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**Socio-Economic Determinants of Survival in a Nazi
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Abstract: This paper advances the literature on the determinants of survival in contexts of indiscriminate violence through a case-study of Spaniards in the Mauthausen concentration camp. We benefit from the high-quality individual information collected by Spaniards with administrative jobs at the camp. Although our analysis also examines the role of age, marital status, and religious self-identification, our main focus lies in the role of social class in survival, with social class determined by the occupation prior to the deportation. We hypothesize individuals from higher social classes display higher survival probabilities through their greater capacity to fill relevant positions in the camp, their more central location in support networks and probably better command of the German language. Using Cox models, the results support our main hypothesis. The risk of death was highest amongst unskilled agricultural workers, followed by unskilled non-agricultural workers.

Key words: genocide, mass violence, mortality, occupations, Second World War, political repression, human rights violations, Nazism.

Word count: 11,400

1 Introduction

The fate of Spanish deportees at the Mauthausen Nazi concentration camp exemplifies the role of large historical forces in shaping individual destinies, in this case tragically. The typical prisoner at Mauthausen was a man exiled in France at the end of Spain's Civil War, who was either in a refugee camp, often with his family, or who had joined the French Army worker battalions.¹ When the German army invaded France in May 1940, most of these exiled individuals became imprisoned and, once captured, Spain's new Francoist state refused to recognize these men as Spanish citizens, although not their women and children. As a result, Spanish prisoners were sent to the Mauthausen concentration camp as stateless prisoners in several waves in 1940 and 1941. Later in the war, hundreds of Spaniards charged with Anti-German activities, mostly in France, were also deported to Mauthausen.² From the first contingent entering the camp in August 1940 to the liberation on the 5th of May 1945, over 7,000 so called *Rote Spanier* -i.e. Red Spaniards- were interned at the camp. According to the most recent estimates, 66 per cent lost their lives in the camp.³

The paper uses the case of Spanish prisoners in Mauthausen to advance the literature on the individual determinants of survival in contexts of indiscriminate or genocidal violence. This literature is more prominent in the case of Jewish victimization during WW2, but also appears in other contexts of genocidal and political violence like all Nazi victimization during WW2, post-WW2 military conflicts, Soviet Gulags, and Bosnia-Herzegovina deaths during the 1992-1995 war in the former Yugoslavia.⁴ One conclusion of this emerging literature on the demography of conflict and violence is that individual socio-economic characteristics many times affect individual survival chances. Other contributions have found that often, but not always, there are survival advantages for those at the top of the social or organizational hierarchy in high mortality contexts like maritime disasters or in prisoner camps during the US civil war. However, higher ranked officials held as PoWs in Japanese camps had a higher probability of dying.⁵

Emphasis on individual determinants of victims' survival adds an important perspective to the common focus on structural and intermediate determinants of genocidal and mass violence.⁶ At the more general, macro level, WW2 victimization can depend on broad geopolitical trends or changes in state policy. Hannah Arendt, for instance, emphasized the "stateless" condition as one of the main predictors of the comprehensive extermination of Jewish national groups.⁷ 'Stateless' Spanish Mauthausen prisoners shared the fate of other groups in that situation, especially many European Jews, who were quickly deported and murdered at the camps.⁸

In addition, broad ideological and cultural constructs like Fascism, Communism or Anti-Semitism are stressed as key determinants of the fate of prisoners. Spanish prisoners were a special group in their condition of past anti-Fascist militants who had fled Spain after being defeated in the civil war. Their condition of *Red* Spaniards explains the murderous eradication of Spanish prisoners by a Fascist totalitarian regime. In addition, political militancy also determined the collective reaction of Spaniards to the brutal treatment they received from the German state. Many prisoners shared strong links of past political militancy and military experience in the Republican Army, suggesting the importance of ideology, political networks, and pre-existing institutions in survival.⁹ These networks could be maintained because the bulk of Spanish prisoners were sent to the same camp – Mauthausen – and were overwhelmingly lodged in the same barracks.¹⁰ One of the leading experts of Spaniards' deportation experience, historian David Pike, wrote that "a non-Spanish witness, Michel de Boüard, has said of the Spanish collective that it alone, up until 1943, had the character of a solid organization on which communists joined with anarchists, socialists and republicans."¹¹ Given Spanish prisoners' past as Leftist militants and, in many cases, fighters in the civil war, Spanish support and resistance networks were highly functional, even despite the extreme hardship suffered by these men.¹² According to one testimony, "every prisoner convoy reaching the camp had a directorate of members of the Spanish Communist Party (PCE) or the Unified Socialist Party of Catalonia (PSUC)."¹³ Moreover their condition of

Anti-Fascist militants prevented any collaboration with the Nazi authorities. The historical evidence points at few instances of open collaboration with Nazi captors, but there were some.¹⁴ Non-collaboration was manifest at the very end of their stay at the camp, in a dangerous episode in which the Spanish group was offered to join the Germans in fighting the Soviet Army but Spanish prisoners collectively decided to refuse the offer.¹⁵ Despite their evident non-collaboration, Spaniards were spared the very high mortality levels of other prisoner groups as the liberation of the camp was approaching.¹⁶

However, any narrative about Spaniards' agency and capacity to organize needs to be confronted with Spaniards' brutal mortality rates, probably the highest for national groups other than Jewish prisoner populations. According to the Mauthausen memorial, the mortality rate of the 185,000 Mauthausen inmates was around 50 per cent, while Spaniards had a mortality rate of 66 per cent.¹⁷ Dutch prisoners are the only national group with a higher death rate, with 76 per cent of its 1,780 inmates being murdered at Mauthausen, mostly Jews.¹⁸ National group comparisons also mask differences in the timing of the lethal violence. Spanish prisoners display the highest mortality rate in 1940-42. After 1942, mortality rates of survivors improved. The mortality rate of Spanish prisoners entering the camp in 1940-41 and surviving until the 31st December 1942 was 15 per cent for 1943. It was around 10 per cent in 1944 for those having survived until 31st December 1943. Survival chances improved after 1943, but for other National groups they were equally bad or worse after 1943. For example, stateless Italians captured by the German army after the collapse of Fascist Italy in July 1943, generally soldiers, experienced very high mortality rates, close to 60 per cent. Prisoners from the Soviet Union, most probably captured soldiers, displayed mortality rates of around 50 per cent. Czech nationals, including early political arrivals from October 1941 onwards and, in 1944 and 1945, mostly Jews from Auschwitz, had mortality rates close to the Spaniards (63 per cent).

In contrast to these structural-macro and intermediate factors, oral histories and Mauthausen survivor biographies have focused on individual and collective agency in the

extremely limited room given by the German extermination machinery.¹⁹ The survivor literature has generally stressed “coping” strategies and underground activities by prisoners placed in key positions at the camp (the so-called *Prominenten*), in most cases by supplying food and giving protected jobs to some of their friends or comrades.²⁰ Friendships occupy a prominent role in the survivor literature. “Amat and I, we were inseparable” said one prisoner.²¹ Prisoner ties must have been particularly strong in the various cases of fathers and sons deported in August 1940 in the so-called *Angoulême* convoy, one of the first recorded cases of mass transportation of civilians to German concentration camps.²²

Death, terror, disease, and physical exhaustion must have decimated the operation of networks and other social relationships.²³ However, there is abundant evidence in the survivor biographies and the oral histories that some solidarity networks persisted. In the survivor narratives, access to sheltered jobs within the main camp and in *kommandos* outside the main camp is the most common explanation of prisoner survival. In this paper, we approach these micro aspects of survival at the camp by arguing that structural characteristics of individuals – especially their social class – were an important predictor of (the low) survival probabilities of Spanish prisoners at Mauthausen.

We surmise that survival was linked to individual characteristics, including occupations and social class. Our hypothesis does not exclude the role of networks in survival. In fact, we argue that one mechanism through which social class determined survival involved the participation in networks controlling access to sheltered jobs, extra food, and better lodging. Unfortunately, networks are non-observable in our data, preventing us to analyze which networks mattered for survival.

In this paper, we leverage on the high-quality data on Spanish prisoners in Mauthausen to assess whether the social class –but also the age, marital status and religious self-identification – of Spanish prisoners determined their survival at the camp. Our analysis can examine the personal influence of social class because it combines

individual records on the duration and outcome of imprisonment with individual records of the *Schutzstaffel* (SS) on pre-war characteristics of deportees. The case of Spanish prisoners provides an excellent case to test the link between class and death in the camp, because, as a contingent mainly composed by civilians and compared for example to other national groups that were , it displayed substantial variation in ages, place of birth, and especially social class and pre-war professions. Through this analysis, we ultimately contribute to the literature on the individual socio-economic determinants of survival in contexts of indiscriminate, mass violence.

2 Spanish prisoner records at Mauthausen

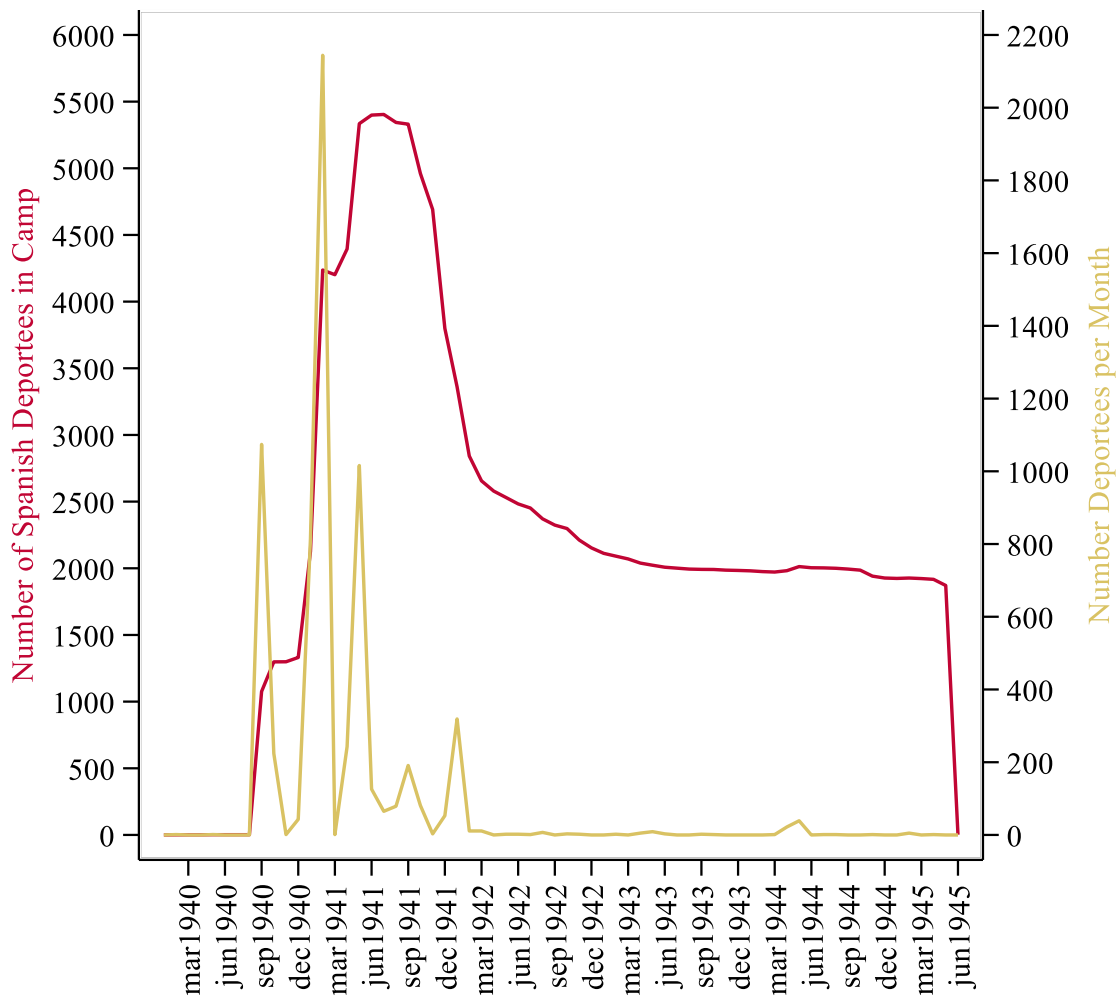
Extensive and detailed information on Spanish prisoners at Mauthausen has passed to current generations thanks to the bravery and cunning of a few Spanish prisoners who held central administrative jobs at the camp. German guards delegated to Casimir Climent, Josep Bailina and Joan de Diego the maintenance of the registry of Spanish prisoners. Their careful work and their ability to keep copies of Spanish prisoner lists and files away from the German camp administrators led to the high-quality information we now have about almost all the universe of Spanish prisoners held at Mauthausen at any point in time during the existence of the camp. Immediately after the liberation, Bailina and other prisoners conducted a thorough compilation of the surviving documents regarding Spanish prisoners. In Bailina's view, this material helps reconstructing "more than 85 per cent of what happened [to Spanish prisoners] in the Mauthausen camp."²⁴ Based on this material and available publications, historians Benito Bermejo and Sandra Checa compiled the *Libro Memorial. Españoles deportados a los campos nazis (1940-1945)* [Memorial Book. Spaniards Deported to Nazi Camps (1940 -1945)] that provides the primary data for this research project.²⁵ The full content of this book was later made available on-line by Spain's Ministry of Culture and Sport.²⁶

To construct our database, we first copied the data for all the cases of deportees included in the Ministry of Culture website. This source provided the full name, date of

birth, date of birth (DoB), municipality of birth, province, *Stalag* or prison in which the prisoner spent time before the deportation to Mauthausen, deportation date, prisoner number, final destination, final outcome – i.e. liberation or death. Given that most Spanish prisoners were held in the Mauthausen camp complex and that information from that camp is especially high-quality, we restrict our analysis to prisoners in Mauthausen. This initial database already provides the deportation date, outcome date, and final outcome (death or liberation) that are essential to conduct our survival analysis. It also provides the date of birth and province of origin that we use to predict the outcome. According to Andreas Kranebitter, there were 7,249 registered Spanish prisoners at Mauthausen.²⁷ Benito Bermejo and Sandra Checa provide individual information on 6,660 inmates, a 92 per cent of the registered prisoners – a value higher than Bailina’s estimate that the preserved prisoner records cover about 85 per cent “of what had happened in the Mauthausen camp”). Moreover, there is no evidence that the preserved records have survivor bias. In fact, the death rate of the preserved records is slightly above the mortality rate calculated for the whole group of Spanish prisoners held at Mauthausen (with and without surviving individual records).

Using the lists of prisoners by Bermejo and Checa (2006), we use the date of arrival of each prisoner and his exit day -dead or alive- to reconstruct the total inflows and total prisoner numbers at each point in time. In Figure 1, we display the flow of entrants into Mauthausen. The Spanish population held at the camp rose in three waves, as prisoners in German detention camps were sent to Mauthausen. The first wave took place in July-August 1940, a second one around January 1941 and the third one around June 1941. At some point, there was a maximum of almost 5,500 alive Spanish prisoners in Mauthausen.

Figure 1. Total Number of Spanish Deportees and Monthly New Arrivals, 1940-1945



Around November-December 1941, the Spanish population at the camp declined by almost 3,000 prisoners, despite new convoys of Spanish prisoners reaching the camp in the last months of 1941. This is the period with the largest, systematic extermination of Spanish prisoners. Of the 5,331 Spaniards still in the camp on September 1 1941, 59.4 per cent had died by March 31 1942. The prisoner population kept declining throughout 1942 to stabilize around 2,000 Spanish prisoners until the liberation of the camp. There were only small new contingents of prisoners in 1943, 1944 and 1945, generally *Nacht und Nebel* prisoners who had participated in resistance activities against the German army.

Using the individual records, we can calculate time of entry to the camp by social class and the age distribution of different social classes. Table 1 displays the per cent distribution of year of entry by social class. Class is clearly related to entry in Mauthausen: elite and lower middle-class prisoners commonly arrived to Mauthausen earlier than unskilled manual and agricultural workers. More than 42 per cent and between 27 and 32 of elite and lower middle-class and unskilled workers entered the camp already in 1940, respectively. In regard to the age, differences between social classes prove smaller than regarding year of entry in the camp. In fact, age does not display a clear linear association with social class (Table 2).

Table 1. Year of Entry in Mauthausen by Social Class (vertical percentages)

Year of entry	Elite & lower middle-class	Self-employed	Skilled workers	Unskilled manual workers	Unskilled agric. Workers	Total
1940	42.19	35.76	32.45	31.68	27.08	32.29
1941	55.27	63.93	64.86	67.15	71.5	65.96
1942	0.42	0	0.7	0.49	1.14	0.61
1943	1.69	0.1	0.56	0	0	0.32
1944	0.42	0.2	1.22	0.58	0.28	0.71
1945	0	0	0.22	0.1	0	0.11
Total	100	100	100	100	100	100

Pearson $\chi^2(20) = 88.0727$ Pr = 0.000

Table 2. Age of Entry of Prisoners in Mauthausen by Social Class (vertical percentages)

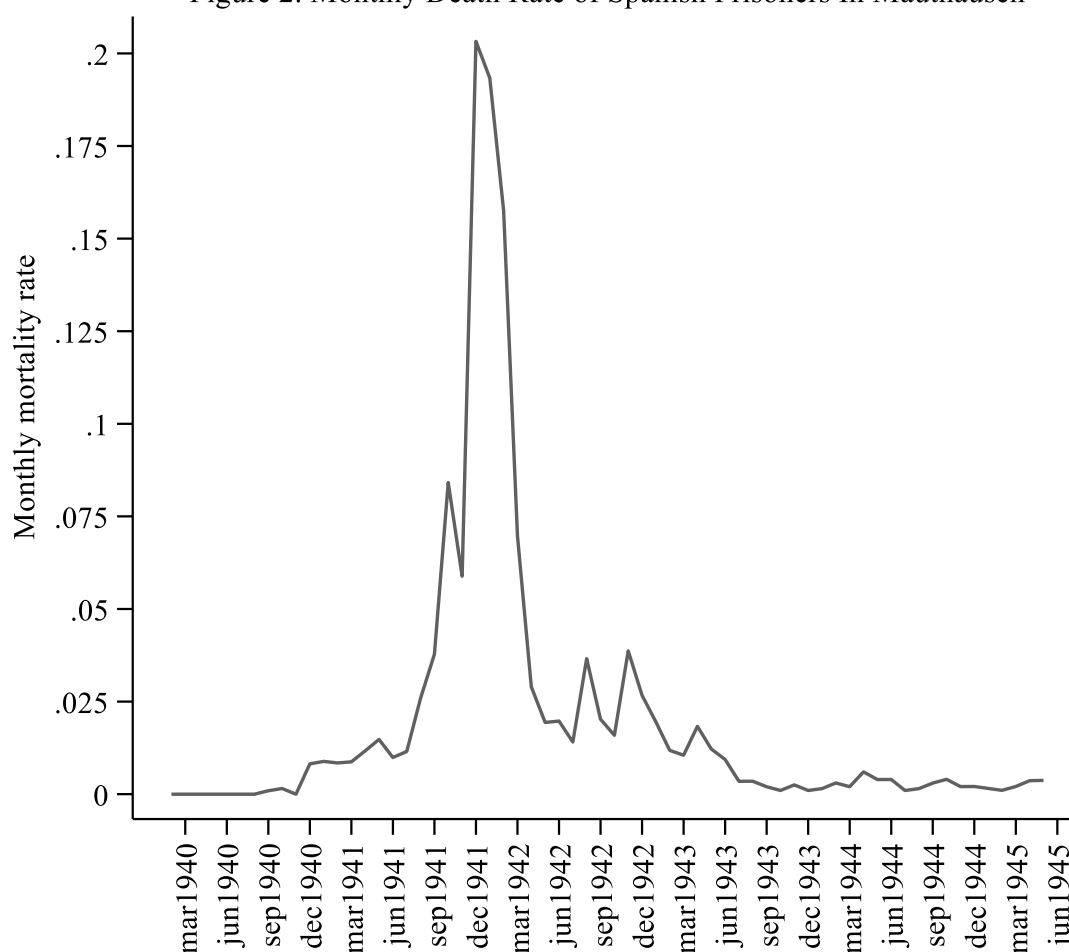
Age of entry	Elite & lower middle-class	Self-employed	Skilled workers	Unskilled manual workers	Unskilled agric. workers	Total
14-24	16.36	26.06	21.41	18.9	18.39	20.99
25-34	50.45	47.76	50.82	50.54	51.2	50.29
35-44	21.82	19.91	22.09	23.76	24.14	22.38
45-74	11.36	6.26	5.68	6.8	6.27	6.34
Total	100	100	100	100	100	100

Pearson $\chi^2(12) = 34.9820$ Pr = 0.000

Individual records also allow us to calculate the monthly mortality rate for Spanish prisoners. We define the mortality rate as the number of deaths in each month divided by the Spanish prisoner population on the first day of the month. In Figure 2, we show how the mortality rates were high in the period going from June 1941 to June 1943, with a peak in November-December 1941 and January-February 1942 (precisely the

period in which the Spanish prisoner population lost 3,000 inmates). In this period, close to 20 percent of the Spanish prisoner population died each month. The mortality rate for 1940 are however lower than the aggregate mortality rates of Mauthausen, which have been estimated at 24 per cent in 1939 and 76 per cent in 1940.²⁸ By mid 1943, the mortality rate of Spaniards fell substantially, as SS extermination strategies switched to other prisoner groups (for example, Russian or Italian prisoners).²⁹ Spaniards were also spared the mass murdering of the prisoners in the spring of 1945.

Figure 2. Monthly Death Rate of Spanish Prisoners In Mauthausen



Note: Cases still in the camp after 5/5/1945 excluded as probable errors

When we divide cohorts by year of entry, we can see there was a break in the murderous intensity of the camp, in line with decisions taken in September 1942 to reduce the mortality rates of some groups of prisoners and the use of prisoners for arms production.³⁰ Table 3 displays the mortality rates per year of entry into the camp and

also the mortality rates at different stages conditional on having survived until 1943 and 1944. Prisoners entering the camp in years 1940, 1941, and 1942 experienced mortality rates above 65 per cent. For the cohort entering the camp in 1940, the death rate is a staggering 77 per cent. Although the contingents of new deportees were much smaller after 1942, mortality rates fell to almost 10 per cent for the cohorts of Spanish prisoners entering the camp in 1943, 1944 and 1945. For survivors of the 1940, 1941 and 1942 entry cohorts, survival probabilities were from 1943 onwards much higher. For example, conditional on having survived until the 1st of January of 1943, the mortality rates of the 582 survivors of the 1940 cohort in the years 1943-1945 as 15 per cent. The same applies to the 1941 cohort. It is true that the 1942 cohort had high mortality rates but it is a very small cohort. Descriptive statistics of mortality rates by nationality calculated by Andreas Kranebitter show that the peaks of mortality rates differed among German, Poles, Spaniards and Russians.³¹

Table 3. Conditional mortality rates for cohorts of prisoners defined by year of entry

Year	Cohort size	Death rate
1940	2,158	0.771
1941	4,388	0.697
1942	36	0.667
1943	24	0.083
1944	69	0.116
1945	102	0.118
Year	Survived until 1943	Death rate, 1943-45
1940	582	0.15
1941	1,556	0.145
1942	24	0.5
Year	Survived until 1944	Death rate, 1944-45
1940	548	0.097
1941	1,446	0.08
1942	18	0.334

Notes: Death rates are authors' elaboration using the Bermejo-Checa (2006) list of prisoners. Number of survivors until 1943 calculated as the number of survivors on the 31st December 1942. Number of survivors until 1944 calculated as the number of survivors on the 31st December 1943.

Having established the broad patterns of the evolution of the Spanish prisoner population at the camp, we complement our dataset with information extracted from

the Arolsen Archives.³² This archive allows citizens and researchers to examine copies of original documents from the camp – registry office card, prisoner registration card, death certificate and labor assignment card among others – that include highly relevant additional information. From this second source, we obtain data on the three dimensions that we use in our survival analysis: the occupation, the religion and marital status of the prisoner. Unfortunately, none of these two sources specifies the level of education of prisoners. Alternative sources of information that could potentially have this information – e.g. Spain’s 1931 Population Census – have not been digitized. Since less than 1 percent of all deportees to Mauthausen were women, the gender of prisoners is not considered in the analysis. The occupation, religion, and marital status were copied verbatim. Due to the limited cases of non-religious individuals or Protestants, we only distinguish between Catholics and others. Similarly, due to the limited number of widowed prisoners, we only distinguish between single and ‘other’ status.

To classify occupations into social classes, we first assigned the historical international classifications of occupations (HISCO) following the classification of the International Institute of Social History to all 317 occupations recorded for Spanish deportees. There were no instances of deportees having an “unemployed” category assigned. Based on the HISCOs, we classified all cases into social classes using the HISCLASS scheme designed by Marco H. van Leeuwen and Ineke Maas.³³ One important complication in the process of assigning HISCLASS values involves the categorization of “unskilled workers”. Van Leeuwen and Maas suggest classifying them in the “unskilled farm worker” class or “the unskilled non-agricultural worker” class, depending on the salience of agriculture in the region. In line with this approach, the database of Spanish deportees includes *Arbeiter* -unskilled worker- and also a substantial number of *Landarbeiter* -rural laborers, typically also unskilled. Hence, we infer that the latter cases belong the “unskilled farm worker” class and the former constitute the “unskilled non-farm worker” class.

The HISCLASS scheme identifies 12 classes. However, due to the small number of cases in several classes (e.g. 'higher managers' and 'elite'), we collapse several groups. Our final typology identifies five classes: *elite & lower middle class, self-employed and farmers, skilled workers, unskilled workers and unskilled farm workers*. The most common occupation among these classes were: working proprietor (wholesale or retail trade) (*elite & lower middle class*), farmer (*self-employed and farmers*), bricklayer (*skilled workers*), *Arbeiter* or worker (*unskilled workers*) and rural laborer (*unskilled farm workers*).

Readers may wonder whether prisoners reported their real previous occupations before entering the camp. A case can be made that prisoners quickly learned which skills were in greater demand and offered greater probabilities of survival. Many survivor memoirs note that prisoners lied about their occupation to enter a highly valued, protected job. It seems from this evidence that it was typically the case that more veteran prisoners told new arrivals to refer to occupations in high demand at the camp like stonemason or blacksmith.

However, because there is an obvious survivor bias in the oral histories and survivor memoirs, we believe that lying about one's occupation was far from a general strategy. Probably, being caught in the deception meant not being able to perform at the job and risking torture or death. Moreover, it is not at all clear that prisoners had all the relevant information when entering the camp. For example, Marc Buggeln contends: "For many years, it was assumed that the entries in prisoner files could not be trusted with regard to occupational information. Now, however, there are increasing indications that the prisoners did not realize that indicating a skilled profession could have been beneficial for them."³⁴ In the case of the Neuengamme camp analyzed by Marc Buggeln, apparently only 9.2 per cent of prisoners declared an occupation in the SS prisoner cards (at the *SS Wirtschafts-Verwaltungshauptamt* (WVHA), the SS Economics and Administration department). Yet, the death registry of the Neuengamme camp displays a much more detailed and comprehensive record of professions. This suggests that at

some point in their imprisonment, prisoners had their professions carefully documented by German authorities.³⁵

For Spanish prisoners, using the files preserved at the Arolsen archives, we could find the occupations of slightly more than 5,800 prisoners. The missing cases in some cases depend on lack of match between the name in the Bermejo-Checa database, a few because no occupation was recorded. Of the matched cases, around 60 per cent of prisoners declared occupations that did not clearly increase the prisoner's survival chances. About 20 per cent were agricultural laborers, 18 per cent were unskilled laborers or workers, more than 60 per cent were reported as self-employed before the war or in jobs in services. A tiny minority were doctors, lab technicians, veterinary doctors, teachers or clerks. The large share of occupations that did not guarantee survival leads us to think that the recorded occupations of Spanish prisoners are quite accurate.

Survivor biographies and oral histories allow us to crosscheck individual information. There are some very telling examples. A prisoner from Vinaroz (born in 1919), who was a seaman before the civil war, recounts how he was helped by a friend of his, a more veteran prisoner from the same town. Upon entering the camp, his friend told him that when asked about his occupation "you should not say that you are a seaman because the only sea there is in here is the Danube. Instead, you should say that you are stonemason" Apparently, the recent prisoner told the camp authorities when asked about his trade that he was a good mason, in his words: "*Steinmetz, Steinmetz, gut, gut.*"³⁶ Yet, when we checked this prisoner's Mauthausen record at the Arolsen archives, he appears as a *Matrose* or seaman, not as a stonemason. Another curious and related case is that of the prisoner memorialized by journalist and writer Manuel Legineche. According to his biographer, this prisoner's family worked the land, but this prisoner was about to join the ship "Ciudad de Cádiz" as a cabin boy some months before the start of the civil War in July 1936, when he was conscripted.³⁷ In the Arolsen records, this prisoner was classified as a seaman.

We have performed this cross-examination with several other prisoners for whom we know their pre-war occupation. Josep Cabrero Arnal, who was murdered at the camp hospital with a lethal injection, was a cartoonist before the war. In the camp records, he appears as a *Zeichner* or illustrator. Writer Joaquim Amat-Piniella, the author of a semi-autobiographical novel on the experiences of the Spanish group in Mauthausen, is categorized as a *Lehrer* or teacher, hardly an occupation guaranteeing survival. The charismatic *kapo* César Orquín was classified as a *Student*: born in 1917, he probably had not finished his university degree when the civil war erupted in 1936.³⁸ Joan de Diego, who was a secretary at the camp and one of the prisoners involved in hiding and preserving the Mauthausen prisoner records, was an office clerk before the civil war and an *Angestellter* or clerk according to his individual Mauthausen card.³⁹ Jesús Dalmau was a clerk at the Pirelli company before the war and appears as an *Angestellter* or clerk in his prisoner files.⁴⁰ Three key Spanish prisoners became involved in the identification rooms of the camp as photographers (and saved thousands of photographic negatives which provided critical identification of German war criminals in the Nuremberg trials). The best known one, Francesc Boix (Barcelona, 1920), a member of the Catalan Communist youth movement with brothers Joaquín and Gregorio López Raimundo (the first also a Mauthausen survivor), he participated in the Nuremberg trials and provided a critical identification of Ernst Kaltenbrunner, a Gestapo chief sentenced to death. Boix appears in the Arolsen archive as an “*Arbeiter*”. However, he had not yet turned 16 when the civil war started. He was an amateur photographer, although he had apparently published some pictures during the war in magazines of Communist youth groups. The other two photographers in the identification room of the camp (*Erkennungsdienst*), José Cereceda (Madrid, 1913) and Antonio García Alonso (Tortosa, 1913), can be more clearly certified as professional photographers before the war and they show up in their individual cards as *Fotograf*.⁴¹

We have identified two prisoners who we are sure were rural laborers before the civil war. They both appear as *Landwirt* and *Landarbeiter* in their respective

Mauthausen cards.⁴² In a compilation of oral testimonies, a survivor explained in an interview with a historian how he came to regret at the camp the fact that he did not have a proper trade. When cross checked with the Arolsen cards, this survivor shows up as an unskilled *Arbeiter*.⁴³

In addition, we have also identified prisoners in secure jobs whose skills were acquired before entering the camp. One prisoner was a carpenter before Spain's civil war and shows up as a *Zimmerman* or carpenter in his individual card in the Arolsen records.⁴⁴ Another prisoner was an electrician before 1936 and was registered as an *Elektriker* in his individual Mauthausen card. A prisoner worked as a blacksmith before the civil war and he appears as a *Schmied* in his Arolsen records.⁴⁵ Becoming one of the prisoners minding *Kommander Zeireis'* pigsty, in fact along with his father, Julio Casabona (born in 1919) was a Veterinary student before the war and shows up as a *Tierärztl. Student* in his Mauthausen individual card, which is probably *Tierärztliche Student* or Veterinary student in his Mauthausen card.⁴⁶

3 The role of social class

In line with the literature on socio-economic determinants of survival, the main hypothesis of the paper posits that survival depends on social class, measured by previous occupation. Spanish prisoners who were members of the upper classes display lower risks of death than members of the lower classes. We consider several mechanisms through which social class might have affected survival probabilities.

One main channel is that camps and satellite work groups adopted a very rigid social structure, following in many cases the SS classification hierarchies. According to Buggeln (2014), these classifications followed Nazi racial doctrines, the national origins of prisoners, and other criteria singling out political opponents or social groups deemed undesirable.⁴⁷ The social structure of the camp also applied within national or ethnic groups, with a class of prominent prisoners (*prominenten*), generally *kapos* and privileged workers, and the mass of low-status prisoners (*Speckjäger* in German,

espehegas in the Spanish prisoners lingo).⁴⁸ Survival probabilities varied dramatically between one group and the other, with prominent prisoners having access to more generous food rations, better shelter and clothing and being more protected from arbitrary SS or *kapo* violence.

Therefore, access to the shielded group of prominent prisoners or being protected by *Prominenten* prisoners became a crucial determinant of survival. The most famous case in the Spanish experience relates to the external *kommandos* led by César Orquín, first in Vöcklabruch, later in Ternberg, and finally in Schlier. 460 Spanish prisoners employed in the Vöcklabruch *kommando* were spared the terrible fate of their comrades during the period of highest lethality in 1941.⁴⁹ There were other cases of typically shielded *kommandos*: the registry of prisoner belongings, the kitchen (giving access to vital food) or camp commander Zereis' pigsty (which saved Julio Casabona and his two sons).⁵⁰ Writer Amat-Piniella was saved from death by his friend cartoonist Josep Arnal, who enjoyed a *Prominenten* position in the room classifying prisoner belongings.

Access to *prominenten* status must have depended on a variety of factors. Firstly, certain types of skills might have been in high demand in the context of a labor-scarce war economy.⁵¹ The SS owned the German Earth and Stone Works company which supplied building construction materials to the German state using Mauthausen prisoner labor. Later on, production shifted to arms production, especially the production of aircraft fuselages, weapons (typically carbines) and machine guns. If shortages of skilled laborers were to determine which prisoners were spared, we would expect prisoners having construction and industrial skills to have a higher chance of survival than prisoners in the unskilled and farm classes. From this perspective, prisoners with middle- and upper-class status employed in skilled occupations - like teachers for example - might not have higher survival rates than unskilled workers.

A second version of the skill-scarcity hypothesis is that other types of highly specific skills mattered at the camp. This was the case for some occupations in the service sector, like administrative jobs, jobs in the entertainment sector -singers, musicians-, or

personal service jobs like barbers or hairdressers, for which apparently there was some demand in the camp among the SS commanders and their families.⁵² This was for example of Manuel Carmona (Jódar, 1899) or Joan Pagès Moret (Palamós, 1917), both categorized as *Friseur*. Carmona became one of the personal barbers of camp commander Ziereis, which meant he was for sure a highly skilled barber. Biographical information on Joan Pagès also shows he was a barber before the war, also president of the Barber's union of the socialist General Workers' Union, and one of the founders of the Catalan Communist Party (PSUC).⁵³ One case is Ramon Verge Armengol (Barcelona, 1915), who was employed at the *Revier* (camp hospital), where lethal injections were delivered to sick prisoners. In his Arolsen card, he appears as a *Laborant* or lab technician.⁵⁴ Another well know case is the above mentioned Casabona family, a father and his two sons, who, because they were veterinarians, were employed in the pigsty of the SS commander of the camp.⁵⁵

In addition, social class and occupation could as well have mattered due to the soft skills correlated with these dimensions. A typical case is German-speaking abilities, considered to be a vital advantage at the camp.⁵⁶ Two of the most prominent Spanish prisoners at the camp, both survivors, Joan de Diego and César Orquín, quickly learned German.⁵⁷ In addition, these two men were more educated than the average Spanish prisoner. Orquín had a university degree and had musical studies.⁵⁸ Joan de Diego had attended an experimental Montessori school in Barcelona, became an apprentice at a pharmacy, and at 16 or 17 years old got a job as a clerk at a business association in Barcelona.⁵⁹ Another prominent prisoner, Francesc Boix, who was a high school student in central Barcelona before the war, also learned to speak German fluently.⁶⁰ In line with this anecdotal evidence, contemporary sociological research shows that upper class individuals are more prone to learn new languages.⁶¹

Finally, social class could also have been correlated with the creation or more intensive participation in support networks among prisoners. In the literature on the Spaniards' experiences at the camp, the most established story is the existence of a

Communist resistance network since the Summer of 1941.⁶² There were others connected to rival political traditions like the anarchists.⁶³ Other networks included prisoners that fought in the same Republican army unit, coming from the same town, or previous friendships.⁶⁴ Participation in these networks might have been more typical of urban workers from larger cities. Moreover, skilled workers in industry or services were probably more active in political or union-related networks. For these reasons, we hypothesize that social class provided survival advantages. This advantage was not only circumscribed to skilled industrial and construction workers, but also to workers in service jobs or highly skilled professions.

In addition, although the prisoner's social class is our main explanatory variable, we consider several other variables related to individual characteristics. The most important one is date of birth, which determines the age of the prisoner. We predict a large effect of age on the survival rate. Firstly, SS doctors selected heavily on the basis of age when selecting prisoners considered to be unfit to work. Secondly, older prisoners might have had greater difficulties in staying alive in the brutal conditions of the camp (freezing cold, caloric intake close to starvation levels and long hours doing exhausting work). However, it is not clear what the precise shape of the age-mortality gradient should be in this extremely challenging environment. The literature studying famines argues that famines affect mortality levels but not necessarily the slope of the age-mortality relationship.⁶⁵

4 Methods

This study seeks to determine the conditions that affected the risk of a specific event: death in the camp. Our analytical strategy therefore involves estimating event history models. These models identify changes in the hazard rate or the probability that an event will occur in a particular interval if it did not occur in the previous interval. Since in this case the event of interest is death during imprisonment, the models reveal the determinants of the timing until the potential passing of the prisoner. Conversely, the

survival rate represents the probability of remaining alive during a given period after the onset of the risk – in this case, the arrival at the camp. Among all forms of event history models we estimate Cox models. Other models for dichotomous outcomes – e.g. logistic or probit regression – require researchers to parametrize the shape of the baseline hazard to avoid biases in the effect of independent variables of interest. Since Cox models do not require to identify this baseline hazard beforehand, it avoids this form of bias altogether. All models are estimated with Efron’s method for simultaneous events, which produces the most accurate approximation of the conditional probability.⁶⁶ Regarding the time structure of the data, we set the date of entry in the camp as the onset of the risk and the date of death or liberation as the end of the risk.

Several independent variables have substantial proportions of missing values. This is particularly the case for the variables Catholic - 40.4 per cent - and Single - 25.8 per cent - of prisoners. Since this missing information is likely not at random, we have imputed missing values for all independent variables using multiple imputation - ten sets of imputations. Missing values for the dependent variables have been imputed as well in the chained process, but only cases with complete information on the dependent variables were included in the final analyses. We address the issue of perfect prediction in categorical variables through the ‘augment’ option in Stata.⁶⁷ Table 4 shows basic descriptive statistics of all independent variables used in the analysis with and without imputed missing values.

Table 4. Descriptive Statistics of all Variables with and Without Imputation

Variable	N	Mean	sd	min	max
Without imputation					
Duration	6,459	673.002	552.041	5	1925
Outcome - death	6,660	0.692	0.462	0	1
Age 14-24	5,920	0.223			
Age 25-34	5,920	0.496			
Age 35-44	5,920	0.220			
Age 45-74	5,920	0.060			
Elite & lower-middle class	5,815	0.042			
Self-employed and farmers	5,815	0.175			
Skilled workers	5,815	0.411			
Unskilled workers	5,815	0.183			
Unskilled farm workers	5,815	0.188			
Single	4,940	0.599	0.490	0	1
Catholic	3,969	0.887	0.316	0	1
Province	6,718	23.856	14.679	1	52
Year of entry	6,567	0.000	.615	-.725	4.274
With imputation					
Duration	6,459	673.002	552.041	5	1925
Outcome - death	6,459	0.705	0.456	0	1
Age 14-24	6,459	0.224			
Age 25-34	6,459	0.496			
Age 35-44	6,459	0.219			
Age 45-74	6,459	0.060			
Elite & lower-middle class	6,459	0.043			
Self-employed and farmers	6,459	0.174			
Skilled workers	6,459	0.412			
Unskilled workers	6,459	0.183			
Unskilled farm workers	6,459	0.188			
Single	6,459	0.619	0.486	0	1
Catholic	6,459	0.887	0.316	0	1
Province	6,459	23.862	14.689	1	52
Year of entry	6,459	-0.011	0.595	-0.726	4.274

Note: Rather than providing the mean, standard deviation and minimum and maximum value of the categorical variables age and social class, we present the proportion of each category. The N of the cases with imputation (6,459) is slightly larger than the N in Table 5 (6,454) because Models in Table 5 were estimated excluding cases with the imputed dependent variable

5 Results

The empirical analysis is conducted in two steps that seek to reflect the evolution of prisoners during and after the camp. First, we address the socio-demographic profile of the deportees. Second, we examine on the socio-demographic determinants of survival, which absorbs most of our attention.

What was the socio-demographic profile of Spanish deportees to Mauthausen? Table 4 provides critical evidence in this regard. Spanish prisoners were more likely young rather than middle- or old-age, single rather than married or widowed, Catholic rather than atheist or Protestant, from the north east or south of the country rather than other regions and skilled workers rather than unskilled or high-skilled workers. The modal age group was 25-34. As many as 88.73 per cent self-identified as Catholic and 60 per cent were single when they became imprisoned. Skilled workers clearly predominated - 41.1 per cent -, followed by unskilled farm workers - 18.80 per cent -, unskilled workers - 18.31 per cent -, self-employed and farmers - 17.5 per cent -, lower middle class and elite and lower-middle class workers - 4.2 per cent. The contingent from the north-eastern regions of Aragon and Catalonia – that share a border with France – represented 34.25 per cent of all cases and is substantially larger than their proportion of these regions over the total Spanish population in the 1930s - 16.08 per cent. The highly-populated region of Andalusia was also over-represented in the camp – 19.95 per cent of all prisoners and 17.27 per cent of the population.

The average duration of the imprisonment was 673 days – equivalent to 1.8 years. The standard deviation of this variable is, moreover, high, indicating that duration of imprisonment differed substantially among Spanish deportees. One in every four remained imprisoned more than three years (Figure 3). The starkest indication of the suffering endured by these men is probably provided by the death rate: in the final sample 69.22 per cent of all Spanish prisoners considered in this

study died while in the camp. As noted above, this death rate is at the high end of death rates among the prisoners in the Mauthausen camp by country of origin.

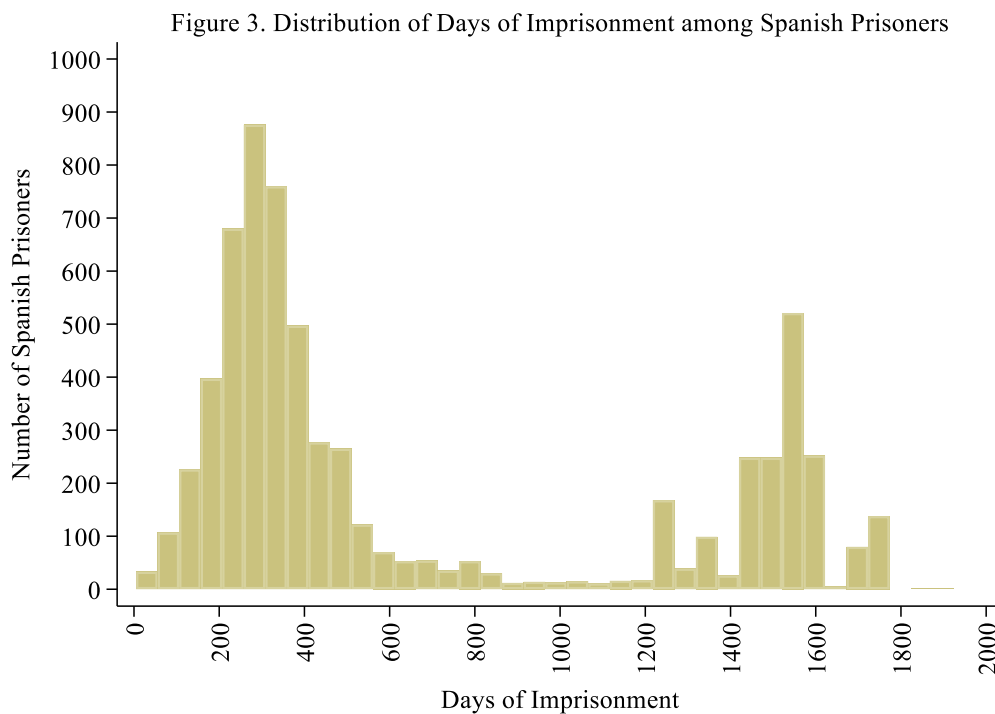
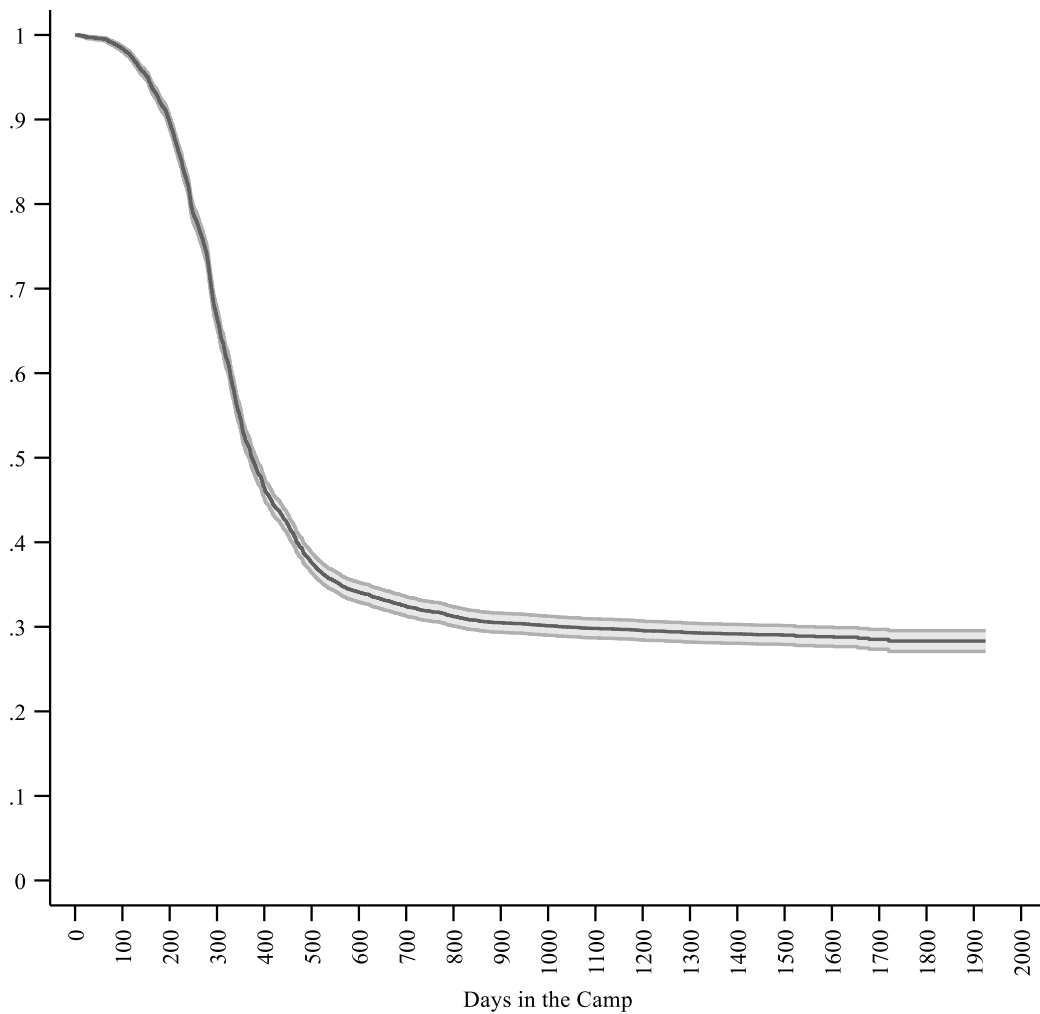


Figure 4 displays the estimated survival rate depending on the duration of the imprisonment, this is, the probability of surviving another period. It indicates that the survival probability fell precipitously in the first 300 days and from then on until 2,000 days maintained a slow decline. Importantly, the fastest decline occurred between day 100 and day 300. In day 100 the survival probability was still .984 but 200 days later it had declined to only .896. From day 400 the probability continued declining although at a lower pace. Between day 400 and day 1925 the probability declined from .465 to .283.

Figure 4. Kaplan-Meier Survival Function by Days in the Camp



After considering the socio-demographic profile of the deportees and their likelihood of survival by time in the camp, we now examine the core question driving this study: Is the probability of survival among Spanish deportees influenced by their socio-demographic characteristics? If violence perpetrated at the camp was only conducted indiscriminately, socio-demographic characteristics should not have an effect. If instead in line with the emerging literature on demographics in violence and conflict, survival depended both on the productive value of prisoners and their ability to minimize the risk of assassination or life-threatening disease, socio-demographic characteristics should affect the risk of death.

In answer, Table 5 includes four Cox nested models with determinants of the

risk of death. Model 1 examines the impact of social class. Since time of entry in the camp proves related to the social class of the prisoner (Table 1), Model 2 adds a control variable for year of entry in the camp. To assess whether the impact of social class on the likelihood of survival increases or decreases significantly by year of entry in the camp, Model 3 includes interaction terms between the social class and year of entry. Model 4 adds variables regarding the age group, marital status and religious self-identification. The last two models also control for the province of origin of the prisoner. Through these nested models we can determine the stability of the results and whether some variables absorb the effect of other dimensions. The results in Table 5 are generally consistent with previous work on the demographics of victimization in violent conflicts because the age, social class and province of origin of the prisoner does shape the hazard rate. The following paragraphs address these aspects.

Table 5. Cox Models Predicting Death at Mauthausen among Spanish Deportees with Multiple Imputation for Missing Cases, 1940-1945

	Model 1	Model 2	Model 3	Model 4
Self-employed and farmers (Ref. group: elite and lower-middle class)	-0.191* (-2.090)	-0.190* (-2.081)	-0.221* (-2.316)	-0.127 (-1.277)
Skilled workers	-0.124 (-1.465)	-0.122 (-1.443)	-0.104 (-1.188)	-0.039 (-0.455)
Unskilled workers	0.295*** (3.449)	0.296*** (3.461)	0.328*** (3.674)	0.380*** (4.273)
Unskilled farm workers	0.609*** (6.879)	0.610*** (6.897)	0.643*** (7.005)	0.697*** (7.517)
Year of entry in the camp		-0.020 (-0.806)	-0.158 (-1.268)	-0.187 (-1.584)
Self-employed and farmers*Year of entry in the camp			-0.248+ (-1.659)	-0.157 (-1.075)
Skilled workers*Year of entry in the camp			0.064 (0.485)	0.101 (0.812)
Unskilled workers*Year of entry in the camp			0.263+ (1.883)	0.292* (2.189)
Unskilled farm workers *Year of entry in the camp			0.370** (2.700)	0.366** (2.779)
Age 25-34 (Ref. group: 14-24)				0.469*** (9.827)
Age 35-44				1.077*** (18.064)
Age 45-74				1.483*** (16.479)
Single (Ref. group: married or widowed)				0.104* (2.100)
Catholic (Ref. group: Protestant or no religion)				0.053 (0.832)
Province FE	No	No	Yes	Yes
N	6455	6455	6455	6455

Model 1 provides a preliminary indication of the association between social class and risk of death in the camp. In this and the following models the reference group is the highest class – elite and lower-middle class – to facilitate interpretation of the results. In line with the hypothesis set in Section 3, Model 1 indicates significant differences in the hazard rate of, on the one hand, elite and middle-lower class and, on the other hand, unskilled non-agricultural and agricultural workers. The later classes display a significantly higher hazard rates than the highest social class. Also, interestingly, self-employed workers have a lower risk of death than elite and middle-lower class members. This

evidence already suggests that the social class of Spanish deportees shaped their life chances and is consistent with the hypothesis of this study.

Since time of entry to the camp varied by social class, the class of origin could be capturing the effect of year of entry in the camp. To assess this, Model 2 adds the control variable year of entry. This latter variable turns non-significant. More importantly, controlling for year of entry the coefficients of social class reported in Model 1 change very modestly: unskilled manufacturing and agricultural workers still display significantly larger risk of death in the camp than the elite and middle-lower class.

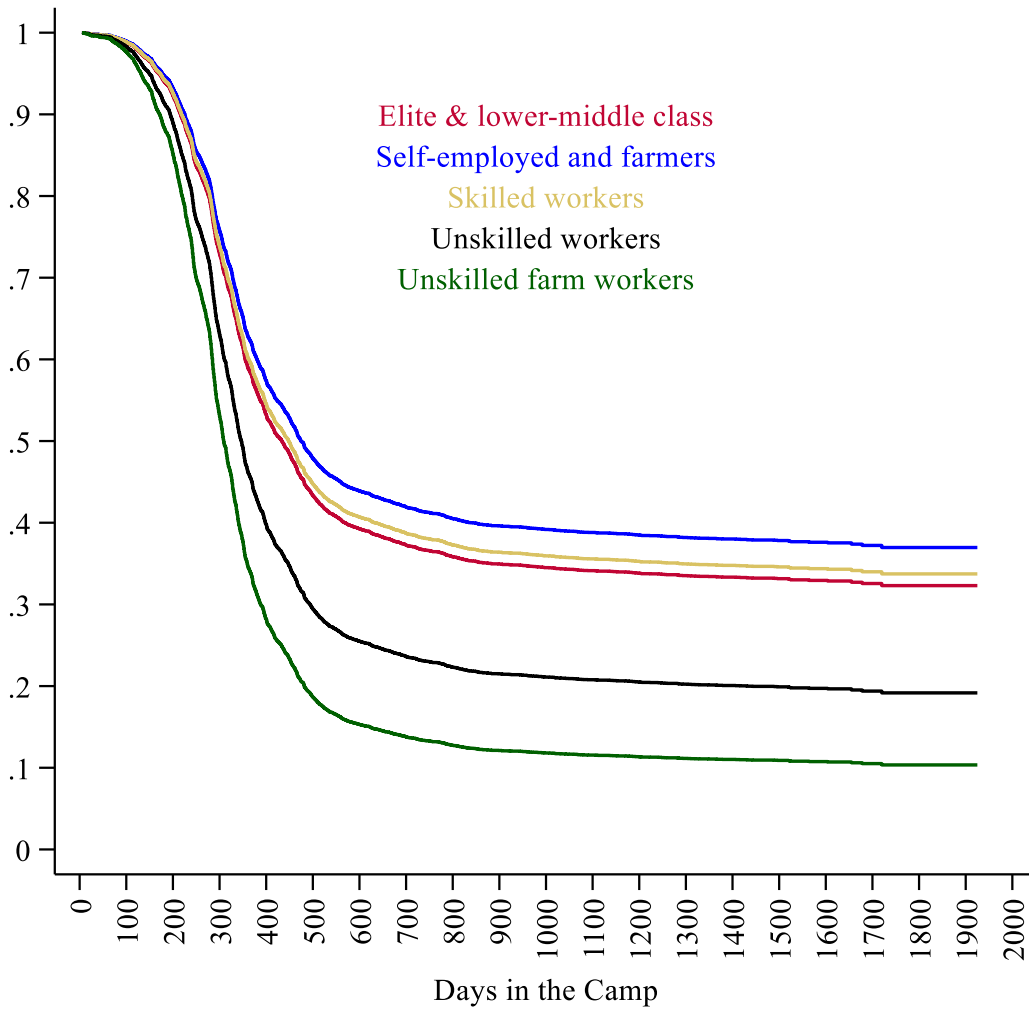
If the class structure differed substantially by province and the middle and upper classes concentrated in certain regions, the class effects found in Model 2 could potentially disappear after controlling for the province of origin. In addition, results from a global proportional-hazard assumption test after Model 2 (available upon request) indicate that the differences in the likelihood of death do not remain parallel during the time spent in the camp. Following Box-Steffensmeier and Jones, we therefore include covariate interactions with time:⁶⁸ model 3 adds interaction terms with the year of entry in the camp. Since the variable *year of entry* has been centered to ease interpretation, the social class dummies indicate the effect of social class at the average year of entry. At the average year of entry, self-employed prisoners remain having a lower hazard than elite and middle-lower class prisoners and unskilled (agricultural and non-agricultural) workers display a significantly higher hazard than elite and middle-lower class prisoners. The interaction terms between unskilled non-agricultural and agricultural workers and year of entry are also positive and significant. This means that the class differential in survival rates was larger for prisoners deported to the camp in 1941 and later than for prisoners deported in 1940. Model 3 in Table 5 does not report the fixed effects coefficients for 51 provinces in part to keep the table compact and in part because most province effects are not significant. Only prisoners from Álava, Asturias, Córdoba, León and Murcia had a significantly

different – and in all cases, higher – risk of dying than prisoners from Barcelona – the reference group and province with the largest contingent.

Model 4 adds variables corresponding to three other socio-demographic factors: the age group, being single and Catholic. According to this model, age has a strong and almost linear impact on the risk of death. The lowest risk was among the youngest age group (prisoners 14-24), followed by prisoners age 25-34, those age 35-44 and 45-74. Another additional factor – religious self-identification –, however, proves unrelated to the risk of death. Independently from the age, social class and the province, Catholic prisoners were not significantly more likely to die in the camp than non-Catholic prisoners. The variable *single* is, moreover, positive and significant in Model 4. Yet this effect is not robust enough, because the variable is non-significant in Models without multiple imputation.

Models 1-4 in Table 5 indicate that the social class of prisoners shapes their mortality rate. However, how substantial is the effect? Based on the results in Model 4, Figure 5 allows us to determine this by depicting the survival rate by social class depending on the length of time spent in the camp. The plot displays noticeable group differences. Importantly, Figure 5 indicates that the largest class gap occurs between three groups: unskilled farm workers, unskilled non-agricultural workers and all other classes – elite, lower middle class and self-employed or farmers. The probability of survival in day 997 was .118, .211 and .391 for unskilled farm workers, unskilled non-agricultural workers and self-employed farmers, respectively. Substantial class differences in the likelihood of survival thus emerge from the data. Unskilled farm workers had the largest risk of death, followed by other unskilled workers and skilled and self-employed workers.

Figure 5. Kaplan-Meier Survival Function by Days in the Camp



The multivariate results discussed so far were obtained with imputed missing values. Since this analytical strategy could affect the findings, Table 6 replicates the Models in Table 5 but without imputed missing values. Despite a substantial decline in the number of cases, especially after including the variables for the age group, marital status and religious self-identification, the same social class variables remain significant and in the same direction than in the Models in Table 5. Without imputing missing information, self-employed farmers have lower hazards of death than elite and lower-middle class prisoners, whereas unskilled workers have a higher hazard of death than elite and lower-middle class prisoners. Moreover, in a Model without imputed missing values, the class gaps in survival likelihood are actually larger for

prisoners deported in 1941 or later than those deported in 1940.

Table 6. Cox Models Predicting Death at Mauthausen among Spanish Deportees without Multiple Imputation for Missing Cases, 1940-1945

	Model 1	Model 2	Model 3	Model 4
Self-employed and farmers (Ref. group: elite and lower-middle class)	-0.187* (-2.091)	-0.185* (-2.063)	-0.222* (-2.350)	0.243* (2.002)
Skilled workers	-0.127 (-1.515)	-0.123 (-1.468)	-0.103 (-1.174)	0.099 (0.891)
Unskilled workers	0.290*** (3.330)	0.291*** (3.346)	0.330*** (3.636)	0.569*** (4.936)
Unskilled farm workers	0.601*** (6.996)	0.604*** (7.021)	0.643*** (7.159)	0.637*** (5.514)
Year of entry in the camp		-0.041 (-1.474)	-0.190 (-1.473)	-0.112 (-0.781)
Self-employed and farmers*Year of entry in the camp			-0.310* (-2.032)	0.201 (1.145)
Skilled workers*Year of entry in the camp			0.065 (0.475)	0.127 (0.840)
Unskilled workers*Year of entry in the camp			0.313* (2.212)	0.346* (2.213)
Unskilled farm workers*Year of entry in the camp			0.415** (2.955)	0.441** (2.771)
Age 25-34 (Ref. group: 14-24)				0.322*** (5.770)
Age 35-44				0.772*** (10.810)
Age 45-74				0.858*** (7.883)
Single (Ref. group: married or widowed)				0.070 (1.459)
Catholic (Ref. group: Protestant or no religion)				0.015 (0.240)
Province FE	No	No	Yes	Yes
N	5611	5611	5611	3281

6 Discussion

The concentration and extermination camps of the Nazi - and Soviet - totalitarian regimes constitute one of the most decisive political events of the twentieth century. The massive size of these machineries combined with the chilling efficiency to administer suffering and death under the ultimate goal of total domination *of men and women* make these camps a radically new institution in human political history with long-lasting consequences. More than 75 years after closure of these camps we

are only beginning to understand the multidimensional, complex webs of beliefs and relations that undergirded these structures. One way to begin scraping at the surface of the logic of these evil organizations involves assessing individual conditions that shaped the chances of prisoners' survival. Seeking to shed partial light into this latter aspect, this paper examines the socio-demographic determinants of Spaniards deported to the Mauthausen camp between 1940 and 1945. The analysis leads to three main findings.

First, among Spanish deportees, mortality displays a substantial age gradient. The younger the prisoner was, the higher the chances of survival. Moreover, the evidence does not suggest a strong discontinuity in survival chances between young and non-young prisoners. By contrast, the decline in survival chances change almost linearly with age. Although this pattern is not fully inconsistent with the intense ageism of Nazi guards and camp administrators documented by the qualitative literature, given Nazi ideology such ageism should have generated a sharper gap in survival changes between young prisoners and all other age groups. Hence the brutal working conditions and awful sanitary conditions in the camp - that should produce a linearly increasing personal toll with age - offer more likely causes of the steep but quasi-linear age gradient.

Second, the main finding of our paper is that prisoners' social class structured mortality patterns. Using Cox models, the prisoner's social class influenced significantly and substantially his likelihood of dying in the camp. Supporting our main hypothesis that the camps were not only status-based organizations - e.g. guards vs prisoners -, but also class-based organizations and the class position affected individual life chances, our evidence indicates that unskilled farmer and non-agricultural workers displayed the highest mortality chances followed in order by skilled workers and all other workers - self-employed, elite and lower-middle class service workers. Several key aspects of the camp social structures help explain this pattern. Skilled manual workers were valuable resources in the labor-scarce war economy and their efforts were

probably rewarded with better rations and living conditions. Highly skilled and service sector workers also had preferential access to administrative jobs with advantageous work conditions. Moreover, service sector workers with formal education were also more likely to have some command of German language or were better able to learn it, which gave them a comparative advantage with respect to other prisoners. This combination of sharp occupational and material inequalities in a context of dehumanized, unempathetic relationships coalesced in a rigid class structure between broadly perceived prominent and pariah workers that must have boosted the perception of dispossession and hopelessness among subordinated groups.

Third, neither the prisoners' marital status nor their religious self-identification had a significant and robust effect on the likelihood of survival. Although demographic research has consistently confirmed the Far-Bertillon law that married people display lower mortality rates than single individuals, our study does not support this pattern for Spaniards in Mauthausen.⁶⁹ Marital status may have not played a role among this latter group because none of them lived in the camp with their spouses, therefore lacking the emotional and material advantages of formal partnerships. Similarly, having a religious self-identification may offer less solace and emotional support than having intense religious beliefs and practices.

Our study has noticeable limitations. The analysis cannot enlighten the critical aspect of the *meaning of death* for these prisoners. Although humans are hard-wired to maximize their chances of survival, extreme, horrid conditions may cancel out this predisposition. As Kranebitter notes, "it cannot be ignored the innumerable indications that death was possibly indeed seen as a relief, a way out and an escape from the reality of the concentration camps, as an end with horror, which was preferred to a horror without an end."⁷⁰ If death can be liberating and life is fully controlled by others, we can only wonder "how many of these dead did not survive even though they tried to? How many did not survive because they did not want to?"⁷¹ Accordingly, we should avoid an inertial, moralistic interpretation of survival as a

success and hold a non-prejudicial gaze of the meaning of death and life in contexts of unspeakable suffering.⁷²

More obviously, data limitations in the original archival sources and potential, alternative sources located in Spain did not allow us consider the role of other socio-demographic characteristics like in-camp personal networks, military background, former political activism or health status upon imprisonment among others. Until data on those aspects is collected, this study advances our understanding on the demography of concentration camps by reporting a social class-gradient in the risk of death: among Spanish prisoners at Mauthausen, belonging to the self-employed, elite and lower middle class of the service and manufacturing sectors substantially increased the chances of survival.

¹ There were Spanish women deported to German concentration camps as well, but not to Mauthausen. The numbers are not accurate because other camps did not record the presence of Spanish prisoners as well as in Mauthausen. According to the existing estimates, between 200 and 500 Spanish women were deported to German concentration camps. Most of these women were sent to the Ravensbrück concentration camp. Montserrat Armengou and Ricard Belis, *Ravensbrück. L'Infern de les Dones* (Barcelona, 2007); Neus Català, *De la Resistencia a la Deportación. 50 Testimonios de Mujeres Españolas* (Barcelona, 1984). The association *Amical de Ravensbrück* has managed to fully identify around a hundred Spanish Ravensbrück deportees. For the rest, records are missing or the Association has not managed to locate the families.

² This was the case of Sachsenhausen, Neuengamme, Buchenwald, Aurigny, Ravensbrück and Dachau. Montserrat Roig, *Els Catalans als Camps Nazis* (Barcelona, 2003), 784-785.

³ Andres Kranebitter, *Zahlen als Zeugen. Soziologische Analysen der Häftlingsgesellschaft des KZ Mauthausen* (Vienna, 2014), 186.

⁴ On Jewish victimization: Matthias Blum and Claudia Rei, "Escaping Europe: Health and Human Capital of Holocaust Refugees," *European Review of Economic History*, XXII (2017), 1-27,

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⁵ On maritime disasters: Bruno S. Frey, David A. Savage and Benno Torgler, "Interaction Natural Survival Instincts and Internalized Social Norms Exploring the Titanic and Lusitania Disasters," *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, CVII (2010), 4862-4865; Bruno S. Frey, David A. Savage and Benno Torgler, "Behavior under Extreme Conditions: the "Titanic" Disaster," *Journal of Economic Perspectives*, XXV (2011), 209-221. On the case of US soldiers interned in Japanese prisoner camps: Clifford G. Holderness and Jeffrey Pontiff, "Hierarchies and the Survival of Prisoners of War during World War II," *Management Science*, LVIII (2012), 1873-1886. On social capital and survival in POWs camps during the US

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⁶ Evgeny Finkel and Scott Strauss, “Macro, Meso, and Micro Research on Genocide: Gains, Shortcomings, and Future Areas of Enquiry,” *Genocide Studies and Prevention: An International Journal*, VII (2012), article 7.

⁷ Hannah Arendt, *Eichmann in Jerusalem. A Report on the Banality of Evil* (New York, 2006), , 164-165, 182.

⁸ On the importance of this prisoner category to understand the Spanish deportation experience: Josep Maria Lloró, “Experiència Incommensurable: Una Lectura de K. L. Reich de Joaquim Amat-Piniella,” 85, in Josep Maria Lloró, *Història, Memòria, Testimoniatge. Un Llegat per a Europa* (Palma de Mallorca, 2011).

⁹ Finkel and Strauss, “Macro, Meso- and Micro,” 59.

¹⁰ Joaquim Amat-Piniella, *KL Reich* (Barcelona, 2007 [1963]), 123, Montserrat Roig, *Catalans*, 229, 231-33, Carlos Hernández de Miguel and Ioannes Ensis, *Deportado 4443. Sus Tuits Ilustrados. La Historia de los 9,300 Españoles Cautivos en Campos de Concentración Nazis* (Barcelona, 2017), 47, 139.

¹¹ David Wingeate Pike, *Spaniards in the Holocaust, the Horror on the Danube* (London, 2000), 113.

¹² Previous military or underground resistance experience can be a powerful predictor of resistance and underground activities in genocidal contexts. See Charles King, “Can There Be a Political Science of the Holocaust?,” *Perspectives on Politics*, X (2012), 334; Finkel, *Ordinary Jews*, 12.

¹³ Roig, *Catalans*, 474.

¹⁴ One such case was José Pallejà Caralt, who was put to trial in a military court in Toulouse for crimes during his time as kapo (Pike, *Spaniards*, part II, chapter 3). Other five Spaniards were put to trial, with only one of these individuals being acquitted for lack of incriminatory evidence. One Spanish despised kapo, Carlos Flor de Lis, was lynched by Spanish prisoners after liberation (Amat-Piniella, *KL Reich*, 57, 510-11; Roig, *Catalans*, 435). Enrique Tomás Urpí was shot by the son of one of his victims on the 5th of May of 1945 (liberation of the camp). Another well-known case is that of a kapo with the nickname of “Asturias”, who terrorized inmates in Gusen: Hernández de Miguel and Ensis, *Deportado 4443*, 143. There are 4 other less known cases: two

not identified *kapos* known as “Málaga” and “Tirillas”, and Ramon Vergé Armengol and Vicent Ripollès Gregori. Finally, the most ambiguous case is César Orquín, who saved hundreds of lives of prisoners under his command but could be brutal sometimes and was accused by the Spanish Communist cell at Mauthausen of denouncing participants in underground activities. He fled after the liberation of the camp, hid in Austria and then migrated to Argentina. The more balanced depiction of the shades of this prisoner is found in the character “August” in Amat-Piniella, *KL Reich*.

¹⁵ A sarcastic take on this episode, critical of the capacity of Spaniards to resist the Waffen SS: Amat-Piniella, *KL Reich*, 476-83; Eduardo Pons, *El Holocausto de los Republicanos Españoles. Vida y Muerte en los Campos de Exterminio Alemanes (1940-1945)* (Barcelona, 2005), 273.

¹⁶ Temporal evolution of mortality at Mauthausen in Kranebitter, *Zahlens als Zeugen*, 178.

¹⁷ Kranebitter, *Zahlen als Zeugen*, 186.

¹⁸ <https://www.mauthausen-memorial.org/en/History/The-Mauthausen-Concentration-Camp-19381945/Groups-of-Prisoners>. Deportations of Jews from the Netherlands started with stateless Jews, generally refugees from Germany. Arendt, *Eichman*, 167. The arrival of Dutch Jews to Mauthausen is depicted in Amat-Piniella, *KL Reich*, 195-196.

¹⁹ On agency in the midst of the Holocaust: Laia Balcells and Daniel Solomon, “Violence, Resistance, and Rescue during the Holocaust,” *Comparative Politics*, LIII (2020), 161, 179-180.

²⁰ On ‘coping’ and ‘resistance’ as victim strategies, in addition to ‘cooperation’ and ‘collaboration’: Finkel, *Ordinary Jews*, 7. Balcells and Solomon, “Violence,”

²¹ In Catalan “Semblàvem carn i unglà”: Roig, *Catalans*, 339. Other cases in Mercedes Vilanova, *Mauthausen, Después. Voces de Españoles Deportados* (Madrid, 2014), 99-101.

²² There were 927 Spanish women, children and men deported from the Les Alliers detention camp near Angoulême (France), after reaching Mauthausen, women and children were separated from the men and sent to Spain, 430 boys and men were kept at Mauthausen. Of this group, only 73 survived. There were several fathers and sons, for example, the Alcubierre, Cortés, Ferrer, Quesada, Roca or Sarroca families: Roig, *Catalans*, 92-102; Pons, *Holocausto*, 258-263; Hernández de Miguel and Ensis, *Deportado 4443*, 98-99.

²³ Several examples of the fear of inmates of being denounced by other prisoners: Vilanova, *Mauthausen*, 101-106. The de-humanizing experience of the camps and the “de-construction of

social norms” are discussed in Subotić, Jelena, “Ethics of Archival Research on Political Violence,” *Journal of Peace Research* (2020), forthcoming, doi:[10.1177/0022343319898735](https://doi.org/10.1177/0022343319898735).

²⁴ Benito Bermejo and Sandra Checa, *Libro Memorial. Españoles Deportados a los Campos Nazis* (Madrid, 2006), 26.

²⁵ *Ibid.*. Existing sources include Fondation pour la Mémoire de la Déportation, *Livre-Mémorial des Déportés de France Arrêtés par Mesure de Répression et dans Certains par Mesure de Pérésecution, 1940-1945*. 4 volumes (Paris, 2004).

²⁶ Individual information for each deportee given in the on-line search engine: <http://pares.mcu.es/Deportados/servlets/ServletController?accion=2&opcion=10>.

²⁷ Kranebitter, *Zahlen als Zeugen*, 186.

²⁸ Ulrich Herbert, “Labour and Extermination: Economic Interest and the Primacy of Weltanschauung in National Socialism,” *Past & Present*, CXXXVIII (1993). 155.

²⁹ Marc Buggeln, *Slave Labor in Nazi Concentration Camps* (Oxford, New York, 2014), 61.

³⁰ *Ibid.*, 20, 27-32.

³¹ Kranebitter, *Zahlen als Zeugen*, 194.

³² The individual search engine of the International Center on Nazi Persecution: <https://collections.arolsen-archives.org/search/>

³³ Marco H. D. Van Leeuwen and Ineke Mass, *HISCLASS: A Historical International Social Class Scheme* (Leuven, 2011).

³⁴ Buggeln, *Slave Labor*, 92-93.

³⁵ *Ibid.*, 93.

³⁶ Vilanova, *Mauthausen*, 80-81.

³⁷ Manuel A. Legineche, *El Precio del Paraíso. De un Campo de Exterminio al Amazonas* (Barcelona, 2016), 87.

³⁸ Ernest Gallart, *El Kommando César. Los Republicanos Españoles en el Sistema Concentracionario del KL Mauthausen* (Madrid, 2011) for an in-depth study of César Orquín..

³⁹ Rosa Toran, *Joan de Diego: Tercer Secretari de Mauthausen* (Barcelona, 2012), 52-53.

⁴⁰ Roig, *Catalans*, 477-78. In Roig’s book, the prisoner name is Jesús Dalmau. However, in the Arolsen archives, he appears as Jesús Colom-Dalmau. The prisoner could be traced because his Mauthausen death certificate names him Jesús Dalmau-Colom. We also know from his death certificate he was born in Manresa (province of Barcelona) in 1916.

⁴¹ Information on Francesc Boix and the other two photographers appears in <http://www.barceloninsdeportats.org/es/122/boix-campo-francesc/biografia.html>. See as well, Benito Bermejo, *El Fotógrafo del Horror. La historia de Francisco Boix y las Fotos Robadas a los SS de Mauthausen* (Barcelona, 2015). Cereceda was a Communist militant from Madrid who also had been a professional dancer, *ibid.*, 175. The best account of how Antonio García Alonso was put in the identification room of the camp: Pike, *Spaniards*, part III, chapter 3. It also explains how the García Alonso's family owned a photography lab in the city of Tortosa. In this same chapter, it is explained that Boix did not know much photography, somewhat validating his *Arbeiter* condition in his individual card.

⁴² Ximo Vidal and Carles Senso, *La Ignominia de l'Oblit. Els Valencians de la Ribera als Camps d'Extermini Nazis* (València, 2016), 37-38.

⁴³ Vilanova, *Mauthausen*, 57. His words were “*iSi yo hubiera tenido un oficio!*” (Francisco Aura Boronat).

⁴⁴ Vidal and Senso, *La Ignominia*. 62.

⁴⁵ Both cases in Vilanova, *Mauthausen*, 75.

⁴⁶ Pons, *Holocausto*, 259.

⁴⁷ Buggeln, *Slave Labor*, 142.

⁴⁸ Vilanova, *Mauthausen*, 17; Bermejo, *El fotógrafo*, 120.

⁴⁹ Gallart, *El Kommando César*, chapters V, VI, VIII. As well, Vilanova, *Mauthausen*, 83-86.

⁵⁰ Pons, *Holocausto*, 258-263.

⁵¹ Adam Tooze, *The Wages of Destruction: the Making and Breaking of the Nazi Economy* (London, 2007), chapter 16, 513-561; Mark Mazower, *Hitler's Empire: Nazi Rule in Occupied Europe* (London, 2008), chapter 10, 294-318; Ulrich Herbert, *Hitler's Foreign Workers: Enforced Foreign Labor in Germany under the Third Reich* (New York, 2006).

⁵² Pike, *Spaniards*, part III, chapter 1.

⁵³ Information on Joan Pagès: <http://www.barceloninsdeportats.org/es/723/pages-moret-joan/biografia.html>

⁵⁴ *Ibid.*, part II, chapter 8. A sympathetic take towards this character: Amat-Piniella, *KL Reich*, 311-12.

⁵⁵ Pons, *Holocausto*, 259.

⁵⁶ Vilanova, *Mauthausen*, 66-68.

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- ⁵⁷ Gallart , *Orquín*, 120 and Toran, *Joan de Diego*, 100.
- ⁵⁸ Gallart, *Orquín*, 119.
- ⁵⁹ Toran, *Joan de Diego*, 53.
- ⁶⁰ Vilanova, *Mauthausen*, 65.
- ⁶¹ Jürgen Gerhards, “Transnational Linguistic Capital: Explaining English Proficiency in 27 European Countries,” *International Sociology*, XXIX (2014), 56-74; Sören Carlson, Jürgen Gerhards and Silke Hans, “Education Children in Times of Globalisation: Class-specific Child-rearing practices and the Acquisition of Transnational Cultural Capital,” *Sociology*, LI (2017), 749-765.
- ⁶² Manuel Razola and Mariano Constante, *Triangle Bleu. Les Republicains Espagnols à Mauthausen 1940-1945* (Paris, 2001), 89-90; Vilanova, *Mauthausen*, 81-82.
- ⁶³ Clashes between the Communist group and the Anarcho-syndicalists in Amat-Piniella, *KL Reich*, 464-465, chapter 18.
- ⁶⁴ On same military units: Pons, *Holocausto*, 224. Same town: for example, Lleida, Roig, *Catalans*, 276; prisoners from Manresa: *ibid.*, 477-78. Previous friendships: *ibid.*, 279.
- ⁶⁵ Susan C. Watkins and Jane Menken, “Famines in Historical Perspective,” *Population and Development Review*, 11, 4 (1985), 647-675; John R. Speakman, “Sex- and Age-Related Mortality Profiles during Famine: Testing the ‘Body Fat’ Hypothesis,” *Journal of Biosocial Science*, XLV (2013), 823-840; Virginia Zarulli, “Effet des Chocs de Mortalité sur le Profil par Âge de la Mortalité des Adultes,” *Population* (French Edition), VXVIII (2013), 303-29.
- ⁶⁶ Mario A. Cleves, William W. Gould and Yulia V. Marchenko, *An Introduction to Survival Analysis Using Stata* (College Station, TX, 2016).
- ⁶⁷ Brendan Halpin, “Multiple Imputation for Categorical Time Series,” *Stata Journal*, XVI (2016), 590-612.
- ⁶⁸ Box-Steffensmeier, Janet and Bradford Jones, *Event History Modeling* (Cambridge, 2004), 136-137.
- ⁶⁹ Peter Richmond and Bertrand M. Roehner, “Effect of Marital Status on Death Rates: Part 1: High Accuracy Explorations of the Farr-Bertillon Effect,” *Physica A: Statistical Mechanics and Its Applications*, CDL (2016), 748-767.
- ⁷⁰ Kranebitter, *Zahlen als Zeugen*, 176. Translated from German by one of the authors.
- ⁷¹ *Ibid.*, 177.

⁷² Tsvetan Todorov, *Facing the Extreme. Moral Life in the Concentration Camps* (New York, 1996), 199-212; Subotić, “Ethics,” 5.