Spring 5-5-2018

The Economics of Skin Tone in Nineteenth-Century Maryland

Yuree Kim
CUNY Hunter College

The Economics of Skin Tone in Nineteenth-Century Maryland

by

Yuree Kim

Submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Economics, Hunter College
The City University of New York

May 2018

Thesis sponsor:

May 3, 2018	Matthew J. Baker
Date	First Reader
May 3, 2018	Randall K. Filer
Date	Second Reader

Abstract

In this paper, I analyze the effect of subtle differences in skin complexion on heights of free African Americans in Maryland during the nineteenth century. Current literature has theories of lighter-skinned African Americans being more likely to have had better nutritional status than darker-skinned African Americans. Using height as a measure of nutritional status, I propose that lighter-skinned African Americans were as a result taller (indicating better nutrition) and therefore had better socioeconomic outcomes. Using administrative records data from the Maryland State Archives, I find that lighter-complected African Americans were indeed taller than darker-complected African Americans - 15.9% taller for males and 16.5% taller for females. These results are consistent with existing theories of the relationship between anthropometric history and colorism.

Keywords: Colorism, African Americans, skin color, anthropometric history, nutritional status, socioeconomic outcomes, economic history.

Acknowledgements

I would like to express immense gratitude to Dr. Matthew J. Baker and Dr. Randall K. Filer for their admirable patience and brilliant guidance. I would also like to thank my fellow colleagues for their help and support through this invigorating process.

Contents

1 Introduction

The South's "peculiar institution" indeed had a peculiar aspect - the paradoxical combination of black slavery and black freedom existing side by side. Just as whites claimed supremacy over blacks, light-complected African Americans realized a variety of advantages over their darker counterparts. Using height as a measure of nutritional status, I propose that lighter-skinned African Americans were as a result taller (indicating better nutrition) and therefore had better socioeconomic outcomes. This article uses a unique data set to reconstruct the anthropometric history of antebellum Maryland. The purpose is to assess the biological consequences of skin complexion and confirm the hypothesis that subtle complexion differences in African Americans were significant determinants in socioeconomic status in the Upper South of antebellum America.

2 Literature Review

2.1 Height as a Measure of Nutrition

The correlation between nutritional status and height is not to be ignored. Economic historians often use height as a measure of nutritional status to analyze the relationship between biological processes and economics. It is also a common practice in scientific publications,[1] but for the purpose of this study, this literature will only review the ones pertaining to economics.

[1] Silventoinen, 2003; Bozzoli, Deaton, & Quintana-Domeque, 2009; and Portrait, van Wingerden, & Deeg (2017) to name a few.

Height is often recognized as a good and available reflection of nutritional status in historical data. For example, Margo and Steckel (1983) use Civil War muster rolls to analyze the nutritional status of the native-born white population during antebellum America. They note the use of height data as a measure of nutritional status is based off of "well defined patterns of human growth that reflect the interaction of genetic and environmental factors," regardless of race.[2] Komlos (1989) integrates advances in the study of human biology and nutrition with physical stature, population growth, and levels of economic development to reveal the Malthusian crisis in Habsburg, Austria during the second half of the eighteenth century. He describes the importance of the history of human stature on nutritional status as a "determining factor of the degree to which the height of an individual, and of a population, reaches its genetic potential." Floud, Gregory, & Wachter (1990) also uses height as a measure of nutritional status. Their study uses military and philanthropic data to assess the changing heights of the British population during the Industrial Revolution. Height-by-age data is a better gauge of nutrition than most readily available alternatives. Although genetic variation is a major factor in terminal height, physiologists agree that the distribution of heights can provide simple yet powerful indices of the average nutritional status for a population or subgroup. Using anthropometric evidence of Virginians, Bodenhorn (2002) confirms the hypothesis that complexion differences in African Americans were as important a determinant of socioeconomic status in the rural Upper South as in the urban Lower South, with the advantage given to mulattoes. He finds light-complected African American adults were taller than darker-complected ones. In addition, Bodenhorn (2002) remarks how light-skinned African American children benefited from nutritional advantages in adolescence that dark-skinned children did not. These advantages in

[2] See Margo & Steckel (1983) for synopses of earlier studies.

adolescence translated into substantially taller light-skinned adults. In his most recent book publication, Bodenhorn (2015) studies the differences in height between African American children and adults with mixed race and African Americans with presumably mostly African descent, and the consequences of racial and color ordering. Using a combined Virginia-Maryland dataset and a Preece-Baines model, he finds that mixed-race African Americans were indeed taller in comparison to dark-skinned African Americans. He contends the height evidence is consistent with the hypothesis that antebellum South was not divided by the one-drop rule.[3] Because antebellum Southerners embraced the ambiguities of color, mixed-race people enjoyed the benefits of advantageous treatment relative to that received by blacks (Bodenhorn, 2015).

It is worthwhile to note that numerous studies also recognize the association between height and living standards. Nicholas and Steckel (1991) use data on the heights of English and Irish male convicts transported to Australia to assess the living standards of workers between 1770 and 1815. They find that overall terminal heights were falling among urban- and rural-born males after 1780, and that it was an indication of declining living standards among English workers during the Industrial Revolution relative to that of convicts transported from Ireland. In another secular study, Komlos (1993) uses army and marines data to explore the trend in British height from 1730-1860 in hopes to quantify nutritional status from the beginning of the Industrial Revolution to its immediate aftermath. As the correlation between height and standard of living is seminal in his study, he notes because income determines food consumption, income is correlated to biological well-being, and therefore biological and economic measures are thus interrelated.

[3] The 'one-drop' rule refers to a 1662 Virginia law that classified anyone with even one ancestor of African descent (one-drop of black blood) as 'black'.

2.2 Colorism: Skin Tone and Privilege

What qualities did slave owners look for? The answers to this question help establish the background for colorism in nineteenth-century African Americans. Colorism is defined as "an intraracial system of inequality based on skin color, hair texture, and facial features that bestows privilege and value on physical attributes that are closer to white" (Wilder & Cain, 2011). The story behind the effects of skin color on preferences is a complicated one to explain. On one hand, slave owners could have seen lighter-skinned, taller slaves as healthier and more productive for field work, hence bringing their economic value down. On the other hand, the relationship could have been the exact opposite, in that white employers preferred lighter-skinned, taller slaves in the house where they would be in close contact with other whites. There has been considerable research into the relationship between skin tone and privilege. Prior work is consistent with the idea that skin tone played a major role in shaping social and economic stratification patterns within and outside of the black community. Many authors (Blackwell, 1975; Drake and Cayton, 1945; Davis, Gardner, and Gardner, 1941; Dollard, 1957; Frazier, 1957a, 1957b, 1966; Myrdal, 1944; Landry, 1987) agree higher-status blacks tended to have lighter skin tones than lower-status blacks and that having lighter skin complexion was an important factor in earning recognition within the black community (Keith & Herring, 1991). Having lighter skin complexion was also important in other areas of African American lives as well, especially in the slave market. Myrdal (1944) notes that light-skinned blacks were preferred and bought at higher prices in the slave market because they were more aesthetically appealing to whites, conforming to the ideology that blacks with white ancestry were intellectually superior to those of pure African ancestry. This mindset permeated many aspects of African American life, including occupational placement on plantations. According to Reuter (1917) and Frazier

(1957b), field workers were disproportionately of pure African ancestry and were more commonly assigned to physically demanding and menial work. On the other hand, house servants were to a great extent mulatto, and were assigned more desirable service positions that required additional skills. Not only did having these remunerative occupations improve a slave's survival rate and provide a source of pride among slaves, but from an economic standpoint it gave them opportunities to work as a free laborer, save money, and eventually purchase their freedom (Franklin, 1980). House servants were generally better fed, better clothed, and more educated. As such, they were more accustomed to the conventions of white people, and they were better prepared to take on emancipation or manumission with lesser attempts of exploitation from whites. On the topic of manumission, mulattoes were not only more likely to be manumitted than other slaves, but were also more economically secure than other free blacks for the reasons above (Keith & Herring, 1991). Although using data from Louisiana, Cole (2005) makes the point that light-color skin was valued in the manumission markets, but more so for males than for females. As previous literature has shown, subtle distinction in skin tone seem to translate into significant outcome differences. This hypothesis will be tested below using an ordinary least squares framework.

2.3 The Endogeneity of Racial Differences

A possible concern for endogeneity might arise from variation in height caused by differences in the genetic material of the individuals in the sample. What pattern of genetic disposition from Africa do these people have? If people from certain parts of Africa are taller by nature, this evidence would most likely bias the results upwards. In the same sense, the amount of white ancestry each mixed-race individual has and the extent to which it presents itself in each individual may affect the results. Data on the origin of the parents is not available. However, authors in the literature argue the endogeneity problem not a cause for concern. Research by Margo and Steckel (1982)[4] argues "well-fed Americans of African origin reach approximately the same height as Europeans and Americans of European descent, suggest(ing) that variations in genetic potential play a minor role..." (as cited in Eveleth and Tanner, 1976, Appendix Tables 5, 29, and 44). The effect that individuals of mixed race may yield some systematically genetic-based height differences was referred by Bodenhorn (2015) as ‘hybrid vigor’.[5] He concludes that although existing literature more commonly names environmental influences as an endogeneity problem than hybrid vigor, it is not the principal cause of racial differences in height.[6]

3 Data

This paper uses a comprehensive dataset collected by John Komlos (2005), that was designed to determine the anthropometric history of free African Americans in Maryland during the early to mid-nineteenth century.[7] It is a compilation of Certificates of Freedom from the Maryland state Archives from 1800-1864. Freedom papers and Certificates of Freedom were identification papers that declared and proved the free status of blacks. In the 1790s, Maryland passed a law which required free African Americans to register with the county court. Clerks provided registrants with their certificates and kept a copy in the official county court records.

[4] Margo and Steckel (1982) examine several bodies of data to construct indices of average nutritional status of a population from data on height by age. They also compare average nutritional status of two counties in Virginia, Fairfax County and Loudoun County.
[5] ‘Hybrid vigor,’ also known as heterosis, is the tendency in a mixed-race individual to show qualities superior to those of both their parents.
[6] refer Bodenhorn (2015) for related literature.
[7] Komlos (1992) finds that the physical stature of free blacks in Maryland declined in the antebellum decades, suggesting a widespread decline in the overall nutritional status of the population.

When and the recurrence of receiving Certificates of Freedom varies among individuals. Certificates of Freedom were awarded when the individual proved in court that he/she was either born free or had been previously freed from a master. Typically, it was when the former slave wanted to travel outside of their usual location to an area where his or her status would not be common knowledge (Komlos, 1992).[8] These documents served as legal affidavits, and it was wise for blacks to file for freedom papers attesting to their free status with the county deeds office in order to protect them from slave catchers and kidnappers. Filing with the deeds office protected blacks from the loss, theft, or destruction of original documents, which was a frequent occurrence due to slave catchers confiscating or destroying freedom papers to force free men and women into lives of bondage. The data supplies information on the person's age, sex, year of birth, height, county of birth, county of residence (i.e. where the Certificate of Freedom was granted), county in which the person grew up in (where applicable), skin complexion, and whether the person was born free or was manumitted later in life. Because physical descriptions were crucial for identification purposes, the height records are expected to be reliable (Komlos, 1992).

One point of concern is that these Certificates of Freedom only represent a fraction of those legally required to obtain freedom papers. In 1850, there were about 75,000 free blacks in the state of Maryland (Komlos, 1992),[9] while the dataset only consists of 14,840 of these individuals. The issue is whether non-universal freedom papers biases the sample. Even with lax compliance, the certificates should fairly represent Maryland’s free African American population because it is unlikely that reception of certificates was functionally related to stature more than it

[8] as cited in Brackett (1889).
[9] (cited from *Abstract of the Seventh Census of the United States: 1850* [Washington, D.C., 1853], p.150). Females may outnumber males in this sample because females may have been more likely to migrate either to work or to marry (Komlos, 1992).

was due to the function of proximity to the courthouse and the clerk's office. Obtaining certificates were also more likely to have happened just prior to or just after obtaining employment outside the close vicinity of the home. The fact that Maryland law required free African Americans to provide of a copy of their freedom papers to employers probably explains the large proportion of individuals between ages fifteen and thirty, ages at which full time employment outside the home typically occurred. Bodenhorn (2002) follows a similar concern for bias due to less-than-universal registration. He notes that if lighter-skinned people were more likely to be manumitted and receive better treatment while enslaved, they were more likely to be measured and were likely to be taller. In addition, if light-skinned African Americans had better job prospects, then more light-skinned African Americans would be registered. This difference in the tendency to register, if it existed, may not bias estimates of the differences in heights between mulattoes and blacks, but it may introduce a small upward bias in the estimated average height of African Americans as a whole and distort comparisons of height differences between free African Americans and whites or slaves (Bodenhorn, 2002).

Another possible complication is there may be cases of repeated data, i.e. there are two or more observations belonging to the same person at different time points. Certificates of Freedom can be lost or stolen, at which point another copy must be reissued by the county deeds office. It is uncertain how the new copy is recorded in the dataset. Although unlikely, there is also the possibility that two different individuals had very similar characteristics but have the same observations because of the broad categories given. Regardless, this paper uses a linear regression model and therefore non-independent observations may produce biased results due to violation of independence and/or differing patterns between-individuals versus within-individuals. Analyzing non-independent data with techniques that assume independence is a widespread practice but one that often produces erroneous results (Bakdash & Marusich, 2017).[10] One common solution is to average the repeated measures data for each participant prior to performing the correlation. This aggregation may resolve the issue of non-independence but can produce misleading results if there are meaningful individual differences (Bakdash & Marusich, 2017).[11] In order to meet the requirements of IID assumptions for ordinary least squares regressions, duplicate observations were dropped.[12]

Table 1 shows summary statistics. About 45% of the sample consisted of male subjects. On average, males were 66.51 inches tall and females were 61.81 inches tall. Most of the individuals in the sample are recorded as 'Black, while 'Light' and 'Chestnut' were the more common descriptions of lighter-skinned African Americans. See Figure 1 for a correlation between height and skin tone.

4 Methodology & Results

4.1 Height comparisons between skin tone distinctions

This paper uses ordinary least squares regressions to analyze height differences between subtle changes in skin complexion in free African American individuals in antebellum Maryland. The dataset includes a variable on skin complexion comprised of nine different categories - 'Black,' 'Brown,' 'Dark,' 'Light,' 'Yellow,' 'Copper,' 'Chestnut,' 'Mulatto,' and 'Bright'. The validity of these terms today will not be analyzed in this paper.[13] For the purposes of this

[10] cited from (Kenny & Judd, 1986; Molenaar, 2004; Aarts et al., 2014).
[11] cited from (Estes, 1956; Myung et al., 2000).
[12] 546 observations were dropped.
[13] For the intentions of this paper, the color distinctions in the dummy for lighter-skinned blacks will be ascending in melanin opacity, i.e. "Yellow" is lighter skin than "Copper," and "Copper" is lighter skin than "Chestnut," and etc.

analysis, the gradient of skin color will be broken down into "light" skin and "dark" skin. A dummy variable is created for light skin tones, which will comprise of the categories 'Light,' 'Yellow,' 'Copper,' 'Chestnut,' 'Mulatto,' and 'Bright'. Similarly, the categories 'Black,' 'Brown,' and 'Dark' will make up the dummy variable for dark skin tones. Each set of light skin dummies will be tested separately for male and female. The estimated equations are as follows:

$$Height_j = \alpha_1 X + \delta_1(clight) + \theta_c + \gamma_t + \varepsilon_j$$

The dependent variable is the height of individual *j*, measured in inches, and the regressor of interest is δ_1, the coefficient on the light-skinned dummy. The equations were estimated using "if" statements conditional on gender, 0 equaling female and 1 equaling male. Control variables X include age (all ages under 18 were excluded from the analysis because it is unlikely children reached their adult stature before the age of 18), and status (either the individual was born free or manumitted later in life). Also included are controls for location, Θ_c, a full set of dummies representing county of birth, and county of residence (i.e. where they received their Certificate of Freedom), as well as a control for birth year, γ_t. $\boldsymbol{\varepsilon}_j$ is the error term.

Table 3 and Table 5 report the results of the estimated equation above. Lighter-skinned African American males were 15.9% taller than darker-skinned African American males, significant at the 10% threshold. Moreover, lighter-skinned African American females were 16.5% taller than darker-skinned females, significant at the 5% threshold.

The regressions in Tables 3 and 5 were run again, excluding county dummies. Their significances were minimal. Without county dummies, lighter-skinned African American males were 17.4% taller than darker-skinned African American males, while lighter-skinned African

American females were 22.0% taller than darker-skinned African American females. Both coefficients are significant at the 5% threshold.

Surprisingly, ‘status’ (born free or manumitted later in life) was not a significant factor in this relationship for males but was significant for females. Perhaps this phenomenon can be explained by differences in preferential treatment between sexes. There is also a difference in significance between sexes for birth year - it is significant for females but not for males. There is a negative correlation between height and birth year, so it is likely that newer birth cohorts were relatively shorter than older cohorts. This could also indicate a downward trend in nutritional status for women as they get older.

4.2 The significance of genetic makeup

This paper seeks to exploit the relationship between terminal height and differences in skin tone among free African Americans explained by advantages in childhood nutrition. The results show lighter-skinned African Americans were indeed taller than darker-skinned African Americans for both male and female, indicating better childhood nutrition for light-skinned Afro-Americans in comparison to dark-skinned Afro-Americans. However, this explanation can be countered by one of genetics. The extent to which genetics play a role in terminal height is a debated topic among physiologists. Although genetic makeup can explain much of the features expressed in an individual,[14] nutrition fairs a better argument in the relationship shown in this paper. In order to refute the significance of genetic makeup in this argument, two subsamples were created: (1) a subsample representing the most rural counties; and (2) a subsample

[14] See Lai (2006).

representing the most urban counties. Definitions for rural and urban counties are from Hambrick (2016).[15] In the case that rurality levels are not clearly categorized into either rural or urban, an approximately 30% threshold on each outcome was applied (~30% rural or ~30% urban). See Table 6 for a breakdown of Maryland's rurality levels. Using the same estimating equation as in Section 4.1, the light-skin dummies for male and female were regressed on height for both the rural and urban samples. If there is a divergence in the coefficients, then the effect of skin color on height is more significant in rural areas than in urban areas.

For the purpose of this paper, (1) the rural subsample will consist of the counties Caroline and Kent and (2) the urban subsample will consist of the counties Anne Arundel, Baltimore City, Baltimore County, Frederick, Harford, Howard, Montgomery, and Prince George. There will be four separate regressions: one for light-skinned African American males in rural counties, one for light-skinned African American females in rural counties, one for light-skinned African American males in urban counties, and one for light-skinned African American females in urban counties. Tables 7-10 reports the results of the estimated equations. Lighter-skinned African American males were 27.8% taller than darker-skinned African-Americans males in rural counties, while lighter-skinned African American females were 43.1% taller than darker-skinned African-Americans. In urban counties, lighter-skinned African American males were 10.1% taller and lighter-skinned African American females were 3.3% taller than their darker counterparts. The results show the coefficients for rural counties are much more significant in comparison to the coefficients for urban counties. These results are in conjunction with the

[15] As defined by the *2015 American Community Survey*. Accordingly, "rural" is any area not considered urban. "Urban" is set by standard measures, including population size and density, and the amount of impervious surfaces. See Table 6 for Maryland's rurality levels.

hypothesis stated above. If genetics were a significant factor in the relationship between skin color and nutrition, significance should be analogous across counties.

A possible explanation for these results lies in the geographic and demographic constitution of rural areas. Plantations, where field workers were much needed, were more likely to be located in rural areas. As discussed in Section 2.2, field workers were predominately darker-skinned blacks. Those who worked as house servants “sheltered” inside a home were more likely to be lighter-skinned blacks. As they were generally in better working conditions and better fed, these individuals were more likely to have had better childhood nutrition, and as a result, be taller. On the other hand, the demographic constitution of urban areas was not as heterogeneous. Therefore, the results show that differences in skin tone does not have as much of an effect on height as we see in rural areas.

5 Discussion

This analysis uses a highly “selected” sample, which only includes observations on free blacks in Maryland during the 19th century. Both skin tone and height may have been causal factors in not only the ability for free blacks to register with the county court, but also manumission (both discussed in Section 3 and Section 2.2, respectively). A non-random sample selection is a specific type of endogeneity. In this case, the “omitted” variable is how people were selected into the sample. The outcome is observed only for those whom the sample “selected,” i.e. free blacks. This is referred to as “incidental truncation”. OLS techniques will not provide unbiased estimates because the error term is correlated with the independent variables. The bias will not necessarily disappear in large sample sizes, so estimates may be inconsistent as well. A possible solution in further analyses may be to apply the two-step Heckman model

(1976). This model introduces truncation of the variables and is shown to yield coefficients close to the maximum likelihood estimates.

6 Conclusion

Although the use of anthropometric indices and advances in biological studies have previously been used to reconstruct historical figures, studies in Maryland have been limited. Maryland is an important location for African American studies in the early- to mid- nineteenth century because of its proximity to the eastern seaboard: many slaves arrived through Maryland ports and the ports were a prime region for slave trade. As intended, light-complected African Americans, both male and female, were taller than their darker-skinned counterparts, significant at least at the 10% level. This is consistent with the literature, in that lighter-skinned African Americans were taller, most likely explained by better nourishment and preferential treatment.

References

Blackwell, J. E. (1985). *The Black Community: Diversity and Unity*. New York, NY: Dodd, Mead & Co.

Bodenhorn, H. (2002). The Mulatto Advantage: The Biological Consequences of Complexion in Rural Antebellum Virginia. *The Journal of Interdisciplinary History, 33,* 21-46. Retrieved from http://www.jstor.org/stable/3656920

Bozzoli, C., Deaton, A., & Quintana-Domeque, C. (2009). Adult height and childhood disease. *Demography, 46*, 647-669. DOI: 10.1353/dem.0.0079

Brackett, J. R. (1889). *The Negro in Maryland: A Study of the Institution of Slavery.* Baltimore, MD: Johns Hopkins University.

Cole, S. (2005). Capitalism and Freedom: Manumission and the Slave Market in Louisiana, 1725-1820. *The Journal of Economic History, 65,* 1008-1027. Retrieved from http://www.jstor.org/stable/3874912

Davis, A., Gardner, B. B., & Gardner, M. R. (1941). Deep South: A Social Anthropological Study of Caste and Class. Chicago, IL: University of Chicago Press.

Dollard, J. (1957). Caste and Class in a Southern Town. Garden City, NY: Doubleday.

Drake, S. C., & Cayton, H. R. (1945). Black Metropolis: A Study of Negro Life in a Northern City. New York, NY: Harcourt Brace & Co.

Eveleth, P. B., & Tanner, J. M. (1976). *Worldwide Variation in Human Growth.* Cambridge, United Kingdom: Cambridge University Press.

Floud, R., Wachter, K., & Gregory, A. (1990). *Height, health and history: Nutritional status in the United Kingdom, 1750-1980.* Cambridge, MA: Cambridge University Press.

Franklin, J. H. (1980). *From Slavery to Freedom,* (5th ed.). New York, NY: Knopf Doubleday.

Frazier, E. F. (1966). *The Negro Family in the United States*. Chicago, IL: University of Chicago Press.

(1957a). *The Black Bourgeoisie*. New York, NY: Free Press.

(1957b). *The Negro in the United States*. New York, NY: Macmillan.

Hambrick, G. (2016). Urban vs. Rural: Counties Ranked in Maryland. *Towson Patch.* Retrieved from https://patch.com/maryland/towson/urban-vs-rural-counties-ranked-maryland

Heckman, J. J. (1976). The Common Structure of Statistical Models of Truncation, Sample

Selection and Limited Dependent Variables and a Simple Estimator for Such Models. *Annals of Economic and Social Measurement, 5,* 475-492. Retrieved from http://www.nber.org/chapters/c10491.pdf

Keith, V. M., & Herring, C. (1991). Skin Tone and Stratification in the Black Community. *American Journal of Sociology, 97,* 760-778. Retrieved from http://www.jstor.org/stable/2781783

Komlos, J. (1989). Nutrition and Economic Development in the Eighteenth-Century Habsburg Monarchy: An Anthropometric History. Princeton, NJ: Princeton University Press.

Komlos, J. (1992). Toward an Anthropometric History of African-Americans: The Case of the Free Blacks in Antebellum Maryland. In Goldin, C., & Rockoff, H. (Eds.), *Strategic Factors in Nineteenth Century American Economic History: A Volume to Honor Robert W. Fogel* (297-329). Chicago, IL: University of Chicago Press. Retrieved from: http://www.nber.org/books/gold92-1

Komlos, J. (1993). The Secular Trend in the Biological Standard of Living in the United Kingdom, 1730-1860. *The Economic History Review, 46,* 115-144. Retrieved from https://doi.org/10.1111/j.1468-0289.1993.tb01325.x

Komlos, J. Height of Free African Americans in Maryland, 1800-1864. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2005-11-04. Retrieved from https://doi-org.proxy.wexler.hunter.cuny.edu/10.3886/ICPSR03422.v1

Lai, C. Q. (2006). How much of human height is genetic and how much is due to nutrition? *Scientific American.* Retrieved from https://www.scientificamerican.com/article/how-much-of-human-height/#

Landry, B. (1987). *The New Black Middle Class*. Berkeley & Los Angeles: University of California Press.

Margo, R. A., & Steckel, R. H. (1982). The Heights of American Slaves: New Evidence on Slave Nutrition and Health. *Social Science History, 6,* 516-538. Retrieved from http://www.jstor.org/stable/1170974

Margo, R. A., & Steckel, R. H. (1983). Heights of Native-Born Whites During the Antebellum Period. *The Journal of Economic History, 43,* 167-174. Retrieved from http://www.jstor.org/stable/2120278

Myrdal, G. (1944). *An American Dilemma*. New York, NY: Harper & Row.

Nicholas, S., & Steckel, R. H. (1991). Height and Living Standards of English Workers During the Early Years of Industrialization, 1770-1815. *The Journal of Economic History, 51,* 937-957. Retrieved from http://www.jstor.org/stable/2123399

Portrait, F. R. M., van Wingerden, T. F., & Deeg, D. J. H. (2017). Early life undernutrition and adult height: The Dutch famine of 1944-45. *Economics & Human Biology, 27,* 339-348. Retrieved from https://doi.org/10.1016/j.ehb.2017.09.008

Reuter, E. B. (1917). The Superiority of the Mulatto. *American Journal of Sociology, 23,* 83-106. Retrieved from http://www.jstor.org/stable/2763497

Silventoinen, K. (2003). Determinants of variation in adult body height. *Journal of Biosocial Science, 35,* 263-285. Retrieved from https://doi.org/10.1017/S0021932003002633

Wilder, J., & Cain, C. (2011). Teaching and learning color consciousness in Black families: Exploring family processes and women's experiences with colorism. *Journal of Family Issues, 32*(5), 577-604. Retrieved from http://dx.doi.org/10.1177/0192513X10390858

Tables

Table 1. Summary Statistics

Variable	Observations	Mean	Percent	Standard Deviation	Min	Max
Birth Year	14,840	1808	--	18.97	1742	1851
Year	14,840	1836	--	16.11	1800	1864
Age	14,840	28.19	--	9.34	1	80
Gender (male)	14,840	--	45.22%	0.50	0	1
Height	14,840	63.94	--	3.88	27	77
	6,711	(male) 66.51	--	--	--	--
	8,129	(female) 61.81	--	--	--	--
Black	14,840	--	14.82%	0.36	0	1
Brown	14,840	--	5.59%	0.23	0	1
Dark	14,840	--	23.53%	0.42	0	1
Light	14,840	--	12.92%	0.34	0	1
Yellow	14,840	--	7.11%	0.26	0	1
Copper	14,840	--	1.33%	0.11	0	1
Chestnut	14,840	--	11.21%	0.32	0	1
Mulatto	14,840	--	10.01%	0.30	0	1
Bright	14,840	--	1.64%	0.13	0	1
Status (born free)	14,840	--	46.95%	0.50	0	1

Table 2. Lighter Complexion on Height (male & without county dummies)

	height
lightmale	0.174**
	(0.0776)
age18	6.854**
	(0.275)
status	0.0239
	(0.0903)
birthyr	0.00162
	(0.00222)
Constant	56.77**
	(4.025)
Observations	5,529
R-squared	0.102

Standard errors in parentheses
** p<0.05, * p<0.10

Table 3. Lighter Complexion on Height (males & with county dummies)

	height
lightmale	0.159*
	(0.0834)
bplann	-2.560
	(2.006)
bplbal	-3.331*
	(2.005)
bplbco	-2.615
	(2.004)
bplcal	-4.057*
	(2.104)
bplcar	-2.497
	(2.036)
bplcec	-2.870
	(2.267)
bpldor	-2.737
	(2.030)
bplfre	-2.470
	(2.023)
bplhar	-2.586
	(2.032)
bplhow	-2.325

	(2.315)
bplken	-2.387
	(2.046)
bplmon	-3.554
	(2.232)
bplpri	-2.700
	(2.026)
bplque	-3.368
	(2.070)
bplsom	-2.787
	(2.106)
bplstm	-2.400
	(2.093)
bpltal	-2.721
	(2.017)
bplwas	-2.869
	(2.067)
bplwor	-1.629
	(2.400)
crann	-0.265
	(0.841)
crbal	-0.228
	(0.863)
crbco	-0.572

	(0.844)
crcar	-0.371
	(0.897)
crcha	-1.917*
	(1.140)
crdor	0.172
	(0.890)
crfre	-0.450
	(0.845)
crhar	0.904
	(0.889)
crken	0.0783
	(0.932)
crpri	0.0751
	(0.847)
crque	-0.420
	(0.848)
crsom	-0.613
	(1.072)
crstm	-0.288
	(1.039)
crtal	0.0489
	(0.857)
crwas	0.462

	(0.900)
age18	6.737**
	(0.276)
status	0.0638
	(0.0978)
birthyr	0.00123
	(0.00263)
constant	60.44**
	(5.217)

Standard errors in parentheses

** p<0.05, * p<0.10

Table 4. Lighter Complexion on Height (females & without county dummies)

	height
lightfemale	0.220**
	(0.0739)
age18	2.851**
	(0.123)
status	0.190**
	(0.0816)
birthyr	-0.0224**
	(0.00231)
Constant	99.61**
	(4.172)
Observations	7,040
R-squared	0.097

Standard errors in parentheses
** p<0.05, * p<0.10

Table 5. Lighter Complexion on Height (females& with county dummies)

	height
lightfemale	0.165**
	(0.0791)
bplann	-1.681
	(1.162)
bplbal	-2.119*
	(1.161)
bplbco	-2.494**
	(1.166)
bplcal	-1.776
	(1.397)
bplcar	-1.572
	(1.230)
bplcec	-3.317**
	(1.539)
bpldor	-1.785
	(1.206)
bplfre	-0.920
	(1.189)
bplhar	-1.592
	(1.206)
bplhow	-3.369*
	(1.908)

bplken	-1.902
	(1.223)
bplmon	-1.855
	(1.431)
bplpri	-2.275*
	(1.207)
bplque	-1.041
	(1.260)
bplsom	-0.643
	(1.292)
bplstm	-1.278
	(1.373)
bpltal	-1.584
	(1.182)
bplwas	-2.032
	(1.306)
bplwor	-2.621
	(1.635)
crann	-2.127
	(2.034)
crbal	-1.946
	(2.034)
crbco	-2.270
	(2.026)

crcar	-2.299
	(2.065)
crcha	-3.196
	(2.125)
crdor	-1.529
	(2.056)
crfre	-2.605
	(2.042)
crhar	-1.073
	(2.052)
crken	-1.873
	(2.068)
crpri	-1.340
	(2.041)
crque	-1.929
	(2.046)
crsom	-2.880
	(2.111)
crstm	-1.944
	(2.161)
crtal	-1.943
	(2.042)
crwas	-1.255
	(2.091)

age18	2.830**
	(0.123)
status	0.248**
	(0.0866)
birthyr	-0.0215**
	(0.00252)
Constant	101.8**
	(5.123)
Observations	7,040
R-squared	0.121

Standard errors in parentheses

** p<0.05, * p<0.10

Table 6. Maryland's Rurality Levels

County	% rural
Anne Arundel	5.3%
Baltimore City	0.0%
Baltimore County	6.5%
Calvert	38.7%
Caroline	76.0%
Cecil	42.1%
Charles	29.5%
Carroll	39.5%
Dorchester	56.2%
Frederick	25.2%
Harford	17.8%
Howard	9.3%
Kent	72.6%
Montgomery	2.4%
Prince George	2.0%
Queen Anne	54.5%
Somerset	45.8%
St. Mary's	50.4%
Talbot	54.7%
Washington	29.5%
Worchester	35.5%

Table 7. Light-Skinned African American Males in Rural Counties

	height
lightmale	0.278
	(0.211)
age18	5.776**
	(0.994)
status	0.204
	(0.247)
birthyr	0.0110*
	(0.00628)
Constant	40.88**
	(11.32)
Observations	738
R-squared	0.055

Standard errors in parentheses
** p<0.05, * p<0.10

Table 8. Light-Skinned African American Females in Rural Counties

	height
lightfemale	0.431**
	(0.204)
age18	0.890**
	(0.343)
status	0.280
	(0.264)
birthyr	-0.00796
	(0.00676)
Constant	74.93**
	(12.18)
Observations	643
R-squared	0.020

Standard errors in parentheses

** p<0.05, * p<0.10

Table 9. Light-Skinned African American Males in Urban Counties

	height
lightmale	0.101
	(0.115)
age18	7.386**
	(0.352)
status	-0.0228
	(0.138)
birthyr	-0.000313
	(0.00319)
Constant	59.77**
	(5.780)
Observations	2,736
R-squared	0.140

Standard errors in parentheses

** p<0.05, * p<0.10

Table 10. Light-Skinned African American Females in Urban Counties

	height
lightfemale	0.0334
	(0.0983)
age18	3.526**
	(0.162)
status	0.0527
	(0.107)
birthyr	-0.0280**
	(0.00309)
Constant	109.1**
	(5.589)
Observations	4,488
R-squared	0.135

Standard errors in parentheses

** p<0.05, * p<0.10

Figures

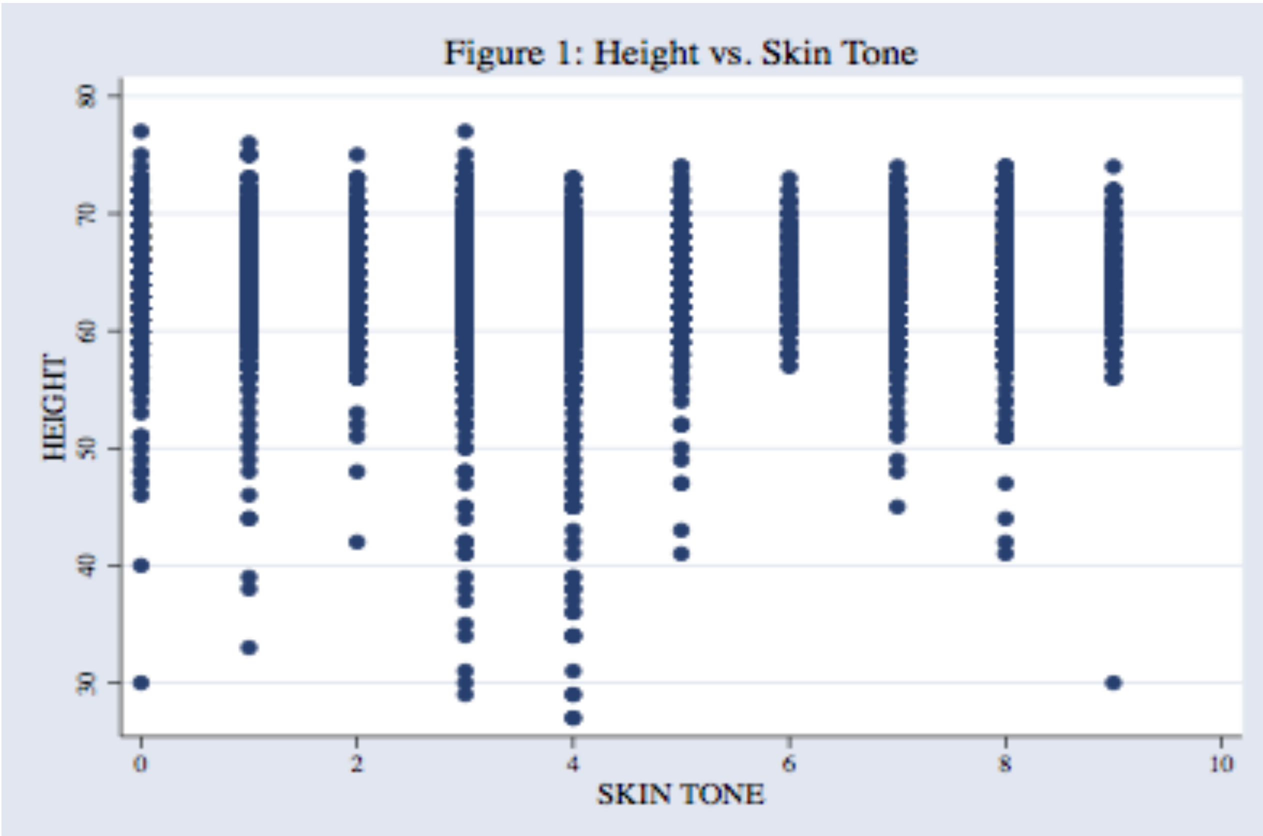

Figure 1: Height vs. Skin Tone
HEIGHT
30
40
50
60
70
80
0
2
4
6
8
10
SKIN TONE