Online Appendix to "The Costs of Segregation: Evidence from the Federal Government under Woodrow Wilson"

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Online Appendix

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A Additional figures and tables



Figure A.I: Distribution of occupational earnings score in 1910 by race and sector

Notes: The figure shows the distribution of the (log) occupational income scores from the 1910 full-count census. The vertical lines show the mean income scores for black and white individuals by sector. The public sector is defined as the Federal Government comprising the Postal Service (ind1950 code 906) and Federal Public Administration (916). The private (non-federal government) sector comprises the complement. The dashed lines show the private sector means, and the solid lines show the public sector means.

Figure A.II: Sample of the Official Registers 1913

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(275)

Notes: The figure shows a sample of the Official Registers for the year 1913. Record highlighted in red is the example described in subsection 3.3.

Davis



Figure A.III: Match rates by Official Register year and civil servant entry cohort

Notes: Figure shows the share of civil servants from the Official Register dataset who could be linked to the 1910 census. In the left panel (a), the match rate is shown broken down by each year (i.e., each Official Register volume). In the right panel (b), the match rate is shown broken down by the cohort of entry. The cohort of entry is defined as the earliest year a civil servant is observed in the Official Register dataset (with censoring occuring in 1907 at the beginning of the sample period).



Figure A.IV: Heterogeneity by balanced vs. unbalanced sample

Notes: The figure shows the black vs. white (log) earnings gap for matched black civil servants around Woodrow Wilson's inauguration (t = 1913), broken down by whether the civil servant is observed throughout 1911-1921 (balanced) or not (unbalanced). Black and white civil servants are matched exactly based on sex, department, bureau, comparable age, salary and whether the position is paid per annum or not in 1911. The specification corresponds to the regression of Table II, column 3, except that we allow the Black × Wilson coefficient to vary by each time period. The solid vertical black line delineates the pre-transition from the post-transition period. The 95% confidence intervals reported are based on standard errors clustered at the individual-level.



Figure A.V: (Log) occupational income score gap between black and white workers over time

(a) Non-federal government

(b) Federal government

Notes: The figure shows the (log) occupational income score for a longitudinal sample of matched private sector workers (panel a) and census-linked civil servants (panel b) over time. Individuals are linked to the census years 1900-1940 using the cross-walk from the Census Linking Project (and thus only includes males). For the non-federal government sample, we restrict the sample to non-agricultural employment and reweight the sample to be representative of the civil servant sample based on state of residence, race, and the occupational income score in 1910. Solid line marks the inauguration of Woodrow Wilson.



Figure A.VI: Black-white earnings gap around Wilson's transition, by department

Notes: The figure shows the black vs. white (log) earnings gap for matched black civil servants around Woodrow Wilson's inauguration (t = 1913), broken down by Treasury (panel a), Navy (panel b), Agriculture (panel c) and whether the department is led by a Southern cabinet secretary or not (panel d). Black and white civil servants are matched exactly based on sex, department, bureau, age, salary, and whether the position is paid per annum or not in 1911. The solid vertical black line delineates the pre-transition from the post-transition period. The 95% confidence intervals reported are based on standard errors clustered at the individual-level.



Notes: The figure shows the black vs. white (log) earnings gap for matched black civil servants around Woodrow Wilson's inauguration (t = 1913), broken down by whether the civil servant is employed in DC or not. Black and white civil servants are matched exactly based on sex, department, bureau, comparable age, salary, and whether the position is paid per annum or not in 1911. The specification corresponds to the regression of Table II, column 3, except that we allow the Black × Wilson coefficient to vary by each time period. The solid vertical black line delineates the pre-transition from the post-transition period. The 95% confidence intervals reported are based on standard errors clustered at the individual-level.



Figure A.VIII: Intergenerational effects - Residual means by race, age and sector

(b) Log(earnings) in 1940

Notes: The figure shows the (residualized) mean outcomes (schooling and earnings in 1940) of children of black and white civil servants vs. the mean outcomes for children of non-government sector parents that are comparable in terms of state of residence, race, and occupational income score in 1910. The residualized means are computed by partialing out county fixed effects. Old children are those who are above 18 in the 1910 census; young children are those who are below or equals to 18 in 1910.



Figure A.IX: Example of matching strategy - John A. Davis vs. Willard A. Pollard

Notes: The figure illustrates the matching strategy for the case of John A. Davis (black civil servant) and Willard A. Pollard (white civil servant). The career progression shown for both civil servants is based on actual data on salaries and job titles from the Official Registers. The solid line marks the year of Wilson's election and implementation of the segregation order.

	(1)	(2)	(3)	(4)	(5)
	Mean	Matched cir	vil servants vs	. unmatched	Total
	non-govt	All	White	Black	obs.
Log(occscore)	2.807	0.349***	0.291***	0.603***	30,943,099
		(0.003)	(0.003)	(0.011)	
Home ownership	0.466	-0.029***	-0.045***	0.078***	56,521,680
		(0.002)	(0.002)	(0.008)	
Female	0.480	-0.350***	-0.353***	-0.303***	58,874,889
		(0.002)	(0.001)	(0.007)	
Age in 1910	33.843	3.812***	3.655***	5.003***	58,874,889
		(0.060)	(0.062)	(0.219)	

Table A.I: Descriptive statistics of civil servants vs. census population in 1910

Notes: Comparing mean characteristics of the census-linked civil servants to the average U.S. population aged 15-65 in 1910. The unit of observation is an individual. Column 1 reports the mean characteristics for the U.S. census population of 1910 (excluding the census-linked individuals). Column 2 shows the mean difference between the census-linked civil servants and the remainder of U.S. population. Columns 3-4 break down the mean difference for black and white individuals. Column 5 reports the total number of observations. Robust standard errors reported in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)
		Log ar	nual salary	
Mean of dep. var	6.765	6.731	6.737	6.721
$Black \times Wilson$	-0.034***	-0.030***	-0.037***	-0.031**
	(0.010)	(0.011)	(0.011)	(0.014)
CEM	Baseline	+ Current	+ Job	+ Current state
		state 1910	title 1911	+ Job title
Individual FEs	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y
Black \times Age bin FEs	Y	Y	Y	Y
Observations	92,687	47,070	59,275	31,887

Table A.II: Robustness check: Main result - Matching exactly on current state and job title

Notes: This table shows the robustness of our main result to matching on the civil servants' state of residence in 1910 (from US census) and the job title in 1911 (from the Official Registers). Column 1 shows the baseline estimate which matches on sex, department, bureau, contract type (full-time or not), salary, and age. In column 2, we further match exactly on the state of residence in 1910. In column 3, we repeat the exercise by matching on the exact job title in 1911. In column 4, we match *both* exactly on the current state and the job title. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)	(5)	(6)
			Log annu	al salary		
Mean of dep. var	6.872	6.673	6.793	6.765	6.787	6.766
Black \times Wilson	-0.036**	-0.048***	-0.021**	-0.033***	-0.035***	-0.033***
	(0.015)	(0.009)	(0.010)	(0.010)	(0.012)	(0.010)
County-level military \times Wilson				0.003		
				(0.002)		
Δlog black pop change						0.127
						(0.082)
Sample	Balanced	Pre 1916	Drop navy	Full	Non-	Full
	1911-1921		& war dept		south	
Individual FEs	Y	Y	Y	Y	Y	Y
Year FEs	Y	Y	Y	Y	Y	Y
Black \times Age bin FEs	Y	Y	Y	Y	Y	Y
Observations	29,871	65,894	66,980	89,752	77,588	89,400

Table A.III: Robustness check: Main result - World War I and Great migration

Notes: The table presents regression estimates of the impact of Wilson's segregation policy on the racial earnings gap within the federal government. In column 1, the sample is restricted to those civil servants that are continuously employed between 1911-1921. Column 2 restricts the sample to 1907-1915. In column 3, we exclude the Department of the Navy and Department of War. Column 4 controls for the county-level military employment (ind1950=595) in 1910 (per 100). Column 5 excludes the U.S. Southern States from the sample. Column 6 controls for the county-level (log) difference in the black population between 1920 and 1910. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)
	Lo	og annual salary	
Mean of dep. var	6.765	6.616	6.738
Black \times New President	-0.034***	0.005	0.005
	(0.010)	(0.022)	(0.022)
Black \times New President \times Wilson			-0.040*
			(0.024)
Sample	1907-1921	1897-1911	Stacked
Transition	Taft to	McKinley to	event
	Wilson	Roosevelt	study
Individual FEs	Y	Y	Y
Year FEs	Y	Y	Y
Black \times Age bin FEs	Y	Y	Y
Lower order interactions			Y
Observations	92,687	20,162	112,849

Table A.IV: The black-white earnings gap around Wilson's vs. Roosevelt's transition

Notes: The table compares the impact of Wilson's transition (t = 1913) on the racial earnings gap to the same impact by Roosevelt. In column 1, we report the main result capturing the impact of Wilson's segregation policy corresponding to Table II, Column 3. As a comparison, column 2 shows the black vs. white (log) earnings gap around Theodore Roosevelt's transition (t = 1903) (dashed gray line). The specification used is the same as before, except that we now use the sample period 1897–1911 and match black and white civil servants exactly based on sex, department, age, salary, and whether the position is paid per annum or not in 1901. Note that while Theodore Roosevelt was inaugurated in September 1901, the Official Registers record civil servants as of July. For Roosevelt, 1901 is thus the pre-period and 1903 the post-transition period. Lower order interactions are: Transition FEs (i.e., whether sample covers Taft to Wilson, column 1 or McKinley to Roosevelt, column 2) × Individual FEs, Transition FEs × Year FEs and Transition FEs × black × Age bin FEs, so that the triple difference in column 3 reflects the difference between in column 1 and column 2. The 95% confidence intervals reported are based on standard errors clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)	(5)
Mean of dep. var	3.115	3.113	3.113	3.223	3.223
Black	-0.027**				
	(0.013)				
Black \times Wilson	-0.109***	-0.082**	-0.184***	0.002	0.002
	(0.026)	(0.033)	(0.056)	(0.015)	(0.015)
Black \times Wilson \times Federal govt					-0.186***
					(0.053)
Year FEs	Y	Y	Y	Y	Y
Individual FEs		Y	Y	Y	Y
Black \times Age bin FEs			Y	Y	Y
Lower order interactions					Y
Sample	Fed	eral governi	nent	Non-govt	Pooled
Observations	5,643	4,446	4,446	13,368,822	13,373,268

Table A.V: Black-white occscore gap around Wilson's Presidency for civil servants and the private sector

Notes: The table presents regression estimates of the impact of Wilson's segregation policy on the racial earnings gap, as measured by the (log) occupational income score, within the federal government. The unit of observation is the individual-census year. The sample includes all civil servants that were matched and serving in 1911, covering their careers between 1900-1940. Individuals are linked across census rounds using the cross-walk provided by the Census Linking Project. Black is a dummy that is 1 if the civil servant is black according to the 1910 census. Wilson is a dummy that is 1 for the census year 1920 and after. The private sector control group is reweighted to be comparable to the census-linked civil servants based on their state of residence, race, and occupational income score in 1910, and likewise linked across census rounds using the Census Linking Project's crosswalk. Lower order interactions are: Federal govt × Black, Federal govt × Year FEs, Federal govt × Age bin FEs × Black, so that the triple differences in column 5 reflects the difference between column 3 and column 4. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)	(5)
	Population	Census-linked	Black-White	Matched	Black-White
	mean	mean	difference	sample mean	difference
Log(salary)	6.434	6.544	-0.367***	6.456	-0.008
			(0.023)		(0.031)
Paid per annum	0.504	0.591	-0.006	0.442	0.000
			(0.017)		(0.023)
Paid per month	0.142	0.117	-0.028***	0.089	0.004
			(0.010)		(0.011)
Paid per day	0.323	0.258	0.029*	0.421	-0.004
			(0.016)		(0.021)
Female	-	0.166	0.093***	0.178	0.000
			(0.015)		(0.021)
Age in 1900	-	38.04	-2.048***	35.87	0.284
		(0.447)			(0.605)
Observations 1901	96,042	18,811		6,4	-28
- of which black	-	99	996		37
Total obs. 1897-1911	543,451	97,483		21,	864

Table A.VI: Descriptive statistics of census-linked and matched civil servants in 1901

Notes: The table compares the census-linked and coarsened exact matched civil servants in 1901. The unit of observation is an individual-year, and the time period is 1897-1911. Column 1 reports the mean characteristics of the full population based on the digitized Official Registers, as well as the total number of observations and the number of observations corresponding to 1901. Column 2 reports the mean characteristics for the subset of the Official Register individuals serving in 1901 that could be matched to the 1900 census based on the full name, current state of residence, and state of birth. Column 3 reports the mean characteristics of the matched sample between black and white civil servants. In Column 4, we report the mean characteristics of the matched sample where black civil servants are matched to white counterparts based on sex, department, age, salary, and whether the position is paid per annum or not in 1901. Column 5 reports the mean difference in the coarsely exact matched sample. Robust standard errors are computed for Columns 3 and 5. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)
	Lo	og annual sa	lary
Mean of dep. var	6.790	6.790	6.799
Black \times Wilson	-0.028**	-0.027**	-0.036***
	(0.011)	(0.011)	(0.011)
Democratic cong. district at appt \times Wilson		-0.002	0.011
		(0.013)	(0.015)
Year FEs	Y	Y	Y
Individual FEs	Y	Y	Y
Black \times Age bin FEs	Y	Y	Y
State \times Year FEs			Y
Observations	69,716	69,716	62,658

	Ta	ble	A.	VII:	Impact	of	Woodrow	Wilson	's	segregation	regime	- E	Зv	alignment	t at	ent	rv
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Notes: The table presents regression estimates of the impact of Wilson's segregation policy on the racial earnings gap within the federal government. The unit of observation is the individual-year. The sample includes all civil servants that were matched and serving in 1911, covering their careers between 1907-1921. Democratic cong. district at appointment is a dummy that is 1 if the congress member of the civil servant's district of appointment was a Democrat in the year the civil servant entered the federal government, and 0 otherwise. The sample is restricted to those individuals for which we have non-missing data on the congressional district of appointment. All salaries are annualized. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)
		Log annu	al salary	
Mean of dep. var	6.765	6.750	6.765	6.765
Black \times Wilson	-0.034***	-0.005	-0.025*	-0.035***
	(0.020)	(0.016)	(0.013)	(0.012)
Black \times Wilson \times Southern Secy		-0.048**		
		(0.023)		
Black \times Wilson \times DC			-0.011	
			(0.019)	
Black \times Wilson \times US South				-0.002
				(0.020)
Year FEs	Y	Y	Y	Y
Individual FEs	Y	Y	Y	Y
Black $ imes$ Age bin FEs	Y	Y	Y	Y
Lower order interactions		Y	Y	Y
Observations	92,360	76,717	91,875	92,349

Table A.VIII: Heterogeneity by Southern vs. non-Southern led cabinet and geography

Notes: The table tests whether the effect of the segregation policy (as captured by Black × Wilson) varies significantly across departments and geography. Column 1 reports the baseline estimate, corresponding to Table II, column 3. In column 2, we use a triple difference to test whether the segregation effect is stronger in departments headed by a Southern cabinet secretary. In column 3, we test whether the effect varies significantly by whether the civil servant is employed in Washington, D.C. or not. In Column 4, we test whether the effect varies significantly by whether the civil servant is employed in the southern states or not. In columns 2-4, we include lower order interactions (e.g. Black × Southern Secy, Wilson × Southern Secy etc.) but do not report the estimates for brevity. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

Panel A: Entry margin	(1)	(2)	(3)	(4)
		Black civil	service entrant	
Mean of dep. var	0.0818	0.0868	0.0691	0.0792
Log(salary)	-0.052***	-0.053***	-0.055***	
	(0.002)	(0.002)	(0.003)	
$Log(salary) \times Wilson$	-0.037***	-0.047***	-0.030***	
	(0.003)	(0.004)	(0.004)	
$Log(salary) \times Wilson \times Southern Secy$				-0.019***
				(0.006)
Year FEs	Y	Y	Y	Y
Lower order interactions				Y
Sample	Full	Southern	Non-southern	Full
Observations	153,743	79,501	58,791	138,292
Panel B: Exit margin	(1)	(2)	(3)	(4)
-		Exit from t	he civil service	
Mean of dep. var	0.329	0.307	0.380	0.336
Black	0.849***	0.408***	1.079***	
	(0.060)	(0.089)	(0.101)	
Black \times Wilson	-1.226***	-1.261***	-1.322***	
	(0.077)	(0.114)	(0.131)	
$Log(salary) \times Black$	-0.136***	-0.066***	-0.166***	
	(0.009)	(0.014)	(0.016)	
$Log(salary) \times Wilson$	-0.118***	-0.114***	-0.136***	
	(0.002)	(0.003)	(0.004)	
$Log(salary) \times Wilson \times Black$	0.184***	0.191***	0.197***	
	(0.012)	(0.018)	(0.020)	
$Log(salary) \times Wilson \times Black \times Southern Secy$				0.001
				(0.002)
Year FEs	Y	Y	Y	Y
Lower order interactions				Y
Sample	Full	Southern	Non-southern	Full
Observations	296,452	157,355	107,030	264,385

Table A.IX: Reallocation, entry and exit, by Southern vs. Non-Southern Cabinet Secretary

Notes: The unit of observation is the individual-year. Panel A tests whether black civil servants are more or less likely to enter at higher payscales after Wilson assumed office. The dependent variable is a dummy that is 1 if the civil servant is black according to the 1910 census. The sample is restricted to entrants between 1909-1921. The regression in column 1 corresponds to Figure V, Panel (a). In columns 2-3, we split the sample by whether the entrant is employed in a department headed by a Southern Cabinet secretary or not. Column 4 provides the triple difference to test whether the effect varies significantly across Southern vs. Non-Southern Cabinet secretary departments. Panel B tests whether black civil servants are more or less likely to exit at higher payscales after Wilson assumed office. The dependent variable is a dummy that is 1 if the civil servant exited the civil service. The sample is restricted to entrants between 1907-1919. The regression in column 2 corresponds to Figure V, Panel (b). Once again, columns 2-3 split the sample by whether the individual is employed in a department headed by a Southern Cabinet secretary or not. Column 4 shows the corresponding triple difference. Lower order interactions comprise all lower order Southern Secy-interactions so that the triple (quadruple) differences in column 4 reflects the difference between the double (triple) difference between column and column 3. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)		
	Log annual salary					
Mean of dep. var	6.494	6.931	6.898	6.770		
HC measure	0.031***	0.037***	0.037***	0.081***		
	(0.004)	(0.001)	(0.001)	(0.004)		
HC measure \times Wilson	-0.007*	0.002*	0.002*	-0.023***		
	(0.003)	(0.001)	(0.001)	(0.006)		
Black \times Wilson			0.076**	0.019		
			(0.037)	(0.024)		
HC measure \times Black			-0.006	-0.016		
			(0.004)	(0.015)		
HC measure \times Black \times Wilson			-0.008**	-0.041**		
			(0.004)	(0.018)		
HC measure	Ye	Tenure				
Year FEs	Y	Y	Y	Y		
Black \times Age bin FEs	Y	Y	Y	Y		
HC measure + HC measure \times Black			0.030***	0.064***		
			(0.003)	(0.014)		
Sample	Black	White	Full	sample		
Observations	11,048	132,110	143,158	54,000		

Table A.X: Returns to education by race, around Woodrow Wilson's Presidency

Notes: The table shows regression estimates of the impact of Wilson's segregation policy on the racial earnings gap within the federal government, broken down by measures of human capital. The unit of observation is the individualyear. Black is a dummy that is 1 if the civil servant is black according to the 1910 census. Wilson is a dummy that is 1 for 1913 and after. The sample includes all civil servants for whom human capital measures are available and serving in 1911, covering their careers between 1907-1921. In columns 1-3, the human capital measure is the years of education. In column 4, the human capital measure is the years of tenure, as measured by the years since the civil servant is first observed in the data. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

(1) (2)		(3)	(4)	
Non-black		Diff Black - Non-black		
Mean	SD	Raw	CEM	
10.924	4.168	-2.971***	-1.753***	
		(0.144)	(0.208)	
0.171	0.376	-0.100***	-0.023	
		(0.010)	(0.017)	
0.419	0.429	-0.112***	-0.060***	
		(0.010)	(0.015)	
0.142	0.349	0.238***	0.190***	
		(0.013)	(0.018)	
39,219		15,943	9,004	
	(1) Non-t Mean 10.924 0.171 0.419 0.142 39,219	(1) (2) Non-black Mean SD 10.924 4.168 0.171 0.376 0.419 0.429 0.142 0.349 39,219	$\begin{array}{c ccccc} (1) & (2) & (3) \\ Non-black & Diff Black \\ \hline Mean & SD & Raw \\ \hline 10.924 & 4.168 & -2.971^{***} \\ & & (0.144) \\ 0.171 & 0.376 & -0.100^{***} \\ & & (0.010) \\ 0.419 & 0.429 & -0.112^{***} \\ & & (0.010) \\ 0.142 & 0.349 & 0.238^{***} \\ & & (0.013) \\ \hline 39,219 & 15,943 \\ \end{array}$	

Table A.XI: Descriptive statistics - Measures of human capital by race

Notes: The table provides descriptive statistics for civil servants from the Official Registers, comparing the mean education levels across black and white civil servants. The sample is restricted to those civil servants working in 1911 who could be linked to the 1940 census to obtain the schooling measure. The matched sample (column 3) is based on matching on sex, department, bureau, salary, age, and whether the pay is per annum or not in 1911. In column 4, civil servants are also exactly matched on the years of education. The variable elementary is defined as 3-7 years of schooling; the variable high school is defined as 11-14 years and college is defined as 15 or more years of schooling. Robust standard errors. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	
	Probability of home ownership		
Mean of dep. var	0.506	0.506	
Black \times Wilson	0.045***	0.019	
	(0.002)	(0.013)	
Black \times Wilson \times Federal govt	-0.189***	-0.162***	
	(0.045)	(0.049)	
State FEs \times Census year FEs	Y	Y	
Individual FEs	Y	Y	
Black \times Age bin FEs	Y	Y	
Lower order interactions	Y	Y	
Reweighted		Y	
Sample	Federal + Non-govt sample		
Observations	17,128,958 17,128,958		

Table A.XII: Home ownership effects with and without reweighting

Notes: The table shows regression estimates of the impact of Wilson's segregation policy on the racial earnings gap in home ownership, both with and without reweighting. Individuals in the non-government sample are reweighted to be comparable to their federal government counterparts based on state of residence, race, and occupational income score in 1910. Lower order interactions comprise: Federal govt × Black, Federal govt × State FEs × Census year FEs, and Federal govt × Black × Age bin FEs. The standard errors are clustered at the individual-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)	(5)	(6)
	Education		Log salary		Pctile	
Mean of dep. var	11.64	11.64	7.109	7.109	69.80	69.80
Black × Young	-0.112***	-0.388	0.021**	0.009	-0.312	-1.307
	(0.041)	(0.266)	(0.009)	(0.034)	(0.269)	(1.066)
Black \times Young \times Federal govt	-2.400***	-2.349***	-0.198*	-0.256**	-7.989**	-9.241**
	(0.725)	(0.787)	(0.114)	(0.118)	(3.738)	(3.886)
Age FEs	Y	Y	Y	Y	Y	Y
County FEs	Y	Y	Y	Y	Y	Y
Lower order interactions	Y	Y	Y	Y	Y	Y
Reweighted		Y		Y		Y
Observations	2.212.841	2.212.841	2.212.841	2.212.841	2.212.841	2.212.841

Table A.XIII: Intergenerational effects with and without reweighting

Notes: The table shows regression estimates of the impact of Wilson's segregation policy on the racial earnings gap for the children of black and white civil servants in 1940, with and without reweighting. The non-government sample is reweighted so that the parental characteristics are comparable to those of the federal government counterpart based on the state of residence, race, and occupational income score in 1910. Lower order interactions are: Federal govt × County FEs, Federal govt × Age FEs, and Federal govt × Black. The standard errors are clustered at the parent-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

<u></u>			1			
Panel A: Within state	(1)	(2)	(3)	(4)	(5)	(6)
	Education		Log salary		Pctile	
Mean of dep. var	11.64	11.64	7.109	7.109	69.80	69.81
$Black \times Young$	-0.388		0.009		-1.307	
	(0.266)		(0.034)		(1.066)	
Black \times Young \times Federal govt	-2.349***	-2.180***	-0.256**	-0.257**	-9.241**	-9.222**
	(0.787)	(0.799)	(0.118)	(0.119)	(3.886)	(3.937)
Age FEs	Y	Y	Y	Y	Y	Y
County FEs	Y	Y	Y	Y	Y	Y
Lower order interactions	Y	Y	Y	Y	Y	Y
State FEs \times Young \times Black		Y		Y		Y
Observations	2,212,841	2,212,840	2,212,841	2,212,840	2,212,841	2,212,840
Panel B: Parental controls	(1)	(2)	(3)	(4)	(5)	(6)
	Education		Log salary		Income percentile	
Mean of dep. var	11.64	11.64	7.109	7.109	69.81	69.81
$Black \times Young$	-0.388	-0.358	0.009	0.012	-1.307	-1.240
-	(0.267)	(0.261)	(0.034)	(0.034)	(1.070)	(1.067)
Black \times Young \times Federal govt	-2.349***	-2.248***	-0.256**	-0.246**	-9.242**	-9.139**
	(0.787)	(0.802)	(0.118)	(0.118)	(3.887)	(3.915)
Age FEs	Y	Y	Y	Y	Y	Y
County FEs	Y	Y	Y	Y	Y	Y
Lower order interactions	Y	Y	Y	Y	Y	Y
Parental household controls		Y		Y		Y
Observations	2,212,810	2,212,810	2,212,810	2,212,810	2,212,810	2,212,810

Table A.XIV: Intergenerational results – within state and parental household controls

Notes: The table shows regression estimates of the impact of Wilson's segregation policy on the racial earnings gap for the children of black and white civil servants in 1940. The unit of observation is the individual. Panel A includes State \times young \times Black FEs to restrict the comparison to only children from the same state. Panel B reports the results with parental controls (sex and age of parent, and parental household size in 1910). Lower order interactions are: Federal govt \times County FEs, Federal govt \times Age FEs, and Federal govt \times Black. The standard errors are clustered at the parent-level. *** p < 0.01, ** p < 0.05, * p < 0.1.

B Historical Appendix

B.1 Historical Backdrop: Black Americans in the Federal Government

In the years after the Civil War ended and before Woodrow Wilson took office, black Americans' presence within federal government employment increased substantially. One potential reason for black Americans' improved prospects within government may have been the Pendleton Civil Service Act of 1883, which gradually removed the practice of patronage in the appointment process and made many jobs subject to competitive civil service exams. Indeed the Civil Service Commission (CSC), which administered the Pendleton Act, sought to ensure that qualified black applicants were given proper consideration (MacLaury, 2014). The CSC also promoted fair treatment after hiring, leading several black civil servants to achieve managerial and professional positions within the government. The relative absence of discriminatory treatment toward black Americans was documented in the Commission proclaimed the "elimination not only of the questions of politics and religion but the question of race," and that a fair proportion of the men appointed from these States has been colored." Notably absent from the Commission's report was any mention that black American employees should be assigned to special tasks or segregated physically.

By 1912, when Wilson was elected, the federal government was the largest employer of black Americans in the nation. In short, the (relatively) color-blind civil service test offered black civil servants a way to demonstrate their merit and compete on an even playing field with white applicants for jobs (?). Soon after Wilson was elected, however, he sanctioned a policy of segregation throughout the federal government. At an early cabinet meeting, cabinet members such as Albert Burleson (Postmaster General), William McAdoo (Secretary of the Treasury), and Josephus Daniels (Secretary of the Navy) advocated for segregated workplaces to address the alleged friction between black and white federal employees. Despite his campaign promises for racial fairness, Wilson ultimately favored segregation. Historical correspondence suggests that he shared the belief, widespread among white Americans at the time, that black Americans were racially distinct from and inferior to white people. Furthermore, Wilson also needed the support of Southern Democrats, who were uninterested in pursuing a goal of racial justice.⁵⁴

⁵⁴Yellin (2013) perceptively reveals the compatibility of progressive reform with racial prejudice, and explains how white Democrats, such as Wilson, his cabinet, and his lower-level appointees, turned the language of progressivism and good government against black Americans.

B.2 What Segregation Entailed in Practice

The Wilson Administration allowed white supremacists in the Democratic Party to institutionalize segregation and relegate black Americans to low-paying, low-prestige jobs. Related historical literature indicates that segregation was carried out in a decentralized manner (Wolgemuth, 1959; Hyatt, 1978). Wilson empowered his high-ranking appointees to Cabinet departments to carry out a broad program of racial discrimination that included the physical separation of black and white workers, and by extension, the demotions/dismissals of black workers. Secretary of the Treasury William Gibbs McAdoo (Wilson's son-in-law) and Postmaster General Albert S. Burleson were particularly strong proponents of segregation, likely reflecting their backgrounds as southern segregatationists with hostilities toward black Americans. With regard to the spatial aspects of this discriminatory regime, there are numerous such examples of physical separations that took place within government offices. The Treasury Department, for example, set up physical partitions in offices so that white and black employees would not be able to interact with one another (MacLaury, 2014). Assistant secretary James Skelton Williams (at the behest of (Secretary William McAdoo) instructed supervisors to erect signs banning integrated lunchrooms and restrooms (Yellin, 2007).

Federal segregation was not merely the creation of "separate by equal" workplace facilities, though. Rather, high-ranking administrators within government discriminated against black Americans with President Wilson's endorsement, using demotions of black Americans to carry out the separation of black and white workers into different work spaces. Within the Treasury Department William McAdoo ordered that all black clerks be reassigned to one office (the Registry Division), and were excluded from employment in other bureaus (Yellin, 2007). McAdoo reportedly dismissed all black political appointees in the South, and gave southern supervisors the authority to fire or downgrade any black civil servants. The consequences for black appointees were severe: within the Treasury, for example, 31 federal patronage positions were held by blacks at the beginning of the Wilson administration, but only 6 remained by 1916, according (Dennis, 2002).⁵⁵

During the segregation era, the Wilson administration also implemented explicit policies that worked to diminish the standing of black Americans within the federal workforce. While there was no official change in the merit-based hiring policy of the federal service, beginning in May 1914 the Civil Service Commission required that photographs be attached to all job applications (MacLaury, 2014). Such a policy made it easier to discriminate against black candidates, and may contribute to the worsening of black Americans' position within the

⁵⁵Historians have provided many other anecdotal examples of black civil servants suffering downgrades to lower-paying jobs as well as and outright termination. (Yellin, 2013), for example, writes about how the recorder of deeds – a clerk making \$1,200 a year – was suddenly reduced to a position as a laborer earning \$500 a year (Keene, 2013).

government at the point of entry, as we observe in Figure V, Panel A. In short, the administration's sanctioning and promotion of the segregation effort is best seen as a system of spatial segregation that left black federal employees with "few chances for pay raises or promotions, and in many cases experienced pay reductions and demotions" (Yellin, 2007).

As an example of how segregation was carried out, and how it worked to create lasting economic damage, we discuss the case of a black federal employee at the time that Wilson came to office, John A. Davis. Davis was born in 1863 in Washington, D.C. to a white lawyer and black housekeeper. He graduated top of his class from Washington's M Street High School and passed the civil service exam aged 19 to join the Government Printing Office (GPO), where he worked for several decades.⁵⁶ John Davis started as a laborer in D.C., and progressed to clerical and finally mid-level management positions. His relative wealth within the black community was reflected in the fact that he owned a farm in Virginia in addition to a home in D.C.

As we can observe, our Registers data matches this narrative well.⁵⁷ We find that John A. Davis was serving as a clerk in the GPO from the beginning of our sample in 1907. In 1911, the last round of our data before Wilson's term, John was making 1,400 per year – a good salary that puts him at the 75th percentile of the full-time annual salaries paid in the 1911 federal civil service.

His fortunes changed with segregation. After Wilson assumed office in March 1913, the July 1913 round of the Register data records John's salary at \$1,300, reflecting a demotion. In 1915, John was further demoted to the position of a "skilled laborer," now earning a part-time salary of 25 cents per hour, or \$520 per annum when converted to an annual salary.⁵⁸ In 1919, we find him in the War department working as a messenger for \$720 – half of what he earned *a decade earlier*. He would remain at that salary until 1921, our last round of data. He was forced to auction off the family farm in 1914 and died in 1928 aged 65.

By way of example, we can use our matching criteria to find an exact match for John A. Davis in the Registersbased personnel records. Willard A. Pollard was also born in Washington, D.C., only two years after Davis. In 1911, the year in which we perform our matching, Pollard likewise worked in the GPO, held the same job title (clerk), and earned the exact same salary \$1,400, suggesting that both must have been colleagues of equal rank. Importantly, as Figure A.IX shows, both Davis and Pollard progressed in lock-step, earning the same salaries in 1907-1909. Using 1911 characteristics, we thus obtained balance not only on covariates unobserved in the Register data (age) but also their "pre-trend," as captured by their salary progression before 1911.

⁵⁶This account is drawn from the NY Times op-ed "What Woodrow Wilson Cost My Grandfather", by Gordon J. Davis, Nov. 24, 2015, from https://www.nytimes.com/2015/11/24/opinion/what-woodrow-wilson-cost-my-grandfather.html.

⁵⁷See Appendix Figure A.II for the actual data entry in 1913.

⁵⁸As discussed in subsection 3.3, this assumes an 8-hour workday, 5 days per week and 12 months in a year.

As we see, however, the careers of John and Willard, however, diverged during Wilson's administration. Unlike Davis, Pollard's career continued to progress after Wilson assumed office. Pollard received a raise in 1917, earning \$1,600 – more than three times as much as his former colleague Davis. In 1921, the last data point, we see Pollard receiving another raise, earning \$1,800. This puts Pollard at the 75th percentile of the full-time salary distribution in 1921. Davis, in contrast, fell to the 10th percentile. Pollard dies in 1950, aged 85. As the example demonstrates, Wilson's policy spatial segregation had clear economic consequences by imposing a ceiling on black mobility within the federal government.

Overall, there was little formal recourse of black Americans adversely affected by demotions under Wilson's segregation. To the extent that black American could seek to reverse the consequences, they relied on internal complaint procedures. Yellin (2013) writes of demoted black civil servants who appealed such decisions to their superiors (bureau heads), but were typically rebuffed or ignored. One reason that segregation may have persisted was that the Supreme Court had legally sanctioned "separate-but-equal" policies at the end of the 19th century with the famous case Plessy v. Ferguson. The lack of responsiveness within the federal government to allegations of discrimination led black civil servants to seek recourse through political channels. In a famous meeting between Wilson and journalist/civil rights activist William Monroe Trotter, the editor of the Boston Guardian (a Boston newspaper dedicated to the fight against racial discrimination), Trotter directly challenged the President for permitting the segregation of black and white government clerks. He also dismissed President Wilson's effiency-based defense of segregation as the best approach to avoid "racial friction" (reportedly leading Wilson to lose his temper). Newspapers nationwide - including The New York Times, carried on their front pages stories of Wilson's defensiveness, and noted Trotter's ejection from the White House. Some papers, such as The New Republic criticized Wilson for his "inaction in a moral crisis." The Nation called segregation "a sad blot upon the Wilson Administration." Trotter and the National Independent Political League (NIPL) in 1913 led a signature campaign to protest and overturn segregation within the government. Ultimately 20,000 people from 36 states signed the petition which demanded that Wilson "reverse, prevent, and forbid any such movement by your bureau chiefs, in accord with your promise of fair, friendly, just, and Christian treatment of your [Black] fellow citizens" (Patler, 2004). Similarly, the D.C. branch of the NAACP lobbied aggressively for the hire of Black federal employees in the government (and who had been dismissed from service), as well as for the improved treatement of those who had already been demoted.⁵⁹ These efforts were largely unsuccessful.

⁵⁹The branch president Archibald Grimke, though, recognized that Black Americans had little recourse to ameliorate their conditions within the federal government Patler (2004).