

# **The Immigrant-Native Gap in Labor Market Earnings and Total Net Income across European Countries**

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## **Abstract**

The paper uses the 1994-2000 waves of the European Community Household Panel to conduct a systematic analysis of earnings and net income of immigrants as compared to native workers and to test whether there is any systematic variation in the labor market performance of immigrants related to duration in the destination, schooling, age at immigration, country of origin, or country of destination. We find a significant negative effect of immigrant status on individual work earnings of around 40% at the time of arrival in the pooled sample, though somewhat smaller for women. Those differences, however, vary greatly across countries with migrants in Germany and Portugal faring best relative to natives and those in Sweden, Denmark, Luxembourg or Spain the worst –particularly among non-EU born migrants. Gender differences are more important among those born outside the European Union, with women doing relatively better than men. By continent, Asian men followed by Latin-American and Eastern European men receive the lowest earnings. Latin-American and Eastern European women are at the bottom of the women's distribution. Income differences are notably lower when total income is the dependent variable. For total net income, the immigrant-native gap is not as large in Nordic countries as when only work earnings are considered but continues to be large in Southern European countries. This finding denotes important differences in the workings of the welfare state in both groups of countries.

## Research Questions

- How well immigrants adapt to diverse labor markets
- Any systematic variation in the labor market performance of immigrants related to gender, duration in the destination, schooling, age at immigration, country of origin, or country of destination?
- How important are the differences of the Immigrant-native gap when other sources of income are included besides work income.
- How do the different welfare systems across Europe work to narrow the income distribution and how much immigrants benefit from those programs across European destinations.

These questions are extremely relevant. Immigration is a central socioeconomic and public policy issue in developed economies. Understanding how well immigrants adapt across Europe and whether labor market outcomes, such as earnings, occupation or unemployment among immigrants differ by gender is central to any policy recommendation.

## Data and Methodology

- 1994-2000 waves of European Community Household Panel Survey
- Dependent variables:
  1. Natural log of individual net earnings from work (PPP terms) (wage and salary earnings, self-employment income).
  2. Total net income includes net income from work (wage and salary earnings, self-employment income), non work private income (capital income, rental, private transfers) and social insurance receipts (unemployment benefits, old-age survivors, family, sickness, education, housing and social assistance allowances).
- Regression analysis: Pooled and country fixed-effects models.

- For the analysis including only earnings from work the sample consists of 547, 639 individuals (231,457 women, 316,182 men) from the 15 E.U. countries.
- Foreigners 4.68% sample (46% citizens of other European Union countries).
- The sample of analysis for total net income includes 440,1555 men and 407,358 women.

### **Covariates:**

1. *Marital Status* (1) marriage, (2) cohabitation (omitted single and not cohabiting)
2. *Number of children*.
3. *Education*. Less than upper secondary, upper secondary (the omitted category) and tertiary education.
4. *Experience* (and its square). Constructed as age of the individual minus 14, 18 or 23 depending on highest level of schooling.
5. *Foreign Birth*.
6. *Years since Migration* (and its square).
7. *Geographic Area of Origin*. (1) European Union or outside it. (2) For some destination countries continents of origin, Africa, Asia, America (Non-English and English) and Oceania.
8. *Language Spoken*.  
(1) language of the migrant and country of destination match.  
(2) group of language (Romance, Germanic, Greek, Finish) from destination country and the migrant's match.

### **Results**

Tables 2.a and 2.b present simulated differences in earnings and total net income of all foreign-born and of those born outside the EU as a percentage of the earnings of natives of the same gender in each of the 15 destination countries, for individuals with a given set of characteristics. These characteristics are 10 years of experience, a high school diploma, married and with one child, and, for the foreign born evaluated at the time of arrival. Table 3 columns (1) and (4), for men and for women respectively, report

the predicted percent difference in earnings between immigrants and natives. Columns (2) and (5) are the predicted percent differences in earnings for immigrants born outside the EU compared to the native born. The third and sixth columns include the level of significance at which earnings from EU and non-EU migrants differ in each destination country.

Tables 3.a and 3.b report the data in a different format. It presents simulated differences in the earnings and total net income of foreigners at arrival in different countries as compared to those arriving in Germany. This can be done because earnings are in purchasing power parity (PPP) terms. Germany is the benchmark and the values for other countries in the table represent percentage deviations from German earnings. For example, the coefficient -0.097 for Danish native men in Table 3.a means that men born in Denmark earn about 9.7% less than men born in Germany, other variables the same, while male immigrants in Denmark at arrival earn about 42.3% less than male immigrants in Germany, other variables the same.

Finally, the ECHP data on country of birth for broad geographic areas provides an opportunity to analyze whether the region of origin is relevant for explaining earnings differences across immigrants within a destination. Information on region of birth for immigrants is not available for Germany, the Netherlands, Greece and Finland. Thus, these countries are not included in this analysis. The effects of country of origin on the earnings and total net income of immigrants relative to the native born in their destination are reported in Tables 4.a and 4.b.

### **Main Preliminary Findings**

- Immigrant individual net work earnings 40% lower at the time of arrival in the pooled sample.
- Great country of destination variation: in Germany and Portugal immigrants faring the best relative to natives and in Sweden, Denmark, Luxembourg or Spain the worst –particularly non-EU born.
- In absolute terms, migrants in Luxembourg, Germany, Netherlands and Austria have the highest earnings.

- Among non-EU born, women do relatively better than men.
- On average, after 19 years of migration, earnings of immigrants revert to mean earnings of natives, with higher earnings thereafter.
- By continent, Asian men followed by Latin-American and Eastern European are those with lower earnings. Latin-American and Eastern European women are at the bottom of the women's distribution.
- Income differences are notably lower when total income is the dependent variable. For total net income, the immigrant-native gap is not as large in Nordic countries as when only work earnings are considered but continues to be large in Southern European countries. This finding denotes important differences in the workings of the welfare state in both groups of countries.

**Future variables to be included in the research:**

- Hours and sectors of employment
- Types of contracts.
- Cohort quality changes
- Effect of Labor Market Institutions and welfare state provisions

**Table 1.** The sample in the analysis of work earnings. Source: ECHP- Waves 1-7.

Country of Destination	N. of Obs.	% Total	N. Foreign born	% Foreign	% Foreign Female	% Foreign EU born	% Foreign if YSM excluded
Germany	67,422	12.3	6,571	9.75	38.1	39.26	12.57
Denmark	23,745	4.34	701	2.95	54.9	33.95	3.42
Netherlands	38,230	6.98	131	0.34	52.0	94.66	1.25
Belgium	22,257	4.06	1,629	7.32	38.0	56.11	9.51
Luxembourg	14,657	2.68	1,334	9.10	41.4	89.21	37.45
France	48,467	8.85	3,532	7.29	39.0	39.64	7.99
U.K.	56,213	10.3	1,060	1.89	47.8	28.11	3.20
Ireland	27,882	5.09	1,309	4.69	42.2	87.78	4.73
Italy	52,952	9.67	1,067	2.02	42.7	35.71	2.08
Greece	32,866	6.00	1,372	4.17	35.8	86.95	4.43
Spain	44,403	8.11	782	1.76	47.6	39.00	1.85
Portugal	40,780	7.45	1,218	2.99	46.2	29.47	3.42
Austria	22,071	4.03	1,482	6.71	44.9	23.55	7.00
Finland	27,641	5.05	899	3.25	45.8	19.80	3.49
Sweden	28,053	5.12	2,558	9.12	46.7	44.49	9.17
Total	547,639	100.0	25,645	4.68	43.2	46.0	6.64

**Table 2.a** Simulated percent differences in work earnings of immigrants at arrival and natives, with the same characteristics, by gender.

Destination	Men			Women		
	Foreign All	Foreign Non-EU	Diff. Eu/NonEU	Foreign All	Foreign Non-EU	Diff. EU/NonEU
Germany	-0.153 a	-0.181	-	-0.017	-0.112	b
Denmark	-0.479 a	-0.592	-	-0.362 a	-0.461	-
Netherlands	-0.201 c	-0.488	-	-0.342 a	-0.037	-
Belgium	-0.204 a	-0.459	a	-0.361 a	-0.412	-
Luxembourg	-0.586 a	-0.675	-	-0.537 a	-0.693	-
France	-0.418 a	-0.506	b	-0.337 a	-0.346	-
United Kingdom	-0.165 b	-0.539	a	-0.221 b	-0.383	c
Ireland	-0.528 a	-0.326	b	-0.415 a	-1.141	a
Italy	-0.333 a	-0.377	-	-0.517 a	-0.492	-
Greece	-0.311 a	-0.314	-	-0.484 a	-0.499	-
Spain	-0.503 a	-0.658	c	-0.311 a	-0.569	b
Portugal	-0.144 b	-0.192	-	-0.278 a	-0.142	-
Austria	-0.307 a	-0.409	-	-0.441 a	-0.285	c
Finland	-0.613 a	-0.462	-	-0.619 a	-0.462	-
Sweden	-0.398 a	-0.823	a	-0.500 a	-0.701	a

Note: Simulations are calculated for an individual with 10 years of experience, high school diploma, married and with one child. For foreigners, earnings are measured at the time of arrival (Duration equal to zero years. For significance levels, foreigners are compared to natives and non-EU born to all foreigners. Significance margins: a) 1%; b) 5%; and c) 10% .

Source: ECHP- Waves 1-7.

**Table 2.b** Simulated percent differences in Total Net Income of immigrants at arrival and natives, with the same characteristics, by gender.

Destination	Men			Women		
	Foreign All	Foreign Non-EU	Diff. Eu/NonEU	Foreign All	Foreign Non-EU	Diff. EU/NonEU
Germany	0.013	-0.069	a	-0.202a	-0.475	a
Denmark	-0.247a	-0.187	-	-0.616a	-0.123	a
Netherlands	-0.141	-0.798	a	-0.240a	-0.464	-
Belgium	-0.038	-0.235	a	-0.384a	-0.416	-
Luxembourg	-0.306a	-0.537	a	-0.438a	-0.512	-
France	-0.111a	-0.281	a	-0.343a	-0.524	a
United Kingdom	-0.091	-0.257	a	-0.345a	-0.386	-
Ireland	-0.183a	0.059	a	-0.212a	-0.242	-
Italy	-0.021	-0.099	-	-0.410a	-0.157	a
Greece	-0.064b	-0.048	-	-0.173a	-0.080	-
Spain	-0.237a	-0.529	a	-0.067	-0.463	a
Portugal	0.220a	0.194	-	-0.018	-0.054	-
Austria	0.042	-0.136	a	-0.420a	-0.047	a
Finland	-0.462a	-0.159	a	-0.715a	-0.217	a
Sweden	-0.214a	-0.401	a	-0.348a	-0.320	-

Note: Simulations are calculated for an individual with 10 years of experience, high school diploma, married and with one child. For foreigners, earnings are measured at the time of arrival (Duration equal to zero years. For significance levels, foreigners are compared to natives and non-EU born to all foreigners. Significance margins: a) 1%; b) 5%; and c) 10% .

Source: ECHP- Waves 1-7.

**Table 3.a** Simulated percent differences in Work earnings of immigrants at arrival in different destination countries as compared to those arriving in Germany, by gender.

Destination	Men			Women		
	Native	Foreign	Non-EU	Native	Foreign	Non-EU
Germany	0	0	0	0	0	0
Denmark	-0.097	-0.423	-0.508	0.073	-0.272	-0.276
Netherlands	0.135	0.087	-0.173	-0.025	-0.350	0.051
Belgium	-0.039	-0.090	-0.316	0.066	-0.278	-0.233
Luxembourg	0.756	0.323	0.262	0.828	0.309	0.247
France	-0.030	-0.295	-0.355	0.090	-0.230	-0.144
United Kingdom	-0.017	-0.028	-0.375	-0.072	-0.276	-0.343
Ireland	0.113	-0.263	-0.032	0.041	-0.357	-0.987
Italy	-0.077	-0.257	-0.273	0.212	-0.288	-0.168
Greece	-0.228	-0.387	-0.361	-0.035	-0.501	-0.422
Spain	-0.148	-0.498	-0.624	-0.026	-0.320	-0.483
Portugal	-0.384	-0.376	-0.395	-0.102	-0.364	-0.133
Austria	0.139	-0.015	-0.089	0.202	-0.222	0.029
Finland	-0.207	-0.667	-0.489	-0.066	-0.668	-0.416
Sweden	-0.372	-0.617	-1.014	-0.289	-0.771	-0.878

Note: Simulations are calculated for an individual with 10 years of experience, high school diploma, married and with one child. For foreigners, earnings are measured at the time of arrival.  
Source: ECHP- Waves 1-7.



**Table 3.a** Simulated percent differences in Total Net Income of immigrants at arrival in different destination countries as compared to those arriving in Germany, by gender.

Destination	Men			Women		
	Native	Foreign	Non-EU	Native	Foreign	Non-EU
Germany	0	0	0	0	0	0
Denmark	0.038	-0.221	-0.079	0.360	-0.054	0.712
Netherlands	0.192	0.038	-0.537	0.033	-0.005	0.045
Belgium	0.050	0.000	-0.116	0.119	-0.063	0.178
Luxembourg	0.805	0.487	0.337	0.652	0.416	0.615
France	0.036	-0.088	-0.176	0.048	-0.093	0.000
United Kingdom	-0.027	-0.131	-0.215	0.004	-0.139	0.093
Ireland	-0.002	-0.197	0.126	-0.460	-0.470	-0.226
Italy	-0.098	-0.131	-0.128	0.098	-0.110	0.416
Greece	-0.399	-0.475	-0.378	-0.443	-0.414	-0.048
Spain	-0.305	-0.554	-0.765	-0.442	-0.306	-0.429
Portugal	-0.503	-0.296	-0.240	-0.323	-0.139	0.098
Austria	0.088	0.118	0.021	-0.083	-0.301	0.345
Finland	0.060	-0.414	-0.030	0.356	-0.157	0.615
Sweden	-0.015	-0.242	-0.348	0.082	-0.063	0.238

**Table 4 a** Partial Effect of Region of Birth on Work Earnings compared to Native Born in that country, by gender.

Country of Birth	Women		Men	
	Diff. from natives	Diff. from EU migrants	Diff. from natives	Diff. from EU migrants
EU	-0.326 a		-0.477 a	
Europe Non-EU	-0.484 a	a	-0.608 a	a
English Speaking America	-0.378 a	-	-0.545 a	-
Not Eng. Speak. America	-0.519 a	a	-0.660 a	a
Asia	-0.418 a	c	-0.696 a	a
Africa	-0.210 a	a	-0.524 a	c
Oceania	-0.071	-	-0.030	a

**Table 4 b** Partial Effect of Region of Birth on Total net income compared to Native Born in that country, by gender Total net income

Country of Birth	Women		Men	
	Diff. from natives	Diff. from EU migrants	Diff. from natives	Diff. from EU migrants
EU	-0.195a		-0.183a	
Europe Non-EU	-0.175a	-	-0.277a	a
English Speaking America	-0.049	b	-0.180a	-
Not Eng. Speak. America	-0.252a	-	-0.374a	a
Asia	-0.256a	c	-0.305a	a
Africa	-0.228a	-	-0.212a	-
Oceania	0.255d	a	0.061	b

Note: Partial effects of country of birth controlling for country of destination, schooling, experience, duration in destination and marital status. Significance margins: a) 1%; b) 5%; and c) 10%. Information on continents is not available for Germany, the Netherlands, Greece and Finland; therefore these countries are not included in the sample.

Source: ECHP- Waves 1-7.