

Supporting Materials for
“State-building through Public Land Disposal? An
Application of Matrix Completion Methods for
Counterfactual Prediction”

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1 Exploratory data analysis

Table 1: Definitions and data sources of variables.

Theme	Variable	Coverage	Definition	Source
Farms	Farm size	1860-1950 (decennial)	Log average farm size	Haines (2010)
	Farm value	1850-1950 (decennial)	Log average value of farmland and buildings per acre (\$)	Haines (2010)
	Land inequality	1860-1950 (decennial)	Gini coefficient based on distribution of farm sizes, adjusted for the share of propertyless farmers	Ibid.
State Capacity	Revenues	1783-1982	Log per-capita state government total revenue (1982\$)	Sylla et al. (1993, 1995a,b); Haines (2010) (total free pop. data from Haines (2010))
	Expenditures	Ibid.	Log per-capita state government total expenditure (1982\$)	Ibid.
Homesteads	Homestead entries	1862-2016	Log per-capita total number of patents issued under the HSA	U.S. BLM (https://glorecords.blm.gov) (total free pop. data from Haines (2010))
Railroads	Railroad access	1830 - 1911	Total miles of operational railroad track per sq mi	Constructed from Atack (2013)

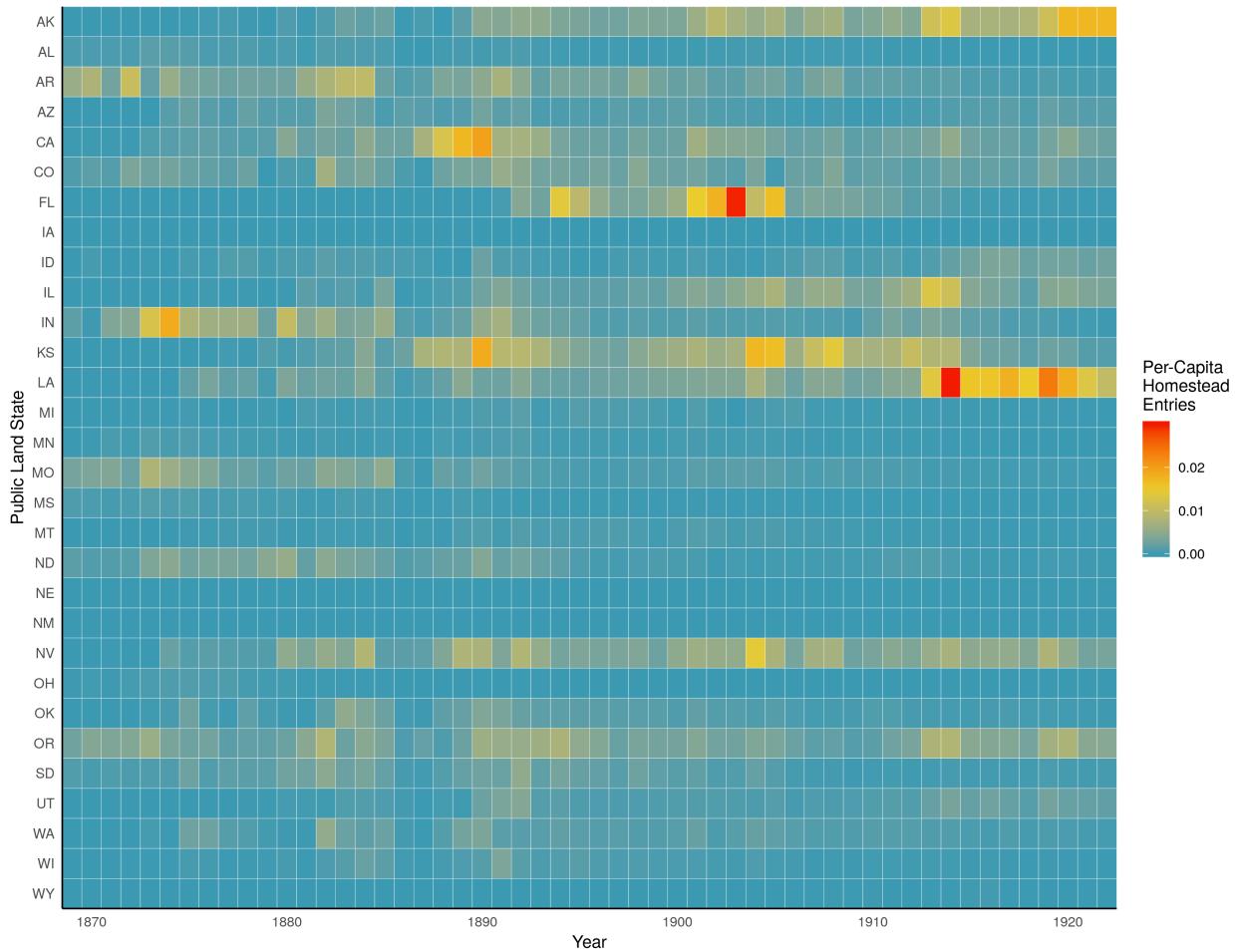
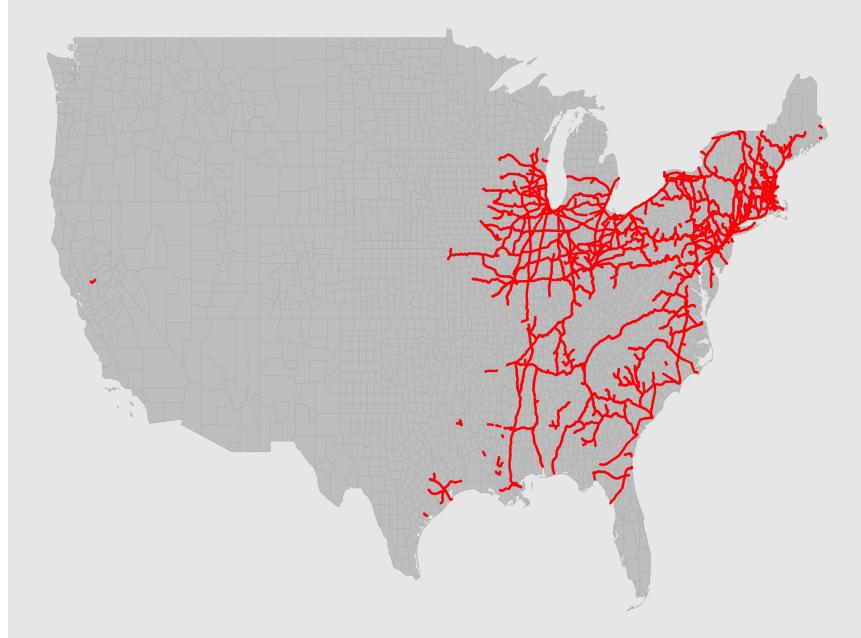


Figure 1: Per-capita statewide sum of homestead entries in state i and year t , 1869-1922.

1862 (1911 county borders)



1911

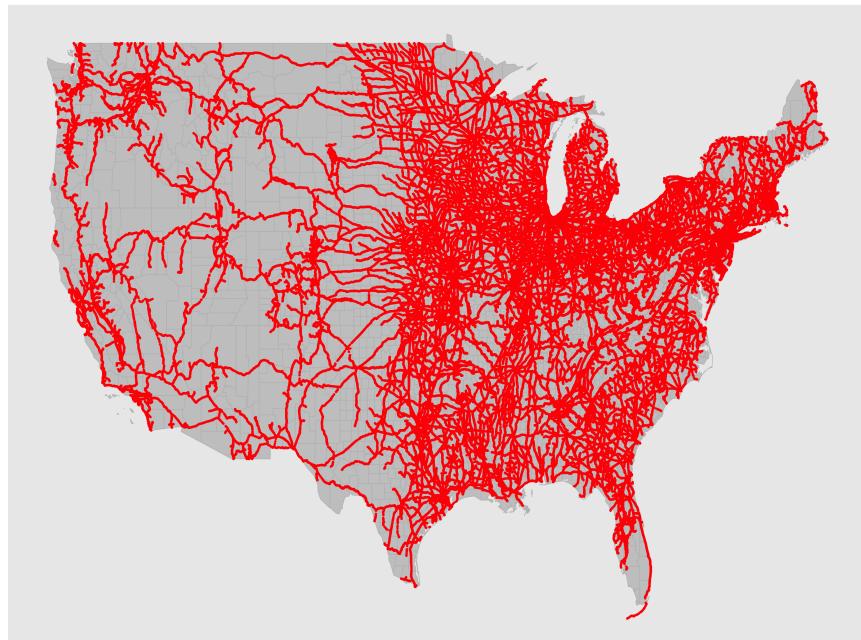


Figure 2: Railroad lines in 1862 and 1911, overlaid on 1911 county borders. Railroad data from Atack (2013) and county border data from Long (1995).

2 Simulations

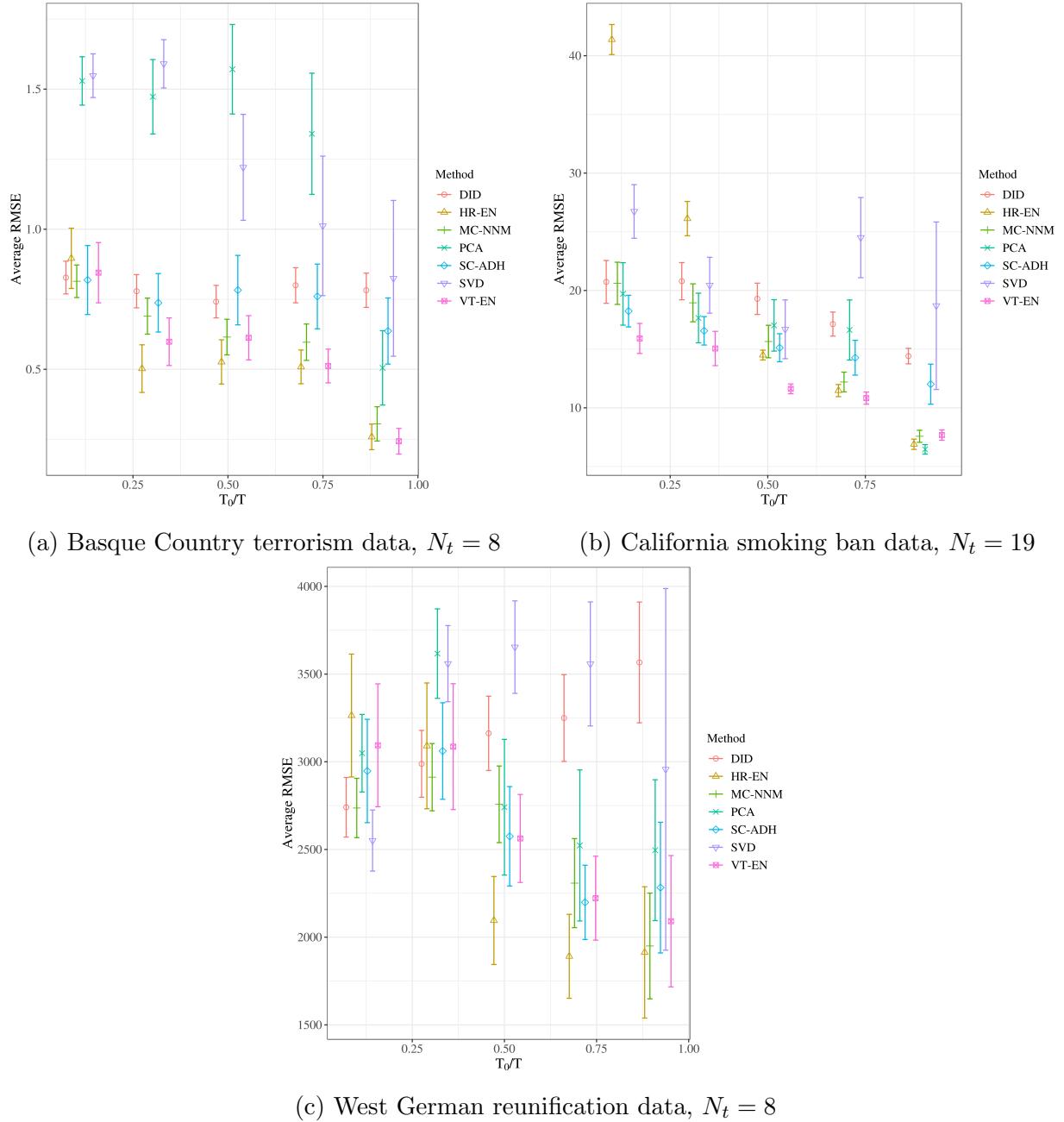


Figure 3: Placebo tests under simultaneous treatment adoption. See footnotes to Fig. 1.

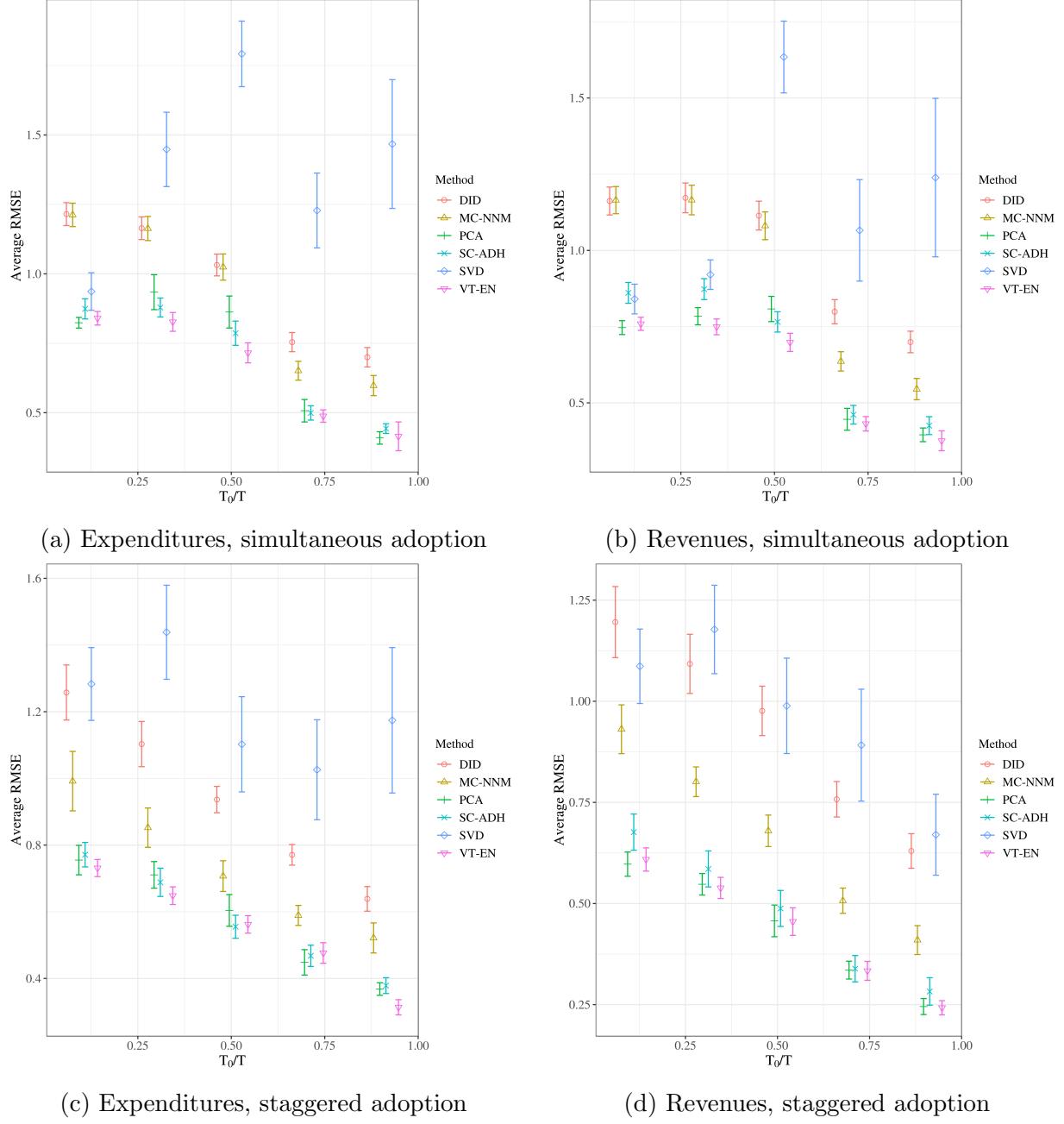


Figure 4: Placebo tests under simultaneous and staggered treatment adoption, with $N_t = 9$. See footnotes to Fig. 3.

3 Causal mechanisms

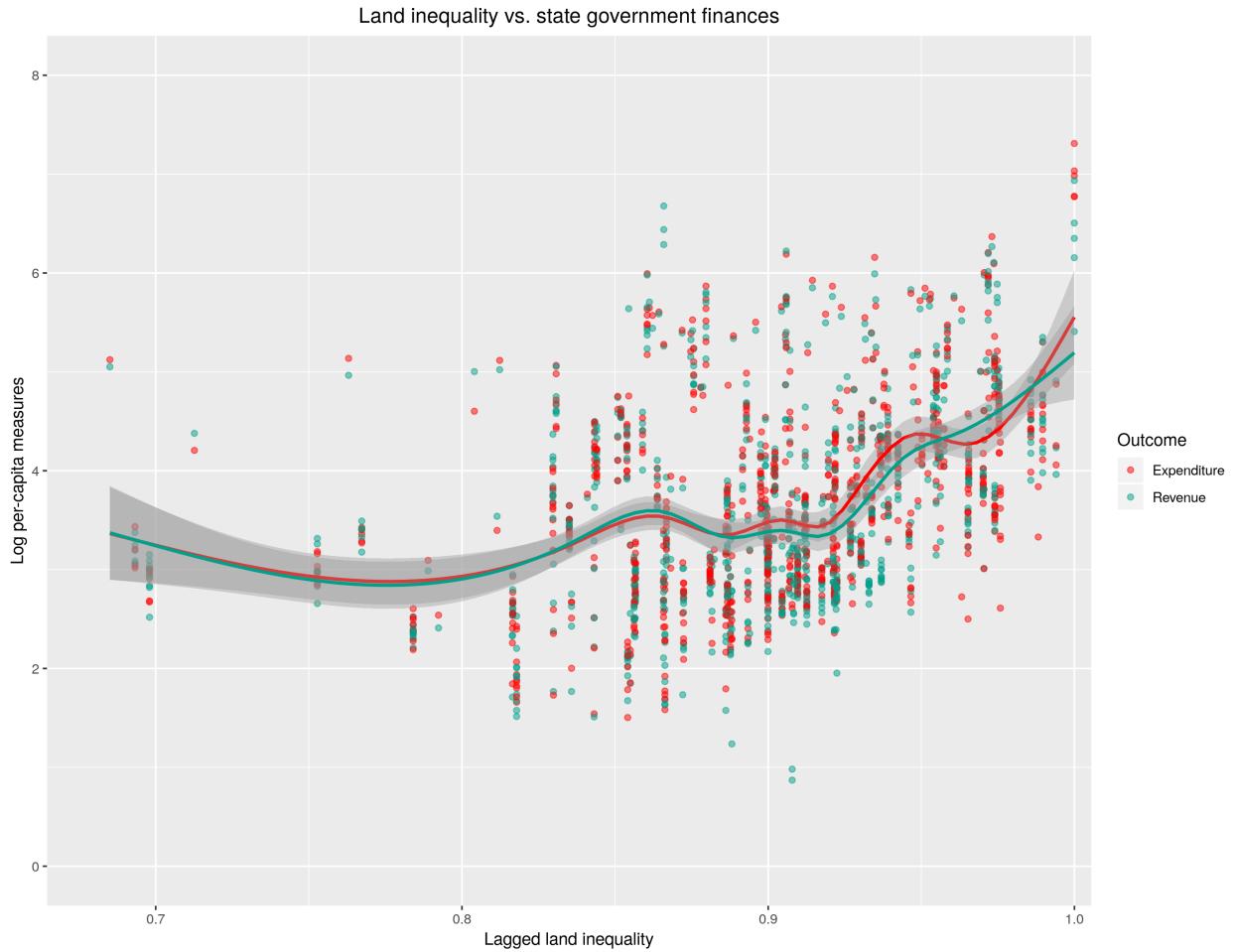


Figure 5: Land inequality (lagged by 10 years) vs. log per-capita revenue and expenditure, 1860-1950. Each point is a state-year observation. Lines represent generalized additive model (GAM) fits to the data and shaded regions represent corresponding 95% confidence intervals.

References

- Atack, J. (2013). On the use of geographic information systems in economic history: The american transportation revolution revisited. *The Journal of Economic History* 73(2), 313–338.
- Haines, M. R. (2010). Historical, Demographic, Economic, and Social Data: The United States, 1790-2002. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-05-21. doi.org/10.3886/ICPSR02896.v3.
- Long, J. H. (1995). Atlas of historical county boundaries. *The Journal of American History* 81(4), 1859–1863.
- Sylla, R. E., J. B. Legler, and J. Wallis (1993). Sources and Uses of Funds in State and Local Governments, 1790-1915: [United States]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 2017-05-21. doi.org/10.3886/ICPSR06304.v1.
- Sylla, R. E., J. B. Legler, and J. Wallis (1995a). State and Local Government [United States]: Sources and Uses of Funds, Census Statistics, Twentieth Century [Through 1982]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 2017-05-21. doi.org/10.3886/ICPSR06304.v1.
- Sylla, R. E., J. B. Legler, and J. Wallis (1995b). State and Local Government [United States]: Sources and Uses of Funds, State Financial Statistics, 1933-1937. Ann Arbor, MI: Inter-university Consortium for Political and Social Research, 2017-05-21. http://doi.org/10.3886/ICPSR06306.v1.