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Spain's Loss of Human Capital after the Civil War: Spanish Refugees in Mexico

Forced migrations, exiles, and genocides adversely affect millions of people. The literature stresses the obvious differences between forced and voluntary migration. Refugees do not choose their country of destination or the time when they move; refugees feel the “push factors” in their countries of origin more than they do the economic “pull factors” in the destination countries. They are assumed to be economically motivated to a much lesser degree than are economic migrants. Refugees typically arrive in a host country with less locally applicable human capital, including language and job skills, than do economic migrants.

This article focuses on the Spanish exile to Mexico that followed the Civil War. This exile differs substantially from the general picture regarding refugees. Many of the Spanish refugees landed in Mexico because other possible options were blocked, risky, or undesirable (for instance, remaining in France or re-emigrating to another country) and, particularly, because Mexico opened the door to Spanish Republicans. They spoke the same language and presumably had professional skills above average, compared to the Mexican

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population. In contrast to the situation for today's refugees, Mexican citizenship was granted immediately, allowing the exiles to look for employment without any legal or administrative barriers.¹

Although the demoralizing effects of exile are dramatic and direct, the secondary consequences, such as the loss of a significant stock of human capital in the country of origin, are usually undervalued. Recent scholarship emphasizes the importance of the drain caused by forced migrations and genocides, of which the Republican exile of post-Civil War Spain is an excellent case. The literature related to the issue is abundant in both quantity and quality, ranging from the personal experiences of the exiles to the number of people involved. The traditional view suggests that the importance of the Spanish exile lies not only in its sheer volume but also in its breakdown of labor—farmers, merchants, and blue-collar workers along with university professors, teachers, engineers, and liberal professionals. The literature treats this exile as a brain drain for Spain. Whereas research paints a consistent picture of contemporary refugees as disadvantaged both socially and economically relative to other immigrants at arrival, the literature about the Spanish exile points to a flow of highly qualified immigrants not at all economically disadvantaged compared to the Mexican population.²

Little has been said, however, about the quantification of Spain's loss of human capital, or the measurement of its quality, after the Civil War. Unfortunately, we cannot calculate the total loss of human capital due to exile at that time, only that relating to Mexico, which is considered to be at the highest end. We do not have data sufficient to estimate the human capital of Spanish refugees in France (the large majority) or in other destinations, such

1 Timothy J. Hatton, "Asylum Migration to the Developed World: Persecution, Incentives, and Policy," *Journal of Economic Perspectives*, XXXIV (2020), 75–93; Courtney Brell et al., "The Labor Market Integration of Refugee Migrants in High-Income Countries," *ibid.*, XXXXIV (2020), 94–121. In the short run, many immigrants refused to become Mexican citizens and retained their passports, anticipating a return to Spain when Francisco Franco fell from power. The only condition that the Mexican government established for Spanish exiles was refraining from involvement in Mexican politics.

2 Daron Acemoglu, Tarek A. Hassan, and James A. Robinson, "Social Structure and Development: A Legacy of the Holocaust in Russia," *Quarterly Journal of Economics*, CXXVI (2011), 895–946; María del Rosario Ruiz Franco and Sergio Riesco Roche, "Veinte años de producción histórica sobre la Guerra Civil Española (1975–1995): Una aproximación bibliométrica," *Revista española de documentación científica*, XXII (1999), 174–197; Brell et al., "Labor Market"; Gerhard Towes and Pierre-Louis Vézina, "Enemies of the People," Working Paper 2020–20, Quantitative Political Economy Research Group (King's College London, 2020).

as the French colonies in North Africa, the Soviet Union, or other Latin American countries.³

This article places its estimation of the quality of human capital that left Spain for Mexico during the exile into a broader context, comparing it with the years that preceded and followed it. The initial results show that, depending on the estimator used, the level of accomplishment of those exiled to Mexico almost doubles that of other more economically motivated migrants at the same time. This article's further estimation of the female human capital lost to Spain in the Mexican exile is an important contribution given the traditional invisibility of women in recorded economic history. Female human capital, in fact, represented a significant proportion of the human capital lost by the Republican flight to Mexico.

THE SPANISH EXILE From January to March 1939, around 400,000 Spanish refugees crossed the French border before the end of the Spanish Civil War. Most of them crossed the Pyrenees from the neighboring regions of Catalonia, Aragon, Navarre, and the Basque Country or from other more distant areas such as Valencia. Many returned in the following months; by December 1939, only 140,000 Spaniards remained in France. Facing the problem of Spanish refugees, the French government began negotiations with Latin American countries to relocate the Spanish refugees, but only Mexico, Uruguay, and Chile responded positively. The Mexican government of President Lázaro Cárdenas agreed to open the borders to Spanish Republican exiles with no limits. As a result, Mexico (with a modest history of receiving Spanish emigrants) accounted for 12 percent of all exiles, thus becoming the second-largest recipient behind only France.⁴

3 Information about the occupational composition of Spanish refugees in France (July 1939) reveals that a higher concentration of them were in the secondary sector (45%) than were in the traditional migrant population in France. See Javier Rubio, *La emigración española a Francia* (Barcelona, 1974), 230 (Table 51).

4 For the number of exiles who crossed into France, see Rubio, *La emigración española a Francia* (Barcelona, 1974). See also Dolores Pla Brugat, "La presencia española en México, 1930–1990: Caracterización e historiografía," *Migraciones y Exilios*, II (2001), 157–188. Initially, the French government forced repatriations until May 1939 after which such repatriations to Spain were banned because of protests in France against Francisco Franco's repression. For an estimation of a similar percentage, around 12%, see José Ortega and Javier Silvestre, "Las consecuencias demográficas," in Pablo Martín Aceña and Elena Martínez Ruíz (eds.), *La economía de la Guerra Civil* (Madrid, 2006).

An estimated total volume of permanent emigration produced by the Spanish Civil War is about 190,000 people, mostly to France. Ortega and Silvestre offer a lower figure (162,000) for the net emigration from Spain between 1936 and 1944. The magnitude is small when compared to traditional Spanish emigration as well as to other political emigrations—for example, Russia's after the Revolution and Civil War from 1917 to 1920 or Europe's in general after World War II.⁵

Table 1 shows the basic numbers of Spanish emigration to Mexico for our period of analysis. Not all these migrants were refugees, but most of them were certainly exiles from the Civil War, particularly from 1939 to 1942. According to Gallardo, the average number of Spanish economic immigrants who arrived in Mexico between 1909 and 1927 was 4,000 per year, but the flow reduced substantially during the 1930s (1,400 per year between 1930 and 1936).⁶

Spanish historiography has attached extraordinary importance to the emigration of Republican refugees to Mexico for several reasons: First, unlike recent asylum seekers in the European Union (1997–2014), who generally requested a destination country with other immigrants of the same national origin, the Spanish exiles went not to Argentina, Uruguay, or Cuba—where Spanish immigration had a strong foundation—but to Mexico, solely at the political invitation of President Cárdenas. Second, contrary to the portrait of traditional Spanish migration to America (including Mexico), the literature about the Spanish exile depicts a highly accomplished group who represented a considerable loss of human capital for Spain. Pla Brugat observes that the forced migration of Republican exiles to Mexico included many elite intellectuals, even though it was a much more heterogeneous movement than initially thought.⁷

The extent to which Mexico is a good proxy for the Republican exile is an important question. We considered including the French exile figures in our calculations of lost human capital, but

5 Rubio, *La emigración española a Francia* (Barcelona, 1974), 228. Between 1910 and 1913, the total volume of Spanish emigration reached nearly 900,000 people; in the 1920s, the peak was 650,000 from 1920 to 1923. See Sánchez Alonso, *Las causas de la emigración española* (Madrid, 1995). Ortega and Silvestre, “Las consecuencias demográficas.”

6 César Yáñez Gallardo, *La emigración española a América (siglos XIX y XX): Dimensión y características cuantitativas* (Colombres, 1994).

7 For twenty-first century refugees, see Hatton, “Refugees, Asylum Seekers, and Policy in OECD countries,” *American Economic Review*, CVI (2016), 441–445; Jose Luis Abellán García González (ed.), *El exilio español de 1939* (Madrid, 1977); Pla Brugat, “La presencia española.

Table 1 Spanish Immigrants Arriving in Mexico, 1937–1948

	MALE	FEMALE	CHILDREN	TOTAL
1937	91	96	36	223
1938	45	72	33	150
1939	3,884	2,352	1,161	7,397
1940	1,034	712	309	2,055
1941	898	713	306	1,917
1942	1,492	1,042	521	3,055
1943	124	160	53	307
1944	262	248	123	633
1945	305	282	122	709
1946	836	592	195	1,618
1947	1,408	1,035	349	2,852
1948	498	522	157	1,177
Total	10,932	7,826	3,335	22,093

SOURCE Calculated from Lida and Pacheco Zamudio, “El perfil de una inmigración: 1821–1939,” in Lida (ed.), *Una inmigración privilegiada: comerciantes, empresarios y profesionales en México en los siglos XIX y XX* (Madrid, 1994), 34.

the obstacles were too great: Although hundreds of thousands of Spaniards crossed the frontier toward France, many of them returned to Spain, often because of appalling living conditions in France. Moreover, many Republican exiles reported that their welcome in France was far from hospitable.

As still happens today, the Spanish refugees were housed in refugee camps that did not comply with the most basic living standards. The poor sanitary conditions and the hard winter of 1939 produced numerous casualties, and the French authorities initially did not allow Spanish medical personnel to give medical care to their countrymen. The options open to these Republican exiles in France—from direct repatriation to impressment into the French Foreign Legion—were equally dire. Franco’s regime sent emissaries to the refugee camps to encourage people to return, reinforcing repatriation to Spain.⁸

Pla Brugat estimates that around one-half of the Republicans relocated to France in June 1939 were employed in the secondary (manufacturing) sector, one-third in the primary (agricultural)

8 For health conditions, see María Fernanda Mancebo, *La España de los exilios* (Valencia, 2008), 96; for the situation in the camps, Juan Carlos Pérez Guerrero, *La identidad del exilio republicano en México* (Madrid, 2008), 77; Marie-Claude Rafaneau-Boj, *Los campos de concentración de los refugiados españoles en Francia (1939–1945)* (Barcelona, 1995), 149.

sector, and nearly one-fifth in the tertiary sector (services). But this estimation, which might serve as a crude proxy of human capital, changed during the following months when many of the exiles returned to Spain. Although we can speculate about who went back, the difficulties involved in identifying the profile of those who did, make the direct incorporation of French exiles into the calculation of human capital difficult.⁹

Was the profile of the Mexican Republican exile representative of the Spanish population? Pla Brugat used a sample of 4,660 exiles who arrived in three ships (the *Sinaia*, *Ipanema*, and *Mexique*) during the summer of 1939 to show that nearly 50 percent of them were employed in the tertiary sector, 15 percent in the liberal professions, and 13 percent in education as teachers, university professors, and intellectuals. The Spanish population census of 1930 placed a total of 27 percent of the population in the tertiary sector. Although these data from the early arrivals to Mexico may not be representative of the total flow, the typical Mexican exiles were supposedly not a good mirror of Spanish society. According to this interpretation, they were comprised primarily of the most cultivated people within the social spectrum. The numerous studies analyzing this movement across the Atlantic after the Civil War, however, contain no deep discussion about how the departure of scientists, artists, or politicians affected the home country. Their loss surely would have dealt a severe blow to the groups in which they had been leading participants. Political repression in Spanish universities and scientific centers during the 1940s did the rest of the dirty work, destroying scientific and academic networks throughout Spain.¹⁰

9 Pla Brugat, *Els exiliats catalans a Mexic: Un estudi de la immigració republicana* (Afers, 2000).

10 *Idem*, "Características del exilio en México en 1939," in Clara Eugenia Lida (ed.), *Una inmigración privilegiada: comerciantes, empresarios y profesionales en México en los siglos XIX y XX* (Madrid, 1994), 218–231; Juan Bautista Vilar, *La España del exilio: Las emigraciones políticas españolas en los siglos XIX y XX* (Madrid, 2006), 360; Pedro L. Angosta, *La República en México: Con plomo en las alas (1939–1945)* (Salamanca, 2009). Blas Cabrera Felipe, a leading physicist who communicated with Albert Einstein, Neils Bohr, and Marie Curie, among others, received an invitation to the Solvay Conference, a meeting of the world's most illustrious scientists. For the effects on the scientific community, see Josep Lluís Barona, "Los científicos españoles exiliados en México," in *Los refugiados españoles y la cultura mexicana: Actas de las primeras jornadas* (Madrid, 1998), 109; Francisco Giral, *Ciencia Española en el Exilio (1939–1989): El Exilio de los Científicos Españoles* (Madrid, 1994). For the effects of repression on the research community in Spain in the years following the Civil War, see López García, "La investigación científica y técnica antes y después de la guerra civil," in Gómez Mendoza (ed.), *Economía y sociedad en la España moderna y contemporánea* (Madrid, 1996), 256–276.

Yet this emphasis on intellectuals and scientists is not consistent with what the data show. The analysis of the aggregate data suggests that intellectuals did not dominate the Mexican exile. Given the outsized motivational importance that noneconomic factors have for refugees, such populations are likely to include individuals from a wide range of occupations more suited to their country of origin than to their destination, as well as demographic types unlikely to migrate primarily for economic reasons. Our data support this view. Our aim is to go a step beyond the traditional representation and to clarify both the quantity and the quality of the human capital that left Spain and went to Mexico after the end of the Civil War.¹¹

SOURCES AND DATA The main source used in this article is the National Registry of Foreigners in Mexico—created in 1926 by the Mexican government's General Direction of Migratory Services—which contains information about the Spanish immigrants in the country. It also documents any foreigner of other nationality who had entered Mexico before May 1926. All the migrants who lived in the country received a card with their personal information, issued as proof of their legal status. The registry has information about several generations of immigrants to Mexico starting in the mid-nineteenth century; from 1929, all new immigrants were registered with a similar document.

The information in the registry provided by the expatriates was highly detailed. The standard document had two pictures—one facing to the front and one to the side—date of entry; information about eyebrows, eyes, mouth, or facial hair; height; date and place of birth; occupation; religion; and number of languages spoken (see Figure 1). The cards are in Mexico's General Archive of the Nation. The Spanish Ministry of Culture digitalized them for its online archival system, thus permitting us to consult and transcribe the information from a sample of more than 26,000 cards—half the number of the Spanish migrants in The National Registry. We extracted each immigrant's given name and surname, year entering Mexico, year of birth, Spanish province of birth, gender, age, occupation, status as a political refugee (or not), last reported residence, transportation taken to enter Mexico (ships identified by name), height, foreign languages spoken, and

11 Pla Brugat, *Els exiliats catalans*; Brell et al., "Labor Market."

Fig. 1 Example of Card Issued to Immigrants

Duplicado

SERVICIO DE MIGRACION FORMA 5.

NUM. 192091/769

TARJETA DE IDENTIFICACION EXPEDIDA POR NSU-460 MEDIA FILIACION DEL INTERESADO

ESTADURA 173 COMPLEJON BRUNO

ALMACEN ... COLOR ... PIEL ...

CEJAS ... OJOS ...

RAZAS ... EDOCA ...

ESGOTE ... PAREDA ...

SEÑAS PARTICULARES ...

CUVO RETRATO Y FIRMA CONSTAN EN SEGUIDA



Luis Blasquez

FIRMA DEL INTERESADO

FIRMA DEL COMISARIO DE SERVICIOS DE MIGRACION Y TRABAJO PREVIAMENTE REGISTRADO

Latos complementarios

AÑO EN QUE NACIÓ ... ESTADO CIVIL ...

PROFESION, OFICIO U OCUPACION ...

OTROS NOMBRES QUE HAYA ...

RELIGION ...

LUGAR DE RESIDENCIA ...

OTROS DATOS ...

CONSTANCIA ...

SOURCE PARES (<https://pares.culturaydeporte.gob.es/inicio.html>).

religion. To compare exiles and traditional migrants, our sample contains records only for individuals older than eighteen years.¹²

The information obtained enables a profile of immigrants in Mexico before 1936 and a profile of Republican exiles. In addition to profiling different sorts of migrations, this article also estimates the human capital of the people who arrived in Mexico between the mid-1920s and the late 1940s. The comparison of exiles with traditional economic migrants situates the human capital of the exiles into a broader context and isolates the effect of belonging to an exiled group, an exercise apparently never before undertaken.

The first step is to define *human capital* and to explicate the estimators selected to measure it. Unfortunately, the immigration records of the Mexican authorities do not offer information about levels of formal education, but occupation can serve as a proxy to measure degrees of human capital. Everyone entering the country had to provide detailed information about his/her working experience; immigrants already living in Mexico gave details of their current occupations.

We used the HISCAM scale proposed by Lambert et al. to adapt the information from the occupations into a quantitative index in which higher values represent more advantaged occupational

12 Apart from its large size, our sample is random; we double-checked its randomness by comparing it with smaller samples extracted from the same source that used a systematic random-selection procedure.

positions. This proxy for human capital, however, is not free of methodological problems; the extent to which a declared occupation was related (or not) to an individual's actual stock of human capital is a factor beyond our control. Another problem pertains to the diligence of the Mexican agents who interviewed the immigrants. In some cases, the civil servants grouped occupations into main categories, surmising, for example, that members of an orchestra/band and composers were all musicians. Another problem is female migrants' lack of heterogeneity; the fact that housewife was the most frequent occupation of women hindered our ability to distinguish differences in women's level of human capital.¹³

We also observe a certain temporal inconsistency in the level of detail offered by immigrants in relation to their occupations. After the mid-1930s, the description of occupations became detailed, providing not just a general description (say, engineer) but one more fine-grained (agricultural engineer or industrial engineer). The job descriptions in the sources before the 1930s are not so generous. In many cases, immigrants declared themselves only as employees, traders, or merchants.

The records about the immigrants who entered Mexico before 1926 and were already established when the exiles arrived are the least detailed. Because the assessment of human capital for immigrants who arrived before 1930 is less reliable, we searched for alternative estimators of human capital. One of them is the number of languages other than Spanish that an immigrant could speak. That trait allows us to identify, for example, differences between women recorded as housewives much better than occupation listings do. A housewife from a wealthy family probably received a better education in foreign languages than one born to a poor family. The use of foreign languages also solves the potential problem of having to rely on general occupational terms, such as employee or merchant, for social capital before 1930.¹⁴

We excluded from this proxy those languages that qualify as mother tongues rather than foreign languages—Catalan, in the

13 Paul S. Lambert et al., "The Construction of HISCAM: A Stratification Scale Based on Social Interactions for Historical Research," *Historical Methods*, XLVI (2013), 77–89; Vicente Llorens, *El exilio español de 1939: La emigración republicana de 1939* (Madrid, 1976).

14 Speaking a language other than Spanish has no relevance to living in Mexico but shows the quality of education received in Spain.

case of migrants born in Catalonia, or Basque, for those born in the Basque Country. The use of this proxy likely captures the attainment of an elevated formal education. For instance, a highly qualified worker, such as a master carpenter, who does not speak a foreign language would be classified as low-skilled. The capacity to learn foreign languages, however, presumably requires natural skills that signify human capital beyond formal education or occupation per se. In fact, the average number of languages spoken by immigrants every year tends to correlate closely with the estimators derived from occupational categories such as HISCAM. We further transcribed the social classes of individuals according to the HISCLASS scheme that divides occupations into five social classes—(1) Elite (higher managers and higher professionals), (2) lower middle class (lower managers, professionals, clerical and sales personnel, and foremen), (3) self-employed farmers and fishermen, (4) medium-skilled and lower-skilled workers, and (5) unskilled workers and farm workers.¹⁵

Finally, we also take migrants' stature as a proxy of human capital, given the literature's suggestion of a high correlation between both dimensions. Camara et al. showed that from 1855 to 1960—a period similar to the one covered in this article—illiterate Spanish conscripts were generally shorter than those who could write and read and even shorter than those who were students. Similarly, Huang shows that the stature of Dutch conscripts in the mid-twentieth century also aligned with their level of education. Silventoinen and Lahelma found the same correlation in Finland and Sweden between 1920 and 1969, as did Heineck in Germany between 1952 and 1981.

The correlation between human capital and height is not restricted to historical studies. Meyer and Selmer's study proved that during the late twentieth century, educated men and women tended to be taller. This correlation is hardly surprising, since adult stature depends on nutrients and a child's physical conditions during the growing period; both variables are highly correlated with the socioeconomic status of their families of origin. In a society where parents transmitted their socioeconomic status to their

15 The correlation between languages and HISCAM variables is 0.66 for the whole period and 0.76 between 1900 and 1950. See Marco H. D. van Leeuwen and Ineke Maas, *HISCLASS: A Historical International Social Class Scheme* (Leuven, 2011).

children, height is also a reasonable indirect proxy for both socio-economic status and human capital.¹⁶

As in the case of foreign languages, one of the strengths of height is its avoidance of the problems that attach to general occupations such as housewife, employee, or merchant. Yet Spain also had important regional differences in height that could have been natural rather than social in origin. Quiroga discovered significant regional differences in the height of Spanish conscripts between 1893 and 1954; the Canary Islands consistently ranked at the top whereas the regions of the interior ranked at the bottom. To this regional disparity, which might have been partly genetic, we observe that trends in the average height in Spain's different regions over time were not homogeneous, as Quiroga and Martínez Carrión explained. Therefore, the inclusion of regional controls is necessary when comparing the differences in height between individuals from different provinces.

Because stature tends to diminish after the age of fifty, due to the compression of the discs between the vertebrae, adjustments were also necessary to make the height of individuals measured at different ages comparable. Fernihough and McGovern estimated an annual reduction in height between 0.08 and 0.1 percent for males and 0.12 and 0.14 percent for females. We used the average of these ranges to adjust heights for migrants older than fifty.¹⁷

Our first approach to capture the potential differences between exiles and traditional migrants was based on a descriptive analysis

16 Antonio D. Cámara et al., "Height and Inequality in Spain: A Long-Term Perspective," *Revista de Historia Económica / Journal of Iberian and Latin American Economic History*, XXXVII (2019), 205–238; Ying Huang et al., "Differences in Height by Education among 371,105 Dutch Military Conscripts," *Economics & Human Biology*, XVII (2015), 202–207; Karri Silventoinen et al., "Body Height, Birth Cohort and Social Background in Finland and Sweden," *European Journal of Public Health*, XI (2001), 124–129; Guido Heineck, "Height and Weight in Germany, Evidence from the German Socio-Economic Panel, 2002," *Economics & Human Biology*, IV (2006), 359–382; Haakon E. Meyer and Randi Selmer, "Income, Educational Level and Body Height," *Annales of Human Biology*, XXVI (1999), 219–227. For the transmission of status, see Santiago-Caballero, "Intergenerational Occupational Mobility in Nineteenth Century Spain (Valencia), 1841–1870," *Revista de Historia Económica / Journal of Iberian and Latin American Economic History*, XXXIX (2021), 219–264.

17 Gloria Quiroga, "Estatura, diferencias regionales y sociales y niveles de vida en España (1893–1954)," *Revista de Historia Económica*, XIX (2001), 175–200; José Miguel Martínez Carrión, "Estatura, salud y bienestar en las primeras etapas del crecimiento económico español: Una perspectiva comparada de los niveles de vida," Documento de trabajo N° 0102 2001 (Asociación Española de Historia Económica, 2001); Alan Fernihough and Mark E. McGovern, "Physical Stature Decline and the Health Status of the Elderly Population in England," *Economics & Human Biology*, XVI (2015), 30–44.

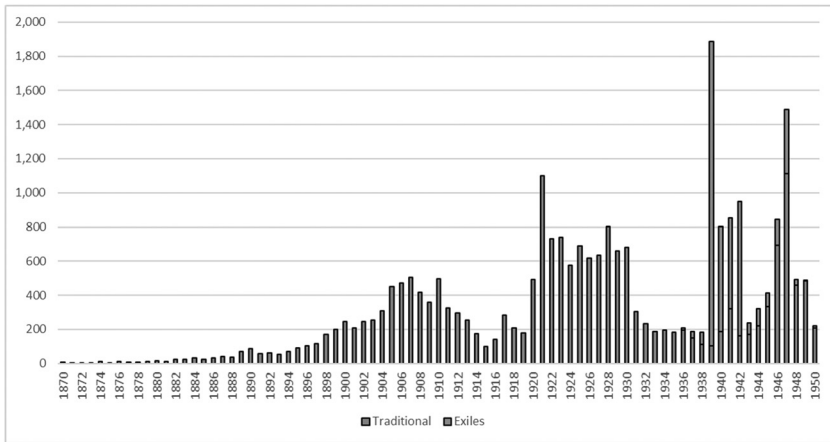
comparing the profile of the exiles with that of the traditional migrants. We later analyzed the evolution of our three human-capital proxies over time to check not only whether their values increased after the arrival of the exiles but also whether the changes are unexpected or in line with the time trends discovered for traditional migrants.

COMPARING EXILES WITH TRADITIONAL MIGRANTS To evaluate Spain's loss of human capital because of the Mexican exile, we must place it into a broader context. A proper understanding of the exile's effect requires comparing it with migrations to Mexico before, during, and after the arrival of the Republican refugees. Were refugees more skilled than traditional immigrants? If so, by how much? What about those who moved to Mexico at the same time and in later periods but did not register as political refugees? Traditional immigration and Republican exile represented distinct modes of migration, each with its own features.

In the age of mass migration, Mexico—unlike Argentina, Brazil, Uruguay, and Cuba—was not a preferred destination for Spanish emigrants. The peak in arrivals before 1939 happened during the 1920s (Figure 2). As in the rest of the Americas, traditional Spanish immigration to Mexico had virtually stopped after 1930, when the number of Spaniards entering the country declined substantially. It remained low until the first wave of Republican exiles arrived right after the beginning of the Spanish Civil War in 1936, followed by still small but increasing numbers in 1937 and 1938. Not until 1939 did the highest number of exiles, both in absolute and relative terms, arrive in Mexico. After the civil war ended, the ships *Mexique*, *Sinaia*, and *Ipanema* brought 4,660 expatriates. Exiles continued to arrive in significant numbers during the three following years before declining precipitously in 1943; in 1947, another, much smaller, wave of exiles entered Mexico. In relative terms, compared to traditional migration, exiles represented the lion's share of total Spanish immigrants between 1939 and 1942. In 1944, the arrival of conventional immigrants to Mexico resumed, returning to a traditional migration pattern well documented in the literature.¹⁸

18 Pla Brugat, *Els exiliats Catalans*; Lida and Pacheco Zamudio, "El perfil de una inmigración: 1821–1939," in Lida (ed.), *Una inmigración privilegiada: comerciantes, empresarios y profesionales en México en los siglos XIX y XX* (Madrid, 1994), 25–50.

Fig. 2 Spanish Emigration of Traditional and Exiled Migrants to Mexico, 1870–1950



SOURCE Computed with data from the *Registro Nacional de Extranjeros*.

Spanish economic immigrants in Mexico were distinct from those going to Argentina, Uruguay, or Cuba. Lida and Pacheco Zamudio defined them as a “privileged” because of their success as traders, entrepreneurs, and professionals. The average traditional immigrant was a Roman Catholic (“José” being the typical male name) who spoke only Spanish, was 168 cm tall, and lived in the province of Asturias. Around his thirty-ninth birthday, José decided to sail from Spain to the port of Veracruz in Mexico. From there he moved to the interior of the country, Mexico’s Distrito Federal (DF), where he lived and worked as a trader. Maria, José’s female counterpart, also a thirty-nine-year-old Catholic, spoke only Spanish, was 159 cm tall, and lived in Asturias until she embarked on a ship from Spain to Veracruz and then went to the Mexican capital where she became a housewife.¹⁹

Although he may have shared some traits with his Catholic counterpart, the typical Republican exile lived instead in Barcelona where he worked in trade-related activities, spoke French, and was 169 cm tall. At the age of thirty-eight, he was forced to

19 These results agree with those estimated by Lida and Pacheco Zamudio, “El perfil.” For a detailed study of the question, see Lida, “Los españoles en el México independiente: 1821–1950. Un estado de la cuestión,” *Historia Mexicana*, LVI (2006), 613–650.

leave Spain, and after passing through some other country, he too disembarked at Veracruz, moving later to Mexico DF. His Roman Catholic wife was three years younger, spoke only a Spanish dialect, and was 159 cm tall. At the end of the Civil War, she followed her husband from Barcelona to live with him as a housewife in Mexico's capital. Extracted from more than 26,000 individual records, these profiles show some of the most important differences between the two forms of migration. The first one, voluntary emigration vs. forced exile, is obvious. The second concerns their respective levels of human capital; on average, almost 50 percent of the exiles spoke at least one foreign language, whereas 7.5 percent of them spoke two and 2.2 percent spoke three or more. Only around 11 percent of the traditional immigrants spoke a foreign language, a surprisingly high figure given Spain's illiteracy rates of about 32 percent in 1930 and 23 percent in 1940.²⁰

Table 2 presents the differences between traditional migrants and exiles in several dimensions. Of the two columns for traditional migrants, the first uses information for the whole period, and the second is confined to the same entry years as the Republican exiles. For those registered before 1929, the records include their occupation in Mexico, whereas for those in the second column, the occupations are the ones that they had in Spain. The most significant difference between both samples of traditional migrants lies in the higher HISCAM score and the number of spoken foreign languages of those who entered Mexico between 1936 and 1950. Traditional migrants in the later years were also younger when they started and more apt to come from the primary and secondary sectors than were their predecessors. The proportion of men was considerably smaller and that of minors larger. Exiles bore similarities with the traditional migrants who moved with them, although they spoke more foreign languages and had a greater share of occupations in the secondary sector. The proportion of exiles who declared themselves as Catholics was also much smaller than that of traditional migrants in either of the two samples.²¹

20 Pla Brugat, *Els exiliats Catalans*, 171. The number of foreign languages spoken was computed with data from the *Registro Nacional de Extranjeros*.

21 Between 1930 and 1948, a period of generally low emigration from Spain to Latin America, the importance of professionals emigrating increased, to the detriment of rural and even industrial laborers. See César Yañez Gallardo, *La emigración española a América (siglos XIX y XX): Dimensión y características cuantitativas* (Colombes, 1994), 183–200.

Table 2 Descriptive Statistics of Indicators, Traditional Migrants vs. Exiles

INDICATOR	TRADITIONAL MIGRANTS		EXILES
	ALL	1936–1950	
HISCAM	60.50	64.20	64.90
Foreign languages	0.15	0.29	0.55
Height	165.70	165.50	164.80
HISCLASS	2.20	2.30	2.50
Age	38.80	36.80	36.70
Primary sector	8.30	13.60	9.70
Secondary sector	7.60	12.60	19.40
Tertiary sector	84.10	73.80	70.90
Share men	0.74	0.57	0.58
Share minors	3.13	7.20	5.10
Share Catholics	96.10	96.20	63.60

SOURCE Computed with data from the *Registro Nacional*

Figure 3 presents the evolution of the average HISCAM of all migrants, including the Republican exile, between 1886 and 1950. The trends show a steady decline in value between 1886 and the early 1920s, followed by an intense recovery until 1935 and high levels persisting until 1943 when the average HISCAM score decreased but still remained at high historical levels. Long-term trends were similar for both genders, though average female HISCAM scores were lower in general. A quick look at the average number of foreign languages spoken by all migrants shows relative stability between 1886 and the early 1920s when, as in the case of HISCAM, the series witnessed an intense increase in 1936 coinciding with the arrival of the first Republican exiles (Figure 4). This increase peaked in 1942, only to reverse quickly when the number of exiles decreased. It was high in the late 1940s, although its values resemble those expected if the period from 1922 to 1934, which represents the traditional migrants' trend, is extrapolated. As in the case of HISCAM, long-term trends were similar in both genders, also showing a high correlation in long-term changes.²²

The evolution of average height also shows a general improvement in the long term, although short-term changes and minimum and maximum levels differed from those presented by HISCAM and languages (Figure 5). The lowest values occurred at the

22 Women recorded as housewives are not part of the estimate, since this status is not included on the scale.

Fig. 3 Average HISCAM of Migrants, 1886–1950 (Five-Year Moving Average)

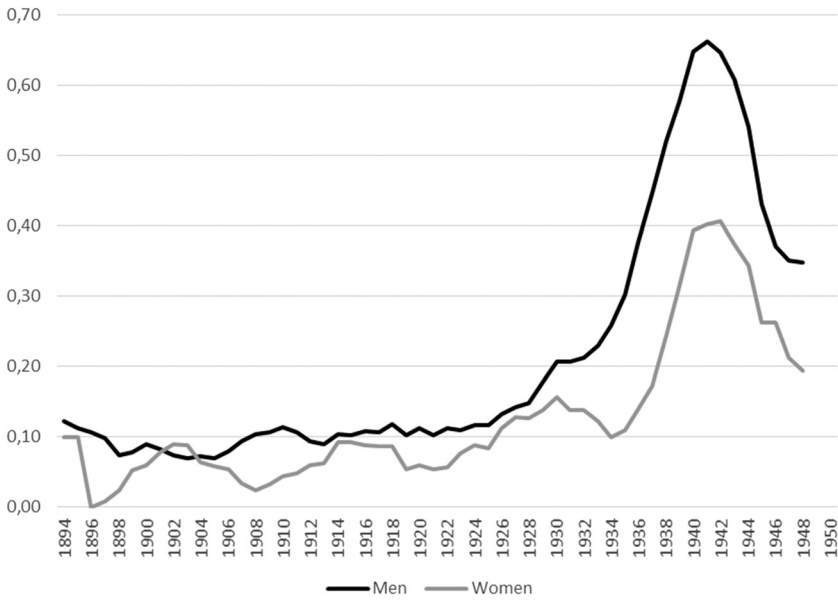


SOURCE Computed with data from the *Registro Nacional de Extranjeros*.

beginning of the 1880s period and the maximum levels in the 1940s. The short-term changes were a deterioration between the final years of the nineteenth century and the early 1910s and then a steady increase that continued until the end of the period for males and until the early 1940s for females. In the case of height, especially with regard to women, a short-term acceleration of the previous trends coincided with the arrival of the first exiles in 1936. It continued to rise until 1942 when their numbers dwindled. Our descriptive analysis of the data suggests that the Republican exiles shared some similarities with traditional migrants, especially with those who moved in the same year, despite some stark differences.

ECONOMETRIC ANALYSIS To highlight the effect of the exile, we carried out an econometric analysis comparing, at individual level, the potential determinants of the differences in human capital

Fig. 4 Foreign Languages per Migrant, 1886–1950 (Five-Year Moving Average)



SOURCE Computed with data from the *Registro Nacional de Extranjeros*.

between refugees and traditional migrants, using ordinary least squares (OLS) pooled regressions with the following specifications:

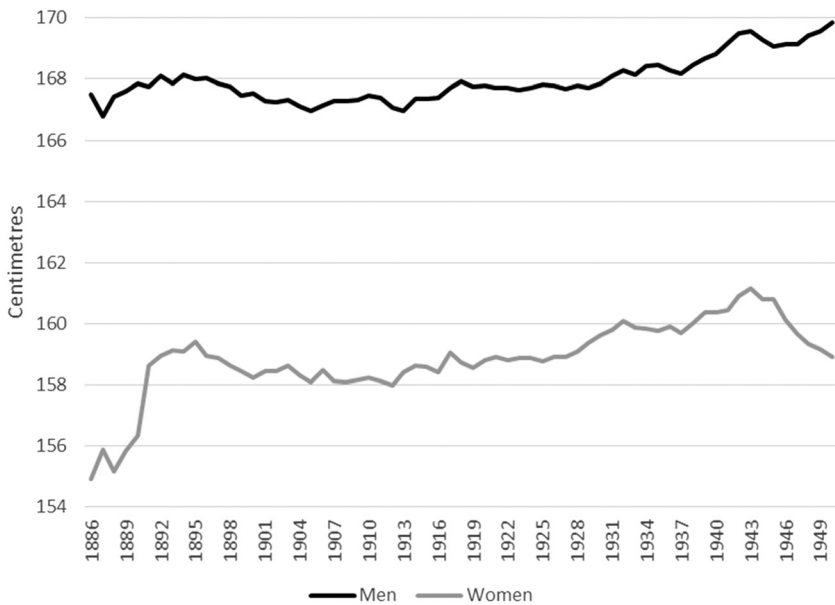
$$Human\ Capital_i = \infty + \beta_1 Exile_i + D_i + P_i + \varepsilon_i \tag{1}$$

$$Human\ Capital_i = \infty + \beta_1 Exile_i + \beta_2 Male_i + D_i + P_i + \varepsilon_i \tag{2}$$

$$Human\ Capital_i = \infty + \beta_1 Exile_i + \beta_2 Male_i + \beta_2 HISCLASS_i + D_i + P_i + \varepsilon_i, \tag{3}$$

where *Human Capital_i* represents each one of the three proxies (HISCAM, foreign languages, and height) for individual *i* and *Exile* represents a dummy variable that takes value 1 if a migrant claims to be an exile from the Spanish Civil War. The existence of a gender gap in the three human-capital dimensions, especially in the case of height, when genetic differences are clear, implies that we should also control for gender with the dummy variable *Male*,

Fig. 5 Average Migrant Height, 1886-1950 (Five-Year Moving Average)



SOURCE Computed with data from the *Registro Nacional de Extranjeros*.

which takes value 1 if the individual is male. We should also consider that the average values of the three proxies of human capital could change over a period as lengthy as the one in this article. Hence, we introduce the factor variable D in the models to control for a migrant's decade of birth. In a similar way, to take account of possible significant regional differences in the average levels of human capital considered in our three dimensions over time, we introduce the factor variable P to control for an individual's province of birth.

Finally, we include $HISCLASS$ as a factor variable with five possible values, ranging from 1 (elites) to 5 (unskilled workers and farm workers) as described above. This variable is not included when $HISCAM$ is used as proxy because of the endogeneity that exists between both variables. We expect that this variable will be highly correlated with our three dimensions of human capital; with its inclusion, we attempt to find significant differences

between exiles and traditional migrants who belong to the same social class. In other words, our objective is to estimate whether exiles were not just at the top of the human-capital hierarchy within the whole sample but also within their respective social classes.²³

Tables 3 to 5 present the four specifications for the three dimensions of human capital—HISCAM, foreign languages, and height. For HISCAM, our estimates show that when gender, decade, and province of birth are controlled, individuals who declared themselves as exiled have a HISCAM value 4 points higher than do traditional migrants. Males also present a higher HISCAM than females. In Model III, which restricts the sample to those migrants who entered Mexico from 1929 and to their occupation in Spain, the value of the exile dummy is lower, although still significant. As reference, with a HISCAM around 60 (average of the sample), are occupations like bread maker, singer, or butcher; an improvement of 4 points would putatively reach occupations like telephone or telegraph operator, office clerk, or lithographer.²⁴

Table 4 presents the same three models using foreign languages as human-capital proxy. The results are like those for HISCAM; the exile dummy presents values that are stable in all the specifications. On average, exiles speak around 0.3 more foreign languages per head than do traditional migrants, a value that increased once social classes are introduced as controls. Women suffer a penalty even when social classes are considered, where as expected, the gradient from the top two classes to the rest is pronounced.

By contrast, the analysis using height, presented in Table 5, shows that without gender controls, exiles were 0.7 cm shorter than were traditional migrants, an outcome that changes once gender is introduced. These results are explained by the share of women in the exile group being higher than in the sample of traditional migrants and by the genetic gender gap in statures in Models II–III, males being between 9 and 10 cm taller than females. Contrary to the case of HISCAM, exiles did not seem to

23 For reference, the models including HISCAM and HISCLASS are presented in Table A2 of the appendix.

24 More examples of occupations in HISCAM can be found in Table A1 in the online appendix.

Table 3 Correlates of HISCAM

DEP. VARIABLE: HISCAM	MODEL I	MODEL II	MODEL III
Exiled	3.6*** (0.33)	4.0*** (0.34)	0.9** (0.38)
Male		3.4*** (0.43)	3.9*** (0.49)
Decade of birth control	Yes	Yes	Yes
Province of origin control	Yes	Yes	Yes
Constant	61.00	57.60	67.60
Obs.	16,630	16,630	6,805
R ²	0.05	0.06	0.07
F-test	0.00	0.00	0.00

*Significance at 10 percent level.

**Significance at 5 percent level.

***Significance at 1 percent level.

NOTE Robust standard errors in parentheses.

enjoy higher statures than traditional migrants in any of the specifications. Individuals in class 1 were the tallest, although the gradient from the lowest social class (class 5) to the highest is not as clear as in the case of HISCAM.

Table 4 Correlates of Languages

DEP. VARIABLE: LANGUAGES	MODEL I	MODEL I	MODEL III
Exiled	0.29*** (0.01)	0.30*** (0.01)	0.33*** (0.02)
Male		0.13*** (0.007)	0.07*** (0.02)
HISCLASS (CLASS 1—ELITE BASELINE)			
Class 2—lower middle			−0.32*** (0.02)
Class 3—self-employed farmers and fishermen			−0.46*** (0.02)
Class 4—skilled workers			−0.43*** (0.02)
Class 5—unskilled workers and farm workers			−0.42*** (0.03)
Decade of birth control	Yes	Yes	Yes
Province of origin control	Yes	Yes	Yes
Constant	0.33	0.33	1.17
Obs.	21,727	21,727	15,902
R ²	0.13	0.15	0.20
F-test	0.00	0.00	0.00

*Significance at 10 percent level.

**Significance at 5 percent level.

***Significance at 1 percent level.

NOTE Robust standard errors in parentheses.

Table 5 Correlates of Heights

DEP. VARIABLE: HEIGHT (CM)	MODEL I	MODEL II	MODEL III
Exiled	-0.7*** (0.15)	0.04 (0.16)	0.08 (0.16)
Male		8.9*** (0.10)	10.0*** (0.22)
HISCLASS (CLASS I—ELITE BASELINE)			
Class 2—lower middle			-1.4*** (0.18)
Class 3—self-employed farmers and fishermen			-1.4*** (0.23)
Class 4—skilled workers			-1.7*** (0.22)
Class 5—unskilled workers and farm workers			-1.3*** (0.46)
Decade of birth control	Yes	Yes	Yes
Province of origin control	Yes	Yes	Yes
Constant	162.2	155.3	158.0
Obs.	20,505	20,505	15,236
R ²	0.03	0.30	0.15
F-test	0.00	0.00	0.00

*Significance at 10 percent level.

**Significance at 5 percent level.

***Significance at 1 percent level.

NOTE Robust standard errors in parentheses.

DISCUSSION Our results show that HISCAM and foreign languages as proxies for human capital both reached maximum historical levels with the arrival of the Republican exile in Mexico, though with important differences. The increase in HISCAM started in the early 1920s, well before the arrival of exiles, whereas the exponential growth in spoken foreign languages clearly correlates with the arrival of the first political refugees. Height, however, shows a deterioration from the late nineteenth to the early twentieth century, recovering later, with no significant changes during the arrival of the exiles.

The econometric analysis of the three proxies for human capital supports this descriptive analysis. The first main conclusion combining both approaches is that exile status does not seem to correlate with taller stature. The possible reasons for this result are not necessarily incompatible with those obtained for the other two dimensions of human capital. First, although height might be expected to correlate with human capital, it is a more tangential proxy than are HISCAM and foreign languages. Second, congruent

with the first reason, being tall requires less of an investment than does achieving an elevated social position or learning a foreign language. In other words, an average family that could afford to nourish their children and regulate their energy to promote their growth would not necessarily have been able to afford the education required to guarantee them a good occupation or a facility with foreign languages. The significance of the exile dummy for HISCAM and foreign languages when social classes are considered suggests as much; the exile dummy is significant for HISCAM and foreign languages because exiles were at the top of their respective social classes and so more able to invest in education.

As Lida and Pacheco Zamudio explain, traditional migrants were considerably taller than the average Spaniard who did not migrate. A recent study by Cámara et al. estimates that the average height of Spanish conscripts was 162 cm for the cohorts born in 1840 and 165 cm for those born in 1920; the figures for the same cohorts of Spanish migrants to Mexico were 166 and 169 cm. A comparison with the heights of the elites in Brazil and Colombia reinforces the tall statures of the Spanish migrants to Mexico. Elite males reached heights like those of their Colombian and Brazilian counterparts in the early twentieth century (around 168 cm). Female Spanish migrants in Mexico were, on average, 1 cm taller than elite Colombian women, around 159 vs. 158 cm.²⁵

The results in Tables 3 and 4 indicate that exiles presented higher values for both HISCAM and languages than did traditional migrants. Exiles had an average HISCAM around 4 points higher than did traditional emigrants at the same time, who averaged a HISCAM of 66. The gap between both groups regarding languages was more substantial; exiles spoke around 0.3 more languages per head than did traditional migrants (0.34 languages per head) who moved to Mexico at the same time. Why was the connection of exile status with foreign languages much stronger than that with HISCAM? Many of the exiles who claimed to speak French might

25 Lida and Pacheco Zamudio, "El perfil"; Cámara et al., "Height and Inequality." For the heights of Latin-American elites, see Adolfo Meisel and Margarita Vega, "The Biological Standard of Living (and Its Convergence) in Colombia, 1870–2003: A Tropical Success Story," *Economics & Human Biology*, V (2007), 100–122; Daniel Franken, "Anthropometric History of Brazil, 1850–1950: Insights from Military and Passport Records," *Revista de Historia Económica / Journal of Iberian and Latin American Economic History*, XXXVII (2019), 377–408.

have learned it not from formal education but from a long stay in France before sailing to Mexico. Many Spanish exiles moved to southern France during the war hoping to return after the conflict. When the war ended with the Republican defeat, a considerable number of them sailed to Mexico. Although the notion that they learned to speak French while living in France is pure speculation, Table 6 repeats the most complete model with four new specifications and several robustness checks of our results.

Model V's dependent variable is the number of foreign languages other than French that an individual claimed to speak. Model VI excludes from the sample all exiles who arrived from Catalonia or Aragon, since the bulk of exiles who escaped to France and potentially traveled later to Mexico came from these two regions bordering France. Model VII excludes all the exiles who arrived on the ships that the Republican government in exile hired to transport some of the refugees living in France. Finally, Model VIII is the most restrictive, excluding all exiles who claimed that French was their only language—clearly a lower bound, since the model purges a large number of exiles regardless of where they learned French, the most common language spoken in the sample. The results in all the models are consistent with those obtained in the previous models, suggesting that the exile dummy in foreign languages is not a consequence of a stay in France. The values of the coefficients for Models V and VIII are, as expected, lower. In the case of Model V, since the average number of languages other than French was just 0.13, the relative impact of the exile dummy was also relevant. In the case of Model VIII, the average number of languages spoken in the reduced sample was 0.18, also suggesting a relative impact of the exile dummy similar to that in the original models.²⁶

Quantitative analysis of the exile as it relates to women is nonexistent, although qualitative research about the exiled female Republicans is available. Our data, however, permit a quantitative analysis of the human capital of Spanish women in the exile. As mentioned before, the female occupational category of housewife is not conducive to any conclusions about their real qualifications.

26 The ships sent by the Republican government in exile were *Flandre*, *Guinea*, *Ipanema*, *Manuel Amus*, *Mexique*, *Nyassa*, *Orinoco*, *Santo Domingo*, *Siboney*, and *Sinai*.

Table 6 Correlates of Languages Adjusted for Exiles in France

DEP. VARIABLE: LANGUAGES	MODEL V	MODEL VI	MODEL VII	MODEL VIII
Exiled	0.09*** (0.02)	0.33*** (0.02)	0.37*** (0.02)	0.16*** (0.02)
Male	0.08** (0.02)	0.05*** (0.02)	0.11*** (0.02)	0.1*** (0.02)
HISCLASS (CLASS 1—ELITE BASELINE)				
Class 2—lower middle	-0.22*** (0.02)	-0.30*** (0.02)	-0.29*** (0.02)	-0.34*** (0.02)
Class 3—self-employed farmers and fishermen	-0.29*** (0.02)	-0.41*** (0.02)	-0.36*** (0.02)	-0.45*** (0.033)
Class 4—skilled workers	-0.30*** (0.02)	-0.38*** (0.02)	-0.38*** (0.02)	-0.45*** (0.03)
Class 5—unskilled workers and farm workers	-0.29*** (0.03)	-0.38*** (0.03)	-0.38*** (0.03)	-0.43*** (0.03)
Decade of birth control	Yes	Yes	Yes	Yes
Province of origin control	Yes	Yes	Yes	Yes
Constant	1.10	1.72	1.11	1.17
Obs.	15,902	14,144	14,896	14,967
R ²	0.07	0.18	0.19	0.13
F-test	0.00	0.00	0.00	0.00

*Significance at 10 percent level.

**Significance at 5 percent level.

***Significance at 1 percent level.

NOTE: Robust standard errors in parentheses.

Furthermore, occupations such as seamstress, common for immigrant women, may have been only temporary occupations held by exiled women during their early years in Mexico, not corresponding to their pre-exile activity. The resort to languages spoken other than Spanish helps to overcome these obstacles in assessing women's human capital. Our results show that women were crucial in the loss of human capital in the Mexican flow; according to our estimations, more than one-third of all the foreign languages spoken by the exiles were spoken by women, representing a large share of human capital.²⁷

Women represented 42 percent of the Republican exiles to Mexico. The difference between their share of population and their share of human capital reflects the relative social standing of men and women. Yet even though they attained lower human capital levels than men did, women comprised a substantial percentage of the total brain trust. The Mexican exile highlights the long-neglected importance of women. Figures 3–5 reveal the relevance of this issue, revealing parallel trends in the evolution of male and female migrants' profiles over time. The synchronicity of the long-term waves in the three human-capital proxies for both genders provides new and key evidence for the study of the effects of the brain drain in the age of mass migrations, usually focused on men due to limitations imposed by the historical sources.

The study of the Spanish Civil War and its consequences has generated intense and controversial academic debates, including the role of the Republican exiles and the loss of human capital that they represented. Refugees are assumed not to be motivated by economic factors to the same degree as other migrants are; for them, push factors at home are stronger than economic pull factors abroad. The Spanish exile to Mexico after the Civil War is a good case study of a highly selected migratory flow by people reputed to possess skills above the average of the Mexican population. The literature argues that the importance of the Spanish exile does not rely so much on the number of people who left the country as on their characteristics. The traditional view presents the exile as

27 For an example of the study of female exiles, see Josebe Martinez, *Exiliadas: Escritoras, guerra civil y memoria* (Barcelona, 2007).

a loss of human capital and a brain drain for Spain. This article quantifies the loss and places it in a larger context, venturing beyond the traditional view of the Spanish exile focused almost exclusively on intellectuals, writers, and highly qualified professionals. Overall, the Spanish refugees in Mexico represented a reservoir of considerable human capital compared with the traditional population of economic immigrants.

We created a profile of the immigrants in Mexico before 1936 and a profile of the Republican exiles to compare traditional economic immigrants with refugees. To quantify the human capital of the two groups, we use three different indicators—HISCAM for occupations, number of foreign languages spoken, and stature. Our data allow us to create an index of human capital based primarily on the average number of foreign languages spoken that captures the highest level of human capital for Spanish migrants during the period considered. When using both HISCAM and foreign languages as proxies of human capital, exiles presented higher values for both variables than did traditional migrants, though exile status did not correlate with taller height. In fact, traditional immigrants in Mexico were considerably taller than the average Spaniard who did not migrate.

Given languages as a marker for the highest levels of accomplishment, followed by HISCAM, Spanish exiles indeed appear to have been highly qualified. Our data show that, on average, almost 50 percent of the exiles spoke at least one foreign language, compared to the 11 percent or so of traditional immigrants. The high selectivity of the exiles is also reflected in the significance of the exile dummy when social-class controls were introduced in our models, suggesting that exiles were among the most skilled members of each of the classes.

The findings herein regarding women are pioneering; this article's proxies measure human capital for women much better than do occupations. Heretofore, the economic-history literature has largely omitted any attempt to assess women's human capital because of a lack of recorded data about their occupations. Depending on the proxy used, around one-quarter of the human capital lost with the Mexican expatriation belonged to women. An important lesson of this result highlights the importance of quantifying the relevance of a group that is usually invisible to economic history.

APPENDIX: HISCAM SCORES AND CORRELATES*Table A1* Examples of Occupations with HISCAM Scores around 60 and 64

OCCUPATIONS WITH HISCAM AROUND 60

58240 Private police guard
 36000 Transport conductors
 77620 Bread baker
 17300 Actors and stage directors
 18000 Athletes, sportsmen, and related workers
 17145 Singer
 75990 Other spinners, weavers, knitters, dyers, and related workers
 77310 Butcher, general

OCCUPATIONS WITH HISCAM AROUND 64

38000 Telephone and telegraph operators
 84175 Machinery erector and installer
 92400 Printing engravers (except photo engravers)
 55120 Concierge (apartment house)
 92415 Lithographer
 39310 Office clerk, general
 41000 Working proprietors (wholesale and retail trade)
 21340 Sales manager (retail trade)

Table A2 Correlates of HISCAM

DEP. VARIABLE: HISCAM	FULL SAMPLE			ENTRY 1929-1950		
	MODEL I	MODEL II	MODEL III	MODEL IV	MODEL V	MODEL V
Exiled	3.6*** (0.33)	4.0*** (0.34)	1.2*** (0.20)	0.9** (0.38)	0.02 (0.21)	0.02 (0.21)
Male		3.4*** (0.43)	0.8*** (0.25)	3.9*** (0.49)	1.2*** (0.28)	1.2*** (0.28)
HISCAM (CLASS 1—ELITE BASELINE)						
Class 2—lower middle			-28.3*** (0.26)		-25.6*** (0.35)	-25.6*** (0.35)
Class 3—self-employed farmers and fishermen			-36.3*** (0.25)		-35.7*** (0.34)	-35.7*** (0.34)
Class 4—skilled workers			-33.7*** (0.28)		-33.2*** (0.36)	-33.2*** (0.36)
Class 5—unskilled workers and farm workers			-42.1*** (0.35)		-41.5*** (0.51)	-41.5*** (0.51)
Decade of birth control	Yes	Yes	Yes	Yes	Yes	Yes
Province of origin control	Yes	Yes	Yes	Yes	Yes	Yes
Constant	61.0	57.6	85.1	67.6	88.1	88.1
Obs.	16,630	16,630	16,630	6,805	6,802	6,802
R ²	0.05	0.06	0.62	0.07	0.70	0.70
F-test	0.00	0.00	0.00	0.00	0.00	0.00

*Significance at 10 percent level.

**Significance at 5 percent level.

***Significance at 1 percent level.

NOTE: Robust standard errors in parentheses.