Online Appendices for

Teacher Salaries and Racial Inequality in Educational Attainment in the Mid-Century South

by

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Online Appendix A. County Panel Data on School Resources by Race

The school resource data for this paper were digitized from statistical tables in annual reports of state school superintendents or boards in six states of the former Confederacy – Alabama, Florida, Louisiana, South Carolina, Tennessee, and Virginia. In each of these states, at least one school district was subject to NAACP teacher salary litigation in a federal court (Figure 1, Appendix Table 1). The data for these states are annual and span the 1932-33 to 1959-60 school years.

While we have collected data on four other states of the former Confederacy – Arkansas, Georgia, Mississippi, and North Carolina – these data were ultimately not suitable for our analysis. The Arkansas data are biennial and lack information on teacher salaries by race and county. The Georgia data are also biennial, and while teacher salary information by race and county are available, these statistics are not reported for several key years in the mid-1940s. The Mississippi data are annual but like the Arkansas data lack information on teacher salaries by race and county. The North Carolina data are annual and offer this information, but only until the 1951-22 school year. The NAACP also did not file suits in Mississippi or North Carolina.

Data for all six main states except South Carolina are reported at the school district level and aggregated to the county level as needed. County and school district boundaries coincide in Florida and Virginia and nearly coincide in Louisiana. In Alabama and Tennessee, there are typically only one to two school districts per county.

For Alabama, Louisiana, South Carolina, and Tennessee, we drew 1932-33 to 1939-40 values for some variables (enrollment, average teacher salaries, and teacher counts) from the county panel data on school resources by race digitized and distributed by Carruthers and Wanamaker (2019). All other years of data for these variables in these states, all other variables (enrollment by grade, revenues by source), and all variables for Florida and Virginia are our original data collection from the state annual reports listed in the Data References.

We gathered and digitized a variety of variables that were reported separately by race for all analysis states – average teacher salaries, expenditures on teacher salaries (with which average teacher salaries could be approximated, if not reported), number of teachers, and enrollment. Two states stopped publishing average teacher salaries or teacher salary spending by race at the local level following the 1954 *Brown v. Board of Education* decision. (Florida stopped reporting in 1956-57 and Louisiana in 1957-58.) So that we could use data from these states, we imputed all remaining years through 1959-60 using the last observed value for a county. Available data for other states suggest that this is a reasonable approximation, and it has little effect on the results reported in Tables 3 through 5 and Figures 3 and 4 of the paper. We also gathered term length by race, but this information was unavailable for Virginia, and other states (Florida, Louisiana, and South Carolina) ceased reporting it in 1953-54 or 1954-55. School revenues by source (state and local) round out our data collection. Unfortunately, the scans for Louisiana were too low quality to include any years beyond 1939-40 in the analysis of this paper.

Appendix Tables A1 through A6 provide details on variable definitions and data sources by year for each of the six states in the analysis.

Appendix Table A1. V	variable Definitions and S	ources: Alabama
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Variable	Definition*	Source notes**
By school district and race:		
Enrollment	Grand total grades 1-12: total (across sex)	CW: 1933/34-1939/40. CL: 1930/31-1932/33, 1940/41-1959/60.
ADA	Average daily attendance: total all grades	CW: 1933/34-1939/40. CL: 1930/31-1932/33, 1940/41-1959/60.
Teacher salary expenditure	Payments for teachers' salaries: total (across elementary and high school)	CW: 1933/34-1939/40. CL: 1930/31-1932/33, 1940/41-1959/60. CW report average salary and CL impute average salary with salary expenditures/number of teachers.
Number of teachers	Teaching positions, total grades 1-12, total (across sex)	CW: 1933/34-1939/40. CL: 1930/31-1932/33, 1940/41-1959/60.
Term Length Enrollment by Grade	Length of term in days: total all grades By grade: total (across sex)	CW: 1933/34-1939/40. CL: 1930/31-1932/33, 1940/41-1959/60. CL: all years.
By school district only:		
State revenue	Revenue receipts: total state funds	CL: all years.
Local revenue	Revenue receipts: sum of total county funds and total district funds	CL: all years.

* Based on table entries of CL. ** CL: Cascio and Lewis (for this paper). CW: Carruthers and Wanamaker (2019).

Variable	Definition	Source notes*
By school district and race:		
Enrollment	Enrollment: Total grades 1-12 (kindergarten not included) Average daily attendance: Total grades 1-	CL: all years.
ADA	12	CL: all years.
Teacher salary expenditure	Expenditures: Salaries of teachers, total	CL: 1932/33-1955/56. n.r.: 1956/57-1959/60.
Number of teachers	Full-time positions of instructional staff: teachers, total	CL: all years.
Term Length	Average length of term in days: Total grades 1-12	CL: 1932/33-1954/55. n.r.: 1955/56-1959/60.
Enrollment by Grade	Enrollment by grades	CL: all years.
By school district only:		
State revenue	Revenue receipts - support and maintenance funds: total state sources	CL: all years.
Local revenue	Revenue receipts - support and maintenance funds: sum of total county sources and total district sources	CL: all years.

Appendix Table A2. Variable Definitions and Sources: Florida

* CL: Cascio and Lewis (for this paper). 1932/33 starting year. n.r.: not reported.

Appendix Table A3.	Variable Definitions and Sources: Louisiana	

Variable	Definition*	Source notes**
By school district and race:		
Enrollment	Average daily membership: total	CW: 1930/31-1939/40. CL: 1940/41-1959/60.
ADA	Average daily attendance: total	CW: 1930/31-1939/40. CL: 1940/41-1959/60.
Average Salary	Average salaries: all teachers	CW: 1930/31-1939/40. CL: 1940/41-1959/60.
Number of teachers	Number teachers	CW: 1930/31-1939/40. CL: 1940/41-1956/57. n.r.: 1957/58-1959/60. Some years reported only by gender and total calculated by summing.
Term Length	Length of session, average no. of days taught	CW: 1930/31-1939/40. CL: 1940/41-1953/4. n.r.: 1954/55-1959/60.
Enrollment by Grade	Registration in day schools, by grades: public schools	CL: 1940/41-1959/60. n.r.: 1930/31-1939/40.
By school district only:		
State revenue	Revenue receipts: sum of state public school fund components	CL: 1939-40.
Local revenue	Revenue receipts: sum of total parish sources and total district and ward	CL: 1939-40.

* Based on table entries of CL. ** CL: Cascio and Lewis (for this paper). CW: Carruthers and Wanamaker (2019). n.r.: not reported.

Variable	Definition*	Source notes**
By school district and race:		
Enrollment	Total elementary and high school enrollment	CW: 1930/31-1939/40. CL: 1940/41- 1959/60.
ADA	Total average daily attendance	CW: 1930/31-1939/40. CL: 1940/41- 1959/60.
Teacher salary expenditure	Expenditures - Gross Salaries of Teachers and Teaching Principals	CW: 1930/31-1939/40. CL: 1940/41- 1959/60. CW report average salary and CL impute average salary with salary expenditures/number of teachers.
Number of teachers	Number employed - teachers	CW: 1930/31-1939/40. CL: 1940/41- 1959/60.
Term Length	Average length of term in days - total elementary and high school	CW: 1930/31-1939/40. CL: 1940/41- 1953/4. n.r.: 1954/55-1959/60.
Enrollment by Grade	Enrollment by grades	CL: all years.
By school district only:		
State revenue	Revenue receipts - state sources (sum of all components)	CL: all years.
Local revenue	Revenue receipts - local sources (sum of all components)	CL: all years.

* Based on table entries of CL. ** CL: Cascio and Lewis (for this paper). CW: Carruthers and Wanamaker (2019). n.r.: not reported.

Appendix Table A5. Va	ariable Definitions and	Sources: Tennessee
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Variable	Definition*	Source notes**
By school district and race:		
Enrollment	Grand total grades 1-12: total (across sex)	CW: 1932/33, 1934/35, 1936/7-1939/40. CL: 1940/41-1959/60. Summed across city/county schools, and sometimes across grade levels.
ADA	Average daily attendance: total all grades	CW: 1932/33, 1934/35, 1936/7-1939/40. CL: 1940/41-1959/60. Until 1946/47 reported separately by school type x county/city schools: elementary, junior high school, 2-year high school, 3-year high school, 4-year high school. CL summed to produce total number of teachers.
	Devenues for the chard coloring total (compare	CW: 1932/33, 1934/35, 1936/7-1939/40. CL: 1940/41-1959/60. CW report average salary, which is monthly in most years. Where it is, CL annualize this x term length / 18. Usually reported separately by grade level (elementary, highs school)
Teacher salary expenditure	elementary and high school)	x county/city. CL sum over categories, weighted by number of teachers.

Number of teachers	Teaching positions, total grades 1-12, total (across sex)	CW: 1932/33, 1934/35, 1936/7-1939/40. CL: 1940/41-1959/60. Reported separately for county and city schools, and, until 1946/47 separately for elementary schools and high schools; in some years also by sex. Summed to produce total number of teachers.
Term Length	Length of term in days: total all grades	CW: 1932/33, 1934/35, 1936/7-1939/40. CL: 1940/41-1959/60. Generally reported separately for elementary schools and high schools and for county and city schools; average term length for the county as a whole constructed as the enrollment average across these levels/locations.
		CL: all years. (1932/33, 1934/35, 1937/38-1944/45, 1947/48-1959/60). Not reported 1945/46 and 1946/47. In 1944 and prior, reported separately by school type x county/city schools: elementary, junior high school, 2-year high school, 3-year high school, 4-year high school. In some years/levels, reports
Enrollment by Grade	By grade: total (across sex)	by sex summed together by CL.

Appendix Table A5. Variable Definitions and Sources: Tennessee (cont'd)

Appendix Table A5. Variable Definitions and Sources: Tennessee (cont'd)

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State revenue	Revenue receipts: total state funds	CL: all years. (1932/33, 1934/35, 1937/38-1959/60). Sum of state funds to county schools+state funds to city schools, minus transfer of state funds from county to city schools. Until 1946/47, was reported separately for elementary and high school levels, which CL summed together.
Local revenue	Revenue receipts: sum of total county funds and total district funds	CL: all years. (1932/33, 1934/35, 1937/38-1959/60). Sum of local funds to county schools plus local funds to city schools imputed from total revenue minus state and federal funds (after 1946/47) to city schools minus transfer of local funds from county to city schools. In four cases this produced a net negative local revenue, which was trimmed to zero. Until 1946/47, was reported separately for elementary and high school levels, which CL summed together.

* Based on table entries of CL. ** CL: Cascio and Lewis (for this paper). CW: Carruthers and Wanamaker (2019).

Appendix Table A6. Variable Definitions and Sources: Virginia

Variable	Definition	Source notes*
By school district and race:		
Enrollment	Enrollment: total	CL: all years.
ADA	<i>All years:</i> Attendance: total. <i>1943/44-1959/60:</i> Attendance by level (elementary and high school)	CL: all years. ADA by level needed for construction of average teacher salary for 1943/44-1959/60.
Average salary	<i>1930/31-1938/39:</i> Average annual salary: all teachers. <i>1939/40-1942/43:</i> Average annual salary by gender (only)	CL: 1930/31-1942/43. <i>1939/40-1941/42:</i> Teachers not reported by gender. Aggregate to average salary using share teachers female in 1942/43. <i>1942/43:</i> Aggregate to average salary using share teachers female.
		CL: 1943/44-1959/60. Aggregate to teacher salary expenditures per pupil in ADA using share elementary in ADA.
Teacher salary expenditure	Teacher salary expenditures per pupil in ADA by level (elementary, high school)	Convert to teacher salary expenditures per enrolled pupil using ratio of enrollment to ADA.
Number of teachers	Teacher census: total and by gender (as available; needed for 1939/40-1941/42)	CL: all years.
Term Length	Average term in days	CL: 1930/31-1937/38. n.r.: 1938/39- 1959/60
Enrollment by Grade	Not available	n.r.: all years.

Appendix Table A6. Variable Definitions and Sources: Virginia (cont'd)

By school district only:		
State revenue	Receipts: from state funds Receipts: sum of county funds and district	CL: all years.
Local revenue	funds	CL: all years.

* CL: Cascio and Lewis (for this paper).

Data References

Carruthers, Celeste and Marianne Wanamaker. 2019. "County-level school enrollment and resources in ten segregated Southern states, 1910-1940." Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2019-05-06. https://doi.org/10.3886/E109625V1

Alabama

- State of Alabama. Department of Education. 1932. *Annual Report for the Scholastic Year Ending June 30, 1931*. Montgomery, AL: Wilson Printing Co. [Bulletin 1932, No. 11]
- State of Alabama. Department of Education. 1934. *Annual Report for the Scholastic Year Ending June 30, 1932*. Montgomery, AL: Brown Printing Co. [Bulletin 1934, No. 3]
- State of Alabama. Department of Education. 1935. Annual Report for the Scholastic Year Ending June 30, 1933 and for the Fiscal Year Ending September 30, 1933. Statistical and Financial Data. Montgomery, AL: The Paragon Press.
- State of Alabama. Department of Education. 1935. Annual Report for the Scholastic Year Ending June 30, 1934 and for the Fiscal Year Ending September 30, 1934. Part II: Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co.
- State of Alabama. Department of Education. 1942. Annual Report for the Scholastic Year Ending June 30, 1941 and for the Fiscal Year Ending September 30, 1941. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1942, No. 2]
- State of Alabama. Department of Education. 1943. Annual Report for the Scholastic Year Ending June 30, 1942 and for the Fiscal Year Ending September 30, 1942. Statistical and Financial Data. Montgomery, AL: The Paragon Press. [Bulletin 1943, No. 2]
- State of Alabama. Department of Education. 1944. Annual Report for the Scholastic Year Ending June 30, 1943 and for the Fiscal Year Ending September 30, 1943. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1944, No. 2]
- State of Alabama. Department of Education. 1945. Annual Report for the Scholastic Year Ending June 30, 1944 and for the Fiscal Year Ending September 30, 1944. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1945, No. 2]
- State of Alabama. Department of Education. 1946. Annual Report for the Scholastic Year Ending June 30, 1945 and for the Fiscal Year Ending September 30, 1945. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1946, No. 2]
- State of Alabama. Department of Education. 1947. Annual Report for the Scholastic Year Ending June 30, 1946 and for the Fiscal Year Ending September 30, 1946. Statistical and Financial Data. Montgomery, AL: Walker Printing Company. [Bulletin 1947, No. 2]

- State of Alabama. Department of Education. 1948. Annual Report for the Scholastic Year Ending June 30, 1947 and for the Fiscal Year Ending September 30, 1947. Statistical and Financial Data. Montgomery, AL: Walker Printing Company. [Bulletin 1948, No. 2]
- State of Alabama. Department of Education. 1949. Annual Report for the Scholastic Year Ending June 30, 1948 and for the Fiscal Year Ending September 30, 1948. Statistical and Financial Data. Montgomery, AL: Walker Printing Company. [Bulletin 1949, No. 2]
- State of Alabama. Department of Education. 1950. Annual Report for the Scholastic Year Ending June 30, 1949 and for the Fiscal Year Ending September 30, 1949. Statistical and Financial Data. Montgomery, AL: Walker Printing Company. [Bulletin 1950, No. 2]
- State of Alabama. Department of Education. 1951. Annual Report for the Scholastic Year Ending June 30, 1950 and for the Fiscal Year Ending September 30, 1950. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1951, No. 2]
- State of Alabama. Department of Education. 1953. Annual Report for the Scholastic Year Ending June 30, 1951 and for the Fiscal Year Ending September 30, 1951. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1952, No. 1]
- State of Alabama. Department of Education. 1953. Annual Report for the Scholastic Year Ending June 30, 1952 and for the Fiscal Year Ending September 30, 1952. Statistical and Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1953, No. 2]
- State of Alabama. Department of Education. 1954. Annual Report for the Scholastic Year Ending June 30, 1953 and for the Fiscal Year Ending September 30, 1953. Statistical and Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1954, No. 5]
- State of Alabama. Department of Education. 1955. Annual Report for the Scholastic Year Ending June 30, 1954 and for the Fiscal Year Ending September 30, 1954. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1955, No. 6]
- State of Alabama. Department of Education. 1956. Annual Report for the Scholastic Year Ending June 30, 1955 and for the Fiscal Year Ending September 30, 1955. Statistical and Financial Data. Wetumpka, AL: Wetumpka Printing Co. [Bulletin 1956, No. 3]
- State of Alabama. Department of Education. 1957. Annual Report for the Scholastic Year Ending June 30, 1956 and for the Fiscal Year Ending September 30, 1956. Statistical and Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1957, No. 2]
- State of Alabama. Department of Education. 1958. Annual Report for the Scholastic Year Ending June 30, 1957 and for the Fiscal Year Ending September 30, 1957. Statistical and Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1958, No. 2]
- State of Alabama. Department of Education. 1959. Annual Report for the Scholastic Year Ending June 30, 1958 and for the Fiscal Year Ending September 30, 1958. Statistical and

Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1959, No. 2]

- State of Alabama. Department of Education. 1960. Annual Report for the Scholastic Year Ending June 30, 1959 and for the Fiscal Year Ending September 30, 1959. Statistical and Financial Data. Alexander City, AL: Outlook Publishing Co. [Bulletin 1960, No. 2]
- State of Alabama. Department of Education. 1961. Annual Report for the Scholastic Year Ending June 30, 1960 and for the Fiscal Year Ending September 30, 1960. Statistical and Financial Data. Montgomery, AL: Walker Publishing Co. [Bulletin 1961, No. 2]

Florida

- State of Florida. Department of Public Instruction. 1932. *Biennial Report of the Superintendent* of Public Instruction of the State of Florida for the Two Years Ending June 30, 1932. Tallahassee, FL: Rose Printing Co.
- State of Florida. Department of Public Instruction. 1934. *Biennial Report of the Superintendent* of Public Instruction of the State of Florida for the Two Years Ending June 30, 1934. Tallahassee, FL: Capital City Publishing Company.
- State of Florida. Department of Public Instruction. 1936. *Biennial Report of the Superintendent* of Public Instruction of the State of Florida for the Two Years Ending June 30, 1936. Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1939. Statistical and Financial Data Relating to the School System of Florida. Parts II and III of the Biennial Report of the Superintendent of Public Instruction of the State of Florida for the Two Fiscal Years Beginning July 1, 1936 and Ending June 30, 1938. Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1941. *Biennial Report, Superintendent of Public Instructio,n State of Florida, for the Fiscal Years Beginning July 1, 1938 and Ending June 30, 1940.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1942. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1940 and Ending June 30, 1942.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1944. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1942 and Ending June 30, 1944.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1946. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1944 and Ending June 30, 1946.* Tallahassee, FL: State Superintendent of Public Instruction.

- State of Florida. Department of Public Instruction. 1948. Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1946 and Ending June 30, 1948. Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1950. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1948 and Ending June 30, 1950.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1953. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1950 and Ending June 30, 1952.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1955. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1952 and Ending June 30, 1954.* Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1957. Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1954 and Ending June 30, 1956. Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1959. Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1956 and Ending June 30, 1958. Tallahassee, FL: State Superintendent of Public Instruction.
- State of Florida. Department of Public Instruction. 1961. *Biennial Report, Superintendent of Public Instruction, State of Florida, for the Fiscal Years Beginning July 1, 1958 and Ending June 30, 1960.* Tallahassee, FL: State Superintendent of Public Instruction.

Louisiana

- State Department of Education of Louisiana. 1931. *Eighty-Second Annual Report for the Session* 1930-31. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 220]
- State Department of Education of Louisiana. 1932. *Eighty-Third Annual Report for the Session* 1931-32. Baton Rouge, LA: Ramires-Jones Printing Co. [Bulletin No. 248]
- State Department of Education of Louisiana. 1934. *Eighty-Fourth Annual Report for the Session* 1932-33. New Orleans, LA: Thos. J. Moran's Sons. [Bulletin No. 266]
- State Department of Education of Louisiana. 1935. *Eighty-Fifth Annual Report for the Session* 1933-34. New Orleans, LA: Thos. J. Moran's Sons. [Bulletin No. 288]
- State Department of Education of Louisiana. 1936. *Eighty-Sixth Annual Report for the Session* 1934-35. New Orleans, LA: Thos. J. Moran's Sons. [Bulletin No. 309]

State Department of Education of Louisiana. 1937. Eighty-Seventh Annual Report for the Session

1935-36. New Orleans, LA: Thos. J. Moran's Sons. [Bulletin No. 335]

- State Department of Education of Louisiana. 1938. *Eighty-Eighth Annual Report for the Session* 1936-37. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 367]
- State Department of Education of Louisiana. 1939. *Eighty-Ninth Annual Report for the Session* 1937-38. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 402]
- State Department of Education of Louisiana. 1940. *Ninetieth Annual Report for the Session* 1938-39. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 432]
- State Department of Education of Louisiana. 1941. *Ninety-First Annual Report for the Session* 1939-40. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 448]
- State Department of Education of Louisiana. 1942. *Ninety-Second Annual Report for the Session* 1940-41. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 458]
- State Department of Education of Louisiana. 1943. *Ninety-Third Annual Report for the Session* 1941-42. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 495]
- State Department of Education of Louisiana. 1944. *Ninety-Fourth Annual Report for the Session* 1942-43. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 518]
- State Department of Education of Louisiana. 1944. *Ninety-Fifth Annual Report for the Session* 1943-44. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 543]
- State Department of Education of Louisiana. 1945. *Ninety-Sixth Annual Report for the Session* 1944-45. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 585]
- State Department of Education of Louisiana. 1947. *Ninety-Seventh Annual Report for the Session 1945-46.* Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 618]
- State Department of Education of Louisiana. 1947. *Ninety-Eighth Annual Report for the Session* 1946-47. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 646]
- State Department of Education of Louisiana. 1949. *Ninety-Ninth Annual Report for the Session* 1947-48. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 658]
- State Department of Education of Louisiana. 1949. *One-Hundredth Annual Report for the* Session 1948-1949. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 699]
- State Department of Education of Louisiana. 1951. One Hundred First Annual Report for the Session 1949-1950. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 714]
- State Department of Education of Louisiana. 1952. One Hundred Second Annual Report for the Session 1950-1951. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 736]

- State Department of Education of Louisiana. 1952. One Hundred Third Annual Report for the Session 1951-1952. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 758]
- State Department of Education of Louisiana. 1953. *One Hundred Fourth Annual Report for the* Session 1952-53. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 781]
- State Department of Education of Louisiana. 1954. One Hundred Fifth Annual Report for the Session 1953-1954. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 804]
- State Department of Education of Louisiana. 1955. *One Hundred Sixth Annual Report for the* Session 1954-1955. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 820]
- State Department of Education of Louisiana. 1956. One Hundred Seventh Annual Report for the Session 1955-1956. Baton Rouge, LA: State Superintendent of Education. [Bull. No. 839]
- State Department of Education of Louisiana. 1957. One Hundred Eighth Annual Report for the Session 1956-1957. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 850]
- State Department of Education of Louisiana. 1958. One Hundred Ninth Annual Report for the Session 1957-58. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 887]
- State Department of Education of Louisiana. 1959. One Hundred Tenth Annual Report for the Session 1958-59. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 904]
- State Department of Education of Louisiana. 1960. One Hundred Eleventh Annual Report for the Session 1959-60. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 932]

South Carolina

- State of South Carolina. 1931. Sixty-Third Annual Report of the State Superintendent of Education of the State of South Carolina, 1931. [for 1930-31] Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1932. Sixty-Fourth Annual Report of the State Superintendent of Education of the State of South Carolina, 1932. [for 1931-32] Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1934. Sixty-Fifth Annual Report of the State Superintendent of Education of the State of South Carolina, 1933. [for 1932-33]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.

State of South Carolina. 1934. Sixty-Sixth Annual Report of the State Superintendent of

Education of the State of South Carolina, 1934. [for 1933-34]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.

- State of South Carolina. 1936. Sixty-Seventh Annual Report of the State Superintendent of Education of the State of South Carolina, 1935. [for 1934-35]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1937. Sixty-Eighth Annual Report of the State Superintendent of Education of the State of South Carolina, 1936. [for 1935-36]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1938. Sixty-Ninth Annual Report of the State Superintendent of Education of the State of South Carolina, 1937. [for 1936-37]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1938. Seventieth Annual Report of the State Superintendent of Education of the State of South Carolina, 1938. [for 1937-38]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1940. Seventy-First Annual Report of the State Superintendent of Education of the State of South Carolina, 1939. [for 1938-39]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1941. Seventy-Second Annual Report of the State Superintendent of Education of the State of South Carolina, 1940. [for 1939-40]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1942. Seventy-Third Annual Report of the State Superintendent of Education of the State of South Carolina, 1941. [for 1940-41]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1942. Seventy-Fourth Annual Report of the State Superintendent of Education of the State of South Carolina, 1942. [for 1941-42]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- Missing: State of South Carolina. 1943. Seventy-Fifth Annual Report of the State Superintendent of Education of the State of South Carolina, 1943. [for 1942-43]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1944. Seventy-Sixth Annual Report of the State Superintendent of Education of the State of South Carolina, 1944. [for 1943-44]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1945. Seventy-Seventh Annual Report of the State Superintendent of Education of the State of South Carolina, 1945. [for 1944-45]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.

- State of South Carolina. 1946. Seventy-Eighth Annual Report of the State Superintendent of Education of the State of South Carolina, 1946. [for 1945-46]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1947. Seventy-Ninth Annual Report of the State Superintendent of Education of the State of South Carolina, 1947. [for 1946-47]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1948. *Eightieth Annual Report of the State Superintendent of Education of the State of South Carolina, 1948.* [for 1947-48]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1949. *Eighty-First Annual Report of the State Superintendent of Education of the State of South Carolina, 1949.* [for 1948-49]. Columbia, SC: Joint Committee on Printing, General Assembly of South Carolina.
- State of South Carolina. 1950. *Eighty-Second Annual Report of the State Superintendent of Education of the State of South Carolina, 1950.* [for 1949-50]. Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1951. *Eighty-Third Annual Report of the State Superintendent of Education of the State of South Carolina, 1951.* [for 1950-51]. Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1952. *Eighty-Fourth Annual Report of the State Superintendent of Education of the State of South Carolina, 1951-1952.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1953. *Eighty-Fifth Annual Report of the State Superintendent of Education of the State of South Carolina, 1952-1953.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1954. *Eighty-Sixth Annual Report of the State Superintendent of Education of the State of South Carolina, 1953-1954.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1955. *Eighty-Seventh Annual Report of the State Superintendent of Education of the State of South Carolina, 1954-1955.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1956. *Eighty-Eighth Annual Report of the State Superintendent of Education of the State of South Carolina, 1955-1956.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1957. *Eighty-Ninth Annual Report of the State Superintendent of Education of the State of South Carolina, 1956-1957.* Columbia, SC: State Budget and

Control Board.

- State of South Carolina. 1958. *Ninetieth Annual Report of the State Superintendent of Education of the State of South Carolina, 1957-1958.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1959. *Ninety-First Annual Report of the State Superintendent of Education of the State of South Carolina, 1958-1959.* Columbia, SC: State Budget and Control Board.
- State of South Carolina. 1960. *Ninety-Second Annual Report of the State Superintendent of Education of the State of South Carolina, 1959-1960.* Columbia, SC: State Budget and Control Board.

Tennessee

- State of Tennessee. 1940. Annual Report of the Department of Education for the Scholastic Year Ending June 30, 1939. Clarksville, TN: Lloyd's Printers.
- State of Tennessee. 1941. Annual Report of the Department of Education for the Scholastic Year Ending June 30, 1940. Clarksville, TN: Lloyd's Printers.
- State of Tennessee. 1942. Annual Report of the Department of Education for the Scholastic Year Ending June 30, 1941, Part II: Annual Statistical Report. Clarksville, TN: Lloyd's.
- State of Tennessee. 1943. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1942. Clarksville, TN: Lloyd's.
- State of Tennessee. 1944. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1943. Clarksville, TN: Lloyd's.
- State of Tennessee. 1945. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1944. Clarksville, TN: Lloyd's.
- State of Tennessee. 1946. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1945. Clarksville, TN: Lloyd's.
- State of Tennessee. 1947. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1946.
- State of Tennessee. 1948. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1947.
- State of Tennessee. 1949. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1948.

- State of Tennessee. 1950. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1949.
- State of Tennessee. 1951. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1950.
- State of Tennessee. 1952. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1951.
- State of Tennessee. 1953. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1952.
- State of Tennessee. 1954. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1953.
- State of Tennessee. 1955. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1954.
- State of Tennessee. 1956. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1955.
- State of Tennessee. 1957. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1956.
- State of Tennessee. 1958. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1957.
- State of Tennessee. 1959. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1958.
- State of Tennessee. 1960. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1959.
- State of Tennessee. 1961. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1960.

Virginia

- Commonwealth of Virginia. State Board of Education. 1932. Sixtieth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1930-31. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XIV, No. 3]
- Commonwealth of Virginia. State Board of Education. 1932. Sixty-First Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1931-32. Richmond, VA: Division of Purchase

and Printing. [Bulletin Vol. XV, No. 2]

- Commonwealth of Virginia. State Board of Education. 1933. Sixty-Second Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1932-33. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XVI, No. 2]
- Commonwealth of Virginia. State Board of Education. 1934. Sixty-Third Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1933-34. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XVII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1935. Sixty-Fourth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1934-35. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XVIII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1936. Sixty-Fifth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1935-36. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XIX, No. 3]
- Commonwealth of Virginia. State Board of Education. 1937. Sixty-Sixth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1936-37. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XX, No. 3]
- Commonwealth of Virginia. State Board of Education. 1938. Sixty-Seventh Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1937-38. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXI, No. 3]
- Commonwealth of Virginia. State Board of Education. 1939. Sixty-Eighth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1938-39. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1940. Sixty-Ninth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1939-40. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXIII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1941. Seventieth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia with Accompanying Documents, School Year 1940-41. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXIV, No. 3]

- Commonwealth of Virginia. State Board of Education. 1942. Seventy-First Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1941-42. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXV, No. 3]
- Commonwealth of Virginia. State Board of Education. 1943. Seventy-Second Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1942-43. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXVI, No. 3]
- Commonwealth of Virginia. State Board of Education. 1944. Seventy-Third Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1943-44. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXVII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1945. Seventy-Fourth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1944-45. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXVIII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1946. Seventy-Fifth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1945-46. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXIX, No. 3]
- Commonwealth of Virginia. State Board of Education. 1947. Seventy-Sixth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1946-47. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXX, No. 3]
- Commonwealth of Virginia. State Board of Education. 1948. Seventy-Seventh Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1947-48. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXI, No. 3]
- Commonwealth of Virginia. State Board of Education. 1949. Seventy-Eighth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1948-49. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1950. Seventy-Ninth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1949-50. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXIII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1951. *Eightieth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1950-1951*. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXIV, No. 3]

- Commonwealth of Virginia. State Board of Education. 1952. *Eighty-First Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1951-1952*. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXV, No. 3]
- Commonwealth of Virginia. State Board of Education. 1953. *Eighty-Second Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1952-1953*. Richmond, VA: Division of Purchase and Printing. [Bulletin Vol. XXXVI, No. 3]
- Commonwealth of Virginia. State Board of Education. 1954. *Eighty-Third Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1953-1954.* Richmond, VA: State Board of Education. [Bulletin Vol. XXXVII, No. 8]
- Commonwealth of Virginia. State Board of Education. 1955. *Eighty-Fourth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1954-1955.* Richmond, VA: State Board of Education. [Bulletin Vol. XXXVIII, No. 3]
- Commonwealth of Virginia. State Board of Education. 1956. *Eighty-Fifth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1955-1956*. Richmond, VA: State Board of Education. [Bulletin Vol. XXXIX, No. 3]
- Commonwealth of Virginia. State Board of Education. 1957. *Eighty-Seventh Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1956-1957*. Richmond, VA: State Board of Education. [Bulletin Vol. XL, No. 2]
- Commonwealth of Virginia. State Board of Education. 1958. *Eighty-Eighth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1957-1958.* Richmond, VA: State Board of Education. [Bulletin Vol. XLI, No. 4]
- Commonwealth of Virginia. State Board of Education. 1959. *Eighty-Ninth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1958-1959*. Richmond, VA: State Board of Education. [Bulletin Vol. XLII, No. 2]
- Commonwealth of Virginia. State Board of Education. 1960. *Ninetieth Annual Report of the Superintendent of Public Instruction of the Commonwealth of Virginia, School Year 1959-1960.* Richmond, VA: State Board of Education. [Bulletin Vol. 43, No. 2]

Online Appendix B. Theoretical Framework

School Revenue

School spending in the early 20th century South was funded by revenue from state and local government. State school revenues were derived from a combination of income and property taxes. Local revenues came mainly from property and other local (e.g., poll, severance) taxes.

State revenue at this time was based mostly on enrollment and teacher counts. In the early 1900s, Black teachers weren't discounted in state funding formulas (Margo, 1990). By the period of study, however, the formula amounts per Black child in some states were only a fraction of those per white child, reflecting lower anticipated Black teacher pay. For example, in early 1940s Louisiana, the State Public School Fund included two components – an "educables" fund and an "equalization" fund – and the equalization funding formula assumed that Black teachers were paid less than half of white teacher salaries. This effectively led less state aid to flow to school districts with higher Black enrollment shares.¹

To accommodate this possibility, we approximate state revenue per-pupil (in total enrollment, regardless of race) for county *c* in state \underline{s} , $a_{c(s)}$, as

$$a_{c(s)} = a_s (1 - \pi_{c(s)}) + \gamma_s a_s \pi_{c(s)}, \tag{B1}$$

where a_s is the state *s* allocation per white child, γ_s is the state-specific discount on that allocation for Black children, and $\pi_{c(s)}$ is the Black enrollment share in district (county) *c* of *s*. Thus, if there were no discount in state funding formulas, $\gamma_s = 1$ and $a_{c(s)} = a_s$.

Local revenue per pupil was not formulaically related to Black enrollment share but would have been lower in districts with higher Black shares if they had smaller property tax bases, for example. We allow per-pupil local revenue in county c in state \underline{s} , $l_{c(s)}$, to be a function of Black enrollment share as well:

$$l_{c(s)} = f\left(\pi_{c(s)}\right) \tag{B2}$$

Figure 2 Panel B in the paper plots (residual) natural log of real (2018 dollars) per-pupil state and local revenue against (residual) Black enrollment share on the eve of the NAACP teacher salary equalization campaign (1939-40), where variables are regression-adjusted for state effects. In the negative slope for state revenue, we see some evidence that, on average, $\gamma_s < 1$. That the slope for local revenue is also negative suggests that districts with higher Black shares had less per-capita property wealth.

¹ In 1939-40, the Louisiana State Equalization Fund assumed "costs" of \$400 per Black teacher and \$1,050 per white teacher. Other "cost of program" calculations based on the number of employed teachers assumed lower costs for Black than white teachers (\$275 per white teacher and \$55 per Black teacher). Equalization funds were allocated to parishes where total program costs exceeded statutory revenue sources (mainly the "educables" component of the State Public School Fund, parish-wide taxes, and the severance tax) and were equal to the difference (State Department of Education of Louisiana, 1941).

School Expenditures

Given revenue, district leaders had to decide how that revenue would be distributed across Black and white schools. We assume that the district's budget had to bind, or that total expenditure had to equal total revenue.

To set ideas, first consider the unrealistic case where $l_{c(s)} = 0$. If there were no expropriation on the part of white school leaders, then per-pupil (white) pupil expenditure, $e_{c(s)}^{w}$, would have simply equaled the state allocation per white child, and per (Black) pupil expenditure, $e_{c(s)}^{b}$, would have equaled the state allocation per Black child. That is:

No expropriation +
$$l_{c(s)} = 0 \implies e_{c(s)}^w = a_s$$

 $e_{c(s)}^b = \gamma_s a_s.$ (B3)

The ratio of per-pupil Black spending and per-pupil white spending would have thus been constant across counties in state *s* (regardless of Black share) and equal to the state discount in funding formulas. In other words, without expropriation and local revenue, we cannot arrive at the empirical regularity of $\partial e_{c(s)}^w / \partial \pi_{c(s)} > 0$ and $\partial e_{c(s)}^b / \partial \pi_{c(s)} < 0$, shown in Figure 2 Panel A.

Continuing with no expropriation, but adding local revenue, with constant share φ spent on white students (and substituting in the local revenue function from (B2)), we arrive at

No expropriation
$$+ l_{c(s)} > 0 \implies e_{c(s)}^w = a_s + \varphi f(\pi_{c(s)})$$

 $e_{c(s)}^b = \gamma_s a_s + (1 - \varphi) f(\pi_{c(s)}).$ (B4)

With local revenue, there would have been variation in per-pupil spending by race across counties based on Black enrollment share: $\partial e_{c(s)}^w / \partial \pi_{c(s)} = \varphi f'(\pi_{c(s)})$ and $\partial e_{c(s)}^b / \partial \pi_{c(s)} = (1 - \varphi)f'(\pi_{c(s)})$. However, the signs of the slopes on Black share under these assumptions would have depended only on whether per-pupil local revenue increased or decreased in Black share, and so would have been the same for Black and white spending. Thus, local revenue without expropriation is not enough to explain the expenditure patterns in Figure 2 Panel A.

Next consider a scenario incorporating both local revenue and expropriation of state revenue for Black students by white school leaders at constant rate δ :

Expropriation +
$$l_{c(s)} > 0 \implies e_{c(s)}^{w} = a_s + \delta \gamma_s a_s \left(\frac{\pi_{c(s)}}{1 - \pi_{c(s)}}\right) + \varphi f(\pi_{c(s)})$$

 $e_{c(s)}^{b} = (1 - \delta) \gamma_s a_s + (1 - \varphi) f(\pi_{c(s)}).$ (B5)

The second term in $e_{c(s)}^{w}$ reflects the fact that expropriated funds per white child would have been higher in districts with higher Black shares. We now have a situation where, if $f'(\pi_{c(s)}) < 0$ (as appears to be the case from Figure 2 Panel B) and some local revenue was spent on Black schools ($\varphi < 1$), the Black spending gradient in Black share would have been negative:

$$\partial e_{c(s)}^b / \partial \pi_{c(s)} = (1 - \varphi) f'(\pi_{c(s)}).$$
(B6)

The white spending gradient in Black share also *could* have been positive, depending the relative magnitudes of various model parameters:

$$\partial e_{c(s)}^{w} / \partial \pi_{c(s)} = \delta \gamma_{s} a_{s} \left(\frac{1}{\left(1 - \pi_{c(s)} \right)^{2}} \right) + \varphi f' \left(\pi_{c(s)} \right)$$
(B7)

An alternative scenario that also could have resulted in $\partial e_{c(s)}^w / \partial \pi_{c(s)} > 0$ and $\partial e_{c(s)}^b / \partial \pi_{c(s)} < 0$ is one where the expropriation rate itself was an increasing function of Black share, i.e., $\delta = \delta(\pi_{c(s)})$, where $\delta'(\pi_{c(s)}) > 0$. In this case,

$$\partial e_{c(s)}^b / \partial \pi_{c(s)} = -\delta'(\pi_{c(s)}) \gamma_s a_s + (1-\varphi) f'(\pi_{c(s)})$$
(B8)

and

$$\partial e_{c(s)}^{w} / \partial \pi_{c(s)} = \gamma_{s} a_{s} \left(\frac{\delta(\pi_{c(s)}) + \pi_{c(s)}(1 - \pi_{c(s)}) \delta'(\pi_{c(s)})}{(1 - \pi_{c(s)})^{2}} \right) + \varphi f'(\pi_{c(s)})$$
(B9)

A comparison of (B8) and (B9) with (B6) and (B7) shows that an expropriation rate that was increasing in Black share would have steepened the negative slope on Black share for Black perpupil spending and made the slope on Black share for white per-pupil spending more positive. Such a scenario could have arisen if racial animus was an increasing function of Black share and a determinant of expropriation rates. It could have also reflected constraints as much as preferences: with a larger pool of Black labor, there may have been less of an incentive to invest to Black public schools to reduce out-migration (Margo, 1991).

After the Campaign and Changes to Minimum Salary Schedules

The above characterizes how revenue could have translated into spending by race before the NAACP's teacher salary equalization campaign and subsequent changes to state minimum teacher salary schedules. To summarize, the empirical evidence in Figure 2 Panel A $(\partial e_{c(s)}^b / \partial \pi_{c(s)} < 0, \partial e_{c(s)}^w / \partial \pi_{c(s)} > 0)$ is consistent with expropriation of state funds, but also requires: (1) $f'(\pi_{c(s)}) < 0$ and/or (2) $\delta'(\pi_{c(s)}) > 0$. Though we lack direct evidence of (2), we have provided evidence of (1) (Figure 2 Panel B).

How might changes to minimum teacher salary schedules have affected $\partial e_{c(s)}^b/\partial \pi_{c(s)}$ and $\partial e_{c(s)}^w/\partial \pi_{c(s)}$? New salary minimums could be seen as putting a new, much higher floor on Black teacher salaries. If new salary minimums were binding² and Black teacher characteristics independent of $\pi_{c(s)}$, we would then expect $\partial v_{c(s)}^b/\partial \pi_{c(s)} = 0$ with the new schedules in effect, where $v_{c(s)}^b$ is the average salary of Black teachers in county c. Taking $\partial v_{c(s)}^b/\partial \pi_{c(s)} < 0$ as a starting point (Appendix Figure 2), we thus anticipate relatively large increases over time in

² The historical record suggests that white school leaders sought to spend as little on Black schools as possible (see, for example, Margo (1991), Baker (2019), and Card, Domnisoru, and Taylor (2022)).

Black teacher salaries – *and* per-pupil spending on Black teacher salaries and on Black schools overall – in counties with higher Black enrollment shares. While $\partial e_{c(s)}^b / \partial \pi_{c(s)}$ may have remained negative once new minimum teacher salary schedules were in effect, it should have been less negative than it was at baseline.

How might this prediction differ between reinforcing and resistant states? In reinforcing states, new minimum teacher salary schedules depended only on education (training) and experience. If Black teacher education and experience were independent of $\pi_{c(s)}$, the prediction above would thus hold for reinforcing states. An auxiliary analysis of data from the 1940 full-count Census (Ruggles et al., 2021) suggests that Black teacher characteristics were not significantly related with 1939-40 Black enrollment share conditional on state effects.³

In resistant states, however, new minimum teacher salary schedules depended on education, experience, *and* scores on the NTE. Black teachers scored worse on average on the NTE (Baker, 1995), so relative to a minimum teacher salary schedule that didn't use the NTE, we would expect a continued pay differential between Black and white teachers. The extent to which $\partial v_{c(s)}^b / \partial \pi_{c(s)} < 0$ persists then depends on whether the Black teachers scored worse on the NTE in higher Black share counties than Black teachers in lower Black share counties. We lack data to examine this, but the fact that Black teachers in higher Black share districts had less schooling (even if not significantly less) suggests that it could be the case, consistent with generations of relatively poor local schooling.⁴

How might $\partial e_{c(s)}^w / \partial \pi_{c(s)}$ have changed with new minimum teacher salary schedules? Through expropriation, the sign and magnitude of $\partial e_{c(s)}^w / \partial \pi_{c(s)}$ is inextricably linked to the sign and magnitude of $\partial e_{c(s)}^b / \partial \pi_{c(s)}$. As $\partial e_{c(s)}^b / \partial \pi_{c(s)}$ became less negative, $\partial e_{c(s)}^w / \partial \pi_{c(s)}$ would have become less positive, provided there were not new state funds to fully offset the new salary expenses (Appendix Table 5). In practice, this would have required less aggressive expropriation in higher Black share counties (e.g., moving from $\delta'(\pi_{c(s)}) > 0$ toward $\delta'(\pi_{c(s)}) = 0$) and/or a reduction in the share of local revenue spent on white schools, φ . In either case, growth in per-pupil spending on white schools should have otherwise been spent on white schools would have needed to be allocated toward meeting Black teacher salary mandates. This imperative would have been stronger in reinforcing states and need not have been manifested in relatively slow growth in white average teacher salaries: impacts may have loaded onto other white school resources, observed (e.g., pupil-teacher ratios, term lengths) or unobserved.

³ We estimated unweighted regressions of average Black teacher characteristics by county on 1939-40 Black enrollment share and state fixed effects, using the same sample selection criteria as in Appendix Table 6. For reinforcing states, the coefficients (robust standard errors) on Black enrollment share were 0.6 (1.04), 0.01 (0.03), -0.09 (0.06), -0.31 (0.34), and 0.03 (0.04) for Black average teacher age, share with at least 12 years of schooling, share with at least 16 years of schooling, years of schooling, and share female, respectively.

⁴ We estimated the same models as described in the prior footnote for resistant states and found that the estimates were not significantly different from those for reinforcing states.

Online Appendix C. State-specific policy changes after NAACP litigation

Reinforcing States

Alabama

Alabama had a statewide minimum salary schedule before the NAACP teacher salary equalization campaign. In 1919, enabling legislation was passed requiring that the State Board of Education set forth a salary schedule for counties receiving state education aid (Card, Domnisoru, and Taylor, 2022). The 1927 School Code provided an explicit minimum salary schedule (Meadows, 1969; National Education Association, 1937), and by 1935, approval of local school budgets by the State Department of Education required "state minimum program allotments for teachers' salaries to be budgeted as allotted in order to be received" (Meadows, 1969; p. 8). In 1937, the National Education Association (NEA) classified Alabama as having a statewide mandatory minimum salary law, "permitting no district within the state to employ a regular teacher, working full time, at a salary below the legal minimum" (NEA, 1937; p. 8). Alabama's particular schedule at this time was based on experience and training or certification, and lower salaries were allowed for Black teachers (NEA, 1937).

In 1946, Alabama adopted an "educational program of 9 months as the minimum school term and average teacher salary of \$1800" (Meadows, 1969, p. 11). To achieve this average, a new minimum salary schedule based heavily on college training was developed by the Alabama State Department of Education and approved by the state legislature (Meadows, 1969). By 1968, the state's minimum salary standards had been discontinued (NEA, 1968).

Louisiana

Louisiana did not have a statewide minimum salary schedule before the NAACP teacher salary equalization campaign. In 1948, the state adopted a state minimum salary for teachers based on experience and training, specified in annual amounts for nine months of work (NEA, 1968). This change was accompanied by the "greatest increase in educational funds in the history of the state" (State Department of Education of Louisiana, 1949; p. 3).

Tennessee

Tennessee had a statewide minimum salary schedule before the NAACP teacher salary equalization campaign. Enabling legislation was passed in 1925, concurrently with the state minimum equalization funding program (Card, Domnisoru, and Taylor, 2022; NEA, 1937). Meeting the schedule was necessary to receive state funding (Card, Domnisoru, and Taylor, 2022). In 1937, the NEA classified Tennessee as having an optional minimum salary law ("applying only to certain state aid districts"), based on position, training, and experience (NEA, 1937; p. 8). A separate schedule for Black teachers was not specified (NEA, 1937).

In 1947, Tennessee introduced a "single state salary schedule for all teachers in all grades 1 through 12," alongside a new \$24 million state minimum school program (State of Tennessee,

1949, p. 111; Smith, 1969). In 1968, the NEA classified Tennessee as having a minimum salary schedule based on preparation and experience (NEA, 1968).

Virginia

Virginia did not have a statewide minimum salary schedule before the NAACP teacher salary equalization campaign. While school systems across the state engaged in a "concerted effort to equalize salaries for white and Negro teachers" between 1940 and 1945 (Ellis, Smith, and Watkins, 1969; p. 1299), the state did not introduce a minimum salary schedule until 1946 (Card, Domnisoru, and Taylor, 2022; NEA, 1969). In 1952, \$19 million in additional funds were appropriated and a new schedule promulgated, with the goal of attracting more people into the field (Ellis, Smith, and Watkins, 1969). In 1968, the NEA classified Tennessee as having a minimum salary schedule based on preparation and experience (NEA, 1968).

Resistant States

Florida

Florida did not have a statewide minimum salary schedule before the NAACP teacher salary equalization campaign. It adopted one in 1955, which the NEA later classified as a (partial) minimum-salary schedule based on preparation and experience (NEA, 1968). However, local salary schedules based on the National Teacher Examination (NTE) were common across Florida cities in the 1940s, and these schedules were not overturned by the courts (Baker, 1995).

While the later statewide minimum salary schedule prohibited the use of the NTE, it did allow for a measure of local discretion not seen in other states: "In addition to the annual increments required to be given to teachers on continuing contract, the statute provides that the counties may adopt additional factors as incentives for determination and recognition of superior teaching ability and service in the program of instruction, except that scores achieved on the National Teachers Examination, the Graduate Record Examination, or a general knowledge test may not be used." (NEA, 1969; p. 19).

South Carolina

South Carolina both had and repealed a minimum teacher salary law before the NAACP teacher salary equalization campaign. The original law was passed in 1924 but was repealed by 1937 (NEA, 1937). Another state minimum salary schedule was enacted in 1945. This schedule was based on experience and preparation, but preparation was defined to include "grades, based on scores on the National Teacher Examinations" (NEA, 1969; pp. 36-37). This schedule remained in effect during the 1968-69 school year.

References for Online Appendices B and C

- Baker, Richard B. 2019. "Finding the Fat: the Relative Impact of Budget Fluctuations on African-American Schools." *Explorations in Economic History* 72: 93-113.
- Baker, Scott. 1995. "Testing Equality: The National Teacher Examination and the NAACP's Legal Campaign to Equalize Teachers' Salaries in the South, 1936-63." *History of Education Quarterly* 35(1): 49-64.
- Card, David, Ciprian Domnisoru, and Lowell Taylor. 2022. "The Intergenerational Transmission of Human Capital: Evidence from the Golden Age of Upward Mobility." *Journal of Labor Economics* 40(S1): S39-S95.
- Ellis, Fendall R., Harry L. Smith, and C.J. Watkins. 1969. "Virginia." In *Education in the States: Historical Development and Outlook*, Ed. Jim B. Pearson and Edgar Fuller (Washington, D.C.: National Education Association of the United States), pp. 1287-1316.
- Margo, Robert A. 1991. "Segregated Schools and the Mobility Hypothesis: A Model of Local Government Discrimination." *The Quarterly Journal of Economics* 106(1): 61-73.
- Meadows, Austin R. 1969. "Alabama." In *Education in the States: Historical Development and Outlook*, Ed. Jim B. Pearson and Edgar Fuller (Washington, D.C.: National Education Association of the United States), pp. 1-26.
- National Education Association of the United States. 1937. *Minimum-Salary Laws for Teachers*. Washington, D.C.: NEA.
- National Education Association. 1968. *State Minimum-Salary Laws for Teachers, 1968-69.* Public-School Salaries Series. Research Report 1968-R15. Washington, D.C.: NEA Research Division.
- Smith, Austin R. 1969. "Tennessee." In Education in the States: Historical Development and Outlook, Ed. Jim B. Pearson and Edgar Fuller (Washington, D.C.: National Education Association of the United States), pp. 1173-1198.
- State Department of Education of Louisiana. 1941. *Ninety-First Annual Report for the Session* 1939-40. Baton Rouge, LA: State Superintendent of Public Education. [Bulletin No. 448]
- State Department of Education of Louisiana. 1949. One-Hundredth Annual Report for the Session 1948-1949. Baton Rouge, LA: State Superintendent of Education. [Bulletin No. 699]
- State of Tennessee. 1949. Annual Statistical Report of the Department of Education for the Scholastic Year Ending June 30, 1948.

Appendix Figure 1. Trends in Average Teacher Salaries, Pupil-Teacher Ratios and Term Lengths in Public Schools by Race in the South



Source: State panel data on average teacher salaries, pupil-teacher ratios, and term lengths by race from Card and Krueger (1992a). Note: Each state is given equal weight in each year. The South includes the 11 states of the former Confederacy (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia) and six border states (Delaware, Kentucky, Maryland, Missouri, Oklahoma, and West Virginia). Average teacher salaries are in real 2018 dollars. Where missing, values were linearly interpolated within state.

Appendix Figure 2. Trends in the Relationship between Black Enrollment Share and Average Teacher Salary by Race



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. See Online Appendix A. *Note:* Figures plot year-specific slopes from bivariate regressions of natural log of average teacher salary by race on 1939-40 Black enrollment share. The unit of observation is a county, and regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination.

Appendix Figure 3. Event-Study Estimates for the Pupil-Teacher Ratio by Race, by Type of Minimum Salary Schedule after NAACP Litigation



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. See Online Appendix A. *Note:* Dependent variable is the natural log of pupil-teacher ratio, by race. Dots represent estimates of the eventstudy coefficients (on $D_{st}^{j}B_{c(s)}^{0}$) from equation (1); capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination.

Appendix Figure 4. Event-Study Estimates for Per-Pupil Teacher Salary Spending by Race, by Type of Minimum Salary Schedule after NAACP Litigation



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. See Online Appendix A. *Note:* Dependent variable is the natural log of per-pupil teacher salary spending, by race. Dots represent estimates of the event-study coefficients (on $D_{st}^{j}B_{c(s)}^{0}$) from equation (1); capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination.

Appendix Figure 5. Event-Study Estimates for Term Length by Race, by Type of Minimum Salary Schedule after NAACP Litigation



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. See Online Appendix A. *Note:* Dependent variable is the natural log of term length (in days), by race. Dots represent estimates of the eventstudy coefficients (on $D_{st}^{j}B_{c(s)}^{0}$) from equation (1); capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination. Appendix Figure 6. Event-Study Estimates for White Average Teacher Salary, by Type of Minimum Salary Schedule after NAACP Litigation



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. See Online Appendix A. *Note:* Dependent variable is the natural log of white average teacher salary. Dots represent estimates of the eventstudy coefficients (on $D_{st}^{j}B_{c(s)}^{0}$) from equation (1); capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination.

Appendix Figure 7. Reinforcing-Resistant Difference in Event-Study Estimates for White School Resources



Source: Administrative reports from AL, FL, LA, SC, TN, and VA. Data on term length not available for VA. See Online Appendix A.

Note: Dependent variables are logged. Dots represent estimates of the reinforcing-resistant difference in eventstudy coefficients (on $D_{st}^{j}B_{c(s)}^{0}T_{s}$) from equation (4); capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_{s}$, where N_{s} is the number of counties in state *s* in the estimation sample. "Reinforcing" states (AL, LA, TN, VA) adopted minimum teacher salary schedules based on training and experience only. Minimum teacher salary schedules in "resistant" states (FL, SC) also incorporated performance on the National Teacher Examination.



Appendix Figure 8. Reinforcing-Resistant Difference in Event-Study Estimates for Grade Progression and Enrollment Rates, by Race

Sources and notes: See sources and notes to Figure 5 and Figure 7 in the text.

Appendix Figure 9. Triple-Difference Estimates for White Grade Progression and Enrollment Rates



Source: Administrative reports from AL, FL, SC, and TN [grade progression rates and 9th-12th grade enrollment rate] and Census data for AL, FL, LA, SC, TN, and VA (Ruggles et al., 2021) [ages 18-19 enrollment]. See Online Appendix A.

Note: For all outcomes besides ages 18-19 enrollment, dots represent estimates of the coefficient on $D_{st}^{5+}B_{c(s)}^{0}T_{s}$ in equation (3); for ages 18-19 enrollment, dots represent the coefficient on $D_{t}^{1960}B_{c(s)}^{0}T_{s}$ in a version of (3) modified for the Census data (see text). Capped vertical lines represent 95% confidence intervals. Standard errors are clustered on county. The unit of observation is a county-year, and regressions are weighted by $1/N_{s}$, where N_{s} is the number of counties in state *s* in the estimation sample. Controls are the variables listed in Table 2 interacted with indicators for event years -9 and below, 0-4, 5-15, and 16 and above.

			First successful case:	
	Number	Filing		Included in
	filed	year	Name	Analysis?
			A. Former Confederacy (Old South)	
Alabama	2	1942	Bolden v. Birmingham School Board	Y
Arkansas	1	1942	Susie Morris v. Little Rock School Board	Ν
Florida	7	1941	McDaniel v. Escambia County Board of Education	Y
Georgia	2	1943	Davis v. Cook (Atlanta School Board)	Ν
Louisiana	6	1942	McKelpin v. New Orleans School Board	Y
Mississippi	0	-	-	Ν
North Carolina	0	-	-	Ν
South Carolina	2	1943	Duval v. Charleston School Board	Y
Tennessee	3	1941	Robinson v. Chattanooga School Board	Y
Texas	1	1942	Page v. Dallas School Board	Ν
Virginia	4	1940	Alston v. Norfolk School Board	Y
			B. Border States	
Delaware	0	-	<u>-</u>	Ν
Kentucky	1	1941	Abbington v. Louisville School Board	Ν
Maryland	5	1939	Mills v. Anne Arundel County School Board	Ν
Missouri	1	1943	Lee v. Festus Board of Education	Ν
Oklahoma	0	-	-	Ν
West Virginia	0	-	-	Ν

Appendix Table 1. NAACP Teacher Salary Equalization Cases (by 1948) by State

Sources: Marshall (1947) and Coleman (1949).

Notes: Case counts include cases brought with the assistance of the NAACP in state or federal court, regardless of their disposition. The first successful case is the first case successfully litigated in a federal, not state, court.

Appendix Table 2. Decomposition of Combined School Enrollment/12-Year Schooling Completion Rates, by Race, Age, and Year

		Share Enrolled in School	Share of total:				
	_	OR 12+ Years Completed	Enrolled in School	12+ Years Completed			
Age	Year	(1)	(2)	(3)			
		A. White Tee	nagers in Six States of Primary	Sample			
18	1940	0.47	0.71	0.53			
	1960	0.69	0.69	0.55			
19	1940	0.43	0.48	0.77			
	1960	0.66	0.45	0.86			
		B. Black Tee	nagers in Six States of Primary	Sample			
18	1940	0.26	0.87	0.24			
	1960	0.58	0.81	0.30			
19	1940	0.19	0.71	0.46			
	1960	0.49	0.62	0.60			

Sources: Full-count data from the 1940 Census and the 5% public-use microdata sample from the 1960 Census (Ruggles, et al., 2021). We drop observations with allocated age, race, or school enrollment.

Notes: The estimation sample includes 18- and 19-year-olds living in Alabama, Florida, Louisiana, South Carolina, Tennessee, or Virginia. Statistics give each state equal weight. Columns 2 and 3 do not all up to one because a person can both be enrolled and have 12+ years of completed schooling.

		Number of Counties											
	Total during period (1)	In state reports all years (2)	(2) + Black and white teacher salary info all years (3)	(3) + All control variables observed (4)	Sample (5)								
	••	• •											
Alabama	67	67	66	66	66								
Florida	67	67	67	67	67								
Louisiana	64	64	64	64	64								
South Carolina	46	30	30	30	30								
Tennessee	95	82	82	81	81								
Virginia	122	120	114	113	113								
Total	461	430	423	421	421								

Appendix Table 3. Number of Counties in Main Estimation Sample, by State

Notes: A county is "in state reports all years" (column 2) if there are not systematic problems with the county's data entry (e.g., due to it regularly appearing near the crease of a publication). We also count 16 counties in South Carolina as having incomplete data because they stop reporting statistics by race in 1950/51. Counties that lack Black and white teacher salary information for some years (column 3) have very small Black (or white) populations. The control variables (column 4) are the variables listed in Table 2.

		All			Reinforcing			Resistant			
	Mean	n [s.d.]	Change	Mean	[s.d.]	Change	Mean	[s.d.]	Change		
	1939-40	1955-56	(s.e.)	1939-40	1955-56	(s.e.)	1939-40	1955-56	(s.e.)		
		A. Per-pupil revenue									
State	367	1,064	697	304	1,027	723	461	1120	659		
	[147]	[300]	(13)	[80]	[271]	(15)	[173]	[332]	(20)		
Local	303	500	197	308	452	144	295	573	278		
	[173]	[370]	(15)	[199]	[370]	(14)	[125]	[361]	(33)		
State and local	670	1,564	895	612	1,479	867	756	1,692	936		
	[209]	[437]	(19)	[180]	[233]	(13)	[219]	[610]	(46)		
				B. Per-pupil s	pending on tea	acher salaries					
Black and white	434	1,031	598	411	1,006	596	468	1,069	601		
combined	[118]	[186]	(9)	[119]	[149]	(9)	[108]	[226]	(17)		
Ν	357	357	714	260	260	520	97	97	194		

Appendix Table 4. School Resources and Educational Attainment Before and After NAACP Litigation: Five Southern States

Sources: Administrative reports from AL, FL, SC, TN, and VA. See Online Appendix A.

Notes: The sample includes 357 counties across these five states. We use 1955-56 instead of 1959-60 as the end year to avoid misalignment between the revenue and salary expenditure data, since salary expenditure data are imputed for FL after 1955-56. Statistics are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample. Monetary values in real 2018 dollars, inflated using the CPI-U.

	Coef. (s.e.) on Blac 5+ Years Post Li	ck Share x	Di:	Difference in Coefs. (s.e.): Reinforcing - Resistant				
	Reinforcing:	Resistant:	No Add'l	With Schooling	With All			
	AL, LA, TN, VA	FL, SC	Controls	Controls ^a	Controls ^b			
	(1)	(2)	(3)	(4)	(5)			
Per-pupil spending on	115	-1	116	113	111			
teacher salaries	(24)	(49)	(54)	(55)	(56)			
R^2			0.882	0.883	0.886			
Per-pupil state revenue	110	59	51	52	68			
	(35)	(71)	(79)	(76)	(80)			
R^2			0.956	0.958	0.959			
N (county x year)	7,704	2,776	10,480	10,480	10,480			

Appendix Table 5. NAACP Litigation, State Policy, and Salary Spending and Revenues by Race: Difference-in-Differences and Triple-Difference Estimates

Source: Administrative reports from AL, FL, SC, TN, and VA. See Online Appendix A.

Notes: Columns 1 and 2 give estimates of θ_{5+} in equation (2). Columns 3 to 5 give estimates of $\tilde{\theta}_{5+}$ in equation (3). All regressions include state-by-year fixed effects, county fixed effects, and interactions between 1939-40 Black enrollment share and indicators for event years -9 and below, 0-4, 5-15, and 16 and above. The regressions in columns 3 to 5 also include triple interactions between Black share, these event-year indicators, and an indicator for reinforcing state. Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.

^a Interactions between event-year indicators and race-specific shares of grades 1 and 9-12 enrollment in 1940.

^b Interactions between event-time indicators and all county characteristics in Table 2.

		Black			White		Black	Black-White Difference ^a		
	Mean	[s.d.]	Change	Mean	[s.d.]	Change	Mean	[s.d.]	Change	
	1940	1960	(s.e.)	1940	1960	(s.e.)	1940	1960	(s.e.)	
Average salary	10,092 [1,965]	29,240 [4,121]	19,147 (1,864)	17,530 [1,581]	28,864 [3,793]	11,333 (1,678)	-7,438 [2,539]	376 [1,919]	7,814 (1,300)	
Age	33.3	38.4	5.1	34.2	41.4	7.2	-0.9	-3.0	-2.1	
	[1.3]	[1.2]	(0.7)	[0.7]	[1.1]	(0.5)	[1.7]	[1.4]	(0.9)	
Years of education	14.0	15.9	1.9	15.1	15.7	0.6	-1.0	0.2	1.3	
	[0.3]	[0.1]	(0.1)	[0.2]	[0.2]	(0.1)	[0.4]	[0.2]	(0.2)	
Share w/ 12+ years ed	0.92	0.99	0.06	0.97	0.98	0.01	-0.05	0.00	0.05	
	[0.02]	[0.01]	(0.01)	[0.01]	[0.01]	(0.0)	[0.02]	[0.01]	(0.0)	
Share w/ 16+ years ed	0.38	0.83	0.45	0.59	0.74	0.15	-0.21	0.09	0.30	
	[0.06]	[0.04]	(0.03)	[0.10]	[0.06]	(0.0)	[0.12]	[0.04]	(0.1)	
Share female	0.79	0.79	0.00	0.78	0.79	0.01	0.01	0.00	-0.01	
	[0.02]	[0.03]	(0.01)	[0.03]	[0.03]	(0.0)	[0.02]	[0.05]	(0.02)	

Appendix Table 6. Teacher Characteristics in 1940 and 1960: Six Southern States

Sources: Full-count data from the 1940 Census and the 5% public-use microdata sample from the 1960 Census (Ruggles, et al., 2021).

Notes: The estimation sample includes 16- and 65-year-olds with an occupational classification of "teachers (n.e.c.)" working in the educational services industry, with positive wage or salary income, and living in Alabama, Florida, Louisiana, South Carolina, Tennessee, or Virginia. We drop observations with allocated age, sex, race, or wage and salary income. To match the weighting in the main analysis of the paper, we collapse the microdata to the state level; statistics above give each state equal weight.

				Grade Progre	ession from:				Enrollment rate	
	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th	6th to 7th	7th to 8th	8th to 9th	9th-12th	Ages 18-19
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					A. No Addi	tional Control.	5			
RF: Black	-0.003	-0.062	0.041 (0.048)	0.083 (0.045)	-0.014 (0.061)	0.196 (0.080)	-0.035	0.178	0.026 (0.025)	0.020 (0.097)
R ²	0.688	0.175	0.147	0.221	0.223	0.432	0.364	0.570	0.838	0.663
RF: White	-0.139 (0.043)	-0.044 (0.032)	-0.041 (0.031)	-0.044 (0.027)	-0.045 (0.034)	-0.053 (0.054)	-0.126 (0.093)	0.045 (0.053)	-0.036 (0.025)	-0.156 (0.081)
\mathbb{R}^2	0.761	0.167	0.176	0.257	0.254	0.404	0.341	0.447	0.823	0.729
RF: Black-White Gap	0.136 (0.067)	-0.019 (0.067)	0.082 (0.059)	0.127 (0.053)	0.031 (0.075)	0.249 (0.092)	0.091 (0.140)	0.133 (0.132)	0.062 (0.033)	0.175 (0.103)
\mathbb{R}^2	0.462	0.144	0.141	0.194	0.167	0.338	0.334	0.497	0.758	0.549
First-stage	0.496 (0.118)	0.496 (0.118)	0.495 (0.118)	0.496 (0.118)	0.497 (0.118)	0.499 (0.118)	0.500 (0.118)	0.483 (0.117)	0.496 (0.118)	0.449 (0.109)
R ²	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.948	0.980

Appendix Table 7. Reduced-Form and First-Stage Coefficients (on Initial Black Enrollment Share x 5+ Years Post-litigation x Reinforcing State)

				Grade Progre	ssion from:				Enrollment rate			
	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th	6th to 7th	7th to 8th	8th to 9th	9th-12th	Ages 18-19		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
	I.B. With County Characteristic x Event Year Interactions, Blacks											
RF: Black	0.018	-0.086	0.044	0.077	-0.009	0.157	-0.069	0.109	0.008	0.058		
	(0.049)	(0.060)	(0.049)	(0.045)	(0.062)	(0.084)	(0.096)	(0.123)	(0.027)	(0.097)		
\mathbb{R}^2	0.694	0.178	0.157	0.227	0.226	0.439	0.372	0.581	0.845	0.684		
RF: White	-0.146	-0.044	-0.076	-0.055	-0.046	-0.074	-0.116	0.049	-0.043	-0.129		
	(0.042)	(0.033)	(0.032)	(0.028)	(0.035)	(0.055)	(0.096)	(0.055)	(0.023)	(0.082)		
\mathbb{R}^2	0.766	0.171	0.185	0.261	0.260	0.413	0.347	0.460	0.842	0.762		
RF: Black-White Gap	0.164 (0.062)	-0.042 (0.072)	0.119 (0.059)	0.132 (0.052)	0.038 (0.075)	0.232 (0.093)	0.046 (0.139)	0.059 (0.138)	0.051 (0.034)	0.186 (0.106)		
\mathbb{R}^2	0.766	0.171	0.185	0.261	0.260	0.413	0.347	0.460	0.767	0.558		
First-stage	0.409 (0.113) 0.958	0.409 (0.113) 0.958	0.409 (0.113) 0.958	0.409 (0.113) 0.958	0.410 (0.113) 0.958	0.413 (0.113) 0.958	0.415 (0.114) 0.958	0.399 (0.112) 0.958	0.409 (0.113) 0.95	0.329 (0.110) 0.984		
N (county x year)	6,844	6,838	6,840	6,838	6,836	6,831	6,796	6,748	7,024	1,655		

Appendix Table 7. Reduced-Form and First-Stage Coefficients (on Initial Black Enrollment Share x 5+ Years Post-litigation x Reinforcing State) (cont'd)

Sources: Administrative reports from AL, FL, SC, and TN [columns 1 to 9] and the Census for AL, FL, LA, SC, TN, and VA (Ruggles et al., 2010) [column 10]. See Online Appendix A. *Notes:* Cells in columns 1-9 present the coefficient on the triple interaction between 1939-40 Black enrollment share, the indicator for event years 5-15, and an indicator for reinforcing state in equation (3). All regressions in columns 1-9 control for state-by-year fixed effects, county fixed effects, interactions between 1939-40 Black enrollment share and indicators for event years -9 and below, 0-4, 5-15, and 16 and above, and the triple interactions between 1939-40 Black enrollment share in indicators for event years (-9 and below, 0-4, 5-15, and 16 and above). Cells in column 10 present the coefficient on the triple interaction between 1939-40 Black enrollment share, an indicator for 1960, and an indicator for reinforcing state. All regressions in column 10 present the coefficient on the triple interactions between 1939-40 Black enrollment share, an indicator for 1960, and an indicator for reinforcing state. All regressions in column 10 control for state-by-year fixed effects, interactions between 1939-40 Black enrollment share and the indicator for 1960. Regressions in column 10 control for interactions between the county characteristics in Table 2 and the indicator for 1960. Regressions in column 10 of Panel B also control for interactions between 1939-40 Black enrollment share and the indicator for 1960. Regressions in column 10 of Panel B also control for interactions between the county characteristics in Table 2 and the indicator for 1960. Regressions in column 10 in teractions between the county characteristics in Table 2 and the indicators for 1960. Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.

				Grade Progre	ession from:				Enr. rate			
	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th	6th to 7th	7th to 8th	8th to 9th	Grades 9-12			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)			
	A. No Additional Controls											
2SLS	0.006	-0.126	0.092	0.156	-0.028	0.386	-0.066	0.372	0.049			
	(0.098)	(0.128)	(0.102)	(0.094)	(0.127)	(0.162)	(0.212)	(0.241)	(0.049)			
F-stat	8.9	8.9	8.9	8.9	8.9	9.0	9.0	8.6	8.9			
OLS	0.015 (0.015)	-0.000 (0.018)	0.003 (0.021)	0.042 (0.017)	-0.015 (0.019)	0.091 (0.021)	0.070 (0.028)	0.145 (0.039)	0.033 (0.006)			
			В. И	Vith County Cl	haracteristic x	Event Year In	nteractions					
2SLS	0.063 (0.117)	-0.210 (0.172)	0.119 (0.130)	0.174 (0.112)	-0.021 (0.155)	0.373 (0.200)	-0.162 (0.243)	0.276 (0.298)	0.017 (0.065)			
F-stat	6.6	6.6	6.5	6.6	6.6	6.7	6.6	6.3	6.6			
OLS	0.013 (0.015)	-0.003 (0.018)	-0.000 (0.020)	0.030 (0.017)	-0.021 (0.021)	0.072 (0.021)	0.053 (0.028)	0.118 (0.039)	0.030 (0.006)			
N (county x year)	6,844	6,838	6,840	6,838	6,836	6,831	6,796	6,748	7,024			

Appendix Table 8. Impacts of Black Teacher Salaries on Black Grade Progression and Enrollment Rates, Using Both Post Periods as Instruments

Sources: Administrative reports for AL, FL, SC, and TN. See Online Appendix A.

Notes: Dependent variables are listed in column headers. 2SLS estimates instrument for the natural log of real Black teacher salaries (2018 dollars) using the triple interactions between 1939-40 Black enrollment share, the indicator for reinforcing state, and indicators for event years 0-4 and 5-15. All regressions include controls for state-by-year fixed effects, county fixed effects, interactions between 1939-40 Black enrollment share and indicators for event years -9 and below, 0-4, 5-15, and 16 and above, and the triple interactions between 1939-40 Black enrollment share, indicators for event years -9 and below and 16 and above, and the indicator for reinforcing state. Regressions in Panel B also include controls for interactions between the county characteristics in Table 2 and indicators for all event years (-9 and below, 0-4, 5-15, and 16 and above). Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.

			Black			Black-	White Gap		
			State	s w/ grade			States	w/ grade	
Samp	le:	All states	pro	gression	Al	states	prog	progression	
Dep. v	ar: Origin	al Alternati	ve Original	Alternative	Original	Alternative	Original	Alternative	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
				A. No Addi	tional Controls				
2SLS	0.04	-0.019 (0.222)	0.185 (0.218)	0.123 (0.216)	0.390 (0.260)	0.469 (0.264)	0.164 (0.227)	0.238 (0.229)	
F-stat	16.9	16.9	14.2	14.2	16.9	16.9	14.2	14.2	
OLS	0.15 (0.04	6 0.191 0) (0.042)	0.151 (0.055)	0.154 (0.058)	0.060 (0.041)	0.103 (0.044)	0.063 (0.054)	0.089 (0.060)	
			B. With C	County Character	istic x Event Ye	ar Interactions			
2SLS	0.17 (0.29	5 0.086 6) (0.290)	0.297 (0.243)	0.205 (0.240)	0.565 (0.386)	0.684 (0.399)	0.265 (0.281)	0.358 (0.284)	
F-stat	9	9	10.4	10.4	9	9	10.4	10.4	
OLS	0.16 (0.04	5 0.149 4) (0.045)	0.165 (0.057)	0.124 (0.059)	0.068 (0.046)	0.083 (0.048)	0.070 (0.057)	0.072 (0.060)	
N (county x year)	1,65	5 1,655	947	947	1,655	1,655	947	947	

Appendix Table 9. Impacts of Black Teacher Salaries on Census Enrollment Rates: Sensitivity to Sample and Definition of Dependent Variable

Sources: Census tabulations for AL, FL, LA, SC, TN, and VA (Ruggles et al., 2010).

Notes: The "original" dependent variable is the ages 18-19 enrollment rate as described in the text. The "alternative" dependent variable substitutes the share of 18and 19-year-olds either currently enrolled or with 9 or more years of completed schooling in 1940. 2SLS estimates instrument for the natural log of real Black average teacher salary (2018 dollars) using the triple interaction between 1939-40 Black enrollment share, an indicator for 1960, and an indicator for reinforcing state. All regressions include controls for state-by-year fixed effects, county fixed effects, and the interaction between 1939-40 Black enrollment share and the indicator for 1960. Regressions in Panel B also include controls for interactions between the county characteristics in Table 2 and the indicator for 1960. Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.

	White grade Progression from:							White enrollment rate:		
	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th	5th to 6th	6th to 7th	7th to 8th	8th to 9th	Grades 9-12	Ages 18-19
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					A. No Ac	lditional Cont	rols			
2SLS	-0.280 (0.115)	-0.088 (0.065)	-0.083 (0.071)	-0.088 (0.057)	-0.091 (0.069)	-0.107 (0.108)	-0.252 (0.207)	0.093 (0.117)	-0.073 (0.053)	-0.347 (0.217)
F-stat	17.8	17.8	17.7	17.7	17.7	17.9	17.8	17.2	17.8	16.9
OLS	0.011 (0.010)	-0.001 (0.008)	0.008 (0.007)	-0.011 (0.006)	-0.005 (0.008)	0.014 (0.009)	0.013 (0.012)	-0.011 (0.013)	0.007 (0.004)	0.096 (0.033)
				B. With C	County Charac	teristic x Even	et Year Interac	etions		
2SLS	-0.356 (0.155)	-0.107 (0.083)	-0.185 (0.100)	-0.134 (0.077)	-0.113 (0.085)	-0.180 (0.136)	-0.279 (0.254)	0.124 (0.150)	-0.104 (0.060)	-0.390 (0.302)
F-stat	13.1	13.1	13.0	13.1	13.1	13.3	13.2	12.6	13.1	9
OLS	0.005 (0.009)	0.003 (0.008)	0.002 (0.007)	-0.014 (0.006)	-0.008 (0.008)	0.011 (0.009)	0.014 (0.011)	-0.022 (0.012)	0.003 (0.003)	0.097 (0.037)
N (county x year)	6,844	6,838	6,840	6,838	6,836	6,831	6,796	6,748	7,024	1,655

Appendix Table 10. Impacts of Black Teacher Salaries on White Grade Progression and Enrollment Rates

Sources: Administrative reports from AL, FL, SC, and TN [columns 1 to 9] and the Census for AL, FL, LA, SC, TN, and VA (Ruggles et al., 2010) [column 10]. See Online Appendix A. Notes: Dependent variables are listed in column headers. 2SLS estimates in columns 1-9 instrument for the natural log of real Black average teacher salary (2018 dollars) using the triple interaction between 1939-40 Black enrollment share, the indicator for event years 5-15, and an indicators for event years -9 and below, 0-4, 5-15, and 16 and above, and the triple interactions between 1939-40 Black enrollment share, indicators for event years -9 and below, 0-4, s-15, and 16 and above, and the triple interactions between 1939-40 Black enrollment share on indicators for all event years (-9 and below, 0-4, 5-15, and 16 and above). 2SLS estimates in column 10 instrument for the natural log of real Black average teacher salary (2018 dollars) using the triple interaction between 1939-40 Black enrollment share in columns 1-9 also

reinforcing state. All regressions in column 10 include controls for state-by-year fixed effects, county fixed effects, and the interaction between 1939-40 Black enrollment share and the indicator for 1960. Regressions in Panel B of column 10 also include controls for interactions between the county characteristics in Table 2 and the indicator for 1960. Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.

		State + cohort	County + cohort	County + state x cohort						
		fixed effects	fixed effects	fixed effects						
		(1)	(2)	(3)						
		A. Teacher Salary								
Log teacher wage gap		0.206	0.136	0.125						
		(0.026)	(0.034)	(0.042)						
	R^2	0.222	0.539	0.550						
		B. Pupil-Teacher Ratio								
Pupil-teacher ratio gap		-0.605	-0.267	-0.215						
(divided by 100)		(0.078)	(0.141)	(0.140)						
	R^2	0.217	0.529	0.577						
		C. Teacher Salary + Pupil-Teacher Ratio								
Log teacher wage gap		0.151	0.129	0.103						
		(0.028)	(0.035)	(0.042)						
Pupil-teacher ratio gap		-0.421	-0.094	-0.178						
(divided by 100)		(0.087)	(0.141)	(0.137)						
	R^2	0.237	0.539	0.551						
N (county x cohort)		1,655	1,655	1,655						

Appendix Table 11. The Effect of School Resources on the Black-White Gap in Education: Estimates Using County Panel Data (All Six States)

Sources: Census tabulations for AL, FL, LA, SC, TN, and VA (Ruggles et al., 2021).

Notes: The dependent variable is the ages 18-19 enrollment rate. All coefficients are estimated using OLS. Regressions are weighted by $1/N_s$, where N_s is the number of counties in state *s* in the estimation sample, and standard errors (in parentheses) are clustered on county.