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Surviving Auschwitz with Pre-Existing Social Ties

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Surviving Auschwitz and Pre-Existing Social Ties

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Abstract

Survivor testimonies link survival in deadly POW camps, Gulags, and Nazi concentration camps to the ability of prisoners to get help from friends present in the camp. We study the case of several hundred prisoners of a small, low-security Nazi agricultural labor camp located in today's Czech Republic, who were ultimately on transports to Auschwitz, a deadly extermination and labor camp. We ask whether their chances of surviving the Holocaust depended on how many of their former co-laborers from the agricultural camp were present on their transports to Auschwitz, which included another 9 thousand Czech male prisoners. We uncover a large, 10 percentage point survival advantage to having arrived in Auschwitz with at least 50 former co-laborers from the agricultural labor camp. This evidence is similar to that provided by Costa and Kahn (2007) for a US Civil War POW camp, and consistent with the fundamentally selective accounts provided by survivors.
Keywords: Nazi Concentration Camp, Survival, Social Structure, Theresienstadt/Terezín

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Mutual help of prisoners in concentration camps was the main and most effective way of saving lives (Radil, 2016, p. 165).

1 Introduction

Survival in deadly internment camps, such as POW camps, Soviet Gulags, and Nazi concentration camps, has been linked to the ability of prisoners to form small socially-linked mutual-support groups (McElroy, 1957; Appelbaum, 2003; Davidson, 1984). This literature is based primarily on survivor testimonies, which makes such accounts fundamentally selective, particularly so in Holocaust settings where survival rates were typically very low.[1] It is possible that those who did not survive also formed mutual-support groups and that relying on the accounts of the small minority of those who survived leads the analyst to apply a regressive logic starting with the outcome. In a rare statistical study based on records from a deadly US Civil War POW camp, Costa and Kahn (2007) uncover a significant survival advantage conferred by having other members of one's military unit present in the camp. In this paper, we ask about the importance for survival of having social ties (friends) while arriving in Auschwitz, a Nazi labor and extermination camp.

We study the case of several hundred male Auschwitz prisoners, many of whom, according to post-war testimonies, had formed strong friendships during their earlier internment in a low-security all-male agricultural labor camp. During 1941-1945, a total of 1,351 Czech Jews were interned in the Lípa camp, which was located in a rural area of today's Czech Republic. The Lípa camp is an example of the several thousand typically small labor camps in which the European Jewish population was interned before being transported to large ghettos and concentration camps.[2] We contrast the Holocaust survival chances of Lípa prisoners entering

[1] For the research on Nazi concentration camp and ghetto experiences based on survivor accounts, see, e.g., Eitinger (1964), Luchterhand (1967), Dimsdale (1974), Sofsky (1999), Suderland (2013), and Finkel (2017).

[2] The United States Holocaust Memorial Museum Encyclopedia of Camps and Ghettos 1933–1945, vol. I, Early Camps, Youth Camps, and Concentration Camps and Subcamps under the SS-Business Administration

Auschwitz with a varying number of fellow Lípa prisoners—potential friends in the extreme environment of the extermination camp. For the purpose of our analysis, prior incarceration in the Lípa camp serves as a proxy for pre-existing social ties, similar to membership in a military unit in Costa and Kahn (2007). We find a large positive survival advantage of entering Auschwitz with a sufficiently sized group of socially linked prisoners. Our findings contribute to the large literature that studies the importance of social networks.

2 The Lípa Camp

The Jews interned at the Lípa camp were mainly engaged in agricultural labor, but also worked on minor construction projects and in a local distillery. The camp, which held several hundred laborers at a time, was encircled by a low-level barbed-wire fence and was guarded by only one or two members of the SS (Jindrová, 2009). It was a labor camp, but it was not deadly and the atmosphere was conductive to friendship formation. After the daily agricultural work, prisoners organized their own free time, playing games (chess tournaments) and sharing books through a camp library. In their survivor testimony, Stránský and Ullmann (1990, p.15) report that Lípa prisoners formed small 'communes' where they shared food (sent by mail from home), helped each other with their labor tasks, etc., and that these 'communes' later on helped their members survive the Holocaust. We test this testimony empirically.

A typical Lípa prisoner spent several months in the camp before being released or transferred to Theresienstadt—the large in-transit ghetto that was the principle initial destination of Czech Jews during the Holocaust. Most released prisoners eventually ended up in Theresienstadt as well. Death rates for prime-aged Czech males in Theresienstadt were low and most of the Czech Jews interned in Theresienstadt, including Lípa prisoners, were eventually transported to extermination camps in the east, primarily Auschwitz.[3] The data we employ

Main Office (WVHA), Geoffrey P. Megargee, ed., Bloomington: Indiana University Press in association with the United States Memorial Holocaust Museum, 2009.

[3]Over 140 thousand prisoners entered the Theresienstadt ghetto during the war; of these over 88 thou-

in our analysis correspond to the merge (based on name, age, and place of residence) of the complete list of Lípa camp prisoners compiled by Jindrová (2009) with the essentially complete database of Theresienstadt prisoners and their Holocaust survival information compiled by the Theresienstadt Initiative Institute. The latter data is described in detail in our companion study.

Out of the total of 1,351 participants in the Lípa camp, 961 (71%) entered Theresienstadt. Of these, the median length of time they spent in the Lípa camp was 166 days, i.e., about half a year, which allows for strong social links to be built.[4] Almost all were men aged between 15 and 45. Their average age of 26 (as of 1941) was thus much below the average age of 42 of the almost 30 thousand prisoners who came to Theresienstadt on transports that included at least one Lípa prisoner. In comparison to this group of fellow in-transport prisoners, the Lípa prisoners spent more time in Theresienstadt: 353 days on average, relative to 277 days for the non-Lípa prisoners who arrived on the same transports, which is mainly explained by their younger age and commensurate lower probability of dying in Theresienstadt. Ultimately, 842 (88%) of the 961 Lípa prisoners in Theresienstadt ended up in transports to the east, 12 (1%) died in Theresienstadt, and 100 (11%) survived in the Theresienstadt ghetto until the end of the war.[5] Of the 842 Lípa prisoners on transports from Theresienstadt, most, 601 (71%), were sent to Auschwitz in 23 separate transports. Of these 601 prisoners, 22% survived the Holocaust—a high survival rate compared to the 7% survival rate of the 44

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sand were deported to other camps and ghettos and over 33 thousand, primarily elderly prisoners, died in Theresienstadt of disease and starvation (Adler, 2017; Frankl, 2005; Hájková, 2013; Lagus and Polák, 2006).

[4] While many Lípa prisoners were transfered directly to Theresienstadt, for example those on the transports AE5 and Dn coming directly from Lípa, most Lípa prisoners were first released and only later imprisoned in Theresienstadt. The median time between leaving the Lípa camp and arriving in Theresienstadt was 164 days.

[5] This group includes 65 Lípa prisoners arriving in Theresienstadt in 1945, who were from mixed marriages, unlike the prisoners arriving earlier. These 65 prisoners faced no out-transport risks and are thus not the object of our analysis in the next section. The entire group survived the war in Theresienstadt. The probability that Lípa prisoners who arrived in Theresienstadt before 1945 survived the war there is 3%.

thousand Theresienstadt prisoners who entered Auschwitz. This gap is driven chiefly by their age, as shown in the next section.

Our main goal in this paper is to ask about the importance of having fellow Lípa prisoners on one's transport to Auschwitz for one's survival chances. We focus on the prisoners entering Auschwitz, as that was the principle destination of Lípa prisoners, but we also include evidence from other destinations in our analysis. Since dying in Theresienstadt was an exceptional outcome for Lípa prisoners, we assume that it is exogenous to the main object of our analysis. We have also analyzed the probability of Lípa prisoners being transferred from Theresienstadt to Auschwitz and we have not found it to be significantly different from the typical transport probability of their demographic group in Theresienstadt.[6]

3 Surviving Auschwitz

Our goal is to ask to what degree the Holocaust survival chances of Lípa prisoners entering Auschwitz depended on how many traveled there together in a transport from Theresienstadt.[7] We employ variation in the number of Lípa prisoners across Auschwitz-bound transports and ask whether this variation is linked with survival chances within the extermination

[6]Specifically, we ask whether Lípa prisoners face different chances of being on a transport relative to other Czech male prisoners who arrived in Theresienstadt on transports with Lípa prisoners and who did not die in Theresienstadt. Within this group, we model the probabily of leaving Theresienstadt in a transport as a function of one's personal characteristics, including that of having been in the Lipa camp. Additionally, we control for the in-transport-level average probability of being in a transport out of Theresienstadt using in-transport fixed effects, which conditionson all aggregate factors affecting the in-transport group's risk of being in a transport out of Theresienstadt. We thus effectively ask whether within each in-transport group, the Lípa prisoners are facing different out-transport risks than other similar young male Czech prisoners. We have not found any of the Lípa coefficients to be large or statistically significant, even when we estimated the out-transport chances separately for each year of the war. These results are available upon request.

[7]While most of the Holocaust survival determination for these prisoners clearly occurs within Auschwitz, our outcome measure implicitly includes survival effects operating through friendship support in other post-Auschwitz camps or death marches that the prisoners were subject to.

and labor camp. Across the 23 transports to Auschwitz that included Lipa prisoners, some had only few Lípa prisoners, but there were over 50 in several of these transports.[8] However, only 16 of the 23 transports had overall transport-level Holocaust survival rates substantially above zero, which for the purpose of our study means that at least 2% of the transport survived the war.[9] There can be no effect of social linkages on survival in groups that faced zero survival probability; hence, we focus on the 16 transports from Theresienstadt to Auschwitz with 417 Lípa prisoners and 28 thousand other prisoners (Czech, Austrian, and German Jews) where there is some scope for social linkages to have affected the survival chances of the prisoners.

We model the probability of Holocaust survival for those 9,716 Czech male prisoners who were on the 16 Auschwitz-bound transports that included at least one Lípa prisoner as depending on age, being previously a Lípa camp prisoner or not, coming to Theresienstadt from Prague, and several other personal characteristics. Our analysis conditions on the transport-wide survival rate (by means of controlling for a transport fixed effect) and so we effectively ask whether a prisoner's survival within each of these 16 Auschwitz-bound transports depended on his Lípa linkages relative to that of other prisoners of the transports:

$$S_{it} = \theta_t + \beta_1 L_i + \beta_2 L_{it}^C + \beta_3' X_i + \epsilon_{it} \tag{1}$$

In Equation (1), S_{it} stands for a binary indicator of the survival of prisoner i on the $t = 1, ..., 16$ transport to Auschwitz, θ_t represents the transport fixed effect, which absorbs the survival effects of all transport-wide factors (including, for example, the size and length of the transport, the conditions in Auschwitz upon arrival, etc.), L_i is a binary indicator of

[8] There were 99 Lípa prisoners in transport Dl, 75 in Ek, 65 in Ds, 56 in Em, 46 in El, 41 in Dm, 36 in Dr, 31 in Eb, 23 in By, 21 in Dz and Cq, 18 in Cr, 14 in Ev, 13 in Cs, 9 in Cu, 8 in Er and Es, 6 in Ct, 4 in Et, 2 in Ea and Dn/a, and 1 in Eq and Dl-N.

[9] See Table A1 in the Appendix for transport-specific survival rates. There were 3 other transports with Lípa prisoners that had above 2% Holocaust survival rates: these transports O, As, and Be were headed to Riga, Zamošč, and Raasika, respectively. We use these transports below in a robustness check of our Auschwitz survival analysis.

being a Lípa prisoner, L_{it}^{C} is the count of Lípa prisoners on transport t (this indicator equals zero for those with $L_i = 0$), and X_i are personal characteristics: age, coming to Theresienstadt from Prague, the length of stay in Theresienstadt prior to transport to Auschwitz, the prisoner's academic title, and his prominent prisoner status in Theresienstadt (Hyndráková et al., 1996).[10]

Table 1 provides evidence on the hypothesis that arriving in Auschwitz with a larger group of fellow Lípa prisoners, i.e., with a group of presumably socially linked prisoners, helped a prisoner to form a support group that increased his chances of survival. The regression estimates in column (1) suggest that Lípa prisoners may have faced a lower survival probability in Auschwitz compared to otherwise similar Czech male prisoners coming on the same transports, but that having arrived with more than approximately 25 other Lípa prisoners conferred a survival advantage. According to the estimated coefficients, arriving with over 50 Lípa prisoners on a transport increased the survival chances of a Lípa prisoner by almost 20 percentage points, a large effect relative to the average survival rate of 15% of the Czech male prisoners on the 16 transports we study.

The estimates presented in Table 1 imply that age is a prime determinant of survival.[11] Having been a prominent prisoner in Theresienstadt is associated with a lower survival probability in Auschwitz by almost 5 percentage points (although this estimate is sensitive to specification changes in the following columns), while medical doctors had about 3 percentage points higher chances of survival compared to other prisoners.[12] No other prisoner characteristics help explain survival chances.

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[10] In the set of 9,716 Czech male prisoners on the 16 transports to Auschwitz with a survival rate above 2%, the average age was 35.4, the average number of days spent in Theresienstadt was 578, 54% came from Prague, 0.06% had prominent prisoner status in Theresienstadt, 3-4% had the Dr., Ing., or MUDr. degree, and 1% had the JUDr. degree, while 0.02% were professors.

[11] The 'Lípa' coefficients of interest are not materially affected by excluding prisoners under 15 years of age from the analysis.

[12] We obtain highly similar effects of these characteristics on survival if we focus on all (10,146) Czech male prisoners on the 19 transports to Auschwitz with a transport-wide survival rate of at least 2%.

Our key parameter, the number of co-travellers from the Lípa camp, is based on only 16 comparisons across transports. We reflect this by conducting statistical inferences in Table 1 while clustering errors at the level of transports. However, with a low number of clusters such as in our case, this may result in biased inference (e.g., Cameron et al., 2008). We have therefore additionally assessed the p-levels of the β_2 coefficient from column (1) using the wild bootstrap clustering method with Rademacher weights implemented by Roodman et al. (2018). The p-value declines from 0.002 to 0.004, but the coefficient remains statistically significant at the 1% level.

In column (2) of Table 1, we add three additional transports into the analysis, which have more than a 2% survival rate and include Lípa prisoners, but are not Auschwitz-bound (see note n. 9). The results are fully consistent with those presented in column (1). In column (3), we replace the count of Lípa prisoners with a binary indicator for a transport to Auschwitz with more than 50 Lípa prisoners.[13] The coefficient implies that with this many fellow prisoners on his transport, a Lípa prisoner faced survival chances that were 10 percentage points higher than those of an otherwise similar prisoner traveling with fewer fellow Lipa prisoners. The wild-boostrap-cluster p-value of this coefficient is 0.000. Finally, in column (4) we condition jointly on both measures, i.e., the linear count of the number of Lípa prisoners on transports and the dummy indicator corresponding to over 50 Lípa prisoners on transports, and while this clearly stretches the 16 degrees of freedom we have to estimate the coefficients, the binary indicator of more than 50 Lípa prisoners is closer to being statistically significant than the count indicator, suggesting that the estimates in column (3) represent the most powerful simple summary of the data.

In columns (1) to (4), we rely on the linear probability model to capture the structure of survival, as this model easily accommodates transport fixed effects, and since it offers comparability of the wild bootstrap clustered inference to a large body of applications. In column (5) we replicate the specification from column (3), which implies a 10 percentage point

[13] Three of the 16 transports in our estimation sample carried more than 50 Lípa prisoners: Ds, Ek, and Em.

effect of travelling with over 50 fellow Lípa prisoners, using the Logit model conditioning on transport fixed effects. The estimated coefficients presented in column (5) are qualitatively similar to those in column (3). Assuming that all parameters including the fixed effects are consistently estimated in the Logit model, the estimates imply a 7 percentage point effect corresponding to more than 50 Lípa prisoners travelling together, which is similar to the linear specification. We have also estimated the conditional fixed effect Logit model, which, similar to the linear model, eliminates the fixed effects from the equation so that they do not need to be estimated. The estimated coefficients are indistinguishable from those based on the basic Logit model and shown in column (5).[14] We conclude that the results are robust to using a non-linear model in place of the linear probability model, which does not depend on a distributional assumption.

Why does the survival advantage effect only appear for more than 50 prisoners on a transport? Clearly, not all Lípa prisoners were friends. Furthermore, with the high death rate in Auschwitz even for prime-aged men, it is likely that out of 50 arriving prisoners, there were many fewer left alive within a few months of arrival (the ultimate survival rate for the Lípa prisoners on the 16 transports we study in Table 1 was 31%.) Socially linked prisoners may also have been separated by the structure of the labor camp in Auschwitz so that in order to be ultimately surrounded by a handful of Lípa-camp friends, a prisoner had to arrive with a larger group.

We performed several robustness checks and extensions of the analysis presented in Table 1. We restricted the comparison group to those Theresienstadt prisoners in Auschwitz-bound transports who arrived at Theresienstadt on transports with at least one Lípa prisoner. This reduces the number of observations from 9,716 to 9,219, but it has no material effect on the estimates. We found no evidence that survival can be explained by how long a prisoner spent in the Lípa camp, and no sensitivity to using a step function in age (in years) instead of the age polynomial presented in Table 1. We have also asked whether Lípa camp participants' survival in Auschwitz depended on the number of their fellow Lípa prisoners, who were on

[14]The corresponding average elasticity calculated according to Kitazawa (2011) is 0.12.

their out-transport to Auschwitz who also arrived on the same in-transport to Theresienstadt. This alternative count had no statistically discernible effects on top of the basic counts presented in Table 1. We have also interacted the effect of the count of Lípa prisoners on a transport on their survival with the overall survival pressure captured by the transport-wide survival rate. The estimates, although imprecise, are suggestive of the survivor advantage being strongest when survival chances are not extremely low and also not extremely high (relatively to the setting of Auschwitz). The results discussed in this paragraph are available upon request.

4 Conclusions

In this case study, we provide the first statistical evidence on the effect of social linkages on survival in the extremity of a deadly Nazi concentration camp. We find that prisoners who arrived at Auschwitz with a relatively large group of socially linked fellow prisoners, who had already spent some months together at an agricultural labor camp during the war, had about 10 percentage points higher chances of survival in Auschwitz. This is a large effect relative to the average survival rate of 15% for the Czech men entering Auschwitz we study in our analysis, or the 31% survival rate of the (on average younger) group of Czech male prisoners who were earlier interned in the agricultural labor camp. Our evidence sheds some light on the internal operations of a society under extreme circumstances. It is consistent with a large survival effect of entering the extreme environment of Auschwitz with a small 'commune' of friends (Stránský and Ullmann, 1990). Our results suggest that being socially isolated was particularly costly during the Holocaust, i.e., in a high-stakes environment. In this regard, our analysis is similar to that of Costa and Kahn (2007), who study a deadly American Civil War POW camp, and fits well into the literature highlighting the importance of social links in high-stakes contexts (e.g., Battiston, 2018; Fisman et al., 2018; Kelly and Ó Gráda, 2000; Taylor and Stuart, 2017).

Bibliography

Adler, H.G. (2017) *Theresienstadt 1941-1945: The Face of a Coerced Community*, Cambridge, UK: Cambridge University Press.

Applebaum, Anne (2003) *Gulag: A History*, New York: Doubleday.

Battiston, Diego (2018) "The Persistent Effects of Brief Interactions: Evidence from Immigrant Ships," working paper.

Cameron, A.C., Gelbach, J.B., and D.L. Miller (2008) "Bootstrap-based improvements for inference with clustered errors," *Review of Economics and Statistics,* 90(3): 414–27.

Costa, Dora L., and Matthew E. Kahn (2007) "Surviving Andersonville: The Benefits of Social Networks in POW Camps," *American Economic Review*, 97(4): 1467–1487.

Davidson, Shamai (1984) "Human Reciprocity Among The Jewish Prisoners In The Nazi Concentration Camps", *The Nazi Concentration Camps*, Yad Vashem, pp. 555-572.

Dimsdale, Joel E. (1974) "The Coping Behavior of the Nazi Concentration Camp Survivors," *American Journal of Psychiatry*, 131(2): 792–.

Eitinger, Leo (1964) *Concentration Camp Survivors in Norway and Israel*, Oslo: Universitetsforlaget.

Finkel, Evgeny (2017) *Ordinary Jews*, Princeton: Princeton University Press.

Fisman, Raymond, Shi, Jing, Wang, Yongxiang, and Rong Xu (2018) "Social Ties and Favoritism in Chinese Science," *Journal of Political Economy*, 126(3): 1134-1171.

Frankl, Michal (2005) Österreichische Jüdinnen und Juden in der Teresienstädter „Zwangsgemeinschaft" Statistik, Demographie, Schicksale. In: Theresienstädter Gedenkbuch Österreichische Jüdinnen und Juden in Teresienstadt 1942–1945, p.71-86.

Hájková, Anna (2013) "Prisoner Society in the Theresienstadt Ghetto, 1941-1945," PhD thesis, University of Toronto.

Hyndráková, Anna, Krejcová, Helena, and Jana Svobodová (1996) *Prominenti v ghettu Terezín. (1942-1945).* [Prominent Prisoners in the Theresienstadt Ghetto (1942-1945)] Prague: Institute of Contemporary History of the Czech Academy of Sciences.

Jindrová, Alena (2009) *Přeškolovací tábor Lípa: součást nacistického plánu na vyvraždění Židů.* [The Retraining Camp Lípa as an Element of the Nazi Jewish Extermination Plan] Muzeum Vysočiny Havlíčkův Brod, Havlíčkův Brod.

Kárný, Miroslav (1989) "'Pracovní´' či 'zaopatřovací´' Terezín? Iluze a reality tzv. produktivního ghetta" ["Labor" or "Self-Providing" Theresienstadt? Illusions and Realities of the So-Called Productive Ghetto.] *Litoměřicko*, no. 25: 95–107.

Kelly, Morgan and Cormac Ó Gráda (2000) "Market Contagion: Evidence from the Panics of 1854 and 1857," *American Economic Review*, 90(5): 1110–1124.

Kitazawa, Yoshitsugu (2011) "Average elasticity in the framework of the fixed effects logit model," Discussion Papers 49, Kyushu Sangyo University, Faculty of Economics.

Lagus, Karel, and Josef Polák (2006) *Město za mřížemi* [City behind Bars], 2nd edition, Prague: Baset.

Luchterhand, Elmer (1967) "Prisoner Behavior and Social System in the Nazi Concentration Camps," *International Journal of Social Psychiatry*, 13(4): 245–264.

McElroy, John (1957) *This Was Andersonville,* New York: McDowell, Obolensky.

Naimark, Norman M. (2001) *Fires of Hatred: Ethnic Cleansing in Twentieth-Century Europe,* Cambridge, MA: Harvard University Press.

Radil, Tomáš (2016) *Holocaust a Evropa po sedmdesáti letech* [Holocaust and Europe after Seventy Years], Prague: Academia Press.

Roodman, D., MacKinnon, J., Nielsen, M., and M. Webb (2018) "Fast and wild: bootstrap inference in Stata using boottest," Queen's Economics Department Working Paper No. 1406.

Sofsky, Wolfgang (1999) *The Order of Terror: The Concentration Camp*, Princeton University Press.

Stránský, Oldřich, and Ota Ullmann (1990) *Lípa 1940-1945.* Praha.

Suderland, Maja (2013) *Inside Concentration Camps*, Cambridge UK: Polity Press.

Taylor, Evan, and Bryan Stuart (2017) "The Effect of Social Connectedness on Crime: Evidence from the Great Migration," Working Paper No. 2017-24, The George Washington University, Institute for International Economic Policy.

Tab 1.: Survival in Auschwitz of Czech Male Prisoners Arriving with Lipa Prisoners

	(1)	(2)	(3)	(4)	(5)
Lipa prisoner indicator	-0,061	**-0,079**	-0,007	-0,033	-0,013
	(0,037)	(0,035)	(0,022)	(0,047)	(0,013)
Number of Lipa prisoners on transport (count)	**0,0023**	**0,0027**		0,0009	
	(0,0006)	(0,0005)		(0,0011)	
Number of Lipa prisoners on transport is over 50 indicator			**0,1052**	0,0674	**0,3084**
			(0,0180)	(0,0372)	(0,1227)
Age	**0,036**	**0,033**	**0,036**	**0,036**	**0,389**
	(0,004)	(0,004)	(0,004)	(0,004)	(0,045)
Age squared	**-0,115**	**-0,104**	**-0,114**	**-0,114**	**-1,114**
	(0,014)	(0,014)	(0,014)	(0,014)	(0,126)
Age cubed/100	**0,091**	**0,083**	**0,090**	**0,091**	**0,734**
	(0,012)	(0,013)	(0,012)	(0,000)	(0,112)
Coming from Prague	-0,021	-0,021	-0,022	-0,022	-0,222
	(0,008)	(0,009)	(0,009)	(0,009)	(0,060)
Number of days spent in Theresienstadt/100	0,002	0,002	0,002		0,006
	(0,003)	(0,002)	(0,002)		(0,019)
Prominent prisoner status in Theresienstadt	**-0,047**	0,031	0,039	0,035	0,549
	(0,013)	(0,110)	(0,111)	(0,109)	(0,949)
Dr. title	-0,003	0,000	-0,008	-0,010	0,270
	(0,033)	(0,031)	(0,032)	(0,031)	(0,032)
Engineer (Ing.)	-0,008	-0,003	-0,005	-0,005	0,091
	(0,015)	(0,014)	(0,015)	(0,015)	(0,180)
Doctor (MUDr.)	**0,033**	**0,036**	**0,041**	**0,040**	**0,493**
	(0,014)	(0,014)	(0,014)	(0,014)	(0,160)
Lawyer (JUDr.)	0,017	0,023	0,024	0,025	0,174
	(0,054)	(0,052)	(0,056)	(0,056)	(0,473)
Professor (Prof.)	-0,063	-0,072	-0,061	-0,063	-12,260
	(0,124)	(0,114)	(0,125)	(0,121)	(1,024)
N	9 716	11 210	9 716	9 716	9 716

Note: Standard errors in parentheses. Bolded coefficients are statistically significant at the 5% level based on clustering at the transport level. All specifications control for transport fixed effects. Columns (1) to (4) show linear probability model coefficients, i.e., marginal effects. Column (5) shows coefficients from the Logit model (with transport fixed effects). The marginal effect for Lipa prisoners of the 0.3 coefficient on the indicator of over 50 Lipa prisoners on a transport is 0.07.

Abstrakt

Vězni nacistických koncentračních táborů ve svých poválečných výpovědích zdůrazňují význam malých skupin přátel, kteří se v zajetí vzájemně podporovali, pro přežití v extrémních podmínkách těchto táborů. Vzhledem k tomu, že tyto výpovědi mohou podat pouze přeživší vězni je ale možné, že jde o selektivní závěr, a že vězni, kteří nepřežili, měli tyto skupiny přátel také. V této studii proto statisticky zkoumáme vliv sociálních vazeb na pravděpodobnost přežití v Osvětimi na případě několika set židovských vězňů, kteří si (dle výpovědí vězňů) vytvářeli úzké sociální vazby v rámci dřívějšího pobytu v zemědělském pracovním táboře Lípa. Pravděpodobnost přežití těchto vězňů po příjezdu do Osvětimského koncentračního tábora srovnáváme s ostatními demograficky srovnatelnými vězni na transportech z Terezína do Osvětimi. Rozdíly ve velikosti skupin Lípa vězňů na jednotlivých transportech aproximují dostupnost sociálních vazeb těchto vězňů v Osvětimi. Vězni z tábora Lípa, kteří přijeli do Osvětimi s větší skupinou spoluvězňů, měli vyšší šanci na přežití holokaustu až o deset procentních bodů, než vězni, kteří přijeli s malou skupinou spoluvězňů. Tyto statistické závěry jsou podobné těm, které Costa a Kahn (2007) nacházejí pro tábor válečných zajatců z Americké občanské války, a potvrzují výpovědi přeživších.

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