The Effect of the 1918 Influenza Pandemic on Income Inequality: Evidence from Italy

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CODEBOOK

Software: Stata

TWO FOLDERS

Data: **Datasets (Software: Stata)**
Codes: **Codes (Dofiles using software: Stata)**

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1. Data and codes for replications

1.1 Tables

Data	Code	Table	Table name
dataset_replication.dta	Table_1.do	Table 1	Correlation with municipal characteristics
dataset_replication.dta	Table_2.do	Table 2	Impact of WWI victims on inequality indicators: Gini index
dataset_replication.dta	Table_3.do	Table 3	Impact of WWI victims on inequality indicators: income shares
dataset_replication.dta	Table_4.do	Table 4	Alternative treatment definition
dataset_replication.dta dataset_replication_regional.dta dataset_replication_2018.dta	Table_A1.do	Table A1	Descriptive statistics
dataset_replication.dta	Table_A3.do	Table A3	Descriptive statistics: monthly indicators (per 1,000)
dataset_replication.dta	Table_A4.do	Table A4	Descriptive statistics: geographical distribution of cities in the sample
dataset_replication_regional.dta	Table_A5.do	Table A5	Soldiers casualties and influenza deaths
dataset_replication.dta	Table_A6.do	Table A6	Infection risk level in regiments and victims of illness (hometown)
dataset_replication.dta	Table_A7.do	Table A7	Impact of WWI victims on inequality indicators: Gini index - with control variables
dataset_replication.dta	Table_A8.do	Table A8	Alternative dependent variables
dataset_replication.dta	Table_A9.do	Table A9	Heterogeneity analysis
dataset_replication.dta	Table_A10.do	Table A10	Heterogeneity analysis - Budget variable 1912
dataset_replication_2018.dta	Table_A11.do	Table A11	Long-term effect on income inequality
dataset_replication.dta	Table_A12.do	Table A12	Impact of WWI victims on inequality indicators - different time windows
dataset_replication.dta	Table_A13.do	Table A13	Impact of WWI victims on inequality indicators - excluding Italian regions
dataset_replication.dta	Table_A14.do	Table A14	Robustness checks

Notes: The do-files listed in the second column use the data files in the first column to produce the Tables of the third column.

1.2 Figures

Data	Code	Figure	Table name
dataset_replication_fig1.dta	Figure_1.do	Figure 1	Number of deaths from Influenza in Italy
dataset_replication_fig3.dta	Figure_3.do	Figure 3	Italian victims of WWI - over time
dataset_replication_regional.dta	Figure_4.do	Figure 4	WWI victims and influenza
dataset_replication_fig5_1.dta dataset_replication_fig5_2.dta	Figure_5.do	Figure 5	Death rate vs Italian victims of WWI - monthly data
dataset_replication_fig6_1.dta dataset_replication_fig6_2.dta	Figure_6.do	Figure 6	Individual level data analysis
dataset_replication.dta dataset_replication_2018.dta	Figure_7.do	Figure 7	Inequality in the long-run
dataset_replication.dta	Figure_A1.do	Figure A1	Distribution of inequality indices by municipality (1924)
dataset_replication.dta	Figure_A2.do	Figure A2	Infection risk level in regiments and victims of illness (hometown)
dataset_replication.dta	Figure_A3.do	Figure A3	Effect of pandemic exposure on the Gini index: binned scatterplot
dataset_replication.dta	Figure_A4.do	Figure A4	Effect of pandemic exposure on the Gini index
dataset_replication.dta	Figure_A5.do	Figure A5	Excluding municipalities by size

Notes: The do-files listed in the second column use the data files in the first column to produce the Figures of the third column.

2. Datasets and variables definitions

2.1 Dataset: dataset_replication.dta

Variable name	Description
ID_comune	Municipal code
regione	Region name
province	Province name

province_FE	Province name (num)
distretto_FE	District name (num)
Capoluogodiprovincia	Municipality province capital
Zonaaltimetrica	Municipal indicator of geography (according to ISTAT)
rate_01_11	Population growth rate 1901-1911
population_density_1911	Ratio between population and area in 1911
sud	Dummy whether the municipality is located in south of Italy
rich_region	Dummy whether the municipality is rich (classification based on Daniele and Malanima, 2007)
gini_index	Municipal Gini index in 1924
gini_log	Municipal Gini index in 1924 in logarithm
theil_index	Municipal Theil index in 1924
theil_log	Municipal Theil index in 1924 in logarithm
coeff_variation	Coefficient of variation in 1924
coeff_variation_log	Coefficient of variation in 1924 in logarithm
reddito_sd	Standard deviation of municipal declared incomes in 1924
reddito_log_sd	Standard deviation of municipal declared incomes in 1924 in logarithm
gini_netto	Municipal Gini index net in 1924
gini_log_netto	Municipal Gini index net in 1924 in logarithm
fr_ven1	Income share of bottom 20% of the population in 1924
fr_ven5	Income share of top 20% of the population in 1924
aug_dec_18	Number of soldiers who died of illness in their hometown between August and December 1918, in per capita terms (with population of 1911)
aug_dec_18_sd	Number of soldiers who died of illness in their hometown between August and December 1918, in per capita terms (with population of 1911) - standardized
jan_july_18	Number of soldiers who died of illness in their hometown between January and July 1918, in per capita terms (with population of 1911)
aug_dec_18_out	Number of soldiers who died of illness outside their hometown between August and December 1918, in per capita terms (with population of 1911)

aug_dec_18_out_sd	Number of soldiers who died of illness outside their hometown between August and December 1918, in per capita terms (with population of 1911) - standardized
quarter18_1 quarter18_2 quarter18_3 quarter18_4 quarter19_1 quarter19_2	Number of soldiers who died of illness in their hometown in per capita terms (with population of 1911) in 1918/1919 in quarters 1/2/3/4.
aug_dec_18_d	Number of soldiers who died of illness between August and December 1918, in per capita terms (with population of 1911), attributed to the municipality where they passed away
aug_dec_18_d_sd	Number of soldiers who died of illness between August and December 1918, in per capita terms (with population of 1911), attributed to the municipality where they passed away - standardized
aug_dec_18_D	Binary version of the variable aug_dec_18
N_caduti_PC	Number of military victims in 1915-1920 in per capita terms (with population of 1911)
N_caduti_PC_sd	Number of military victims in 1915-1920 in per capita terms (with population of 1911) - standardized
N_caduti_malattia_PC	Number of military victims by illness in 1915-1920 in per capita terms (with population of 1911)
N_caduti_malattia_inComune_PC	Number of military victims by illness in their hometown in 1915-1920 in per capita terms (with population of 1911)
N_caduti_PC_noTR	Total number of military victims in per capita terms (with population of 1911) with the exclusion of the ones in the main treatment
N_caduti_PC_noTR_sd	Total number of military victims in per capita terms (with population of 1911) with the exclusion of the ones in the main treatment - standardized
N_caduti_malattia_1918Com7_PC N_caduti_malattia_1918Com8_PC N_caduti_malattia_1918Com9_PC N_caduti_malattia_1918Com10_PC N_caduti_malattia_1918Com11_PC	Number of soldiers (per 1,000) who died of illness in their hometown in a specific year/month, in per capita terms (with population of 1911)

N_caduti_malattia_1918Com12_PC N_caduti_malattia_1919Com1_PC N_caduti_malattia_1919Com2_PC N_caduti_malattia_1919Com3_PC N_caduti_malattia_1919Com4_PC N_caduti_malattia_1919Com5_PC N_caduti_malattia_1919Com6_PC	
aug18_jan19_sd	Number of soldiers who died of illness in their hometown between August 1918 and January 1919, in per capita terms (with population of 1911) - standardized
aug18_mar19_sd	Number of soldiers who died of illness in their hometown between August 1918 and March 1919, in per capita terms (with population of 1911) - standardized
jan18_jun19_all_sd	Number of soldiers who died of illness in their hometown between January 1918 and June 1919, in per capita terms (with population of 1911) - standardized
jan18_jun19_1_sd jan18_jun19_2_sd jan18_jun19_3_sd jan18_jun19_4_sd jan18_jun19_5_sd jan18_jun19_6_sd	Number of soldiers who died of illness in their hometown between January 1918 and June 1919, in per capita terms (with population of 1911) – standardized – excluding the quarter number 1/2/3/4/5/6 in this period
aug18_jan19_d_sd	Number of soldiers who died of illness between August 1918 and January 1919, in per capita terms (with population of 1911), attributed to the municipality where they passed away - standardized
aug18_mar19_d_sd	Number of soldiers who died of illness between August 1918 and March 1919, in per capita terms (with population of 1911), attributed to the municipality where they passed away - standardized
jan18_jun19_all_d_sd	Number of soldiers who died of illness between January 1918 and June 1919, in per capita terms (with population of 1911), attributed to the municipality where they passed away - standardized

jan18_jun19_1_d_sd jan18_jun19_2_d_sd jan18_jun19_3_d_sd jan18_jun19_4_d_sd jan18_jun19_5_d_sd jan18_jun19_6_d_sd	Number of soldiers who died of illness between January 1918 and June 1919, in per capita terms (with population of 1911), attributed to the municipality where they passed away – standardized - excluding the quarter number 1/2/3/4/5/6 in this period
aug_dec_18_PVictims_sd	Number of soldiers who died of illness in their home town between August and December 1918 on the total number of WWI victims from that city - standardized
quadrimestri18_1_sd quadrimestri18_2_sd quadrimestri18_3_sd quadrimestri19_1_sd quadrimestri19_2_sd	Number of soldiers who died of illness in their hometown in four months period 1/2/3, in per capita terms (with population of 1911) - standardized
share_malCom	Share of victims of illness in the regiments in which the soldiers of the reference city were located for the period August - December 1918
share_malCom_sd	Share of victims of illness in the regiments in which the soldiers of the reference city were located for the period August - December 1918 - standardized
share_literate	Share of literate population
share_literate_male	Share of literate male population
share_literate_female	Share of literate female population
share_male	Share of male
campo_prigionia	Dummy for prisoners camp
reddito_PC	Municipal total declared income in thousands of Lire per capita (with population of 1911)
N_contribuenti_quartile	Quartile of number of taxpayers
N_contribuenti_PC	Number of taxpayers per capita (with population of 1911)
N_contribuenti_ven	Ventile of number of taxpayers
expenditures_1912_PC	Total municipal expenditures in 1912 in per capita terms
exp_police_hygiene_1912_PC	Municipal expenditures in police and sanitation/hygiene services in per capita terms
exp_just_secur_1912_PC	Municipal expenditures in justice and security in per capita terms
exp_public_work_1912_PC	Municipal expenditures in public works in per capita terms

exp_edu_1912_PC	Municipal expenditures in education in per capita terms
surplus_tot_1912_PC	Municipal budget surplus in per capita terms
expenditures_1912_PC_High	Dummy whether total expenditures per capita is above the median value
exp_police_hygiene_1912_PC_High	Dummy whether expenditures in police and sanitation/hygiene services per capita is above the median value
exp_public_work_1912_PC_High	Dummy whether expenditures in public works per capita is above the median value

2.2 Dataset: dataset_replication_regional.dta

Variable name	**Description**
regione	Region
anno	year
N_influenza_polmonite	Number of victims for influenza
N_influenza_polmonitePC	Number of victims for influenza per capita
N_influenza_polmonitePCS	Number of victims for influenza per capita - standardized
N_caduti_malattiaPC	Number of soldiers who died of illness in their hometown, in per capita terms
N_caduti_malattiaPCS	Number of soldiers who died of illness in their hometown, in per capita terms - standardized
N_caduti_tot_frontePC	Number of soldiers who died outside their hometown, in per capita terms
N_caduti_tot_frontePCS	Number of soldiers who died outside their hometown, in per capita terms - standardized

2.3 Dataset: dataset_replication_2018.dta

Variable name	**Description**
ID_comune	Municipal identifier
province_FE	Province name (num)
distretto_FE	District name (num)
population_density_1911	Ratio between population and area in 1911
Zonaaltimetrica	Municipal indicator of geography
Capoluogodiprovincia	Municipality province capital

aug_dec_18_sd	Number of soldiers who died of illness in their hometown between August and December 1918, in per capita terms (with population of 1911) - standardized
aug_dec_18_sdD	Binary version of the variable aug_dec_18 - standardized
gini2018	Municipal Gini index in 2018
gini2018_log	Municipal Gini index in 2018 in logarithm
sample_1924	Indicator for the sample of the analysis with 1924 data

2.4 Dataset: dataset_replication_fig1.dta

Variable name	**Description**
anno	Year
N_influenza_polmonite	Number of victims for influenza

2.5 Dataset: dataset_replication_fig3.dta

Variable name	**Description**
anno_morte	Year of death
N_caduti	Number of military victims
N_caduti_malattia	Number of military victims of illness
N_caduti_malattia_inComune	Number of military victims of illness in their hometown

2.6 Dataset: dataset_replication_fig5_1.dta

Variable name	**Description**
Year	Year
Month	Month
Average	Average death rate compared to 1911-1913 triennium

2.7 Dataset: dataset_replication_fig5_2.dta

Variable name	**Description**
mese_morte	Month of death

anno_morte	Year of death
N_caduti_malattia_inComune	Number of military victims of illness in their hometown

2.8 Dataset: dataset_replication_fig6_1.dta

Variable name	**Description**
first_third_tercile	Variable indicating whether the taxpayer belongs to a municipality in the first/third tertile of the treatment
reddito_completo	Declared income

2.9 Dataset: dataset_replication_fig6_2.dta

Variable name	**Description**
fraction_income	Income decile
fr_dec	Difference in the fraction of income between the group of taxpayers in the third tertile of the treatment and that in the first tertile