

A city of trades: Spanish and Italian immigrants in late-nineteenth-century Buenos Aires, Argentina

Leticia Arroyo Abad¹ · Blanca Sánchez-Alonso² 

Received: 22 November 2016 / Accepted: 27 April 2017
© Springer-Verlag Berlin Heidelberg 2017

Abstract The city of Buenos Aires in the 1890s is an extreme case in immigration history since the native workers accounted for less than one-third of the labour force. In this paper, we look at the labour market performance of Argentinians vis-à-vis the largest two immigrant groups, Italians and the Spaniards. We find that, on average, Argentinians enjoyed higher wages, but workers specialised in particular occupations by nationality. Immigrants clustered in occupations with lower salaries. Despite higher literacy levels and the language advantage, Spaniards did not outperform Italians in earnings. Ethnic networks facilitated the integration of immigrants into the host society and played a role in the occupation selection of immigrants. Our results suggest that Italian prosperity in Buenos Aires was not based on superior earnings or skills but on older and powerful networks.

Keywords Migration · Wages · Networks · Labour force · Buenos Aires

JEL Classification N36 · F22

1 Introduction

During the era of mass migration, the USA became the main destination for European immigrants; however, Argentina attracted a large number of immigrants relative to its own population. While over a third of the immigrants to Argentina settled in the main Argentine cities, Buenos Aires city retained more than 40% of all

✉ Blanca Sánchez-Alonso
blanca@ceu.es

¹ Middlebury College, Vermont, USA

² Universidad CEU San Pablo, Madrid, Spain

urban immigrants, largely explaining the dramatic demographic growth from 1880 up to 1914 (Lattes and Rechini de Lattes 1975, p. 119). This paper brings to light a rather extreme case in immigration: Buenos Aires city in the late nineteenth century, where less than one-third of the labour force was native. In particular, we look at the most important immigrant groups, the Spanish and the Italians, in comparison with the Argentineans. Of all the immigrants to Argentina in this period, one-fourth of Italians and one-third of Spaniards settled in Buenos Aires.

Scores of works studied this mass migration to Argentina, but we still lack a detailed understanding on the structure of the urban labour market in Buenos Aires, in particular in relation to the make-up and performance of the native and immigrant labour force. Our contribution to this strand of literature lies in a more quantitative approach to understand labour markets in Buenos Aires and to explore the importance of ethnic networks in facilitating the immigrant integration into the host society.

We compiled a new dataset to analyse the performance of immigrant groups and the importance of ethnic networks. Based on a random sample of the original records of the 1895 national census, we imputed earnings to the full range of occupations from a variety of sources. This is the first attempt to analyse the Argentinean labour market with a rich dataset that includes IPUMS-based occupation classification, income and individual worker characteristics in late-nineteenth-century Buenos Aires. In particular, we look into the labour market outcomes of Argentineans and European immigrants in different dimensions including labour market participation, occupation, and human capital.

We find that, on average, the native-born labour force enjoyed higher wages than the immigrant workers as the market rewarded literacy, experience and knowledge of the Spanish language. Overall, immigrants in Buenos Aires concentrated in occupations with lower wages than natives. Italian and Spanish earnings were around 20% lower than the Argentinean level. However, earning differentials are more due to clustering in particular occupational groups than within-group variation. The relative concentration in different occupations was not evenly distributed. We find specialisation via nationality: Argentines had a greater participation in higher skilled occupations while immigrants concentrated in less skilled occupations. Spaniards dominated the retail sector and Italians the crafts. Human capital does not explain this specialisation pattern as both Spaniards and Italians had relatively high literacy rates.

Our results indicate that this clustering of immigrant national groups in particular occupations is due, partly, to the power of immigrant networks. Through the network channel, the Spaniards and Italians helped their fellow immigrants integrate into the labour market, especially in certain occupations. This strategy was especially successful for the Italians as revealed by higher average income, in spite of lower literacy rates than Spaniards or lacking the language advantage. With deeper and long-established networks in Buenos Aires, the Italians had the first mover advantage, a benefit that persisted, at least, until the end of the nineteenth century.

The paper is organised as follows. Section 2 presents a picture of Buenos Aires and Argentina at the end of the nineteenth century as related to the immigrant flows. Section 3 describes the dataset. A following section 4 analyses the labour market by

main nationalities looking at earnings, occupational structure and literacy. Section 5 looks at the prominent role of ethnic networks in relation to the Italian integration into the Argentine labour market. A final section offers concluding remarks.

2 Buenos Aires as an immigrant hub: an overview

Buenos Aires was a major destination for international migrants since the 1870s. The city was the major port of Argentina, the seat of the federal government and the arrival point for thousands of immigrants every year. In the late nineteenth century, Buenos Aires was thriving with a larger territory and modern transportation and infrastructure. Classic research such as Scobie (1974) portrayed Buenos Aires as Argentina's political and commercial hub.¹

Nearly 70% of the population growth was due to immigration between 1887 and 1895. At 6.6% annually, this growth rate was similar to New York City's experience (Lattes and Rechini de Lattes 1975, p. 131). The share of foreigners residing in Buenos Aires peaked in late nineteenth century with Italians as the largest group (see Table 1). Looking at the employed population, foreigners represented more than 70% in 1887 and 1895 (Bourd  1977). A growing demand for unskilled labour was a key feature of the Argentine labour market. Casual labour, temporary engagements and constant spatial and mobility characterised the labour market (S bato and Romero 1992; Adelman 1994). The demands of this dynamic economy shifted and the share of skilled workers increased between 1870 and 1914, contrary to what happened in New York (Moya 1998, Table 3.3).

Immigrants were key players in the city labour market. In 1895, they owned 92% of the industrial firms and 80% of the retail businesses. Similarly, foreigners held 75 and 80% of the industrial and retail jobs, respectively (Scobie 1974). Adelman (1992) suggests that different immigrant communities concentrated in particular occupations. In this non-regulated labour market, family and ethnic networks were important for job matching. While the Argentine government founded an official agency for immigrant placement in rural jobs, there was no counterpart for urban locations such as Buenos Aires. Newcomers had more and better opportunities in Buenos Aires when compared with more developed and industrial US cities. Immigrants in the USA faced higher levels of automation, Fordism, deskilling and competition with earlier immigrant groups (Moya 1998).

By 1895, Italians and Spaniards were more than 70% of over 660,000 foreigners in the city of Buenos Aires. Italians, and to a certain extent Spaniards, were the "old immigrants" in Argentina compared to other groups like Eastern Europeans arriving in the early twentieth century. Historians argue that Italians in Argentina found sound investment opportunities and had little difficulty in achieving rapid economic and social mobility. On the eve of First World War

¹ Other classic studies include Bourd  (1977) and Sargent (1976). For an analysis on the city's industrial development, see Rocchi (1999, 2006). See also Guti rrez (1981) and Suriano (1994) on labour movements and living conditions.

Table 1 Population of Buenos Aires. 1869–1914. *Sources:* National and Municipal census (several dates)

	Total population	% Foreign	% Italian	% Spanish
1869	187.346	49.3	23.6	7.8
1887	433.375	52.7	31.8	9.1
1895	663.854	52.0	27.4	12.1
1904	950.891	45.0	24.0	11.1
1909	1231.698	45.5	22.5	14.2
1914	1576.597	50.6	19.8	19.5

“all the available data (...) point in the same direction of the extraordinary success for a people [Italians] who had only entered the national economy and were still overwhelmingly of the first generation” (Klein 1983, p. 323). Research shows Italians in Buenos Aires as a highly successful group, particularly in contrast with Italians in US cities. According to Baily (1999), regional origins, a friendly environment and the lack of competition with previous immigrants largely explain the differential performance between Italians in Argentina and in the USA.

Spanish immigrants are often portrayed as primarily urban, with relatively low social mobility, heavily concentrated in unskilled or semi-skilled jobs and in retail.² Foerster (1919, p. 265) stresses that in Buenos Aires “fluency in the use of the language has been of immense use to them [Spaniards] and has given them a place in the professions, journalism and in officialdom that no other immigrant group enjoys. For their numbers, they have not been enterprising”. Consistent with the migration scholarship, knowledge of the language of the country of destination influenced the destination choice and the assimilation process for Spaniards in Buenos Aires (Chiswick and Miller 2007). The language advantage was compounded by higher literacy rates relative to the native population (Sánchez-Alonso 2007). Yet, they were the latecomers in comparison with Italians and their community was far less numerous until the years prior to WWI.

Overall, Buenos Aires presents a rather unique case of an urban labour market with an overwhelming presence of immigrant workers. Scholars have focused in the great predominance of Italian immigrants as business, industrial and real estate owners. In contrast, the Spaniards are considered less successful because of their concentration in unskilled and semi-skilled occupations. Using our new dataset, we can look into the labour market characteristics of Buenos Aires city in 1895.

² In his pioneer work on the Spaniards in the city of Córdoba, Szuchman (1980) concludes that none of the semi-skilled [Spanish] workers improved their position. Moya (1998, p. 276) draws a more optimistic conclusion for the city of Buenos Aires: “few became Anchorenas (...) but many saved some pesos, sent millions in remittances back home, raised families, and became fathers and mothers of teachers and bookkeepers (...) For most of the immigrants, that was what ‘making America’ was all about”. [In Argentina, the name Anchorena, from the Anchorena dynasty, evokes wealth and power.].

3 Data, sources, and methodology

Buenos Aires city had nearly 664,000 inhabitants in 1895, with more than half being foreigners, and among these, more than 80,000 were Spaniards (24%) and 180,000 Italians (53%). In this section, we present our data sources and methodology together with a general characterisation of the immigrant communities' vis-à-vis the native-born population.

To achieve this characterisation, we construct a new dataset from a variety of sources: official publications (national and municipal censuses),³ microdata (census individual records) and other primary and secondary sources for wage and earnings data (e.g. administrative census). With the significant exception of Moya (1998) and Baily (1999), the literature used aggregate statistics to analyse the performance of the immigrant populations.

Our sources allow us to identify a number of socio-economic characteristics of the immigrant and native populations on an individual level such as literacy, occupation, sex and age. The main dataset is a sample collected from the original census records of 1895 housed at the Argentine National Archive.⁴ The sample only includes Italian and Spanish inhabitants of the city of Buenos Aires, the two most important immigrant groups. It is a random sample with individuals and their household members (when applicable) selected according to surnames starting with the letters M and G, very common initials in Spanish and Italian surnames. Selection by surname initials is a common sampling technique.⁵ This sample covers 3.4 and 5.3% of the Italian and Spanish population in the city of Buenos Aires, respectively.

Despite the wealth of information this sample provides, it has limitations.⁶ It is not possible to distinguish immigrant regional origins as immigrants were classified only by country of origin. As noted by scholars, there were significant differences in pre-emigration skills between regional groups within Italy and Spain (Devoto 2006; Baily 1999; Moya 1998).⁷ In addition, as only occupation was reported, we cannot ascertain actual employment or unemployment. A self-declared occupation is not equivalent to being employed and 'no occupation' does not necessarily imply unemployment. Another constraint is that the compilation did not include geographical information such as neighbourhood or census block. Finally, this

³ The national censuses corresponded to the years 1869, 1895 and 1914. For the city of Buenos Aires, three municipal censuses (1887, 1904 and 1909) are also available.

⁴ It provides original information by individual such as name and surname, sex, age, marital status, birthplace, literacy, occupation, ownership, attendance to school for children and for women years of marriage and number of children.

⁵ See Kim et al. (2014) on the use of common surnames to build representative samples. There is no reason to believe that M and G surnames tend to be drawn from specific regions of Spain or Italy.

⁶ Linking individuals through time would definitely be desirable; Moya (1998, p. 263) tried unsuccessfully to track individuals between censuses.

⁷ Less than 5% of immigrants in our sample reported place of birth. Among Italians, 43% were from Liguria and Lombardy in the North while 58% of Spaniards were from the northern regions Galicia, Asturias and the Basque country. However, 15% of the very few reporting place of birth came from the South both in Italy and Spain.

sample only includes Italians and Spaniards, and as result, comparisons with other immigrant groups are limited.

To overcome this last limitation, we use another dataset compiled by Somoza and Lattes (S&L) in 1967. Available for the first two national censuses, 1869 and 1895, this dataset is a random sample of 1% of the total population (one out of 38 households) (Somoza and Lattes 1967).⁸ It also includes nationality; however, we prefer our own sample for Italian and Spanish immigrants as it is larger and has more detailed information on occupation and family structure.⁹ We used the subsample from S&L for Argentines and other Europeans living in the city of Buenos Aires in 1895 for comparisons with the Italians and Spaniards. Overall, the S&L data and our dataset are comparable (see Table 10 in Appendix 2).

Our dataset includes the original self-declared occupation from the 1895 census records. To assess the skill level, we codified these occupations following the 1950 Integrated Public Use Microdata Series (IPUMS) classification for the population aged 14 and older by sex (see Appendix 1).¹⁰ Applying measures that relate to mid-twentieth-century conditions to 1895 data may seem rather crude and ahistorical, as the relative ranking of occupations had probably changed. However, Sobek (1995) shows that the 1950 codes are robust across decades going back to the mid-nineteenth century.¹¹ Continuity over time is also an advantage: high- and low-income occupations have tended to remain stable over time, at least for men.

We then imputed earnings to different occupations using a variety of sources. For working-class wages, we used the study by Adrián Patroni in 1896 (Patroni 1897). It is a pioneer work on workers' conditions with very detailed information on different occupations, wages and number of working days. Another important source is a publication by the American consul William Buchanan in Buenos Aires in 1898. Buchanan (1898) collected information on wages for different occupations during the years 1886, 1890, 1892, 1894 and 1896. All the wages used from this source are a simple average of the 1894 and 1896 data. Using Patroni (1897), we converted daily to annual wages using the number of working days by occupation (see Appendix 1 for details). Both sources provide wage data for Buenos Aires city.¹²

⁸ Under the direction of Gino Germani, Somoza and Lattes carried out the 1869 and 1895 census data sampling and published a long working paper (Somoza and Lattes 1967) explaining their sampling technique and possible errors. They also presented basic tables with the main results but they never used the database for further analysis. Many years later the S&L database have been digitized and are available at www.censos1869-1895.sociales.uba.ar; see McCaa et al. (2001) and Quartulli (2014).

⁹ The occupations in S&L sample are grouped in very broad categories and codified according to Argentine census occupational classification. Therefore, the imputation of wages to occupation of natives and of other European immigrants is according to more general occupational groups.

¹⁰ Data on women's occupations and wages are scarcer. In historical terms, female labour force participation and the range of occupations were limited.

¹¹ Social historians starting with the pioneer research by Thernstrom (1973) have frequently used occupational coding variations. Moya (1998), for example, follows a similar classification for Argentina.

¹² Cortés Conde (1979) pioneer research also used Buchanan data for real wages. Recently, Vence Conti and Cuesta (2016) presented a new series of prices and wages for Buenos Aires in the late nineteenth century. However, both studies deal with the evolution of average real wages over time and our focus here is wage differences by occupations in the census year.

For professionals and white-collar occupations, we used the 1893 administrative census (Censo de Empleados Municipales) and selected the data for the city of Buenos Aires. This source provides a wealth of individual wage data by individual for occupations such as managers and public administration officials. We also imputed the IPUMS classification for average wages by occupation.¹³ All wages are annual and in the current currency (*pesos moneda nacional*).

We imputed a wage w_o to each specific occupation o based on the sources described above. Then, we calculated the average wage W_{gc} for the occupational group g (from 0 to 9, see Table 3) for each immigrant from country c by weighting the wage w_o assigned to each specific occupation o by the number of individuals L_{oc} in each occupational group o from country c .

$$W_{gc} = \sum w_o L_{oc} / \sum L_{oc}$$

Together with the IPUMS classification and annual wage, this dataset includes key individual characteristics (see Appendix 1). Table 2 shows the main demographic characteristics for Argentines together with Italian, Spanish and other European immigrants.¹⁴ Immigrants' communities show classic features of migration flows in its composition by sex and age: high percentage of economically active young men. Italian males older than 14 years of age represent 62% of our sample while Spaniards in the same age group are 65%. Mean ages for Italian and Spaniards are very similar with a slightly older community in the Italian case (33 years of age versus 31 for the Spanish group).

In spite of the limitations mentioned above, we believe that our dataset allows for a detailed analysis of immigrants in the Buenos Aires labour market. In particular, our innovation in terms of imputed income is the base for the first study of immigrant and native-born occupational choice and income for Buenos Aires during the age of mass migration.

4 Labour market: characteristics

Immigrants played a dominant role in the Buenos Aires labour market representing almost 70% of the labour force aged 14 and above in 1895 (Segundo Censo Nacional 1895).¹⁵ Italian and Spanish males received, on average, 80% of the average native-born earnings: the weighed-average earnings for Italian and Spanish male workers were very similar: 962 m\$ per year for Italians and 929 m\$ per year for Spaniards, compared to 1160 m\$ for native workers (see Table 3). Nevertheless, in some categories, foreign workers obtained higher wages than natives (Fig. 1; Table 3). Argentines had higher wages among the highly skilled groups: professional and technical, and managers

¹³ This publication also provides information on nationality. We find that there was no difference in the wages paid to foreigners relative to Argentineans for the same occupation.

¹⁴ 'Other Europeans' include French (70.58%), English (16.28%) and German (13.14%) immigrants.

¹⁵ Even though 50% of the population was Argentine-born, the native share of labour force was barely over 30%.

Table 2 Aggregate data of the population of the city of Buenos Aires: Argentines, Italians and Spaniards. *Sources:* Italians and Spaniards: Archivo de la Nación Argentina. Sample from Segundo Censo Nacional 1895. Archival files num. 466–584 and 800–1041; Argentines and Other Europeans: Somoza and Lattes (1967)

	Argentines	Spanish	Italians	Other Europeans
<i>N</i>	7402	4288	6235	1149
Share				
Male	46%	63%	60%	55%
Female	54%	37%	40%	45%
Active population (aged 14 and older)				
Total	3214	3477	4663	1060
Share				
Male	41%	65%	62%	55%
Female	58%	35%	38%	45%
Mean age (years)	28	31	33	37
Marital status				
Share				
Single	44%	57%	55%	34%
Married	50%	38%	43%	56%
Widow	6%	5%	2%	10%

and officials with strong presence in public administration occupations. In crafts and services, foreign workers earned higher wages than native workers.

Clustering by occupation drives part of the differential average earning profiles between the immigrant and native-born workers (see Table 4). Natives outnumbered immigrants in professional and technical occupations. Over 20% of natives were in category 10 “non-occupational response”, hence not part of the labour force per se as the most common occupations were “gentleman at leisure” or “owner”. Italian males were heavily concentrated in the craftsmen category both compared with the Spaniards and the Argentines. Immigrants, overall, were under-represented in the highest income occupations dominated by natives. Therefore, the wage differences described here are the result of compositional effects in terms of occupations. Had the Italians experienced the occupational distribution of the native-born workers, their average earnings would have been around 10% higher. Similarly, for Spaniards, the average would have increased over 6%.¹⁶

¹⁶ Our estimations assume that both groups would have faced the same average wage per occupational group while changing the occupational distribution to match the Argentine one. We are ignoring general equilibrium changes that would have resulted from a change in the relative supply of labour by skill.

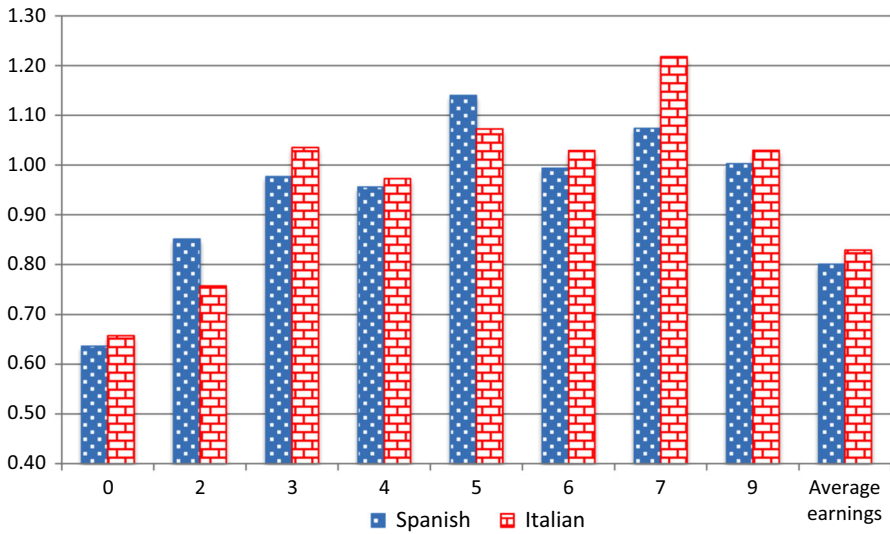


Fig. 1 Relative average wages of Italian and Spanish workers by occupational category (Argentines = 1), Buenos Aires, 1895. *Sources:* Calculated with data from Table 3

Table 3 Male wage earnings: Buenos Aires, 1895 (weighted average for each category). *Sources:* See text Sect. 4 and Table 9, Appendix 1

	Italians		Spaniards		Other Europeans		Argentines	
	W	(c.v.)	W	(c.v.)	W	(c.v.)	W	(c.v.)
0 Professional, technical	2972	0.57	2875	0.62	4396	0.65	4519	0.35
2 Managers, officials and proprietors	2272	0.30	2553	0.38	2645	0.21	3000	0.37
3 Clerical and kindred	1063	0.89	1003	0.78	1203	0.53	1027	1.06
4 Sales workers	973	0.26	956	0.26	1065	0.00	1001	0.23
5 Craftsmen	866	0.34	921	0.33	824	0.35	808	0.34
6 Operatives	685	0.35	662	0.26	679	0.18	666	0.37
7 Service workers	825	0.23	727	0.24	612	0.22	677	0.26
9 Labourers	604	0.80	589	0.83	698	0.00	587	0.71
Average earnings	962		929		1076		1160	

All wages are annual wages in *pesos moneda nacional*

4.1 Clustering and selection

Our earnings estimation and occupational distribution of immigrants could be biased due to selectivity in return migration and/or the impact of subsidised immigration policy before 1890.

During the early 1890s, there was a significant increase in return migration from Argentina due to the Baring crisis. This was an immediate reaction to the deep

Table 4 Occupational structure in Buenos Aires 1895. *Sources:* Italy and Spain: our dataset, see text Sect. 4; Argentina: Somoza and Lattes (1967)

		Share					
		Italy		Spain		Argentina	
		Male %	Female %	Male %	Female %	Male %	Female %
0	Professional, technical	3.9	1.3	2.8	2.0	6.2	2.0
2	Managers, officials and proprietors	1.9	0.0	1.8	0.0	1.4	0.7
3	Clerical and kindred	4.8	0.8	7.8	0.4	15.4	0.2
4	Sales workers	16.3	3.2	26.8	3.2	16.8	0.2
5	Craftsmen	38.7	9.3	18.6	5.8	19.6	1.6
6	Operatives	10.7	10.3	8.8	7.4	9.5	3.1
7	Service workers	6.4	11.7	12.3	23.5	4.4	13.5
9	Labourers	8.3	0.5	13.0	1.0	6.3	0.4
10	Non-occupational response	9.0	62.9	8.0	56.6	20.5	78.2
	Total	100	100	100	100	100	100

decline in the workers' living conditions and the distress in the urban labour markets.¹⁷ Therefore, one possible bias in our results worth discussing is whether return migrants were positively or negatively selected (Abramitzky et al. 2014; Galor and Stark 1990). Selective emigration of low-earning immigrants from Buenos Aires before the census year could have affected the estimated earnings gap between groups due to the presence of fewer low-wage immigrants.¹⁸

In the Italian case, scholars argue that return migration to Italy was a planned strategy before emigration.¹⁹ Assuming this was in fact the case, the net impact of the Baring crisis is ambiguous, as the crisis could have pushed out many immigrants back home earlier or immigrants may have stayed to compensate for lower wages in the host country (Dustmann 2001).

The second possible bias is related to immigration policy. A share of the immigrants living in Buenos Aires in 1895, and presumably in our sample, could have arrived with a subsidised passage as the Argentine government offered this subsidy during a short period of time, from 1887 to 1889. Spanish immigrants received more than 50% of this subsidy, followed by French (25%), Belgians and English (12%) and Italians (4%) (Departamento General de Inmigración 1890).²⁰ It

¹⁷ The available data on migration outflows do not distinguish the place of residence within Argentina.

¹⁸ For the US case, selective emigration of below-average earnings immigrants is qualitatively important. As a result, analysts using census data have systematically overestimated the assimilation of immigrants to the US labour market (Lubotsky 2007).

¹⁹ More than 75% of Italians applying for a passport after 1901 declared their intention to return regardless of their destination (Cinel 1982, pp. 47–49).

²⁰ Subsidies may have affected negatively migrants' selection in Spain as provinces with little or no tradition of emigration to Argentina—such as Málaga in the South—benefitted greatly (Mateo Avilés 1993).

is plausible that a share of emigrants leaving in the early 1890s had arrived with subsidised passage, therefore being negatively selected, and had failed to adapt.

Assuming that there could be a bias in our results, it is not possible to know in which direction. We lack information on emigration flows by last place of residence in Argentina or immigrant year of arrival. Therefore, given the existence of national emigration flows, we cannot assume that the emigration outflows from the city of Buenos Aires matched the ones from the whole country. Moreover, it is impossible to identify if the immigrants arriving with a subsidised passage were negatively selected and emigrated right after the Baring crisis.

4.2 Clustering and skills

Why immigrants in Buenos Aires clustered in specific occupational groups? (see Table 4). According to Moya (1998, p. 222), Italians concentrated heavily in manufacturing and handicrafts probably due to their comparative advantage coming from Italy's industrial northern region. Spanish male workers dominated the sales occupations and almost doubled the Italians in the service workers category. Knowledge of the Spanish language appeared to have been an asset. Spanish immigrants featured prominently in the general category of labourers when compared to the other nationalities.²¹ In comparison, in the USA, immigrants gravitated more towards managerial and supervisory positions while the native-born concentrated more in retail and administration (Abramitzky et al. 2014). The Southern European immigrant occupational specialisation is consistent with contemporary evidence on the US labour market (Peri and Sparber 2011). Foreign-born workers specialise in occupations that require manual and physical skills while natives pursue jobs involving communication and language tasks.

Looking at the demand side of the labour market, the most important sectors—in terms of quantity of labour demanded—were manufacturing, services and retail (see Table 5). In manufacturing, retail and transportation, immigrants amounted to 60% of the quantity of labour demanded. Within retail, while both Spaniards and Italians worked in general retail stores, Italians predominated in the food retail sector. In transportation, there was a sharp division; Italians worked at railroads and at ship transport while Spaniards and Argentines mostly operated ground transportation. Not surprisingly, Argentines prevailed in the public sector, mostly as postal workers.

Clustering may simply be the result of immigrants arriving with specific skills. Differences in wages could be related to the skill level measured by literacy and occupation at the country of origin. In terms of human capital, it is well known that

²¹ Our findings for Buenos Aires are in line with Moya's (1998, Table 32) analysis of Spanish immigrants' occupations in the city for this period. He compiled a random non-stratified sample of every employed adult from only three heavily Spanish city districts. This methodology overrepresented Spaniards while in reality Italians outnumbered Spaniards in the city. Moya's sample is biased towards working-class neighbourhoods. The sample we used here is not selected by district or other individual characteristics. Re-classifying our data using Moya's categories results in a higher share of Italians and Spaniards in the professional occupational group and a higher concentration of Spaniards as sales and clerical workers. Despite these differences, the broad characterisation remains very similar.

Table 5 Sector distribution of labour in Buenos Aires, 1895, in %. Sources: Based on Somoza and Lattes (1967)

	Share of total jobs			Sector Relative weight
	Spaniards	Italians	Argentines	
Primary	7.2	18.2	25.5	2.6
Manufacturing	8.2	45.7	53.9	34.3
Retail	13.1	42.7	55.8	18.1
Services	20.3	35.5	55.8	25.0
Government	15.5	24.6	40.0	6.5
Transportation	11.6	16.7	28.3	10.0

Spanish immigrants were positively selected according to literacy rates (Sánchez-Alonso 2000).²² In Italy, Bertola and Sestito (2011) argue, in line with Sori (1979, pp. 205–211) that migrant individuals were on average less educated than those who remained. On the contrary, Gomellini and Ó Grada (2011) find positive selection of Italian emigrants. As Italian emigrants to Argentina came mainly from relatively high literate northern regions, we can argue that Italians in Buenos Aires had higher levels of literacy than Italians in New York (Klein 1983; Baily 1999).²³

The overall picture is, for the two nationalities, one of extraordinary high literacy rates, particularly for Spanish male immigrants. The average Spanish male immigrant was more literate than his contemporaries at home, than Southern Europeans immigrants to the USA and even *porteños*. Male Spaniards showed literacy rates 10% points higher than the Italian and native-born groups (78%).²⁴ However, this positive selection by literacy does not seem to be related to occupations at arrival. At port of entry, the occupations reported by both Italians and Spaniards suggest low skills with a majority of farmers and labourers (see Table 6). The reported original occupation and the differences with the occupational structure in Buenos Aires also suggest that the urban labour market experience gave migrants an opportunity for occupation upgrading.²⁵

Wage differentials may arise because of differences in human capital either from educational attainment or from experience in the host labour market (see Sect. 5).²⁶ Higher human capital—measured crudely by literacy rates—is associated with

²² Except for the Spaniards from the Canary Islanders migrating to Cuba, as they were the least educated of the population at home (Juif 2015).

²³ The Italian census of 1881 shows 76% of male illiteracy rate in Calabria versus 54.5% in Piedmont. Sori (1979, p. 209) presents data on primary school enrolment per region in 1881–1882: 58% in Liguria compared to 38% in Campania.

²⁴ Differences in female literacy were smaller. Literacy rates for different nationality groups were calculated from 1895 Argentine census for population older than 7 years of age.

²⁵ Germani (1966) was the first in pointing out the rapid social and occupational upgrading by immigrants in Argentina.

²⁶ Experience in the American labour market was more important than skills, measured by literacy, in explaining Jewish occupational distribution in the USA at the turn of the century (Chiswick 1991).

Table 6 Immigrants' occupation on arrival to Argentina (% total by nationality) 1876–1897. Sources: Segundo Censo Nacional 1895—vol. I. p. 651

Occupations	Italians	Spaniards	Other Europeans	Other nationalities
Farmers	69.1	41.3	47.7	33.5
Brickmasons	1.6	3.3	1.6	3.6
Craftsmen	2.8	3.5	6.4	16.4
Farmers (tenants)	3.7	8.0	6.5	6.2
Sales workers	1.1	1.5	4.8	6.2
Labourers	11.1	16.0	7.1	5.2
Other occupations	2.7	8.4	9.9	6.4
Without occupation	8.9	15.4	13.4	13.6
Total	100	100	100	100

higher skilled occupations. Nevertheless, the prevalence of high literacy rates for Spanish workers even in the unskilled jobs was remarkable. The age earnings profiles of natives and immigrants show rising earnings until 45 years of age followed by a flatter tail for foreigners (see Fig. 2).

4.3 Skills and earnings

In Buenos Aires, high-skill occupations were, as expected, associated with high literacy rates (see Fig. 3). Most notably is that Spanish immigrants were, on average, more literate than Italians and Argentines in categories 2 (managers, officials and proprietors) and 3 (sales workers). In the manual categories, both skilled and unskilled, there were lower levels of literacy for the three groups considered. In crafts, the Spaniards were, on average, younger and more literate than the Italians. In addition, Italians concentrated more in relatively low-skill and low-paid occupations such as brickmasons. In contrast, Spaniards held relatively more skilled and better-paid occupations including bookbinders, composers and typesetters, pressmen and machinists.

In addition to higher levels of literacy, Spaniards had a linguistic advantage that could have influenced earnings. In order to estimate the impact of human capital and language on earnings, we used a simple regression model adapted from Minns (2000) for all males over the age of 14. The general specification of the estimation is:²⁷

$$\log(\text{annual wage}) = f(\text{literacy, language, age, age}^2) \quad (1)$$

We proxied human capital accumulation with literacy for education and age for labour market experience. In terms of language, we created a dummy variable for knowledge of the Spanish language with value one for Argentineans and Hispanic immigrants.

²⁷ We also experimented with another dependent variable, the index of socio-economic prestige (SEI). Literacy turns out to be, once again, a highly significant explanatory variable.

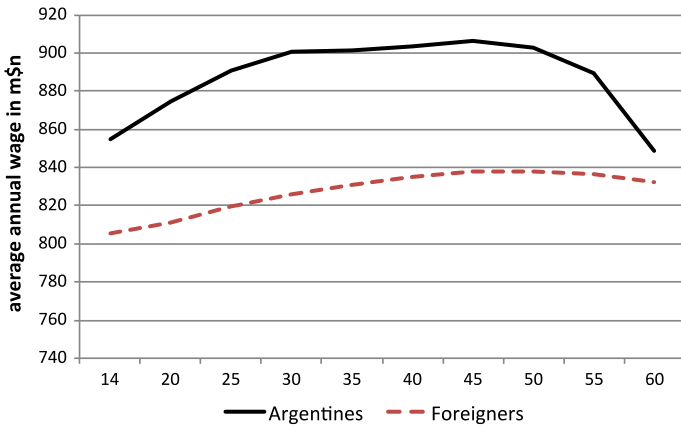


Fig. 2 Age earnings profile: Argentines versus Foreigners, Buenos Aires, 1895. *Sources:* Argentina: Somoza and Lattes (1967), Foreign (=Italians + Spaniards): see text. *Note* Smooth series with winsored outliers

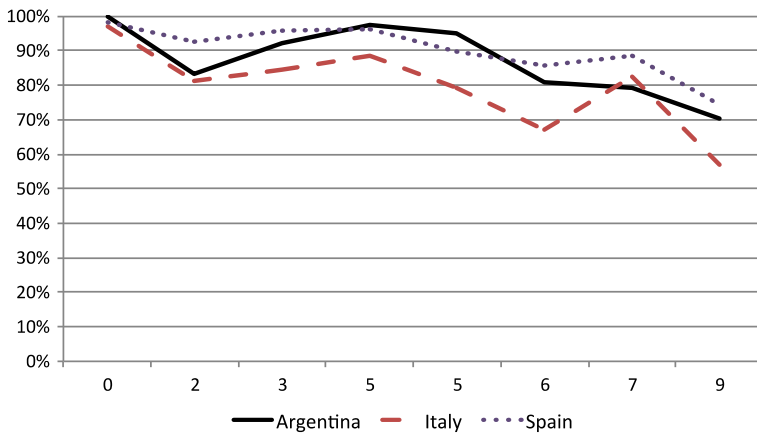


Fig. 3 Literacy by occupational group (male workers over 14), Buenos Aires, 1895. *Source:* Italy and Spain calculated from census sample, 1895, Argentina: Somoza and Lattes (1967)

In all specifications—except for ‘Other Europeans’, literacy is highly significant. From the general specification (column 1), we learn that literacy translated into a boost in earnings over 20% (see Table 7). Controlling for literacy, immigrants received a lower wage relative to the native-born workers. It is clear that literacy matters more for Spaniards than for Italians as indicated by the size of the coefficients in the columns (3) and (4). Experience measured by age and age-squared had the higher impact for Argentineans with a higher and positive coefficient and highly significant.²⁸ Age may not be a good proxy for experience for

²⁸ To potentially tease out the impact of qualifications such as literacy, we carried out an Oaxaca decomposition based on separate regressions for Italians and Spanish with poor results.

Table 7 Wage determinants: regression results. *Sources:* See text, Sect. 4

	All (1)	Argentines (2)	Italians (3)	Spaniards (4)	Other Europeans (5)
age	0.0080*** (0.0023)	0.0319*** (0.0067)	0.0026 (0.0029)	-0.0069 (0.0056)	0.0104 (0.0094)
age2	-0.0001 (0.0000)	-0.0003*** (0.0001)	0.0000 (0.0000)	0.0001 (0.0001)	-0.0001 (0.0001)
Literacy	0.2193*** (0.0122)	0.3527*** (0.0415)	0.1890*** (0.0156)	0.2158*** (0.0220)	0.1271 (0.0679)
Spaniards	-0.1224*** (0.0180)				
Italians	-0.0814*** (0.180)				
Other	-0.0571* (0.0243)				
Constant	6.4756*** (0.0392)	5.9567*** (0.1060)	6.5314*** (0.0541)	6.6001*** (0.0868)	6.3988*** (0.1948)
R^2	0.0475	0.094	0.042	0.044	0.017
N	6526	1001	2614	2038	518

The dependent variable is the *log of wage*, *Literacy* is a dummy variable, *Language* is a dummy variable with value 1 when for Spaniards and Argentines and 0 otherwise. (*), (**), and (***) denote significance at 10, 5 and 1%, respectively. 'All' corresponds to all the pooled data. Robust standard errors are in parentheses

immigrants; time since migration to Argentina would be a more accurate indicator. Unfortunately, the census did not provide such information.

All the evidence leads us to offer a qualified picture of the success of Italians in Buenos Aires. It appears that the Italian prosperity in Buenos Aires was not based on relatively superior earnings or skills. Another difference between Italians and Spaniards might be social status. Scholars have frequently stressed the social power of the Italian community in Buenos Aires (Devoto 2006; Baily 1999). In spite of similar wages, Italians could be concentrated in occupations with higher social prestige. Applying the Duncan's (1961) Socio-Economic Index (SEI) on our database, we find no evidence to support the case.²⁹ The mean value, weighted by workers in each IPUMS occupational category, is 36 for Italians, 38 for Spanish immigrants and 40 for Argentines (with a range of 7–82). The index is higher for Argentines in all occupational categories except service workers and labourers. Of the two main immigrant groups, SEI is higher for Spaniards in all categories with a

²⁹ The use of prestige rankings in historical research (such as the SEI) based on surveys and income from the 1950 American census can be problematic. However, Hauser (1982) reports a quite satisfactory fit between status rankings assigned by historians in five nineteenth century American cities and the Duncan's SEI. See also Treiman (1976) and Sobek (1996) stressing the likelihood that occupational categories and prestige seem to have been stable over time.

marked difference in the category of managers, officials and proprietors (64 versus 53).³⁰

To sum up, we find that the Buenos Aires labour market exhibited occupational clustering by nationality. This ethnic specialisation explains part of the wage differentials between the three groups. Natives outnumbered immigrants in highly skilled occupations. Overall earnings of immigrants were fairly similar but with significant differences by occupations. The regression analysis confirms that human capital, proxied by literacy rate, was an important variable to explain differences in earnings and it mattered more for Spaniards than for Italians. Experience in the host labour market, proxied by age, seems to have been less important for immigrants in Buenos Aires.

Our analysis suggests that the Italian prosperity in Buenos Aires was not based on superior earnings or skills. On the contrary, the Spanish community living in Buenos Aires in 1895 compared relatively well with the Italians according to mean wages by occupations, in particular for the skilled manual category. Our findings qualify the traditional view of Spaniards lagging behind the Italians for the late nineteenth century.

As a result, we should look for possible factors that drove the Italian superior affluence: the size of the community as it relates to more powerful networks and the advantage of being the “old” immigrants.

5 The role of networks in Buenos Aires labour market

Human capital cannot fully explain why the Italians performed better than the Spaniards in the Buenos Aires labour market. The labour market in Buenos Aires at the end of the nineteenth century showed specialisation by nationality: Spaniards shared the mid-skilled segment possibly due to the language advantage while Italians concentrated in the artisan and blue-collar occupations.³¹ Why did Italians concentrate in relatively higher paid occupations? Did the ethnic networks play a role in affecting occupational choice?

The existence of immigrant networks could explain the clustering of the different immigrant national groups in particular occupations. For example, Italian immigrants found employment through informal and formal mechanisms such as personal networks of friends, relatives and *paesani*. Devoto (2006, p. 127) links the concentration of Italians in particular occupations to the existence of strong migratory chains that allowed them to control specific trades. Baily (1999, pp. 96–99) suggests that in Buenos Aires prior to 1900 the major source of job procurement for Italians were personal and informal connections while in New York, the Italian padroni system predominated. Moya (1998, p. 397) concludes that Spanish immigrants who belonged to less successful immigrant networks fared

³⁰ The regression analysis confirms these results. Using the log of SEI as the dependent variable, we find that literacy allowed Spaniards to find opportunities in more prestigious occupations. The coefficient is highly significant and much higher than for Italians.

³¹ Spaniards also concentrated in unskilled occupations.

worse in Buenos Aires even controlling for skill level, age, gender and length of residence in the host country.

A large body of literature deals with the role of networks in economic development (see summary by Munshi 2014). From a labour market perspective, networks are known to facilitate matching as searching is costly for the worker and ability is unobserved by the firm (Munshi 2003). For immigrants, Beaman (2012) underscores the importance of social networks for labour market outcomes; however, networks may lead to more successful outcomes for immigrants (Munshi 2003) or have differential impact across cohorts depending on the age composition of the network (Beaman 2012).

Networks also appear to affect immigrants' occupational choice and location as shown by Lafortune and Tessada (2014) and Patel and Vella (2013) for different immigrant groups to the USA at the turn of the twentieth century and in recent decades, respectively.

5.1 Estimating the importance of networks

Guided by their methodology, we test the importance of networks in affecting occupational choice and location within Buenos Aires city for Italians, Spaniards and other European immigrants.³² To pin down geographical location within the city, we used S&L (1967) dataset as it provides individual neighbourhood (city section—*sección*) information. It also allows for a rough classification by main occupational group though not as detailed as in our sample. Our aim is to identify the network effect based on the concentration in the main occupation of a given immigrant group located in a particular neighbourhood.³³ The outcome variable (I_{icon}) is binary adopting the value of one for immigrant i from country c in neighbourhood n that chooses the main occupation o . The main occupation is the largest share for the city for a given immigrant community from country c . As shown earlier, Italians clustered in crafts, Spaniards in retail, and the rest of Europeans in retail as well. The coefficient of interest is γ that captures the network impact in relation to immigrant occupation concentration in different neighbourhoods (C_{con}). We also include other factors that could affect the immigrant occupational choice by location such as the overall prevalence of occupation o in neighbourhood n (O_{on}), the size of the immigrant community c in neighbourhood n (I_{cn}), and prevalence of Argentines in occupation o in neighbourhood n (A_{on}). We include controls for neighbourhood and country of origin to capture unobserved demand effects and the immigrant's preferences, respectively. In addition, we allow for influence of individual characteristics such as age, age-squared, literacy, marital status and knowledge of Spanish language

³² Beaman (2012) and Patel and Vella (2013) find that individuals choosing the most common occupation of their compatriots enjoyed large and positive earnings effects. Given the construction of our wage data, we cannot test the impact of networks on wages. The wage matching does not take into account experience or other individual-based characteristics.

³³ Our analysis differs from the residential analysis for the city in 1855 carried out by Moya (1998, chap. 5). He analysed Spanish immigrant networks from the sociological point of view including cultural capital and invisible skills related to the place of origin.

(X_i). These individual characteristics, uncorrelated with the network, allow us to reduce problems of identification due to sorting based on individual unobservable characteristics. We also include neighbourhood fixed effects to control for potential differential shocks to the different districts. Finally, we assume an error term $\varepsilon_{i\text{con}}$ with zero mean. The estimation is as follows:

$$Pr(I_{i\text{con}} = 1) = \alpha + \delta O_{on} + \varphi I_{cn} + \phi A_{on} + \gamma C_{con} + X_i\beta + \varepsilon_{i\text{con}} \quad (2)$$

A major concern to this specification is that our main variable (C_{con}), together with other factors (O_{on} and I_{cn}), may be endogenous. Typically, labour demand shocks may alter the distribution of occupations. In addition, we cannot identify with certainty the recent immigrants from the established ones. More generally, unobserved factors may be at play. All these factors can yield biased and inconsistent OLS estimates. To address these issues, we use the previous census in 1869 to construct the same type of variables to use as instruments. Other studies such as Patel and Vella (2013) have used this approach. We believe these instruments are exogenous due to key historical developments in the mid-nineteenth century. The timing of this early census, in 1869, is particularly beneficial to our exercise as it places Buenos Aires just before the *belle époque*. Before 1870, neither Buenos Aires nor Argentina had become icons of rapid and sustained economic growth in spite of the wool-fuelled economic boom in mid-nineteenth century (Sábato 1989). It was not until 1880 that the city became the country's federal capital. While Buenos Aires had a sizable share of foreigners in the labour force in 1869, the city lacked the dynamism displayed especially from 1880 until the early twentieth century (Scobie 1974). Patroni (1897, p. 9) describes the development of many industries in Buenos Aires that “without dispute only twenty years ago were unknown here” and Rocchi (2006) stresses that Argentine factories were virtually non-existent until the 1870s. Pioneer migrants such as the Germans, the Irish or the Basques arrived by mid-nineteenth century jointly with the Italians during the 1860s (Devoto 2003, pp. 232–237), but mass migrations did not start until the late 1870s. Moreover, the possibility of intercontinental migration had just reached the masses with the diffusion of the steamships and the subsequent drop in fares. From Northern Spain to the River Plate, steamers cut the trip from around 55 days in the mid-nineteenth century to 12 days in the 1910s (Sánchez-Alonso 2007).

Given these historical factors, we believe that these instruments are exogenous. Judging by the high F statistics in the first stage and their high correlation with the endogenous regressors, these instruments are also quite strong.³⁴ As for the validity of these instruments, it is possible that path dependence contributed to the location of immigrants in particular neighbourhoods and/or sector. To this end, we condition our specification to account for these factors and to allow for the network effect to manifest through the occupational concentration by neighbourhood and immigrant group. It is plausible that transatlantic communications could have affected the type of immigrant moving to Buenos Aires; however, there is no clear match between the occupations immigrants disclosed at arrival and the actual occupation in the Argentine labour market. Almost all Italians and all Spaniards declared to be

³⁴ The correlation coefficient between our main variable of interest, C_{con} , in 1869 and 1895 is 0.6.

farmers, labourers or no particular occupation at arrival between 1876 and 1897 (see Table 6).

These OLS and IV estimates are based on individual cross-section observations (see Table 8). The concentration of immigrants in a given neighbourhood choosing the most popular occupation as their compatriots (C_{con}) varies spatially, by occupation and by immigrant group while the occupation and immigrant group prevalence vary by neighbourhood. We only considered the main occupation group for each nationality.³⁵ We used two different estimates for our main variable of interest, C_{con} . The first one is based on the immigrants by nationality for a given neighbourhood and occupation (share of countrymen in occupation) while the second is a more restricted variable as it only takes into account the immigrants over 25 years of age (share of ‘established’ countrymen in occupation). Unfortunately, we cannot distinguish the recent from the established immigrants, as the census did not include year of arrival. Hence, we calculated this second variable to capture the network effect operating through “established” immigrants by excluding the younger generation. It is known that the average immigrant to Argentina was single and young. In the city of Buenos Aires nearly 25% of male Spaniards and Italians were between 14 and 25 years old.

To estimate the network effects, we restrict our sample to the neighbourhoods belonging to the city in 1869 as the city added more territory later. We show the estimations considering all the immigrant population in 1895; however, to capture the impact on the new immigrants, we look at more restrictive samples including young males (14–25 years old) and single young males. It is worth noting that these exercises aim at unveiling these network effects given that we cannot distinguish between new and established immigrants. All specifications include individual covariates such as age, age-squared, literacy, marital status and language. The results under all specifications indicate a statistically significant network effect operating through the channel of most popular occupation by nationality and neighbourhood. We will concentrate on the IV results given the endogeneity concerns. The IV estimates show that if the concentration of established compatriots in a given occupation and neighbourhood increase by 1% point, the probability of a new immigrant to follow that path would increase by 8% points. This is a large effect suggesting that this specialised network is an important source of information for new immigrants. Looking at the other factors, the concentration of fellow immigrants in the neighbourhood has a negative effect on the outcome; however, this effect is conditional on the presence of compatriots as we already control for country of origin. The prevalence of a given occupation in a neighbourhood does not reach significance in most IV cases. It also appears that the presence of Argentines in the same occupation group has no significant effect on occupational choice of new immigrants.

Our analysis highlights the importance of networks in occupational choice of immigrants over time. As we explained earlier, this clustering explains also the

³⁵ By using the main occupational group, we are considering around 20% of the immigrant population. Using the two main occupational groups is problematic as it would entail nearly 50% of the immigrant population.

Table 8 Occupational location network effects: regression results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	OLS	OLS	OLS	IV	IV	IV	IV
<i>The dependent variable is: $Pr(I_{i,com} = 1)$</i>								
% countrymen in occupation (C_{com})	0.726*** (0.048)				2.712*** (0.560)			
% 'established' countrymen in occupation (C_{com})		5.618*** (0.227)	5.467*** (0.497)	5.183*** (0.545)		8.093*** (1.303)	9.063*** (2.976)	7.599** (3.626)
% occupation (O_{om})	2.928*** (0.059)	0.925*** (0.108)	0.786*** (0.227)	0.891*** (0.259)	3.433*** (0.519)	0.712 (0.867)	0.085 (2.081)	0.973 (2.575)
% countrymen (I_{om})	-0.635*** (0.085)	-0.909*** (0.070)	-0.874*** (0.150)	-0.770*** (0.152)	-2.623*** (0.519)	-1.508*** (0.242)	-1.573*** (0.525)	-1.409*** (0.543)
% Argentines in occupation (A_{om})	0.254 (0.276)	0.198 (0.264)	-0.181 (0.519)	-0.514 (0.559)	0.1 (0.389)	0.211 (0.320)	-0.364 (0.782)	-0.444 (0.945)
Constant	-0.553*** (0.094)	0.004 (0.092)	0.124 (0.560)	0.01 (0.574)	-0.733*** (0.176)	0.087 (0.255)	0.135 (0.709)	-0.194 (0.830)
N	2529	2529	544	487	2250	2250	490	443
R^2	0.48	0.54	0.53	0.53	0.29	0.52	0.51	0.51
First stage F (C_{com})					114***	187***	26***	63***
1869 boundaries	X	X	X	X	X	X	X	X
<26			X	X			X	X
Single				X				X
Change variable to "established immigrants"	X	X	X		X	X	X	
Age, Age ² , literacy, language	X	X	X	X	X	X	X	X
Neighbourhood	X	X	X	X	X	X	X	X

Table 8 continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Country of origin	X	X	X	X	X	X	X	X

Robust standard errors in parenthesis. All specifications include neighbourhood and country of origin controls

- (1) and (2) correspond to all immigrant males over 14 residing in the city of Buenos Aires in 1895
 - (3) and (4) correspond to all immigrant males between in the 14–25 age range residing in the city of Buenos Aires using the 1895 boundaries
 - (5) and (6) correspond to all immigrant males over 14 residing in the city of Buenos Aires using the 1869 boundaries
 - (7) and (8) correspond to all immigrant males between in the 14–25 age range residing in the city of Buenos Aires using the 1869 boundaries
 - (9) and (10) correspond to all single immigrant males between in the 14–25 age range residing in the city of Buenos Aires using the 1869 boundaries
- (*), (**), (***) significant at 10, 5 and 1%, respectively
- (1) and (5): all immigrant males over 14
 - (2) and (6): all immigrant males over 14 using a proxy on established countrymen in a given occupation
 - (3) and (7): all immigrant males between 14 and 25 age range, using a proxy on established countrymen in a given occupation
 - (4) and (8): all immigrant single males between 14 and 25 age range, using a proxy on established countrymen in a given occupation

difference in earnings between immigrants and native-born workers. To get a sense of the impact of the relevance of the network on the labour market performance of immigrant workers, we consider two basic counterfactuals. Let us assume that immigrants were randomly and evenly allocated across the *porteño* neighbourhoods. As a result, the newcomers emulated the existing occupational distribution in each neighbourhood—according to the 1869 census. Based on the prevailing wage rates in 1895 and abstracting from general equilibrium effects, we find that the absence of occupational immigrant-based networks effects would have resulted in a lower wage for both Italians and Spaniards. In fact, the average wage for both immigrant groups would have been, on average, 11% lower than it was in 1895. Another possibility would have been that the immigrants had mirrored the occupational distribution of only Argentines in 1869 by neighbourhood. In that case, this sorting would have resulted in 5% earnings gain relative to their actual average income in 1895.³⁶ The latter scenario is less likely as it implies a replication of native-born skills and experience in the host economy. These results underline that Spaniards and Italians exploited the power of networks effectively; however, it would have been less plausible for them to achieve the earnings potential of the native-born workers.

5.2 The Italian networking advantage

Why were Italian networks relatively more successful than others? Network reach and complexity developed with time. While both Italians and Spaniards can be considered ‘old immigrants’ in Argentina, Italians were the first relatively massive wave of immigrants. By 1855 Italians already represented over 11% of Buenos Aires population while the Spanish amounted to 6%. From 1870s and 1880s, Italian net migration to Argentina was far larger than the Spanish one (see Fig. 4).

Despite the absence of information on the year of arrival to Buenos Aires, it is possible to proxy the length of residence for immigrant families in our sample. Argentine law, based on *ius soli*, considered all children born in the Argentine Republic as natives no matter the parents’ nationality. Using the age of the first child born of immigrant families in Argentina, we estimated the length of residence in the country.³⁷ Around 45% of Spanish and 48% of Italian families had a child born in Argentina, the majority of them in the city and province of Buenos Aires. From Fig. 5 we learn that only 22% of Spanish families had resided in Argentina more than 10 years compared to 33% of Italian families. The majority of Spanish families were “newly arrived” to the country with fewer than 5 years of residency.

³⁶ To pin down these estimates, we use the 1869 census. In the first counterfactual, we allocated all Italian and Spanish immigrants in equal number across neighbourhoods and then calculated their average wage using the prevailing distribution of occupations for *all people* in each neighbourhood. For the second counterfactual, we placed both immigrant groups according to the relative share of *Argentines* per neighbourhood and occupation to obtain average earnings. These estimations aim at presenting crude counterfactual scenarios. In particular, they do not take into account changes in labour demand resulting from changes in the relative supply of skills and their corresponding effects on relative wages.

³⁷ We exclude single immigrants from the sample.

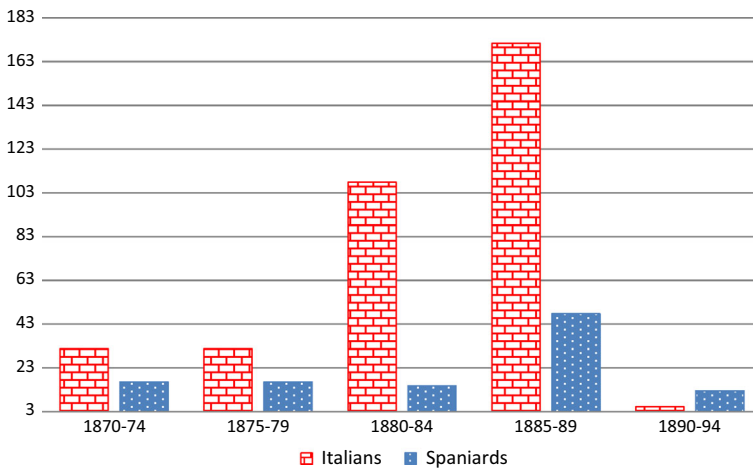


Fig. 4 Net migration to Argentina, 1870–1894 (thousands). *Source:* Resumen estadístico del movimiento migratorio en la República argentina, 1857–1924. Buenos Aires. Dirección General de Inmigración (1925)

By the 1880s the Italian immigrant community was the oldest and largest in the city of Buenos Aires. Italians established powerful networks earlier in time. The older cohorts—the established immigrants—contributed more to the network (Munshi and Wilson 2007).

Longer experience in the country also translated in the creation and expansion of formal networks. In the late nineteenth century, Italian associations in Argentina were the richest in the New World surpassing Italian associations in the USA and Brazil in financial resources and real estate property (Devoto 2006, p. 168). In Buenos Aires, by 1895, nearly 200 associations existed with diverse purposes such as education, culture and cooperation. Remarkably, over 28% of the associations were for Italian nationals while only 5.4% for Spaniards. In terms of membership, the Italians vastly surpassed any other national association with almost 44,000 members followed by the Argentines with less than half.³⁸

It is common for large immigrant communities to generate more ethnic institutions providing services ranging from medical to recreational, as the Italians did in Buenos Aires (Devoto 2006, chap. 3). The role of these associations cannot be minimized as they served as hubs for information and networking within the national communities and decreased the costs of adaptation to the new city (Moya 1998, p. 327).³⁹ Baily (1999, pp. 213–214) shows that the Italians developed,

³⁸ Based on association data available by date of foundation from the 1904 Buenos Aires city census. We used the current membership reported in that year given the lack of earlier information. According to the 1914 national census (vol. 10, pp. 240–243) Italians founded 43 mutual aid societies in Buenos Aires before 1895 compare to 7 founded by Spaniards.

³⁹ Gandolfo (1992) argues that there was also considerable tension within the Italian community in Buenos Aires and even among members of the same mutual aid societies.

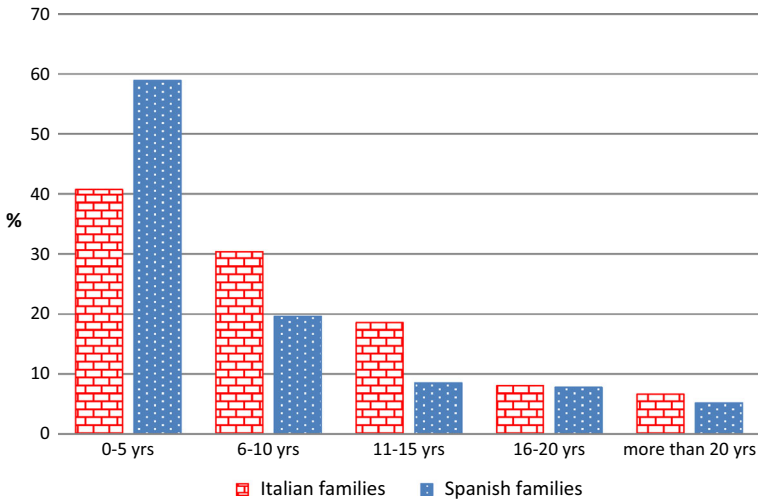


Fig. 5 Length of residence in Argentina of Italian and Spanish immigrant families living in Buenos Aires, 1895. *Sources:* calculated from the census sample 1895 according to the age of first child born in Argentina. See text

already before the mass migration period, an extended, wealthy and powerful immigrant institutional structure around a handful of large mutual aid societies. The network was expanded with banks, clubs, hospitals and other organizations during the 1880s. He concludes that “[The Italian institutions] of the Buenos Aires community were significantly more developed, participation of the Italians in them much greater, and their assistance in the process of adjustment therefore more extensive” (Baily 1999, p. 189). Devoto (2006, p. 231) argues that the powerful Italian associations were the result of their early arrival, the large size of the community and the Italian social and occupational diversity. Therefore, the well-developed Italian immigrant structure in Buenos Aires was an important factor to the more rapid and complete adjustment of the Italians in Buenos Aires.⁴⁰ In contrast, the Spanish institutional structure was less powerful and more limited by the 1890s (Fernández 1989).

Immigrant community adjustment to the host country increases with time (Hatton and Leigh 2011). Thus, economic outcomes for immigrants depend not just on their own characteristics but also on the legacy of past ethnic migration. Judging by size of the community and its organizations, it appears that the Italians enjoyed larger and more powerful networks than the Spaniards did. Networks may also lead to higher earnings (Hatton and Leigh 2011). Our findings show that specialised ethnic networks had a role in immigrant occupational choice. Accounts by contemporary observers and a rich social history literature indicate that friends and kin from the origin community in Italy and Spain played an important role in securing jobs for Southern European migrants in the nineteenth century. Our results are consistent

⁴⁰ We are not considering here the possibility that the larger the size of the community and the more powerful the networks, the more negatively selected the immigrants.

with this literature as they suggest that ethnic occupational specialisation could explain the differential performance between Italians and Spaniards.

6 Concluding remarks

The city of Buenos Aires experienced dramatic changes during the late nineteenth century. As the Argentina's political and commercial hub, the city welcomed thousands of immigrants during the age of mass migration. From 1887 to 1895, 70% of population growth was due to immigration. This inflow of immigrants was magnified in the labour market as less than a third of the labour force was Argentine-born.

This article has addressed an old issue in the literature using new quantitative evidence. We look at the performance of immigrant workers in the Buenos Aires labour market. It is the first attempt to present systematic empirical evidence on occupations, wages and immigrants' networks in late-nineteenth-century Buenos Aires. Building a large dataset with information on Argentines and immigrants, we look at the effects of such large inflow of immigrants on the city's labour market. Looking at the main immigrant communities, the Italians and the Spaniards, we find that workers clustered in particular occupations: Argentines in professional jobs, Italians in crafts and Spaniards in retail. This clustering by occupations explains part of the observed earning differentials between immigrants and natives. Italian and Spanish earnings were around 20% lower than the Argentinean level.

Human capital (proxied by literacy) mattered to achieve higher earnings; however, highly literate Spaniards did not, on average, outperform Italians in terms of income. As Italian prosperity in Buenos Aires was not based on superior earnings, skills or occupations with higher social prestige we look at the role of ethnic networks in facilitating integration into the host labour market.

Networks are key to explain the patterns of specialisation by nationality. Our analysis shows that higher shares of countrymen in the most popular ethnic occupation influenced immigrant occupational choice within the Buenos Aires neighbourhoods. This network effect was likely more effective for the Italian community. The Italian community created powerful networks early on and enjoyed the advantage of being the "old" immigrants. These networks were capable to help fellow countrymen to integrate into this vibrant city.

This study helps us understand the functioning of labour markets in the presence of a large inflow of foreign workers. Armed with different skills and aided by ethnic networks, immigrant workers found their niche in this ever-expanding market.

Acknowledgements We thank Timothy J. Hatton, Javier Silvestre, anonymous reviewers and the editor of this Journal for very useful comments and suggestions. This article also benefited greatly from discussions in the Economic History Seminar of the Universitat de Barcelona and the XI Conference of the European Historical Economics Society (Pisa). The usual disclaimer applies.

Appendix 1: Occupation and Wages 1890s

Our original information refers to occupations declared by individuals recorded in our sample to census-takers in 1895. We have codified original occupations by IPUMS 1950 codes. Different occupations were then grouped by the ten occupational categories in IPUMS. Occupational structure of migrants and natives are presented in percentages over the total of the sample (Table 4).

We imputed a wage w_o to each specific occupation o based on the sources described above. Then, we calculated the average wage W_{gc} for the occupational group g (from 0 to 9, see Table 9) for each immigrant country c by weighting the wage w_o assigned to each specific occupation o by the number of individuals L_{oc} employed in each occupational group o for country c .

$$W_{gc} = \sum w_o L_{oc} / \sum L_{oc}$$

We followed the same procedure with the sample by Somoza and Lattes for ‘Argentines’ and ‘Other Europeans’, although in this case the original data on occupations were more aggregated than in our sample directly taken from census records.

All wages are annual and in m\$n (*pesos moneda nacional*).

Sources for wages in occupational categories 4, 5, 6, 7 and 9: we have used two sources for wages: Adrian Patroni (1897) *Los trabajadores en la Argentina*, Buenos Aires, Imprenta Litografía y Encuadernación, Chacabuco 664 y 670 and William Buchanan (1898) “La moneda y la vida en la República Argentina”, *Revista de Derecho, Historia y Letras*, año I, tomo II, Buenos Aires.

When the same occupation appears in both sources a simple average was used. Buchanan gives daily wage data for 1894 and 1896, so we used a simple average of the two years.

Patroni (1897) provides daily wages and the number of working days by occupation for most occupations. When Buchanan wages are used, the number of working days is the average of the same category according to Patroni (1897). When there is no information for the number of working days per year for a particular occupation, a simple average for the rest of occupations according to Patroni (1897) is used (261 working days).

If wages were given in ranges (for example \$3.00–\$5.00 for ‘relojeros’ watchmakers) we converted these wages using simple averages (for the example given, the figure used was \$4.00).

In most cases sources distinguish between male and female wages. The average female–male earnings ratio for those occupations with information is 0.67 (CV = 0.18). In the few cases of women with recorded occupations in the census sample and no wage information in our sources, the ratio was applied to convert male to female wages. The majority of women wages (groups 5–6–7) come from original sources.

Source for wages in occupational categories 0, 2, 3: Dirección General de Estadística (1894) *Censo de empleados administrativos, funcionarios judiciales, personal docente, jubilados y pensionistas civiles de la República Argentina*

correspondiente al 31 de diciembre de 1893, Buenos Aires: Compañía Sudamericana de Billetes de Banco.

Wages are monthly wages multiplied by 12 for annual wages. We used the average wage for each category when there is no information.

In those cases with no information in the sources we have assigned the wage of a similar occupation or the average wage of the occupational category. For example 'hornero' (ovenbird) like 'fraguador' (forgemen), or 'hotelero' (hotelier) the average wage for occupational category 7. 'Comerciantes' (shopkeeper, trader) have been assigned a wage 50% higher than 'dependiente de comercio' (shop assistant, salesperson) given in Patroni (1897).

Table 9 Occupation and Wages 1890s—wage in *pesos moneda nacional*

IPUMS code	Occupation	IPUMS group	Annual wage
000	Accountants and auditors	Contador/ liquidador/subcontador	0 3459
004	Artists and art teachers	Escultor	0 910
007	Chemists	Químico	0 2400
009	Clergymen	Eclesiástico	0 1467
010	College presidents and deans	Director/rector/regente/ vicedirec-tor/subrector	0 3387
029	Professor subject not specified	Profesor	0 1625
035	Draftsmen	Dibujante	0 1380
049	Engineers (n.e.c.)	Ingeniero	0 3212
052	Farm and home management advisors	Camarista	0 960
055	Lawyers and judges	Juez/procurador/escribiente	0 9140
056	Librarians	Archivero/bibliotecario	0 1812
057	Musicians and music teachers	Músico	0 2670
063	Geologists and geophysicists	Cartógrafo	0 3000
069	Miscellaneous natural scientists	Naturalista	0 1500
073	Pharmacists	Farmacéutico	0 880
074	Photographers	Fotógrafo	0 1080
075	Physicians and surgeons	Medico	0 2024
078	Religious workers	Clérigos/religiosos	0 2130
083	Statisticians and actuaries	Vista	0 2662
092	Surveyors	Agrimensor	0 2020
093	Teachers (n.e.c.)	Maestro	0 2130
098	Veterinarians	Veterinario	0 2100
099	Professional, technical and kindred workers (n.e.c.)	Vocal	0 3771
203	Conductors, railroad	Jefe de estación/conductores locomotoras	2 1501
204	Credit men	Tesorero/subtesorero	2 3357
210	Inspectors, public administration	Inspector	2 2256

Table 9 continued

IPUMS code		Occupation	IPUMS group	Annual wage
250	Officials and administrators (n.e.c.), public administration	Oficial/secretario/ administrador/intendente/ interventor	2	2536
270	Postmasters	Estafetero/cartero	2	863
290	Managers, officials, and proprietors (n.e.c.)	Gerente/propietario	2	3000
300	Agents (n.e.c.)	Agente	3	3030
301	Attendants and assistants, library	Compilador/librero	3	1740
304	Baggagemen, transportation	Valijero	3	481
310	Bookkeepers	Escribiente/tenedor de libros	3	989
320	Cashiers	Cajero	3	2640
321	Collectors, bill and account	Cobrador/receptor	3	1350
322	Dispatchers and starters, vehicle	Clasificador	3	1022
325	Express messengers and railway mail clerks	Buzonista	3	330
335	Messengers and office boys	Mensajero	3	684
342	Shipping and receiving clerks	Auxiliar	3	2100
350	Stenographers, typists, and secretaries	Taquógrafo	3	3912
365	Telegraph operators	Telegrafista	3	1096
390	Clerical and kindred workers (n.e.c.)	Empleado	3	964
400	Advertising agents and salesmen	Comerciante	4	10,065
410	Auctioneers	Rematador	4	1065
450	Insurance agents and brokers	Corredor seguros/comercio	4	1065
480	Stock and bond salesmen	Comisionista/bolsa de negocios	4	1065
490	Salesmen and sales clerks (n.e.c.)	Empleado de comercio/ dependiente	4	710
500	Bakers	Panaderos	5	1128
501	Blacksmiths	Herrero	5	922
502	Bookbinders	Encuadernador	5	1296
503	Boilermakers	Calderero	5	859
504	Brickmasons, stonemasons, and tile setters	Albañiles/frentistas/canteros	5	708
505	Cabinetmakers	Silletero/mueblero	5	416
510	Carpenters	Carpintero	5	972
512	Compositors and typesetters	Tipógrafos	5	1172
514	Decorators and window dressers	Alfombreros	5	737
515	Electricians	Electricista	5	972
521	Engravers, except photoengravers	Grabador	5	1800
522	Excavating, grading, and road machinery operators	Pavimentador	5	486
523	Foremen (n.e.c.)	Capataz	5	983
525	Furriers	Curtidor	5	680

Table 9 continued

IPUMS code		Occupation	IPUMS group	Annual wage
530	Glaziers	Vidrieros	5	1033
531	Heat treaters, annealers, temperers	Hornero	9	859
533	Inspectors (n.e.c.)	Inspectores de boletos	5	979
534	Jewellers, watchmakers, goldsmiths, and silversmiths	Relojeros y joyeros	5	1073
535	Job setters, metal	Cerrajero	5	922
542	Locomotive firemen	Foguista	5	901
544	Machinists	Maquinista	5	1296
550	Mechanics and repairmen, automobile	Constructor carruajes	5	1469
554	Mechanics and repairmen (n.e.c.)	Mecánico	5	802
555	Millers, grain, flour, feed, etc.	Fideler/harnero	5	806
561	Molders, metal	Tornero	5	749
564	Painters, construction and maintenance	Pintores carruajes	5	744
564	Painters, construction and maintenance	Pintores casas	5	569
571	Photoengravers and lithographers	Litógrafo	5	1366
573	Plasterers	Yeseros	5	783
574	Plumbers and pipe fitters	Plomero	5	802
575	Pressmen and plate printers, printing	Impresor/cajista	5	910
582	Shoemakers and repairers, except factory	Alpargatera (female)	5	324
582	Shoemakers and repairers, except factory (female)	Zapatero	5	743
584	Stone cutters and stone carvers	Marmolista	5	875
584	Stone cutters and stone carvers	Mosaiquista/Picapedrero	5	671
585	Structural metal workers	Fraguador	5	859
590	Tailors and tailoresses (female)	Chalequera/pantalonera	5	538
590	Tailors and tailoresses	Sastres	5	1109
591	Tinsmiths, coppersmiths, and sheet metal workers	Broncista	5	1166
591	Tinsmiths, coppersmiths, and sheet metal workers	Dorador	5	720
593	Upholsterers	Tapicero	5	1436
594	Craftsmen and kindred workers (n.e.c.)	Aparadores/veleros	5	780
594	Craftsmen and kindred workers (n.e.c.) (female)	Aparadora (female)	5	158
594	Craftsmen and kindred workers (n.e.c.)	Armero	5	1044
594	Craftsmen and kindred workers (n.e.c.)	Artesano	5	864

Table 9 continued

IPUMS code	Occupation	IPUMS group	Annual wage
594	Craftsmen and kindred workers (n.e.c.)	Talabarteros	5 293
594	Craftsmen and kindred workers (n.e.c.) (female)	Talabarteras (female)	5 158
595	Members of the armed services	Militar	5 624
601	Apprentice bricklayers and masons	Peón albañil	6 474
602	Apprentice carpenters	Lustrador	6 515
605	Apprentice mechanics, except auto	Aprendiz tornero	6 98
612	Apprentices, metalworking trades (n.e.c.)	Herrero aprendiz	6 619
614	Apprentices, other specified trades	Aprendiz curtidor	6 540
614	Apprentices, other specified trades	Aprendiz zapatero	6 270
615	Apprentices, trade not specified	Aprendiz	6 303
620	Asbestos and insulation workers	Calafates	6 651
630	Chainmen, rodmen, and axmen, surveying	Inspectores de vías	6 1368
631	Conductors, bus and street railway	Cocheros tramway/mayoral/colectivo	6 751
632	Deliverymen and routemen	Repartidor	6 521
633	Dressmakers and seamstresses, except factory	Costureras	6 495
634	Dyers	Tinturero	6 651
635	Filers, grinders, and polishers, metal	Pulidor	6 792
640	Fruit, nut, and vegetable graders, and packers, except factory	Frutero, verdulero..	6 651
641	Furnacemen, smeltermen and pourers	Fundidor	6 859
644	Meat cutters, except slaughter and packing house	Carnicero	6 651
645	Milliners	Sombrereros	6 936
645	Milliners (female)	Sombrereras (female)	6 702
670	Painters, except construction or maintenance	Fileteador	6 1008
672	Power station operators	Gasistas	6 854
674	Sawyers	Aserrador	6 1008
675	Spinners, textile	Hilador	6 355
681	Switchmen, railroad	Guarda vías, guarda frenos	6 525
682	Taxicab drivers and chauffers	Cocheros	6 579
683	Truck and tractor drivers	Carreros	6 653
684	Weavers, textile	Tejedor/lanero	6 355
685	Welders and flame cutters	Soldador	6 859
690	Operative and kindred workers (n.e.c.)	Cigarreros	6 727

Table 9 continued

IPUMS code		Occupation	IPUMS group	Annual wage
690	Operative and kindred workers (n.e.c./female)	Cigarreras (female)	6	626
720	Private household workers (n.e.c.)	Domésticos	7	661
720	Private household workers (n.e.c.) (female)	Mucamas	7	512
740	Barbers, beauticians, and manicurists	Peluqueros/barberos	7	1114
750	Bartenders	Licorista/tabernero	7	497
751	Bootblacks	Limpiabotas	7	600
752	Boarding and lodging house keepers	Hotelero/fondista	7	693
753	Charwomen and cleaners	Lavanderas	7	392
754	Cooks, except private household	Cocinero	7	902
754	Cooks, except private household (female)	Cocinera	7	540
763	Guards, watchmen, and doorkeepers	Vigilante	7	624
764	Housekeepers and stewards, except private household	Mayordomo	7	900
770	Janitors and sextons	Conserje	7	624
772	Midwives	Comadrona/Partera	7	
773	Policemen and detectives	Policía	7	624
781	Practical nurses	Enfermero	7	480
784	Waiters and waitresses	Mozo café/camarero	7	720
785	Watchmen (crossing) and bridge tenders	Celador/vigilante	7	594
790	Service workers, except private household (n.e.c.)	Caballerizo	7	718
820	Farm labourers, wage workers	Peón rural	8	299
910	Fishermen and oystermen	Pescador	9	299
930	Gardeners, except farm, and groundskeepers	Jardinero	9	1248
940	Longshoremen and stevedores	Estibador	9	979
970	Labourers (n.e.c.)	Jornaleros/peones	9	587

Appendix 2: Comparison of samples

See Table 10.

Table 10 Comparison of our sample with Somoza and Lattes (1967)

	Our sample		Somoza and Lattes	
	Spanish	Italians	Spanish	Italians
<i>N</i>	4288	6235	1844	4015
Share				
Male	63%	60%	61%	60%
Female	37%	40%	39%	41%
Active population (aged 14 and older)				
Total	3477	4663	1687	3673
Share				
Male	65%	62%	62%	60%
Female	35%	38%	38%	40%
Mean age (years)	31	33	34	34
Marital Status				
Share				
Single	57%	55%	44%	35%
Married	38%	43%	49%	59%
Widow	5%	2%	7%	6%

References

- Abramitzky R, Boustan LP, Eriksson K (2014) A nation of immigrants: assimilation and economic outcomes in the age of mass migration. *J Polit Econ* 122(3):467–506
- Adelman J (1992) The harvest hand: wage-labouring on the Pampas, 1880–1914. In: Adelman J (ed) *Essays in Argentine labour history, 1870–1930*, St. Antony's Series, Palgrave MacMillan, Basingstoke, pp 91–111
- Adelman J (1994) *Frontier development, land, labour and capital on the wheatlands of Argentina and Canada, 1890–1914*. Clarendon Press, Oxford
- Baily SL (1999) *Immigrants in the land of promise: Italians in Buenos Aires and in New York City, 1870 to 1914*. Cornell University Press, Ithaca, NY
- Beaman LA (2012) Social networks and the dynamics of labour market outcomes: evidence from refugees resettled in the U.S. *Rev Econ Stud* 79(1):128–161
- Bertola G, Sestito P (2011) A comparative perspective on Italy's human capital accumulation. *Quaderni di Storia Economica*, num. 6, Banca d'Italia
- Bourdé G (1977) *Buenos Aires. Urbanización e inmigración*. Huenul, Buenos Aires
- Buchanan W (1898) *La moneda y la vida en la República Argentina*. In: *Revista de Derecho. Historia y Letras*. I, vol II. Buenos Aires
- Chiswick BR (1991) Jewish immigrant skill and occupational attainment at the turn of the century. *Explor Econ Hist* 28:64–86
- Chiswick BR, Miller PW (2007) *The economics of language: international analyses*. Routledge, London
- Cinell D (1982) *From Italy to San Francisco. The immigrant experience*. Stanford University Press, Stanford
- Cortés Conde R (1979) *El progreso argentino, 1880–1914*. Ed. Sudamericana, Buenos Aires
- Departamento General de Inmigración (1890) *Memoria del año 1889*, Buenos Aires
- Devoto FJ (2003) *Historia de la inmigración en Argentina*. Ed. Sudamericana, Buenos Aires
- Devoto FJ (2006) *Historia de los italianos en la Argentina*. Editorial Biblos, Buenos Aires

- Dirección General de Estadística (1894) Censo de los empleados administrativos, funcionarios judiciales personal docente: De la República Argentina correspondiente al 31 de diciembre de 1893. Compañía sud-americana de billetes de banco, Buenos Aires
- Dirección General de Inmigración (1925) Resumen estadístico del movimiento migratorio en la República argentina, 1857–1924. Ministerio de Agricultura, Buenos Aires
- Duncan OD (1961) A socioeconomic index of all occupations. In: Reiss AJ (ed) Occupations and social status. Free Press of Glencoe, New York, pp 109–138
- Dustmann C (2001) Return migration, wage differentials, and the optimal migration duration. IZA Discussion paper series, No. 264
- Fernández A (1989) El mutualismo español en un barrio de Buenos Aires: San José de Flores, (1890–1900). Estudios Migratorios Latinoamericanos 4(13):609–642
- Foerster RF (1919) The Italian emigration of our times, vol 20. Harvard University Press, Harvard
- Galor O, Stark O (1990) Migrants' savings, the probability of return migration and migrants' performance. *Int Econ Rev* 31(2):463–467
- Gandolfo R (1992) Las sociedades italianas de socorros mutuos de Buenos Aires: cuestiones de etnicidad y clase dentro de una comunidad de inmigrantes (1880–1920). In: Devoto FJ, Miguez EJ (eds) Asociacionismo, trabajo e identidad étnica. Los italianos en América Latina en una perspectiva comparada. CEMLA, Buenos Aires, pp 311–332
- Germani G (1966) Mass immigration and modernization in Argentina. *Stud Comp Int Dev* 2(11):165–182
- Gomellini M, Ó Gráda C (2011) Outward and inward migration in Italy: a historical perspective. *Quaderni di Storia Economica*, num. 8, Banca d'Italia
- Gutiérrez L (1981) Condiciones de la vida material de los sectores populares en Buenos Aires. 1880–1914. *Rev Indias* 41:167–202
- Hatton TJ, Leigh A (2011) Immigrants assimilate as communities not just as individuals. *J Popul Econ* 24:389
- Hauser R (1982) Occupational status in the nineteenth and twentieth centuries. *Hist Methods* 15:111–126
- Juif D (2015) Skill selectivity in transatlantic migration: the case of Canary Islanders in Cuba. *Rev Hist Econ J Iber Lat Am Econ Hist* 33(2):189–222
- Kim J, Lauderdale DS, Shin HC, Lee Y (2014) Surname sampling: reevaluating Kim sampling in Korea and the United States. *Field Methods* 26(1):87–104
- Klein HS (1983) The integration of Italian immigrants into the United States and Argentina: a comparative analysis. *Am Hist Rev* 88(2):306–329
- Lafortune J, Tessada J (2014) Smooth(er) landing? The dynamic role of networks in the location and occupational choice of immigrants. WP ClioLab14 Eh Clio Lab Instituto de Economía. Pontificia Universidad Católica de Chile. <http://www.econ.puc-rio.br/pdf/seminario/2011/Draft-02-23-2011.pdf>
- Lattes AE, Rechini de Lattes Z (1975) La población de Argentina. Instituto Nacional de Estadística y Censos, Buenos Aires
- Lubotsky D (2007) Chutes or ladders? A longitudinal analysis of immigrant earnings. *J Polit Econ* 115(5):820–867
- Mateo Avilés E de (1993) La emigración andaluza a América, 1850–1936. Ed. Arguval, Málaga
- McCaa R, Haines M, Mulhare E (2001) Argentina. The first national historical census microdata. In: Hall PK, McCaa R, Thorvaldsen G (eds) Handbook of international historical microdata for population research. The Minnesota Population Center, Minnesota, pp 13–22
- Minns C (2000) Income, cohort effects, and occupational mobility: a new look at immigration to the United States at the turn of the 20th century. *Explor Econ Hist* 37:326–350
- Moya JC (1998) Cousins and strangers. Spanish Immigrants in Buenos Aires, 1850–1930. University of California Press, Berkeley
- Munshi K (2003) Networks in the modern economy: Mexican migrants in the US labor market. *Q J Econ* 118(2):549–599
- Munshi K (2014) Community networks and the process of development. *J Econ Perspect* 28(4):49–76
- Munshi K, Wilson N (2007) Identity and occupational choice in the American Midwest. Brown University Working Paper
- Patel K, Vella F (2013) Immigrant networks and their implications for occupational choice and wages. *Rev Econ Stat* 95(4):1249–1277
- Patroni A (1897) Los trabajadores en la Argentina. Imprenta Litografía y Ecuadernación, Buenos Aires
- Peri G, Sparber C (2011) Highly educated immigrants and native occupational choice. *Ind Relat J Econ Soc* 50(3):385–411

- Quartulli D (2014) Historia y actualidad de dos muestras censales de población. Argentina 1869 y 1895. <http://censos1869-1895.sociales.uba.ar/files/2014/05/Digitalizaci%C3%B3n-2.3.pdf>
- Rocchi F (1999) La armonía de los opuestos: industria, importaciones y la construcción de Buenos Aires en el periodo 1880–1920. In: Amaral S, Valencia M (eds) Argentina: el país nuevo. Problemas de historia económica, 1880–1914. Editorial de la Universidad Nacional de la Plata, La Plata, pp 201–232
- Rocchi F (2006) Chimneys in the dessert. Industrialization in Argentina during the export boom years. 1870–1930. Stanford University Press, Stanford
- Sábato H (1989) Capitalismo y ganadería en Buenos Aires: la fiebre del lanar 1850–1890. Editorial Sudamericana, Buenos Aires
- Sábato H, Romero LA (1992) Los trabajadores de Buenos Aires: la experiencia del mercado, 1850–1880. Editorial Sudamericana, Buenos Aires
- Sánchez-Alonso B (2000) Those who left and those who stayed behind: explaining emigration from the regions of Spain. 1880–1914. *J Econ Hist* 60(3):730–755
- Sánchez-Alonso B (2007) The Other Europeans: immigration into Latin America and the International Labour Market, 1870–1930. *Rev Hist Econ J Iber Lat Am Econ Hist* 25(3):395–426
- Sargent Charles (1976) The spatial evolution of Greater Buenos Aires. Arizona State University, Tempe
- Scobie J (1974) Buenos Aires: Plaza to Suburb. 1870–1910. Oxford University Press, New York
- Segundo Censo Nacional (1895) Segundo censo Nacional de la República Argentina, Mayo 10 de 1895. Taller Tipográfico de la Penitenciaría Nacional, Buenos Aires, 1898
- Sobek M (1995) The comparability of occupations and the generation of income scores. *Hist Methods* 28(1):47–51
- Sobek M (1996) Work, status and income: men in the American occupational structure since the late nineteenth century. *Soc Sci Hist* 20(2):169–207
- Somoza J, Lattes A (1967) Muestras de los dos primeros censos nacionales de población. 1869 y 1895. Documento de Trabajo del Instituto Torcuato di Tella Nro. 46
- Sori E (1979) L'emigrazione italiana dall'Unità alla seconda guerra mondiale. Il Mulino, Bologna
- Suriano J (1994) Vivir y sobrevivir en la gran ciudad: formas de hábitat populares en la ciudad de Buenos Aires a comienzo de siglo. *Estudios Sociales* 7:49–68
- Szuchman M (1980) Mobility and integration in urban Argentina. Córdoba in the Liberal Era. Texas University Press, Austin
- Thernstrom S (1973) The other Bostonians: poverty and progress in the American Metropolis. 1880–1970. Harvard University Press, Cambridge MA
- Treiman DJ (1976) A standard occupational prestige scale for use with historical data. *J Interdiscip Hist* 7(2):283–304
- Vence Conti A, Cuesta EM (2016) Prices and wages in the 1890 crisis in Buenos Aires. *Rev Hist Econ J Lat Am Econ Hist* 34(2):267–294