

## Differences in wealth, education, and history

By James E. CURTIS Jr. <sup>†</sup>

**Abstract.** An understanding of the freedoms (or the lack of freedoms) and their economic consequences on early black Americans provides an informative understanding to the freedoms (or the lack of freedoms), and their economic consequences on other, modern ethnic groups. Curtis (2017) investigates the link between the social asymmetry and economic asymmetry among early blacks and whites in the United States of America. For the empirical study, Curtis (2017) uses cross-sectional variables from the Integrated Public Use Microdata Sample (IPUMS), developed informative conditional ratios, and employed least squares statistical analyses. This study finds that economic differences among ethnic groups, as measured by differences between early blacks and whites, are intertwined with asymmetrical freedoms, leading to statistically insignificant returns to education, as measured by literacy. One might conclude that the individual's basic protection of life, liberty, and the pursuit of happiness must precede any expectations of measured returns to schooling, particularly among individuals in disenfranchised groups. Furthermore, one might propose education policy such that modern higher education investment programs prioritize education entrepreneurs and/or state/social planners with academic research familiarity of differences in wealth.

**Keywords.** Wealth, education.

**JEL.** D31, E21, N30.

### 1. Introduction

Similarly, the debate of more regulation or relative freedom of immigrants has moved backed into the spotlight of America, at the start of 21<sup>st</sup> century, with large masses of Latino/Latina Americans migrating from Central America and South America to North America. Ferrie (1999) thoroughly documented the mid-19<sup>th</sup> century wave of immigrants to the United States of America from Europe. But before the Latino/Latina American immigration discussion commenced and before the European American immigration wave of the mid 19<sup>th</sup> century, the regulation and freedom of black Americans was central to the governance issue of the United States of America. In many ways, a clear understanding of the freedoms (or the lack of freedoms) and their economic consequences on early black Americans provides an understanding to the freedoms (or the lack of freedoms), and their economic consequences on other, modern ethnic groups.

The experience of blacks in America can be divided into three separate discussions, the experience of: (i) free blacks prior to the Civil War, (ii) slaves prior to emancipation and (iii) the experiences of all blacks after the Civil War. But the socioeconomic experiences of the latter two are linked to that of the former:

“...In other words, the day after a slave is emancipated from an intergenerational experience of enslavement, what does that ex-slave do? What are his or her goals? Does the slave have a contemporaneous objective to supply labor and consume necessary commodities in a manner that highly

<sup>†</sup> Independent researcher, PO Box 3126, Washington, District of Columbia, USA.

☎ + (202) 739-1962

✉ jamesjr@jecjef.net

## Journal of Social and Administrative Sciences

discounts the future in order to survive on a day to day basis at the expense of future consumption, or does the slave have an intertemporal objective to store material possessions in a manner that minimizes current consumption, possibly below subsistence, in order to provide a better experience for his or her children? Prior to southern emancipation, some blacks were able to ponder on the same decisions. Therefore, this paper focuses on the plight of the average antebellum free black American, which, in hindsight, illuminated the path of the average black American, after emancipation, as well as Americans of other ethnicities over time.”

### 2. Outline

I present *the methods of economic analysis, results, and conclusions* from comparing the economic experiences of white Americans and ex-slaves to free black Americans 1850-1870. Through these analyses, I intend to uncover the portion of the ethnic experience explained by institutional barriers and the portion of their experience explained by available socioeconomic choices, particularly, as it relates to education or literacy. This paper will provide one of the first comprehensive, synthesized analyses of the demographic, economic, education, and legal freedom experiences of free Black Americans, most who are ex-slaves, compared to whites in the United States of America.

**Economic Theory: The Economic Expectations before Investigating Evidence in the Data: The Study of Wealth.** Wealth is the accumulation of material resources that have market value for current or future consumption. Furthermore, savings, initial wealth and the compounded rate of return on the invested savings and initial wealth determine wealth. The following section describes universal and group-based expectations, based on economic theory, in the areas of economic growth (including wealth, property and savings), economic inequality, and comparative economic outcomes. Wealth, property, and measures of classical economic choice characteristic will be employed to measure outcomes, compared to expectations.

**Economic Growth and the Parabolic Property Ownership Expectations.** To analyze the relationship between age and property, I employ methods developed by Lee Soltow (1975). He expected the old to hold more property than the young: He found that plots of individuals holding property across age groups shows a "very rapid rise in the probability of ownership in the first 10 years of adulthood with a tapering affect appearing thereafter" (Soltow, 1975: 28). He suggests that this concavity was affected by the income and savings decisions and distribution of the population.

Soltow used estimates of non-property-holders to develop a parabolic model of property holding over different age ranges. This theoretical parabolic behavior is based on an assumption that proportion of non-property-holders is fixed across age groups. Soltow expects that 79.3 percent of thirty year-olds who did not hold property in their twenties will not hold property for the same reason as the 79.3 percent who did not hold property when they were in their twenties:

"The .793 is a quantification of the importance of all those characteristics inhibiting ownership, such as lack of knowledge of available land or credit, inability to speak or write English or possibly read any other language, unwillingness to accept the obligations of ownership, inability to save because of low income or high consumption, legarthy because of sickness or poor health, and so on. If quantification of .79 were to operate for the group from age 30 to 39, one would expect the .793 of the property-less at age 30 to remain property-less. Thus,  $1-(.793)^2$  would own property in the 30-39 group" (Soltow, 1972, p.30).

"The strength of America's system, as seen by nineteenth century writer, was that an individual had the opportunity to improve his position over time. This opportunity meant that he was not placed in a fixed position in society. He might have had to work hard, but he could expect betterment in his wealth status. We can capture this phenomenon by studying the participation rate (proportion of men who held property) of peoples of different ages in a given year. Sure this rate, as measured by (real estate holding) or (total estate

## Journal of Social and Administrative Sciences

holding) must be higher for the old than for the young.... If the majority of individuals in the economy are to experience betterment in economic position during their lifetimes, more and more should rise above the level of being poor, above some minimum wealth amount" (p.27).

**Economic Growth and the Linear Growth in Wealth Expectations.** To analyze the relationship between age and wealth, I employ additional methods that were first employed by Soltow (1975). He plotted age-wealth coordinates and expected a positive relationship: "Material betterment dominated the economic thinking men. Those with wealth expected to have more each year as they grew older; accumulation was a sign or index of recognition of an individual's past economic activities. Wealth mirrors the past better than income since the pleasures of past consumption may be forgotten. It is only saving from past income that is now reflected in one's wealth" (Soltow, 1975, p.69).

Soltow did, in fact, observe a linear relationship between estate values and age. The parabolic effect of age on property holding was not present when observing average wealth at different ages. "The group average rises strongly from 20-29 to 30-39 and then has its greatest thrust in going from 30-39 to the 40-49 group. The average tapers off but continues to rise rather surprisingly into old age. There is certainly no strong parabolic effect, as can be seen in... the proportion of men with property" (p.70). He also suggested that the stability of the 1850 pattern was "proof that the age patterns were established decades before the 1850 and the concepts of economic betterment must have been pervasive" (Soltow, 1975, pp.74-75).

**Economic Growth and the Savings Rate Expectations.** Finally, I use the method proposed by Soltow (1975) to analyze savings using wealth annualized at each age. Soltow used the differences in wealth at each age to observe the continuity of savings that continued through old ages. Furthermore, Soltow found the average annual savings rate was about 5 percent. This was obtained by [1] averaging the increase in wealth per age groups 20-69 or 90 percent of the adult male population  $\{(582+804+311+303)/4=500\}$ , [2] annualizing the average increase per age group or decade  $\{500/10=50\}$ , and [3] dividing the average annual increase in wealth by the average wealth in 1850  $\{50/1001=.05\}$ . Note that this finding of 5 percent is the average for individuals. Since households possess more wealth than individuals, this rate is expected to much be smaller in the forthcoming empirical analysis. "The difference between in wealth levels from one year to the next gives an index of saving for a year" (pp.71-72).

**Classical Characteristic Premium Expectations.** *Schooling.* Mincer (1974) described a direct relationship between schooling and earnings:

"it is equally correct to say that the distribution of earnings is determined by the distribution of accumulated human capital and of rates of return to human capital investment or that the distribution of earnings is determined by the distribution of ability and opportunity. Or, putting it in a causal hierarchy, the distribution of accumulated human capital is a proximate determinant of the distribution of earnings, and is treated that way in this study. In turn, ability and opportunity determine the distribution of human capital (Mincer 1974, p.138).

*Skill.* Classical economic theory suggests workers are paid their additions to production. This produces an expectation of higher wages for higher skilled workers and lower wages for lower skilled workers. Holding constant the intertemporal rate of return to saved wages, holding constant differences in initial wealth, and holding constant the number of working hours (Curtis, 2002), it is reasonable expect higher wealth among higher skilled employees.

**Convergence to Equality Expectations.** To measure economic inequality and compare differences in economic outcomes, I analyze differences in differences in mean wealth between blacks and whites, and property ownership between blacks and whites. The following ratios measure differences in wealth and differences in property ownership among two comparison groups to obtain comparative returns to classical characteristic choices. Foremost, the comparative wealth ratio is

$$[W_{XJT}/W_{XJT}] / [W_{XJT}/W_{XJT}] \geq 1 \quad (1)$$

$$[W_{XJT}/W_{XJT}] / [W_{XJT}/W_{XJT}] \leq 1 \quad (2)$$

where  $W_{XJT}$  is the mean wealth of the members of group J who made investment X at time T.

The comparative wealth ratio ignores differences in wealth levels and measures the return to classical characteristic choices among groups. For instance, the ratio measures the schooling premium for blacks relative to the schooling premium for whites. If the ratio is less than one, then blacks with many years of schooling may have lower levels of wealth relative to whites with proportional years of schooling, and, thus, the returns to schooling among whites outpace the returns to schooling among blacks, in terms of wealth.

Similarly, the comparative property ownership ratio is

$$[Q_{XJT}/Q_{XJT}] / [Q_{XJT}/Q_{XJT}] \geq 1 \quad (3)$$

$$[Q_{XJT}/Q_{XJT}] / [Q_{XJT}/Q_{XJT}] \leq 1 \quad (4)$$

where  $Q_{XJT}$  is the percentage of the members of group J who own property and made investment X at time T.

The comparative property ownership ratio can be interpreted the same as the comparative wealth ratio. The comparative property ownership ratio measures the impact of classical characteristics on property ownership of group J to the impact of classical characteristics of property ownership of group J'. For instance, the ratio measures the schooling premium of blacks relative to the whites. If the ratio is less than one, then blacks with many years of schooling may own less property relative to whites with proportional years of property, and, thus, the returns to schooling among whites with many years of schooling outpace the returns to schooling among blacks with proportional years of schooling, in terms of property ownership.

Motivations for Multivariate Analysis. To observe of combined effect of laws, demography and economic geography of the economic outcomes of whites and blacks, I employed standard minimization of the sum of squared errors and conducted non-linear multivariate analysis on the logarithmic total wealth of whites and blacks in 1860 and 1870. Previous papers provide theoretical motivation for econometric modeling choices, which are similar to this presentation. Logarithmic wealth is regressed against proxy variables for earnings and savings, proxy variables for initial wealth, and household formation variables. Including slave state-free state residency variables and regional residency variables could lead to multicollinearity, due to possible endogeneity. The directions of the predictions of estimated coefficients, which are statistically significant at a 95 percent level of significance, were summarized in the results section.

### 3. Results

#### 3.1. The Mid-19<sup>th</sup> Century Age and Property Profiles of Whites and Free Blacks in the United States of America

In 1850, Table 8ab-1 shows that between 35.8 – 67.1 percent of whites were real estate property holders across different age groups while only 14.3 - 28.0 percent of free blacks were real estate property holders across age groups.

Table 1. Real Estate Property-Holding Patterns by Age Group and Race, 1850-1860

| Age Group | 1850 Real Estate Holders |             |            |             |             |            |                                | 1860-1850<br>Difference |
|-----------|--------------------------|-------------|------------|-------------|-------------|------------|--------------------------------|-------------------------|
|           | Whites                   |             |            | Free Blacks |             |            | White-Free Black<br>Difference |                         |
|           | Actual                   | Theoretical | Difference | Actual      | Theoretical | Difference |                                |                         |
| 20-29     | 0.358                    | 0.358       | -          | 0.163       | 0.163       | -          |                                |                         |
| 30-39     | 0.512                    | 0.588       | (0.076)    | 0.151       | 0.300       | (0.149)    | 0.073                          | (0.009)                 |
| 40-49     | 0.586                    | 0.735       | (0.149)    | 0.195       | 0.414       | (0.218)    | 0.070                          | (0.046)                 |
| 50-59     | 0.630                    | 0.830       | (0.200)    | 0.280       | 0.509       | (0.229)    | 0.029                          | 0.014                   |
| 60-69     | 0.671                    | 0.891       | (0.220)    | 0.258       | 0.589       | (0.332)    | 0.112                          | (0.044)                 |
| 70-79     | 0.609                    | 0.930       | (0.321)    | 0.222       | 0.656       | (0.434)    | 0.113                          | 0.066                   |
| 80-89     | 0.460                    | 0.955       | (0.495)    | 0.143       | 0.712       | (0.570)    | 0.075                          | 0.055                   |

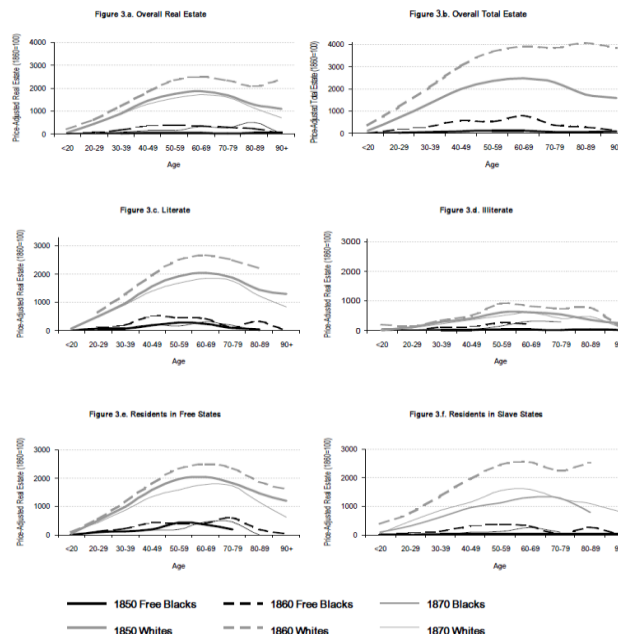
| Age Group | 1860 Real Estate Holders |             |            |             |             |            |                                |
|-----------|--------------------------|-------------|------------|-------------|-------------|------------|--------------------------------|
|           | Whites                   |             |            | Free Blacks |             |            | White-Free Black<br>Difference |
|           | Actual                   | Theoretical | Difference | Actual      | Theoretical | Difference |                                |
| 20-29     | 0.369                    | 0.369       | -          | 0.175       | 0.175       | -          |                                |
| 30-39     | 0.531                    | 0.602       | (0.071)    | 0.185       | 0.319       | (0.134)    | 0.064                          |
| 40-49     | 0.632                    | 0.749       | (0.117)    | 0.297       | 0.438       | (0.141)    | 0.024                          |
| 50-59     | 0.696                    | 0.842       | (0.146)    | 0.347       | 0.536       | (0.190)    | 0.044                          |
| 60-69     | 0.725                    | 0.900       | (0.175)    | 0.375       | 0.617       | (0.242)    | 0.068                          |
| 70-79     | 0.681                    | 0.937       | (0.256)    | 0.250       | 0.684       | (0.434)    | 0.179                          |
| 80-89     | 0.684                    | 0.960       | (0.276)    | 0.333       | 0.739       | (0.406)    | 0.130                          |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

The proportion grew to 36.9 - 72.5 percent for whites and 17.5-37.5 percent for free blacks in 1860. Furthermore, when comparing actual to fixed proportions among free blacks and whites, the actual white proportion of property-holders across age groups was closer to the white fixed or theoretical proportions in 1850 and 1860. This suggests that the events which prevent holding property across age groups were relatively more fixed for whites than free blacks. Instead, enforcement of laws that reduced the rights of free blacks, such as the Fugitive Slave Act, had a direct impact on the capacity of the average free black to hold property, producing relatively more random patterns of holding property across all ages. When comparing white-free black differences in 1850 and 1860, Table 7a shows that white-free black differences fell for younger members of the age distribution but grew for the older members of the distribution.

### 3.2. The Mid-19<sup>th</sup> Century Age and Wealth Profiles of Whites and Blacks in the United States of America

Figures 1(a-f) are plots of the age-wealth profiles by race, year and cross section. Figure 3b plots total wealth and shows the least amount of dissaving occurring among whites.



Figures 1. Age-Wealth Profiles of Whites and Blacks, 1850 through 1870  
Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS.

However, when comparing to blacks and the real estate wealth of whites and blacks, dissaving is definite reality at older ages. Masson (1986), Mirer (1979) and Shorrocks (1975) found cross-sectional age-wealth profiles that were concave only when they did not control for factors such as cohort and mortality differences.

Furthermore, the difference between black and white age-wealth profiles is quite dramatic: The distance between black and white profiles tends to peak in the fifties. Finally, Figures 3c-f show that the dominant wealth possession of whites remained across time, education and region.

These profiles are preliminary evidence that making choices to improve education and social surrounding did not provide a clear wealth reward. The local definition of free black rights had diluted any attempts to make individual economic gains.

### 3.3. The Mid 19<sup>th</sup> Century Savings of Whites and Free Blacks in the United States of America

Table 2 shows that white households (3.6 percent) saved less real estate wealth, annually, than free black households (3.8 percent) in 1850.

**Table 2.** *Wealth Accumulation Patterns by Age Group and Race, 1850-1860*

| Age Group       | 1850 Real Estate Wealth |        |             |        | 1860 Real Estate Wealth |        |             |        | 1860 Total Wealth |        |             |        |
|-----------------|-------------------------|--------|-------------|--------|-------------------------|--------|-------------|--------|-------------------|--------|-------------|--------|
|                 | Whites                  |        | Free Blacks |        | Whites                  |        | Free Blacks |        | Whites            |        | Free Blacks |        |
|                 | Average                 | Change | Average     | Change | Average                 | Change | Average     | Change | Average           | Change | Average     | Change |
| 20-29           | 515                     |        | 49          |        | 726                     |        | 90          |        | 1,476             |        | 169         |        |
| 30-39           | 1,043                   | 528    | 79          | 30     | 1,480                   | 754    | 146         | 56     | 2,619             | 1,144  | 275         | 105    |
| 40-49           | 1,792                   | 750    | 134         | 55     | 2,519                   | 1,039  | 312         | 166    | 4,430             | 1,811  | 449         | 175    |
| 50-59           | 2,273                   | 480    | 370         | 236    | 3,417                   | 897    | 416         | 104    | 5,625             | 1,194  | 581         | 132    |
| 60-69           | 2,675                   | 402    | 336         | (34)   | 3,432                   | 15     | 342         | (74)   | 5,475             | (150)  | 1,165       | 583    |
| 70-79           | 2,403                   | (272)  | 1,021       | 685    | 3,600                   | 168    | 158         | (184)  | 6,178             | 704    | 236         | (929)  |
| 80-89           | 3,228                   | 825    | 498         | (523)  | 3,718                   | 118    | 360         | 203    | 6,612             | 434    | 392         | 156    |
| 20-69 Average   |                         | 540    |             | 72     |                         | 676    |             | 63     |                   | 1,000  |             | 249    |
| Overall Average |                         | 1,486  |             | 189    |                         | 2,050  |             | 286    |                   | 3,556  |             | 501    |
| Savings Rate    |                         | 3.6%   |             | 3.8%   |                         | 3.3%   |             | 2.2%   |                   | 2.8%   |             | 5.0%   |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

But by 1860, free black households (2.2 percent) saved less real estate wealth than white households (3.3 percent). This result is picking up the economic push effects of enhanced enforcement of controversial fugitive slave laws. But, in terms of total wealth, free black households (5.0 percent) were saving more than whites in 1860 (2.8). This is both attributed to the low level of wealth in free blacks started from and possibly the desire for descendants to have an enriched economic experience.

### 3.4. The Mid 19<sup>th</sup> Century Schooling and Wealth of Whites and Blacks in the United States of America

Mincer (1974) described a direct relationship between schooling and earnings. When comparing the real estate wealth of literate and illiterate free blacks, literate free blacks outperformed illiterate free blacks. These results held when comparing differences in other and total forms of wealth among literate and illiterate free blacks. Table 3 shows that literate free blacks possessed \$520 in nominal total wealth in 1860 prior to emancipation.

Table 3. *Mid 19<sup>th</sup> Century Schooling and Mean Wealth of Whites and Blacks*

|                                  | Overall |        |        | Free Blacks |      |        | All Blacks |        |        | Whites |       |      |
|----------------------------------|---------|--------|--------|-------------|------|--------|------------|--------|--------|--------|-------|------|
|                                  | 1850    | 1860   | 1870   | 1850        | 1860 | 1870   | 1850       | 1860   | 1870   | 1850   | 1860  | 1870 |
| Literate                         | 1,030   | 1,568  | 1,872  | 133         | 316  | 206    | 1,042      | 1,597  | 1,953  |        |       |      |
| Real Estate Wealth               |         |        |        |             |      |        |            |        |        |        |       |      |
| Other Wealth                     |         | 1,001  | 753    |             | 204  | 98     |            |        |        | 1,019  | 785   |      |
| Total Wealth                     |         | 2,569  | 2,625  |             | 520  | 304    |            |        |        | 2,616  | 2,737 |      |
| <i>Price-Adjusted (1860=100)</i> |         |        |        |             |      |        |            |        |        |        |       |      |
| Real Estate Wealth               | 1,142   | 1,616  | 1,265  | 149         | 325  | 135    | 1,155      | 1,646  | 1,320  |        |       |      |
| Other Wealth                     |         | 1,062  | 504    |             | 209  | 64     |            |        |        | 1,081  | 525   |      |
| Total Wealth                     |         | 2,678  | 1,769  |             | 534  | 199    |            |        |        | 2,727  | 1,845 |      |
| Sample                           | 31,393  | 47,808 | 62,284 | 406         | 992  | 2,761  | 30,987     | 46,745 | 59,401 |        |       |      |
| <i>Illiterate</i>                |         |        |        |             |      |        |            |        |        |        |       |      |
| Real Estate Wealth               | 263     | 412    | 212    | 93          | 151  | 31     | 282        | 458    | 586    |        |       |      |
| Other Wealth                     |         | 295    | 105    |             | 121  | 41     |            |        |        | 324    | 236   |      |
| Total Wealth                     |         | 708    | 317    |             | 273  | 72     |            |        |        | 782    | 823   |      |
| <i>Price-Adjusted (1860=100)</i> |         |        |        |             |      |        |            |        |        |        |       |      |
| Real Estate Wealth               | 296     | 436    | 143    | 105         | 160  | 20     | 317        | 483    | 398    |        |       |      |
| Other Wealth                     |         | 320    | 70     |             | 133  | 26     |            |        |        | 352    | 159   |      |
| Total Wealth                     |         | 756    | 213    |             | 293  | 46     |            |        |        | 836    | 556   |      |
| Sample                           | 3,709   | 5,251  | 24,073 | 365         | 710  | 16,175 | 3,344      | 4,497  | 7,855  |        |       |      |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

This was higher than the \$273 possessed by illiterate free blacks. Note that literate free blacks were equally likely as illiterate free blacks to hold real estate or other forms of property. However, literate blacks had 19.9 percent (520/2616) of literate white total wealth while illiterate free blacks had 34.9 percent (273/782) of illiterate white wealth in 1860. These results may imply that the penalty for illiteracy was so severe that the wealth of illiterate whites was relatively closer to wealth of illiterate free blacks than wealth among literate free blacks and whites. This is accredited to a nineteenth century racial asymmetrical skill-bias in favor literate whites: Free blacks and whites were proportionately penalized but not proportionately rewarded for education. Furthermore, when we ignore differences in wealth levels among free blacks and whites, literacy did not provide free blacks an advantage relative to whites.

Overall, investing time and resources in education does not guarantee economic equality if factors such as initial resources vastly differ. These results also imply that illiteracy penalized free blacks in manner similar to whites more than literacy benefited free blacks relative to whites. This analysis directly links the asymmetrical enforcement of federal statutes by states, which affect the rights of free blacks, to asymmetrical wealth returns to the optimal wealth generating characteristics, such as literacy.

### 3.5. The Mid 19<sup>th</sup> Century Schooling and Real Estate of Blacks: A Comparison of Black Americans over Time

Real estate wealth differences favored literate blacks before and after emancipation. Table 4 shows that literate free blacks possessed nominal real estate wealth amounts of \$133 in 1850 and \$316 in 1860. This was higher than the \$93 possessed by illiterate free blacks in 1850 and \$151 possessed by illiterate free blacks in 1860. Table 4 also shows that the literate-illiterate ratio of average real estate wealth among free blacks grew from 1.3 in 1850 and 2.0 in 1860. This may be preliminary evidence of a growing penalty for illiteracy. Literate free blacks were also more likely to hold real estate property than illiterate free blacks even then proportion of literate free black property holders remained constant. Table 8b-2 shows that 20 percent of literate free blacks in 1850 and 25 percent of literate free blacks in 1860 owned positive amounts of real estate wealth.

**Table 4.** *Mid 19<sup>th</sup> Century Schooling and Mean Property Ownership of Whites and Blacks*

|                                | Overall |        |        | Free Blacks |      |        | All Blacks |        |        | Whites |      |      |
|--------------------------------|---------|--------|--------|-------------|------|--------|------------|--------|--------|--------|------|------|
|                                | 1850    | 1860   | 1870   | 1850        | 1860 | 1870   | 1850       | 1860   | 1870   | 1850   | 1860 | 1870 |
| <b>Literate</b>                |         |        |        |             |      |        |            |        |        |        |      |      |
| Real Property Holders          | 0.54    | 0.56   | 0.54   | 0.20        | 0.25 | 0.15   | 0.54       | 0.57   | 0.56   |        |      |      |
| Other Property Holders         |         | 0.81   | 0.70   |             |      | 0.54   |            | 0.28   |        | 0.81   | 0.72 |      |
| Real or Other Property Holders |         | 0.84   | 0.75   |             | 0.58 | 0.32   |            |        |        | 0.84   | 0.77 |      |
| Sample                         | 31,393  | 47,808 | 62,284 | 406         | 992  | 2,761  | 30,987     | 46,745 | 59,401 |        |      |      |
| <b>Illiterate</b>              |         |        |        |             |      |        |            |        |        |        |      |      |
| Real Property Holders          | 0.36    | 0.36   | 0.17   | 0.18        | 0.23 | 0.05   | 0.38       | 0.39   | 0.41   |        |      |      |
| Other Property Holders         |         | 0.72   | 0.31   |             | 0.56 | 0.20   |            | 0.75   | 0.55   |        |      |      |
| Real or Other Property Holders |         | 0.75   | 0.35   |             | 0.60 | 0.22   |            | 0.77   | 0.62   |        |      |      |
| Sample                         | 3,709   | 5,251  | 24,073 | 365         | 710  | 16,175 | 3,344      | 4,497  | 7,855  |        |      |      |

**Source:** Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

This was greater than the 18 percent of illiterate free blacks in 1850 and 23 percent of illiterate free blacks in 1860 that possessed positive amounts of real estate wealth. Table 5 shows that the ratio of literate free black real estate holders (per hundred literate free blacks) to the number of illiterate free black real estate holders (per hundred illiterate free blacks) remained constant at 1.1 in 1850 and 1860.

By 1870, the return to literacy among blacks grew dramatically. Table 5 shows that the ratio of literate to illiterate average real estate wealth for all blacks—which includes ex-slaves who held little or no real estate property—grew to 6.8.

**Table 5.** *Mid 19<sup>th</sup> Century Comparative Wealth Ratios and Comparative Property Ownership Ratios of Whites and Blacks, Based on Schooling*

|  | All Blacks |      |      | Whites |      |      | Black-White Ratio |      |      |
|--|------------|------|------|--------|------|------|-------------------|------|------|
|  | 1850       | 1860 | 1870 | 1850   | 1860 | 1870 | 1850              | 1860 | 1870 |
| <b>i) Literate/Illiterate Mean Wealth Ratio</b>            |            |      |      |        |      |      |                   |      |      |
| Real Estate  | 1.4        | 2.0  | 6.8  | 3.4    | 3.3  |      | 0.4               | 0.6  | 2.0  |
| Other  |            | 1.6  | 2.4  | 3.1    | 3.3  |      |                   | 0.5  | 0.7  |
| Total  |            | 1.8  | 4.3  | 3.3    | 3.3  |      |                   | 0.6  | 1.3  |
| <b>ii) Literate/Illiterate Mean Property-Holding Ratio</b> |            |      |      |        |      |      |                   |      |      |
| Real Estate  | 1.1        | 1.1  | 2.7  | 1.4    | 1.5  |      | 0.8               | 0.7  | 2.0  |
| Other  |            | 1.0  | 1.4  | 1.1    | 1.3  |      |                   | 0.9  | 1.1  |
| Total  |            | 1.0  | 1.5  | 1.1    | 1.3  |      |                   | 0.9  | 1.2  |

**Source:** Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS.

This implies that, on average, literate ex-slaves possessed seven dollars for every dollar of real estate wealth owned by an illiterate ex-slave. Yet the relative sample sizes suggest that approximately one in seven (2761/18936) blacks were able to take advantage of the large literacy premium in 1870. Slave owner discouragement of educating slaves caused illiterate ex-slaves to be severely handicapped in the wealth accumulation process.

Similarly, Table 5 shows that the ratio of literate black real estate holders (per hundred literate blacks) to illiterate blacks real estate property holders (per hundred illiterate blacks) was 2.7—for every illiterate black real estate holder (per hundred illiterate blacks), there were three literate black real estate holders (per hundred literate blacks).

### 3.6. The Mid 19<sup>th</sup> Century Schooling and Real Estate: A Comparison of White and Black Americans over Time

When comparing average real estate wealth of free blacks to the average real estate wealth of whites by literacy before emancipation, illiterate white wealth was closer to illiterate free black wealth than literate black wealth to literate white wealth. Using wealth means in Table 5, literate free blacks had 12.8 percent (133/1042) of the average real estate wealth among literate whites in 1850 and grew to 19.8 percent (316/1597) of the average real estate wealth among literate



whites in 1860. But illiterate free blacks had 33.0 percent (93/282) of the average real estate wealth among illiterate whites in 1850 and 1860 (151/458). The penalty for illiteracy in the nineteenth century caused illiterate whites and blacks to have a relatively closer economic experience than literates. This is quite similar to a skill-biased economy that rewards college education and penalizes high school drop-outs discussed in the 1980's by Juhn, Murphy and Pierce (1991) but with a caveat: the nineteenth century skill bias was racially asymmetrical in favor of whites.

The relatively closer economic experience of free black and white illiterates was observed when analyzing the proportion of free black real estate holders relative to white real estate holders. The ratio of literate free black real estate holders (per hundred literate free blacks) to literate white real estate holders (per hundred literate whites) was approximately 1:3 (0.20 : 0.54) in 1850 and 2:5 (0.25 : 0.57) in 1860. Among illiterates, the ratio rose to approximately 1:2 (0.18 : 0.38) in 1850 and 6:10 (0.23 : 0.39) in 1860.

By 1870, the ratio of black to white average real estate wealth and property holders fell significantly with the inclusion of ex-slaves in the sample but a distinct literacy advantage emerged. Using wealth means from Table 5, 1870 literate blacks held 10.5 percent (206/1953) of the real estate wealth of literate whites while illiterate blacks held 5.3 percent (31/586) of the real estate wealth of illiterate whites. Similarly, using the percentage of property holders in Table 5, the ratio of literate black real estate property holders (per hundred literate blacks) to literate white property holders (per hundred literate whites) was approximately 1:4 (0.15: 0.56). Among illiterates, the ratio was approximately 1:8 (0.05: 0.41) in 1870. A relative racially symmetrical literacy advantage was after emancipation even though literate blacks still possessed real estate wealth that was significantly below literate whites.

Using the *comparative wealth ratio* for real estate wealth, we can ignore the absolute differences in black and white real estate wealth and ascertain the literacy advantages in the presence of wealth constraints. Since the ratio in Table 5 was less than one in 1850 (0.4) and 1860 (0.6), whites obtained higher return to literacy than free blacks. In 1870, the ratio in Table 5 grew to 2.0 which implies that blacks receive a higher return literacy in the presence wealth constraints than whites. This may suggest that (i) higher skilled occupations that pay higher wages and (ii) higher yield investment opportunities that are normally available to more educated individuals were not made available to blacks until their rights were more fully enforced, such as those provided by federal government after 1865.

Similar results were obtained using the *comparative property ownership ratio* for real estate property in Table 5. Since the statistic was below one in 1850 (0.8) and 1860 (0.7), whites obtained higher return to literacy than free blacks. The statistic grew to 2.0 in 1870, again, suggesting a dramatic growth in the literacy premium for blacks once individual rights were protected under the force of law.

### 3.7. The Mid 19<sup>th</sup> Century Schooling and Other Wealth of Blacks: A Comparison of Black Americans over Time

Literate blacks also had nominal advantages but relative disadvantages in terms of other measures of wealth before and after emancipation. Table 5 shows that literate free blacks possessed \$204 in nominal other wealth in 1860 prior to emancipation. This was higher than the \$121 possessed by illiterate free blacks. Thus, free blacks in free states possessed 160 percent of other forms of wealth owned by illiterate free blacks. However, literate free blacks were approximately equally as likely as illiterate free blacks to hold other forms of property. Table 5 shows that 54 percent of literate free blacks that possessed positive amounts of other wealth in 1860. This was only slightly lower than the 56 percent of illiterate free blacks that possessed positive amounts of other wealth in 1860.

The combinations of these results suggests illiterate free blacks per hundred are equally as likely to hold other forms property but the literate free blacks use their enhanced knowledge to grow the value of their property larger than the value of

## Journal of Social and Administrative Sciences

illiterate property. By 1870, the return to literacy grew dramatically. Table 5 shows that the ratio of literate to illiterate other forms of wealth for all blacks—which includes ex-slaves who held little or no real estate property—grew to 2.4. This implies that literate ex-slaves possessed two dollars for every dollar of wealth owned by an illiterate ex-slave. Similarly, Table 5 shows that the ratio of literate black property holders (per hundred literate blacks) to illiterate property holders (per hundred illiterate blacks) was 1.4.

### 3.8. The Mid 19<sup>th</sup> Century Schooling and Real Estate: A Comparison of White and Black Americans over Time

The closer economic experiences of illiterate blacks and whites persisted when comparing other wealth of blacks to the other wealth of whites before and after emancipation. Using wealth means in Table 5, literate blacks had 20.0 percent (204/1019) of literate white other wealth in 1860 and 12.5 percent (98/785) of literate white wealth in 1870. However, illiterate free blacks had 37.3 percent (121/324) of illiterate white wealth in 1860 and 17.6 percent (41/236) of illiterate white wealth in 1870.

These results confirm a penalty for illiteracy was so severe that the other forms of wealth of illiterate whites was relatively closer to wealth of illiterate blacks than blacks and whites who could read and write. This may also explain the closer experience of illiterate property holders when analyzing the proportion of blacks holding other forms of property relative to whites holding other forms of property. The ratio of literate blacks (per hundred literate blacks) to literate whites (per hundred literate whites) with other forms of property was approximately 2:3 (0.54 : 0.81) in 1860 and 1:3 (0.28 : 0.72) in 1870. Among illiterates the ratio rose to approximately 3:4 (0.56 : 0.75) in 1860 and 1:3 (0.20 : 0.55) in 1870.

Using the *comparative wealth ratio* for other forms of wealth, we can ignore the absolute differences in black and white wealth and ascertain the literacy advantages in the presence of wealth constraints. Since the ratio in Table 5 was less than one in 1860 (0.5) and 1870 (0.7), whites obtained higher returns to literacy than blacks. Similar results were obtained using the *comparative property ownership ratio* for other forms of property. Since the ratio reported in Table 5 was less than one in 1860 (0.9) and approximately equal to one in 1870 (1.1), whites obtained higher or equal returns to literacy than blacks before and after emancipation.

### 3.9. The Mid 19<sup>th</sup> Century Schooling and Total Wealth of Blacks: A Comparison of Black Americans over Time

When summing up real estate and other forms of wealth, empirical results show that literate blacks were better off before and after emancipation. Table 5 shows that literate free blacks possessed \$520 in nominal total wealth in 1860 prior to emancipation. This was higher than the \$273 possessed by illiterate free blacks. However, literate free blacks were equally likely as illiterate free blacks to hold real estate or other forms of property. Table 5 shows that 58 percent of literate free blacks that possessed positive amounts of total wealth in 1860. This was only slightly lower than the 60 percent of illiterate free blacks that possessed positive amounts of total wealth in 1860. The combination of these results suggests illiterate free blacks are about equally as likely to hold property but the literate free blacks use their knowledge to grow the value of their property larger than illiterate property. By 1870, the return to literacy grew dramatically. Table 5 shows that the ratio of literate to illiterate real estate wealth for all blacks—which includes ex-slaves who held little or no real estate property—grew to 4.3. This implies that literate ex-slaves possessed four dollars for every dollar of total wealth owned by an illiterate ex-slave. Similarly, Table 5 shows that the ratio of literate black total property holders (per hundred literate blacks) to illiterate black total property holders (per hundred illiterate blacks) was 1.5—for every literate free black real estate holder, there were two illiterate free black real estate holders.

### 3.10. The Mid 19<sup>th</sup> Century Schooling and Total Wealth: A Comparison of White and Black Americans over Time

The closer economic experiences of illiterate blacks and whites persisted even when comparing total wealth of blacks to the total wealth of whites before, but reversed after emancipation. Using wealth means in Table 5, literate blacks had 19.9 percent (520/2616) of literate white total wealth while illiterate free blacks had 34.9 percent (273/782) of illiterate white wealth in 1860. By 1870, things had reversed such that literate free blacks had 11.1 percent (304/2737) of literate white wealth while illiterate free blacks had 8.7 percent (72/832) of illiterate white wealth. These results may imply that the penalty for illiteracy was so severe that the wealth of illiterate whites was relatively closer to wealth of illiterate blacks than blacks and whites who could read and write before emancipation, but legal enforcement of rights improved the returns to literacy after emancipation.

Similarly, this illiteracy penalty was observed when analyzing the proportion of blacks holding property relative to whites. The ratio of literate blacks (per hundred literate blacks) to literate whites (per hundred literate whites) with property was approximately 2:3 (0.58: 0.84) the ratio rose to approximately 3:4 (0.60: 0.77) among illiterates in 1860. By 1870, the literate ratio of 2:5 (0.32: 0.77) exceeded the illiterate ratio of 1:3 (0.22: 0.62) in 1870.

Using the *comparative wealth ratio* for other forms of wealth, we can ignore the absolute differences in black and white wealth and ascertain the literacy advantages in the presence of wealth constraints. Since the ratio in Table 5 was less than one in 1860 (0.6) and 1870 (1.3), whites obtained higher returns to literacy than free blacks before emancipation and literate ex-slave obtained a higher return to literacy than ex-slaves. Again, the penalty for illiteracy was so severe that the wealth of illiterate whites was relatively closer to wealth of illiterate blacks than blacks and whites who could read and write before emancipation, but legal enforcement rights improved the returns to literacy after emancipation. Similar results were obtained using the *comparative property ownership ratio* for other forms of property. Since the ratio reported in Table 5 was less than one in 1860 (0.9) and greater than one in 1870 (1.2), whites obtained higher returns to literacy than blacks before emancipation and reversed after emancipation.

Once the equal enforcement of laws began to converge more rapidly, with the mass emancipation of Southern slaves, some blacks, with schooling advantages, observed returns to schooling, in the black community, that were greater than the returns to schooling of whites, with schooling advantages in the white community. This schooling premium advantage observed after the emancipation of slaves was, in part, due to combining blacks with longer histories of emancipation, and with maximum free market experiences, and the plurality of blacks with shorter histories of emancipation, and with minimum free market experiences. This uncompensated change in social standing may be preliminary evidence of the sources of greater inequality and skewed media documentations of social unrest observed among disenfranchised groups throughout history.

### 3.11. Non-Linear Least Squares Multivariate Analysis of Logarithmic Total Wealth of Whites and Blacks in 1860 and 1870

Table 6 shows logarithmic wealth is regressed against proxy variables for earnings and savings, proxy variables for initial wealth, and household formation variables. Results, which had a 95 percent level of significance, are summarized below.

Savings and Schooling. *Savings*. Results show higher, statistically significant, diminishing increases in wealth savings with age among whites, compared to blacks, in 1860 and 1870. *Schooling*. Similarly, results show higher returns to schooling, for whites relative to blacks, in 1860 and 1870, holding all other variables constant; however, these results were not statistically significant for free blacks in 1860.

Table 6. OLS Estimates Based on Log Real Total Wealth by Race, 1860-70

| Race:<br>Year:              | Whites      |        |             |        | Blacks      |        |             |        |
|-----------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
|                             | 1860        |        | 1870        |        | 1860        |        | 1870        |        |
| OLS Regression with:        | Slave State | Region | Slave State | Region | Slave State | Region | Slave State | Region |
| Constant                    | 1.14        | 1.01   | 0.13        | (0.18) | 2.30        | 2.61   | 1.89        | 2.22   |
| Literacy                    | 1.02        | 1.02   | 1.14        | 1.12   | 0.25        | 0.21   | 0.34        | 0.35   |
| Slave State                 | 0.18        |        | (0.97)      |        | 0.01        |        | (1.38)      |        |
| Migrated to the Region      | (0.50)      | (0.66) | (0.34)      | (0.50) | 0.39        | 0.26   | 0.26        | 0.21   |
| Rural                       | 0.82        | 0.73   | 0.71        | 0.58   | 0.26        | 0.30   | 0.17        | 0.17   |
| Age                         | 0.14        | 0.14   | 0.18        | 0.18   | 0.09        | 0.09   | 0.04        | 0.04   |
| Age Squared                 | (0.00)      | (0.00) | (0.00)      | (0.00) | (0.00)      | (0.00) | (0.00)      | (0.00) |
| Number of Children          | (0.03)      | (0.04) | (0.02)      | (0.03) | 0.01        | 0.00   | 0.03        | 0.03   |
| Number of Household Members | 0.11        | 0.11   | 0.10        | 0.10   | 0.05        | 0.04   | 0.05        | 0.06   |
| Married                     | 0.24        | 0.19   | 0.02        | 0.02   | 0.48        | 0.47   | 0.33        | 0.34   |
| <u>Occupational Skill</u>   |             |        |             |        |             |        |             |        |
| Unskilled                   | (2.86)      | (2.79) | (2.71)      | (2.66) | (2.93)      | (2.86) | (1.64)      | (1.64) |
| Skilled                     | (1.72)      | (1.64) | (1.97)      | (1.88) | (2.18)      | (2.13) | (0.95)      | (0.95) |
| White Collar                | (0.05)      | (0.01) | (0.11)      | (0.08) | (0.91)      | (0.97) | 0.45        | 0.46   |
| Student/Retired             | (0.10)      | (0.09) | 0.32        | 0.32   | (5.51)      | (5.63) | (1.34)      | (1.34) |
| Other Skill                 | (2.37)      | (2.36) | (2.76)      | (2.71) | (3.20)      | (3.22) | (1.73)      | (1.73) |
| <u>Region</u>               |             |        |             |        |             |        |             |        |
| MidAtlantic                 |             | 0.05   |             | 0.14   |             | (0.39) |             | (0.50) |
| Midwest                     |             | 0.44   |             | 0.59   |             | (0.06) |             | (0.25) |
| Southeast                   |             | 0.29   |             | (0.68) |             | (0.43) |             | (1.73) |
| South Central               |             | 0.68   |             | (0.48) |             | 0.65   |             | (1.68) |
| West                        |             | (0.30) |             | 0.09   |             | (1.20) |             | (0.18) |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS; Dependent variable is natural log of total wealth adjusted for regional prices; Estimated parameters in bold are statistically significant with a 95 percent level of confidence. Farmers and Northeast are the excluded variables.

### Appendix

Several anecdotal studies on free blacks in the labor market show that the poor legal and social conditions made it difficult for free blacks to be economically competitive. For instance, free blacks had to compete with slaves, whites and immigrants for employment.

“The preference of employers for white or slave labor forced free Negroes to underbid whites and work on the same terms as slaves. By accepting lower wages and longer hours, many free Negroes found employment, but they aroused the ire of white workingmen, who complained that free Negroes depressed their standard of living” (Berlin, 1974: 229). Immigration put free Negroes in the same position: “The influx of Irish and German workers... speeded the exclusion of Negro freeman from many occupations. The competition free Negro workers faced from newly arrived immigrants in Baltimore was a typical example of how white immigrants limited the free Negro’s opportunities” (Berlin, 1974: 231).

They tended to earn wages and income that were much less than whites. One local study shows that: “Racial prejudice relegated many free Negro workers to the meanest drudgery at the lowest pay... Even at these low levels of employment, free Negroes were often paid less than whites. The standard wage for day laborers in the Norfolk shipyards (for example) was one dollar, but free Negro workers rarely earned more than seventy-five cents a day” (Berlin, 1974: 227).

But studying racial differences in factor market supply decisions and prices, as reflected in the literature on labor supply, wages and income, presents only a subset of the factors that determine the accumulation and storage of assets over the lifetime of black and white households. Therefore, this study will focus on differences in wealth between blacks and whites in the middle of the 19<sup>th</sup> Century.

#### *Related Studies: A Review of the Literature on the Study of Free Blacks*

The source of antebellum free black-white wealth differences has not studied. Researchers (e.g., Bodenhorn (1999), Eggert (1997), Hershberg (1997), Berlin (1974), Litwick (1961), Jackson (1939), and DuBois (1899)) and Philadelphia abolitionist society studies in 1849 and 1838 attempted to address free black-white wealth differences often using a piece-meal approach. Foremost, Leon Litwick (1961) and Ira Berlin (1979) provided a historical account for experience of northern and southern free blacks, respectively. After surveying past research efforts, compiling county records and compiling census manuscripts, Berlin found that free blacks in several states possessed more property over time. But these results are obscured by the aggregate measures of wealth. For instance, he found that the aggregate wealth of free blacks living in fifteen counties in Georgia nearly doubled between 1850 and 1860. But we do not know why their wealth increased because correlations with explanatory variables were not calculated.

Jackson (1939) also analyzed the property and real estate wealth of free blacks in the South. He used tax books, deeds, orders, legislative petitions, agricultural manuscripts and census manuscripts from Virginia to show that the amount of property held by free blacks in 1830 tripled by 1860. Even though Jackson provided a brief statistical analysis, the inference of his study is limited to Virginia and he did not employ methods to explain what drove his observations.

Bodenhorn (1999a) used 1860 US census data to analyze southern wealth differences among darker and lighter free blacks. Based on censored quantile regression results using data from Maryland, Virginia, North Carolina, Kentucky and Louisiana, mulattos had wealth advantage to darker free blacks. Similarly, Bodenhorn (1999b) employs data stature of darker and lighter free blacks. He also found that mulattos had an advantage to darker free blacks when analyzing stature data from Virginia. While Bodenhorn did employ modern statistical analyses, inference from this study is limited to several states.

Some research has also been conducted on free black wealth in localities within Pennsylvania. Eggert (1997) linked US Census records of blacks in Harrisburg, Pennsylvania from 1850-60 to estimate property values of free blacks. He found stagnant wealth among a large percentage of the population but growth among those who did not migrate. However, his study did not compare results to migrants and was limited to one locality. Theodore Hershberg (1997) employed abolition society data on the socioeconomic conditions of free blacks in Philadelphia to show that real and personal wealth fell ten percent between 1838 and 1847.

Similarly, Dubois (1899) used these records and tax receipts to show that free blacks in Philadelphia often held less property than whites. However, Hershberg and Dubois do not use the analytical tools needed to fully explain their results. Their studies lack a full description of the data collection procedures in their research. To analyze the link between these social conditions and economic outcomes of free blacks, I employ wealth and cross-sectional variables from the 1850, 1860 and 1870 Integrated Public Use Microdata Samples (IPUMS).

#### *Descriptive Statistics: An Analysis of the IPUMS Data Employed for the Study of the Economic Condition of Free Blacks in United States of America, Compared to Ex-slaves and White Americans*

This study uses data from the Integrated Public Use Microdata Sample (IPUMS). IPUMS data are based on national representative samples and supplemental over-samples of minorities from the population schedules of the US census manuscripts. The US conducted its first census in 1790 and its first modern census in 1850. By 1850, the census had improved such that we can now investigate the past with new insights. Modern census data is a rich set of cross-sectional, individual-level data on American families and individuals.

## Journal of Social and Administrative Sciences

Magnuson (1995a) and Steckel (1991) recommend that researchers pay careful attention to enumeration the procedures before investigating this data. Magnuson reports that the U.S. Census is not a "pure reflection of general societal trends" (p. 11). The census is composed of questions, which have and have not persisted over time. Between 1790 and 1840, the unit of enumeration was the household, based on given set of characteristics, i.e. Colored-Male-Over Age 16. The 1850 U.S. Census was considered the first modern Census when the unit was changed to the individual. Magnuson also noted that a proposed slave schedule would have collected extensive information on the ancestors of modern-day African Americas. In 1840, Congress formed the Census Board that unsuccessfully recommended a slave schedule for the 1850 U.S. Census--which would have included the names of slaves, birthplace of slaves and number of children (Magnuson 1995a: 19).

Steckel reminds us that the original purpose of the US census was for taxation and US House of Representatives appropriations. However, a "growing desire for statistical information, curiosity about society, and heightened interest in international and regional comparisons led to expanded collection by the federal census" (Steckel 1991: 582-83). Steckel suggested that the likelihood of error increases as early census data is more disaggregated. He noted that under-enumeration, over-enumeration and misreporting are errors that affect the quality of census data and led to the creation of the Census Bureau. Some of these errors may be attributed to the poor training of early enumerators and lower quality of early census administration. He found that larger households, lower-educated persons and persons with poor English-language skills tended to be omitted from the census. Steckel (1991) provided several examples of underenumeration in census data collected on blacks. He recommended using census comparisons, census matching, and consistency checks to evaluate errors and improve the quality of samples from the early census.

This study analyzes US census samples from the 1850-70. These census manuscripts contain responses to important socioeconomic inquiries including age, sex, color, marriage status, literacy, whether the individual attended school during the year, occupation, state or country of birth, value of real estate, and value of personal estate (1860 and 1870 only).

Real estate value was enumerated based on guidelines specified in the Circular to Marshals. It specified that "under heading 8 insert the value of real estate owned by each individual enumerated. You are to obtain the value of real estate by inquiry of each individual who was supposed to own real estate, be the same located where it may, and insert the amount in dollars. No abatement of the value is to be made on account of any lien or encumbrance thereon in the nature of debt" (Magnuson 1995b: 347) Personal estate value was also enumerated based on guidelines that specified "Personal estate is to be inclusive of all bonds, stocks, mortgages, notes, live stock, plate, jewels, or furniture, but exclusive of wearing apparel" (Magnuson 1995b: 349)

Economists have conducted an extensive amount of research based on national samples from the early US census manuscripts (see e.g. Ferrie 1999, 1994; Steckel 1990; Becker & Tomes 1986 and Soltow 1975, 1972). The sample studied in this paper was restricted to heads of households. Investigating the wealth from a random sample of household heads is more productive than investigating a random sample of individuals. Wealth is often used to purchase durable goods and durables are more likely to benefit the entire household rather than one individual in a household. Furthermore, census enumerators tended to sum up the wealth of a household and report it under the head of household. The final sample includes a 1-in-100 random sample from the 1850-70 censuses and supplemental samples of 1-in-50 blacks in 1860 and 1870. The racial breakdown of the pooled sample is 21,416 blacks and 154,569 whites.

Prior to 1865, blacks were not only stratified by skin color--black and mulatto--but they also functioned based on heterogeneous legal rights. Blacks were either bounded in slavery or free, contingent on appropriate documentation. The 1850 and 1860 IPUMS samples only include free blacks. As reported earlier, no detailed individual-level data is available on slaves. Thus, averages of wealth and property holding in the descriptive statistics were weighted based on (i) the size of the free black population relative to slave population in 1850 and 1860 and (ii) the assumption that slaves had no personal and real estate. Blacks were 15.7 percent of the US population in 1850 and 14.2 percent of the population in 1860 (Cramer 1997). But free blacks represented 11.9 percent and 11.0 percent of the black population, respectively. The unweighted averages in 1850 and 1860 represent the experience of (i) the average free black and (ii) the average black if slaves were freed earlier.

The decade before the Civil War was a ripe environment for economic prosperity. Thomas Weiss (1992) found that Gross Domestic Product (GDP) grew by 1.96 percent between 1850 and 1860--higher than any other decade in the pre-war era. He suggested that although perishable output and shelter were the primary components of the gain, residual output also increased significantly. The residual was "the portion of output beyond apparent basic necessities... this was the output needed for industrialization, and of course provided as well the discretionary items that are the fruits of economic progress. In this light, Americans were advancing in style" (Gallman, 1991: 30).

### *Macroeconomic Factors Impacting the Experience of Free Blacks in the United States of America*

The decade immediately before the Civil War was a ripe environment for economic prosperity among free blacks.

"The industrial revolution in the United States was well underway by the 1850's but the end points of the time period were not marked by unusual prosperity or depression. Gold discoveries and growing agricultural exports to Europe contributed to economic growth from the late 1840's to the middle of the decade. The upswing was halted by the Panic of 1857, a financial convulsion from which recovery was substantially complete by 1860" (Steckel 1990, p.374).

## Journal of Social and Administrative Sciences

After making state-level adjustments to agricultural labor force, Weiss (1992) found the growth of Gross Domestic Product (GDP) was higher in the decade before the Civil War than any other decade in the period. Table 7b shows that perishable output and shelter were the primary components of the gain. But the residual increased significantly. The residual was “the portion output beyond apparent basic necessities... this was the output needed for industrialization, and of course provided as well the discretionary items that are the fruits of economic progress. In this light, Americans were advancing in style” (Gallman, 1991: 30).

**Table 7a. Average Annualized Rates of Growth of Per Capita Gross Domestic Product and Components (1840 Prices)**

| Decade  | Growth in GDP | Perishable Output | Non-Perishable Output |                    |                   |          |
|---------|---------------|-------------------|-----------------------|--------------------|-------------------|----------|
|         |               |                   | Shelter               | Home Manufacturing | Farm Improvements | Residual |
| 1800-10 | 0.52          | 0.24              | 0.53                  | -0.03              | 1.80              | 1.16     |
| 1810-20 | 0.27          | 0.00              | 0.83                  | -0.01              | -0.63             | 0.85     |
| 1820-30 | 0.72          | 0.23              | 2.16                  | -0.16              | -1.01             | 1.65     |
| 1830-40 | 1.15          | 0.22              | 2.20                  | -0.46              | -0.70             | 2.74     |
| 1840-50 | 0.93          | 0.44              | -0.75                 | 0.42               | 0.81              | 2.02     |
| 1850-60 | 1.96          | 1.58              | 0.96                  | -0.41              | -2.12             | 3.10     |

**Source:** Information collected and compiled by Curtis Jr, (2002) from Gallman (1991: 31).

*The Descriptive Statistics of the IPUMS Data Employed to Study Free Blacks in the United States of America*

Tables 7b-1, 7c-2 and 7d-3 describe the means of the variables in the IPUMS sample:

**Table 7b-1. The Sample Means of the IPUMS Data, 1850 through 1870**

| Race:                           | Black         |               |       |       |       | White |       |       | Overall |       |
|---------------------------------|---------------|---------------|-------|-------|-------|-------|-------|-------|---------|-------|
|                                 | 1850          | 1860          | 1870  | 1850  | 1860  | 1870  | 1850  | 1860  | 1870    |       |
| Year:                           | Free          | All           | Free  | All   | All   |       |       |       |         |       |
| <b>Wealth Variables</b>         |               |               |       |       |       |       |       |       |         |       |
| Personal Estate                 |               | 208 (23)      | 53    |       | 1,404 | 1,112 |       | 1,363 | 880     |       |
| Real Estate                     | 171 (20)      | 277 (30)      | 71    | 1,336 | 1,975 | 2,436 | 1,311 | 1,916 | 1,919   |       |
| Total Estate                    |               | 484 (53)      | 124   |       | 3,379 | 3,548 |       | 3,280 | 2,799   |       |
| Price-Adjusted Personal Estate  |               | 215 (24)      | 34    |       | 1,506 | 741   |       | 1,462 | 586     |       |
| Price-Adjusted Real Estate      | 189 (22)      | 286 (31)      | 47    | 1,486 | 2,050 | 1,643 | 1,458 | 1,990 | 1,294   |       |
| Price-Adjusted Total Estate     |               | 501 (55)      | 81    |       | 3,556 | 2,384 |       | 3,452 | 1,880   |       |
| Personal Estate > 0             |               | 0.551 (0.061) | 0.211 |       | 0.811 | 0.703 |       | 0.801 | 0.595   |       |
| Real Estate > 0                 | 0.194 (0.023) | 0.245 (0.027) | 0.067 | 0.531 | 0.557 | 0.546 | 0.524 | 0.546 | 0.441   |       |
| Total Estate > 0                |               | 0.585 (0.064) | 0.235 |       | 0.838 | 0.758 |       | 0.829 | 0.643   |       |
| Farm ownership                  | 0.114 (0.014) | 0.119 (0.013) | 0.194 | 0.506 | 0.445 | 0.410 | 0.498 | 0.434 | 0.363   |       |
| <b>Wealth Ratio (to Whites)</b> |               |               |       |       |       |       |       |       |         |       |
| Personal Estate                 |               | 0.148 (0.016) | 0.048 |       |       |       |       | 0.97  | 0.79    |       |
| Real Estate                     | 0.128 (0.015) | 0.140 (0.015) | 0.029 |       |       |       | 0.98  | 0.97  | 0.79    |       |
| Total Estate                    |               | 0.143 (0.016) | 0.035 |       |       |       |       | 0.97  | 0.79    |       |
| Price-Adjusted Personal Estate  |               | 0.143 (0.016) | 0.046 |       |       |       |       | 0.97  | 0.79    |       |
| Price-Adjusted Real Estate      | 0.127 (0.015) | 0.139 (0.015) | 0.029 |       |       |       | 0.98  | 0.97  | 0.79    |       |
| Price-Adjusted Total Estate     |               | 0.141 (0.015) | 0.034 |       |       |       |       | 0.97  | 0.79    |       |
| Personal Estate > 0             |               | 0.679 (0.075) | 0.300 |       |       |       |       | 0.99  | 0.85    |       |
| Real Estate > 0                 | 0.366 (0.043) | 0.440 (0.048) | 0.122 |       |       |       | 0.99  | 0.98  | 0.81    |       |
| Total Estate > 0                |               | 0.698 (0.077) | 0.310 |       |       |       |       | 0.99  | 0.85    |       |
| Farm ownership                  | 0.225 (0.027) | 0.267 (0.029) | 0.473 |       |       |       | 0.98  | 0.98  | 0.88    |       |
| <b>Race Variables</b>           |               |               |       |       |       |       |       |       |         |       |
| Black                           | 1.000         | 1.000         | 1.000 | -     | -     | -     | 0.022 | 0.032 | 0.217   |       |
| Black                           | 0.677         | 0.635         | 0.881 | -     | -     | -     | 0.015 | 0.020 | 0.191   |       |
| Mulatto                         | 0.323         | 0.365         | 0.119 | -     | -     | -     | 0.007 | 0.012 | 0.026   |       |
| White                           | -             | -             | -     | 1.000 | 1.000 | 1.000 | 0.978 | 0.966 | 0.781   |       |
| Other                           | -             | -             | -     | -     | -     | -     | -     | -     | 0.002   | 0.002 |
| Chinese                         | -             | -             | -     | -     | -     | -     | -     | -     | 0.001   | 0.001 |
| Indian                          | -             | -             | -     | -     | -     | -     | -     | -     | 0.001   | 0.001 |
| <b>Schooling Variables</b>      |               |               |       |       |       |       |       |       |         |       |
| Literacy                        | 0.527         | 0.583         | 0.146 | 0.903 | 0.913 | 0.885 | 0.895 | 0.902 | 0.724   |       |
| <b>Occupation Variables</b>     |               |               |       |       |       |       |       |       |         |       |
| Labor Force Participation       | 0.656         | 0.823         | 0.890 | 0.873 | 0.910 | 0.887 | 0.868 | 0.907 | 0.888   |       |
| Unskilled                       | 0.371         | 0.509         | 0.705 | 0.100 | 0.146 | 0.230 | 0.106 | 0.158 | 0.333   |       |
| Skilled                         | 0.166         | 0.191         | 0.071 | 0.218 | 0.233 | 0.227 | 0.217 | 0.232 | 0.193   |       |
| White-Collar                    | 0.018         | 0.019         | 0.009 | 0.085 | 0.107 | 0.119 | 0.083 | 0.104 | 0.095   |       |
| Farmer                          | 0.107         | 0.112         | 0.187 | 0.475 | 0.431 | 0.395 | 0.467 | 0.420 | 0.349   |       |
| Student or Retired              | -             | 0.001         | 0.000 | 0.000 | 0.002 | 0.009 | 0.000 | 0.002 | 0.007   |       |
| Other                           | 0.338         | 0.167         | 0.027 | 0.122 | 0.082 | 0.020 | 0.127 | 0.085 | 0.022   |       |

**Source:** Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

Table 7b-2. The Sample Means of the IPUMS Data, 1850 through 1870

| Race:                                | Free Blacks |        |        | Whites |        |        | Overall |        |        |
|--------------------------------------|-------------|--------|--------|--------|--------|--------|---------|--------|--------|
|                                      | 1850        | 1860   | 1870   | 1850   | 1860   | 1870   | 1850    | 1860   | 1870   |
| <b>Demographic Variables</b>         |             |        |        |        |        |        |         |        |        |
| Male                                 | 0.750       | 0.727  | 0.820  | 0.910  | 0.908  | 0.893  | 0.907   | 0.902  | 0.877  |
| Number of persons in the household   | 4.581       | 4.684  | 4.705  | 5.532  | 5.267  | 5.166  | 5.511   | 5.247  | 5.064  |
| Number of families in the household  | 1.295       | 1.263  | 1.194  | 1.382  | 1.354  | 1.371  | 1.380   | 1.352  | 1.335  |
| Married                              | 0.639       | 0.613  | 0.716  | 0.830  | 0.822  | 0.818  | 0.826   | 0.814  | 0.794  |
| Number of children > 0               | 0.888       | 0.715  | 0.746  | 0.818  | 0.810  | 0.804  | 0.815   | 0.806  | 0.790  |
| Number of children                   | 2.023       | 2.117  | 2.233  | 2.819  | 2.619  | 2.504  | 2.802   | 2.600  | 2.442  |
| Number of children under 5 years old | 0.589       | 0.553  | 0.682  | 0.752  | 0.750  | 0.662  | 0.748   | 0.742  | 0.665  |
| Youngest child                       | 4.916       | 5.675  | 4.413  | 5.239  | 5.173  | 5.750  | 5.232   | 5.187  | 5.452  |
| Oldest child                         | 9.366       | 10.521 | 9.462  | 11.372 | 10.852 | 11.317 | 11.328  | 10.834 | 10.899 |
| Age                                  | 42.450      | 42.890 | 39.839 | 41.525 | 41.384 | 42.806 | 41.546  | 41.424 | 42.146 |
| < 20 years old                       | 0.009       | 0.007  | 0.018  | 0.003  | 0.004  | 0.004  | 0.003   | 0.004  | 0.007  |
| 20-29 years old                      | 0.182       | 0.176  | 0.258  | 0.197  | 0.195  | 0.172  | 0.197   | 0.194  | 0.191  |
| 30-39 years old                      | 0.274       | 0.254  | 0.248  | 0.301  | 0.304  | 0.276  | 0.300   | 0.302  | 0.270  |
| 40-49 years old                      | 0.225       | 0.244  | 0.214  | 0.231  | 0.233  | 0.243  | 0.231   | 0.233  | 0.236  |
| 50-59 years old                      | 0.171       | 0.170  | 0.146  | 0.149  | 0.151  | 0.172  | 0.149   | 0.151  | 0.166  |
| 60-69 years old                      | 0.085       | 0.093  | 0.080  | 0.082  | 0.080  | 0.093  | 0.082   | 0.080  | 0.090  |
| 70-79 years old                      | 0.035       | 0.035  | 0.026  | 0.029  | 0.027  | 0.033  | 0.029   | 0.028  | 0.032  |
| 80-89 years old                      | 0.009       | 0.018  | 0.007  | 0.007  | 0.006  | 0.006  | 0.007   | 0.006  | 0.006  |
| 90+ years old                        | 0.009       | 0.004  | 0.003  | 0.001  | 0.001  | 0.000  | 0.001   | 0.001  | 0.001  |
| <b>Region Variables</b>              |             |        |        |        |        |        |         |        |        |
| Rural                                | 0.621       | 0.615  | 0.863  | 0.802  | 0.753  | 0.718  | 0.798   | 0.749  | 0.749  |
| Metropolitan area                    | 0.224       | 0.258  | 0.066  | 0.122  | 0.172  | 0.196  | 0.125   | 0.175  | 0.168  |
| Slave state                          | 0.528       | 0.525  | 0.908  | 0.286  | 0.255  | 0.249  | 0.291   | 0.263  | 0.391  |
| Northeast                            | 0.054       | 0.050  | 0.006  | 0.145  | 0.121  | 0.106  | 0.143   | 0.118  | 0.084  |
| Mid-Atlantic                         | 0.304       | 0.253  | 0.033  | 0.293  | 0.276  | 0.252  | 0.293   | 0.275  | 0.204  |
| Midwest                              | 0.113       | 0.153  | 0.052  | 0.263  | 0.320  | 0.361  | 0.260   | 0.314  | 0.294  |
| Southeast                            | 0.493       | 0.474  | 0.747  | 0.256  | 0.215  | 0.208  | 0.261   | 0.223  | 0.324  |
| Southwest                            | 0.035       | 0.050  | 0.161  | 0.031  | 0.040  | 0.041  | 0.031   | 0.040  | 0.067  |
| West                                 | 0.001       | 0.019  | 0.002  | 0.012  | 0.028  | 0.032  | 0.012   | 0.030  | 0.027  |
| Moved to Northeast                   | 0.023       | 0.023  | 0.003  | 0.023  | 0.029  | 0.031  | 0.023   | 0.029  | 0.025  |
| Moved to Mid-Atlantic                | 0.097       | 0.079  | 0.012  | 0.106  | 0.117  | 0.109  | 0.106   | 0.116  | 0.088  |
| Moved to Midwest                     | 0.102       | 0.118  | 0.037  | 0.210  | 0.244  | 0.251  | 0.208   | 0.239  | 0.204  |
| Moved to Southwest                   | 0.010       | 0.013  | 0.102  | 0.026  | 0.033  | 0.033  | 0.026   | 0.033  | 0.048  |
| Moved to Southeast                   | 0.006       | 0.006  | 0.006  | 0.025  | 0.026  | 0.027  | 0.025   | 0.025  | 0.023  |
| Moved to West                        | 0.001       | 0.016  | 0.002  | 0.009  | 0.025  | 0.029  | 0.009   | 0.025  | 0.024  |
| Stayed in Northeast                  | 0.031       | 0.028  | 0.003  | 0.123  | 0.092  | 0.075  | 0.121   | 0.089  | 0.059  |
| Stayed in Mid-Atlantic               | 0.207       | 0.174  | 0.021  | 0.187  | 0.158  | 0.144  | 0.188   | 0.158  | 0.117  |
| Stayed in Midwest                    | 0.010       | 0.035  | 0.015  | 0.053  | 0.076  | 0.110  | 0.052   | 0.075  | 0.090  |
| Stayed in Southwest                  | 0.025       | 0.038  | 0.058  | 0.005  | 0.006  | 0.008  | 0.005   | 0.007  | 0.019  |
| Stayed in Southeast                  | 0.486       | 0.469  | 0.741  | 0.230  | 0.190  | 0.180  | 0.236   | 0.198  | 0.302  |
| Stayed in West                       | -           | 0.002  | 0.000  | 0.004  | 0.004  | 0.003  | 0.004   | 0.005  | 0.003  |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

Table 7b-3. The Sample Means of the IPUMS Data, 1850 through 1870

| Race:                               | Free Blacks |       |        | Whites |        |        | Overall |        |        |
|-------------------------------------|-------------|-------|--------|--------|--------|--------|---------|--------|--------|
|                                     | 1850        | 1860  | 1870   | 1850   | 1860   | 1870   | 1850    | 1860   | 1870   |
| <b>Region Variables (continued)</b> |             |       |        |        |        |        |         |        |        |
| Migrated to a different state       | 0.340       | 0.343 | 0.359  | 0.545  | 0.594  | 0.597  | 0.540   | 0.586  | 0.546  |
| Migrated to a different region      | 0.241       | 0.255 | 0.162  | 0.398  | 0.474  | 0.479  | 0.395   | 0.467  | 0.411  |
| Born in Northeast                   | 0.035       | 0.038 | 0.004  | 0.174  | 0.134  | 0.108  | 0.171   | 0.130  | 0.085  |
| Born in Mid-Atlantic                | 0.225       | 0.197 | 0.024  | 0.266  | 0.242  | 0.223  | 0.265   | 0.240  | 0.179  |
| Born in Midwest                     | 0.012       | 0.037 | 0.020  | 0.058  | 0.084  | 0.120  | 0.057   | 0.083  | 0.099  |
| Born in Southeast                   | 0.682       | 0.669 | 0.886  | 0.325  | 0.274  | 0.254  | 0.333   | 0.286  | 0.391  |
| Born in Southwest                   | 0.026       | 0.041 | 0.063  | 0.005  | 0.007  | 0.009  | 0.006   | 0.008  | 0.021  |
| Born in West                        | -           | 0.002 | 0.000  | 0.004  | 0.004  | 0.003  | 0.004   | 0.005  | 0.003  |
| Born in other US Territory          | 0.001       | 0.001 | 0.000  | 0.001  | 0.000  | 0.000  | 0.001   | 0.000  | 0.000  |
| Born in foreign country             | 0.019       | 0.015 | 0.002  | 0.168  | 0.256  | 0.282  | 0.165   | 0.248  | 0.222  |
| <b>Price Index</b>                  |             |       |        |        |        |        |         |        |        |
| Regional Price Index                | 88.45       | 93.53 | 158.32 | 90.15  | 97.46  | 149.86 | 90.11   | 97.34  | 151.69 |
| Number of Observations              | 773         | 1,703 | 18,940 | 34,671 | 51,776 | 68,122 | 35,444  | 53,594 | 87,227 |

Source: Information collected, calculated and compiled by Curtis Jr, (2002); IPUMS

Five years after emancipation, blacks made gains in the total wealth. Total wealth includes the value of personal and other wealth. The value of southern total estate was inflated by the value of slaves. Slave owners included the value of slaves in their personal estate.

On average, the value of black total wealth, adjusted by regional prices, was \$124 in 1870 while whites held \$3,548 in total estate. Total estate wealth grew by 47 percent between 1860 and 1870 among blacks while white total estate wealth fell 33 percent between 1860 and 1870. See the empirical results section for a complete discussion of black-white wealth differences.

Black-white differences in schooling and employment were also quite large in 1870. 14.6 percent of the black population was literate while 88.5 percent of the white population could read and write. While 89 percent of both, blacks and whites, were employed, occupation concentrations were different. In 1870, 70.5 percent of blacks had unskilled jobs, compared to 23 percent of whites. In contrast, 18.8 percent of blacks were either white-collar workers or farmers, compared to 53.8 percent of whites.

White occupational concentrations changed quite dramatically between 1850 and 1870. The portion of white unskilled workers grew 46.2 percent between 1850 and 1860 and 57.3 percent between 1860 and 1870 while the portion of white-collar worker grew less dramatically during this period. The portion of white-collar workers grew 25.8 percent between 1850 and 1860 and 12.1



## Journal of Social and Administrative Sciences

percent between 1860 and 1870. Simultaneously, the portion of white farmers fell 9.3 percent between 1850 and 1860 and 8.4 percent between 1860 and 1870. Naturally, this coincided with a continual decline in farm ownership among whites over the twenty-year period.

Blacks and whites were also different demographically in 1870. 18 percent of black households had female heads while only 10.7 percent of white households had female heads. Similarly, only 71.6 percent of black household heads were married while 81.8 percent of white household heads were married. White households also had more residents, including children. Furthermore, the average age of the white household head, youngest child and oldest child is older than the average ages of the black household head, youngest child and oldest child, respectively. White demographics gradually changed over the twenty-year period. The number of persons in a household, number households with children and number of children all fell. Simultaneously, the number of white male and white married household heads fell. Among free blacks, the proportion that was male and married also fell between 1850 and 1860.

Regional differences were also quite large in 1870. The only dramatic regional differences among whites prior to 1870 were changes in the western and foreign-born population. 12 percent of whites lived in west in 1850. This portion of the population grew by 129 percent between 1850 and 1860 and 12 percent between 1860 and 1870. Additionally, Joseph Ferrie reports that the portion of white foreign-born population grew by 52 percent between 1850 and 1860 and 10 percent between 1860 and 1870 (1999). 1850 and 1860 free blacks were regionally different than whites and all blacks in 1870. Only one-in-two free blacks lived in slave states, with the remaining plurality living in the Mid-Atlantic. More than one-in-three free blacks lived in urban areas between 1850 and 1860—significantly larger than whites and all blacks in 1870. One-in-three free blacks were also born outside of the southeast region in 1850 and 1860. Furthermore, 34 percent of free blacks migrated to a different state in 1850 and 1860 and over seventy percent of these migrants migrated to a new region. Only one-in-four whites lived in former slave states while nine out of ten blacks lived in former slave states. As a result blacks were more likely to live in rural areas than blacks (86.3 percent of blacks to 71.8 percent of whites). This occurred because whites were more regionally mobile than blacks. 35.9 percent of blacks migrated from their birth state and 45 percent these migrants reside in a new region. However, 59.7 percent of whites migrated from their birth state and 80 percent of these migrants changed regions. The key regional difference may be that only 11.4 percent of blacks were born outside the Southeast while the largest birth segment among whites was foreign-born (28.2 percent). Joseph Ferrie conducts a thorough analysis of the immigrant experience during this period (1999).

Five years after emancipation, blacks, on average, held \$71 in real estate wealth while whites held \$2,437. These estimates are consistent with the estimates of Soltow (1972; 1975). Although Soltow (1972) only collected a sample of 393 non-whites in 1870, he found their average wealth was \$73, compared to \$2,661 among whites. Soltow (1975) found similar differences in free black and white wealth using a sample of 151 blacks. He conducted one of the first in-depth studies of mid-nineteenth century wealth accumulation patterns using the census population schedules. Note that these schedules were originally are stored on microfilms. He spun the microfilm half-turns to collect random, cross-sectional samples from 1850-1870. He found that average black wealth in 1870 was \$74 while average white wealth in \$2,691.

Given that blacks held only 2.9 percent of the average white real estate wealth in 1870—up from the 1.5 percent in 1850 and 1860, the fact that the growth of real estate wealth favored blacks over this time period may not be surprising. Among blacks, average real estate wealth, adjusted by regional prices, grew by 28 percent between 1850 and 1860 and 33 percent between 1860 and 1870. Among whites, price adjusted real estate wealth also grew by 28 percent between 1850 and 1860 but fell by 25 percent between 1860 and 1870. This white wealth recession was primarily due to the losses incurred by the southern whites after the Civil War.

Property-holding patterns were similar to real estate wealth patterns. Only 6.7 percent of blacks in 1870 held property (or a positive value of real estate wealth) while 54.6 percent of whites held property in 1870. The growth in black property-holders outpaced the growth of black real estate wealth. Blacks property holders grew 17 percent between 1850 and 1860 and 148 percent between 1860 and 1870. Among whites, property holders grew by five percent between 1850 and 1860 and fell two percent between 1860 and 1870. Overall, the ratio of black to white property holders was 12.2 percent in 1870, up from 4.3 percent in 1850 and 4.8 percent in 1860.

Blacks made similar gains in the total estate. Total estate includes the value of personal estate and real estate. The value of southern total estate was inflated by the value of slaves. Slave owners included the value of slaves in their personal estate. On average, the value of black total estate wealth, adjusted by regional prices, was \$124 in 1870 while whites held \$3,548 in total estate. Total estate wealth grew by 47 percent between 1860 and 1870 among blacks while white total estate wealth fell 33 percent between 1860 and 1870. Black total estate holders (or blacks possessing a positive value of total estate wealth) grew by 265 percent to 23.5 percent in 1870 while white total estate holders fell by 9.6 percent to 75.8 percent in 1870. Overall, the ratio of black to white total estate wealth was 3.5 percent while the ratio of black to white total estate holders was 31 percent in 1870.

These descriptive statistics document the general improvements in the condition of the average black relative to the average white after the abolition of slavery.

### References

- Attack, J., & Bateman, F. (1981). Egalitarianism, inequality, and age: The rural north in 1860, *Journal of Economic History*, 41(1), 85-93. doi. [10.1017/S0022050700042807](https://doi.org/10.1017/S0022050700042807)
- Becker, G.S. (1957). *The Economics of Discrimination*, Chicago: Chicago, 1957.
- Berlin, I. (1974). *Slaves Without Masters: The Free Negro in the Antebellum South*, New York: Pantheon.
- Birknes, D., & Dodge, Y. (1993). *Alternative Methods of Regression*, New York: John Wiley.
- Bodenhorn, H. (1999). The economic consequences of color among free negroes in rural antebellum south, *Working Paper*, Lafayette College.
- Bodenhorn, H. (1999). The mulatto advantage: The biological consequences of complexion in rural antebellum Virginia, *Working Paper*, Lafayette College, June.
- Buchinsky, M. (1998). Recent advances in quantile regression models: A practical guide for empirical research, *Journal of Human Resources*, 33(1), 88-126. doi. [10.2307/146316](https://doi.org/10.2307/146316)
- Coelho, P.R., & Shepherd, C.F. (1974). Differences in regional prices: The United States, 1851-1880, *Journal of Economic History*, 34(3), 551-591. doi. [10.1017/S0022050700079808](https://doi.org/10.1017/S0022050700079808)
- Conley, D. (1999). *Being Black, Living in the Red: Race Wealth, and Social Policy in America*, Berkeley: University of California.
- Conley, T., & Galenson, D. (1994). Quantile regression analysis of censored wealth data, *Historical Methods*, 27(4), 149-165. doi. [10.1080/01615440.1994.10594230](https://doi.org/10.1080/01615440.1994.10594230)
- Conley, T.G., Galenson, D., & Herscovici, S. (1995). Economic opportunity in urban America: Region, nativity and wealth in the mid-nineteenth century, Working Paper.
- Cramer, C.E. (1997). *Black Demographic Data, 1790-1860: A Sourcebook*, Westport: Greenwood.
- Curry, L. (1981). *The Free Black in Urban America, 1800-1850: The Shadow of the Dream*, Chicago: Chicago University Press.
- Curtis, Jr, J.E. (2017). A theory of wealth accumulation considering modern net savings gradualism the impact of unresolved long run differences in wealth accumulation on the annualized net savings in the USA. *Journal of Economics Bibliography*, 4(4), 373-378.
- Curtis, Jr, J.E. (2017). Designing JECJEF University, *Working Paper*. July 31.
- Curtis, Jr, J.E. (2017). Economics, a student textbook and professor Manual for university instruction of microeconomics courses, 3rd Edition, *Working Paper*, July 31.
- Curtis, Jr, J.E. (2012). Freedom laws and economics of ethnicity, *Working Paper*, No.1701423.
- Curtis, Jr, J.E. (2002). Long-run differences in wealth: A microdata analysis of US White-Black differences in wealth directly after mass emancipation of Southern Slaves, *Working Paper*, No.1701373.
- Curtis, Jr, J.E. (2013). The enduring faith center, a chronological memior of a church formed by J.E. Curtis Jr, *Working Paper*, December 31.
- Curtis, Jr, J.E. (2011). Wealth and faith, what is your real reason? Is it Jesus?, *Working Paper*, No.1793848.
- Curtis, Jr, J.E. (2011). Wealth discrimination theory, *Working Paper*, No.1751670.
- Decanio, S.J. (1979). Accumulation and discrimination in the post-bellum south, exploration, *Economic History*, 16(2), 182-206.
- DuBois, W.E.B. (1899). *The Philadelphia Negro: A Social Study*, New York: Schocken.
- Easterlin, R.A. (1961). *Regional Income Trends, 1840-1950*, *American Economic History*, New York: McGraw-Hill.
- Easterlin, R.A. (1968). Population, Labor Force, and Long Swings in Economic Growth: The American Experience, *NBER Working Paper*.
- Eblen, J.E. (1972). Growth of the black population in ante bellum America, 1820-1860, *Population Studies*, 26(2), 273-289. doi. [10.1080/00324728.1972.10405550](https://doi.org/10.1080/00324728.1972.10405550)
- Eggert, G. (2008). Two-steps forward, a step and a half back: Harrisburg's African American community in the nineteenth century, in J. Trooter Jr (Ed), *African Americans in Pennsylvania: Shifting Historical Perspectives*, Pennsylvania: Pennsylvania State University.
- Ferrie, J.P. (1994). The wealth accumulation of antebellum European immigrants to the U.S., 1840-60, *Journal of Economic History*, 54(1), 1-33. doi. [10.1017/S0022050700013978](https://doi.org/10.1017/S0022050700013978)
- Ferrie, J.P. (1996). A new sample of males linked from the public use microdata sample of the 1850 U.S. federal census of population to the U.S. federal census manuscript schedules, *Historical Methods*, 29(4), 141- 156. doi. [10.1080/01615440.1996.10112735](https://doi.org/10.1080/01615440.1996.10112735)
- Ferrie, J.P. (1999). *Yankeys Now: Immigrants in the Antebellum United States, 1840-1860*, New York: Oxford.
- Franklin, J.H. (1943). *The Free Negro in North Carolina, 1790-1860*, New York: Russell.
- Galenson, D.W. (1991). Economic opportunity on the urban frontier: Nativity, work and wealth in early Chicago, *Journal of Economic History*, 51, 581-603. doi. [10.1017/S0022050700039577](https://doi.org/10.1017/S0022050700039577)
- Galenson, D.W., & Pope, C.L. (1989). Economic and geographic mobility on the farming frontier: Evidence from appanoose county, Iowa, 1850-1870, *Journal of Economic History*, 49, 635-655. doi. [10.1017/S0022050700008792](https://doi.org/10.1017/S0022050700008792)
- Greaves, I.C. (\*\*\*\*). *The Negro in Canada*, Montreal: Packet-Times Press.
- Greene, L.J., & Woodson, C.G. (1930). *The Negro Wage Earner*, Washington: Association for the Study.
- Greene, W. (1997). *Econometric Analysis*, New Jersey: Princeton Hall.

## Journal of Social and Administrative Sciences

- Hamburg, M. (1989). *Statistical Analysis for Decision Making*, San Diego: Harcourt Brace Jovanovich.
- Herscovici, S. (1995). Migration and economic mobility: Wealth accumulation and occupational change among antebellum migrants and non-migrants, Working Paper, October.
- Higgs, R. (1982). Accumulation of property by Southern Blacks Before World War I, *American Economic Review*, 72(4), 725-737.
- Hornsby, A. (1989). The accumulation of wealth by black Georgians, 1890-1915, *Journal of Negro History*, 74(1), 11-30. doi. [10.1086/JNHv74n1-4p11](https://doi.org/10.1086/JNHv74n1-4p11)
- Hurst, E., (1998). The wealth dynamics of American families, 1884-94, *Brookings Papers on Economic Activity*, 1, 267-337.
- Jackson, L.P. (1939). The Virginia free negro farmer and property owner, *Journal of Negro History*, 24(4), 390-439. doi. [10.2307/2714362](https://doi.org/10.2307/2714362)
- Juhn, C., (1991). Accounting for the slowdown in black-white wage convergence, in H.M. Koster (ed.), *Workers and Their Wages*, DC: American Enterprise Institute.
- Koenker, R., & Bassett, Jr. G. (1978). Regression quantiles, *Econometrica*, 46(1), 33-50. doi. [10.2307/1913643](https://doi.org/10.2307/1913643)
- Landon, F. (1920). The negro migration to Canada after passing the fugitive slave act, *Journal of Negro History*, 5(1), 22-36. doi. [10.2307/2713499](https://doi.org/10.2307/2713499)
- Litwick, L.F. (1958). The federal government and the free negro, 1790-1860, *Journal of Negro History*, 43(4), 261-278. doi. [10.2307/2716144](https://doi.org/10.2307/2716144)
- Litwick, L. (1961). *North of Slavery: The Negro in the Free State, 1790-1860*, Chicago: University of Chicago.
- Magnuson, D.L. (1940). *The Making of a Modern Census: The United States Census of Population, 1790-1940*, University of Minnesota, Doctoral Dissertation.
- Magnuson, D.L. (1995). Who and what determined the content of the U.S. population schedule over time, *Historical Methods*, 28(1), 11-26. doi. [10.1080/01615440.1995.9955309](https://doi.org/10.1080/01615440.1995.9955309)
- Magnuson, D.L. & King, M.L. (1995). Comparability of the public use of microdata samples: Enumeration procedures, *Historical Methods*, 28(1), 27-32. doi. [10.1080/01615440.1995.9955310](https://doi.org/10.1080/01615440.1995.9955310)
- Margo, R. (1984). Accumulation of property by southern blacks before World War I: Comment and further evidence, *American Economic Review*, 74(4), 768-774.
- Margo, R.R. (1990). *Schooling in the South: 1880-1915, An Economic History*, Chicago: University of Chicago Press.
- McKee, J.W. (1934). The conflict between state laws prohibiting the entrance of free negroes and the privileges and immunities clause of the federal constitution in the period, 1789-1860, The Ohio State University, Doctoral Dissertation.
- McPherson, J.H.T. (1891). *History of Liberia*, Baltimore: John Hopkins University Press.
- Mechlinger, L.R. (1916). The attitude of the free negro toward colonization, *Journal of Negro History*, 1(3), 276-301. doi. [10.2307/3035624](https://doi.org/10.2307/3035624)
- Miller, K. (1922). Enumeration errors in the negro population, *Scientific Monthly*, 14, 168-177.
- Mincer, J. (1958). Investments in human capital and personal income distribution, *Journal of Political Economy*, 66, 281-302. doi. [10.1086/258055](https://doi.org/10.1086/258055)
- Mincer, J. (1974). *Schooling, Experience, and Earnings*. New York: Columbia University.
- Pennsylvania Abolition Society, (1838). *The Present State and Condition of the People of Color of the City of Philadelphia and Adjoining Districts*, Philadelphia.
- Pope, C.L. (1989). Households on the American frontier: The distribution of income and wealth in Utah, 1850-1900, D.W. Galenson (Ed), *Markets in History: Economic Studies of the Past*, Cambridge: Cambridge.
- Provine, D. (1973). The economic position of the free blacks in the district of Columbia, 1800-1860, *Journal of Negro History*, 58(1), 61-72. doi. [10.2307/2717156](https://doi.org/10.2307/2717156)
- Ruggles, S., & Sobek, M. (1997). *Integrated Public Use Microdata Series: Version 2.0*, Minneapolis: Historical Census Projects, University of Minnesota.
- Ruggles, S., & Menard, R.R. (1995). The Minnesota historical census projects, *Historical Methods*, 28(1), 6-10. doi. [10.1080/01615440.1995.9955308](https://doi.org/10.1080/01615440.1995.9955308)
- Ruggles, S. (1995). General design of the integrated public use microdata series, *Historical Methods*, 28(1), 31-39. doi. [10.1080/01615440.1995.9955311](https://doi.org/10.1080/01615440.1995.9955311)
- Schaefer, D.F. (1987). A model of migration and wealth accumulation: Farmers at the antebellum southern frontier, *Explorations in Economic History*, 24(3), 130-157. doi. [10.1016/0014-4983\(87\)90009-X](https://doi.org/10.1016/0014-4983(87)90009-X)
- Shorrocks, A.F. (1978). The measurement of mobility, *Econometrica*, 46(5), 1013-1024. doi. [10.2307/1911433](https://doi.org/10.2307/1911433)
- Snyder, D.C. (1989). A database with income and assets of new retirees by race and hispanic origin, *Review of Black Political Economy*, 71(4), 5-25.
- Society of Friends, (1849). *Statistical Inquiry into the Condition of the Free People of the City and Districts of Philadelphia*, Philadelphia.
- Soltow, L. (1972). A century of personal wealth accumulation, in H.G. Vatter & T. Palm (ed), *The Economics of Black America*, (pp.80-84), New York: Harcourt Brace Jovanovich.
- Soltow, L. (1975). *Men & Wealth in the United States*. New Haven: Yale.
- Spriggs, W.E. (1984). Afro-American wealth accumulation, Virginia, 1900-1914, University of Wisconsin at Madison, Ph.D. Dissertation.

## Journal of Social and Administrative Sciences

- Steckel, R.H. (1988). Census matching and migration: A research strategy, *Historical Methods*, 21(2), 52-60. doi. [10.1080/01615440.1988.9955280](https://doi.org/10.1080/01615440.1988.9955280)
- Steckel, R.H. (1990). Poverty and prosperity: A longitudinal study of wealth accumulation, 1850-1860, *The Review of Economics and Statistics*, 72(2), 275-285. doi. [10.2307/2109717](https://doi.org/10.2307/2109717)
- Steckel, R.H. (1995). Stature and standards of living, *Journal of Economic Literature*, 33(4), 1903-1940.
- Steckel, R.H. (1991). The quality of census data for historical inquiry: A research agenda, *Social Science History*, 15(4), 579-599. doi. [10.1017/S0145553200021313](https://doi.org/10.1017/S0145553200021313)
- Steckel, R.H., Moehling, C. (2000). Wealth inequality in industrializing New England: New evidence and tests of competing hypothesis, *Journal of Economic History*, doi. [10.3386/h0122](https://doi.org/10.3386/h0122)
- Steckel, R. (1994). Census manuscript Schedules Matched with property tax lists: A source of information on long-term trends in wealth inequality, *Historical Methods*, 27(2), 71-85. doi. [10.1080/01615440.1994.10594225](https://doi.org/10.1080/01615440.1994.10594225)
- Steckel, R. (1989). Household migration and rural settlement in the United States, 1850-1860, *Explorations in Economic History*, 26(2), 190-218. doi. [10.1016/0014-4983\(89\)90010-7](https://doi.org/10.1016/0014-4983(89)90010-7)
- Steckel, R. (2000). The African American population of the United States, 1790-1920, *A Population History of North America*.
- The Christian Life (1982). *New Testament, Master Outlines and Study Notes*, New King James Version, Nashville: Thomas Nelson.
- Thünen, J.H. (1966). *Isolated state; An English edition of der isolierte staat*. Translated by C.M. Wartenberg. Oxford, New York, Pergamon Press.
- US Bureau of the Census, (1918). *Negro Population, 1790-1915*, Washington: Government Printing Office.
- US Census Office, (1864). *The Eighth Census of the United States: 1860*, Washington: Government Printing Office.
- US Census Office, (1853). *The Seventh Census of the United States: 1850*, Washington: Robert Armstrong.
- Weiss, T. (1992). U.S. labor force estimates and economic growth, 1800-1860, in R.E. Gallman and J. Wallis (Eds), *American Economic Growth and Standards of Living Before the Civil War*, (pp.19-78), Chicago: University of Chicago.
- Wikimedia Foundation, (2004). *The Free Encyclopedia*, Encyclopedia on-line.
- White, B.B. (1978). Empirical tests of the life cycle hypothesis, *American Economic Review*, 68(4), 547-560.
- Wilkie, J.R. (1976). Distribution of the US population by race and urban-rural residence, 1790-1860: Reference tables, *Demography*, 13(3), 139-148.
- Wilkie, J.R. (1976). Urbanization and de-urbanization of the black population before the civil war, *Demography*, 13(3), 311-328.
- Wolff, E.N. (1981). Life-cycle: A microdata analysis, *Income and Wealth*, 27(1), 75-91. doi. [10.1111/j.1475-4991.1981.tb00193.x](https://doi.org/10.1111/j.1475-4991.1981.tb00193.x)
- Wolff, E. (1992). Changing inequality of wealth, *American Economic Review: Papers and Proceedings of the One Hundred and Fourth Annual Meeting of the American Economic Association*, 82(2), 552-558. doi. [10.1257/aer.p20161036](https://doi.org/10.1257/aer.p20161036)
- Wolff, E. (1998). Recent trends in the size distribution of household wealth, *Journal of Economic Perspectives*, 12(3), 131-150. doi. [10.1257/jep.12.3.131](https://doi.org/10.1257/jep.12.3.131)
- Woodson, C.G. (1925). *Free Negro Heads of Families in the Unites in 1830*, Washington: Association for the Study of Negro Life and History.
- Woodson, C.G. (1924). *Free Negro Owners of Slaves in the United States in 1830*, New York: Negro Universities.
- Woodson, C.G. (1968). *The Education of the Negro Prior to 1861*, New York: Arno.
- Woolfolk, G.R. (1976). *The Free Negro in Texas 1800-1860: A Study of Cultural Compromise*, Michigan: University Microfilms International, 1976.
- Wright, C.D. (1900). *The History and Growth of the United States Census*, Washington: Government Printing Office.
- Zelinsky, W. (1949). The historical geography of the negro population of Latin America, *Journal of Negro History*, 34(2), 153-221. doi. [10.2307/2715432](https://doi.org/10.2307/2715432)
- Zelinsky, W. (1950). The population geography of the free negro in antebellum America, *Population Studies*, 3(4), 386-401.



### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by-nc/4.0>).

