than natives for basic goods, while showing similar or even higher elasticities in more elastic categories such as transport and communication. Differences between natives and migrants are generally small in magnitude but statistically significant in many cases, especially in categories like education and furnishing. These findings indicate nuanced but overall small variations in consumption behavior across demographic lines, especially within housing status.

3.2 Differences in taste shifters

Given that income differences are quantitatively very small, most the differences in expenditures across sectors are probably accounted for either observable characteristics or unobservables, which I labeled as taste shifters. To explore this further, I first discuss estimates on expenditures shares and predicted expenditure share once different sets of observable characteristics are taken into account, to then test for systematic differences in

Table 4: Income elasticities by sector and nativity

Category	Group	All households		Renters	
		Elasticity	Diff. vs. Natives	Elasticity	Diff. vs. Natives
01. Food	Natives	0.24		0.27	
	EU	0.24	-0.01*	0.27	0.00
	NonEU	0.23	-0.02*	0.26	-0.01*
02. Alcohol	Natives	0.25		0.46	
	EU	0.28	0.03*	0.47	0.01*
	NonEU	0.22	-0.03*	0.42	-0.04*
03. Clothing	Natives	1.06		1.04	
	EU	1.04	-0.02*	1.03	0.00
	NonEU	1.06	0.00	1.05	0.01*
04. Housing	Natives	0.62		0.67	
	EU	0.66	0.05*	0.68	0.01*
	NonEU	0.68	0.06*	0.68	0.01*
05. Furnishing	Natives	1.27		0.89	
	EU	1.24	-0.03*	0.87	-0.03*
	NonEU	1.23	-0.04*	0.86	-0.03*
06. Health	Natives	1.07		1.54	
	EU	1.05	-0.03*	1.53	-0.01*
	NonEU	1.05	-0.03*	1.54	0.00
07. Transport	Natives	1.75		1.84	
	EU	1.76	0.01*	1.85	0.01*
	NonEU	1.77	0.02*	1.87	0.02*
08. Communication	Natives	1.07		1.63	
	EU	1.07	0.00	1.64	0.01*
	NonEU	1.07	0.00	1.65	0.02*
09. Recreation	Natives	1.70		1.85	
	EU	1.68	-0.02*	1.84	-0.01
	NonEU	1.68	-0.02*	1.85	0.00
10. Education	Natives	3.73		3.14	
	EU	3.62	-0.11*	3.03	-0.11*
	NonEU	3.67	-0.06*	3.11	-0.03*
11. Hotels	Natives	1.90		2.12	
	EU	1.88	-0.02*	2.11	-0.01*
	NonEU	1.88	-0.02*	2.12	0.00
12. Miscellaneous	Natives	1.06		1.16	
	EU	1.04	-0.03*	1.14	-0.02*
	NonEU	1.02	-0.04*	1.14	-0.01*
13. Savings	Natives	1.25		1.23	
	EU	1.25	0.00	1.24	0.01*
	NonEU	1.25	0.00	1.24	0.01*

Notes: This table estimates income elasticities across sectors for Natives, EU, and non-EU migrants, and tests the difference between the two immigrant groups and natives. A star means at least significant difference at 10%, based on standard errors clustered at the CCAA x year.

expenditure share by nativity.

Table A1 in the Appendix reports expenditure shares across various categories for three groups—Natives, EU migrants, and non-EU migrants. The most notable difference in expenditure shares emerges in the “Housing & Utilities” category. Non-EU migrants consistently allocate the largest share of their expenditures to housing, ranging from 25% to 29% across specifications. EU migrants follow closely, with housing shares ranging from 22% to 27%. In contrast, native households spend significantly less on housing, with shares between 14% and 19%.

These differences remain robust even after accounting for income, and various other controls. Table A2 replicates Table A1 but conditioning on household who live in a rental unit. The gap in expenditure allocated to housing diminishes in this case very substantially. This highlights the fact that many native households are home-owners, and hence, expenditures on housing were either done in the past, or done by their parents or other family members. However, even among renters, immigrant households spend relatively more on housing than native households. This is potentially due to some aspects that are not accounted for in this table, such as the fact that immigrant households are much more likely to live in urban areas, where households typically spend more on housing (Albert and Monras, 2022).

More formally, we can test whether taste shifters of natives and immigrants are the same or not. We show this exercise in Tables 5 and 6. The data allows to reject that the taste shifter is typically statistically different across types of households. For example, even after we account for several observables, immigrant households allocate a smaller share of their income to most categories. This reflects the importance of housing. Housing expenditures are about 8 to 10 percentage points higher among immigrant households, relative to natives. Table 6 repeats the exercise but conditioning on renters. Differences between immigrants and natives are substantially lower in this case, but still there systematic statistically significant differences in expenditure patterns across groups, which cannot be accounted for observable characteristics. Even among renters, the largest difference is in the housing sector, where immigrants seem to be allocating a higher share of their income. It is worth mentioning as well, that immigrants seem to be saving more than natives (among renters). This is in line with the idea that immigrants do not spend all their income locally, and instead, a substantial fraction of them send remittances or save for their future return to the home country (see also Imbert et al. (2025)).

Table 5: Expenditure shares by sector and nativity

Category	Group Comparison	Spec 0	Spec 1	Spec 2	Spec 3	Spec 4	Spec 5
01. Food	EU - Native	-0.04*	-0.05*	-0.05*	-0.05*	-0.03*	-0.03*
	NonEU - Native	-0.04*	-0.06*	-0.06*	-0.06*	-0.04*	-0.04*
02. Alcohol	EU - Native	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
03. Clothing	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	0.00*	0.01*	0.01*	0.01*	-0.00	-0.00
04. Housing	EU - Native	0.09*	0.08*	0.08*	0.08*	0.08*	0.08*
	NonEU - Native	0.13*	0.11*	0.11*	0.11*	0.12*	0.11*
05. Furnishing	EU - Native	-0.01*	-0.02*	-0.02*	-0.02*	-0.01*	-0.01*
	NonEU - Native	-0.02*	-0.02*	-0.02*	-0.02*	-0.01*	-0.01*
06. Health	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.01*	-0.02*	-0.02*	-0.02*	-0.01*	-0.01*
07. Transport	EU - Native	0.01*	0.02*	0.02*	0.02*	0.00	0.00
	NonEU - Native	0.01*	0.03*	0.03*	0.03*	0.00*	0.01*
08. Communication	EU - Native	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
	NonEU - Native	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
09. Recreation	EU - Native	-0.01*	-0.00*	-0.00*	-0.00*	-0.01*	-0.01*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
10. Education	EU - Native	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*
	NonEU - Native	-0.00	0.00*	0.00*	0.00*	-0.00	-0.00
11. Hotels	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.02*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
12. Miscellaneous	EU - Native	-0.02*	-0.02*	-0.02*	-0.02*	-0.01*	-0.01*
	NonEU - Native	-0.03*	-0.03*	-0.03*	-0.03*	-0.02*	-0.02*
13. Savings	EU - Native	-0.11*	-0.11*	-0.11*	-0.11*	-0.05*	-0.05*
	NonEU - Native	-0.25*	-0.26*	-0.27*	-0.27*	-0.03*	-0.03*
Income controls		✓	✓	✓	✓	✓	✓
Fixed effects				✓	✓	✓	✓
Controls					✓	✓	✓
Group×Category Elasticity						✓	✓
Proxy city							✓

Notes: This table reports expenditure shares across categories for Natives, EU, and non-EU migrants. Column (0) reports raw estimates, while columns (1) to (5) progressively control for various observable characteristics.

Table 6: Expenditure shares by sector and nativity

Category	Group Comparison	Spec 0	Spec 1	Spec 2	Spec 3	Spec 4	Spec 5
01. Food	EU - Native	0.01	0.01	0.01	0.01	0.00	0.00
	NonEU - Native	0.01*	0.00	0.01*	0.01*	-0.01*	-0.01*
02. Alcohol	EU - Native	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
03. Clothing	EU - Native	0.00	0.00	0.00	0.00	0.00	0.00
	NonEU - Native	0.01*	0.02*	0.02*	0.02*	0.01*	0.01*
04. Housing	EU - Native	0.01	0.01*	0.01*	0.01*	0.03*	0.03*
	NonEU - Native	0.02*	0.00	-0.00	-0.00	0.03*	0.03*
05. Furnishing	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
06. Health	EU - Native	-0.01*	-0.01*	-0.00*	-0.00*	-0.00*	-0.00*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.00*	-0.00*
07. Transport	EU - Native	0.02*	0.02*	0.01*	0.01*	0.01	0.00
	NonEU - Native	0.02*	0.02*	0.02*	0.02*	0.01*	0.01*
08. Communication	EU - Native	0.00	0.00	0.00	0.00	0.00*	0.00*
	NonEU - Native	0.00	0.00	0.00	0.00	0.01*	0.01*
09. Recreation	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.01*	-0.00*	-0.00*	-0.00*	-0.01*	-0.01*
10. Education	EU - Native	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*	-0.00*
	NonEU - Native	0.00	0.00*	0.00*	0.00*	0.00*	0.00*
11. Hotels	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.02*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
12. Miscellaneous	EU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
	NonEU - Native	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*	-0.01*
13. Savings	EU - Native	-0.02	-0.02	-0.02	-0.02	0.03*	0.03*
	NonEU - Native	-0.08*	-0.07*	-0.06*	-0.06*	0.04*	0.04*
Income controls			✓	✓	✓	✓	✓
Fixed effects				✓	✓	✓	✓
Controls					✓	✓	✓
Group×Category Elasticity						✓	✓
Proxy city							✓

Notes: This table reports expenditure shares across categories for Natives, EU, and non-EU migrants. Column (0) reports raw estimates, while columns (1) to (5) progressively control for various observable characteristics.

3.3 Decomposition of the difference in consumption patterns between immigrants and natives

Subsections 3.1 and 3.2 suggest that sector-specific income elasticities are similar between natives and immigrants, but that expenditure shares are somewhat different. Moreover, part of the differences in expenditure shares are accounted by some observable characteristics, such as income differences, although “taste” differences likely play a big role too. This section quantifies the share of the variation in differences in expenditures patterns by immigrants relative to natives that is accounted for by income differences, differences in other observable characteristics, and differences in unobservables, which I labeled taste shifters.

To fix ideas, note that we can compare expenditures of immigrants and natives across sectors using the following expression:

$$\ln \mathcal{E}_{Ij} - \ln \mathcal{E}_{Nj} = \underbrace{\mu_{Ij} - \mu_{Nj}}_{\text{Taste differences}} + \underbrace{\beta_j(\ln w_I - \ln w_N)}_{\text{Income differences}}$$

where I indicates immigrants and N indicates natives, and where I have omitted differences in other observable characteristics to simplify the exposition. This expression shows that differences in expenditures can be due to income differences or taste differences. We can then quantify the variation accounted for each of the two channels using the following two regressions:

$$\begin{aligned} \underbrace{\mu_{Ij} - \mu_{Nj}}_{\text{Taste differences}} &= \alpha + \rho \times (\ln \mathcal{E}_{Ij} - \ln \mathcal{E}_{Nj}) + \eta_j \\ \underbrace{\beta_j(\ln w_I - \ln w_N)}_{\text{Income differences}} &= \alpha + (1 - \rho) \times (\ln \mathcal{E}_{Ij} - \ln \mathcal{E}_{Nj}) + \eta_j \end{aligned}$$

where in these expressions ρ measures the share of variance accounted by taste differences.

Table 7 shows the results of this decomposition exercise. Most of the variation in the differences in expenditure patterns between immigrants and natives is accounted for taste differences. Among all households, this reflects the fact that, for example, immigrant households are much more likely to be renters and spend more on housing relative to native households with similar characteristics. The fact that there are non-observable reasons behind expenditure patterns explains why in the decomposition tastes are so important. Table 7 shows that 100% and 74% of the variation in expenditure shares is accounted by tastes among EU and non-EU immigrants, respectively. The fact that dif-

Table 7: Decomposition of expenditure differences between immigrants and natives

Immigrant Group	All households		
	Taste	Income	Other chars.
EU Foreigners	1.13	-0.04	-0.09
Non-EU Foreigners	0.74	0.04	0.22
Immigrant Group	Renters		
	Taste	Income	Other chars.
EU Foreigners	0.85	0.03	0.11
Non-EU Foreigners	0.90	-0.04	0.14

Notes: This table reports the fraction of variance in expenditure differences between immigrants and natives that is accounted for by differences in tastes, incomes, and other observable characteristics.

ferences in tastes are larger when comparing non-EU immigrants to natives, than when comparing non-EU immigrants to EU immigrants, suggests that there may be common reasons why immigrants spend differently than natives. Renting is, again, the best example. Immigrants are much more likely to be renters, above and beyond characteristics that may make them more likely to be renters than natives.

When restricting attention to renters, patterns are similar. In this more restricted comparison, over 85% variation cannot be accounted for income or other characteristics variation. Hence, this evidence suggest that non-observable characteristics, like tastes, are probably behind the variation in expenditure shares that we observe in the data. Perhaps surprisingly, despite the large differences in income between native and immigrant households, income seems to play a small role in explaining differences in consumption patterns.

4 The amnesty program and consumption

This section explores the extent to which immigrants consumption patterns converged to natives after the amnesty program implemented in 2005. First, the section provides an overview of the policy change and the available evidence. Then it provides some evidence on the evolution of consumption post 2006 comparing non-EU migrants, who were affected by the amnesty program, to EU migrants and natives.

4.1 Context

Until the mid-1990s, Spain was primarily a country of emigration. However, from that point until the onset of the Great Recession in 2008, it experienced one of the largest inflows of migrants among developed countries, transforming it into a nation with medium-to-high levels of immigration. By the end of this period, over 13 percent of Spain's population was foreign-born, with Romania, Morocco, and Ecuador among the top countries of origin.

Concerns over this large wave of immigration intensified in the early 2000s. The Popular Party (a right-wing party), which had been in power since 1996, responded by tightening conditions for immigrants to settle in Spain. In line with other center-right parties across Europe, the Popular Party has traditionally supported stricter immigration policies. The party won the 2000 general elections with an absolute majority, and despite widespread protests against Spain's involvement in the Iraq War, it was widely expected to remain in power after the March 2004 elections. According to a poll conducted in January 2004 by the CIS (Centro de Investigaciones Sociológicas), voting intentions stood at 42.2 percent for the Popular Party and 35.5 percent for the Socialist Party.

However, on March 11, 2004—just three days before the election—terrorists attacked several commuter trains in Madrid, killing 193 people in what remains the deadliest terrorist attack in Spanish history.³ As documented by [Garcia-Montalvo \(2011\)](#), the government's communication strategy during the three days between the attacks and the election likely contributed to the Popular Party's loss in the March 14 general election.⁴

A few months after taking office, the new Socialist government launched the largest regularization program for undocumented immigrants in Spain's history. In February 2005, the government introduced a policy granting work permits to a substantial number of immigrants already residing in Spain without legal authorization. Nearly 600,000 immigrants obtained work permits, increasing the share of foreign workers registered in the social security system from 6 to 9 percent within just a few months.

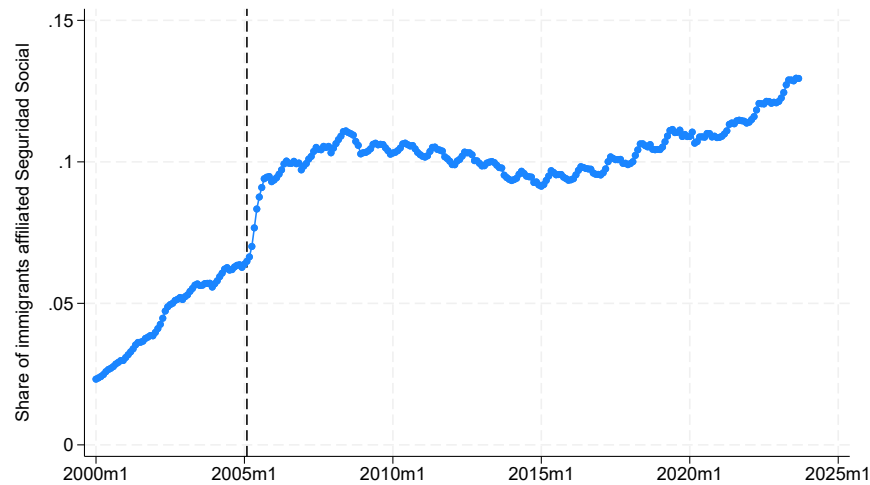
The policy offered a three-month window—from February 7 to May 7, 2005—during which employers could apply for work permits on behalf of immigrant workers who met two criteria: (1) individuals had to be registered in a municipality (Municipal Registry) at least six months before the application period began (i.e., by August 7, 2004),⁵ and

³For more detail on vote polls in the weeks leading up to the election, see [Garcia-Montalvo \(2011\)](#).

⁴[Garcia-Montalvo \(2011\)](#) compares the voting behavior of Spanish nationals living abroad—who voted before the attacks—with that of residents who voted on election day, concluding that the attacks ultimately changed the election outcome and unexpectedly brought the Socialist Party's candidate, Zapatero, to power.

⁵This requirement was later relaxed to allow for "default registration" (*empadronamiento por omisión*) upon presentation of any official document proving the immigrant's presence in Spain as of August 2004.

Figure 1: Share of immigrants among social security affiliates



Notes: This graph plots the evolution over time of the share of immigrants among the affiliates to the social security.

(2) employers had to offer a work contract lasting at least six months.⁶ The policy also included enforcement mechanisms. Notably, the number of workplace inspections related to foreign workers more than doubled between 2004 and 2005 (see ?). As such, the amnesty primarily benefited immigrants already embedded in the Spanish labor market, and gaining legal work status significantly improved their employment prospects. Available evidence—see ? and —suggests that the policy did not affect the overall number of immigrants residing in Spain.

Figure 1 show the magnitude of the policy change in more detail. Prior to the amnesty, the share of immigrants among the affiliates to the social security was around 5 to 6%. Up until 2005, this share was increasing, something that reflects the fact that Spain was going through an immigration boom. In the first months of 2005, there was a dramatic increase in the share of immigrants affiliated to the social security, which increased more than 3 percentage points. In the subsequent years, the Spanish immigration boom halted. As a result, the share of immigrants among social security affiliates fluctuates around 9 to 10% for the period 2006 to 2015.

Another key feature relevant to our empirical analysis is that, throughout this period, the Spanish National Health System maintained universal coverage. All residents

⁶There were exceptions for certain sectors—agriculture, construction, hospitality, and domestic service—as well as for part-time workers.

in Spain—whether native-born or immigrant, regardless of their legal status—were entitled to full, free access to health care services. Specifically, immigrants in an irregular situation had the same access to health care as Spanish citizens. The only requirement to receive services was registration in the municipality (Padron Municipal). Similarly, all residents, including undocumented immigrants, had access to public education, social assistance programs, school meals, soup kitchens, supported housing, psychological services, home care, and job training or employment assistance programs.

In sum, an unexpected political shift led to a major change in the labor market opportunities for nearly one-third of Spain’s immigrant population. It is important to note that this regularization policy did not apply to Spanish nationals or EU citizens, who already had the right to work in Spain under the Schengen Agreement.⁷

4.2 Empirical specification

In this section, I exploit the variation generated by the amnesty program of 2005. Empirically, I compare immigrant households affected by the reform, to immigrant households not affected and to native households, holding characteristics constant. In what follows, I plot the differential year effect for non-EU immigrant households and the two comparison groups. Specifically, I run the following regression:

$$y_{it} = \alpha + \sum_k \delta_k \mathbb{1}_{t=k} \times \text{Non-EU}_i + \beta X_i + \varepsilon_{it} \quad (1)$$

where y_{it} are various outcome variables, such as the share of spending on housing, and X_i are household i characteristics that include: household head age categories interacted with broad geography and province capital fixed effects, year dummies interacted with broad geography fixed effects, household head education categories interacted with broad geography and province capital fixed effects, income decile categories interacted with broad geography and province capital fixed effects, household size categories interacted with broad geography and province capital fixed effects, and a dummy indicator for renters versus owners interacted with broad geography and province capital fixed effects. I use autonomous communities as a measure of broad geography.

The main estimate of interest are the coefficients δ_k which capture the difference in the outcome variable between non-EU migrants, which were affected by the reform, and two comparison groups: EU immigrants and native households, both of which were not

⁷It is worth noting that nationals from Romania and Bulgaria—who were not EU members at the time of the policy’s implementation (they joined in 2007)—were also affected. These two countries ranked second and sixth, respectively, in terms of the number of individuals who obtained legal status through the program.

affected by the amnesty program since they already had work permits. The comparisons that identify the different δ s are narrow. They are estimated by comparing households of similar size, similar income, similar education, similar housing tenure, living in the same broad geography – and separating within those between households who live in the province capital and those that do not.

Unfortunately, the first year where EU and non-EU migrants can be identified in the Encuesta de Presupuestos Familiares (EPF) is 2006, i.e., the first year after the amnesty program took place. Hence, I lack estimates for δ s prior to the amnesty program. It is, nonetheless, useful to see if there are substantial differential trends between the various groups of households in consumption categories over time.

4.3 Results

Figure 2 explores whether in the years following the amnesty program there are significant differences in income and total expenditure per household member trends when comparing non-EU immigrants and natives (in the first column) and EU migrants (in the second column). Within the narrow comparisons forced by the specification described in equation 1, we see no differential trends in incomes or total expenditures. In both cases, most point estimates are not distinguishable from 0, indicating that non-EU migrants have similar incomes and total expenditures per capita when compared to similar natives and EU immigrants – it is worth emphasizing, though, that the zero result comes from the narrow comparisons, if not conditioning on so many controls there are level differences, but no differential trends.

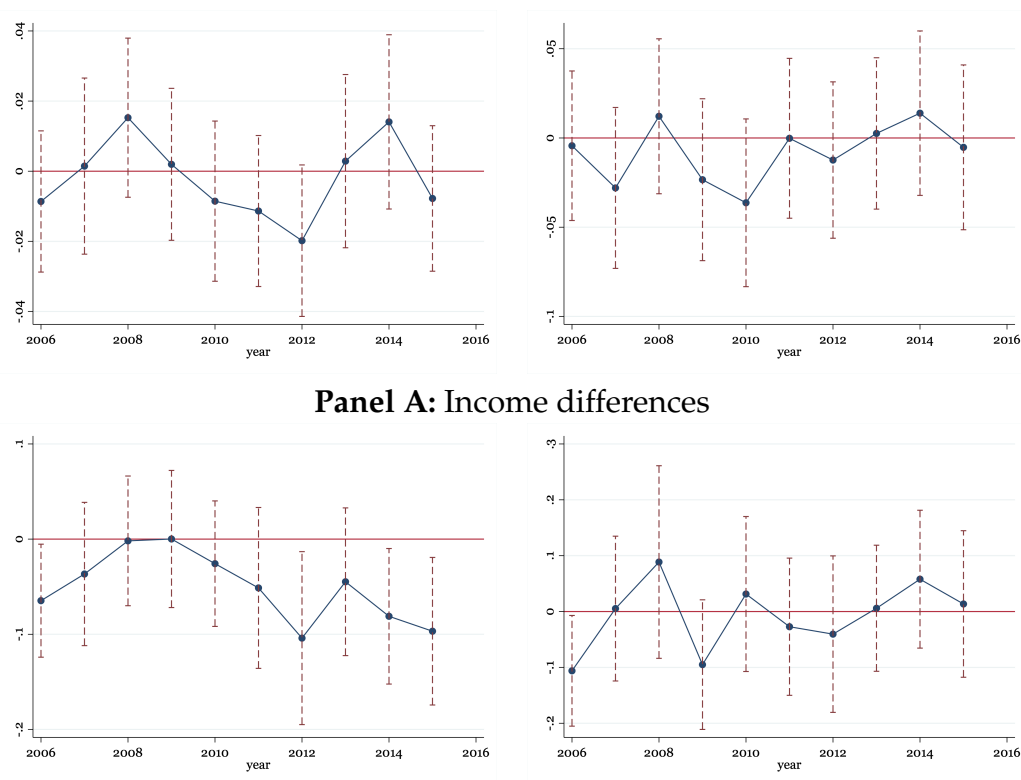
Figure 3 explores, instead, whether there are significant changes in total expenditure *allocation*, by looking at the share of total expenditures that are allocated to three different categories: housing, transport, and communication. Again, the graphs show no significant changes in the relative expenditure share on these various categories between the different groups of households.

Figure 4 plots instead the relative share of households who either rent (panel A) or own the unit where they live with a mortgage payment (panel B). In this case, I condition on the same set of characteristics except, of course, for the housing tenure dummy. The results suggest that there is a dramatic and significant decrease in the share of non-EU immigrants who rent the housing unit where they live. This is the consumption category that distinguishes the most immigrants and natives, as discussed at length in sections 2 and 3. The difference between immigrants and natives is large to begin with, but it decreases by about 10 to 15 percentage points, i.e., about 25% of the initial difference.

Figure 2: Differential income and expenditure per capita

Comparison: non-EU vs natives

Comparison: non-EU vs EU

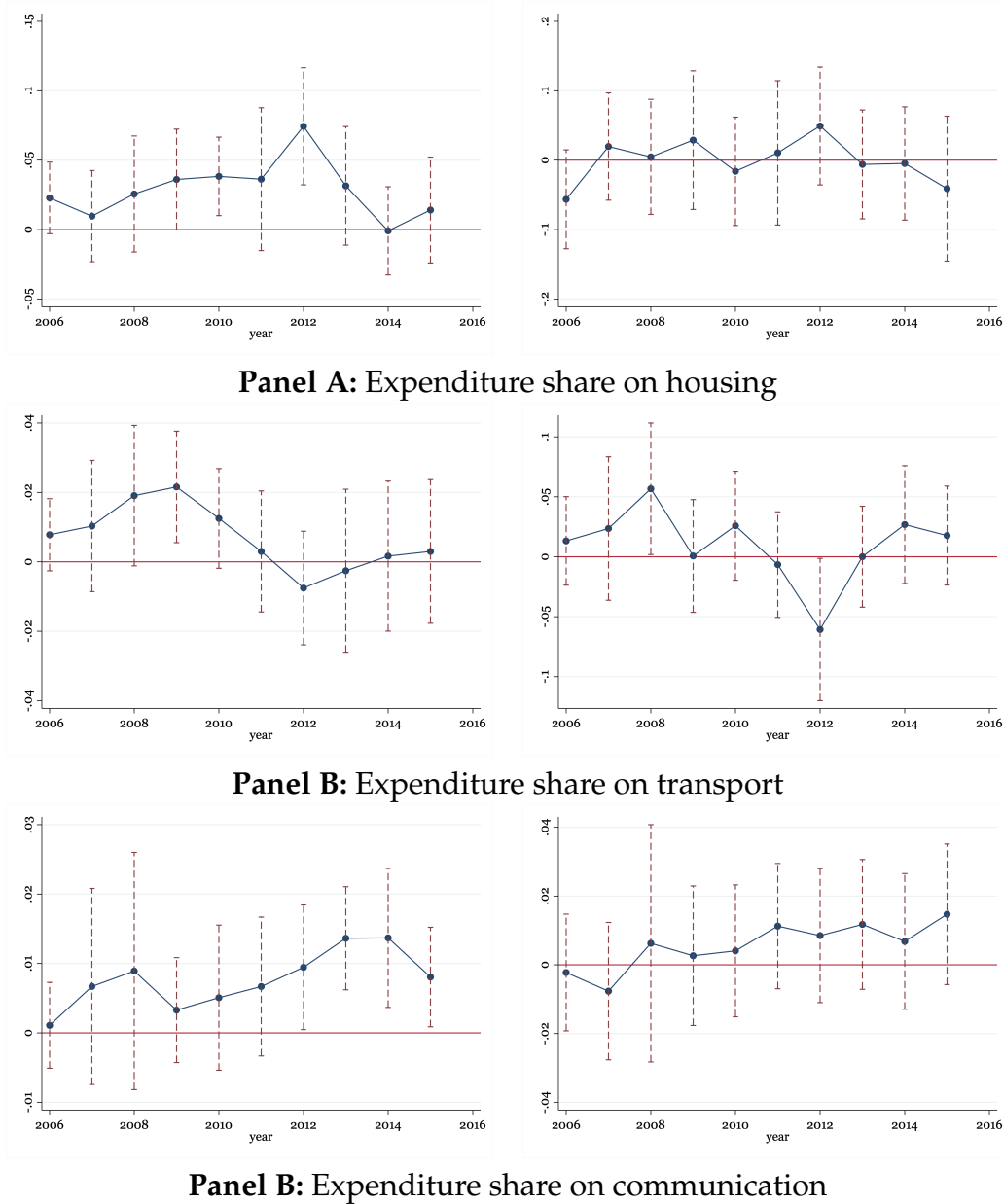


Notes: These graphs plot the differential in the outcome variable between non-EU immigrants and natives and between non-EU immigrants and EU immigrants, for each year from 2006 until 2015, conditional on a detailed set of characteristics, as described in equation 1. 2006 is the first year after the amnesty program. 95% confidence intervals are also plotted with dashed vertical lines.

Figure 3: Differential expenditures

Comparison: non-EU vs natives

Comparison: non-EU vs EU



Notes: These graphs plot the differential in the outcome variable between non-EU immigrants and natives and between non-EU immigrants and EU immigrants, for each year from 2006 until 2015, conditional on a detailed set of characteristics, as described in equation 1. 2006 is the first year after the amnesty program. 95% confidence intervals are also plotted with dashed vertical lines.

The difference between non-EU migrants and EU migrants is much smaller, and in fact, once I condition on this very large set of controls, there are significant differences between non-EU and EU immigrants only in 2006, i.e., the first year in the data. These differences vanish over time.

These results are consistent with the idea that an important reason why non-EU immigrants do not own their housing unit is related to the difficulty to access mortgage credit when immigrants lack work permits. The amnesty program allowed many non-EU immigrant to gain work permits. Once they obtained work permits and legal labor contracts, banks were likely more open to giving non-EU immigrants mortgage options. This hypothesis is at least compatible with the graphs that show the evolution in the share of non-EU immigrants living in owned units with mortgage payments, as plotted in panel B of Figure 4. This second panel is the mirror image of the shape seen in panel A, with less precision and slightly smaller magnitudes. For example, panel A shows that there is a 10 to 15 percentage point drop in the share of renters between 2006 and 2007, while panel B shows that there is a 9 percentage point increase in the share of owners with mortgage, when comparing non-EU and native households.

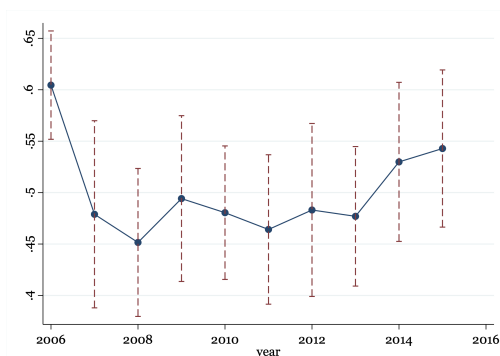
5 Conclusions

To conclude, this paper characterizes the differential consumption patterns of immigrants and natives. It also explores potential reasons behind the observed differentials, suggesting that informality in the labor market can account for only a fraction of the differences observed in the data, but this policy alone is unlikely to close the observed gaps.

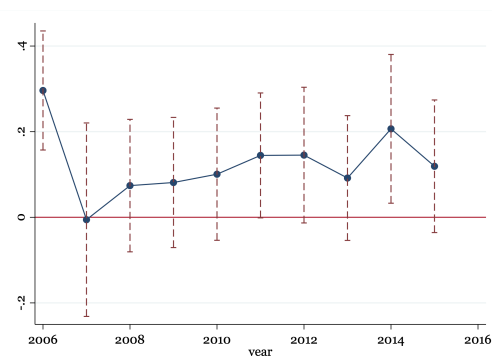
This paper reports a number of findings. First, the largest differences between natives and immigrants arise in housing. Immigrant household are substantially more likely to rent compared to natives, even when accounting by a large number of observable differences. Second, unobservable characteristics, which I label as taste shifters, account for the bulk of the differences in consumption patterns between immigrant and native households. Third, the amnesty program does not seem to have substantial effects on the composition of immigrant consumption, however, it does seem to reduce the share of immigrant households who live in rental units.

Figure 4: Differential housing tenure decisions

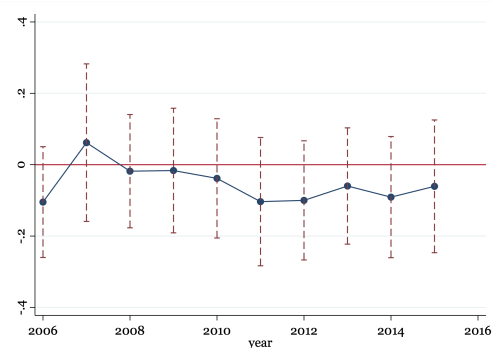
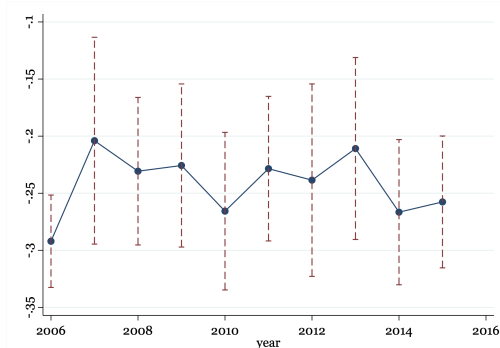
Comparison: non-EU vs natives



Comparison: non-EU vs EU



Panel A: Share renting



Panel B: Owner with mortgage

Notes: These graphs plot the differential in the outcome variable between non-EU immigrants and natives and between non-EU immigrants and EU immigrants, for each year from 2006 until 2015, conditional on a detailed set of characteristics, as described in equation 1. 2006 is the first year after the amnesty program. 95% confidence intervals are also plotted with dashed vertical lines.

Data Availability

The data used in this paper is sourced from the Encuesta de Presupuestos Familiares (EPF). The EPF, or Household Budget Survey, is a comprehensive dataset compiled and published by Spain's National Statistics Institute (INE), see: <https://www.ine.es/dyngs/Prensa/EPF2024.htm>. It is readily accessible on the INE's website.

Competing interest

The author of this paper has no competing interests. This paper is within the author's main research agenda, funded by the BBVA Foundation Leonardo Grant (LEO24-1-12346) and the Severo Ochoa Programme for Centres of Excellence in R&D (Barcelona School of Economics CEX2024-001476-S).

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APPENDIX

A Appendix Tables

Table A1: Expenditure shares by sector and nativity

Category	Group	All households					
		(0)	(1)	(2)	(3)	(4)	(5)
01. Food & Non-Alc.	Natives	0.23	0.23	0.21	0.23	0.23	0.23
	EU	0.19	0.18	0.17	0.20	0.21	0.20
	NonEU	0.19	0.17	0.16	0.19	0.19	0.19
03. Clothing & Footwear	Natives	0.06	0.06	0.05	0.05	0.05	0.05
	EU	0.05	0.05	0.04	0.04	0.04	0.04
	NonEU	0.07	0.07	0.06	0.05	0.05	0.05
04. Housing & Utilities	Natives	0.14	0.14	0.19	0.16	0.16	0.17
	EU	0.23	0.22	0.27	0.24	0.24	0.26
	NonEU	0.27	0.25	0.29	0.28	0.27	0.28
05. Furnishing	Natives	0.06	0.06	0.05	0.03	0.03	0.03
	EU	0.04	0.04	0.03	0.02	0.02	0.02
	NonEU	0.04	0.03	0.03	0.02	0.02	0.02
06. Health	Natives	0.03	0.03	0.04	0.04	0.04	0.04
	EU	0.03	0.03	0.03	0.03	0.03	0.03
	NonEU	0.02	0.02	0.03	0.03	0.03	0.03
07. Transport	Natives	0.12	0.12	0.11	0.13	0.13	0.12
	EU	0.13	0.14	0.12	0.13	0.13	0.12
	NonEU	0.13	0.15	0.14	0.13	0.14	0.12
08. Communication	Natives	0.05	0.05	0.04	0.04	0.04	0.04
	EU	0.05	0.05	0.05	0.05	0.05	0.05
	NonEU	0.05	0.05	0.05	0.05	0.05	0.05
09. Recreation & Culture	Natives	0.07	0.07	0.07	0.06	0.06	0.06
	EU	0.06	0.07	0.06	0.05	0.05	0.06
	NonEU	0.06	0.06	0.06	0.05	0.05	0.05
10. Education	Natives	0.01	0.01	0.01	0.01	0.01	0.01
	EU	0.00	0.01	0.01	0.01	0.01	0.01
	NonEU	0.01	0.01	0.01	0.01	0.01	0.01
11. Hotels & Restaurants	Natives	0.10	0.10	0.10	0.10	0.10	0.09
	EU	0.09	0.09	0.09	0.08	0.08	0.08
	NonEU	0.08	0.09	0.09	0.08	0.08	0.08
13. Savings	Natives	0.26	0.26	0.33	0.12	0.13	0.10
	EU	0.15	0.15	0.22	0.06	0.08	0.05
	NonEU	0.01	-0.00	0.06	0.05	0.09	0.07
Income controls			✓	✓	✓	✓	✓
Fixed effects				✓	✓	✓	✓
Controls					✓	✓	✓
Group×Category Elasticity						✓	✓
Proxy city							✓

Notes: This table reports expenditure shares across categories for Natives, EU, and non-EU migrants. Column (0) reports raw estimates, while columns (1) to (5) progressively control for various observable characteristics.

Table A2: Expenditure shares by sector and nativity

Category	Group	Renters					
		(0)	(1)	(2)	(3)	(4)	(5)
01. Food & Non-Alc.	Natives	0.17	0.16	0.15	0.18	0.18	0.18
	EU	0.17	0.17	0.15	0.18	0.18	0.18
	NonEU	0.18	0.16	0.15	0.16	0.16	0.16
02. Alcohol & Tobacco	Natives	0.03	0.03	0.02	0.03	0.03	0.03
	EU	0.04	0.04	0.03	0.04	0.04	0.04
	NonEU	0.02	0.02	0.01	0.02	0.02	0.02
03. Clothing & Footwear	Natives	0.05	0.05	0.05	0.05	0.05	0.05
	EU	0.05	0.05	0.05	0.04	0.05	0.05
	NonEU	0.06	0.07	0.06	0.06	0.05	0.05
04. Housing & Utilities	Natives	0.32	0.30	0.33	0.32	0.32	0.32
	EU	0.33	0.31	0.34	0.34	0.34	0.35
	NonEU	0.34	0.30	0.33	0.34	0.35	0.36
05. Furnishing	Natives	0.04	0.04	0.03	0.03	0.03	0.03
	EU	0.03	0.03	0.02	0.02	0.02	0.02
	NonEU	0.03	0.03	0.02	0.02	0.02	0.02
06. Health	Natives	0.02	0.03	0.03	0.03	0.03	0.03
	EU	0.02	0.02	0.02	0.03	0.03	0.03
	NonEU	0.02	0.02	0.02	0.03	0.03	0.03
07. Transport	Natives	0.10	0.12	0.12	0.12	0.12	0.11
	EU	0.12	0.13	0.13	0.12	0.13	0.12
	NonEU	0.12	0.14	0.14	0.13	0.13	0.12
08. Communication	Natives	0.04	0.04	0.04	0.03	0.03	0.03
	EU	0.04	0.04	0.04	0.04	0.04	0.04
	NonEU	0.05	0.05	0.04	0.04	0.04	0.04
09. Recreation & Culture	Natives	0.06	0.06	0.06	0.06	0.06	0.06
	EU	0.05	0.06	0.06	0.05	0.05	0.05
	NonEU	0.05	0.06	0.06	0.05	0.05	0.05
10. Education	Natives	0.01	0.01	0.01	0.01	0.01	0.01
	EU	0.00	0.01	0.01	0.01	0.01	0.01
	NonEU	0.01	0.01	0.01	0.01	0.01	0.01
11. Hotels & Restaurants	Natives	0.09	0.10	0.11	0.09	0.09	0.09
	EU	0.08	0.09	0.09	0.07	0.07	0.08
	NonEU	0.07	0.09	0.09	0.08	0.08	0.08
13. Savings	Natives	-0.00	0.01	0.04	-0.05	-0.05	-0.05
	EU	-0.02	-0.00	0.02	-0.02	-0.01	-0.02
	NonEU	-0.08	-0.05	-0.02	-0.01	-0.01	-0.02
Income controls			✓	✓	✓	✓	✓
Fixed effects				✓	✓	✓	✓
Controls					✓	✓	✓
Group×Category Elasticity						✓	✓
Proxy city							✓

Notes: This table reports expenditure shares across categories for Natives, EU, and non-EU migrants. Column (0) reports raw estimates, while columns (1) to (5) progressively control for various observable characteristics.