final minutes

Criminal Justice Policy Commission Meeting
9:00 a.m. • Wednesday, November 7, 2018
Room 402-403 • 4th Floor State Capitol Building
100 N. Capitol Avenue • Lansing, MI

Members Present:
Senator Bruce Caswell, Chair
Senator Patrick Colbeck
D.J. Hilson
Kyle Kaminski
Barbara Levine
Sarah Lightner
Jennifer Strange (teleconference)
Judge Paul Stutesman (teleconference)
Andrew Verheek
Judge Raymond Voet

Members Excused:
Representative Vanessa Guerra
Sheryl Kubiak
Laura Moody
Representative Jim Runestad
Sheriff Lawrence Stelma

I.   Call to Order and Roll Call
The Chair called the meeting to order at 9:00 a.m. and asked the clerk to take the roll. A quorum was present, and absent members were excused.

II.   Approval of October 3, 2018 CJPC Meeting Minutes
The Chair asked members if there were any additions or corrections to the proposed October 3, 2018 CJPC meeting minutes. There were none. **Commissioner Kaminski moved, supported by Commissioner Hilson, to approve the minutes of the October 3, 2018 Criminal Justice Policy Commission meeting as proposed. There was no further discussion. The minutes were approved by unanimous consent.**

III.   Data Subcommittee Update
The Chair thanked the Commission members who responded over the last month to the request for input made at the last CJPC meeting. He extended a special thank you to Commissioner Levine for her questions that engendered some good discussion. He then called on Grady Bridges for a subcommittee update. Mr. Bridges provided another draft of the report (see 10/31/2018 version attached) and proceeded to highlight the following major changes from the previous draft:

- Pages 1-3 – The executive summary has been revised, along with an updated table and figure.
- Page 7 – Table was added to detail the number of straddle cell cases in each grid.
- Page 11 – Figure and following paragraph were added to show the rate of prison sentences across circuits.
- Page 12-13 – Description and summary table were updated to match executive summary.
- Page 15 – Map of weighted average comparison was moved to appendix and discussion was revised.
- Page 16 – The number of cases and percent sentenced to prison was added to the Table.
- Page 17-18 – Additional analysis of available resources for the above/below average circuits was added along with Table 7 and Figure 4.
- Page 19 – The format of the third column was updated to percentage points.
- Page 24 – Unnecessary maps were removed from the appendix and remaining maps were updated.
- Page 25 – Table A-1 was added and shows the three most common offenses within our data for each crime group. References to this table were added to the crime group footnotes throughout the report.

Grady then responded to questions regarding Table 7 found on page 17. Commissioner Levine inquired if the figures found in the table are statistically significant and whether it is accurate to characterized Swift and Sure programs as a problem-solving court. Commissioner Verheek suggested some context be added to clarify which counties have community corrections programs since there are multiple counties within a judicial circuit. The Chair inquired about community corrections program and suggested thought should be given to how these programs are funded. A discussion followed. Commissioner Kaminski suggested another column that includes the "average" be included. The Chair requested that the sentence that begins "One plausible explanation…." found in the first paragraph on page 17.

Senator Colbeck then provided a legislative perspective of the type of information that should be included in this type of analysis and inquired about the approach the Commission is following. A discussion followed.

With regard to Table A-1 found on page 25, Commissioner Verheek asked if would be possible to include prison commitment rates to give some context. Commissioner Levine inquired about the underlying offense for crimes again public trust and suggested it might be helpful to include more clarification in the footnote.

Commissioner Levine asked if whether someone is in custody or has made bail has been discussed as a factor to consider and the Chair responded that it is not covered in this report and there are no plans to include it at this point.

IV.   CJPC Policy Recommendations from Senator Colbeck
The Chair began by sharing that the Commission has only collected data from straddle cells on one grid and he does not feel there is enough information collected and analyzed to make policy recommendations. He noted that research will continue so that enough data is collected on other grids for the Commission to make policy recommendations. Commissioner Lightner asked members to keep funding issues in mind whenever the Commission gets to the point of making recommendations that mandate policies that required counties to use particular programs and/or specialty courts. The Chair then called on Senator Colbeck who highlighted possible policy recommendation options. For more details, see Senator Colbeck's handout attached to these minutes. A discussion followed. The Chair noted this is a good starting point for potential policy recommendations in the future when more data is collected. Commissioner Levine commented that she believes this has been a helpful exercise and, although she is not sure if they are all practical solutions, it certainly stimulates thought. Commissioner Verheek noted that work has already been started by other groups on some of the factors such as employment and it may not be necessary to include every factor.

The Chair asked Mr. Bridges to revise and send out another draft of the report to all Commission members by Friday. He asked if a copy of the revised draft should be sent to the Senate, the House, the Governor's office, and the Supreme Court for comments. Commissioner Hilson is concerned if it would slow the process and Commissioner Levine did not see any added value in sending it out to others. The Chair asked Mr. Bridges to put together information on the next grid and present preliminary information at the next meeting.

V.   Commissioner Comments
The Chair asked if there were any Commissioner comments. Commissioner Verheek congratulated Commissioner Sarah Lightner for her election as State Representative to the 65th House District. The Chair reminded members of the policy that members will continue to serve until their reappointment or another appointment is made by the Governor. The Chair also announced that the House has plans to take up the Raise the Age issue and provided information on the funding for court-appointed guardians. Commissioner Levine inquired about the status of the bill to extend the Commission's sunset. The Chair reported that Senate Bill 844 has been passed by the Senate, reported out of the House Committee, and the bill is now awaiting House approval.

VI.   Public Comments
The Chair asked if there were any public comments. There were no public comments.

VII.   Next CJPC Meeting Date
The next CJPC meeting is scheduled for **Wednesday, December 5, 2018, at 9:00 a.m.** The meeting location will be announced at a later date.

VIII.   Adjournment
There was no further business. The Chair adjourned the meeting at 11:03 a.m.

(Approved at the December 5, 2018 CJPC meetings.)

EVALUATION OF STRADDLE CELL SENTENCING IN MICHIGAN

DRAFT REPORT

PREPARED BY THE

CRIMINAL JUSTICE POLICY COMMISSION

OCTOBER 1ST, 2018

Executive Summary

Utilizing the past six years of felony sentencing data from across the state, the Criminal Justice Policy Commission (CJPC) has begun a systematic evaluation of straddle cell sentencing in Michigan. This report represents the first step in this evaluation process and addresses the following questions regarding sentencing outcomes for non-habitual straddle cell offenders convicted of class D felonies:

> **Research Question 1**: To what extent are prison sentences, relative to intermediate sanctions, imposed on those who score in <u>straddle cells</u> on the **D -Grid**?

> **Research Question 2**: For offenders with similar offense and offender characteristics, are there disparities in the rate of prison sentences? If so, what factors or characteristics are contributing to such disparities?

The data for this analysis was provided by the Michigan Department of Corrections (MDOC) and contains all felony convictions sentenced between Jan. 1st, 2012 through Dec. 31st, 2017. These data include offender and offense specifics used to determine the prior record and offense variable scores during the pre-sentencing investigation report, as well as certain demographic variables, such as gender, age, race, education level.

We identified 4,823 cases for individuals sentenced between 2012-2017 and scoring within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense. Of these cases, 1,464 (30.29%) received prison sentences and 2,649 (54.92%) received a jail sentence or a combination of jail and probation. Within the D-grid's straddle cells, the rate of prison sentences ranged from 24.48% of cases (E-I) to a high of 51.16% (A-VI).

A logistic regression was used to evaluate whether there are disparities in the rate at which offenders are sentenced to prison as opposed to intermediate sanctions (e.g. probation, jail, or combination of jail and probation). Using this regression technique, we can consider multiple factors at the same time and estimate how each factor is associated with the probability an offender receives a prison sentence, allowing for more suitable "apple to apple" comparisons.

When reviewing results from this analysis, it is important to keep two things in mind. First, these results describe correlations between certain factor and the probability an offender is sentenced to prison. These results should not be interpreted as causal (i.e., going to trial will make you more likely to receive a prison sentence) because there may be additional factors outside our model that provide a plausible explanation, such as plea bargains, for why a significant difference exists. Secondly, this report evaluates sentencing outcomes, specifically whether the individual receives a prison sentence or an intermediate sanction. Relationships described throughout this report relate to the "in or out" of prison sentencing decision and do not reflect any possible correlation with other elements of the criminal justice system leading to and

resulting in conviction, such as arrest and charging decisions. Furthermore, the length of the sentence imposed is not an outcome explicitly studied in this report.

Ultimately, our analysis found eight factors that had statistically significant associations with the probability of being sentenced to prison. In the presence of significant differences in sentencing outcomes we conclude there are sentencing disparities across these factors: offense crime group, conviction method (Trial vs. Plea), attorney status (Retained vs. Appointed), gender, age, employment status, alcohol abuse, and the circuit court where the offender was sentenced. Table E1 summarizes the results from our regression analysis, indicating which factors were statistically significant and the direction of the relationship. For example, the row for attorney status indicates there was a statistically significant difference between offenders who retained their attorney and those who were appointed counsel. This difference considers or *"controls for"* the sentencing cell (i.e., PRL and OVL), whether the offense was assaultive in nature, the circuit court, if there was a trial, as well as multiple demographic factors (e.g., gender, race/ethnicity age, graduated HS/ GED, employment status, drug and alcohol abuse history, and mental health treatment.) The third column indicates that offenders who retained an attorney were less likely on average to receive a prison sentence when compared to similar offenders with an appointed attorney.

Table E1: Simplified Summary of Logistic Regression Results

Variable	Statistically Significant	Relationship to Probability of a Prison Sentence
Sentence Guideline Crime Group	**Yes**	Dependant on Comparison Group
Property vs. Person	*No*	*NA*
Cont. Substance vs. Person	*Yes*	*Reduced Probability*
Public Order vs. Person	*Yes*	*Reduced Probability*
Public Safety vs. Person	*No*	*NA*
Public Trust vs. Person	*Yes*	*Increased Probability*
Offense Group (Assaultive vs. Non-Assaultive)	No	NA
Conviction Method (Trial vs Plea)	**Yes**	Increased Probability
Attorney Status (Retained vs Appointed)	**Yes**	Reduced Probability
Gender (Female vs Male)	**Yes**	Reduced Probability
Race	No	NA
Ethnicity	No	NA
Age	**Yes**	Increased Probability up to age 37, then Reduced Probability
High School Diploma/GED	No	NA
Employed	**Yes**	Reduced Probability
Drug Abuse	No	NA
Alcohol Abuse	**Yes**	Increased Probability
Mental Health Treatment	No	NA
Circuit Court	**Yes**	See Figure 2 and Figure 3

Note*: The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (HYTA, Probation, District Court Probation, Delay of Sentence, Parole, Jail, State Prisoner, Bond, Juvenile Court Supervision, Federal Probation, Federal Parole).

I.   Introduction

Among the responsibilities of the CJPC specified in PA 465 of 2014, is to conduct ongoing research regarding the effectiveness of the sentencing guidelines. While conducting this research the commission is tasked with making recommendations to the legislature that accomplish a variety of factors, including to reduce sentencing disparities based on factors other than offense characteristics and offender characteristics and ensure that offenders with similar offense and offender characteristics receive substantially similar sentences. Given that charge, the commission has prepared this report to address the following research questions:

> ***Research Question 1***: To what extent are prison sentences, relative to intermediate sanctions, imposed on those who score in <u>straddle cells</u> on the **D -Grid**?

> ***Research Question 2***: For offenders with similar offense and offender characteristics, are there disparities in the rate of prison sentences? If so, what factors or characteristics are contributing to such disparities?

Before a determination can be made regarding whether disparities exist in sentencing, a measure of the sentencing outcome must be clearly defined. To this end, the sentencing outcome of interest for this report is whether an individual receives a prison sentence or an intermediate sanction (e.g., probation, jail, or combination of probation and jail). To best evaluate trends and disparities in the "in-or-out" of prison decision, this study sample has been narrowed to offenders for whom their guideline score places them within a straddle cell. This decision was made because the recommended ranges within straddle cells include both intermediate sanctions and prison sentences as appropriate. Further refining our sample, this analysis focusses solely on offender scoring within straddle cells for Class D offenses, excluding habitual offenders and those with a special status during the offense (HYTA, Probation, District Court Probation, Delay of Sentence, Parole, Jail, State Prisoner, Bond, Juvenile Court Supervision, Federal Probation, Federal Parole).

A couple important distinctions need to be made clear regarding the underlying data and analysis before proceeding. The first being, our data relies on the information gathered from pre-sentence investigation (PSI) reports, which are only prepared after an individual is convicted of a felony offense. Therefore, only cases resulting in a conviction, either by plea or trial, are included. Secondly, the focus of the research in this report is on sentencing outcomes, specifically whether individuals receive a prison sentence or an intermediate sanction (e.g., probation, jail, or combination of probation and jail). As such, the relationships explored in this report only pertain to the "in or out" of prison sentencing decision and do not reflect any possible correlation with other elements of the criminal justice system leading to and resulting in conviction, such as arrest and charging decisions. Furthermore, the length of the sentence imposed is not an outcome explicitly studied in this report.

The remainder of this report proceeds as follows. Section II outlines the basic structure of sentencing guidelines in Michigan. In section III we describe our data and provide summary statistics to address the first research question. The empirical approach used to evaluate the straddle cell sentencing trends is described in section IV. Results from our analysis are reported and discussed in Section V. Finally, section VI summarizes this report, discusses limitations of the analysis, and details the benefit of continued research into this area.

II.   Sentencing Guidelines Overview

Michigan's sentencing guidelines provide guidance in determining the minimum sentence for an individual convicted of a felony offense. The guidelines and suggested ranges are considered advisory-only, however the scoring of the guidelines is still required for sentencing. Broadly speaking, there are four factors that drive the determination of the applicable guideline range: 1) the offense's crime group, 2) the offense's crime class, 3) the severity of the offense, and 4) the offender's prior criminal record.

The crime group and crime class for each felony are specified within the statutory language defining the offense. There are six crime groups: 1) Crimes against a person, 2) Crimes against property, 3) Crimes involving a controlled substance, 4) Crimes against public order, 5) Crimes against public safety, and 6) Crimes against public trust; and nine crime classes: A, B, C, D, E, F, G, H, and second-degree murder (M2).

The sentencing guidelines are presented in a series of nine grids, one for each crime class (M2, A-H). As a refence, the grid for class D felonies is included on the next page. The rows for each grid denote the offense variable (OV) score, which considers several factors of the offense committed to determine its severity. The grid's columns indicate the prior record variable (PRV) score, which represents the extent of the offender's prior criminal involvement. The intersection of the OV and PRV levels are referred to as cells. Within the guidelines there are three cell classifications; prison, straddle, and intermediate. The definitions for each cell type, as presented in the sentencing guidelines manual (SGM)[1] are:

> **Prison cells** are those cells for which the minimum sentence recommended exceeds one year of imprisonment. Prison cells are those cells that are unmarked in the sentencing grids, i.e., not shaded (as are straddle cells) and not asterisked (as are intermediate sanction cells). When an offender's OV and PRV levels place him or her in a prison cell, a minimum sentence within the range indicated in the cell is an appropriate sentence.
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> **Straddle cells** are those cells in which the lower limit of the recommended range is one year or less and the upper limit of the recommended range is more

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[1] This section presents a brief overview of the Michigan Sentencing Guidelines Manual to provide basic background information regarding the guidelines structure. The full SGM is prepared by the Michigan Judicial Institute and contains an in-depth explanation of the guidelines. The SGM can be accessed online at: https://mjieducation.mi.gov/benchbooks/sgm.

than 18 months. MCL 769.34(4)(c). Straddle cells appear shaded in the sentencing grids. When an offender's OV and PRV levels place him or her in a straddle cell, a minimum sentence within the range indicated in the cell OR an intermediate sanction (which may include a jail term of not more than 12 months) is an appropriate sentence.

Intermediate sanction cells are those cells in which the upper limit recommended by the guidelines is 18 months or less. MCL 769.34(4)(a). These cells are marked with an asterisk in the sentencing grids. When an offender's OV and PRV levels place him or her in an intermediate sanction cell, an intermediate sanction (which may include a jail term of 0-12 months or the cell maximum, whichever is less) is an appropriate sentence.

Figure 1: Sentencing Grid for Class D Offenses --- MCL 777.65

Includes Ranges Calculated for Habitual Offenders (MCL 777.21 (3)(a)-(c))

OV Level	A 0 Points		B 1-9 Points		C 10-24 Points		D 25-49 Points		E 50-74 Points		F 75+ Points		Offender Status
I 0-9 Points	0	6*	0	9*	0	11*	0	17*	5	23	10	23	
		7*		11*		13*		21		28		28	HO2
		9*		13*		16*		25		34		34	HO3
		12*		18*		22		34		46		46	HO4†
II 10-24 Points	0	9*	0	11*	0	17*	5	23	10	23	19	38	
		11*		13*		21		28		28		47	HO2
		13*		16*		25		34		34		57	HO3
		18*		22		34		46		46		76	HO4†
III 25-38 Points	0	11*	0	17*	5	23	10	23	19	38	29	57	
		13*		21		28		28		47		71	HO2
		16*		25		34		34		57		85	HO3
		22		34		46		46		76		114	HO4†
IV 35-49 Points	0	17*	5	23	10	23	19	38	29	57	34	67	
		21		28		28		47		71		83	HO2
		25		34		34		57		85		100	HO3
		34		46		46		76		114		134	HO4†
V 50-74 Points	5	23	10	23	19	38	29	57	34	67	38	76	
		28		28		47		71		83		95	HO2
		34		34		57		85		100		114	HO3
		46		46		76		114		134		152	HO4†
VI 75+ Points	10	23	19	38	29	57	34	67	38	76	43	76	
		28		47		71		83		95		95	HO2
		34		57		85		100		114		114	HO3
		46		76		114		134		152		152	HO4†

† Certain fourth habitual offenders may be subject to a mandatory minimum sentence of 25 years' imprisonment. See MCL 769.12(1)(a).

Intermediate sanction cells are marked by asterisks, straddle cells are shaded, and prison cells are unmarked.
The statutory percentage increases for habitual offenders are rounded down to the nearest whole month. The cell range may be less than the maximum possible minimum sentence by a fraction of a month.

For the D-grid there are six offense variable levels (I-VI) and six prior record levels (A-F), totaling 36 cells. Intermediate cells are marked by asterisks, straddle cells are shaded grey, and prison cells are unmarked. Within each the recommended minimum sentence length is

expressed as range of months. The number on the left side of the cell denotes the lower limit of this range. The four values on the right of each cell represent the upper limit of the minimum sentencing range for that cell, depending on whether an offender is being charged as a habitual offender. The number in the top right corner of each cell indicates the upper limit for a non-habitual offender. A series of three additional upper limits are included in each cell for sentencing habitual offenders (HO2 HO3 HO4). Because our analysis excludes habitual offenders these additional upper limits shown are not particularly relevant for our purposes. As an example, for class D felonies the recommended range for non-habitual offenders scoring in cell C-III (i.e., having a prior record level C and offense variable level III) would be 5-23 months.

III.   Data

The data utilized in this analysis was provided by the Michigan Department of Corrections (MDOC) and contains all felony convictions sentenced between Jan. 1st, 2012 through Dec. 31st, 2017. The datasets provided detail the specifics of the offender and offenses used to score their prior record and offense variable scores during the pre-sentence investigation (PSI) reports. In addition to these variables, demographic characteristics of the offender, such as gender, age, race, and education level are also included.

Table 1: Distribution of Sentencing Outcome

Sentence	Obs.	Percent
Prison	1,464	30.29%
Jail	704	14.60%
Jail & Probation	1,945	40.33%
Probation	696	14.43%
Other*	17	0.35%
Total	*4,823*	

* Other Sentences include: Community Service Only, FIA (DSS), and Fines/Costs/Restitution Only.

In total there are 4,823 observations for individuals sentenced between 2012-2017 and scoring within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense. Of these cases, 1,464 (30.29%) received prison sentences and 2,649 (54.92%) received a jail sentence or a combination of jail and probation.

Below we present the sentencing outcomes for varying offenders OV levels and PRV levels. Table 2 shows the number of observations within each straddle cell on the D-grid, followed by number and percentage of those observation which received a prison sentence. For example, in cell C-III, there are 394 observations. Of those 394 cases, 98 or 24.87% received a prison sentence.

**Table 2: Total Observations and Prison Sentences
by Offense Variable and Prior Record Levels**

OV Level	PRV Level					
	A 0 Points	**B** 1-9 Points	**C** 10-24 Points	**D** 25-49 Points	**E** 50-74 Points	**F** 75+ Points
I 0-9 Points	-	-	-	-	**968** Prison: 237 24.48%	**759** Prison: 258 33.99%
II 10-24 Points	-	-	-	**997** Prison: 253 25.38%	**454** Prison: 180 39.65%	-
III 25-38 Points	-	-	**394** Prison: 98 24.87%	**254** Prison: 105 41.34%	-	-
IV 35-49 Points	-	**154** Prison: 42 27.27%	**368** Prison: 122 33.15%	-	-	-
V 50-74 Points	**240** Prison: 64 26.67%	**106** Prison: 36 33.96%	-	-	-	-
VI 75+ Points	**129** Prison: 66 51.16%	-	-	-	-	-

The rate of prison sentences reported in Table 2 range from a low of 24.48% of cases (E-I) to a high of 51.16% (A-VI). It is important to note that differences across these straddle cells do not imply sentencing disparities, but rather demonstrate an intended function of the guidelines. Consider offenders in adjacent cells CIII (24.87%) and CIV(33.15%). These individuals have the same prior record level in both cells, while individuals in CIV were convicted of a higher severity offense. Given this, it is not surprising that individuals in cell CIV are more often sentenced to prison than cell CIII. The same can be applied when comparing CIII (24.87%) to DIII (41.34%). In this scenario offenders have committed similarly severe offenses, but those in cell DIII have more extensive prior criminal records. The data in Table 2 shows that this pattern of difference across adjacent cells is consistent for the D-grid.

With an understanding of how often prison sentences and intermediate sanctions are imposed for each straddle cell in the D-grid, the next step in the evaluation is to look within cells to see if additional factors may be related to the sentencing outcome. In the next section the factors considered in our model are discussed in detail, along with any significant inferences or addition we made regarding the data.

IV.   Methodology

A variety of sentencing factors and demographic variables were included in our analysis to account for the specifics of each sentencing decision. These control variables include: the sentencing cell (i.e., PRL and OVL), whether the offense was assaultive in nature, whether the conviction was the result of a trial, the circuit court, as well as multiple demographic factors; gender, race/ethnicity age, graduated HS/ GED, employment status, drug and alcohol abuse history, and mental health treatment. Due to limitations of the dataset, some demographic variables of interest were unavailable. Most notably missing was a field indicating whether the offender identified as Hispanic.

Historically, the MDOC has used the six categories below to identify an offender's race.

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Island
- White
- Unknown

While an additional variable for ethnicity was available, in practice this field is seldom populated. To address this potential shortcoming in the data, we took the following steps to attempt to infer whether an offender was likely to identify as Hispanic.

Following the decennial census, the U.S. Census Bureau creates a list of the most common surnames reported[2]. In addition to the number of times each name was reported, the list includes basic demographic information, such as the percent of individuals who self-identified as Hispanic or Latino. For example, the most common surname, SMITH, was reported 2,442,977 times in the 2010 census with 2.4% of those individuals identifying as Hispanic or Latino. Merging the MDOC and census data, we could see the percent of people with the offender's last name that self-identified as Latino or Hispanic. Using 50% as the threshold, we then coded each offender as Hispanic if the majority of people with the same surname identified as Hispanic or Latino.

Limitations from this approach included being unable to match some rare (i.e., reported less than 100 times in the 2010 census) or hyphenated surnames with the census data, as well as being unable to account for the possibility of changes in surnames as a result of marriage. Of the 245,389 offenders in the full dataset[3], 226,494 (92.3%) were matched to the census data, while the remaining 18,895 (7.7%) were unable to be matched. Ideally, the ethnicity of the offender

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[2] The dataset available at https://www.census.gov/topics/population/genealogy/data/2010_surnames.html contains a list of all surnames reported 100 or more times for the 2010 census. The list includes 162,253 surnames which represent 265,667,228 people. Additionally, one row indicating "All Other Names" accounts for 29,312,001 individuals.

[3] Matching the census information with the MDOC data was performed before the sample was narrowed to the final sample of non-habitual or special status offenders scoring in straddle cell for class D offenses. The number of offenders and matching percentage reported here reflect all offenders in our dataset across all grids, cell types, habitual status, and other special statuses.

would be collected within the original dataset of demographic characteristics, however in the absence of this using self-identified census data to infer Hispanic ethnicity provides a practical way of considering this factor.

Including the created measure of Hispanic ethnicity, there are 9 offender specific characteristics explored in our model: age, gender, race, ethnicity, high school diploma/GED, employment status, history of drug abuse, history of alcohol abuse, and prior mental health treatment. Data collected by the MDOC regarding an offender's history with drug and alcohol abuse, as well as prior mental health treatment, relies on self-reported information and offenders may have differing conceptions of what constitutes substance abuse or mental health treatment. In addition to the offender characteristics, 7 case specific factors are included in our model: sentencing cell (PRV, OV), crime group, trial or plea conviction, year of the sentence, if offense was assaultive in nature, whether attorney was retained or appointed, and the circuit court.

Summary statistics for the offender characteristics and case factors are provided in Table 3 for the 4,823 observations included in this study's sample. Again, this analysis only includes individuals sentenced between 2012-2017 and scoring within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (HYTA, Probation, District Court Probation, Delay of Sentence, Parole, Jail, State Prisoner, Bond, Juvenile Court Supervision, Federal Probation, Federal Parole).

Table 3: Descriptive Statistics for Case Specific and Offender Demographic Variables

Variable	Obs.	Percent	Variable	Obs.	Percent
Cell (PRV, OVL)	**4,823**		**Offense Group 1 & 2**	**4,823**	
A, VI	129	2.67%	Group 1 (Assaultive)	2,863	59.36%
A, V	240	4.98%	Group 2 (Non-Assaultive)	1,960	40.64%
B, V	106	2.20%	**Attorney Status**	**4,823**	
B, IV	154	3.19%	Appointed	3,711	76.94%
C, IV	386	8.00%	Retained	1,112	23.06%
C, III	394	8.17%	**Gender**	**4,823**	
D, III	254	5.27%	Female	504	10.45%
D, II	997	20.67%	Male	4,319	89.55%
E. II	454	9.41%	**Race**	**4,823**	
E, I	968	20.07%	American Indian or Alaskan Native	39	0.81%
F, I	759	15.74%	Black or African American	2,362	48.97%
			White	2,422	50.22%
Sentence Guideline Crime Group	**4,823**		**Ethnicity**	**4,823**	
Person	1,359	28.18%	Hispanic	161	3.34%
Property	967	20.05%	Non-Hispanic	4,662	96.66%
Controlled Substance	1,948	40.39%	**High School Diploma/GED**	**4,823**	
Public Order	172	3.57%	Yes	2,816	58.39%
Public Safety	71	1.47%	No	2,007	41.61%
Public Trust	306	6.34%	**Employed**	**4,823**	
			Yes	1,587	32.90%
Convicted By	**4,823**		No	3,236	67.10%
Bench	27	0.56%	**Drug Abuse**	**4,823**	
Jury	66	1.37%	Yes	3,220	66.76%
Nolo Contendere	555	11.51%	No	1,603	33.24%
Plea	4,112	85.26%	**Alcohol Abuse**	**4,823**	
Plea Under Advisement	63	1.31%	Yes	1,767	36.64%
			No	3,056	63.36%
Sentencing Year	**4,823**		**Drug or Alcohol Abuse**	**4,823**	
2012	792	16.42%	Yes	3,401	70.52%
2013	788	16.34%	No	1,422	29.48%
2014	840	17.42%	**Mental Health Treatment**	**4,823**	
2015	790	16.38%	Yes	1,552	32.18%
2016	779	16.15%	No	3,271	68.17%
2017	834	17.29%			

Table 3 offers a detailed breakdown of our dataset's composition. For example, the most prevalent crime group was controlled substance crimes, accounting for 40.39% of our cases. Approximately 98% of the convictions were the result of a plea (Plea, Plea Under Advisement, or Nolo Contendere), compare to only 2% reached from either a bench or jury trial. Over the six year period for our data the number of cases each year is relatively stable, averaging around 800 cases year. Demographically, our data is nearly 90% male, 58.4% have earned either a high school diploma or GED, and the racial composition of the data is almost equally split between Black or African American (49%) and White (50%) offenders. While 1,767 individuals reported a history of alcohol abuse nearly twice as many reported having a history of drug abuse (3,220). When combined, there appears to be significant overlap between these two groups, with 3,401 reporting having a history of abusing either alcohol or drugs. Again, it is important to acknowledge that drug and alcohol abuse information is self-reported to the MDOC.

Summarizing data using totals and percentages, as above, is import for gaining a better understanding of the data, however this type of analysis alone will not allow for comparisons between offenders with similar offense and offender characteristics. Instead, a logistic regression was used to determine whether there are disparities in the in-or-out decision related to additional sentencing factors beyond the guideline scores or the demographic characteristics of the offender. Using this regression technique, we can consider multiple factors at the same time and estimate how each factor is associated with the probability an offender receives a prison sentence, allowing for more suitable "apple to apple" comparisons. Finally, using this approach we can determine which variables have statistically significant associations with the probability an offender receives a prison sentence. As used here, a statistically significant result would imply there are substantial differences in the chance of receiving a prison sentence associated with a given characteristic. Conversely, insignificant results imply the factor is not meaningfully related to the outcome. A summary of the regression results is provided in the next section, followed by detailed discussion of the significant factors.

V.   Results

A.   Summary

With our logistic regression[4] each of the estimated relationships can be thought of as the expected change in the probability of receiving a prison sentence, rather than another intermediate sanction, for that variable holding constant the other variables in the model. Table 4 provides a simplified summary of each variable, whether it was significantly related to receiving a prison sentence, and the direction of that relationship. For the latter, a positive relationship means that variable was associated with a greater probability of prison sentences, while a negative relationship means that variable was associated with reduced likelihood of being sentenced to prison.

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[4] For more detail on the model specification and estimates, tables showing the full regression model and output are included in the Appendix

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Table 4: Simplified Summary of
Logistic Regression Results

Variable	Statistically Significant	Relationship to Probability of a Prison Sentence
Sentence Guideline Crime Group	Yes	Dependant on Comparison Group
Property vs. Person	*No*	*NA*
Cont. Substance vs. Person	*Yes*	*Reduced Probability*
Public Order vs. Person	*Yes*	*Reduced Probability*
Public Safety vs. Person	*No*	*NA*
Public Trust vs. Person	*Yes*	*Increased Probability*
Offense Group (Assaultive vs. Non-Assaultive)	No	NA
Conviction Method (Trial vs Plea)	Yes	Increased Probability
Attorney Status (Retained vs Appointed)	Yes	Reduced Probability
Gender (Female vs Male)	Yes	Reduced Probability
Race	No	NA
Ethnicity	No	NA
Age	Yes	Increased Probability up to age 37, then Reduced Probability
High School Diploma/GED	No	NA
Employed	Yes	Reduced Probability
Drug Abuse	No	NA
Alcohol Abuse	Yes	Increased Probability
Mental Health Treatment	No	NA
Circuit Court	Yes	See Figure 2 and Figure 3

Note*: The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (HYTA, Probation, District Court Probation, Delay of Sentence, Parole, Jail, State Prisoner, Bond, Juvenile Court Supervision, Federal Probation, Federal Parole).

The second question our analysis considered was: for offenders with similar offense and offender characteristics, are there disparities in the rate of prison sentences? The summary results in the table above address this question as it regards to sentencing disparities in the in-or-out decision for class D felony offenses. Our analysis found eight factors with statistically significant associations with the probability someone is sentence to prison. In the presence of significant differences in sentencing outcomes we conclude there are sentencing disparities across these factors.

Given the presence of sentencing disparities, we next explored which factors the data found to have disparate sentencing trends. These factors are: crime group, conviction method (Trial vs. Plea), attorney status (Retained vs. Appointed), gender, age, employment status, alcohol abuse, and the circuit court where the offender was sentenced. Groups that were less likely to be sentenced to prison included offenders who retained an attorney compared to those with appointed representation, female offenders compared to male offenders, and offenders who were employed. On the other hand, offenders convicted by a trial were associated with higher rates of prison sentences compared to those who were convicted by plea, as were offenders with a history of alcohol abuse.

The offense crime group results compare each crime group with those convicted of crimes against a person. As Table 4 shows, individuals convicted of controlled substance and public order crimes were on average less likely to receive prison sentences than those convicted of crimes against a person. Meanwhile, convictions for crimes against public trust were more likely to result in a prison sentence compared to those convicted of crimes against a person.

Using quadratic relationship to model the offender's age, we found that on average the likelihood an offender is sentenced to prison increase with age up to 37 years old. For offender's over the age of 37, the associated probability of a prison sentence begins to decreases with age.

Lastly, as Table 4 notes, we found statistically significant differences among circuit courts in the probability of being sentenced to prison. However, the results for circuit court cannot be stated in as simple of terms as other factors in Table 4 because the results vary greatly across the 57 circuit courts[5]. The results for each circuit court can be grouped into one of three categories: more likely to impose prison sentences, less likely to impose prison sentence, or no significant relationship. The breakdown of circuit courts into these categories as well as the magnitudes of these relationships is presented in the next section, followed by further detailed discussion of the other significant variables.
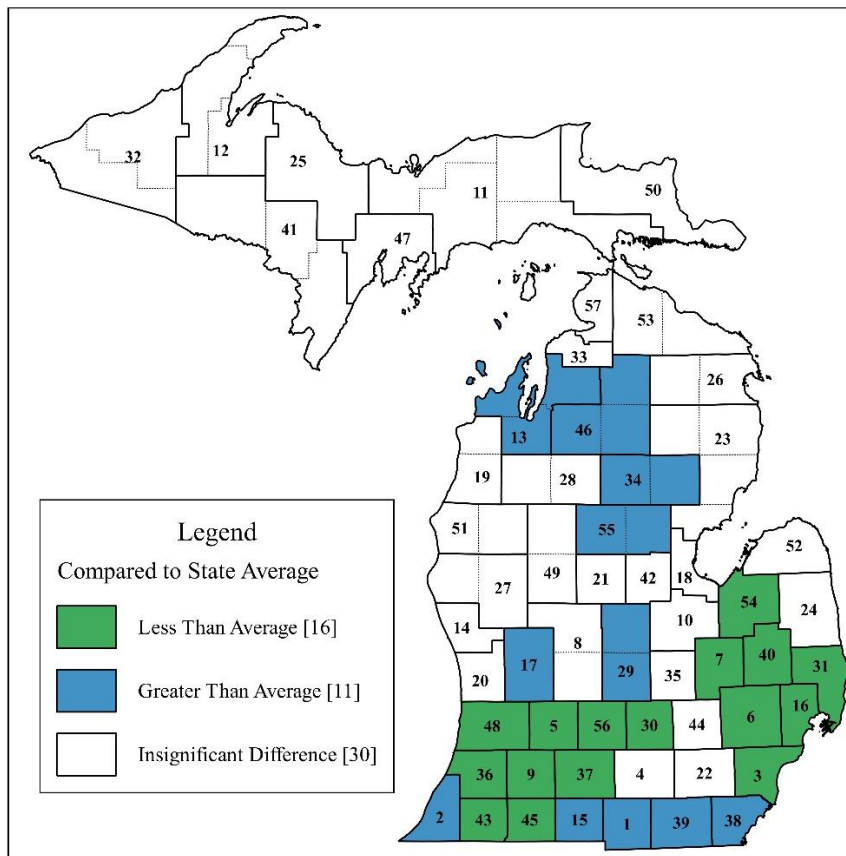
B.   Circuit Courts

Unlike the factors with two categories (e.g., attorney status was either appointed or retained), where the results are interpreted as comparing one group with the other, circuit courts require a more sophisticated approach to evaluate the presence of sentencing disparities. First the average estimated probability of receiving a prison sentence is calculated for each court, taking into consideration the case specifics and offender characteristics outlined above. The average from each court is then compared against the statewide average to determine if that circuit differs significantly, either above or below, from the rest of the state. The statewide average from our data was 35.8%, meaning the average probability of being sentenced to prison was 35.8%. This statewide value was calculated by taking the average of all 57 circuit courts, giving equal weight to each court's average. Taking this approach, we found the probability of being sentenced to prison was statistically greater than the state average in 16 circuit courts and statistically less than average in 11 courts. The remaining 30 courts did not differ significantly from the statewide average. Figure 2 maps out how each circuit court compares to the 35.8% statewide average[6]. Circuits that are on average less likely to impose prison sentences than the statewide average are shaded green, while blue shaded circuits are more likely to impose prison sentences. Circuits without coloring indicate the difference between that circuit and the statewide average was not statistically significant.

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[5] Maps of the counties and circuit courts in Michigan are included in the appendix as a reference.
[6] Appendix B includes additional figures which map the magnitude of the statewide average comparisons.

Figure 2: Probability of Receiving a Prison Sentence
- Comparing Circuit Courts to the State Average -

In addition to using the simple statewide average the analysis was conducted again, instead comparing each circuit court to a weighted statewide average. Unlike the simple average, where each circuit is represented equally, the weighted average calculation accounts for the number of cases from each court in our dataset, giving more importance to larger courts. The weighted statewide average from our data was 30.3%, meaning the average probability of being sentenced to prison was 30.3%. When compared with the weighted statewide average, we found the probability of being sentenced to prison was statistically greater than the state average in 13 circuit courts and statistically less than average in 15 courts. The remaining 29 courts did not differ significantly from the statewide average. Figure 3 shows how each circuit court compares to the weighted statewide average (30.3%)[7]. As with the previous map, circuits that are on average less likely to impose prison sentences than the weighted statewide average are shaded green, while blue shaded circuits are more likely to impose prison sentences. Circuits without

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[7] Appendix B includes additional figures which map the magnitude of the weighted statewide average comparisons.

coloring indicate the difference between that circuit and the weighted statewide average was not statistically significant.

Figure 3: Probability of Receiving a Prison Sentence
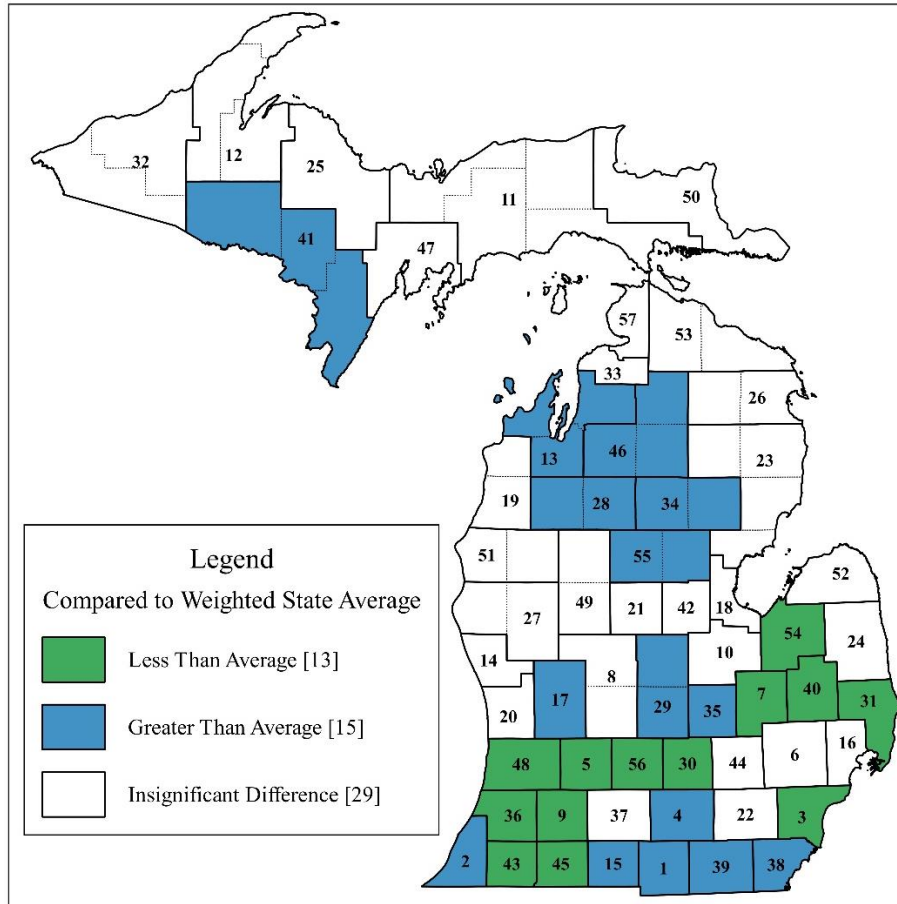**- Comparing Circuit Courts to the <u>Weighted</u> State Average -**

Table 5 collates the comparisons illustrated in Figures 2 and 3 and lists the estimated average probability for each circuit court and the differences from the unweighted and weighted statewide averages. Differences marked with asterisks are statistically significant, with one, two, or three asterisks denoting 95%, 99%, and 99.9% confidence levels respectively.

Table 5: Probability of an Offender Receiving a Prison Sentence by Circuit Court Compared to the State Average (35.8%) and Weighted State Average (30.3%)

Circuit	Circuit Court Average Estimate	Difference from State Average		Difference from Weighted State Average		Counties
		Estimate	Std. Error	Estimate	Std. Error	
1	0.889	0.531***	0.050	0.586***	0.050	Hillsdale
2	0.466	0.108**	0.034	0.163***	0.032	Berrien
3	0.233	-0.125***	0.016	-0.07***	0.011	Wayne
4	0.437	0.079	0.055	0.134*	0.054	Jackson
5	0.120	-0.238***	0.066	-0.183**	0.066	Barry
6	0.264	-0.094*	0.038	-0.039	0.036	Oakland
7	0.181	-0.177***	0.026	-0.122***	0.023	Genesee
8	0.358	0	0.052	0.055	0.052	Montcalm and Ionia
9	0.120	-0.238***	0.024	-0.183***	0.022	Kalamazoo
10	0.290	-0.068	0.052	-0.013	0.051	Saginaw
11	0.444	0.086	0.095	0.142	0.096	Luce, Mackinac, Schoolcraft, and Alger
12	0.200	-0.158	0.180	-0.103	0.183	Houghton, Baraga and Keweenaw
13	0.654	0.296***	0.063	0.351***	0.063	Leelanau, Antrim and Grand Traverse
14	0.385	0.027	0.054	0.082	0.053	Muskegon
15	0.571	0.213**	0.081	0.269***	0.081	Branch
16	0.296	-0.062*	0.024	-0.007	0.021	Macomb
17	0.474	0.116***	0.029	0.171***	0.026	Kent
18	0.250	-0.108	0.060	-0.053	0.059	Bay
19	0.467	0.109	0.134	0.164	0.135	Benzie, Manistee
20	0.268	-0.09	0.054	-0.035	0.054	Ottawa
21	0.290	-0.068	0.073	-0.013	0.074	Isabella
22	0.336	-0.022	0.040	0.033	0.039	Washtenaw
23	0.364	0.006	0.099	0.061	0.100	Iosco, Arenac, Alcona, Oscoda
24	0.231	-0.127	0.103	-0.072	0.104	Sanilac
25	0.500	0.142	0.103	0.197	0.104	Marquette
26	0.455	0.097	0.088	0.152	0.088	Alpena, Montmorency
27	0.357	-0.001	0.072	0.054	0.072	Oceana, Newaygo
28	0.479	0.121	0.069	0.176*	0.069	Wexford, Missaukee
29	0.535	0.177**	0.068	0.232***	0.068	Gratiot, Clinton
30	0.165	-0.193***	0.033	-0.138***	0.032	Ingham
31	0.202	-0.156***	0.039	-0.101**	0.038	St. Clair
32	0.500	0.142	0.206	0.197	0.209	Ontonagon, Gogebic
33	0.500	0.142	0.154	0.197	0.156	Charlevoix
34	0.615	0.257**	0.089	0.312***	0.089	Ogemaw, Roscommon
35	0.529	0.171	0.110	0.226*	0.111	Shiawassee
36	0.141	-0.217***	0.036	-0.162***	0.035	Van Buren
37	0.239	-0.119**	0.043	-0.064	0.042	Calhoun
38	0.475	0.117*	0.058	0.172**	0.058	Monroe
39	0.589	0.231***	0.061	0.286***	0.061	Lenawee
40	0.037	-0.321***	0.037	-0.266***	0.036	Lapeer
41	0.636	0.278	0.147	0.333*	0.149	Iron, Dickinson, Menominee
42	0.250	-0.108	0.121	-0.053	0.122	Midland
43	0.209	-0.149**	0.048	-0.094*	0.048	Cass
44	0.286	-0.072	0.072	-0.017	0.072	Livingston
45	0.172	-0.186***	0.036	-0.131***	0.035	St. Joseph
46	0.514	0.156*	0.072	0.211**	0.072	Otsego, Crawford, Kalkaska
47	0.250	-0.108	0.100	-0.053	0.101	Delta
48	0.204	-0.154***	0.033	-0.099**	0.032	Allegan
49	0.429	0.071	0.068	0.126	0.068	Osceola, Mecosta
50	0.429	0.071	0.104	0.126	0.105	Chippewa
51	0.429	0.071	0.117	0.126	0.118	Mason, Lake
52	0.182	-0.176	0.117	-0.121	0.119	Huron
53	0.267	-0.091	0.124	-0.036	0.125	Cheboygan, Presque Isle
54	0.143	-0.215***	0.061	-0.16**	0.061	Tuscola
55	0.621	0.263**	0.081	0.318***	0.082	Clare, Gladwin
56	0.053	-0.305***	0.046	-0.25***	0.046	Eaton
57	0.429	0.071	0.124	0.126	0.125	Emmet

Significance Levels: * p<0.05, ** p<0.01, *** p<0.001

C.   Interpreting Statistically Significant Results[8]

Odds and Odds Ratios

Whether an offender is sentenced to prison is a binary outcome. That is, an offender either receives a prison sentence or they don't. Results from modeling this type of outcome using a logistic regression are often presented using odds ratios to allow for easier interpretation. In this section I will define odds and odds ratios using examples to help illustrate these concepts.

The odds of an event happening, in our case being sentenced to prison, are defined as the probability of that event occurring divided by the probability that event doesn't occur. As a simple example, say the probability of Person A being sentenced to prison is .8 or 80%. That same person has .2 or 20% probability they are <u>not</u> sentenced to prison. The odds of being sentenced to prison in this example are .8/.2 = 4 or 4 to 1.

An odds ratio is simply the odds for one group divided by the odds for another group. Consider another individual, Person B, who has a 75% chance of being sentenced to prison. The odds of a prison sentence for this person are .75/.25 = 3 or 3 to 1. Comparing the odds for Person A (4) with Person B (3) we get an odds ratio of 4/3 = 1.33. Interpreting this ratio, we can say that the odds of going to prison for Person A are 33% greater than Person B.

Average Marginal Effect (AME)

Throughout the following discussion of results, the average marginal effects (AME) are included alongside the odds ratios. Instead of comparing the <u>odds</u> of receiving a prison sentence for two groups, such as male and female offenders, AMEs compare the average difference in the <u>probability</u> of receiving a prison sentence for two groups. For example, to determine the AME of gender, the estimated probability for each female offender is compared to an otherwise identical male offender. The AME is then calculated by taking the average of all these differences.

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[8] A table containing odds ratios and standard errors for our regression coefficients is included in the Appendix A

Table 6: Logistic Regression Results
Average Marginal Effects of Variables

Variable	Statistically Significant	Average Marginal Effect
Sentence Guideline Crime Group	**Yes**	
Property vs. Person	*No*	-0.031
Cont. Substance vs. Person	***Yes***	**-0.069**
Public Order vs. Person	***Yes***	**-0.175**
Public Safety vs. Person	*No*	0.043
Public Trust vs. Person	***Yes***	**0.198**
Offense Group (Assaultive vs. Non-Assaultive)	No	-0.002
Conviction Method (Trial vs Plea)	**Yes**	**0.306**
Attorney Status (Retained vs Appointed)	**Yes**	**-0.064**
Gender (Female vs Male)	**Yes**	**-0.099**
Race	No	
American Indian or Alaskan Native vs. White	*No*	*0.054*
Black or African American vs. White	*No*	*-0.015*
Ethnicity (Hispanic vs. Non-Hispanic)	No	0.038
High School Diploma/GED	No	-0.018
Employed	**Yes**	**-0.056**
Drug Abuse	No	0.014
Alcohol Abuse	**Yes**	**0.046**
Mental Health Treatment	No	0.012

Note*: The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (HYTA, Probation, District Court Probation, Delay of Sentence, Parole, Jail, State Prisoner, Bond, Juvenile Court Supervision, Federal Probation, Federal Parole).

D. Crime Group

Our results found there is significant relationship between the crime group[9] and whether an individual receives a prison sentence. For example, the likelihood of receiving a prison sentence for someone convicted of a controlled substance crime is on average 6.9 percentage points lower than those convicted of a crime against a person. Again, this difference considers or *"controls for"* the sentencing cell (i.e., PRL and OVL), whether the offense was assaultive in nature, the circuit court, if there was a trial, as well as multiple demographic factors (e.g., gender, race/ethnicity age, graduated HS/ GED, employment status, drug and alcohol abuse history, and mental health treatment.) Similarly, the likelihood of going to prison is 17.5 percentage points

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[9]All offenses fall within one of six groups defined in the Sentencing Guideline Manual: 1) Crimes against a person (Person), 2) Crimes against property (Property), 3) Crimes involving a controlled substance (CS), 4) Crimes against public order (Pub ord), 5) Crimes against public safety (Pub saf), and 6) Crimes against public trust (Pub Trst).

less on average for offenders convicted of public order crimes compared to crimes against a person. Lastly, crimes against pubic trust were on average 19.8 percentage points more likely to be sentenced to prison than similar offenders convicted of crimes against a person.

E.   Conviction Method: Trial vs. Plea

Individuals convicted by jury or bench trials are, on average, 30.6 percentage points more likely to be sentenced to prison than similarly scored individuals convicted because of a Plea, Plea Under Advisement, or Nolo Contendere plea. Looking at the odds of being sentenced to prison among these two groups the contrast is even more notable, with the odds for offenders convicted at trial being more than 3.5 times greater (368.47%) comparable offenders convicted by a plea. Given the magnitude of this difference, in addition to being statistically significant, these results suggest a strong _association_ between going to trial and greater chances of receiving a prison sentence. However, these results should not be interpreted as causal (i.e., going to trial will make you more likely to receive a prison sentence) because there may be additional factors outside our model that provide a plausible explanation, such as plea bargains, for why a large difference exists.

F.   Attorney Status: Retained vs. Appointed

For those who retain their attorney, we found a modest and statistically significant decrease in the likelihood of receiving a prison sentence, compared to those whose attorney was appointed. Controlling for the offender's cell, crime type, circuit court, and demographic factors, those that retain an attorney are 6.4 percentage points less likely on average to receive a prison sentence than those with appointed attorneys. Expressed in terms of the odds ratio, the odds of being sentenced to prison for those who retain their attorney are 31.6% less than otherwise similar offenders with appointed representation.

G.   Gender

When comparing the likelihood of receiving a prison sentence between male and female offenders we see a statistically and practically significant relationship. On average, female offenders are 9.9 percentage points less likely to receive a prison sentence than male offenders located in the same sentencing cell, controlling for specifics of the offense, the sentencing court, and demographic variables. Interpreting the estimated odds ratio for female, we found the odds of being sentenced to prison for female offenders is 31.5% less than otherwise similar male offenders.

H.   Employment Status

For those who are employed at sentencing, we find a modest and statistically significant decrease in the likelihood of receiving a prison sentence, compared to those who were unemployed. Controlling for the offender's cell, crime type, circuit court, and demographic factors, offenders employed at sentencing are 5.6 percentage points less likely on average to receive a prison sentence than unemployed offenders. Expressed in terms of the odds ratio, the

odds of being sentenced to prison for employed offenders are 27.7% less than otherwise similar unemployed offenders.

I.   Alcohol Abuse

After accounting for the various case specifics and offender demographics we found a modest and statistically significant relationship between offenders with self-reported alcohol abuse history and higher rates of prison sentences. On average, offenders with a history of alcohol abuse are 4.6 percentage points more likely to receive a prison sentence than comparable offenders without a history of alcohol abuse.

J.   Age

Figure 4: Average Probability of Prison Sentence by Age of the Offender
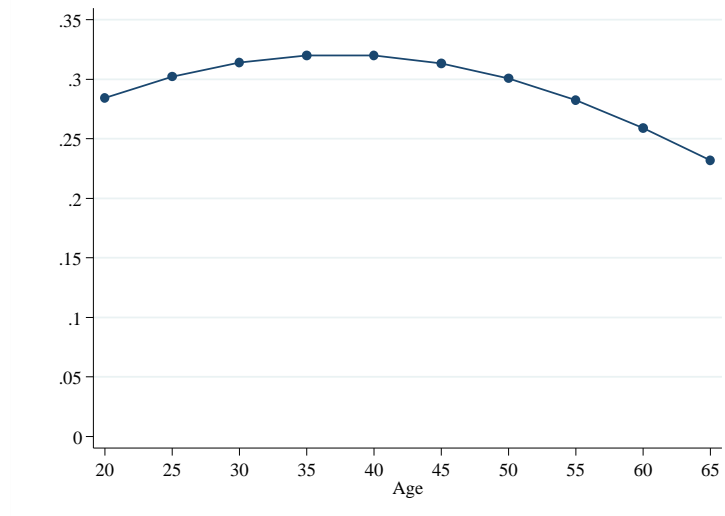
Rather than presenting odds ratios or AMEs for age, Figure 4 demonstrates how the estimated probability of being sentenced to prison varies with the offender's age. Each point on this graph represents the average probability of a prison sentence for offenders of a certain age. For example, the average probability of going to prison for 20 year old offenders is 28.4% and 32.0% for 35 year olds. In general, Figure 4 shows the average probability increasing with age up to 37 years old, where the relationship levels out and begins decreasing with age.

K.   Race and Ethnicity

Our model incorporates binary variables for the two non-white race categories (i.e., variables equal to 1 if the individual identified as that race and 0 otherwise). Using this structure means each race variable's coefficients can be interpreted as the average difference in the probability of a prison sentence between that race and white offenders. As shown in Table 6, the coefficients on American Indian or Alaskan Native and Black or African American are both statistically insignificant. In this context statistically insignificant implies Black or African American and white offenders are on average equally likely to receive a prison sentences, after considering

their offense, sentencing cell, court, and other demographics. The additional variable indicating Hispanic ethnicity, as described in section IV, is also included. Again, we see the results are statistically insignificant. This suggests that Hispanic and Non-Hispanic offenders are on average equally likely to receive a prison sentence, after considering their offense, sentencing cell, court, and other demographics.

VI. Summary

This report addresses two sets of questions regarding sentencing outcomes for non-habitual straddle cell offenders convicted of class D felonies.

Research Question 1: To what extent are prison sentences, relative to intermediate sanctions, imposed on those who score in <u>straddle cells</u> on the **D -Grid**?

Research Question 2: For offenders with similar offense and offender characteristics, are there disparities in the rate of prison sentences? If so, what factors or characteristics are contributing to such disparities?

Using the MDOC's data on felony sentencing from 2012-2017 we identified 4,823 cases for individuals sentenced between 2012-2017 and scoring within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense. Of these cases, 1,464 (30.29%) received prison sentences and 2,649 (54.92%) received a jail sentence or a combination of jail and probation. Within the D-grid's straddle cells, the rate of prison sentences ranged from 24.48% of cases (E-I) to a high of 51.16% (A-VI).

The second question our analysis considered was: for offenders with similar offense and offender characteristics, are there disparities in the rate of prison sentences? Our analysis found eight factors with statistically significant associations with the probability someone is sentence to prison: offense crime group, conviction method (Trial vs. Plea), attorney status (Retained vs. Appointed), gender, age, employment status, alcohol abuse, and the circuit court where the offender was sentenced.

Our results showed offenders convicted by a trial were associated with higher rates of prison sentences compared to those who were convicted by plea, as were offenders with a history of alcohol abuse, and those convicted crimes against public trust. When comparing female with male offenders our results show that female offenders are on average 9.9 percentage points less likely to be sentence to prison. Similarly, the probability of being sentence to prison associated with offenders who retained attorneys was on average 6.4 percentage points less that otherwise identical offender with appointed representation. Slightly smaller effects were found when looking at employment status, with employed offenders averaging 5.6 percentage points less likely than comparable unemployed offenders.

Statistically significant differences in the probability of being sentenced to prison were also found when comparing rates among the circuit courts. Each circuit court was categorized as one of three groups: more likely to impose prison sentences, less likely to impose prison sentence, or no significant relationship. Comparing circuits to the unweighted state average (35.8%) we identified 16 circuit courts that were statistically above average, 11 courts below the average, and 30 courts did not differ significantly from the statewide average. Similar results were found when courts were compared to the weighted state average (30.3%).

A.   Limitations and Additional Research Considerations

As stated throughout this report, our analysis focused on offenders scoring with a straddle cell for class D felonies and excluded habitual offenders and those with a special status during the offense. Due to the scope of our research, our findings may not be representative of the relationships found in other felony crime classes (i.e., M2, A-C, and E-H). For example, applying our model to the straddle cells in the C-Grid may identify different factors that are significantly related to the in-or-out decision. Through continued research on this topic, the CJPC intends to expand the study's scope to include straddle cells from additional felony classes.

Another possible extension of this analysis would be to apply the same regression techniques to evaluate different metrics for sentencing outcomes. In particular, subsequent iterations of this report could address whether sentencing disparities are found in the length of prison sentence determination. Once again, if disparate outcomes are found this analysis could be used to identify significant factors and estimate their impact.

Lastly while this report identifies factors that contribute to the in-or-out decision, we are unable to look at how recidivism rates vary between those sentenced to prison and those sentenced to intermediate sanctions. Additional data, such as the release dates, are required to detect when an offender recidivates and to calculate cohort recidivism rates. Fortunately, through conversations with the MDOC we have identified sources for much of necessary data and are continuing to work with the department to gather the data.

Table A-1: Full Logit Regression Output
Odds Ratios Reported

```
. eststo logit_or: logit prison i.(cell disp_month disp_year)
> i.(retain trial grp1 group) i.(female race hisp hs employed drug alcohol mental_h)
> c.age##c.age i.circuit, r or;

note: 2.race != 0 predicts failure perfectly
      2.race dropped and 15 obs not used

note: 4.race != 0 predicts failure perfectly
      4.race dropped and 3 obs not used

Iteration 0:   log pseudolikelihood = -2958.0475
Iteration 1:   log pseudolikelihood = -2543.0548
Iteration 2:   log pseudolikelihood = -2529.9586
Iteration 3:   log pseudolikelihood =  -2529.783
Iteration 4:   log pseudolikelihood = -2529.7822
Iteration 5:   log pseudolikelihood = -2529.7822
```

```
Logistic regression                          Number of obs    =      4,823
                                             Wald chi2(101)   =     687.55
                                             Prob > chi2      =     0.0000
Log pseudolikelihood = -2529.7822            Pseudo R2        =     0.1448
```

prison	Odds Ratio	Robust Std. Err.	z	P>|z|	[95% Conf. Interval]	
cell						
A6	4.473436	1.091472	6.14	0.000	2.773046	7.216481
A5	1.49241	.3268212	1.83	0.067	.9715936	2.292408
B5	1.709467	.4802299	1.91	0.056	.9856844	2.964719
B4	1.094856	.2714524	0.37	0.715	.6734651	1.779915
C4	1.589967	.2867963	2.57	0.010	1.116476	2.264263
D3	2.304163	.4583775	4.20	0.000	1.560199	3.402879
D2	1.097177	.1797268	0.57	0.571	.7958709	1.512553
E2	2.344691	.4314804	4.63	0.000	1.634721	3.363005
E1	1.100831	.1987875	0.53	0.595	.7726999	1.568304
F1	1.937281	.3604987	3.55	0.000	1.345231	2.789898
disp_month						
2	.5963331	.1121012	-2.75	0.006	.4125499	.8619883
3	1.095265	.1796297	0.55	0.579	.7941773	1.510502
4	.8897939	.1531534	-0.68	0.498	.6350071	1.24681
5	.8661469	.1453164	-0.86	0.392	.6234227	1.203374
6	.7548775	.1282952	-1.65	0.098	.5410166	1.053276
7	.9885368	.1682028	-0.07	0.946	.7082035	1.379837
8	1.098114	.1836118	0.56	0.576	.7912629	1.52396
9	.9822535	.1652722	-0.11	0.915	.7063207	1.365983
10	1.066459	.1715262	0.40	0.689	.7781067	1.461669
11	1.23819	.2093569	1.26	0.206	.8889218	1.72469
12	.8696383	.1527894	-0.80	0.427	.6162946	1.227125
disp_year						
2013	.9137158	.1113364	-0.74	0.459	.7196015	1.160193
2014	1.041657	.1217323	0.35	0.727	.8284188	1.309784
2015	.8475483	.1019621	-1.37	0.169	.6695189	1.072917
2016	.8474528	.1039495	-1.35	0.177	.6663558	1.077767
2017	.5933695	.0743623	-4.16	0.000	.4641421	.7585768
1.retain	.6859106	.0631059	-4.10	0.000	.5727358	.8214492
1.trial	4.702538	1.198097	6.08	0.000	2.854079	7.748161
1.grp1	.9860911	.1338258	-0.10	0.918	.7557838	1.286579
group						
Property	.8460226	.1039643	-1.36	0.174	.6649381	1.076422
CS	.6742674	.1044212	-2.54	0.011	.4977483	.9133863
Pub Order	.315156	.0824786	-4.41	0.000	.1886948	.52637
Pub Safety	1.263469	.3821628	0.77	0.439	.6983948	2.285749
Pub Trust	2.66175	.5424319	4.80	0.000	1.785266	3.968548
1.female	.5400391	.0687402	-4.84	0.000	.4208021	.6930626
race						
American Indian or Alaskan Native	1.345059	.4436899	0.90	0.369	.7046259	2.567582
Asian	1	(empty)				
Black or African American	.9121474	.0818521	-1.02	0.305	.7650362	1.087547
Native Hawaiian or Other Pacific	1	(empty)				
1.hisp	1.237102	.2301732	1.14	0.253	.8590773	1.781471
1.hs	.9051197	.0675633	-1.34	0.182	.7819293	1.047718
1.employed	.7211886	.057013	-4.13	0.000	.6176719	.8420539
1.drug	1.086544	.0933474	0.97	0.334	.9181604	1.285807
1.alcohol	1.29988	.1032238	3.30	0.001	1.112523	1.518789
1.mental_h	1.069269	.0841421	0.85	0.395	.9164418	1.247582
age	1.053714	.0196518	2.81	0.005	1.015893	1.092943
c.age#c.age	.9992978	.000233	-3.01	0.003	.9988412	.9997547

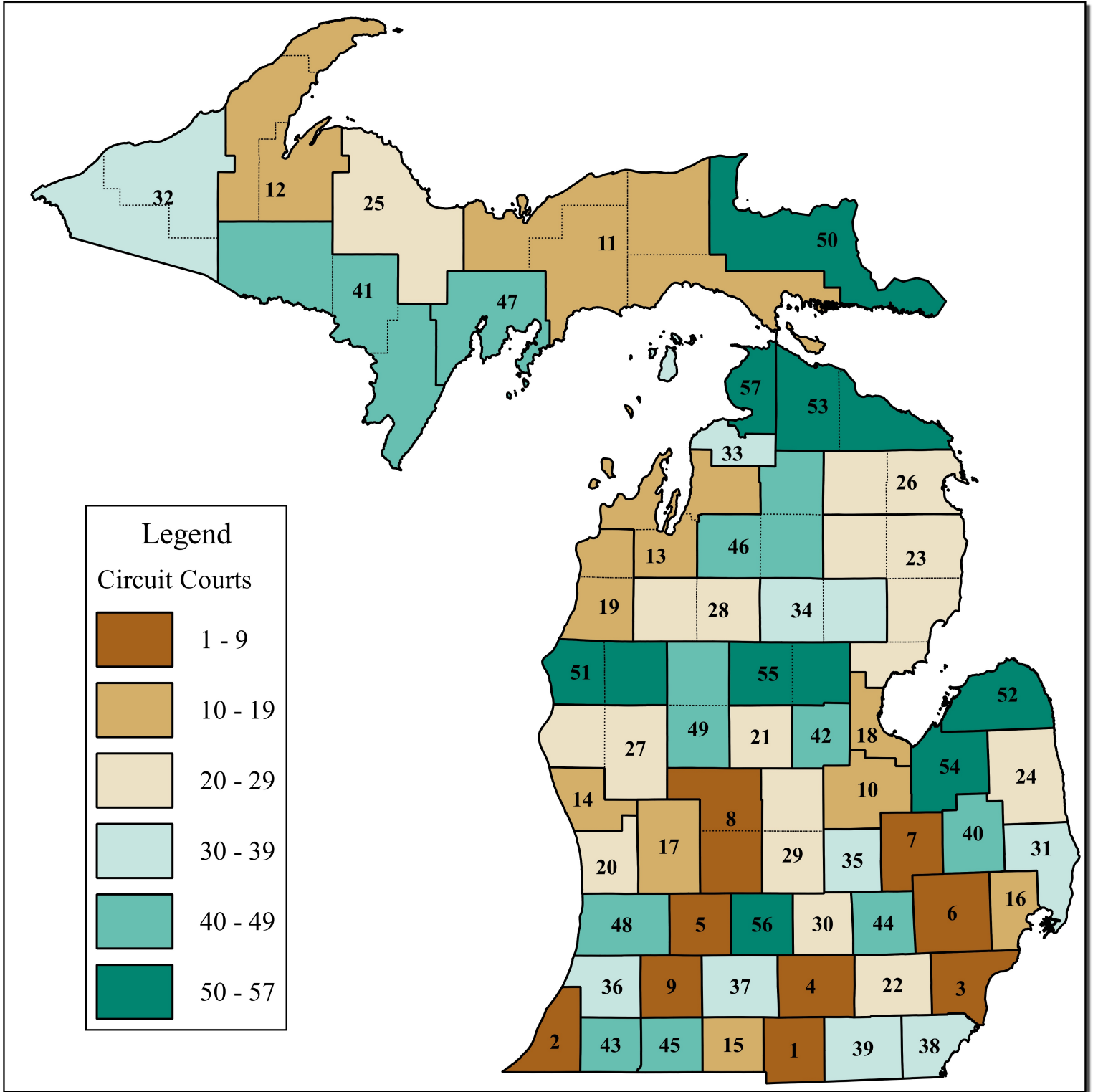| circuit						
1	21.1589	11.54366	5.59	0.000	7.262782	61.64291
2	2.843971	.4801784	6.19	0.000	2.042714	3.959522
4	2.501601	.6500496	3.53	0.000	1.503247	4.162993
5	.4732242	.3144157	-1.13	0.260	.1286823	1.740264
6	1.134486	.2619611	0.55	0.585	.7215237	1.783807
7	.6505619	.1237725	-2.26	0.024	.4480676	.9445691
8	2.0553	.5489022	2.70	0.007	1.21772	3.468988
9	.4727966	.1097709	-3.23	0.001	.2999493	.745248
10	1.072359	.3145456	0.24	0.812	.6034831	1.90553
11	2.160135	1.023454	1.63	0.104	.8534705	5.467304
12	.6984739	.8371084	-0.30	0.765	.0666807	7.316442
13	7.247126	2.385151	6.02	0.000	3.802079	13.81372
14	2.061822	.5692479	2.62	0.009	1.200171	3.542087
15	5.266099	1.919332	4.56	0.000	2.577817	10.75786
16	.8642988	.1377385	-0.92	0.360	.6324302	1.181178
17	3.613859	.5340783	8.69	0.000	2.705051	4.827997
18	.8566367	.3053029	-0.43	0.664	.4260209	1.722513
19	2.662753	1.616056	1.61	0.107	.8104511	8.748527
20	1.016361	.3191666	0.05	0.959	.5492195	1.880831
21	1.166105	.4783302	0.37	0.708	.5218899	2.60553
22	1.588388	.3354021	2.19	0.028	1.050069	2.402676
23	1.952679	.9528073	1.37	0.170	.7503922	5.081286
24	1.216636	.7593806	0.31	0.753	.3579905	4.134758
25	3.23531	1.516247	2.51	0.012	1.291205	8.106559
26	2.495135	.9953272	2.29	0.022	1.141678	5.453112
27	1.654318	.6182952	1.35	0.178	.795217	3.441537
28	3.41101	1.108405	3.78	0.000	1.804204	6.448822
29	3.746769	1.214792	4.07	0.000	1.984618	7.07354
30	.6536985	.1722425	-1.61	0.107	.3900274	1.09562
31	.7794993	.2121328	-0.92	0.360	.457267	1.328806
32	2.906873	2.688415	1.15	0.249	.4744541	17.80976
33	2.685744	1.853494	1.43	0.152	.6944338	10.3872
34	5.249588	2.231539	3.90	0.000	2.281862	12.07706
35	3.420377	1.697713	2.48	0.013	1.292939	9.048363
36	.5098825	.1624159	-2.11	0.034	.2731064	.9519374
37	.864472	.225836	-0.56	0.577	.518062	1.442514
38	4.295487	1.246384	5.02	0.000	2.432354	7.585743
39	4.838744	1.469565	5.19	0.000	2.668185	8.775045
40	.0697145	.073354	-2.53	0.011	.0088651	.5482299
41	7.603019	5.351911	2.88	0.004	1.913414	30.21086
42	1.355884	.9262287	0.45	0.656	.355428	5.172417
43	.8376709	.2737848	-0.54	0.588	.4414345	1.589573
44	.9911574	.4221384	-0.02	0.983	.4301422	2.283879
45	.6207621	.1818143	-1.63	0.104	.3496373	1.10213
46	3.675492	1.356184	3.53	0.000	1.78336	7.575163
47	1.15429	.672511	0.25	0.805	.3684586	3.616104
48	.5828703	.1470932	-2.14	0.032	.355437	.9558311
49	3.12977	.977336	3.65	0.000	1.697098	5.771888
50	2.434378	1.161425	1.86	0.062	.9556204	6.201412
51	1.378929	.849333	0.52	0.602	.4123399	4.611351
52	.6288469	.5444076	-0.54	0.592	.1152496	3.431233
53	1.072389	.7951213	0.09	0.925	.250744	4.586427
54	.4635715	.2495515	-1.43	0.153	.1613968	1.331492
55	6.132594	2.41783	4.60	0.000	2.83172	13.28122
56	.1981978	.1867044	-1.72	0.086	.0312794	1.255855
57	3.635072	2.133805	2.20	0.028	1.150412	11.4861
_cons	.1441212	.0579495	-4.82	0.000	.0655344	.316947

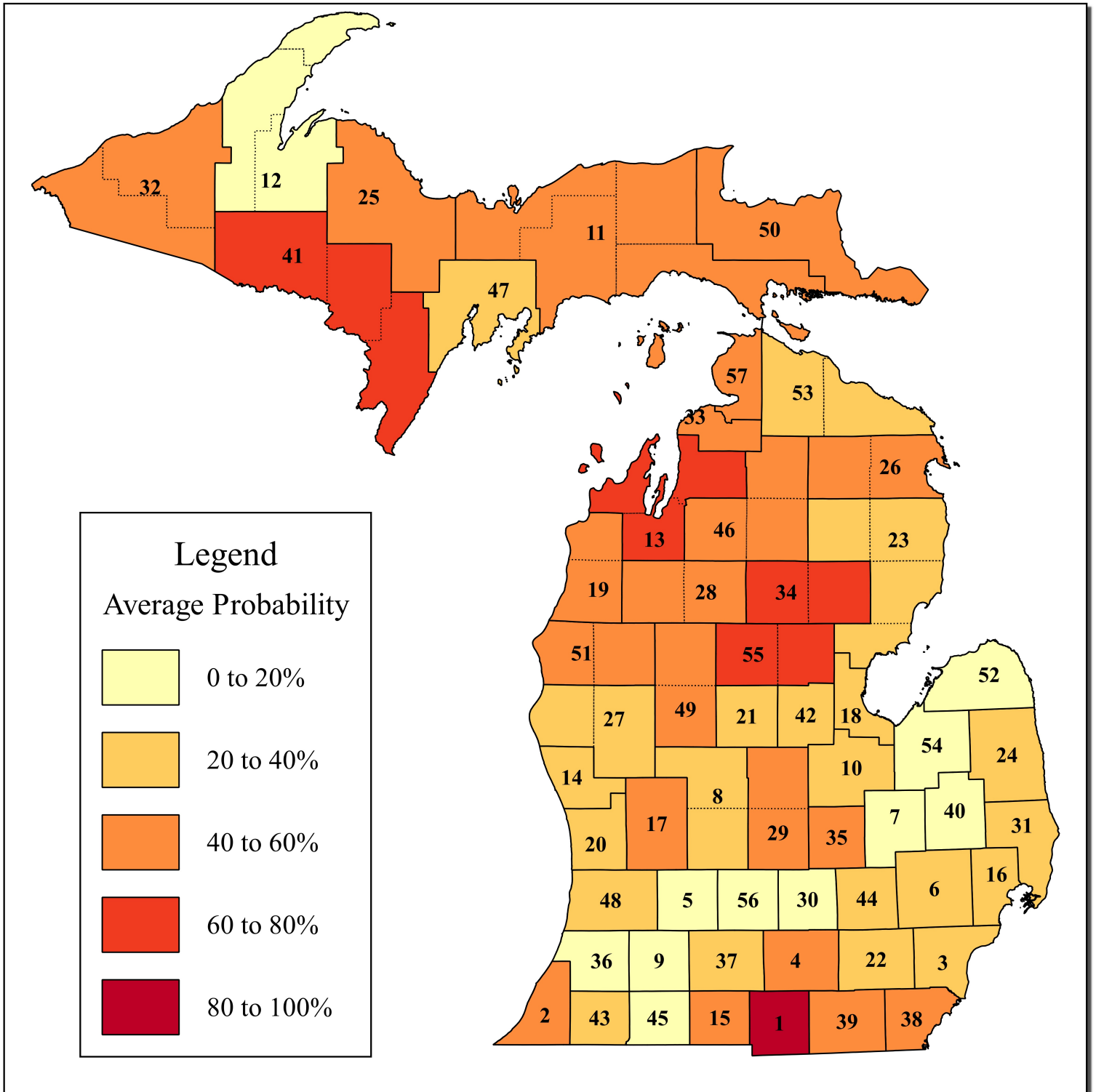# Straddle Cell Sentencing - Class D Offenses

Map 1: Counties in Michigan
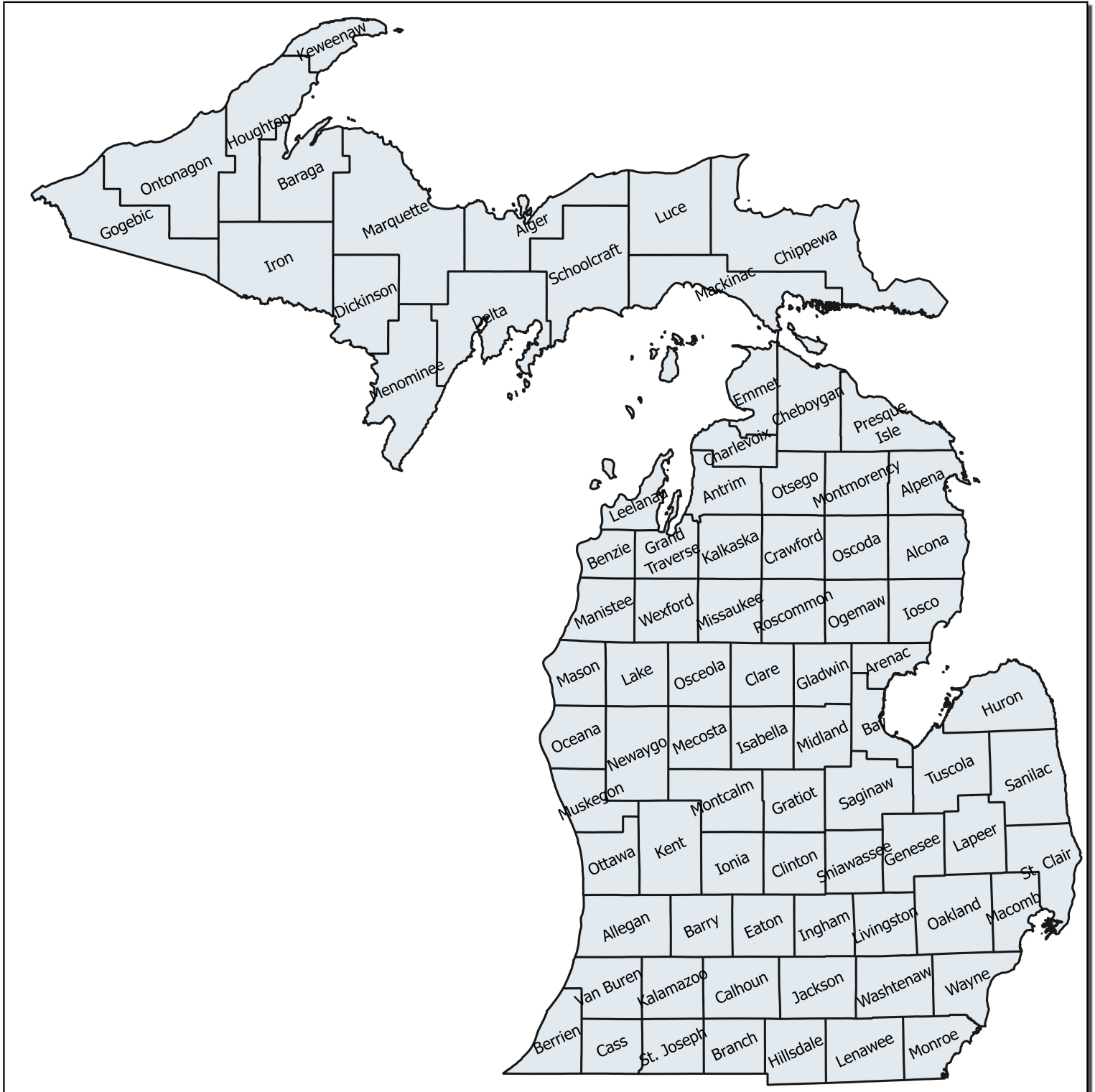
Straddle Cell Sentencing - Class D Offenses

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Map 2: Circuit Courts in Michigan

Legend

Circuit Courts

- 1 - 9
- 10 - 19
- 20 - 29
- 30 - 39
- 40 - 49
- 50 - 57

Straddle Cell Sentencing - Class D Offenses

Map 3: Average Probability of Receiving a Prison Sentence
- By Circuit Court -

Legend

Average Probability

- 0 to 20%
- 20 to 40%
- 40 to 60%
- 60 to 80%
- 80 to 100%

Results presented here focus on Class D felony sentencing outcomes for those scored within a straddle cell, excluding habitual offenders and those with a special status during the offense (e.g., HYTA, Probation, Parole). The map above shows the average predicted probability of receiving a prison sentence for each circuit court. To account for the specifics of each sentencing decision the model uses to produce these results incorporates a variety of sentencing factors [sentencing cell (i.e., PRL and OVL), whether the offense was assaultive in nature, whether the conviction was the result of a trial, and the circuit court] as well as multiple demographic factors; [gender, race/ethnicity age, graduated HS/ GED, employment status, drug and alcohol abuse history, and mental health history].
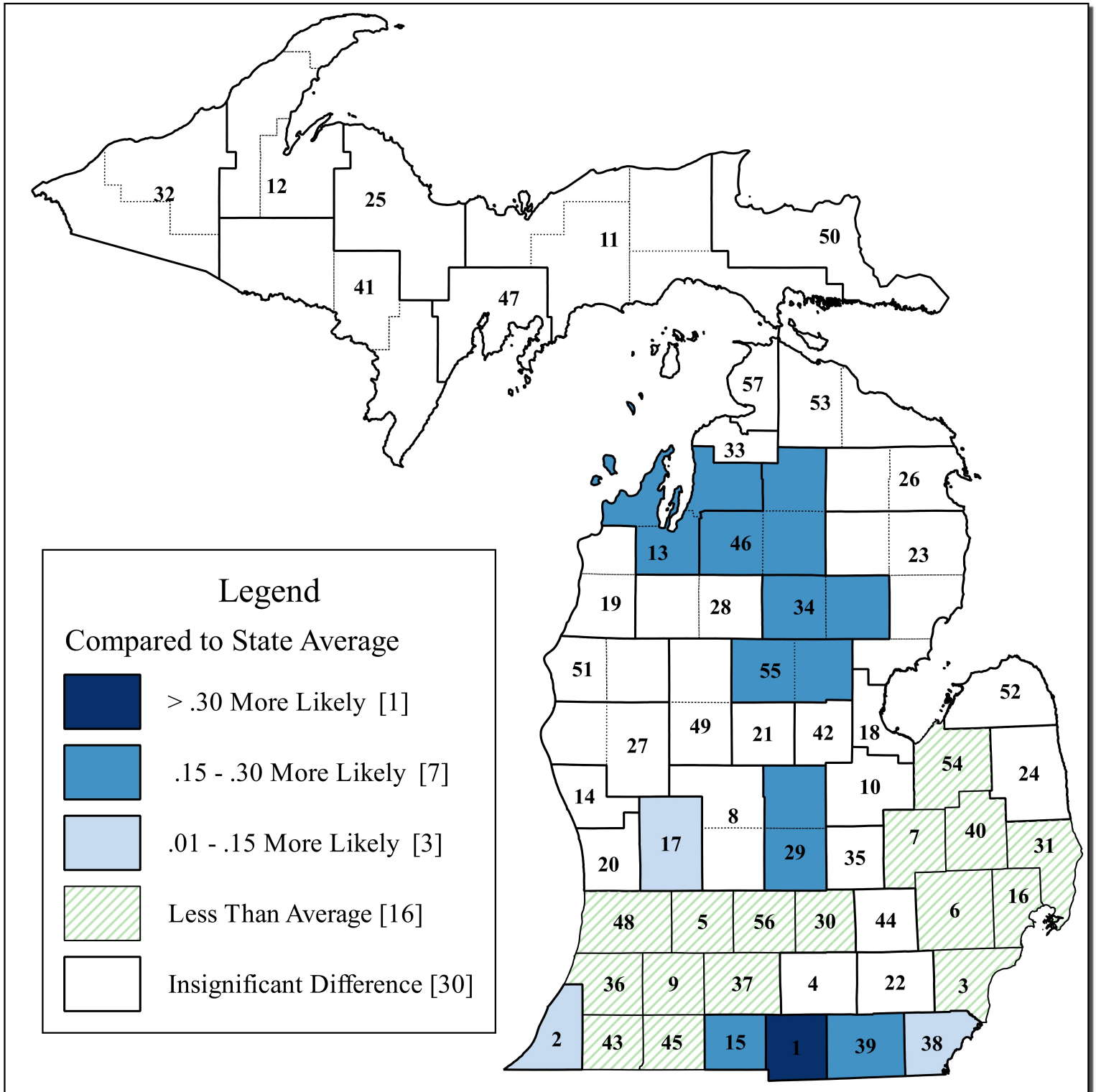
Straddle Cell Sentencing - Class D Offenses

Figure 4b: Probability of Receiving a Prison Sentence
- Comparing Circuit Courts to State Average -

Legend

Compared to State Average

- ■ > .30 Less Likely [2]
- ■ .15 - .30 Less Likely [9]
- ■ .01 - .15 Less Likely [5]
- ▨ Greater Than Average [11]
- □ Insignificant Difference [30]

The comparisons above show the difference between each circuit court's average and the statewide average (35.8%). Circuits colored green are on average less likely to impose prison sentences than the state average. The three shades of green (light, medium, dark) correspond to how far below average each circuit court is. The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (e.g., HYTA, Probation, Parole).
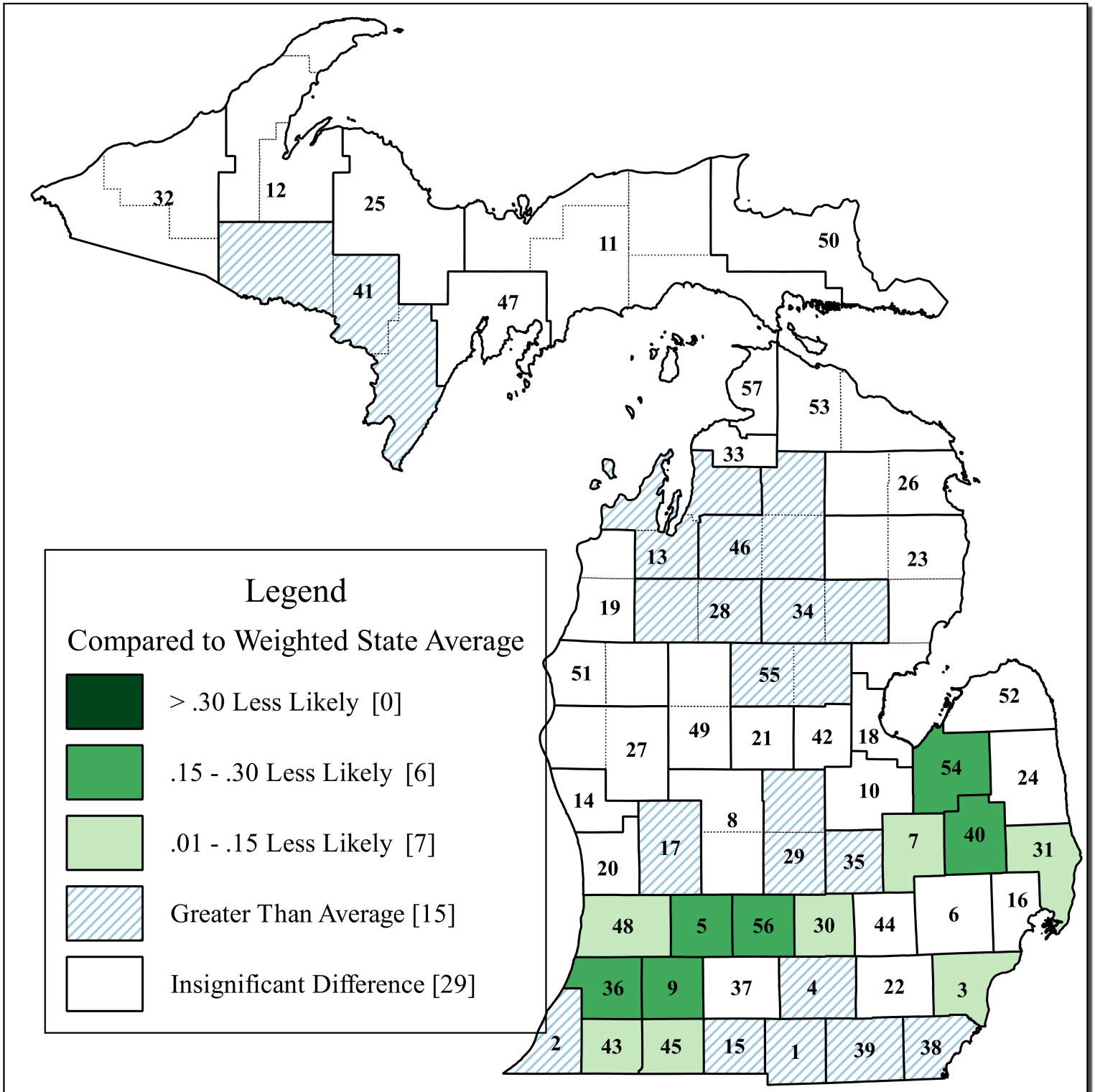
Straddle Cell Sentencing - Class D Offenses

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Map 4c: Probability of Receiving a Prison Sentence
- Comparing Circuit Courts to State Average -

Legend

Compared to State Average

- ■ > .30 More Likely [1]
- ■ .15 - .30 More Likely [7]
- ■ .01 - .15 More Likely [3]
- ▨ Less Than Average [16]
- □ Insignificant Difference [30]

The comparisons above show the difference between each circuit court's average and the statewide average (35.8%). Circuits colored blue are on average more likely to impose prison sentences than the state average. The three shades of blue (light, medium, dark) correspond to how far above average sreach circuit court is. The sample for this analysis includes individuals sentenced Oetween 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (e.g., HYTA, Probation, Parole).
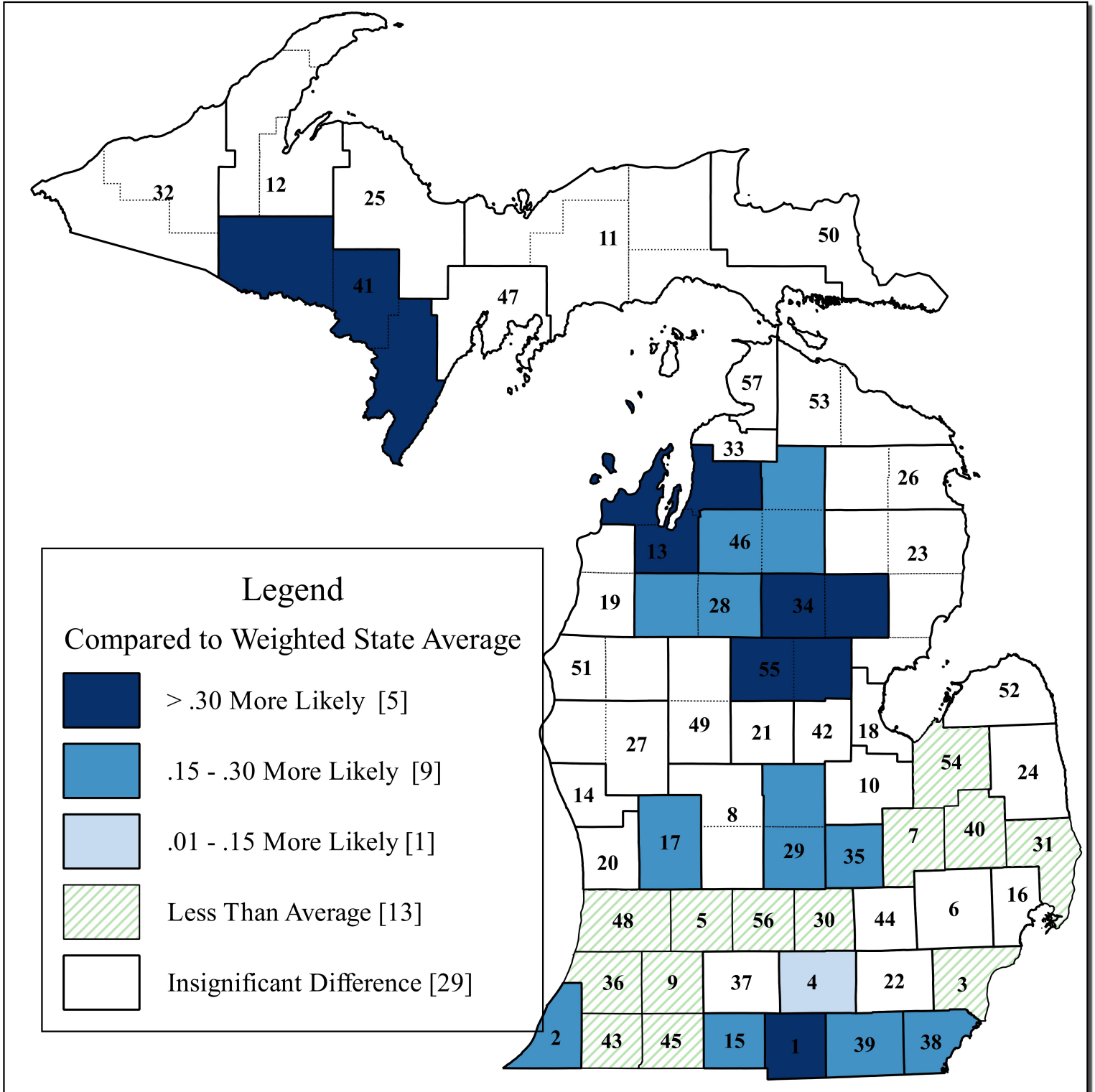
Straddle Cell Sentencing - Class D Offenses

Map 5b: Probability of Receiving a Prison Sentence
- Comparing Circuit Courts to Weighted State Average -

Legend

Compared to Weighted State Average

- > .30 Less Likely [0]
- .15 - .30 Less Likely [6]
- .01 - .15 Less Likely [7]
- Greater Than Average [15]
- Insignificant Difference [29]

The comparisons above show the difference between each circuit court's average and the weighted statewide average (30.3%). Circuits colored green are on average less likely to impose prison sentences than the state average. The three shades of green (light, medium, dark) correspond to how far below average each circuit court is. The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (e.g., HYTA, Probation, Parole).

Straddle Cell Sentencing - Class D Offenses

Map 5c: Probability of Receiving a Prison Sentence
- Comparing Circuit Courts to Weighted State Average -

Legend
Compared to Weighted State Average

- > .30 More Likely [5]
- .15 - .30 More Likely [9]
- .01 - .15 More Likely [1]
- Less Than Average [13]
- Insignificant Difference [29]

The comparisons above show the difference between each circuit court's average and the weighted statewide average (30.3%). Circuits colored blue are on average more likely to impose prison sentences than the state average. The three shades of blue (light, medium, dark) correspond to how far above average each circuit court is. The sample for this analysis includes individuals sentenced between 2012-2017 and scored within a straddle cell for Class D offenses, excluding habitual offenders and those with a special status during the offense (e.g., HYTA, Probation, Parole).

Senator Patrick Colbeck's
Policy Recommendations
For November 7, 2018 CJPC Meeting

Policy Recommendations (Based upon Table E1):

Crime Groups
Controlled Substance
1. Option A) Tighten judicial discretion regarding controlled substance sentencing guidelines to increase likelihood of prison sentence
2. Option B) Reduce sentences for controlled substances
3. Option C) Do Nothing
NOTE: Policy recommendation should be a function of recidivism rates for controlled substance crimes. If no significant difference between prison sentence and non-prison sentence then Option B should likely be considered else Option A should likely be considered.
Public Order
1. Option A) Tighten judicial discretion regarding public order sentencing guidelines to increase likelihood of prison sentence
2. Option B) Reduce sentences for public order crimes
3. Option C) Do Nothing
Public Trust
1. Option A) Tighten judicial discretion regarding public trust sentencing guidelines to decrease likelihood of prison sentence
2. Option B) Increase sentences for public trust crimes
3. Option C) Do nothing

Conviction Method
1. Option A) If we would like to encourage plea deals, maintain status quo.
2. Option B) If we would like to encourage trial by jury, promote restrictions on plea deals
3. Option C) Do Nothing

Attorney Status
1. Option A) Increase funding for public defenders as a means of lowering case load and increasing quality of public defenders
2. Option B) Promote limits on retainer amounts
3. Option C) Promote transparency on lawyer performance metrics to allow accused to be better informed as to impacts of their defense options.
4. Option D) Do nothing

Gender
1. Option A) Promote protections against discrimination on the basis of sex in court proceedings
2. Option B) Promote transparency on each judge's performance regarding an sex discrimination bias based on court-specific straddle cell data
3. Option C) Do nothing

Age
    1. Option A) Promote protections against discrimination on the basis of age in court proceedings
    2. Option B) Promote transparency on each judge's performance regarding an age discrimination bias based on court-specific straddle cell data
    3. Option C) Do nothing

Employment
    1. Option A) Promote policies that increase employment
    2. Option B) Promote protections against discrimination on the basis of employment in court proceedings
    3. Option C) Do nothing

Alcohol Abuse
    1. Option A) Promote specialty courts regarding alcohol abuse
    2. Option B) Do nothing

Circuit Court
    1. Option A) Promote transparency regarding court metrics such as case load and prison sentence rates relative to other circuit courts. Ensure such data is available for electorate in support of circuit court election considerations.
    2. Option B) Do nothing

Additional notes:
1. Policy options are provided to frame the discussion based upon the straddle cell report findings. The commission has the option of selecting one or more of the options provided or simply advising the legislature as to these options.
2. Policy recommendations for crime groups should be selected should be a function of recidivism rates for each crime group. If no significant difference between prison sentence and non-prison sentence then economic factors pertaining to imprisonment versus parole should likely be considered so as to decrease expense burden upon taxpayers.