Online Appendix for:
Wealth, Officeholding, and Elite Ideology in Antebellum Georgia

September 20, 2015

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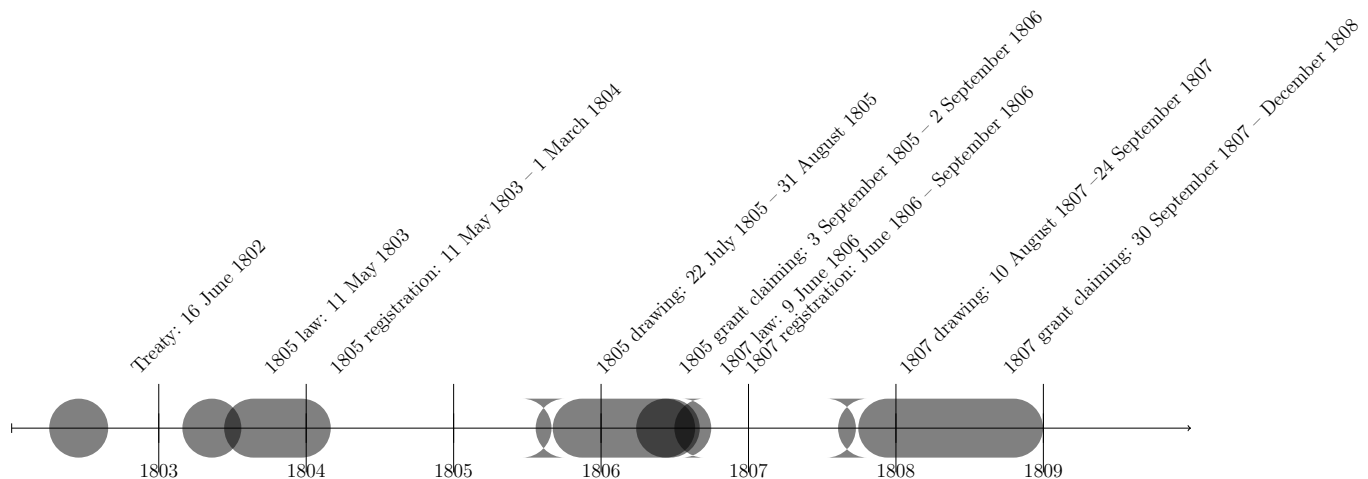
1 Chronology

Figure 1: Timeline of 1805 and 1807 lottery events. (Graham, 2010, 2011).

2 Counties

Table 1: Counties created by 1805 and 1807 lotteries.

Panel A: 1805

Counties	No. Districts	Lot sizes (acres)	Lot length (chains square)	Lot orientation (degrees)	Grant fee ($)	Est. value of lot ($)
Baldwin	5	202.5	45	45 / 60	8.10	839.17
Wayne	3	490	70	13 / 77	19.60	842.64
Wilkinson	5	202.5	45	45 / 60	8.10	811.25

Panel B: 1807

Counties	No. Districts	Lot sizes (acres)	Lot length (chains square)	Lot orientation (degrees)	Grant fee ($)	Est. value of lot ($)
Baldwin	15	202.5	45	45 / 60	12.15	827.35
Wilkinson	23	202.5	45	45 / 60	12.15	799.82

Notes: counties and land lots specified by Acts of 11 May 1803 and 9 June 1806. Lot orientation is degrees from the meridian. Lot values are estimated by averaging the cash value of farms minus the value of farming implements and machinery by the number of (improved and unimproved) acres of land in farms (Haines, 2004; Bleakley and Ferrie, 2013). The 1850 values are deflated to 1805 dollars (Panel A) and 1807 dollars (Panel B) using a historical consumer price index (Officer and Williamson, 2011).

Figure 2: Time lag in filing grants for 1805 and 1807 fortunate drawers.
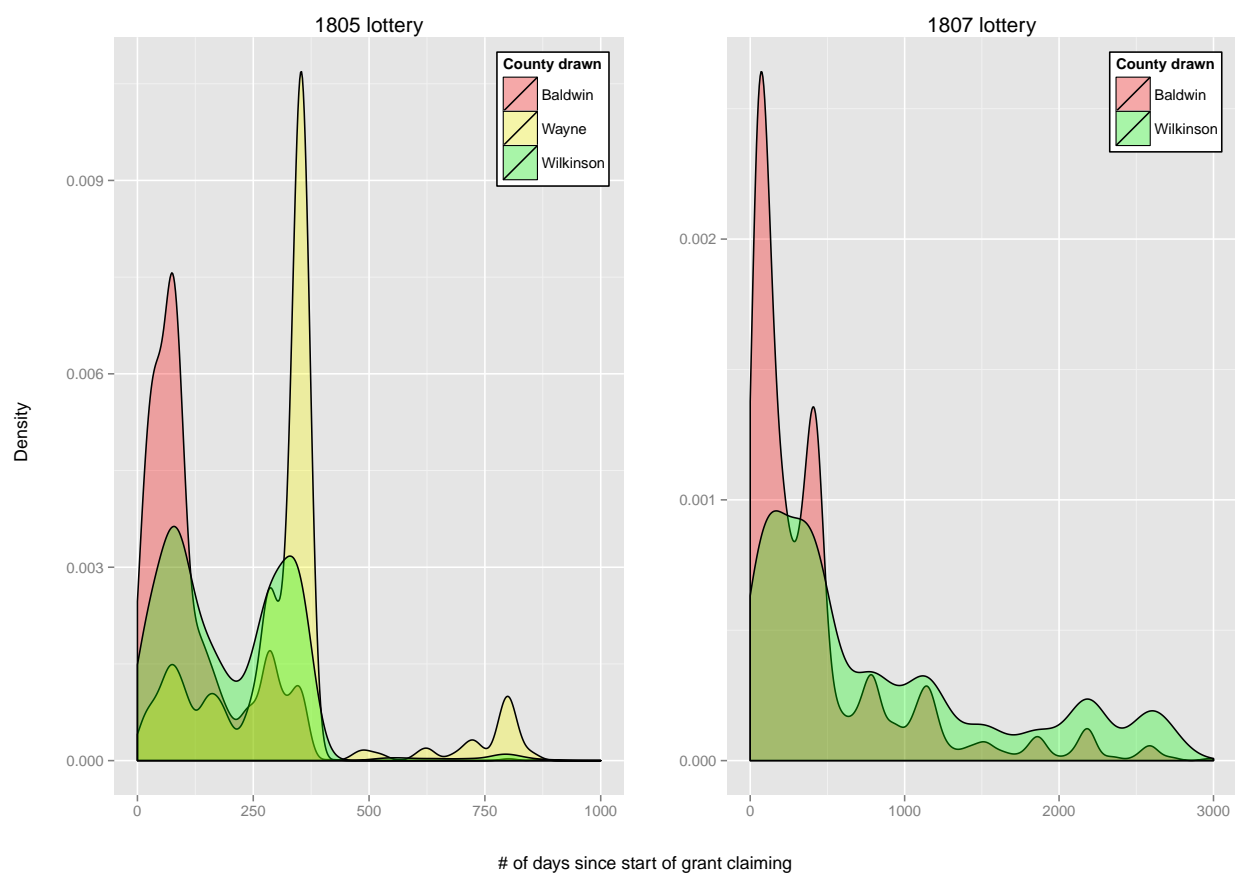
Notes: grants filed for land reverted to state are excluded. See OA Figure 1 for the dates of grant claiming specified by the Acts of 11 May 1803 and 9 June 1806. The legislature extended the grant deadline for each lottery on an annual basis for about a decade.

3 Qualifications

Requirements	No. Draws (1805)	No. Draws (1807)
"Every free male white person, twenty-one years of age and upwards, being a citizen of the United States, and an inhabitant of this State, twelve months immediately preceding the passage of this act, or paid a tax towards the support of government (including such as may be absent on lawful business)" [1]	1	1
"Every free white male person of like description, having a wife, legitimate child or children, under twenty–one years of age"	2	2
"All widows having a legitimate child or children, under the age of twenty-one years, who have resided twelve months in this State, immediately preceding the passage of this act" [2]	2	1
"All families of orphans, under twenty-one years of age, having no parents living" [3]	1	1–2 [4]
"All families of orphans [with three years' residence], under twenty-one years of age, whose father is dead, "	N/A	1
"All free female white persons, who have arrived to the age of twenty–one years or upwards, who have resided in this State [for three years]"	1	N/A

Figure 3: Lottery qualifications specified by Acts of 11 May 1803 and 9 June 1806 (Clayton et al., 1812). [1] The residency requirement is three years under 1807 lottery rules. An amendment to the 1807 rules also makes provision for persons laboring under accidents or misfortunes. [2] The 1807 lottery rules apply to all widows with three years residence in Georgia. [3] An amendment to the 1805 lottery rules entitles children whose father is dead and mother remarries to draw in the same manner. The 1807 lottery rules apply the three years residency requirement. [4] The 1807 lottery rules specify "families of orphans consisting of more than one" receive two draws and orphan families of "only one" receive one draw.

4   Descriptive statistics: 1800 Census

County	White males 16–25	White males 26-44	White males 45+	White male total pop.	White female total pop.	Slave pop. (%)
Bryan	57	64	26	286	242	0.813
Bulloch	158	151	97	871	758	0.141
Burke	726	743	242	3,356	3,167	0.312
Camden	104	131	60	496	440	0.437
Chatham	547	591	175	2,077	1,596	0.699
Columbia	478	516	256	2,848	2,473	0.360
Effingham	94	163	132	716	594	0.368
Elbert	637	689	348	3,709	3,546	0.279
Franklin	463	572	276	3,078	2,814	0.140
Glynn	68	116	60	445	334	0.583
Greene	593	857	295	3,716	3,381	0.340
Hancock	964	952	423	5,205	4,400	0.334
Jackson	563	654	243	3,266	3,062	0.181
Jefferson	311	421	219	2,066	1,942	0.289
Liberty	171	187	71	762	584	0.742
Lincoln	230	317	193	1,745	1,581	0.301
Mcintosh	79	117	60	460	371	0.684
Montgomery	286	270	147	1,445	1,297	0.137
Oglethorpe	643	653	341	3,479	3,207	0.316
Richmond	360	370	132	1,503	1,225	0.492
Screven	274	310	82	1,253	1,000	0.254
Warren	605	562	313	3,263	2,989	0.247
Washington	660	678	322	3,739	3,442	0.259
Wilkes	716	830	444	4,184	3,848	0.382
Georgia	9,787	10,910	4,957	53,965	48,298	0.365

Table 2: Summary statistics on selected county–level characteristics in the 1800 Census. 'Slave pop.' is the slave population over the total population.

5 Descriptive statistics: 1850 Census

5.1 Individual–level summary statistics

Variable	N	Min.	Mean	Max.	S.d.
Personal characteristics					
Age	25,506	21	38.042	101	11.195
Literate	25,520	0	0.891	1	0.311
In school	25,520	0	0.001	1	0.038
Real estate value (1850$)	25,520	0	2,324.389	250,000	5,538.743
Surname characteristics					
Surname length	25,520	3	6.224	14	1.560
Surname frequency	25,520	1	36.965	449	74.114
Occupations					
Blacksmith	25,520	0	0.006	1	0.080
Carpenter	25,520	0	0.009	1	0.092
Farmer	25,520	0	0.852	1	0.355
Laborer	25,520	0	0.004	1	0.065
Lawyer	25,520	0	0.009	1	0.093
Mechanic	25,520	0	0.008	1	0.087
Merchant	25,520	0	0.021	1	0.143
Overseer	25,520	0	0.006	1	0.075
Physician	25,520	0	0.014	1	0.117
Reverend	25,520	0	0.009	1	0.093
Teacher	25,520	0	0.005	1	0.067

Table 3: Individual–level summary statistics using sample drawn from the 1850 full–count Census (NAPP; Ruggles et al.). 'Surname length' is the character length of surnames. 'Surname frequency' is the number of times surnames appear in the sample. 'Literate' is a binary variable indicating literacy (can read and write). 'In school' is an indicator variable for individuals currently in school. The occupations dummies indicate contemporary occupational categories. Sample is restricted to male heads of households aged 21 and over who living in Georgia at the time of the census, were born in Georgia, and have non–missing surnames and property value.

5.2 County–level characteristics

County	Log value of farms ($)	Log value of farm equip. ($)	Log total # of farms	Log mean farm value ($)	Log total farm acres	Per acre farm value ($)	White total pop. (%)	Slave pop. (%)
Baldwin	13.407	10.341	5.481	7.879	12.343	2.761	3519	0.565
Bryan	12.636	9.857	5.342	7.230	12.046	1.692	1164	0.656
Bulloch	12.761	9.724	6.021	6.691	13.122	0.663	2840	0.340
Burke	14.642	11.794	6.568	8.014	13.171	4.100	5118	0.673
Camden	13.715	10.242	5.460	8.223	12.240	4.234	2069	0.672
Chatham	14.513	12.251	4.883	9.520	11.866	12.643	9152	0.587
Clarke	13.876	11.028	5.991	7.825	12.197	5.051	5513	0.503
Columbia	14.213	11.682	6.192	7.938	12.613	4.559	3617	0.692
Effingham	12.646	9.721	5.730	6.861	12.358	1.263	2007	0.478
Elbert	14.262	11.443	6.690	7.511	12.655	4.691	6676	0.484
Franklin	13.882	11.335	7.174	6.626	12.900	2.461	9076	0.207
Glynn	13.544	10.353	4.522	8.980	11.574	6.877	696	0.858
Greene	14.385	11.266	6.238	8.101	12.444	6.659	4744	0.633
Hancock	14.096	11.314	6.096	7.936	12.572	4.307	4210	0.631
Jackson	13.505	10.856	6.304	7.127	12.203	3.418	6808	0.301
Jefferson	14.118	11.483	6.288	7.756	12.603	4.227	3717	0.588
Liberty	13.563	10.400	5.497	8.022	12.743	2.174	2002	0.745
Lincoln	13.363	10.604	5.609	7.688	11.918	3.970	2187	0.630
Montgomery	11.678	9.094	5.124	6.475	12.140	0.582	1541	0.285
Oglethorpe	14.437	11.561	6.319	8.060	12.606	5.888	4382	0.642
Richmond	13.969	10.838	5.606	8.318	11.913	7.468	8153	0.481
Screven	13.320	10.672	6.211	7.036	13.144	1.109	3173	0.536
Tattnall	12.345	9.503	5.790	6.495	12.883	0.550	2378	0.258
Warren	14.335	11.434	6.405	7.873	12.825	4.277	6158	0.492
Washington	14.102	11.444	6.449	7.580	12.962	2.908	5991	0.488
Wayne	11.419	8.525	5.147	6.215	11.226	1.146	1088	0.271
Wilkes	14.112	11.332	6.148	7.899	12.571	4.378	3805	0.684
Wilkinson	13.723	11.147	6.469	7.175	12.662	2.670	5551	0.331
Georgia	18.377	15.589	10.854	7.459	16.943	3.938	521572	0.421

Table 4: Summary statistics on selected county–level characteristics for counties existing in 1807 from the 1850 Census. 'Log total farm acres' is the log of the sum of improved and unimproved acres of land in farms. 'Log average farm value' is the log of the difference between farm value and equipment value, over the total number of farms. 'Per acre farm value' is the difference between farm value and equipment value, over the sum of improved and unimproved acres of farm land. All dollar values are current (1850$). 'Slave pop.' is the slave population over the total population.
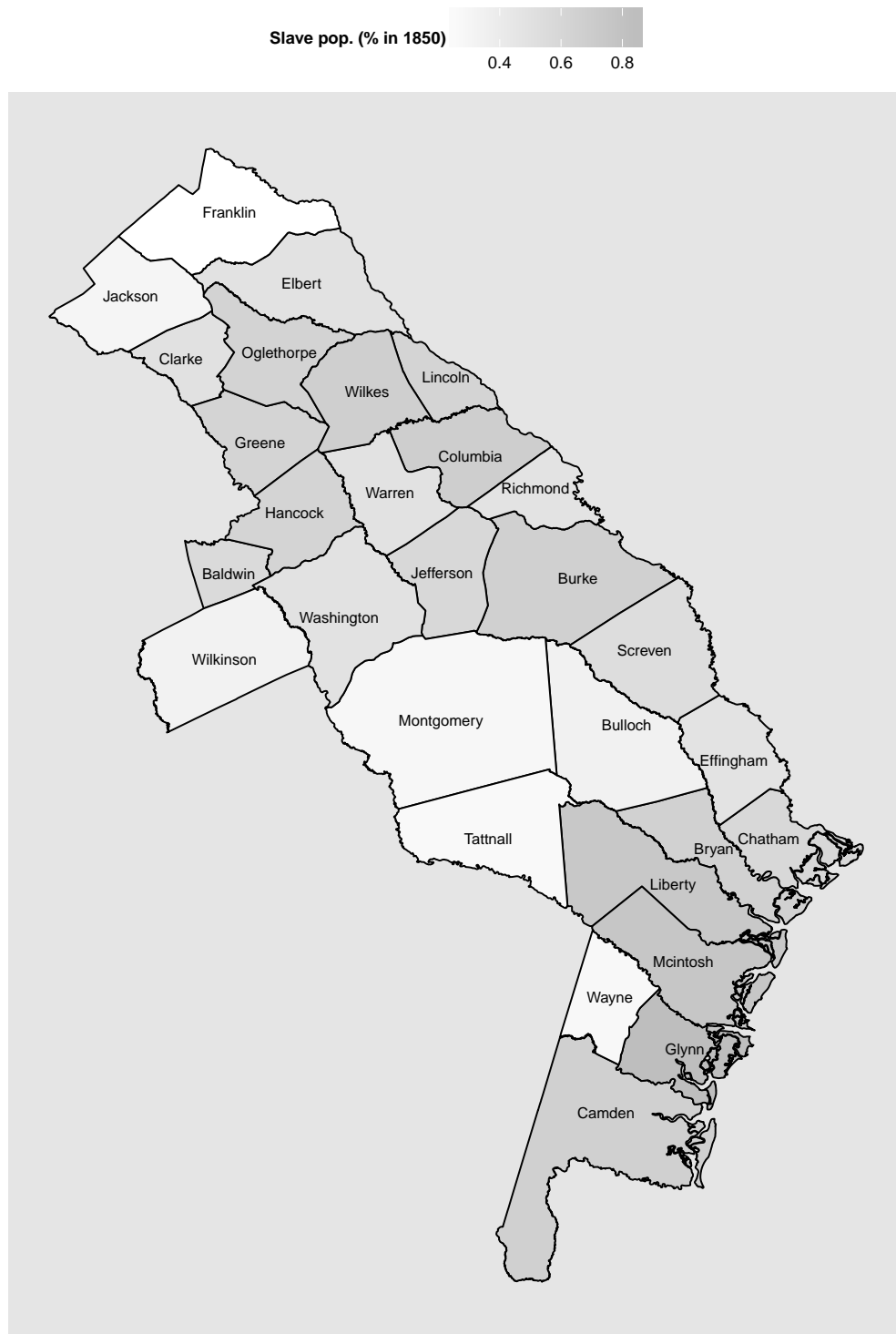
Figure 4: 1850 Slave population as a percentage of total population for counties existing in 1807.

6 Record classification ensemble

Table 5: Record classification ensemble.

Algorithm	Parameters	Risk	Weight
Super Learner (`SuperLearner`)	default	0.023	-
Lasso regression (`glmnet`)	$\alpha = 1$	0.023	0.243
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.25$	0.023	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.5$	0.023	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.75$	0.023	0
Neural network (`nnet`)	default	0.066	0
Random forests (`randomForest`)	default	0.026	0
Random forests (`randomForest`)	mtry = 1	0.03	0.45
Random forests (`randomForest`)	mtry = 5	0.025	0.305
Random forests (`randomForest`)	mtry = 10	0.025	0
Ridge regression (`glmnet`)	$\alpha = 0$	0.025	0

Notes: cross–validated risk and weights used for each algorithm in super learner prediction ensemble for record classification model. 'Risk' is the 10–fold cross-validated risk estimate based on mean squared error for each algorithm. 'Weight' is the coefficient for the super learner, which is estimated using non–negative least squares based on the Lawson-Hanson algorithm.

7 Georgia Assembly roll call votes

Year	Title	Chamber	Direction	Vote total	Issue
1810	"To manumit a certain negro girl named Clarissa"	Senate	(-)	Yeas 24 – nays 10	Slavery
1810	"To incorporate the Bank of Augusta"	Senate	(+)	Yeas 23 – nays 7	Banking
1813	"To establish a bank in the town of Milledgeville"	House	(+)	Yeas 20 – nays 51	Banking
1813	"To consolidate the funds of this state and establish a bank thereon"	Senate	(+)	Yeas 17 – nays 15	Banking
1814	"To consolidate the funds of this state and establish a bank thereon"	Senate	(+)	Yeas 18 – nays 14	Banking
1814	"An act to establish an [sic] uniform mode of calculating interest in this state, and to prevent the collection of compound interest"	Senate	(+)	Yeas 19 – nays 11	Banking
1815	"To incorporate a bank, to be called, *The Bank of the State of Georgia*"	House	(+)	Yeas 60 – nays 7	Banking
1815	"To incorporate a Bank to be called the Bank of the State of Georgia"	Senate	(+)	Yeas 18 – nays 13	Banking
1815	"To incorporate the Bank of Milledgeville"	Senate	(+)	Yeas 27 – nays 9	Banking
1815	"To emancipate and set free Abraham Mauzo, jun. a person of color"	Senate	(-)	Yeas 12 – nays 25	Slavery
1816	"To emancipate a negro slave, named Caesar,	Senate	(-)	Yeas 12 –	Slavery

Year	Bill	Chamber		Vote	Topic
	commonly called Caesar Kennedy, and to carry into effect the last will and testament of Wn. Kennedy, late of Richmond county, dec'd'"			nays 19	Slavery
1816	"An act to restore William Wall and Andrew Guarde, two persons of color, to the privilege of piloting vessels in the several ports of this state"	Senate	(-)	Yeas 19 – nays 11	Slavery
1816	"To prevent the circulation of notes emitted by unchartered Banks"	Senate	(+)	Yeas 23 – nays 6	Banking
1817	"To prevent the issuing… or circulating [of] bills… other than those of chartered Banks, and for establishing the interest thereon"	Senate	(+)	Yeas 23 – nays 12	Banking
1818	"To incorporate the Bank of Darien"	House	(+)	Yeas 50 – nays 36	Banking
1818	"To pardon a negro boy named Peter, the property of the late Mather Jones of Tatnall county, deceased"	Senate	(-)	Yeas 16 – nays 21	Slavery
1818	"To manumit and make free a certain negro slave, named therein, (the property of Henry Parks)"	House	(-)	Yeas 39 – nays 51	Slavery
1818	"To manumit and make free a certain person of color, named therein"	House	(-)	Yeas 43 – nays 44	Slavery
1818	"To repeal that part of an act, passed the 20th of December, 1817, relative to the introduction of slaves into this state"	House	(+)	Yeas 48 – nays 41	Slavery
1821	"To alter and amend the several laws for the trial of Slaves and Free Persons of Color in this State"	Senate	(+)	Yeas 34 – nays 7	Slavery
1824	"To emancipate a certain colored man by the name of Henry, commonly called Henry Adams"	Senate	(-)	Yeas 28 – nays 26	Slavery

Year	Bill	Chamber	Outcome	Vote	Topic
1824	"To manumit and set free three negroes by the names of old Ben, Lizzy, and old Milley"	Senate	(–)	Yeas 23 – nays 24	Slavery
1824	"To repeal a law passed in the year 1817, prohibiting the introduction of slaves only on certain conditions"	Senate	(+)	Yeas 33 – nays 13	Slavery
1824	"[To repeal] an act to regulate the intercourse between the Banks incorporated by the General Assembly of the State of Georgia, and the Bank of the United States"	Senate	(–)	Yeas 21 – nays 24	Banking
1824	"[To repeal] an act to regulate the intercourse between the Banks incorporated by the General Assembly of the State of Georgia, and the Bank of the United States"	Senate	(–)	Yeas 23 – nays 22	Banking
1826	"To regulate the intercourse between the banks of this State, and other institutions and brokers"	Senate	(+)	Yeas 28 – nays 26	Banking
1826	"To amend an act to incorporate the bank of Darien, passed 15th Dec. 1818"	Senate	(+)	Yeas 30 – nays 26	Banking
1827	"To incorporate a bank in the city of Augusta'"	Senate	(+)	Yeas 38 – nays 22	Banking
1827	"To amend an act to incorporate the bank of Darien, passed 15th Dec. 1818"	Senate	(+)	Yeas 39 – nays 27	Banking
1827	"To manumit a male slave and a female slave by the names of Davy and Hannah"	Senate	(–)	Yeas 35 – nays 20	Slavery
1828	"To establish a bank at Milledgeville, to be called... the Central Bank of Georgia"	Senate	(+)	Yeas 39 – nays 32	Banking

| Year	Description	Chamber		Vote	Category
1831	"To alter and amend an act to impose an additional tax on Pedlers and other Itinerant Traders, passed the 9th December 1824; and to punish such traders for illegal trading with slaves "	Senate	(+)	Yeas 39 – nays 27	Slavery
1831	"To incorporate a Banking Company in the town of Hawkinsville"	Senate	(+)	Yeas 31 – nays 28	Banking
1831	"To incorporate the Insurance Bank of Columbus"	Senate	(+)	Yeas 36 – nays 21	Banking
1831	"To incorporate a Banking Company under the name of the Commercial Bank of Macon"	Senate	(+)	Yeas 43 – nays 29	Banking
1834	"To extend the charter of the Darien Bank"	House	(+)	Yeas 75 – nays 65	Banking
1838	"To authorize the Business of Banking, and to regulate the same"	Senate	(+)	Yeas 42 – nays 28	Banking
1839	"To repeal an act to authorize the Business of Banking"	Senate	(-)	Yeas 38 – nays 48	Banking
1841	"To protect the slave population of the people of the State of Georgia, by compelling vessels owned or commanded by citizens of, or coming from the ports of the State of Maine, and the officers, seamen and passengers thereof, to perform quarantine; and provide for a search thereof on their departure"	House	(+)	Yeas 78 – nays 92	Slavery
1842	"To amend the charter of the Central Bank of Georgia"	House	(+)	Yeas 116 – nays 71	Banking

Year	Bill	Chamber	Direction	Vote total	Category
1842	"To amend the charter of the Central Bank of Georgia"	Senate	(+)	Yeas 65 – nays 15	Banking
1845	"To reduce the rate of interest on money, to 7 percent"	Senate	(+)	Yeas 24 – nays 21	Banking

Table 6: Summary of roll call votes on motions to pass final bills related to slavery or state banking policy. 'Year' is the year the bill was voted on. 'Chamber' indicates whether the vote occurred in the House or Senate. 'Direction' indicates whether an affirmative vote is coded positively (+) or negatively (-). 'Vote total' is the result of the roll call.

8 Balance of pretreatment characteristics

Figure 5: Normal QQ plots of surname characteristics by treatment assignment among 1805 participants.
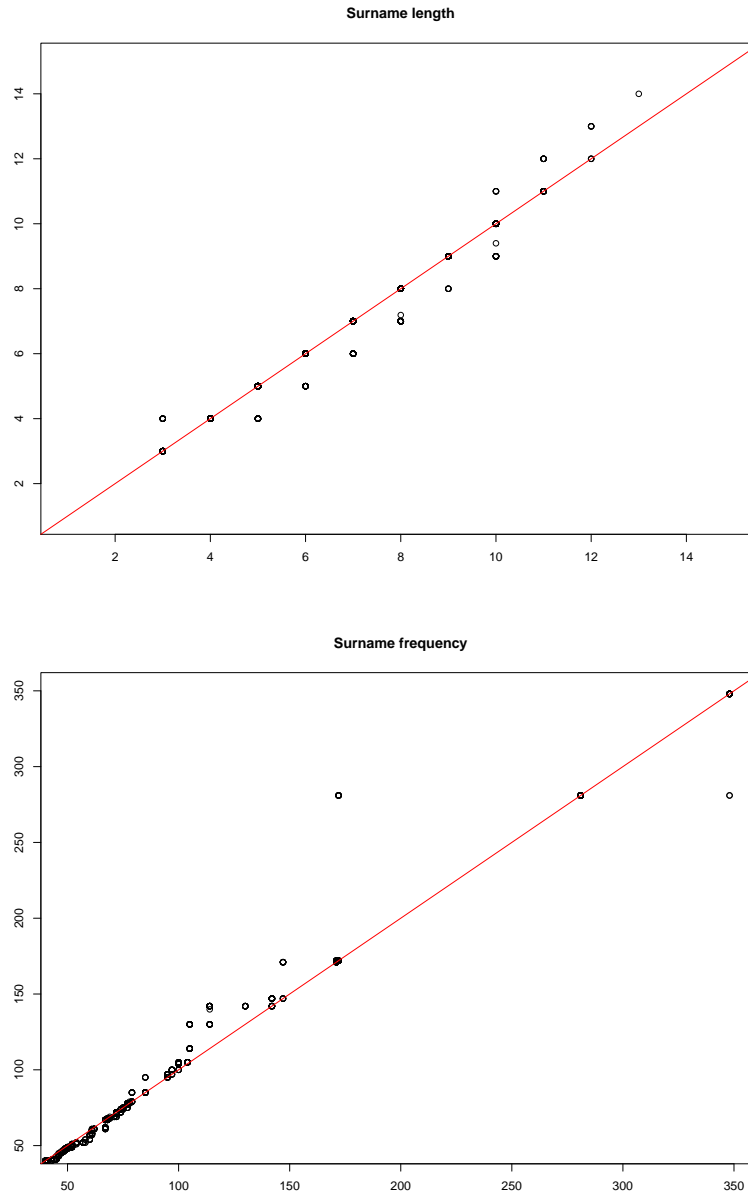
Notes: 'Surname frequency' is the number of times surnames appear in the lottery records. 'Surname length' is the character length of surnames.

9 Ensemble for heterogeneous treatment effects

# slaves held (1820)			
Algorithm	Parameters	Risk	Weight
Generalized additive models (`gam`)	degree = 2	119.522	0
Generalized additive models (`gam`)	degree = 3	119.522	0
Generalized additive models (`gam`)	degree = 4	119.522	0
Generalized boosted models (`gbm`)	default	118.209	0
Generalized linear models (`glm`)	default	119.522	0
Lasso regression (`glmnet`)	$\alpha = 1$	118.156	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.25$	118.147	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.5$	118.151	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.75$	118.158	0
Random forests (`randomForest`)	default	121.764	0
Random forests (`randomForest`)	mtry = 1	118.143	0
Random forests (`randomForest`)	mtry = 5	119.924	0.035
Random forests (`randomForest`)	mtry = 10	124.695	0
Ridge regression (`glmnet`)	$\alpha = 0$	118.196	0
Support vector machines (`svm`)	default	121.513	0.964
# terms after lottery			
Algorithm	Parameters	Risk	Weight
Generalized additive models (`gam`)	degree = 2	3.192	0
Generalized additive models (`gam`)	degree = 3	3.192	0
Generalized additive models (`gam`)	degree = 4	3.192	0
Generalized boosted models (`gbm`)	default	2.968	0
Generalized linear models (`glm`)	default	3.192	0
Lasso regression (`glmnet`)	$\alpha = 1$	2.989	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.25$	2.993	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.5$	3.008	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.75$	2.963	0
Random forests (`randomForest`)	default	2.965	0
Random forests (`randomForest`)	mtry = 1	2.931	0.449
Random forests (`randomForest`)	mtry = 5	2.16	0.55
Random forests (`randomForest`)	mtry = 10	3.07	0
Ridge regression (`glmnet`)	$\alpha = 0$	2.959	0
Support vector machines (`svm`)	default	3.328	0

Officeholding			
Algorithm	Parameters	Risk	Weight
Generalized boosted models (`gbm`)	default	0.044	0.958
Lasso regression (`glmnet`)	$\alpha = 1$	0.044	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.25$	0.044	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.5$	0.044	0
GLM with elasticnet regularization (`glmnet`)	$\alpha = 0.75$	0.044	0.
Neural network (`nnet`)	default	0.047	0
Random forests (`randomForest`)	default	0.047	0
Random forests (`randomForest`)	mtry $= 1$	0.047	0
Random forests (`randomForest`)	mtry $= 5$	0.046	0
Random forests (`randomForest`)	mtry $= 10$	0.047	0.041
Ridge regression (`glmnet`)	$\alpha = 0$	0.044	0

Slavery legislation[†]

Algorithm	Parameters	Risk	Weight
Generalized additive models (gam)	degree = 2	0.15	0.136
Generalized additive models (gam)	degree = 3	0.15	0
Generalized additive models (gam)	degree = 4	0.15	0
Generalized boosted models (gbm)	default	0.134	0
Generalized linear models (glm)	default	0.15	0
Lasso regression (glmnet)	$\alpha = 1$	0.126	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.25$	0.124	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.5$	0.124	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.75$	0.123	0
Random forests (randomForest)	default	0.113	0.863
Random forests (randomForest)	mtry = 1	0.131	0
Random forests (randomForest)	mtry = 5	0.115	0
Random forests (randomForest)	mtry = 10	0.114	0
Ridge regression (glmnet)	$\alpha = 0$	0.129	0
Support vector machines (svm)	default	0.127	0

State banking policy[†]

Algorithm	Parameters	Risk	Weight
Generalized additive models (gam)	degree = 2	0.046	0
Generalized additive models (gam)	degree = 3	0.046	0
Generalized additive models (gam)	degree = 4	0.046	0
Generalized boosted models (gbm)	default	0.040	0
Generalized linear models (glm)	default	0.046	0
Lasso regression (glmnet)	$\alpha = 1$	0.045	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.25$	0.043	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.5$	0.045	0
GLM with elasticnet regularization (glmnet)	$\alpha = 0.75$	0.045	0
Random forests (randomForest)	default	0.034	0
Random forests (randomForest)	mtry = 1	0.044	0
Random forests (randomForest)	mtry = 5	0.035	0
Random forests (randomForest)	mtry = 10	0.033	1
Ridge regression (glmnet)	$\alpha = 0$	0.043	0
Support vector machines (svm)	default	0.048	0

Notes: cross–validated risk and weights for each algorithm in response model ensembles. Ensemble method used to estimate response surfaces for participants, given their treatment assignment, number of draws, and pretreatment covariates. †: response models use pretreatment measures of wealth as features in addition to the pretreatment covariates included in the balance of treatment assignment plot.

10 Distribution of wealth for legislator–participants

Table 7: Pre– and posttreatment wealth distribution for legislator–participants who voted on roll calls

Panel A: Pretreatment wealth

Variable	N	Min.	Mean	Max.	S.d.
Slaves held	376	0	2.335	24	4.581
Land (acres)	376	0	230.582	2851	353.329
Person tax ($)	376	0.318	1.655	21.9	2.548

Panel B: Posttreatment wealth

Variable	N	Min.	Mean	Max.	S.d.
Slaves held	323	0	4.059	33	6.788
Land (acres)	323	0	212.466	2167.5	303.364
Person tax ($)	323	0.4	3.416	20.303	3.963

Notes: distribution of pretreatment (Panel A) and posttreatment (Panel B) wealth measures derived from tax records for legislator–participants. Refer to the paper (Figure 5) for variable definitions.

11 Heterogeneous treatment effects
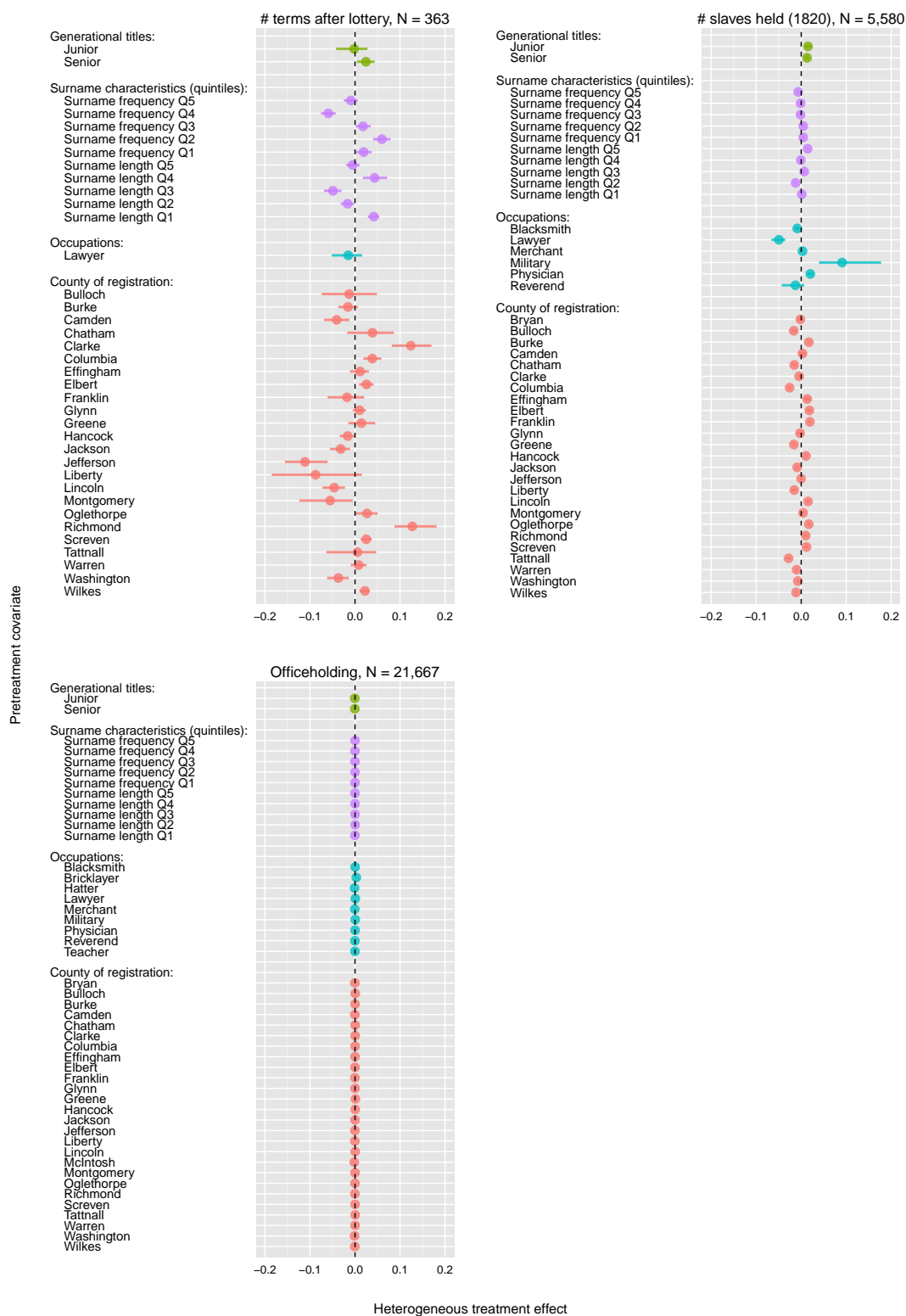
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