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# Inequality on probation: An examination of differential probation outcomes

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**ABSTRACT**

The effect of race, gender, offense type, location, assessment scores, as well as key interaction terms based on race were examined on multiple probation outcomes. Extending the racial equity research to offenders supervised within the community, results suggest that African American males fare worse on multiple supervision outcomes. In addition, the research found that women were less likely to receive alternative probation outcomes. Suggestions are put forth for the continuance of research on racial inequities for offenders sentenced to a term of community supervision. The study ends with a call for increased attention to various inequality issues confronting criminal justice.

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Previous examinations of racial parity within the corrections system have primarily focused on institutional populations. Despite the fact that 60% of offenders under the purview of the American criminal justice system are supervised by the probation system (Maruschak & Parks, 2012), inquiries into the racial disparity within probation remain limited. For the most part this research has examined the impact of various individual and interactional level predictors on dichotomously measured outcomes of probation success (for a detailed review, see Rembert, Henderson, & Pirtle, 2014). Though the extant literature has made many advances in the way of equitable levels of supervision and treatment, dichotomously operationalizing all probation failures and successes has not allowed for a more exact understanding of the possible outcome options.

The results of the previous examinations of those factors that predict probation outcomes have likely been affected by their inconsistent use of different facilities, administrative styles, and jurisdictional definitions. These studies have also interchangeably used self-reported behavior or official criminal histories. Researchers have tended to focus on specific types of probation outcomes, such as revocation or the commission of a new felony offense (e.g., Freiburger & Hilinski, 2013).

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Consequently, the ability to compare predictors across the various probation outcomes remains unclear, thus limiting the ability to generalize findings. Given the numerous probation outcome types, it is important to determine their predictors. Analyses to date have been limited in this regard because of the inconsistency in probationary outcomes used in the extant literature. This study examines the effect of race, gender, location, offense type, and assessment/risk scores on probation outcomes utilizing a random selection of 115,384 adult probationers.

## Previous research

Prior research has traditionally examined the relationships between race, criminal justice processing, and correctional outcomes (Demuth, 2003; Demuth & Seffensmeier, 2004a; Dixon, 1995; Free, 2001; Freiburger & Hilinski, 2013; Hebert, 1997; Helms & Jacobs, 2002; Huebner & Bynum, 2008; Jacobs & Carmichael, 2002; Johnston & Alozie, 2001; Kleck, 1981; Morgan & Smith, 2008; Peterson & Hagan, 1984; Schlesinger, 2005; Vito, Higgins, & Tewksbury, 2012). Overall these examinations of racial inequalities have been mixed, with some finding evidence supporting cause for concern over racial biases in the system and others demonstrating little or no reason for alarm. This literature, however, is woefully lacking in its examinations of race and probation outcomes. Despite the fact that 60% of offenders are under the purview of the American criminal justice system, supervised by the probation system (Maruschak & Parks, 2012), inquiries into the racial disparity within probation remain limited.

To begin addressing manifestations of inequality in probation, the current study focuses on understanding how forms of social stratification, primarily race and gender, impact the different probation outcomes of revocation, early discharge, and adjudication compared to expiration (successfully serving one's probation sentence in its entirety). To establish a foundation for such an examination, we provide a brief review of the extant literature focusing on (a) the relationship between race, probation success, as well as assessment scores, tools frequently used to evaluate probationers; (b) the relationship between gender and probation; and (c) research on various contextual variables (legal and extralegal).

### *Race, probation, and risk assessment*

In what little research has been conducted concerning probation success, the results have been mixed. Clarke, Lin, and Wallace (1988) and Irish (1976) in their early analyses found that the race of the probationer impacted the likelihood of success. Later Morgan (1994) and Roundtree, Edwards, and Parker (1984) found no evidence of an influence. Although race did not significantly predict success, Gray, Fields, and Maxwell (2001) observed that race did matter in predicting technical violations. Similarly, Johnson and Jones (1998) as well as Olson and Lurigio (2000) found that racial minorities were more likely to receive a technical violation in addition to being arrested while on probation. Overall, the results remain

ambiguous at best regarding manifestations of racial inequity in probation. Among the studies that have found racial differences in probation success, however, the finding is consistent—Black males are the most likely to fail probation as a result of a rearrest, technical violation.

The current study also includes risk and needs assessment scores to control for various components that have demonstrated an ability to predict probation outcomes. Probation departments have widely adopted risk assessment instruments over the past 30+ years. Like the previously discussed literature involving race and probation, the findings in this area have been inconsistent. For the most part, studies have rarely examined the interactional effect (Onifade, Peterson, Bynum, & Davidson, 2011). Some studies have found no evidence of predictive differences between Whites and racial/ethnic minorities (Edens, Campbell, & Weir, 2007; Eisenburg, Bryl, & Fabelo, 2009; Guy, Edens, Anthony, & Douglas, 2005; Oliver, Stockdale, & Wormith, 2009; Schwalbe, 2007; Skeem, Edens, Camp, & Colwell, 2004). Others have found that assessment instruments are biased toward the overclassification of minority probationers (false positives). For instance, several studies found that African Americans were more likely than other racial/ethnic categories to be considered high risk by validated risk assessment instruments (Eisenburg et al., 2009; Henderson, 2006; Henderson, Daniel, Adams, & Rembert, 2007; Rembert et al., 2013; Whiteacre, 2006; Yacus, 1998). In addition, increased percentages of Whites in samples were also found to increase the accuracy of risk assessment instruments (Edens et al., 2007; Gendreau, Goggin, & Little, 1996; Leistico, Salekin, DeCoster, & Rogers, 2008). Overall, the findings regarding race, risk assessment, and probational outcomes have been inconsistent. Enough of the previous research, however, has unearthed causes for concern about racial disparities to warrant further research on the matter.

### *Gender and probation success*

A plethora of examinations of the impact of gender on probation outcomes have been conducted (for a detailed overview, see Koons-Witt, Sevigny, Burrow, & Hester, 2014). After controlling for various demographic and extralegal factors, the research largely demonstrates gender inequality in probation—women are less likely to be sentenced to probation, but men are more likely to fail probation (Clarke, Lin, & Wallace, 1988; Freiburger & Hilinski, 2013; Morgan, 1993). That said, a few studies have found that women were more likely to unsuccessfully complete probation (Mayzer, Gray, & Maxwell, 2004; Morgan, 1994; Olson, Alderden, & Lurigio, 2003; Sims & Jones, 1997). A minority of previous research found no significant differences between male and female probation revocation (Kingsnorth, MacIntosh, & Sutherland, 2002). Recently research has demonstrated similar levels of probation completion success between males and females (Gould, Pate, & Sarver, 2011; Schulenberg, 2007). In other words, once again the body of literature is inconsistent in its findings concerning the precise nature of the relationship

between gender and probation, which pleads for additional research to clarify the issue.

### Contextual variables

To better isolate the effects of race on differing probation outcomes, studies have begun to focus on the effects of various legal and extralegal variables. These indicators have been found to explain much of the variation in probational outcomes, and controlling for these allows for more accurate assessments of the effects of identity-based variables, like race and gender. Included under the purview of legal variables are measures like seriousness of the offense and prior convictions (Freiburger & Hilinski, 2013; Johnson & Jones, 1998; Leiber, Reitzel, & Mack, 2011; Tapia & Harris, 2006). In terms of extralegal variables, many studies have examined community-level characteristics to provide context for the probationers under examination, including community size, type of community, local arrest/crime rates, and various measures of concentrated disadvantage (Bontranger, Bales, & Chiricos, 2005; Johnson & Jones, 1998). The current analysis also includes location of probation because previous research indicates that geography may matter in predicting correctional outcomes. Regardless of legal and extralegal predictors, Spohn and Holleran (2000) found differences between jurisdictions regarding prison sentencing. Thus, locational/jurisdictional variations not captured through other predictors may be controlled for by considering geography in a model. Thus, the current analysis is mindful of location, as such a variable may capture macrolevel jurisdictional, social, and political differences between the two major cities composing our sample.

### The current study

Because of the ambiguous results provided by previous research, further examinations are needed to understand the relationship between probation, race, gender, and legal/bureaucratic variables such as assessment scores and offense types. Although previous attempts have tested the relationship between these variables and correctional outcomes, no study has examined the interactional effects of race and gender as well as race and offense type on different probational outcomes. This study involves a random sample of cases drawn from statewide data on adult probationers. Race has been argued to hold different pathways to offending (Fennessy & Huss, 2013; Gabbidon & Greene, 2009; Steffensmeier, Ulmer, Feldmeyer, & Harris, 2010) and also to be related to different pathways through probation. The analysis also examines the relationship between race, gender, offense type, location, and risk and needs assessment scores. In addition, supported by multiple studies that have found that interaction effects are important in predicting various correctional outcomes, including interactions of race, class, age, gender, employment, and offense type, the current analysis also considers interaction effects—particularly those between race, gender, and offense type (Bontrager et al., 2005;

Demuth & Steffensmeier, 2004b; Freiburger & Hilinski, 2013; Helms & Jacobs, 2002; Huebner & Bynum, 2008; Johnston & Alozie, 2001; Leiber et al., 2011; Spohn & Holleran, 2000; Steffensmeier, Ulmer, & Kramer, 1998).

## Method

### *Data and participants*

Consistent with the racial/ethnic composition of the state's probationers, data on proportionate numbers of Black, Hispanic, and White probationers ($N = 117{,}071$) were randomly selected from a large southwestern state's central repository of probation data. Each probationer was released from probation between September 1, 2000, and August 31, 2010, from two of the state's largest counties. Each probation department must submit its risk assessment data and probation closure type (i.e., successful or unsuccessful) to the state on a monthly basis. A minority of participants were removed from the sample because their outcomes (such as death) were not appropriate for analysis and comparison with other types of probation results, as this examination is only interested in outcomes that all participants ideally have equal chances of obtaining . When these outcomes were removed, 115,384 probationers remained in the sample.

As noted in Table 1, the majority of the sample was Caucasian (41.1%), whereas the remaining participants were Black (40.3%) and Hispanic (18.5%). Approximately 21% of the sample did not complete high school, and 83% possessed a high school diploma or general equivalency diploma. The average length of supervision time was 21 months ($SD = 25.41$), and the majority of the sample served a felony term. The average age of the sample on release from community supervision was 28 ($SD = 11.34$). In addition, 64% of the offenders had never served a prior term on probation. It should also be noted that 89% of the sample had never been convicted of a prior felony offense. Demographic comparisons were examined to determine the existence of significant differences between the racial groups on gender, assessment scores, and probationary and offense type; there were no significant differences.

### *Modeling*

For this analysis, polytomous/multinomial regression modeling was used. These models attempt to predict membership across multiple categories of a nominal-level variable. With $M$ representing a dependent variable with various categories, multinomial models require "the calculation of $M - 1$ equations—one for each category relative to the reference category—to describe the relationship between the dependent variable and the independent variables" (Menard, 2010, p. 171). In other words, one group is designated the reference category. The regression model then uses the independent variables to predict inclusion in the outcome measure categories *relative to the reference.*

**Table 1.** Sample characteristics.

| | Whites | | | Blacks | | | Hispanics | | | Total sample | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Characteristic | *n* | % | $\chi^2$ | *n* | % | $\chi^2$ | *n* | % | $\chi^2$ | *n* | % | $\chi^2$ |
| Age in years (*M*) | 34.95 | | | 34.01 | | | 33.18 | | | 34.24 | | |
| Gender | | | | | | | | | | | | |
| Male | 32,504 | 68.5 | | 31,716 | 68.1 | | 17,419 | 81.4 | | 81,639 | 70.8 | |
| Female | 14,930 | 31.5 | 220.183 | 14,841 | 31.9 | 1,448.247 | 3,974 | 18.6 | 251.963 | 33,745 | 29.2 | 1,518.109 |
| Probationary offense | | | | | | | | | | | | |
| Person | 12,222 | 25.8 | | 12,940 | 27.8 | | 7,316 | 34.2 | | 32,478 | 28.1 | |
| Property | 35,212 | 74.2 | 158.197 | 33,617 | 72.2 | 52.914 | 14,077 | 65.8 | 238.552 | 82,906 | 71.9 | 370.164 |
| Supervision level[a] | | | | | | | | | | | | |
| High | 13,689 | 28.9 | | 17,166 | 36.9 | | 6,322 | 29.6 | | 37,177 | 32.2 | |
| Medium | 22,411 | 47.2 | | 20,764 | 44.6 | | 10,082 | 47.1 | | 53,257 | 46.2 | |
| Low | 11,334 | 23.9 | 5,629.503 | 8,627 | 18.5 | 5,062.782 | 4,989 | 23.3 | 27,85.837 | 24,950 | 21.6 | 14,016.157 |
| Location | | | | | | | | | | | | |
| City 1 | 18,866 | 39.8 | | 23,400 | 50.3 | | 8,820 | 41.2 | | 60,545 | 52.5 | |
| City 2 | 28,568 | 60.2 | 179.657 | 23,157 | 49.7 | 58.425 | 12,573 | 58.8 | 76.583 | 54,839 | 47.5 | 141.220 |
| Probation outcome | | | | | | | | | | | | |
| Expiration | 30,229 | 63.7 | | 23,849 | 51.2 | | 13,263 | 62.0 | | 67,341 | 58.4 | |
| Revocation | 14,538 | 30.6 | | 20,836 | 44.8 | | 7,228 | 33.8 | | 42,602 | 36.9 | |
| Early discharge | 2,409 | 5.1 | | 1,521 | 3.3 | | 782 | 3.7 | | 4,712 | 4.1 | |
| Adjudication | 258 | 0.5 | | 351 | 0.8 | | 120 | 0.6 | | 729 | 0.6 | |

*Note.* All chi-square analyses were statistically significant at the $p < .001$ level.
[a]Supervision level was calculated based on both risk and needs scores. The higher of the two scores became the basis for establishing the level of supervision dictated for the probationer.

### Measures

This analysis included measures of race, gender, location, probationary offense type, supervision/risk assessment scores, and probation outcome. The central predictor of concern in this analysis, race, used the White racial category as the reference group in two race/ethnicity dummy variables, Black and Hispanic. Gender, measured dichotomously (0 = female, 1 = male), was included because gender differences have been found throughout many (if not all) dimensions of crime and crime control, including probation (Belknap, 2006; Koons-Witt et al., 2014). A total of 70% of the probationers in this sample were male. An offense type measure was included that distinguished between personal and property offenders. The hypothesis is that low-level property offenders will be more likely to succeed in probation compared to higher level personal offenders. Measures were also included that allowed for the effect of the two probation jurisdictions (City 1 and City 2 ). The inclusion of location was important to potentially account for jurisdictional population and/or procedural differences across the sample. Other predictors were included in the model as well that require more explication—risk scores; needs scores; and the dependent variable, probation outcome.

### Risk/needs scores

In seeking to determine the effect of the assessed risk and needs scores, we utilized Wisconsin Risk Needs Assessment Instrument[1] risk and needs scores. The total risk and needs scores are summed totals of the static and dynamic items on the instrument and range from 0 to 43 for the risk score and from −8 to 58 for the total needs score. Premised on the risk of reoffending, these total scores are used to determine the offender's level of supervision as minimum, medium, or maximum. According to the risk and needs assessment, the higher an offender's risk, the more intensive his or her level of supervision. The risk scale, which is composed of 11 items measuring the offender's level of education, current employment status, and past criminal behavior, has risk cutoff scores as follows: minimum risk (0–7), medium risk (8–14), and maximum risk (15+). The needs scale, which measures the offender's needs for treatment interventions with 12 items (i.e., educational, employment, psychological, and substance abuse needs), has cutoff scores as follows: minimum needs ($\leq$14), medium needs (15–29), and maximum needs (30+).

### Probation completion

Instead of using the traditional dichotomous outcome measure of probation success or failure, this study utilized a more robust and realistic measure of probation completion. The effect of the earlier mentioned predictors on a probationer's probation closure type (i.e., expiration, revocation, early discharge, or adjudication) in 2010 was examined. Expiration (the comparison outcome) is successful completion of the full probation sentence. For the purposes of multinomial modeling, expiration was designated as the reference category of the outcome measure. In essence, this

means that the following analyses were concerned with predicting probation outcomes that differed from completing probation as sentenced—revocation, early discharge, and adjudication. Revocation is essentially probation failure. Probation is revoked and the person is sent to incarceration. Early discharge means that a person is released from probation before his or her sentence is fully served. Adjudication occurs when the probationer unsatisfactorily completes his or her deferred adjudication term of supervision and has had the probation converted to a regular term of supervision. Probation completion data were collected from the state's database of probation closures.

## Results

Two multinomial models were constructed to examine the impact of race, gender, assessment scores, and offense type on the various probation outcomes—one with and one without interaction effects. In particular, these multinomial models were erected to understand the impact of these variables in predicting the risk of falling into alternative probation outcomes outside of expiration, which included revocation, early discharge, and adjudication.

To ascertain individual-level effects, the first model included only the race, gender, location, offense type (property or person crime), and risk/needs assessment scores predictors. The second included the interaction effects between race and gender. The models were run separately to see whether the results changed when interaction effects were considered. Different configurations of relationships may be found in the presence or absence of interaction terms. This analysis presents the results of both to better isolate differential effects.

As discussed here, the relationships between the various predictors changed when interaction effects were considered. In addition, although previous research indicated that the interaction between race, gender, *and* age (Race × Gender × Age) is important to consider, our analyses found that these interaction effects contributed little to the overall model and were consistently the weakest predictors. Thus, for the purposes of presenting the research here, Race × Gender × Age interaction effects were omitted.

### *Model without interaction effects*

#### *Revocation*

The results for the first model are presented here based on each alternative probational outcome: revocation, early discharge, and adjudication (see Table 2). Regarding revocation, Black ($b = 0.592$, Relative Risk Ratio (RRR) = 1.808, $p < .001$) and Hispanic ($b = 0.114$, RRR = 1.121, $p < .001$) were found to be statistically significantly predictive of probation failure. Racial/ethnic minorities have a greater likelihood of failing probation. In this model, being Black was the third most significant predictor in the model in regard to magnitude ($\beta = 1.337$) behind risk ($\beta = 1.780$) and needs ($\beta = 1.616$) scores. Being Hispanic

**Table 2.** Multinomial model with no interaction effects (Base = expiration/probation success).

| DV | Predictor | *b* | RRR | *β* | *SE* | *p* |
|---|---|---|---|---|---|---|
| Revocation | Age | −0.033 | 0.968 | 0.702 | .001 | .000 |
| (*n* = 42,602) | Black | 0.592 | 1.808 | 1.337 | .016 | .000 |
| | Hispanic | 0.114 | 1.121 | 1.045 | .020 | .000 |
| | Gender | 0.503 | 1.654 | 1.257 | .016 | .000 |
| | Location | 0.261 | 1.298 | 1.139 | .015 | .000 |
| | Offense type | 0.378 | 1.459 | 1.185 | .016 | .000 |
| | Risk score | 0.077 | 1.081 | 1.780 | .001 | .000 |
| | Needs score | 0.053 | 1.054 | 1.616 | .001 | .000 |
| | Constant | −2.380 | | | .050 | .000 |
| Early discharge | Age | 0.018 | 1.018 | 1.211 | .001 | .000 |
| (*n* = 4,712) | Black | −0.209 | 0.812 | 0.903 | .034 | .000 |
| | Hispanic | −0.261 | 0.771 | 0.904 | .043 | .000 |
| | Gender | 0.161 | 1.185 | 1.076 | .033 | .000 |
| | Location | −0.114 | 0.892 | 0.945 | .032 | .000 |
| | Offense type | 0.587 | 1.798 | 1.302 | .038 | .000 |
| | Risk score | −0.0003 | 0.100 | 0.997 | .003 | .910 |
| | Needs score | 0.004 | 1.004 | 1.034 | .002 | .115 |
| | Constant | −3.724 | | | .085 | .000 |
| Adjudication | Age | −0.019 | 0.981 | 0.815 | .004 | .000 |
| (*n* = 729) | Black | 0.513 | 1.670 | 1.286 | .083 | .000 |
| | Hispanic | 0.093 | 1.098 | 1.037 | .113 | .411 |
| | Gender | 0.197 | 1.218 | 1.094 | .084 | .019 |
| | Location | −0.257 | 0.773 | 0.879 | .082 | .002 |
| | Offense type | 1.347 | 3.844 | 1.832 | .114 | .000 |
| | Risk score | 0.086 | 1.090 | 1.898 | .006 | .000 |
| | Needs score | 0.051 | 1.052 | 1.591 | .005 | .000 |
| | Constant | −7.289 | | | .230 | .000 |

*Note.* $n$ = 115,384; $\chi^2$ = 26,318.27***; $R^2$ = .135; −2 log likelihood = −84,312.482; DV = dependent variable; RRR = Relative Risk Ratio.

($\beta = 1.045$), although significant, was not as important in predicting revocation compared to other indicators.

Other indicators predicting revocation are also worth noting. Age was the weakest predictor in this model ($\beta = 0.702$). The relationship was statistically significant ($p < .001$) and demonstrates that, as would be expected, age was negatively related to revocation ($b = -0.033$, RRR = 0.968). In another perhaps unsurprising finding, gender was found to be positively associated ($b = 0.503$, RRR = 1.654, $p < .001$) with revocation, meaning that men were more likely to fail probation than women. This analysis also found that property offenders were more likely to fail probation than person offenders ($b = 0.378$, RRR = 1.459, $p < .001$). Finally, location mattered in predicting revocation, with probationers from City 1 being more likely than City 2 probationers to fail probation ($b = 0.261$, RRR = 1.298, $p < .001$). To summarize the important findings, risk and needs scores were the most important predictors in the model, being Black was still important, but being Hispanic did not seem to matter as much. In addition, being male and a property offender also predicted probation revocation, along with location.

### *Early discharge*

For early discharge, both Black ($b = -0.209$, RRR = 0.812, $p < .001$) and Hispanic ($b = -0.261$, RRR = 0.771, $p < .001$) race/ethnicity was negatively associated with

early release from probation. In effect, being a racial minority then is related to a lower likelihood of early discharge. In terms of relative magnitude, however, a probationer's minority status was the weakest predictor of early release (Black $\beta = 0.903$, Hispanic $\beta = 0.904$). Instead, other variables seemed to matter more for early discharge decisions and outcomes. In particular, offense type ($b = 0.587$, RRR = 1.798, $p < .001$) and age ($b = 0.018$, RRR = 1.018, $p < .001$) were the strongest predictors of early discharge. Regarding offense type, property offenders were more likely to be discharged early while also being more likely to receive revocation than personal/violent offenders.

Gender also presented an interesting finding in this model. Not only was male gender positively associated with revocation and—as is mentioned in the following subsection—adjudication, but males were also found to be more likely to receive early discharge ($b = 0.161$, RRR = 1.185, $\beta = 1.076$, $p < .001$). It seems that men were more likely to receive alternative probationary outcomes than women in this sample. In addition, although assessment scores were found to significantly predict revocation, both risk ($p = .910$) and needs ($p = .115$) scores were nonsignificant for predicting early discharge. This finding is contrary to the theory of risk, which proposes that lower risk probationers are more likely to receive an early discharge. Finally, location still mattered for this outcome, with probationers in City 1 being significantly less likely to receive early discharge than those in City 2 ($b = –0.114$, RRR = 0.892, $p < .001$).

### *Adjudication*

The impact of race, gender, offense type, assessment scores, and location on adjudication was examined. In this model, risk score ($b = 0.086$, RRR = 1.090, $\beta = 1.898$, $p < .001$) and offense type ($b = 1.347$, RRR = 3.844, $\beta = 1.832$, $p < .001$) were found to have the most explanatory power in the model relative to other predictors of adjudication, with needs scores a close third ($b = 0.051$, RRR = 1.052, $\beta = 1.591$, $p < .001$). Being a property/drug offender as well as having high assessment scores were strongly associated with a greater likelihood of receiving probation adjudication. The Black racial/ethnic variable was the fourth most powerful predictor in the model and was found to positively predict adjudication ($b = 0.513$, RRR = 1.670, $\beta = 1.286$, $p < .001$)—not as important as it was for revocation, but still a seemingly significant factor. Conversely, being Hispanic was found to be statistically nonsignificant in predicting adjudication ($p = .411$). Here, males were more likely to receive adjudication than females in this sample ($b = 0.197$, RRR = 1.218, $\beta = 1.094$, $p = .019$). It is strange that although probationers from City 1 were more likely to receive revocation than those from City 2, they are *less likely* to receive adjudicated probation sentences ($b = –0.257$, RRR = 0.773, $\beta = 0.879$, $p = .002$). Finally, like with revocation, age was the weakest predictor ($b = –0.019$, RRR = 0.981, $\beta = 0.815$, $p < .001$) but was still associated with a decreased likelihood of this outcome.

## Model with interaction effects

### Revocation

When interaction effects were introduced into the model—the results of which are presented in Table 3 some of the findings uncovered in the previous model changed in important ways. The interactions between race, gender, and offense type seemed to make a difference in predicting revocation. Although being Black was still significant in this model ($b = 0.318$, RRR = 1.374, $p < .001$), the interaction between the Black racial category and gender was also a significant predictor of probation revocation ($b = 0.352$, RRR = 1.422, $p < .001$). In essence, being Black generally was still associated with probation revocation, but being a Black *male* also impacted the likelihood of having one's probation revoked—gender and race were working together at the individual level. In addition, similar effects were found for the Hispanic racial/ethnic category ($b = –0.205$, RRR = 0.815, $p < .001$) and its interaction with gender ($b = 0.263$, RRR = 1.301, $p < .001$), though relative risk ratios and standardized coefficients indicated that the relationship between race, gender, and probation outcomes may have been more intense for African Americans as opposed to Hispanics.

Regarding interactions between race and offense type, the Black interaction was not statistically significant. For Hispanics, however, property offender status seemed to create a greater likelihood of revocation ($b = 0.178$, RRR = 1.301, $p < .001$). It is interesting that being a Hispanic person was associated with a decreasing likelihood of revocation ($b = –0.205$), whereas being a Hispanic male was associated with a *greater* probability of revocation ($b = 0.178$).

### Early discharge

For early discharge, the interactions between race and gender were nonsignificant. The interactions between race and offense type, however, were significant. In this model, although the Hispanic racial/ethnic category was still a statistically significant predictor in isolation ($b = –0.711$, RRR = 0.490, $p < .001$), the results indicated that the interaction between Hispanic and property offender status was a significant predictor of early discharge as well ($b = 0.449$, RRR = 1.567, $p < .001$). Whereas Hispanic status was negatively associated with gaining an early discharge from probation ($b = –0.711$), being a Hispanic male was associated with an *increased* likelihood of being granted an early discharge ($b = 0.449$).

In addition, the model without interaction effects had previously found that being African American was a significant predictor of early probation discharge. When the interaction effect was considered, however, it appeared that all of the explanatory power previously in the Black racial category alone was absorbed into the interaction between race and offense type ($b = –0.254$, RRR = 1.058, $p < .01$). This result indicated that being a Black property offender seems to matter more in early discharge decisions than being Black alone. In addition, Black

**Table 3.** Multinomial model with interaction effects (Base = expiration/probation success).

| DV | Predictor | *b* | RRR | *β* | *SE* | *p* |
|---|---|---|---|---|---|---|
| Revocation | Age | −0.033 | 0.968 | 0.702 | .001 | .000 |
| (*n* = 42,602) | Black | 0.318 | 1.374 | 1.169 | .041 | .000 |
| | Hispanic | −0.205 | 0.815 | 0.924 | .059 | .000 |
| | Gender | 0.304 | 1.355 | 1.148 | .025 | .000 |
| | Location | 0.264 | 1.302 | 1.141 | .015 | .000 |
| | Offense type | 0.323 | 1.381 | 1.156 | .027 | .000 |
| | Risk score | 0.077 | 1.080 | 1.779 | .001 | .000 |
| | Needs score | 0.052 | 1.054 | 1.612 | .001 | .000 |
| | Gender interactions | | | | | |
| | Black | 0.352 | 1.422 | 1.170 | .034 | .000 |
| | Hispanic | 0.263 | 1.301 | 1.099 | .052 | .000 |
| | Offense type interactions | | | | | |
| | Black | 0.033 | 1.033 | 1.015 | .035 | .355 |
| | Hispanic | 0.178 | 1.195 | 1.059 | .044 | .000 |
| | Constant | −2.190 | | | .046 | .000 |
| Early discharge | Age | 0.018 | 1.018 | 1.213 | .001 | .000 |
| (*n* = 4,712) | Black | −0.045 | 0.956 | 0.978 | .092 | .626 |
| | Hispanic | −0.711 | 0.490 | 0.759 | .133 | .000 |
| | Gender | 0.118 | 1.126 | 1.055 | .046 | .010 |
| | Location | −0.111 | 0.895 | 0.946 | .032 | .000 |
| | Offense type | 0.590 | 1.805 | 1.304 | .055 | .000 |
| | Risk score | −0.001 | 0.999 | 0.995 | .003 | .810 |
| | Needs score | 0.004 | 1.004 | 1.034 | .002 | .112 |
| | Gender interactions | | | | | |
| | Black | 0.056 | 1.058 | 1.026 | .072 | .435 |
| | Hispanic | 0.148 | 1.160 | 1.055 | .103 | .151 |
| | Offense type interactions | | | | | |
| | Black | −0.254 | 0.775 | 0.891 | .083 | .002 |
| | Hispanic | 0.449 | 1.567 | 1.158 | .108 | .000 |
| | Constant | −3.702 | | | .095 | .000 |
| Adjudication | Age | −0.019 | 0.981 | 0.815 | .004 | .000 |
| (*n* = 729) | Black | 0.369 | 1.446 | 1.198 | .277 | .183 |
| | Hispanic | −0.653 | 0.521 | 0.776 | .423 | .123 |
| | Gender | −0.080 | 0.924 | 0.964 | .131 | .544 |
| | Location | −0.250 | 0.779 | 0.883 | .082 | .002 |
| | Offense type | 1.375 | 3.957 | 1.856 | .209 | .000 |
| | Risk score | 0.086 | 1.090 | 1.897 | .006 | .000 |
| | Needs score | 0.051 | 1.052 | 1.584 | .005 | .000 |
| | Gender interactions | | | | | |
| | Black | 0.430 | 1.537 | 1.211 | .177 | .015 |
| | Hispanic | 0.674 | 1.963 | 1.273 | .301 | .025 |
| | Offense type interactions | | | | | |
| | Black | −0.161 | 0.852 | 0.93 | .258 | .533 |
| | Hispanic | 0.288 | 1.334 | 1.1 | .347 | .407 |
| | Constant | −7.130 | | | .290 | .000 |

*Note.* $n$ = 115,384; $\chi^2$ = 26,486.31***; $R^2$ = .1359; −2 log likelihood = −84,228.5; DV = dependent variable; RRR = Relative Risk Ratio.

property offenders, as opposed to similarly situated Hispanic offenders, were *less* likely to be released from probation early ($b$ = −0.254).

### *Adjudication*

Much like with revocation, the interaction between race and gender significantly predicted adjudication. Being a Black male ($b$ = 0.430, RRR 1.537, $p < .05$) or a Hispanic male ($b$ = 0.674, RRR = 1.963, $p < .05$) were both associated with increased likelihoods of probation adjudication. These effects altered the model

from the individual-level analysis results by rendering both Black racial/ethnic status and gender statistically nonsignificant. In addition, in both models Hispanic status was not significant, yet being a Hispanic male was a significant predictor. Hispanics as a group seem to not be more susceptible to adjudication than Whites. Rather, being a Hispanic *male* seems to be pivotal. Neither offense type interaction effects were significant.

## Discussion

The current analysis is the first to look at the individual and interactional effect of race, gender, location, offense type, and assessment scores on various probation outcomes in tandem—a departure from the simplistic success/failure dyad used in previous research. Using a multinomial analysis affords a more nuanced examination that accounts for different types of failures or successes. In particular, this analysis was able to examine two different types of failure (revocation and adjudication) in addition to an alternative form of success (early discharge) in relation to probation expiration. Each outcome represents a separate probation decision-making process that may intersect with various forms of inequality (like race and gender) differently. From the previously described results, a number of noteworthy findings are presented—particularly those concerning race, gender, and age—between these probational outcomes.

It seems not only that are men more likely to have their probation revoked—an unsurprising finding considering that men are typically more likely to offend and reoffend—but that men are also more likely to be *discharged early from probation* as well as to receive *adjudication*. In this sense, men are more likely to receive alternative outcomes, whereas women seem to be more stable in their probational experience: They are less likely to obtain alternative probation outcomes. Previous research has also found that women have different experiences and risk factors with various correctional outcomes compared to men (e.g., Rettinger & Andrews, 2010). In other words, it seems that men and women have different experiences with factors that predict correctional outcomes (like men being more likely to face alternatives to probation than women, as displayed here). Future research should be directed toward further dissecting this relationship between gender and probational outcomes.

In the study of criminal behavior, the relationship between age and offending is well recognized (Sweeten, Piquero, & Steinberg, 2013). In this analysis, however, age was a very weak predictor of outcomes analogous (or at least strongly related) to offending/reoffending—revocation and adjudication. It may also be that offenders may age out of criminal behaviors while serving their probational sentence, particularly as the mean age for the sample was approximately 34 years old. Thus, age may be a relatively inappropriate predictor for such an aged population. A greater effect may be found for juvenile probationers. Conversely, age was a relatively powerful predictor of early discharge. The older a probationer is, the more

likely he or she is to be discharged early. The exact nature of the mechanisms behind such decisions is obfuscated here. This study proposes the hypothesis that older probationers are seen as less of a threat and are thus more likely to be discharged. In short, the effect of age varies by type of probation outcome.

Finally, the findings from this analysis present cause for concern over the relationship between race and probational outcomes. In the first model, being Black was linked to revocation, early discharge, and adjudication, whereas being Hispanic was only related to revocation and early discharge. The findings suggest that African Americans are more likely to receive negative probational outcomes (revocation and adjudication) and less likely to be released from probation early compared to Whites. When we examined the interaction effects, however, being Black still mattered, but being a Black *man* was an important predictor for revocation as well. This interaction was also significant in predicting adjudication.

Here, the results indicate that there is a racialized reality in a probational setting for African Americans but that this relationship may be intensified when gender is considered (see also Bontrager et al., 2005; Leiber et al., 2011). It is suggested that the association with negative outcomes (and the reduced likelihood of receiving an early discharge) may be associated with the image of Black men in U.S. society as the "criminalblackman" (Alexander, 2010; Russell, 1988). This socially constructed perception of African American men as dangerous may influence their likelihood of receiving (or not receiving) various probational outcomes. When considered in concert with the history of oppression Black persons have faced in America—from colonialism, to slavery, to Jim Crow, and so on—the idea that structural and institutional forms of oppression may play a role in probation outcomes for African Americans is not far-fetched. In this vein, we suggest that the racial disparities in probational outcomes are symptomatic of greater social forces influencing/constructing race and racial perceptions. Further analysis is necessary to begin disentangling the dynamics suggested by this finding.

These racialized findings also hold for Hispanics, though the results are different in magnitude and kind. Being Hispanic alone was positively associated with revocation and negatively related to early discharge in both models. Hispanic status in isolation did not seem to impact adjudication. That said, once the interactions were considered, the relationship between Hispanic ethnicity and status as a property offender was a more significant predictor of revocation and early discharge. Hispanic property offenders appear more likely than White personal offenders to have their probation revoked *as well as* be discharged early. Previous research provides little in the way of explaining this seemingly paradoxical relationship between race and offense type.

One more finding warrants mention. Namely, the location of probation was found to matter. The likelihoods of various probation outcomes varied between City 1 and City 2. Such a finding may be related to differences in probation policy and administration and warrants further inquiry. In addition, these findings need to be examined more closely, such as through the use of multilevel regression

models (see Onifade, Davidson, & Campbell, 2009; Schwalbe, Fraser, Day, & Cooley, 2007). Such an analysis could more readily examine differences between different jurisdictions.

## Suggestions for future research

More research is needed to further refine, clarify, and build from the findings of this study—particularly the disparate distribution of probational outcomes between different demographic groups. Perhaps mixed-methodology research would be invaluable to this area, as quantitative data are necessary to confirm or refute the patterns and relationships uncovered in this analysis, whereas qualitative data would provide context and meaning (Brent & Kraska, 2010). For example, future research could replicate these findings by conducting interviews with probationers and their supervision officers to determine their perceptions of and attitudes on issues pertinent to race and other domains of social stratification. Such an approach could be used to provide a more detailed understanding of the disparate dispersal of probation outcomes.

Future research should also incorporate more sensitivity to various sociopolitical forces that work in tandem with race/ethnicity, particularly class. The relationship between race/ethnicity and class in the United States has been well documented (Wacquant, 2010), but little research has been conducted examining the dynamics between race, *class,* and probation (Breunig & Ernst, 2011). Such research is necessary, as the impact of criminal justice is disproportionately situated on racial/ethnic minorities and the poor (Alexander, 2010; Reiman & Leighton, 2013; Tonry, 2011).

## Limitations

Although the current analysis contributes a unique examination of race, gender, and various interaction effects on different probation outcomes, certain limitations need to be acknowledged. Previous research has looked at a myriad of criminal justice outcomes (such as rearrest, reconviction, and probation failure/success) and found that various sociopolitical categories such as race, gender, and class have been predictive and revelatory of various inequalities. Thus, a reasonable assumption can be made that these characteristics are related to most criminal justice outcomes and experiences, probation included (Holsinger, Lowenkamp, & Latessa, 2006; Vincent, Chapman, & Cook, 2011). There is a likelihood, however, that because our sample was disproportionately African American (41%) compared to the state's general population (11%) this overrepresentation biased our analysis (Warren, Chiricos, & Bales, 2012).

Another limitation confronting the analysis is the potential treatment effects wrought by the use of assessment instruments and different officer directives (Hosp, Hosp, & Dole, 2011). In short, differences in treatment and supervision could have affected the likelihood of various probation outcomes—problems for

which our analysis could not control. Thus, we recommend that the impact of various treatment modalities be controlled for in future research.

## Policy implications

Consistent with the trending body of knowledge, a probationer's race/ethnicity and gender interact significantly to affect various probationary outcomes. Our findings demonstrated significant differences between the dominant racial majority and minority for each outcome measure examined. Findings such as ours beg to question the positions put forth by Lopez (2010), who argued that the minority reality, despite monumental sociopolitical and economic advances over the past half-century, has continued to despairingly manifest itself within the criminal justice system. Even with federal advances in the dismantling of sentencing disparities, the interaction effect of race on a host of static and dynamic factors continues to the perpetuation of racial and ethnic probation inequities.

The probation apparatus within the American criminal justice system affects the largest swath of the population subjected to formal social control in the United States at any given time. That minorities, particularly African Americans, are probated at greater rates than the dominant racial group, Whites, is troubling enough on its own (Alexander, 2010; Tonry, 2011). The fact that Black *men* are even more likely to be placed under correctional supervision, including probation, is more troubling still. Considering that research is, despite some inconsistencies, indicating worse experiences in probation (and other carceral settings), alarm bells and klaxons should be sounding in both the academy and policy circles. The idea that there is a problem concerning race—along with other systems of social stratification—and criminal justice is no longer contestable. Examinations of such issues should be at the forefront of criminal justice and criminological scholarship. To paraphrase Henry David Thoreau, scholars should dedicate themselves toward isolating and striking at the roots of such problems of oppression and inequality in a united effort—to do otherwise is to risk only striking at the branches, ultimately solving nothing.

## Note

1. The Wisconsin Risk Needs Assessment Instrument, commonly referred to as "the Wisconsin," was developed in the 1970s to be utilized with parole and probationers in determining risk level, supervision level, and treatment needs. This instrument is the most widely adopted risk needs assessment in the United States. Despite such widespread continual state agency adoption, the Wisconsin Risk Needs Assessment Instrument, unlike the Level of Service Inventory–Revised, has received limited research attention. For a detailed history and critical analysis of this instrument, see Henderson and Miller (2011).

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