

# Black, Dark, Disadvantaged: Crime, Punishment and Skin Hue in Mississippi

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### **Overview**

This edition of *The MURC Digest* provides an overview and discussion of the Mississippi Urban Research Center's (MURC) *Research Report Series 06–02* titled *Crime and Punishment: and Skin Hue Too* (Gyimah-Brempong and Price, 2006). As part of MURC's research agenda of exploring the causes and consequences of crime, *Research Report Series 06–02* considers individual criminal activity within the context of an economic model of crime pioneered by Becker (1968), and extended by Ehrlich (1978). An implication of this canonical economic model of crime is that

variation in individual constraints on legitimate opportunities (e.g., labor market success) generates variations in the incentives to pursue and engage in illegitimate or criminal activities. If we view those individuals with relatively high constraints on legitimate opportunities as being disadvantaged, then it is plausible that an individual's transition into criminal activity is conditioned on disadvantage. Where the

disadvantage is based on individual characteristics that society values less, punishment for crime could also be a function of the disadvantage that induces an individual's transition into crime.

While there are many types and sources of disadvantage that may induce a transition into criminal activity for individuals, Research *Report Series* 06–02 considers the effects of having a dark skin hue, given that one is black, on the individual transition into criminal activity, and on sentencing given a conviction. What motivates this line of inquiry is evidence that conditional on being black, skin hue matters for a wide variety of socioeconomic outcomes, suggesting that for black Americans, skin hue conditions the type of treatment black Americans receive in interactions with others, and is a source of disadvantage. For example, relative to black Americans with a light skin hue, there is evidence that black Americans with a dark skin hue fare worse in terms of wages (Goldsmith, Hamilton and Darity, 2006), occupational prestige (Hill, 2000), unemployment (Hunter, Allen, and Telles, 2001), access to health resources (Bodenhorn, 2000), and intergenerational wealth accumulation (Bodenhorn, 2003, 2006). These findings suggest that for black Americans, the distribution of advantage and disadvantage is conditioned not just on being black, but also skin hue.

Despite the apparent importance of skin hue for the distribution of advantage and disadvantage among black Americans, the

economics of crime literature tends to view black Americans as one homogeneous group, and virtually no consideration has been given to the effects of the disadvantages of skin hue.<sup>1</sup> If skin hue matters, aggregating across black Americans in this manner could lead to biased estimates of the effects of being black on the likelihood of an individual engaging in criminal activity. Viewing black Americans as a homogeneous group obscures any underlying differences in opportunity structures based on skin hue that may be important for explaining why certain individuals are more likely to be

disadvantaged which increases the likelihood of a transition into criminal activity.

Knowing whether skin hue matters can inform social scientists and policymakers about the underlying causal factors of criminal activity and the extent to which sentencing guidelines are fair. If indeed black disadvantage is conditioned on skin hue that induces individual transitions into criminal

activity, then skin hue emerges as a source of stratification, separating black Americans into groups with differential opportunities for mainstream success. If so, anti-crime policies that ignore the sources of stratification that induce crime will be ineffective. To the extent that societal preferences for blacks with light skin hues place blacks with dark skin hues at a disadvantage, there could also be implications for fairness in sentencing. For convicted black criminals, fairness in sentencing ideals could very well be compromised if punishment for crime is an increasing function of the darkness of skin hue.

### Why Skin Hue Could Matter

Skin hue could matter for the distribution of advantage and disadvantage for black Americans if social institutions, firms, and individuals have preferences for black Americans with a light skin hue (Goldsmith, Hamilton, and Darity, 2006). Historical and contemporary evidence from the economics and sociology literature suggest that this is indeed the case. The genesis of light skin advantages for black Americans appears to have originated before the emancipation of slaves. Mullins and Sites (1984) found that mulattos—the offspring of white slave masters and black female slaves, were more likely to be trained in skilled households jobs, which translated presumably into higher wages for former mulatto slaves relative to dark hued former slaves after emancipation. Bodenhorn (2006) finds that the tendency for mulattos and other light hued blacks to marry spouses with similar light hues—

complexion homogamy—had significant economic benefits dating back to the nineteenth century, and with intergenerational effects (Bodenhorn, 2003). In general, complexion homogamous households among blacks (e.g., both husband and wife have light skin hues) had between 30 and 90 percent more wealth than black households that were not complexion homogamous. Hill (2000) found that between 1910 and 1920, relative to blacks with a dark skin hue, mulattos fared better in terms of school attendance and occupational prestige. Hughes and Hertel (1990) find similar disparities based on skin hue in more contemporary times, suggesting that being black and having a dark skin hue puts one at a disadvantage in at least the labor market-the source of livelihood for most individuals.

Given that skin hue for black Americans appears to matter for labor market outcomes suggests at least two ways in which dark skin hue translates into disadvantage. First, observed gaps in years of schooling between blacks with dark and light skin hues suggest that these gaps translate into differential labor market opportunities. If there are no differences in ability, and blacks with dark skin hues have less education relative to blacks with light skin hues, then earnings and opportunities in the labor market will be inversely related to the darkness of skin hue. To the extent that rational individuals migrate between legitimate market and illegitimate criminal activities on the basis of relative returns to skills, education and ability, labor market earnings and opportunities conditioned on skin hue can also condition an individual's transition into illegitimate or criminal activities. Finally, dark skin hue among blacks could be a manifestation of lookism, that constrains labor market opportunities regardless of an individual's stock of human capital as measured by vears of education.<sup>2</sup> If for example, blacks with

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Gregory N. Price, Ph.D.: Executive Editor Pamela McCoy: Editor Sabrina Howard: Graphic Artist dark skin hues are viewed as being physically unattractive or "ugly" and being "ugly" is associated with lower wages and fewer employment offers relative to "beautiful" blacks with light skin hues, the labor market penalty associated with a being black and having dark skin may induce a transition into criminal activity. Mocan and Tekin (2002) find that particularly for young females, being considered "ugly" increases the likelihood of engaging in criminal activity, and even reduces individual incentives to invest in education—which further increases the likelihood of engaging in criminal activity.

If dark skin hue conditions disadvantage for black Americans by lowering the returns associated with participating in the labor market, standard Becker-Ehrlich models of crime would suggest that being black and having a dark skin hue increase the probability of engaging in criminal activity. This follows from rational self-interested individuals comparing the expected returns from labor market activity to that of criminal activity. The decision rule to engage in crime compares the probabilityweighted earnings from criminal activity-which accounts for the probability of being apprehended or not—with the earnings from labor market activity. If for black Americans wages decrease with respect to increases in the darkness of skin hue, the probability of engaging in criminal activity increases as the returns to criminal activity increase relative to the returns of labor market activity.<sup>3</sup>

## Theory, Empirical Approach and Data

The research design of *Research Report Series* 06-02 adopts a continuous-time hazard approach to criminal activity that modifies the labor market search-theoretic hazard framework of Kiefer (1988). This framework allows one to answer the following question, given that a black American engages in or searches for legitimate activities at age t, what impact does the darkness of skin hue have on the probability of a transition into criminal activity? The hazard is viewed as being generated by the product of two probabilities: the probability that an individual faces an opportunity for crime, and the probability that the opportunity for crime is acceptable to an individual. The potential significance of skin hue emerges through conditioning the probability that an opportunity for crime is acceptable. If being black and having a dark skin hue reduces labor market opportunities, it is plausible that is also lowers the reservation level earnings from criminal activity-defined as the minimum level of earnings that would make crime attractive to an individual. Thus, as skin hue increases for black Americans, reservation earnings from criminal activity decrease, which increases the individual crime hazard.

Empirically, the theory model is operationalized within a proportional hazards framework (Keifer, 1988), where the overall crime hazard is specified as a function of some baseline hazard common to all individuals, and explanatory variables that differ across individuals.<sup>4</sup> The primary explanatory variable of interest is skin hue and a proportional hazard specification permits a sensible interpretation of how skin hue conditions, if at all, the probability of a black American making a transition into criminal activity-the crime hazard. As there are potentially many variables not observed or possible to capture and collect that can determine crime hazards, an unobserved frailty hazard model is estimated.<sup>5</sup> The unobserved frailty is a random risk factor that conditions parameter estimates on unobserved heterogeneity-or the individual-specific factors we do not observe, but could possibly explain the individual crime hazard.

If courts, juries, and judges optimize across preferences for black Americans with a light skin hue, then skin hue is yet an additional source of disadvantage for convicted black criminals. Fairness in punishment for crime requires that skin hue, or any other salient and/or immutable characteristic should not factor in on the sentencing decisions of courts and judges. Whites, and perhaps even blacks, having distaste for blacks with dark skin hue are consistent with taste for discrimination models of behavior, which generate social and economic outcomes conditioned on individual attributes that are deemed unpleasant by others. In this context, courts and judges with such discriminatory tastes could dole out sentences for black convicted offenders that are an increasing function of the darkness of skin hue. Research Report Series 06-02 examines and tests for this effect as well.

The effects of skin hue on the individual crime hazard and prison sentence are estimated with Mississippi Department of Corrections (MDOC) data for black offenders in the state of Mississippi. The sample consists of black prisoners with a surname beginning with the letter "A" who were incarcerated as of August 20, 2005.6 Constructed explanatory variables to condition the crime hazard and prison sentence include measures of socioeconomic status, gender, and the type of crime for which an inmate was convicted. Two broad skin hue classifications were constructed based upon how the MDOC classified the black inmate's skin hue. The two dependent variables for the analysis include the age at which the offender was convicted for the crime he/she is serving time for-which is a measure of the duration of time spent by the offender pursuing legitimate labor market opportunities, and the length of sentence. After eliminating observations

for which there were missing data, a sample size of 403 black offenders resulted.

# The Effect of Skin Hue on Crime and Punishment

Does having a black skin hue translate into a disadvantage for black Americans that induces a transition into crime, and unfair punishment for crime? The results reported in Research Report Series 06-02 suggest that the answer is yes. The most compelling parameter estimates of the individual crime hazard model suggest that relative to being black and having a fair or light skin hue, having a skin hue that is at least medium or medium brown increases the probability that a black American will make a transition into criminal activity. This is consistent with darker hued blacks facing discrimination and disadvantage in the labor market such that the returns to criminal activity are more attractive. As the parameter estimates control for the effects of omitted variables/factors not observed that may explain the individual transition into criminal activity, the parameter estimates on the skin hue variables are reasonably identified, and suggest that having a dark skin hue causes a transition into criminal activity for black Americans in Mississippi.

Interestingly, while the parameter estimates are conditioned on unobservables, controls are included for socioeconomic factors that presumably induce a transition into crime for individuals-yet having a dark skin hue still appears decisive. Included in the hazard specifications are two measures of socioeconomic factors at the county and individual level: the ratio of median to mean household income in the county from which the black offender was convicted—a measure of income inequality and the SCRABBLE score of the black offender's first name-a measure of individual socioeconomic status.<sup>7</sup> Income inequality at the county level has a sensible magnitude, but is never significant. The same is true for the measure of individual socioeconomic status. Whatever role inequality has for conditioning individual transitions into criminal activity, the results in Research Report Series 06-02 suggest that for black Americans, having a dark skin hue is the sole and primary source of disadvantage that conditions the individual transition into criminal activity.

Given a conviction, skin hue also appears to matter for the prison term. Ordinary Least Squares (OLS) regression where the dependent variable is the length of prison term reveal that with the exception of having a light brown skin hue, having a dark skin hue has a large positive and significant effect on the prison sentence. The large positive and significant effect of having a dark skin hue persists in OLS specifications where the type of crime committed (e.g., drug, property, or violent crime) is controlled for. The effect of skin hue exceeds the magnitude of the type of crime except for violent crime, suggesting that for convicted black offenders with a dark skin hue, courts and judges in Mississippi levy additional sentencing for having a dark skin hue.

The effects of having a dark skin hue on prison term received also dominate the effects of individual socioeconomic status. While the prison sentence received significant increases with the SCRABBLE score of the first name for black Mississippians convicted of a crime, the effects of having a high SCRABBLE score are small relative to the effects of having a dark skin hue. To the extent that the scrabble score is capturing discrimination in the labor market against individuals with black-sounding names (Bertrand and Mullainathan, 2004), the estimated positive sign of the scrabble score suggests that this type of discrimination is another source of disadvantage that can induce an individual's transition into criminal activity. However, relative to the disadvantages associated with being black and having a dark skin hue, the effect of having a black-sounding name appears small for black Mississippians. This suggests that skin hue-based disadvantages are more powerful than race-based disadvantages in explaining an individual's transition into criminal activity.

Overall, the results reported in Research Report Series 06-02 provide evidence that at least in Mississippi, crime and punishment for black Americans is conditioned on skin hue. Consistent with an economic model of crime in which disadvantage increases the returns to criminal activity, the results show that the probability of an individual black American making a transition into criminal activity increases with the darkness of skin hue. Consistent with taste for discrimination models where courts and judges have distaste for black Americans with dark skin hues, the results also show that having a dark skin hue also increases the prison sentence for black convicted offenders. Both findings are consistent with dark skin hue being a source of disadvantage that separates black Americans into distinct skin hue groups experiencing differential treatment with respect to legitimate opportunities in society, and in how justice is administered.

### **Conclusions and Policy Implications**

At least since black Americans were slaves and continuing through current times, being black and dark is associated with relative disadvantage that conditions social and economic outcomes. Theoretically, the constraints that being black and having a dark skin hue place on legitimate opportunities increase the returns to criminal activity, which can increase the probability that black Americans with a dark skin hue will engage in criminal activity-one has to survive by some means. Research Report Series 06 - 02 provides evidence in support of this idea-being black and dark is a source of disadvantage that induces an individual to make a transition into criminal activity-at least in the state of Mississippi. Courts, juries and judges also appear to have distaste for black Americans with a dark skin hue. For black convicted offenders in the state of Mississippi, the prison sentence increases with respect to the darkness of skin hue.

Crime and punishment among black Americans is affected by skin hue and therefore underscore the subtle sources of stratification in society that generate disadvantage. In this context, Research 06-02 is an exercise in Report Series stratification economics, which Darity (2005) proposes as an approach to examining the structural and intentional processes that generate hierarchy and inequality between ascriptively distinguished groups. Skin hue appears to be one such way in which hierarchy and disadvantage are determined for black Americans with consequences for the status of ascriptive groups distinguished by the darkness of skin hue. Apparently black Americans with a light skin hue are privileged. Black Americans with dark skin hue appear to be disdadvantaged, occupying the bottom rung of society's legitimate opportunity ladder rendering criminal activity more likely, and the top rung of the punishment ladder when a crime is committed.

As for policy implications, the findings of Research Report Series 06 - 02 suggest that current enforcement of the Civil Rights Act of 1964 is a source of inequality within black America. Title VII of the Civil Rights Act of 1964 prohibits employment discrimination not just on the basis of race, religion, sex, and national origin-but color as well.8 Coupled with evidence that for black Americans, labor market earnings are inversely related to the darkness of skin hue (Goldsmith, Hamilton and Darity, 2006) results reported in Research Report Series 06-02 suggest that discrimination based on skin hue-or coloris operative and generates an inequality of opportunity among black Americans such that those with a dark skin hue are more likely to be denied legitimate labor market opportunities rendering criminal activity more attractive. Such an inequality in labor market and criminal outcomes based on skin hue could be reduced with serious enforcement of the prohibition against color discrimination in Title VII of the Civil Rights Act of 1964.

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Uggen, Christopher. (2000). Work as a turning point in the life course of criminal: A duration model of age, employment, and recidivism. *American Sociological Review*, 65, 529–546. <sup>1</sup>See for example Ehrlich (1973) and Gyimah-Brempong (1997). The only evidence the authors are aware of that links the skin hue of blacks to criminal justices issues is that of Johnson, Farrell and Stoloff (2000). They found that among black males in Los Angeles, California with prior criminal records, the jobless rate for those with a dark skin hue was 54 percent, whereas it was 41.7 percent for those with a light skin hue.

<sup>2</sup> Lookism refers to labor market phenomena in which earnings and employment opportunities are positively correlated with what firms/employers view as good looks in an individual. Evidence that individuals who are considered "beautiful" earn more than individuals considered "ugly" has been provided by Hamermesh, Meng, and Zhang (2002), and Harper (2000).

<sup>3</sup> An example of a standard choice-theoretic treatment of the individual decision to engage in crime is provided by Mocan and Tekin (2006), and is easily modified to account for the adverse labor market effects associated with having a dark skin hue. Suppose that the expected utility for a typical black American considering engaging in criminal activity is:

### $E[U(\mathbf{Y})] = (1-\mathbf{p})U(\mathbf{Y}_{s}) + \mathbf{p}U(\mathbf{Y}_{u})$

where  $Y_s$  are earnings from criminal activity if not apprehended by law enforcement;  $Y_u$  are earnings from criminal activity if apprehended by law enforcement; p is the probability of apprehension by law enforcement (getting caught after the commission of a crime); U is utility; and E is the expectations operator. Let labor market earnings conditioned on skin hue be  $Y(\Phi)$ , where  $\Phi$  is a monotonic continuous measure of the darkness of an individual's skin hue, and  $\partial Y(\Phi)/\partial \Phi < 0$ . Participating in crime is optimal if:

### $(1-p)U(Y_s) + pU(Y_u) > U[Y(\Phi)]$

As labor market earnings decrease with respect to increases in the darkness of skin hue (e.g.,  $\partial Y$  $(\Phi)/\partial \Phi < 0$ ), the utility of labor market earnings decreases relative to the earnings from criminal activity for black Americans with dark skin hues—which increases the probability of engaging in criminal activity.

ENDNOTES

<sup>4</sup> For an example of the hazard/duration approach to criminal activity, see Uggen (2000) and Cuellar, Markowitz, and Libby (2004)

<sup>5</sup> For an overview of unobserved frailty/ heterogeneity in hazard/duration models, see Cleves, Gould and Guitterrez (2004), and Wienke (2003). In the language of modern econometrics, estimating parameters while controlling for unobservables enables what is known as identification of causal effects. In the case of skin hue, controlling for unobservables will permit a determination of how skin hue conditions the crime hazard, given that the econometrician does not observe all the variables that may also contribute to the crime hazard.

<sup>6</sup> Most of the data were captured from the MDOC Web site at: www.mdoc.state.ms.us. The sampling criterion of last name beginning with "A" does not introduce any selection bias as there is no reason why individuals with such a surname are more or less likely to engage in criminal activity.

<sup>7</sup> Gloom (2004) shows that in an overlapping generation model of growth and redistribution, the amount of inequality in an economy is inversely proportional to the ratio of median to mean income. Thus, to the extent that disadvantage is generated by income inequality, higher (lower) levels of the ratio of county median to mean income measure lower (higher) levels of inequality and disadvantage that can condition individual incentives to engage in criminal activity. The SCRABBLE value of the first name is based on the numeric value assigned to letters in the board game SCRABBLE, produced and distributed by both Mattel, Inc., and Hasbro, Inc. Figlio (2005) shows that individuals with a low socioeconomic status have a tendency to have first names with a high SCRABBLE score.

8 See Pub. L. No. 88-352, 78 Stat. 241 (1964).



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