

Howard Bodenhorn

## Single Parenthood and Childhood Outcomes in the Mid-Nineteenth-Century Urban South

An increasing volume of research documents the rising incidence of single parenthood and its consequences for children. Issues surrounding the consequences of single motherhood have special salience for black Americans. According to Fields, about 16 percent of white children and 48 percent of black children live with a single mother, and the economic costs to children raised in single-mother households are substantial. More than one-half of single-mother households fall under the official poverty line and three-fifths receive some form of public assistance. Moreover, children raised in mother-only households are more likely to underachieve academically, to drop out of school, to become single parents themselves, to have lower labor-market attachment, and to engage in criminal activity as young adults than children raised in two-parent households. Thus, racial differences in family structure have potentially large implications for racial differences in child welfare and individual economic mobility in later life.<sup>1</sup>

Similar, if less pronounced, racial differences in family structure are well documented for the late nineteenth and early twentieth centuries. Du Bois, Frazier and, more recently, Sacerdote

Howard Bodenhorn is Professor of Economics, Lafayette College. He is the author of *State Banking in Early America: A New Economic History* (New York, 2003); “The Mulatto Advantage: The Biological Consequences of Complexion in Rural Antebellum Virginia,” *Journal of Interdisciplinary History*, XXXIII (2002), 21–46.

The author thanks Susan Averett, Robert Margo, Carolyn Moehling, John Murray, Greg Price, and participants at the Cliometric Society session at the 2006 ASSA annual meetings for valuable comments, and Pam Bodenhorn and Veronica Hart for valuable research assistance. He is also grateful to the National Science Foundation (SES-0109165) and the Earhart Foundation for financial support.

© 2007 by the Massachusetts Institute of Technology and The Journal of Interdisciplinary History, Inc.

1 Jason Fields, “Children’s Living Arrangements and Characteristics: March 2002,” Current Population Reports, U.S. Census Bureau, Study P20-547; Sara McLanahan and Larry Bumpass, “Intergenerational Consequences of Family Disruption,” *American Journal of Sociology*, XCIV (1988), 130–152; McLanahan and Gary Sandefur, *Growing Up with a Single Parent: What Hurts, What Helps* (Cambridge, Mass., 1994); Percy Gamble Kammerer, *The Unmarried Mother: A Study of Five Hundred Cases* (Montclair, N.J., 1969); Carolyn M. Moehling, “Family Structure, School Attendance, and Child Labor in the American South in 1900 and 1910,” *Explorations in Economic History*, XLI (2004), 73–100.

contend that slavery damaged the black family and gave birth to its modern dysfunctions including single motherhood. The controversy surrounding Moynihan's now infamous report, which repeated Du Bois and Frazier's mostly unproved assertions, prompted new historical studies, which found that whether enslaved or free, most black children lived in traditional two-parent families, though free black children were about twice as likely as white children to live in mother-only households. Mathis and Krech argue that comparing black households to the nuclear, two-parent, white norm is hegemonic, failing to recognize the cultural distinctiveness of extended kinship networks among blacks. Nevertheless, even Krech notes that adults provide more education and superior employment opportunities for their own children than for nieces, nephews, and other less direct kin.<sup>2</sup>

This study documents the incidence of single parenthood in the urban South in the mid-nineteenth century. Consistent with the findings of other studies of early black households, African American children were about twice as likely as white children to reside in mother-only households. The second, and novel, aspect of this study is that it documents the consequences for children residing in a household with one or neither parent. Although previous studies, including those by Gutman, Morgan et al., and Ruggles document differences in household structure between free blacks and whites in the period before general emancipation, they do not investigate how differences in household structure

2 William E. Burghardt Du Bois, *The American Negro Family* (Cambridge, Mass., 1970); E. Franklin Frazier, *The Negro Family in the United States* (New York, 1951). Bruce Sacerdote, "Slavery and the Intergenerational Transmission of Human Capital," *Review of Economics and Statistics*, LXXXVII (2005), 217–234, also shows that not until two generations after emancipation did the educational outcomes of the descendants of slaves resemble the outcomes of descendants of antebellum free blacks. Daniel P. Moynihan, *The Negro Family: A Case for National Action* (Washington, D.C., 1965); Frank F. Furstenberg, Jr., Theodore Hershberg, and John Modell, "The Origins of the Female-Headed Black Family: The Impact of the Urban Experience," *Journal of Interdisciplinary History*, VI (1975), 211–233; Herbert G. Gutman, "Persistent Myths about the Afro-American Family," *Ibid.*, XVI (1975), 181–210; Linda Gordon and McLanahan, "Single Parenthood in 1900," *Journal of Family History*, XVI (1991), 97–116; Steven Ruggles, "The Origins of African-American Family Structure," *American Sociological Review*, LIX (1994), 136–151; Arthur Mathis, "Contrasting Approaches to the Study of Black Families," *Journal of Marriage and the Family*, XL (1978), 667–676; Shepard Krech III, "Black Family Organization in the Nineteenth Century: An Ethnological Perspective," *Journal of Interdisciplinary History*, XII (1982), 429–452.

influenced several childhood outcomes, including school attendance and labor-market participation.<sup>3</sup>

A new sample of white and African American children drawn from the manuscripts of the 1860 census provides important insights into the consequences of being raised in a single-parent household. First, children younger than nine years old and teenage youths between fourteen and sixteen years of age residing in mother-only households were less likely to attend school than their counterparts living in two-parent households. During the prime school attendance ages (nine through thirteen years), single motherhood had modest negative effects on school attendance for either race. Black children were less likely than whites to attend school during these years, but their low attendance rates were more a function of their race than the parental structure of their households. Children living in mother-only houses started school later and quit school earlier than children and youths from two-parent households.

Second, single motherhood was associated with an increased likelihood that white, but not black, youths between the ages of fourteen and sixteen would join the labor force in some capacity. As modern studies attest, the consequences of single motherhood on social and economic mobility are potentially large; they were so in the mid-nineteenth century as well. Only longitudinal data can fully capture the lifetime consequences of growing up in a single-parent household, but cross-sectional data from the mid-nineteenth century do not provide much reason for believing that the consequences of single motherhood were less profound then than now.

THE HISTORICAL INCIDENCE OF SINGLE PARENTHOOD AND ITS CONSEQUENCES FOR CHILDREN A multitude of studies have documented the increasing incidence of single motherhood in the United States during the past half-century. In 1940, about 5 percent of white and 15 percent of black households were headed by single mothers. During the subsequent half-century, the incidence of single motherhood tripled for black and white households; by

3 Gutman, "Persistent Myths," 181–210; S. Philip Morgan et al., "Racial Differences in Household and Family Structure at the Turn of the Century," *American Journal of Sociology*, XCVII (1993), 799–828; Ruggles, "Origins," 136–151.

the mid-1980s, nearly half of all black households were headed by a single mother and about 61 percent of black children did not live with two biological parents.

This section provides a brief discussion of persistent historical racial differences in single motherhood and its likely causes. As Morgan et al. note, the historical evidence is a reminder that racial differences in family structures are not new. Indeed, differences in household structure are seemingly rooted in long-standing differences in family formation processes, many of which are inherited from the past. Since the social, economic, and cultural history of African Americans differs from that of whites, it is not surprising that these differences are reflected in household structures.<sup>4</sup>

Tocqueville may not have been the first to argue that slavery destroyed the black family, but his early statement of that hypothesis became the conventional wisdom for generations of historians and sociologists. Even as the common wisdom among historians was gradually evolving in the 1970s, the cliometric revolution overturned it. Fogel and Engerman argued that slaveholders faced numerous incentives to encourage stable, two-parent families. From a sample of slave plantations, Gutman reports two distinct patterns among slave families. One was the traditional male-headed, two-parent household. The other was the single-mother household in which an adult male had never resided, though neither the death nor the sale of a once-resident husband and father was the reason for the broken home. Gutman could offer no explanation of why slaveholders would have devised such a dichotomous system. He concluded that the household structures were chosen by slaves, not imposed by slaveholders. Crawford, who reconstructed patterns of the slave family from the Works Progress Administration's (WPA) slave narrative project, also found evidence of dual family structures. About two-thirds of slave children were raised by, or had regular contact with, both biological parents. The other third were raised in predominantly single-mother households. Sale disrupted slave marriages, but it does not follow that the disruption or the threat of disruption diminished

4 Irwin Garfinkel and McLanahan, *Single Mothers and Their Children: A New American Dilemma* (Washington, D.C., 1986); David T. Ellwood and Jonathan Crane, "Family Change among Black Americans: What Do We Know?" *Journal of Economic Perspectives*, IV (1990), 65–84; Morgan et al., "Racial Differences."

black appreciation for the virtues of two-parent, nuclear households.<sup>5</sup>

How did African American family structures established in slavery make the transition to freedom during the antebellum era? The few extant studies of the free black families in the period before general emancipation show that African Americans overwhelmingly adopted the traditional, nuclear, two-parent structure. Gutman, relying on a small sample of free blacks residing in Buffalo, New York, in 1850, discovered that about 90 percent of households had an adult male present. It is not clear, however, that Buffalo's small free black population in 1850 was representative of free black communities elsewhere in the United States, especially those in the Old South or Gulf Coast cities.<sup>6</sup>

Furstenberg et al.'s investigation of the incidence of single motherhood in the relatively large free black population in antebellum Philadelphia disclosed that 22.5 percent of black households were headed by single females—nearly twice the rate for households headed by native-born whites and Irish immigrants, and nearly seven times the rate for German immigrants. Using a nationally representative sample drawn from the 1850 Integrated Public Use Microdata Series (IPUMS), Ruggles estimated that about 53 percent of black children fourteen years of age or younger resided with both parents, compared to 83 percent of white children. That a host of studies document a relatively constant share (20 to 25 percent) of mother-only black households between 1870 and 1940 suggests a persistence that is unlikely to be explained solely by slavery or its legacy. Matrifocal households, to use Frazier's term, have been much more common in the black than the white community for about two centuries, in both slavery and freedom.<sup>7</sup>

5 Alexis de Tocqueville (trans. Harvey C. Mansfield and Delba Winthrop), *Democracy in America* (Chicago, 2000; orig. pub. 1835); Du Bois, *American Negro Family*; Frazier, *Negro Family*; Winthrop D. Jordan, *White over Black: American Attitudes toward the Negro, 1550–1812* (Chapel Hill, 1968); John W. Blasingame, *The Slave Community: Plantation Life in the Antebellum South* (New York, 1979); Robert W. Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (New York, 1974), 2v.; Stephen Crawford, "The Slave Family: A View from the Slave Narratives," in Claudia Goldin and Hugh Rockoff (eds.), *Strategic Factors in Nineteenth Century American Economic History: A Volume to Honor Robert W. Fogel* (Chicago, 1992), 331–350; Gutman, "Persistent Myths."

6 Gutman, "Persistent Myths."

7 Furstenberg et al., "Origins"; Ruggles, "Origins." Du Bois, *American Negro Family*, reports that 20% of black children born in Washington, D.C., between 1879 and 1907 had un-

The question of why single parenthood was more common among blacks than whites remains unresolved. Unlike in modern experience, divorce was rare in the mid-nineteenth century, but simple abandonment may have served the same purpose. Consistent with modern experience, however, Frazier argues that much black single motherhood was by choice, advancing a prescient version of Becker's theory of family. Frazier argues that the employment opportunities available to black women, mostly in domestic service, and the low-earning capacity of black men as common laborers, encouraged black women to establish mother-only households. The traditional marriage contract—in which wives keep house and raise children in return for husbands' provision of subsistence—was unattractive to many women because partner complementarities were low. Lebsock's careful study of women in antebellum Petersburg, Virginia, provides powerful support of Frazier's thesis, finding that women, black and white alike, with skills and resources, or unpromising marriage prospects, were likely to eschew marriage.<sup>8</sup>

Other common explanations focus on unbalanced sex ratios and racial differences in early mortality. Although Morgan et al. and Ruggles turned up little evidence that excess early mortality among black men can explain racial differentials in single motherhood, the incidence and consequences of racial differences in mortality remain an open question. Explanations relying on unbalanced sex ratios date to at least Du Bois, who noted a national sex imbalance of 1,013 black women for every 1,000 black men in 1900. But the national figure disguised sharper imbalances in urban areas. In fourteen of the fifteen cities with the largest black populations, black women outnumbered black men by an average

---

wed mothers. Gordon and McLanahan, "Single Parenthood," find that in 1900, 87% of white children, but only 59% of black children, lived with both parents. Morgan et al., "Racial Differences," find that in 1910, the incidence of black single motherhood was about 1.5 times that of whites. In some cities, however, the incidence among blacks was about four times that of whites. Kammerer, *Unmarried Mother*, reports that in 1911, out-of-wedlock births accounted for 2.1 percent of all births among whites, but 22.1 percent among blacks in Washington, D.C. Frazier, *Negro Family*, reports that the black illegitimacy rate in the rural South during the 1930s was 15.4%, and that in the urban South in 1940, 31.1% of black households were headed by a single female.

8 Frazier, *American Negro Family*; Gary Becker, *A Treatise on the Family* (Cambridge, Mass., 1981); Suzanne Lebsock, *The Free Women of Petersburg: Status and Culture in a Southern Town, 1784–1860* (New York, 1984).

of 1,180 women to 1,000 men. No comparable disparity was identified in any city for whites.<sup>9</sup>

Sex imbalances continue to be offered as explanations of the modern experience, often in conjunction with Becker's partner-complementarities hypothesis. These explanations are based on data revealing that marriage rates vary positively with sex ratios and the supply of eligible men who enjoy stable earnings prospects. The models of Willis and Neal, in which both factors play a role, show that the poorest women remain childless in equilibrium. Women in other segments of the income distribution may have a choice between marriage and single motherhood, but small shocks to the marriage market, either in earnings capacities or in the supply of attractive partners, can lead to substantial differences in their likelihood of becoming single mothers. Evidence presented below is consistent with this interpretation. Sharply unbalanced sex ratios, especially in the prime childbearing years, in the urban antebellum South were associated with high rates of single motherhood, probably by choice.<sup>10</sup>

**DATA AND METHODOLOGY** The effects of family structure on the incidence of childhood poverty, school attendance, and labor-market participation are studied using data drawn from the population manuscripts of the 1860 census for Baltimore, Maryland,

9 Furstenberg et al, "Origins"; Morgan et al., "Racial Differences"; Ruggles, "Origins"; Du Bois, *American Negro Family*. Arnstein Aassve, "Economic Resources and Single Motherhood: Incidence and Resolution of Premarital Childbearing among Young American Women," Max Planck Institute for Demographic Research, working paper 2000-015 (Rostock, Germany, 2000), also notes a fourth potential cause of single motherhood, social-welfare benefits. Given the limited public assistance offered to the poor in early America, including the poorhouse, social assistance is unlikely to have contributed meaningfully to out-of-wedlock childbearing in antebellum America, but it is a question worthy of further study. Nevertheless, evidence from the Baltimore almshouse between 1833 and 1843 shows a rising number of claims by adult black women, but a relatively constant number of claims by black children. Joseph Ferrie, "The Rich and the Dead: Socioeconomic Status and Mortality in the United States, 1850-1860," in Dora Costa (ed.), *Health and Labor Force Participation over the Life Cycle: Evidence from the Past* (Chicago, 2003), 11-50, challenges the hypothesis that premature mortality was largely random, arguing that excess mortality was higher among the poor.

10 William Julius Wilson, *The Truly Disadvantaged* (Chicago, 1987); Wilson, "The Woes of the Inner-City African American Father," in Obie Clayton, Ronald B. Mincy, and David Blankenhorn (eds.), *Black Fathers in Contemporary American Society: Strengths, Weaknesses, and Strategies for Change* (New York, 2003), 9-29; Becker, *Treatise*; Robert J. Willis, "A Theory of Out-of-Wedlock Childbearing," *Journal of Political Economy*, CVII (1999), S33-64; Derek Neal, "The Economics of Family Structure," National Bureau of Economic Research working paper 8519 (2001).

and New Orleans, Louisiana (details concerning the construction of the sample are discussed in the appendix). The choice of these two cities is driven by three factors. First, from a pragmatic standpoint, both cities had large and well-established free black communities by the late antebellum era. The size and strength of New Orleans' black community is well documented, and Whitman explores the emergence of Baltimore's black community early in the nineteenth century. Second, since this study is part of a larger project considering the economic condition of free blacks in the antebellum South, the focus in this article is on southern cities. Third, by the middle of the nineteenth century, nearly every southern state, except Maryland and Louisiana, prohibited the education of free blacks. Maryland excluded black children from public education but allowed them to attend private and parochial institutions. Hence, churches and concerned blacks and whites began charity schools and academies of their own. The more well-to-do black families could send their children to any private academy or tutor willing to accept them. In antebellum New Orleans, free black children could attend public schools or a number of private and parochial schools and academies that served the city's large black community.<sup>11</sup>

11 Recent studies of antebellum New Orleans include Paul F. Lachance, "The Formation of a Three-Caste Society: Evidence from Wills in Antebellum New Orleans," *Social Science History*, XVIII (1994), 211–242; *idem*, "The Limits of Privilege: Where Free People of Colour Stood in the Hierarchy of Wealth in Antebellum New Orleans," *Slavery and Abolition*, XVII (1996), 65–84. T. Stephen Whitman, *The Price of Freedom: Slavery and Manumission in Baltimore and Early National Maryland* (Lexington, Ky., 1997). Carter G. Woodson, *The Education of the Negro prior to 1861* (New York, 1968), provides a summary of black educational experiences and opportunities across the South. For more information on Baltimore's public school system, which commenced in 1829, see William H. Shannon, "Public Education in Maryland (1825–1868) with Special Emphasis upon the 1860s," unpub. Ph.D. diss. (University of Maryland, College Park, 1964); Tina H. Sheller, "The Origins of Public Education in Baltimore, 1825–1829," *History of Education Quarterly*, XXII (1982), 23–42. For a discussion of New Orleans' antebellum school system and educational reforms elsewhere in the South, see Jonathan Daniel Wells, *The Origins of the Southern Middle Class, 1800–1861* (Chapel Hill, 2004), 133–153. Advertisements published in Baltimore during the early 1850s suggest that even the middling sorts could afford to send children to private academies. The Academy of Visitation charged \$40 per annum, payable in quarterly installments, for elementary education. Children younger than ten years old could attend for \$20; those between ten and twelve paid \$25 (*Baltimore American*, 3 Aug. 1850). The Baltimore Collegiate Institute for Young Ladies charged \$20 per annum for elementary education and between \$40 and \$60 per annum for more advanced instruction (*Baltimore American*, 8 Sept. 1851). John Hope Franklin and Loren Schweninger, *In Search of the Promised Land: A Slave Family in the Old South* (New York, 2006), report that even though private schools were officially prohibited in antebellum Nashville, Tennessee, they



One shortcoming of the 1860 census is that its enumerators asked only whether an individual had received any instruction during the past year at a public or private school or with a tutor. Children and youths whose educations were limited to Sunday school were not recorded as having been “at school.” The strictures of this question permit researchers no way to determine whether a child received instruction regularly, intermittently, or even just once. Moehling and Margo came to different conclusions in their interpretation of a similar question in later censuses. A prudent interpretation of responses in the 1860 census is occasional attendance. Because a Maryland legislative committee in 1860 reported that less than one-half of eligible children attended schooling regularly, the 1860 census data likely provide an upper bound estimate to regular school attendance. The exclusion of Sunday school instruction, however, may underestimate black schooling. Although Sunday schools focused on religious instruction, churches often provided blacks with remedial academic instruction.<sup>12</sup>

One advantage of using the 1860 census in a study of school attendance is that it permits control for the effect of household resources. Unlike earlier and later censuses (1870 excepted), the 1860 census collected information about each household’s holdings of real and personal estate. Census enumerators in 1860 also collected information about the occupations of household heads, as well as the occupations of other household members aged fifteen years and older. Additional information includes the age, sex, literacy, and place of birth of each household member. A household’s decision to send a child to school for some part of the academic year depended on a number of factors, and, relative to other nineteenth-century censuses, the 1860 census provides a broad panel of controls, most importantly household resources.

Wealth, literacy, household size, race, and immigrant status are all believed to have influenced the decision to send a child to school. Less information is available about the supply of schooling services. It is unlikely that every child of a given race in a given city had equal access to school. A series of census-ward dummies

---

operated with the tacit approval of local whites. Nevertheless, private black schools were forced to close or relocate when whites protested.

12 Moehling, “Family Structure”; Robert A. Margo, *Race and Schooling in the South, 1850–1950* (Chicago, 1990); Shannon, *Public Education*.

are included to control for local provision of schools, but dummy variables cannot fully capture local differences in availability and accessibility.

Panel A of Table 1 provides a comparison of family structures for black and white children. Black children were about twice as likely as whites to live in a single-mother or female-headed household. Black children were also about three times as likely to live with neither parent; this arrangement was much more common among blacks than whites. The incidence of single fatherhood was twice as likely for whites as blacks.

What explains the higher incidence of single motherhood among blacks? The most likely explanation is Du Bois' contention that sex imbalances in southern cities led to higher rates of single motherhood among black women who simply chose to have children out of wedlock.<sup>13</sup>

Table 2 reports sex ratios for whites and African Americans in Baltimore and New Orleans in 1860. In the prime child-bearing years (twenties and thirties), white men outnumbered white women. Among free blacks, however, women outnumbered men by a large margin. The likelihood that black women entering the marriage market in their twenties would find mates was low compared to that of most other populations. There were 1,675 free black women for every 1,000 free black men in Orleans Parish, Louisiana, and 1,709 free black women for every 1,000 free black men in Baltimore. The sex imbalances were less pronounced for blacks in their thirties, but this age cohort comprised 1.5 times as many free black women as men. Assuming that the African American marriage market transcended legal status and that marriages between slaves and free blacks were permissible and viable, the sex imbalances become more rather than less pronounced.

The evidence is consistent with theoretical and empirical studies in which marriage rates vary negatively with the female-male sex ratio and the supply of men with stable earnings prospects. When women have their own resources or earnings and when they outnumber men, a large segment of the female population invariably favors out-of-wedlock childbearing.<sup>14</sup>

13 Du Bois, *American Negro Family*.

14 William Darity, Jr., and Samuel L. Myers, Jr., "Changes in Black Family Structure: Implications for Welfare Dependency," *American Economic Review*, LXXIII (1983), 59-64; Neal "Economics of Family Structure"; Willis, "Theory."

*Table 1* Family Status of Resident Children and Youth by Race, Baltimore and New Orleans (Percent of Children Six to Sixteen Living in Household by Family Status)

	CHILD'S RACE (%)	
	WHITE	BLACK
<b>A. HOUSEHOLD STRUCTURES</b>		
Single mother	7.9	17.1
Female head	9.5	22.7
Single father	10.1	5.9
Neither parent	2.4	8.9
Traditional family	75.9	63.9
Two-parent family	77.0	63.6
<b>B. SCHOOL ATTENDANCE DURING THE PAST YEAR</b>		
Boys 6–8 years	59.1	25.1
Boys 9–13 years	81.5	39.7
Boys 14–16 years	48.5	12.8
Girls 6–8 years	62.6	26.3
Girls 9–13 years	82.9	34.2
Girls 14–16 years	39.6	11.4
<b>C. LABOR-FORCE PARTICIPATION</b>		
Boys 6–8 years	0.0	0.0
Boys 9–13 years	0.7	1.7
Boys 14–16 years	23.8	28.1
Girls 6–8 years	0.0	0.0
Girls 9–13 years	0.3	1.5
Girls 14–16 years	6.4	13.3
TOTAL OBSERVATIONS	6,133	4,561

NOTES See Appendix for definitions of household structures. All statistics weighted to account for sampling procedures.

Panel B of Table 1 reports school attendance rates by age and sex. Racial disparities in school attendance are even more pronounced than differences in household structure. Black children and youths of both sexes attended school at one-fourth to one-half the rate of whites. The age groupings reflect generally accepted mid-nineteenth-century educational norms. Vinovskis reported general resistance to sending children under nine years of age to school, and little attendance prior to age six. The “prime” school-age years at mid-century were nine to twelve or thirteen years, after which attendance dropped off dramatically. Most Americans believed that schooling during the formative pre-adolescent years

Table 2 Sex Ratios by Race and Age for Baltimore and New Orleans in 1860 (Females per 1000 Males)

BALTIMORE, MARYLAND			
AGE GROUP	WHITES	FREE BLACKS	ALL BLACKS
15-19	1,278	1,972	2,026
20-29	1,186	1,709	1,726
30-39	994	1,432	1,493
40-49	983	1,241	1,305
50-59	1,080	1,901	1,959
NEW ORLEANS, LOUISIANA			
AGE GROUP	WHITES	FREE BLACKS	ALL BLACKS
15-19	1,252	1,267	1,483
20-29	974	1,675	1,496
30-39	891	1,635	1,529
40-49	630	1,505	1,570
50-59	772	1,804	1,633

NOTES All Blacks category includes free blacks and slaves.

SOURCE U.S. Bureau of the Census (1864).

was beneficial; enough common schools operated in most places to accommodate (white) children in this age group.<sup>15</sup>

The pattern of school attendance for both blacks and whites is consistent with Vinovskis' contention, although attendance rates for six- to eight-year-olds is higher than a "general" resistance to sending young children to school would have warranted. Nevertheless, school attendance among nine- to thirteen-year-olds rose dramatically. Although school attendance rates by free black children was low relative to those of whites, the indication that 35 to 40 percent of black children at the prime schooling age attended for some part of the year when public facilities were generally unavailable is a testament to the "improving spirit" among these cities' free black inhabitants. Another notable feature is that girls attended school at approximately the same rate as boys, regardless of race.

Finally, Panel C of Table 1 reports statistics on child labor-force participation. Given the tendency of census enumerators in

15 Maris A. Vinovskis, "Quantification and the Analysis of American Antebellum Education," *Journal of Interdisciplinary History*, XIII (1983), 761-786.

1860 to underreport occupational information for individuals other than household heads, these rates are probably best interpreted as lower bounds, reflecting regular paid employment rather than intermittent or occasional labor-force participation. Although the census enumerators were instructed to record occupations or apprenticeships only for those older than fifteen years of age, a few enumerators recorded occupations for children as young as ten. Most of the children with listed occupations, however, were fourteen to sixteen years old. About 5 percent of fourteen-year-old males, 20 percent of fifteen-year-olds, and 30 percent of sixteen-year-old males had recorded occupations. Labor-force participation rates among girls were considerably lower than those for boys.

*Empirical Approach* The empirical strategy adopted in this article follows Moehling, who extended the method originally developed by Margo. The analysis empirically estimates the effects of three alternative household structures—single motherhood, single fatherhood, and children residing with neither parent—against the alternative of the intact traditional, two-parent household. Unlike the data in other studies of the modern experience, the data in this one do not allow for a consideration of the effects of stepparents or the causes of family disruption on childhood outcomes.<sup>16</sup>

Estimating the effects of family structure is complicated by the possibility of family structure being endogenous. The methodological problem is in determining whether differences in outcomes between children living with different kinds of families are causal because the adults establishing alternative household structures may differ in other regards. If families that become disrupted or women who opt to establish single-mother households have a particular characteristic that would have differentially influenced childhood outcomes regardless of household structure, the attribution of different outcomes solely on the basis of household structure would be misleading. Evidence that children raised in dys-

16 Moehling, “Family Structure”; Margo, *Race and Schooling*. David Popenoe, *Life without Father: Compelling New Evidence that Fatherhood and Marriage are Indispensable for the Good of Children and Society* (New York, 1996), among others, notes that family disruptions due to divorce or voluntary separation have broader and deeper negative effects on child outcomes than disruptions due to death. The evidence concerning stepparents is mixed, but the weight of it suggests that stepparents are not a full replacement for biological parents.

functional families were not much different than children raised in disrupted families would provide support for the contention that unobserved parental characteristics are more important than household structure per se in explaining child achievement. The issue of dysfunction versus disruption deserves further attention, but it is well beyond the scope of this study, which follows the literature in accepting that household structure per se has notable consequences.<sup>17</sup>

If unobserved factors that lead to the establishment of a non-traditional household are correlated with factors influencing the choice to enroll a child in school or send him or her into the labor market, failing to account for this endogeneity will lead to biased parameter estimates; the appropriate method would be instrumental variable estimation. In the present context, however, it is unclear what such instruments might be. Serious concerns about the effects of endogeneity may be allayed by the results of IV estimation by Manski et al. and McLanahan and Sandefur, which find that treating household structure as exogenous does not lead to inappropriate inferences. These precedents, however, do not provide a license to ignore the complications arising from potential endogeneity in the present study. But if the potential biases are small, and the resulting claims are not exorbitant, treating household structures as exogenous is methodologically acceptable.<sup>18</sup>

**HOUSEHOLD STRUCTURE AND SCHOOL ATTENDANCE** The effects of living in a nontraditional household on child and youth school attendance are estimated from probit regressions on the dichotomous school-attendance variable, according to the following specification:

$$(\text{School Attendance})_{jhkw} = \alpha + \beta S_{jh} + \gamma X_{jh} \lambda_{hk} \theta_{jw} + \epsilon_j$$

where  $j$  indexes the child;  $h$  indexes the household;  $k$  indexes the city; and  $w$  indexes the city ward. The vector  $S$  includes dichotomous variables for single mothers, single fathers, and children liv-

17 David T. Ellwood and Christopher Jencks, "The Spread of Single-Parent Families in the United States since 1960," working paper (Cambridge, Mass., 2002); McLanahan and Bumpass, "Intergenerational Consequences."

18 Charles F. Manski et al., "Alternative Estimates of the Effect of Family Structure during Adolescence on High School Graduation," *Journal of the American Statistical Association*, LXXXVII (1992), 25-37; McLanahan and Sandefur, *Growing Up*.

ing with neither parent (the omitted variable is children residing with both parents). The vector  $X$  includes a number of additional individual and family controls, including child's age, head of household's age, literacy and nativity;  $\lambda$  controls for the city of residence; and  $\theta$  controls for the census ward in which the household resided. Separate regressions are estimated for three age cohorts (six to eight years, nine to thirteen years, and fourteen to sixteen years) and two races. Effects are estimated for all children (boys and girls) together. As reported in Table 1, attendance rates by age cohort and race were nearly identical for both sexes, and preliminary separate regressions for boys and girls did not yield significantly different coefficients. The final specifications include a dummy variable for boys, but the estimated effect is virtually nil and statistically insignificant for white children. It is small and only sometimes significant for black children.

It is important to estimate household-structure effects after controlling for potential household resource effects. The observed negative outcomes for children raised in nontraditional homes are often thought the result of resource constraints faced by single-mother households. Hence, understanding the consequences of single parenthood on child outcomes demands separate controls for resource effects. The baseline specifications include no resource variables and are reported for comparative purposes only. All discussions of the consequences of household structure are drawn only from specifications that include resource controls. In addition to household structures, the baseline models include child's age and its square, a dummy equal to one if the child is male, the number of residents in the household, the number of siblings between six and sixteen years, and a dummy variable for Baltimore residence. For each age cohort and race, a second set of equations are estimated that add several household-resource measures, including literacy status of household head, his or her age and its square, a dummy variable indicating home ownership, and a measure of household head's occupational status. An alternative specification replaces the home-ownership and occupational-status variables with total household wealth. A third specification adds a vector of 30 dichotomous variables to capture differential access to schools across thirty city wards.

Given that tables 3 and 4 report household-structure results from thirty-six separate specifications, the discussion focuses on

the estimates provided by the full specifications (Base + Resource + Ward controls). Tables 3 and 4 report the estimated marginal changes (from 0 to 1) from probit regressions. Standard errors corrected for non-independence (clustering) across households are reported in parentheses. Resource controls in Table 3 are home ownership and occupational status; in Table 4, the resource control is total household wealth.

The results reveal some intriguing patterns in school attendance. Marginal effects reported in Table 3 for white children between six and eight years of age reveal that living with a single mother or single father had a small and insignificant impact on school attendance. For black children, however, living with a single mother reduced attendance by a statistically significant 7 percent. Although the point estimate for the consequence of single fatherhood is larger, it is not significantly different from zero. For the youngest school-age black children, living with neither parent reduced school attendance by 9 percent, relative to young black children residing in a two-parent household. The estimated marginal impacts reported in Table 4, which include alternative resource controls, are nearly identical to those in Table 3. Young black children living with a single mother or living with neither parent were about 7 to 9 percent less likely to attend school than their counterparts living with two parents.

For children in the mid-nineteenth century's prime school-age years (nine to thirteen), residing in a household with a single mother had negligible effects on school attendance, a result that holds for both blacks and whites. Blacks were less likely to attend school at any age, but single parenthood did not compound the negative consequences of race for children in this age group. This finding is consistent with Vinovskis' observation concerning a powerful social norm that children in the prime attendance years should be sent to school. Although poverty and lesser access limited black school attendance to about half of the white rate for nine- to thirteen-year-olds, the attendance rate of 40 percent represented is a testament to the broad recognition among free blacks that long-term economic well-being was heavily dependent on education.

Like Vinovskis' study, this article documents the popular view that schooling in the teenage years depended on wealth and social standing. Attendance for children aged fourteen to sixteen falls to one-third to one-half the attendance rate of nine- to thirteen-



year-olds. Moreover, single motherhood appears to have been a powerful deterrent to continued attendance at older ages. White youths residing in a single-mother household were about 8 to 9 percent less likely to attend school than youths in two-parent households, and single-motherhood reduced school attendance of black youths by about 3 to 4 percent, after the implementation of resource and ward controls.

Murray's study of Charleston reveals that parents, even indigent mothers, demanded that their children receive a proper education. Most did. Were the same pressures placed on families with foster or orphaned children or young servants? The 1860 census indicated whether a child resided with neither parent and sometimes whether a child was a live-in servant, but it offers no way to assign "foster" status to children not acting as servants. Thus, all children living with neither parent are grouped together, whether they were servants, apprentices, orphaned, or abandoned children in the care of family or friends. Given that a resident servant was probably treated in a different fashion than, say, an orphaned niece, this grouping may not capture the nuances of foster care at mid-century. It is, therefore, important not to read too much into the findings, but, given the large proportion of children living with neither parent, it is also important to understand the upshot of this household structure even if imperfectly.<sup>19</sup>

At every age, residing with neither parent was associated with a much lower school-attendance rate. White children from six to eight years old residing with neither parent attended school at rates 15 percent below those of children in two-parent households. Black attendance rates were about 9 percent lower at these young ages. In the prime school-age years, the attendance rate for whites was 22 percent lower than for children in two-parent households; for blacks it was 16 percent lower. Finally, white children aged fourteen to sixteen who lived with neither parent attended at a rate 31 percent below that of children in two-parent households. For blacks, the neither-parent effect was less pronounced than for whites at older ages, falling to about 6 percent.

Dramatically lower attendance rates among white teens living with neither parent may not be indicative of sharply reduced human-capital formation among this group relative to children living

19 John Murray, "Family, Literacy, and Skill Training in the Antebellum South: Historical Longitudinal Evidence from Charleston," *Journal of Economic History*, LXIV (2004), 773-799.

Table 3 Estimated Effects of Household Structure on School Attendance by Race and Age

	AGES 6-8				AGES 9-13				AGES 14-16			
	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS
White children												
Single mother	-0.03 (.045)	-0.02 (.044)	0.00 (.047)	-0.05 (.033)‡	-0.04 (.033)	-0.02 (.032)	-0.10 (.044)†	-0.08 (.046)‡	-0.08 (.047)‡			
Single father	0.04 (.048)	0.05 (.049)	0.03 (.050)	-0.02 (.038)	-0.03 (.038)	-0.05 (.043)	-0.04 (.035)	-0.05 (.058)	-0.06 (.055)			
Neither parent	-0.16 (.078)†	-0.15 (.078)‡	-0.14 (.087)	-0.25 (.053)*	-0.24 (.054)*	-0.22 (.059)*	-0.30 (.033)*	-0.28 (.037)*	-0.31 (.031)*			
Actual attendance	57.3%	57.3%	57.3%	77.5%	77.5%	77.5%	38.0%	38.0%	38.0%			
With black characteristics	57.6	52.9	50.0	74.6	72.4	68.9	33.6	29.2	29.4			
Black children												
Single mother	-0.08 (.034)†	-0.08 (.034)†	-0.07 (.036)†	-0.05 (.033)	-0.04 (.034)	-0.02 (.036)	-0.04 (.020)†	-0.03 (.021)	-0.03 (.019)			
Single father	-0.07 (.049)	-0.07 (.050)	-0.09 (.047)	0.02 (.057)	0.01 (.056)	0.00 (.055)	0.02 (.037)	0.03 (.038)	0.01 (.036)			
Neither parent	-0.13 (.035)*	-0.12 (.036)*	-0.09 (.039)†	-0.19 (.037)*	-0.18 (.038)*	-0.16 (.039)*	-0.07 (.021)†	-0.06 (.022)†	-0.06 (.019)†			
Actual attendance	25.7%	25.7%	25.7%	37.1%	37.1%	37.1%	12.0%	12.0%	12.0%			
With white characteristics	26.6	27.7	31.2	38.4	38.4	49.6	11.8	16.0	19.3			

---

\*  $p$ -value  $> 0.01$ .  
†  $p$ -value  $< 0.05$ .  
‡  $p$ -value  $< 0.10$ .

NOTES Resource Controls include home ownership and occupational status (marginal effects from probit regressions). See Appendix for definition of single mother, single father, and neither parent. Table reports estimated marginal effects of change from 0 to 1 for dummy variables. In addition to household structure, base regressions include child's age and its square, the number of residents in the household, the number of siblings between ages six and sixteen, and a dummy variable equal to one if the child lived in Baltimore. The resource regressions added to the base regressions a dummy variable equal to one if the household head was an immigrant, a dummy variable equal to one if the head of the household was literate, the age and its square of the head of the household, a dummy variable equal to one if the family owned their own home (that is, it equals one if the household reported a positive value for real estate wealth), and an occupational status variable or *sei* (see the Appendix for its construction). The ward regressions add dummy variables for thirty of the thirty-one census wards in Baltimore and New Orleans. Robust standard errors corrected for non-independence of households in parentheses.

Table 4 Estimated Effects of Household Structure on School Attendance by Race and Age

	AGES 6–8			AGES 9–13			AGES 14–16		
	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS
White children									
Single mother	-0.03 (.045)	-0.03 (.045)	0.00 (.046)	-0.05 (.034)‡	-0.05 (.033)‡	-0.03 (.032)	-0.10 (.045)†	-0.09 (.045)†	-0.09 (.047)‡
Single father	0.04 (.048)	0.05 (.049)	0.03 (.050)	-0.02 (.038)	-0.02 (.038)	-0.04 (.043)	-0.04 (.055)	-0.05 (.058)	-0.06 (.055)
Neither parent	-0.16 (.078)†	-0.16 (.079)†	-0.15 (.089)‡	-0.25 (.054)*	-0.25 (.054)*	-0.22 (.059)*	-0.30 (.033)*	-0.29 (.037)*	-0.31 (.030)*
Actual attendance	57.3%	57.3%	57.3%	77.5%	77.5%	77.5%	38.0%	38.0%	38.0%
With black characteristics	57.6	57.2	54.9	74.6	72.1	69.4	33.6	28.9	27.8
Black children									
Single mother	-0.08 (.034)†	-0.09 (.033)*	-0.08 (.035)†	-0.05 (.033)	-0.05 (.034)	-0.03 (.036)	-0.04 (.020)†	-0.04 (.020)‡	-0.04 (.019)‡
Single father	-0.07 (.049)	-0.07 (.050)	-0.09 (.047)	0.02 (.057)	0.01 (.056)	0.00 (.055)	0.02 (.037)	0.01 (.035)	0.01 (.034)
Neither parent	-0.13 (.035)*	-0.13 (.036)*	-0.09 (.039)†	-0.19 (.037)*	-0.18 (.038)*	-0.16 (.039)*	-0.07 (.021)†	-0.06 (.021)†	-0.06 (.019)†
Actual attendance	25.7%	25.7%	25.7%	37.1%	37.1%	37.1%	12.0%	12.0%	12.0%
With white characteristics	26.6	29.1	32.1	38.4	43.7	50.1	11.8	20.9	21.8

---

\* implies  $p$ -value  $> 0.10$ .

† implies  $p$ -value  $< 0.05$ .

‡ implies  $p$ -value  $< 0.10$ .

notes Resource control is total household wealth (marginal effects from probit regressions). See Appendix for definition of single mother, single father, and neither parent. Table reports estimated marginal effects of change from 0 to 1 for dummy variables. In addition to household structure, base regressions include child's age and its square, the number of residents in the household, the number of siblings between ages six and sixteen, and a dummy variable equal to one if the child lived in Baltimore. The resource regressions added to the base regressions a dummy variable equal to one if the household head was an immigrant, a dummy variable equal to one if the head of the household was literate, the age and its square of the head of the household, and the total household wealth. The Ward regressions add dummy variables for thirty of the thirty-one census wards in Baltimore and New Orleans. Robust standard errors corrected for non-independence of households in parentheses.

with two parents. Records from Baltimore reveal that children apprenticed by their fathers were less likely to demand education or schooling covenants in apprenticeship indentures. Pauper apprentices, however, were more likely to have such clauses included in their indenture contracts, suggesting that additional human-capital formation during the teenage years took the form of skill training after the completion of primary education. The interpretation is less sanguine for black children, who were apprenticed into less lucrative occupations and were less likely to have completed a primary education at the time of the apprenticeship. Furthermore, Maryland law relieved masters from the responsibility of sending black apprentices to school. Apprenticeship alone does not explain low rates of school attendance among teenagers; nor does it exclude alternative explanations of relatively low attendance rates among youths living with neither parent. Moehling's study suggests that non-kin foster children in 1910 attended at rates about 13 to 20 percent less than children from two-parent families; related foster children attended at rates about 6 to 15 percent less. The results in this article are broadly consistent with her findings, namely, that the long-term costs, in terms of foregone human-capital formation, to children not residing with two parents or, absent that, kin of some type were quite high.<sup>20</sup>

The pattern of results reported in tables 3 and 4 supports the conclusion that single motherhood reduced school attendance among young black children (six to eight years old) by about 7 to 9 percent, relative to children in two-parent households. Being black and living with a single mother also reduced school attendance of children aged fourteen to sixteen, though the effect of single motherhood is less pronounced for them than for younger children. That single motherhood had negligible effects on school attendance during the prime school age of nine to thirteen attests to the powerful social norm of nearly universal primary education for whites and a less powerful, but still strong, impulse toward educating black children. Nevertheless, single motherhood in black households was associated with less lifetime education because black children living with single mothers apparently started school later and left school earlier than children living with two parents.

20 Bodenhorn, "Just and Reasonable Treatment: Racial Differences in the Terms of Pauper Apprenticeship in Antebellum Maryland," National Bureau of Economic Research working paper 9752 (2003); Moehling, "Family Structure."

For white children, single motherhood was associated with leaving school early but not with reduced attendance at early ages.

White teens residing in mother-only households were probably expected to enter the labor force to provide income for the household (an issue discussed below). The less pronounced effect of single motherhood on black teens may be due to two effects. First, since black teens were much less likely than white teens to attend school regardless of household structure, the result of single motherhood was less pronounced—though a reduction in attendance of 4 percent when the mean attendance rate was only 12 percent seems substantial. Second, given the low wages paid to black workers, the opportunity cost of remaining in school during the mid-teen years may have been lower for blacks than whites. Nonetheless, it seems likely that poor single mothers would have sent teens into the labor market more often to contribute toward the maintenance of the household. The next section investigates the extent of that behavior.<sup>21</sup>

**THE EFFECTS OF HOUSEHOLD STRUCTURE ON EARLY LABOR-FORCE PARTICIPATION** As reported in Table 1, only a small fraction of females between the ages of fourteen and sixteen participated in the labor force. Hence, the focus in this section is on males, about 25 percent of whom had sufficient participation in the labor force to merit acknowledgment by census enumerators. The effects, estimated from probit regressions on the dichotomous labor-force participation variable, are estimated from the following specification:

$$(\text{Labor Force Participation})_{jhkw} = \alpha + \beta S_{jh} + \gamma X_{jh} \lambda_{hk} \theta_{jw} + \epsilon_j$$

where  $j$  indexes the child;  $h$  indexes the household;  $k$  indexes the city; and  $w$  indexes the city ward. The independent variables are the same as those used in estimating the effects of household structure on school attendance. Three separate specifications are estimated: a baseline model without resource effects, a second model

21 Bodenhorn, “Just and Reasonable,” reports that local officers of the court frequently placed children living in mother-only households in apprenticeships when the mother was considered incapable of transforming an adolescent into a productive adult. But some apprenticeships were apprenticeships in name only, like those of children put to work in proto-factories or as servants who continued to live at home. It is not clear how much income such apprenticed children would provide to the household, though some received modest cash wages.

that includes measures of household resources, and a full specification that also includes dummy variables for wards. Finally, separate effects are estimated for black and white youth.<sup>22</sup>

Table 5 reports the results of twelve probit-regression specifications. The full specifications for white male youths reveal that living with a single mother increased labor-force participation by 11 percent, a result that is robust to alternative measures of household resources. Moreover, the single-mother effect increases in magnitude and statistical significance when controls for household resources and wards are included. For white male youth, living with a single father or with neither parent had no statistically significant effect on labor-force participation. Single motherhood was associated with a higher incidence of early labor-force attachment among white male youth.

The association between household structure and labor-force attachment among blacks differs sharply from the association for whites. Single motherhood had a small and statistically insignificant effect on labor-force participation among fourteen-to sixteen-year-old black youths. Similarly, single fatherhood had no discernible effect on labor-force attachment. Living with neither parent, however, had a meaningful and significant effect on the employment of black male youths. Those living with neither parent were about 16 to 17 percent more likely than black youths living with both parents to have regular attachment to the labor force.

Although the consequences of family structure differ for blacks and whites, the near equality of labor-force participation rates across races is notable. As is clear from lines 4 and 5 in Table 5, eliminating the racial differences in youth characteristics leads to small changes in predicted labor-force participation. If white youths had the characteristics of black youths, for example, their labor-force participation rate would have increased from 23.2 to 25.5 percent when conditioned on total household wealth. Giving black youths white characteristics would have increased black participation from 28.1 to 32.2 percent, conditioning on household wealth. Conditioning on home ownership and occupa-

22 It is difficult to reconcile the low female participation rate observed in this sample with the results reported in Claudia Goldin, *Understanding the Gender Gap: An Economic History of American Women* (New York, 1990). The discrepancy probably stems from this study's focus on girls aged fourteen to sixteen, whereas Goldin considers single women from fifteen to twenty-four years of age. Goldin finds considerably higher labor-market participation rates but ironically concludes that girls in the market labor force achieved greater autonomy and more leisure time than girls laboring in the home (50–55).



tional status of the household head increases participation rates for both races about 5 to 7 percentage points. These findings are consistent with those of Moehling, who found relatively modest racial effects for male youth employment in 1910 after including a full panel of controls.<sup>23</sup>

Interestingly, the labor-force participation regressions show that racial differences in participation were driven more by family structure than by race itself. Although single motherhood had a large effect on white teen participation, it had no meaningful effect on black youth participation. Living with neither parent, however, had a meaningful effect on black youth employment but no effect on white employment. These results suggest two conclusions: (1) Unlike orphaned or abandoned black children, orphaned or abandoned white children apparently had recourse to some kind of foster care that protected them from work at an early age; (2) the powerful social norm of sending nine- to thirteen-year-olds to school was apparently supplemented in the urban South by one against sending young teens into the labor force. About 40 percent of white fourteen- to sixteen-year-olds attended school, and another 23 percent had regular labor-force attachment, leaving more than 33 percent of them regularly unoccupied. About 60 percent of black youth were apparently unoccupied on a regular basis. A question for future research is accounting for these seemingly unoccupied youths. Some of them undoubtedly performed household chores. What else did they do with their time?

Evidence from Baltimore's jailhouse records supports the old adage about idle hands and the devil's workshop. Perhaps only by coincidence were black youth twice as likely to be idle and to be arrested and jailed in Baltimore from 1854 to 1861. But this issue is worthy of further study. If the connection is indeed meaningful, the social costs of idleness were considerably higher than they already were by denying black youth equal educational access.<sup>24</sup>

Family structure mattered in the nineteenth-century urban South just as much as it does today. It was an important determinant

23 The test z-statistic for testing the equality of the means is 1.75 (*p* value, 0.08). Thus, we fail to reject the null hypothesis of equal means at the standard 1% or 5% levels. Moehling, "Family Structure."

24 In 1858 and 1859, the white arrest rate (5.1 and 4.5 per 1,000 youths) was less than one-half the arrest rate of black youths (13.4 and 10.5 per 1,000).

Table 5 Estimated Effects of Household Structure on Labor-Force Participation by Race (Marginal Effects from Probit Regressions)

	RESOURCES 5			RESOURCES 5		
	HOME OWNER AND OCCUPATION			TOTAL HOUSEHOLD WEALTH		
	BASE	RESOURCES	WARDS	BASE	RESOURCES	WARDS
White youth						
Single mother	0.10 (.058)‡	0.09 (.057)‡	0.11 (.078)†	0.10 (.058)‡	0.09 (.055)‡	0.11 (.080)*
Single father	0.04 (.070)	0.03 (.067)	0.01 (.061)	0.04 (.070)	0.04 (.067)	0.03 (.067)
Neither parent	-0.05 (.062)	-0.07 (.054)	-0.02 (.062)	-0.05 (.062)	-0.06 (.050)	-0.02 (.060)
Actual participation	23.2%	23.2%	23.2%	23.2%	23.2%	23.2%
With black characteristics	21.7	31.5	30.6	21.7	24.4	25.5
Black youth						
Single mother	0.04 (.063)	0.01 (.064)	0.03 (.070)	0.04 (.063)	0.04 (.064)	0.05 (.070)
Single father	-0.03 (.086)	-0.04 (.082)	-0.06 (.085)	-0.03 (.086)	-0.04 (.084)	-0.05 (.087)
Neither parent	0.13 (.083)‡	0.11 (.089)	0.16 (.096)‡	0.13 (.083)‡	0.12 (.089)	0.17 (.096)†
Actual participation	28.1%	28.1%	28.1%	28.1%	28.1%	28.1%
With white characteristics	30.7	26.9	33.7	30.7	28.7	32.2

---

\* implies  $p$ -value  $< 0.01$ .  
† implies  $p$ -value  $< 0.05$ .  
‡ implies  $p$ -value  $> 0.10$ .

NOTES Resource control is total household wealth (marginal effects from probit regressions). See Appendix for definition of single mother, single father, and neither parent. Table reports estimated marginal effects of change from 0 to 1 for dummy variables. In addition to household structure, base regressions include child's age and its square, the number of residents in the household, the number of siblings between ages six and sixteen, and a dummy variable equal to one if the child lived in Baltimore. The resource regressions added to the base regressions a dummy variable equal to one if the household head was an immigrant, a dummy variable equal to one if the head of the household was literate, the age and its square of the head of the household, and the total household wealth. The Ward regressions add dummy variables for thirty of the thirty-one census wards in Baltimore and New Orleans. Robust standard errors corrected for non-independence of households in parentheses.

of two important childhood outcomes, school attendance and early attachment to the labor force. In the case of school attendance, the consequences of single motherhood were complex and age-dependent. Single motherhood had no meaningful independent effect on school attendance for nine- to thirteen-year-olds. Among whites, however, single motherhood was associated with lower attendance rates at older ages. For blacks, single motherhood was associated with lower attendance rates for younger children and teens. Living with neither parent had a uniformly large negative influence on school attendance that transcended race and age. Finally, single motherhood increased labor-force attachment for white male youths but had little effect on employment rates among black male youths.

Racial differences in household structure, therefore, had important implications for black economic mobility. Single motherhood may have imposed educational costs on white children and youths, but it compounded already large negative racial effects for free blacks, whose barriers to school attendance interfered significantly with their advancement. At the very moment when the common-school movement was taking hold in parts of the urban South, most southern states and municipalities forbade black education. Maryland and Louisiana were exceptions, though Maryland excluded free black children from attending white schools and refused to provide any kind of school for black students at the public expense. In the antebellum South, the pretense of separate but equal facilities had not yet emerged despite protestations by free blacks that their taxes subsidized white education. Black education in the antebellum South, when it existed at all, was separate and unequal. Thus, the state played a vital role in long-term black poverty, its actions slowing black advancement and imposing large social costs on all racial groups.<sup>25</sup>

25 Although Kaestle, *Pillars of the Republic: Common Schools and American Society, 1780–1860* (New York, 1983), contends that the South was laggard in the common-school movement, Lachance in a 2002 working paper, “Literacy and Provision for Education in Indentures from New Orleans, 1809–1843,” finds that expenditures on public education per pupil in New Orleans were higher than in Boston. Shannon, *Public Education*, contends that Baltimore’s public school system rivaled that of any northern city. Separate-but-unequal systems emerged in most northern cities, but their emergence in the South came only after the Civil War. See Leon F. Litwack, *North of Slavery: The Negro in the Free States, 1790–1860* (Chicago, 1961).

## DATA APPENDIX

*Sampling Procedure* The sample used herein—from the 1860 federal census—includes an oversample of free black households. Information on the characteristics of every African American child between six and sixteen years was collected and recorded; age; complexion (black or mulatto); place of birth; any school attendance, or none, in the past year; and any employment or apprenticeship. In addition to information about the children, information about the household head was also collected, including age, sex, place of birth, occupation, the value of real and personal estate owned, and literacy.

A comparable sample of white children was drawn from the censuses of Baltimore and New Orleans, with an oversample of children of Irish immigrants in Baltimore. The same information was collected, and household status was defined and assigned in the same manner. White households were randomly selected to provide a sample of similar size and to match the composition by census wards of the African American sample. Thus, if 100 African American households resided in Baltimore's first ward, the sampling procedure was designed to select approximately 100 white households from Baltimore's first ward. The final usable sample contains information on 4,561 African American and 6,133 white children between six and sixteen years, inclusively. Given the oversampling of blacks and children of Irish descent, statistics are weighted based on the probability of a household being drawn. Stata's p-weight procedure is used when appropriate. Furthermore, because the sample of children was not independent of household of residence, all reported standard errors are corrected for non-independence using Stata's cluster procedure.<sup>26</sup>

*Defining Household Structures* Classifying children as residing in a female-headed household was trivial. Any child living in a household in which the census enumerator recorded the head as female was so recorded in the data. But because a female head might be a sister, a grandmother, or an unrelated female, an alternative scheme was adopted to separate single mothers from other types of female heads. Any child who lived in a household with a female head and had a surname different from that of any adult in the household was classified as living with neither parent.

A child was classified as living with a single mother if the female head was related to the child (same surname) and at least fifteen, but no more than forty-nine, years older than the child. A child was classified as living with a single father if the male head was not a member of a traditional family, was related to the child, and was at least fifteen, but no more than forty-nine, years older than the child. A child was classified as living in a two-parent household if first-listed male and first-listed

26 The sample also includes an oversample of households headed by Irish immigrants. A later study will consider the Irish experience in greater detail.

female in the household were related to him or her, if the first-listed female was no more than fifteen years younger nor more than twenty years older than the first-listed male, and both parents were at least fifteen, but no more than forty-nine, years older than him or her. A child was classified as living with neither parent if his or her surname was different from that of both parents and from that of all of the other children in the household. The classification schemes follow those used in coding the IPUMS.<sup>27</sup>

A child was classified as residing in a traditional household, as an alternative to the mechanically defined two-parent household, if the household had all the outward appearances of a traditional family. Such households included two adults with the same surname followed immediately by one or more children in descending order of age with the same surname as the married adults. This less precise measure was collected as a robustness check against the two-parent definition. Because the objective and subjective attributions return nearly identical results, we can be reasonably confident that we are indeed identifying two-parent households.

*Household Wealth* Census enumerators were asked to solicit householders' estimates of the dollar value of the household's real and personal property. The value of the householder's estate was to exclude liens or the value of rental property. Thus, the reported figures represent the gross, not net, real-estate wealth of the household. The estimates of personal property solicited from householders were to encompass the value of all other property, including financial assets, slaves, livestock, jewelry, fixtures, and furniture. The instructions recognized that an accurate valuation might be difficult to obtain, but marshals were encouraged to obtain as "near and prompt" an estimate as they could. Because the Census Bureau anticipated the reluctance of many householders to divulge information about their wealth, marshals were instructed to cajole and reassure respondents that the information was confidential and would not be shown to the tax authorities.

Some marshals were clearly better at cajoling and reassuring householders than others. Marshals often returned a blank (nonresponse) when reporting real and personal estate in the manuscripts. An empty cell in the real estate column is generally taken to mean that the household rented its current habitation, but historians have long debated the meaning of blank cells in the personal property column. Some contend that marshals left the cells blank rather than recording zeroes. Others contend that marshals failed to report small or odd holdings, leaving the possibility that blank cells represent small, but nonzero, values. Conley and Galenson and Bodenhorn concluded that marshals had idiosyncratic,

27 This scheme does not, and cannot, distinguish unmarried aunts from single mothers. The incidence of such households is assumed to be low.

nonzero censoring points for personal wealth below which they returned a blank.<sup>28</sup>

Just as there is no consensus on the interpretation of blank cells in the personal estate column, there is no consensus on how to handle the blanks empirically. Conley and Galenson and Bodenhorn employ quantile (median) regression techniques; others estimate Tobit specifications; still others impute a small nonzero value prior to taking the natural logarithm and estimating OLS specifications. Bodenhorn and Ruebeck estimate the model using the inverse hyperbolic sine specification, which does not require an imputation for zeroes. Some studies, such as Conley and Galenson, find that results and interpretations may not be robust to alternative methods, but Bodenhorn and Ruebeck find their results to be robust to a wide variety of alternative specifications.

This study follows the Bodenhorn and Ruebeck strategy of imputing a ward-specific value for a household not reporting a value for personal estate equal to one-half the smallest value returned by any marshal in a given ward. The inclusion of ward dummy variables then corrects for some of the bias that may be introduced by following this procedure. In addition, robust standard errors are reported. A number of robustness checks were performed, and the basic results stand regardless of imputation. This imputation method is chosen because it preserves sample size.

*Classification of Occupations* Two additional types of variables are included to capture potential human capital or household-resource effects on child outcomes. One variable (SEI) is a Duncan-style socioeconomic index of occupation prestige. The index is based on wages and educational levels associated with several hundred occupations reported in the 1950 census. Translating these values to the 1860 census is straightforward in some instances (for example, blacksmith, barber, carpenter, bricklayer, minister, etc.), but because certain occupations listed in the 1860 census were obsolete by 1950, assigning them an SEI code required some ingenuity. No carriage drivers were around in 1950, except for a few in tourist locales, but carriage driving was a reasonably important occupation in 1860. The modern analog to the carriage driver is the taxi driver. Similarly, modern bus drivers are the analog to stagecoach drivers, and truckers to carters and draymen. When a specific 1860 occupation had no obvious analog to a 1950 employment, a Duncan SEI corresponding to industry (textiles, food, metals, services, etc.) and broad job classification (laborer, operative, sales, manager, etc.) was assigned.<sup>29</sup>

28 Timothy G. Conley and David W. Galenson, "Nativity and Wealth in Mid-Nineteenth-Century Cities," *Journal of Economic History*, XLVII (1998), 149–165; Bodenhorn, "The Complexion Gap: The Economic Consequences of Color among Free African Americans in the Rural Antebellum South," *Advances in Agricultural Economic History*, II (2003), 41–73; Bodenhorn and Christopher S. Ruebeck, "Colorism and African American Wealth: Evidence from the Nineteenth-Century South," *Journal of Population Economics* (forthcoming).

29 Albert J. Reiss, *Occupations and Social Status* (New York, 1961).

As an alternative to the SEI codes, all occupations were assigned one of eight industrial classifications: professional, managerial, sales, service, craft, operative, laborer, and agriculture. Dummy variables were then constructed for each of these broad occupational classifications. The results are typically robust to the continuous and dummy variable measures.