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# SENTENCING GUIDELINES AND PRISON POPULATION GROWTH\*

THOMAS B. MARVELL\*\*

## ABSTRACT

This paper explores the relationship between sentencing guidelines and prison populations in nine states. The guidelines are associated with declines in prison population growth in the six states where legislators decreed that guideline framers consider prison capacity when establishing guidelines for prison sentence lengths. In some states the guideline laws alone appear to have caused prison population growth to moderate, but in others the guidelines were probably only one aspect of a larger policy to limit prison expansion.

## I. INTRODUCTION

One of the most significant trends in criminal justice is the growing emphasis on imprisonment. Legislators have continuously responded to constituent fears by establishing longer sentences or mandatory minimum sentences for wide varieties of crimes and criminals.<sup>1</sup> As a result, United States prison populations have increased nearly 400% in the twenty-five years from 1968 to 1993.<sup>2</sup>

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<sup>1</sup> See, e.g., Patrick A. Langan, *America's Soaring Prison Population*, 251 *Sci.* 1568, *passim* (1991).

<sup>2</sup> Prison population data for 1968 and 1993 are not strictly comparable, but fairly good estimates of growth are possible. In 1968 there were 187,274 inmates in federal or state prisons sentenced to six months or more. STEPHANIE MINOR-HARPER, BUREAU OF JUSTICE STATISTICS BULLETIN, STATE AND FEDERAL PRISONERS, 1925-85, at 2-3 (1986). The latest, but still preliminary, figure for the number of federal and state prisoners at the end of 1993 is 946,946; the number sentenced to more than one year is 910,080 (data obtained from the Bureau of Justice Statistics, 29 November 1994). The average of these two figures is 396% higher than the 1968 figure. This may slightly exaggerate the growth because the 1993 figures, but not the 1968 figures, include prisoners in jail due to prison overcrowding. The 1993 figures include roughly 20,000 such jail inmates. See DARRELL K. GILLIARD & ALLEN J. BECK, BUREAU OF JUSTICE STATISTICS BULLETIN, PRISONERS IN 1993, at 5 (1994).

Sentencing guidelines have emerged as important moderating influences on this trend. Although their original purpose was to reduce sentencing disparity, the guidelines have acquired a second function in several states: to limit prison population growth by tailoring sentences to prison capacity. Legislators who either worried about prison costs or were not persuaded that more imprisonment effectively reduced crime required the guideline authors to consider prison capacity.<sup>3</sup>

Presumptive sentencing guidelines are sentence ranges based mainly on the severity of the crime and the defendant's criminal history. The trial judge must either impose a sentence within the range or give written reasons for departing from it.<sup>4</sup> By 1990 (the cut-off date for laws evaluated in this article), nine states had statewide presumptive sentencing guidelines. They are: Delaware (effective 10 October 1987), Florida (effective 1 October 1983), Michigan (effective 1 March 1984), Minnesota (effective 1 May 1980), Oregon (effective 1 November 1989), Pennsylvania (effective 22 July 1982), Tennessee (effective 1 November 1989), Washington (effective 1 July 1984), and Wisconsin (effective 1 November 1985).<sup>5</sup>

The initial step towards creating sentencing guidelines occurred when state legislatures (in Michigan, the Supreme Court) created a sentencing commission.<sup>6</sup> The commission drafted guidelines, and in six states those guidelines could go into effect without legislative ap-

<sup>3</sup> Albert W. Alschuler, *The Failure of Sentencing Guidelines: A Plea for Less Aggregation*, 58 U. CHI. L. REV. 901, 934-37 (1991); Richard S. Frase, *Sentencing Guidelines in the States: Lessons for State and Federal Reformers*, 6 FED. SENTENCING REP. 123, 124 (1993); Michael H. Tonry, *The Politics and Processes of Sentencing Commissions*, 37 CRIME & DELINQ. 307, 311, 323-24 (1991). See also *infra* text accompanying notes 9 to 15.

<sup>4</sup> MICHAEL H. TONRY, SENTENCING REFORM IMPACTS 102 (1987).

<sup>5</sup> Supreme Court of Delaware, Directive Number Seventy-Six, September 15, 1987; *In re* Rules of Crim. Procedure, 439 So. 2d 848 (Fla. 1983) (per curiam) (adopting Rule 3.701 of the Florida Rules of Criminal Procedure); Michigan Supreme Court, Administrative Order No. 1984-1, Sentencing Guidelines, January 17, 1984 (418 Mich. lxxx [1984]); 1978 Minn. Laws 723 § 20 (codified as MINN. STAT. § 244.01 (1978)); OR. REV. STAT. § 137.120 (1990); 204 PA. CODE § 303 (1982) (reprinted following 42 PA. CONS. STAT. ANN. § 9721 (1982)); TENN. CODE ANN. § 40-35-117 (1990); WASH. REV. CODE ANN. § 9.94A.905 (West 1988); WIS. STAT. ANN. § 973.012 (West 1985).

At least five states adopted mandatory guidelines after 1990: Arkansas, ARK. CODE ANN. § 16-90-803 (Michie Supp. 1993) (effective January 1, 1994); Kansas, KAN. STAT. ANN. § 74-9101 (Supp. 1994) (effective July 1, 1993); Louisiana, LA. REV. STAT. ANN. § 15:322 (West Supp. 1994) (effective January 1, 1992); North Carolina, N.C. GEN. STAT. § 15A-1340.10 (Supp. 1994) (effective January 1, 1995); and Virginia, January 1, 1991 (VIRGINIA STATE OF THE JUDICIARY REPORT 1990, at A16 (1991)).

<sup>6</sup> DEL. CODE ANN. tit. 11, § 6580 (1987); FLA. STAT. ANN. § 921.001 (West 1985); MINN. STAT. ANN. § 244.09 (West 1992); OR. REV. STAT. § 137.663 (Supp. 1992); 42 PA. CONS. STAT. ANN. § 2151 (1981); TENN. CODE ANN. § 40-37-102 (1990); WASH. REV. CODE ANN. § 9.94A.040 (West 1988); WIS. STAT. ANN. § 973.01 (West 1985).

proval.<sup>7</sup> According to Professor Albert Alschuler, this procedure allows the non-elective commissions to serve as buffers, allowing legislators to avoid public clamor for stiffer sentences.<sup>8</sup>

Enabling legislation in six of the nine states charged sentencing commissions, directly in five states and indirectly in one, to consider prison capacity when drafting guidelines. The law creating the Minnesota sentencing commission states: "In establishing the sentencing guidelines, the commission shall take into substantial consideration current sentencing and release practices and correctional resources, including but not limited to the capacities of local and state correctional facilities."<sup>9</sup> The Florida law contains virtually the same language: "In establishing the sentencing guidelines, the commission shall take into substantial consideration current sentencing and release practices and correctional resources, including but not limited to the capacities of local and state correctional facilities."<sup>10</sup> In Washington, if the commission recommended guidelines that probably would result in a prison population above capacity, it had to submit to the legislature a second set of guidelines consistent with capacity,<sup>11</sup> in practice, however, the commission's initial recommendation was consistent with capacity.<sup>12</sup> The Tennessee legislature directed its commission to formulate guidelines "consistent with . . . a prison capacity figure arrived at by taking ninety-five percent (95%) of the present constitutional capacity of the prison system and adding any new

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<sup>7</sup> The initial legislation stated that the sentencing commissions' guidelines went into effect unless disapproved by the legislature in Florida, Minnesota, Pennsylvania, and Wisconsin. FLA. STAT. ch. 921.001 (1985) (established by Supreme Court rule); MINN. STAT. ANN. § 244.09 (West 1992); 42 PA. CONS. STAT. ANN. § 2151 (1981); WIS. STAT. ANN. § 973.012 (West 1985) and *In re* Judicial Admin. Felony Sentencing Guidelines, 353 N.W.2d 793 (Wis. 1984). In Pennsylvania the legislature rejected the commission's first guideline proposal. See Susan E. Martin, *Interests and Politics in Sentencing Reform: The Development of Sentencing Guidelines in Minnesota and Pennsylvania*, 29 VILL. L. REV. 21, 67, 74 (1984). The Delaware guidelines went into effect when the state supreme court accepted them. DEL. CODE ANN. tit. 11, § 6580 (1987). The Michigan guidelines were adopted by the Supreme Court without legislative involvement.

The guidelines did not go into effect until specifically approved by the legislature in the remaining three states, Oregon, Tennessee, and Washington. 1987 Or. Laws 619; TENN. CODE ANN. §§ 40-37-203-205 (1990); 1981 Wash. Laws 137 § 7.

<sup>8</sup> Alschuler, *supra* note 3, at 934-35. Alschuler likened it to the lawmakers' charging the sentencing commission: "Stop us before we kill again." *Id.*

<sup>9</sup> MINN. STAT. ANN. § 244.09 (West 1992) (prior to 1989 amendment).

<sup>10</sup> FLA. STAT. ANN. § 921.001 (West 1985). The original law creating the sentencing commission did not mention prison capacity, 1982 Fla. Laws ch. 145, but was quickly amended to include it. 1983 Fla. Laws ch. 87.

<sup>11</sup> WASH. REV. CODE ANN. § 9.94A.040 (West 1988).

<sup>12</sup> David Boerner, *The Role of the Legislature in Guidelines Sentencing in "the Other Washington"*, 28 WAKE FOREST L. REV. 381, 387-91 (1993).

prison beds constructed. . . ."<sup>13</sup> The Oregon commission had to "take into consideration . . . the effective capacity of state and local corrections facilities,"<sup>14</sup> and limiting prison population growth was probably the most important reason for creating sentencing guidelines in that state.<sup>15</sup> Finally, the Delaware legislation, although not mentioning prison capacity specifically, directed the commission to give "due regard for resources availability and cost."<sup>16</sup> Presumably, resources availability includes prison capacity.

Three of the nine states did not include prison capacity among the criteria. The Pennsylvania legislature considered such a provision, but decided not to include it, and the sentencing commission did not factor in prison capacity.<sup>17</sup> In fact, the lawmakers rejected the commission's initial proposal (even though it would have increased prison populations substantially); instead, the guidelines became law only after the commission further toughened sentences.<sup>18</sup> The charge to the Michigan sentencing commission concerned only sentencing fairness.<sup>19</sup> The Wisconsin sentencing commission law does not mention prison capacity,<sup>20</sup> although controlling prison population growth later become part of the commission's efforts.<sup>21</sup>

Descriptions of the guideline development process suggest that

<sup>13</sup> TENN. CODE ANN. § 40-37-203 (1990).

<sup>14</sup> 1987 Or. Laws 619.

<sup>15</sup> Kathleen M. Bogan, *Constructing Felony Sentencing Guidelines in an Already Crowded State: Oregon Breaks New Ground*, 36 CRIME & DELINQ. 467, 469-70 (1990).

<sup>16</sup> DEL. CODE ANN. tit. 11, § 6580 (1987).

<sup>17</sup> 1942 PA. CONS. STAT. ANN. §§ 2151-55 (1981); John H. Kramer et al., *Sentencing Guidelines: A Quantitative Comparison of Sentencing Policies in Minnesota, Pennsylvania, and Washington*, 6 JUST. Q. 565, 570-71 (1989); Martin, *supra* note 7, at 67, 74 (1984).

<sup>18</sup> Martin, *supra* note 7, at 88-99.

<sup>19</sup> James A. McComb, *An Overview of the Second Edition of the Michigan Sentencing Guidelines*, 67 MICH. B.J. 863 (1988). The Michigan commission has never considered prison capacity when developing or modifying its guidelines, and proposed legislation calling for it to do so did not pass. Interview with James A. McComb, Michigan State Court Administrative Office (November 30, 1994).

As for the guidelines taking effect after 1990, the Kansas law contains language similar to that in Minnesota, KAN. STAT. ANN. § 74-9101 (Supp. 1994), and the North Carolina law is similar to the Washington law. N.C. GEN. STAT. § 164-42(d) (Supp. 1994). The Louisiana law does not mention prison capacity. LA. REV. STAT. ANN. §§ 15:321-15:329 (West Supp. 1994). The Arkansas commission was directed to limit prison sentences to the most severe crimes and criminals because of the "finite capacity" of state prisons. ARK. CODE ANN. § 16-90-801 (Michie Supp. 1993).

<sup>20</sup> 1983 Wis. Laws 371.

<sup>21</sup> Sandra Shane-DuBow, *Hybrid Guidelines: The Wisconsin Experience*, 3 FED. SENTENCING REP. 162 (1993). The Commission has not been a leader in efforts to control prison population growth, but it worked with the Department of Corrections and the legislature when they developed intensive supervision programs, and the Commission incorporated them into the guidelines. Interview with Sandra Shane-DuBow, Executive Director, Wisconsin Sentencing Commission (November 30, 1994). See *infra* note 47.

the commissions generally followed legislative mandates to consider prison capacity when formulating guidelines, especially by limiting imprisonment for non-violent crimes, although they sometimes made corresponding increases for violent crimes.<sup>22</sup> Thus, the question for the present study is whether these legislative directives have effectively moderated prison population growth.<sup>23</sup>

Commentators differ on the issue of whether guidelines actually affected prison population growth. Washington and Minnesota prison populations flattened out for several years after those states initiated guidelines, while nationwide figures continued to grow. Professors Tonry and Alschuler considered these laws successes in this respect, but Alschuler questioned whether this effect is typical of other guideline states.<sup>24</sup> In contrast, Joachim Savelsberg faults the Minnesota guideline commission for failing to realize its goal of keeping prison population below capacity,<sup>25</sup> and David Boerner concluded that the guidelines might not have the effect assumed earlier after discovering that Washington increased prison populations by more than fifty percent in 1990-92.<sup>26</sup> Most commentators generally view the Florida guidelines as failures in most respects, including their inability to hold prison population in check.<sup>27</sup>

## II. RESEARCH DESIGN

This study estimates the impact of sentencing guidelines on prisons by employing the multiple time series design, which many consider the best procedure for evaluating state laws when a random experiment is not feasible.<sup>28</sup> The multiple time series design com-

<sup>22</sup> Boerner, *supra* note 12, at 391; Bogan, *supra* note 15, at 484; Tonry, *supra* note 3, at 323-24.

<sup>23</sup> In spite of the intended restraints, legislators in the guideline states continued to stiffen penalties for repeat offenders and for some crimes, especially burglary and drug offenses. See, e.g., Boerner, *supra* note 12, at 392-412; N. Gary Holten & Roger Handberg, *Florida's Sentencing Guidelines Surviving But Just Barely*, 73 JUDICATURE 259, 263-65 (1990); Richard Lawrence, *The Impact of Sentencing Guidelines on Corrections*, 5 CRIM. JUST. POL'Y REV. 207, 208 (1991). Such changes were common elsewhere, of course, and as von Hirsch and Greene note, the impact of sentencing guidelines on prison populations depends on whether the punitive laws in guideline states have been less drastic than elsewhere. Andrew von Hirsch & Judith Green, *When Should Reformers Support Creation of Sentencing Guidelines?* 28 WAKE FOREST L. REV. 329, 334, 341 (1993).

<sup>24</sup> Alschuler, *supra* note 3, at 934-35; Tonry, *supra* note 3, at 311-12.

<sup>25</sup> Joachim Savelsberg, *Law That Does Not Fit Society: Sentencing Guidelines as Neoclassical Reaction to the Dilemmas of Substantivized Law*, 97 AM. J. SOC. 1346, 1373 (1992).

<sup>26</sup> Boerner, *supra* note 12, at 382-84.

<sup>27</sup> E.g., Holten & Handberg, *supra* note 23, at 267.

<sup>28</sup> See e.g., DONALD CAMPBELL & JAMES STANLEY, EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR RESEARCH 55-57 (1967); Richard A. Berk et al., *Estimation Procedures for Pooled Cross-Sectional and Time Series Data*, 3 EVALUATION Q. 385, *passim* (1979); Richard Lempert,

bines data from all states over nearly two decades. Dependent variables in the regressions are prison admissions and population in each state, and the independent variables include dummy variables representing the sentencing guidelines laws.<sup>29</sup> Among other benefits, the multiple time series design provides a large number of degrees of freedom, controls for the analysis of individual state law, and facilitates the use of control variables.<sup>30</sup>

The standard regression procedure for multiple time series data is the Fixed Effects Model.<sup>31</sup> Its main feature is the inclusion of dummy variables for each state and each year, which control for overall state differences in the dependent variables and for nationwide yearly changes. They control for variables not entered in the analysis to the extent that the latter move the mean for a particular state or year from the overall mean. The year and state dummy variables are highly significant in all regressions, without them the estimates of the other variables would be biased.<sup>32</sup>

### III. VARIABLES

#### A. SENTENCING GUIDELINE LAWS

The sentencing guidelines studied in this article are the nine presumptive guidelines that went into effect by 1990—*e.g.*, in Delaware, Florida, Michigan, Minnesota, Oregon, Pennsylvania, Tennessee, Washington, and Wisconsin.<sup>33</sup> Voluntary guidelines, which do not re-

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*Strategies of Research Design in the Legal Impact Study: The Control of Plausible Rival Hypotheses*, 1 LAW & SOC. REV. 111, 130-31 (1966).

<sup>29</sup> Each regression equation has one dependent variable (on the left side of the equation) and several independent variables (on the right side). The regression estimates the impact of the independent variables (the guideline law dummy variables and the control variables) on the dependent variable. The two dependent variables, prison population and court commitments, are used in separate regression (see Table 1, *infra* at Appendix A). The data are described *infra* at notes 33 to 40.

<sup>30</sup> See *supra* note 28.

<sup>31</sup> CHENG HSIAO, ANALYSIS OF PANEL DATA 41-48 (1986); ROBERT S. PINDYCK & DANIEL L. RUBINFELD, ECONOMETRIC MODELS AND ECONOMIC FORECASTS 224-26 (1991); Yair Mundlak, *On the Pooling of Time Series and Cross Section Data*, 46 ECONOMETRICA 69, *passim* (1978). The following description of the fixed effects model is also based on these authorities.

<sup>32</sup> Continuous variables are expressed as natural logs to moderate the impact of outliers (logs make extreme values proportionally less extreme than otherwise). They are divided by population to moderate the impact of the largest states (the year to year changes in, for example, prison population are much greater in large states because a given percent change involves more inmates than in small states; this greater variability means that the results would be dominated by larger states if no adjustments were made). Autocorrelation is corrected by applying separate first-order serial correlation coefficients for each state. PINDYCK & RUBINFELD, *supra* note 31, at 228-29. Heteroscedasticity is corrected by weighting regressions by the square root of population. See *id.* at 140-52.

<sup>33</sup> Not enough time has passed to permit evaluation of later laws, including those in Arkansas, Kansas, Louisiana, North Carolina, and Virginia. See *supra* note 5.

quire judges to state reasons for departing from the guidelines, are excluded because they are generally local and largely ignored by the judges.<sup>34</sup>

Each sentencing guideline in the regression analyses is represented by a dummy variable: the variable is equal to zero before the guidelines went into effect and for all other states; it is equal to one in years after the law for the state in question; and in the initial year of the guidelines, it is the portion of the year remaining after the effective date.

The variable is lagged one year when the guidelines apply only to crimes committed after their effective dates, because considerable time passes between the commission of a crime and sentencing.<sup>35</sup> The Delaware, Michigan, Tennessee, and Wisconsin guidelines, however, apply to sentences imposed on or after their effective dates,<sup>36</sup> and the law variables are not lagged because they apply immediately.

#### B. PRISON VARIABLES

The dependent variables<sup>37</sup> are prison population and court commitments to prison. Prison population is the number of prisoners sentenced to state institutions for more than one year, for which year-end data are available for 1976 through 1993 from the Bureau of Justice Statistics.<sup>38</sup> Data for court commitments to prisons are available

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<sup>34</sup> Michael H. Tonry, *Structuring Sentencing*, in CRIME AND JUSTICE: A REVIEW OF RESEARCH 267, 276-82 (Michael H. Tonry & Norval Morris eds., 1988); Deborah M. Cartow, *Judicial Sentencing Guidelines: Hazards of the Middle Ground*, 68 JUDICATURE 161, *passim* (1984); William D. Rich et al., *Sentencing by Mathematics*, 6 ST. CT. J. 33, *passim* (1982).

<sup>35</sup> The mean time from arrest to sentencing is about seven months. RICHARD SOLARI, BUREAU OF JUSTICE STATISTICS, NATIONAL JUDICIAL REPORTING PROGRAM, 1988, at 45 (1992).

<sup>36</sup> For the sources of effective dates, see *supra* note 3.

<sup>37</sup> For definitions of dependent and independent variables, see *supra* note 27.

<sup>38</sup> The prison data are from TRACY L. SNELL, BUREAU OF JUSTICE STATISTICS, CORRECTIONAL POPULATIONS IN THE UNITED STATES, 1991, at 52 (1993), and similar reports for earlier years. The statistics for 1992 and 1993 are unpublished and were obtained from the Bureau of Justice Statistics. The Bureau regularly revises prison population data, and the data used are the latest revisions made through November 1994. The Bureau, however, has not made the final revisions to the 1993 data. The Bureau also published state prison population data for 1971-1975, but it changed counting procedures in 1977 (retroactive to 1976 for nearly all states) from the number of prison inmates to the number under prison jurisdiction (the latter differs mainly in that it includes prisoners sentenced to prison but placed in jail due to overcrowding).

The Oregon statistics include prisoners sentenced for less than one year. Before 1992 the state reported all prisoners as having sentences of more than one year, but starting in 1992 it reported about a quarter as having sentences of one year or less. DARRELL K. GILLIARD, BUREAU OF JUSTICE STATISTICS BULLETIN, PRISONERS IN 1992, at 2 (1992). Thus, the data that Oregon supplied to the Bureau for prisoners sentenced to over one year make it appear that the guidelines (which applied to crimes committed on or after 1 November 1979) were followed by a much larger decline in prison population than actually occurred.

The data used here include inmates sentenced to prison but placed in local jails due



from 1974 through 1993.<sup>39</sup>

### C. CONTROL VARIABLES

The multiple time series design allows for a large number of control variables, especially because the sample size is very large when compared to that of other time-series analyses. Again, the most important control variables are the state and year dummies, which control for unknown factors that affect the dependent variable in individual states and individual years. Other control variables are the percent in age groups associated with high imprisonment rates (18 to 24 years and 25 to 34 years) and two economic variables (per capita personal income and employment rate).<sup>40</sup> Finally, the major crime rate (total crime less larceny and motor vehicle theft) for the prior year is added to the analysis of prison commitments.<sup>41</sup>

## IV. REGRESSION RESULTS<sup>42</sup>

The regression results with respect to prison population suggest that the guidelines are strongly associated with slower growth of prison populations. Six of the nine guideline laws studied—those in Delaware, Florida, Minnesota, Oregon, Tennessee, and Washington—have significant negative coefficients,<sup>43</sup> which means that prison

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to prison overcrowding. When data for such jailed prisoners are not available, the observation is scored as missing data (unless there is strong evidence that the number is less than five percent of the total). Eight of the observations are missing data, mainly in 1976.

<sup>39</sup> See SNELL, *supra* note 38, at 63. Earlier data are from similar reports for prior years. The 1992 and 1993 data, obtained from the Bureau of Justice Statistics, are unpublished. Observations are scored as missing data when some prisoners are in local jails due to overcrowding and thus not counted as prison commitments. This eliminates Tennessee from the analysis.

<sup>40</sup> The population data were obtained on computer disk from the United States Bureau of the Census. The employment and personal income data were obtained on computer disk from the Bureau of Labor Statistics, United States Department of Commerce. These variables were selected because they are often thought to be associated with crime rates, because adequate data are available, and because they differ sufficiently from year to year and state to state such that they are not collinear with the state and year dummies. Note that the analysis was not designed to estimate the impact of the control variables on prison variables. There coefficients in Table 1 can be misleading due to possible collinearity between control variables and to general trends common to the control variables and the dependent variable.

<sup>41</sup> The crime data are from FEDERAL BUREAU OF INVESTIGATION, UNIFORM CRIME REPORTS, CRIME IN THE UNITED STATES, 1992, at 60-67 (1993) and from similar reports for earlier years. Crime was not entered as a control variable in the prison population analysis because the evidence is that it has little or no impact on prison population trends, but that the latter affect crime, which leads to simultaneity problems. Langan, *supra* note 1, at 1570-72; Thomas B. Marvell & Carlisle E. Moody, *Prison Population Growth and Crime Reduction*, 10 J. QUANTITATIVE CRIMINOLOGY 109, 129-36 (1994).

<sup>42</sup> Results are contained in Tables 1 and 2, *infra* at Appendix A.

<sup>43</sup> The usual test for significance, significant at the .05 level or lower, means the results

populations tend to decline after the guidelines, at least in relation to nation-wide trends. These are precisely the six states where legislatures directed sentencing commissions to take prison capacity into account.

As for the remaining three states, the coefficient for the Wisconsin guidelines is nearly significant. The coefficient is far from significant in Michigan, and it is significant and positive in Pennsylvania.<sup>44</sup>

The multiple time series regression suggests that the apparent impact of sentencing guidelines is substantial. Because the prison population variable is logged, the coefficients of the law variables estimate the portion of change in prison population associated with the law. Thus, prison populations are approximately fifteen to thirty-five percent fewer than would be expected in the six states where the legislatures directed that guidelines take prison capacity into account.<sup>45</sup>

The right-hand columns of Table 1 suggest that the sentencing guidelines have little impact on the number of defendants sentenced to prison. None of the coefficients are significant to the .05 level, although the Delaware and Oregon guidelines are associated with sizeable declines significant at the .10 level. The implication is that changes in prison population growth are due mainly to changes in prison term length.

## V. DISCUSSION

The results in Table 1 clearly indicate that legislative directives to consider prison capacity are associated with moderation in prison population growth. All states with this directive show this association, and none of those without the directive show it (with the possible exception of Wisconsin).<sup>46</sup>

The associations shown in Table 1 may be spurious, however, and for three reasons the results do not necessarily mean that guidelines

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are likely to occur by chance in five times or less in a hundred analyses.

An analysis similar to that in Table 1, using prison population data for 1971 to 1993 (that is including the less accurate data for 1971 to 1975), produced results similar to those in Table 1 except that the coefficient on the Delaware law is not significant and the one on the Wisconsin law is significant.

<sup>44</sup> The fact that Pennsylvania guidelines are associated with unusual growth is consistent with the legislative history. The legislature rejected the initial guidelines because it did not consider the sentences sufficiently severe. *See supra* notes 14 to 15.

<sup>45</sup> These estimates are net estimates of the impacts of the control variables. The year dummies control for nationwide growth in prison populations, such that the estimates are in part the differences between nationwide trends and trends in the guideline states. That is, prison populations did not decline in those states but grew comparatively slowly.

<sup>46</sup> The probability that the guidelines in the six states where commissions were directed are the six guidelines significantly associated with reduced prison population growth is two in one thousand (one half to the ninth power).

actually cause prison population growth to moderate. First, there is no assurance that guideline framers actually follow mandates to consider prison capacity. This is illustrated by the federal guideline experience. Congress told the Federal Sentencing Commission to take prison capacity into account,<sup>47</sup> but the Commission members disregarded this in their desire to stiffen sentences.<sup>48</sup> Thus, it is possible for sentencing commissions to ignore legislative directives to take prison capacity into account, although that apparently did not happen in the five states with such directives studied here.

Second, the causal direction is not altogether clear. Perhaps the guidelines were prompted by an unusual jump in prison population, and the apparent impacts in Table 1 might be only a return to historical trends. That is, the moderation of growth might simply be a return to normal levels that would have occurred without the guidelines. This is not likely, however, for two reasons: First, the major rationale for sentencing guidelines was to reduce sentencing disparity, and prison population problems were secondary concerns.<sup>49</sup> Second, the prison population data do not evidence unusual spurts before the sentencing commissions were created in any state, as is seen in Table 2, which presents the prison population growth rates of the guideline states in relation to nationwide trends.<sup>50</sup>

The third and most important caution is that the results in Table 1 show only that something happened in six states to moderate prison population growth after the guidelines went into effect. The state may have developed other programs (not accounted for in the regression analysis) causing prison growth to moderate with or without the guidelines. Wisconsin is a possible example. Soon after Wisconsin implemented its guidelines, the state developed a series of intensive supervision programs, under which non-violent offenders who would ordinarily go to prison were instead placed in jail or placed under tighter supervision than the state gives to regular probationers and parolees.<sup>51</sup>

It is likely that state policy makers decided that moderation was necessary, and the guidelines are only one aspect of that decision,

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<sup>47</sup> Congress stated that the "sentencing guidelines . . . shall be formulated to minimize the likelihood that the Federal prison population will exceed the capacity of the Federal prisons, as determined by the Commission." 28 U.S.C. § 994(g) (1993).

<sup>48</sup> Von Hirsch & Green, *supra* note 23, at 334-36, 341; Alschuler, *supra* note 3, at 936.

<sup>49</sup> Oregon is a possible exception. See *supra* note 15.

<sup>50</sup> See Table 2, *infra*, at Appendix A.

<sup>51</sup> The Wisconsin Department of Corrections developed several programs starting in 1987. Then the legislature established a broad program of intensive supervision for defendants sentenced after June 1992. Patrick J. Fiedler, *Intensive Sanctions, a New Sentencing Option*, 65 Wis. L. Rev. 15, 15 (June 1992); see Wis. STAT. §§ 301.048, 973.032 (Supp. 1994).

along with such actions as limiting appropriations for prison construction. In Florida, for example, there is evidence that prison population growth was not reduced by the guidelines, but by legislators' reluctance to fund more prisons and the resulting need to adopt early release programs to keep prison population within capacity limits.<sup>52</sup> In fact, the Florida legislature rejected some sentence increases proposed by the sentencing commission.<sup>53</sup>

It is possible to distinguish the impact of guidelines from broader policies by examining the time gap between the creation of the sentencing commissions and the effective date of the guidelines. If guidelines are only manifestations of, and relatively unimportant parts of, a general policy to limit prison growth, then the policy originated at least as early as the legislation that directed the commissions to consider prison capacity. As Table 2 indicates, the time gap was one year in Florida, two years in Minnesota and Oregon, and three years in Washington and Tennessee. Also, the practical effect of the time gap is one year more for the first four states because the laws were only effective for crimes committed after the effective dates.<sup>54</sup> If the moderation of prison growth results mainly from an overall policy decision, the moderation should start well before the law went into effect. Thus, this study conducted a regression similar to that in Table 1, except that the guideline variables were scored as one starting when legislatures created sentencing commissions. These dummy variables are not significant for Delaware, Minnesota, Oregon, and Washington, suggesting that the guidelines themselves moderated prison growth.<sup>55</sup> However, they are significant for Florida, Tennessee, or Wisconsin, suggesting that much of the moderation came from other actions taken by the state to limit prison growth.<sup>56</sup>

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<sup>52</sup> William D. Bales & Linda G. Dees, *Mandatory Minimum Sentencing in Florida: Past Trends and Future Implications*, 38 *CRIME & DELINQ.* 309, 313 (1992); Holten & Handberg, *supra* note 23, at 267.

<sup>53</sup> Holten & Handberg, *supra* note 23, at 265.

<sup>54</sup> See *supra* text accompanying notes 35 to 36.

<sup>55</sup> The coefficients and T-Ratios for variables representing the original law are: Delaware, -.13, 1.48; Florida, -.25, 6.76; Minnesota, -.06, .53; Oregon, .06, .97; Pennsylvania, -.01, .26; Tennessee, -.23, 6.41; Washington, .06, .88; Wisconsin, -.09, 2.21. Otherwise the results are similar to those in Table 1, first and second columns.

<sup>56</sup> Another way to control for a general policy limiting prison growth is to control for the overall rate of prison population growth in each state. The prison population regression in Table 1 was conducted with an additional 50 trend variables. For each state this is a (logged) counter for the state and zero for all other states. The results are similar to those in Table 1 for the Minnesota and Washington guidelines. The Oregon guidelines have a nearly significant coefficient, but for the others the guidelines are positive or are far from significant. The coefficients and T-Ratios for the guideline variables are: Delaware, -.10, .87; Florida, -.04, .64; Michigan, -.03, .59; Minnesota, -.24, 4.14; Oregon, -.11, 1.75; Pennsylvania, .10, 1.85; Tennessee, -.14, .67; Washington, -.25, 3.24; Wisconsin, .00, .05. The

## VI. CONCLUSION

Sentencing guidelines are strongly associated with comparatively slow prison population growth whenever the legislature charged the sentencing commission to consider prison capacity when establishing presumptive sentence ranges. This association, however, does not necessarily imply causation, and the slowdown in some states may have resulted from broad efforts to reduce prison population growth, rather than solely from the guidelines.

These findings are a refreshing departure from the usual negative results when evaluating criminal justice reforms. Also, the bulk of research elsewhere suggests that judges generally adhere to presumptive guidelines and that the guidelines reduce sentencing disparity.<sup>57</sup> Sentencing guideline laws, thus, run counter to the current sentiment<sup>58</sup> that little in the criminal justice system works as intended.

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additional 50 variables might create collinearity problems, causing the impacts to be underestimated.

<sup>57</sup> See, e.g., Terance D. Miethe & Charles A. Moore, *Sentencing Guidelines: Their Effect in Minnesota*, NATIONAL INST. OF JUST. RES. IN BRIEF, *passim* (April 1989); Tonry, *supra* note 34, at 59-75. *But see* Alschuler, *supra* note 3, *passim*; Savelsberg, *supra* note 25, *passim*.

<sup>58</sup> See, e.g., MALCOLM M. FEELEY, *COURT REFORM ON TRIAL: WHY SIMPLE SOLUTIONS FAIL*, *passim* (1983).

## APPENDIX A

**Table 1**  
**PRISON VARIABLES REGRESSED ON SENTENCING GUIDELINES**

	Dependent Variable			
	Prison Population		Court Commitments	
Sentencing Guidelines				
Delaware (10-10-87)	-.17	2.20*	-.22	1.82
Florida (10-1-83)#	-.23	5.23**	.08	.67
Michigan (3-1-84)	.02	.33	.02	.13
Minnesota (5-1-80)#	-.35	6.11**	-.11	1.33
Oregon (11-1-89)#	-.13	2.03*	-.22	1.86
Pennsylvania (7-22-82)#	.14	3.52**	.02	.20
Tennessee (11-1-89)	-.21	3.68**	—	—
Washington (7-1-84)#	-.33	6.81**	.09	.59
Wisconsin (11-1-85)	-.09	1.84	-.03	.23
Major crime rate#	—	—	.26	3.52**
Percent pop. 18-24	.06	.42	-.22	.86
Percent pop. 25-34	.66	3.82**	2.16	6.58**
Personal income#	.08	.55	-.29	1.08
Employment rate#	-.22	1.08	.67	1.79
Variable Group F Values				
Sentencing law dummies		15.73**		1.17
Year dummies		42.46**		10.24**
State dummies		63.39**		38.63**
Sample Size		842		823
Adjusted R-square		.99		.99
Durbin-Watson Statistic		1.66		1.86

# - The variable is lagged one year.

\* - Significant to the .05 level; \*\* to the .001 level.

The two columns below each dependent variable are the coefficients and absolute values of T Ratios. The time covered, excluding one year lost in the autocorrelation correction, are 1977-1993 for prison population and 1975-1993 for commitments. The dates in parentheses are the effective dates of the guidelines. The dependent variables and the continuous control variables are logged per capita variables.

**Table 2**  
**PRISON POPULATION CHANGE IN GUIDELINE STATES RELATIVE TO**  
**NATIONWIDE TRENDS**

	U.S.	Del.	Fla.	Mich.	Minn.	Or.	Pa.	Tenn.	Wash.	Wis.
1976	11.5	6.0	4.7	3.4	-15.1	2.3	-0.2	-5.9	0.4	-1.2
1977	10.8	9.1	-1.6	0.1	5.1	-7.8	1.3	3.0	-0.5	-9.3
1978	3.4	19.2	5.9	4.7	0.4#	-4.6	0.1#	3.1	4.5	-0.9
1979	5.6	2.7	-14.2	-5.2	1.6	4.7	-6.1	8.0	-3.8	1.5
1980	6.5	-6.6	-2.4	-5.7	-10.9*	-6.4	-0.9	-0.6	-5.2	1.7
1981	13.8	1.0	1.0	-13.6	-15.5	-10.0	0.7	-1.3	7.5#	-3.6
1982	12.8	8.4	4.2#	-14.4	-7.0	5.7	-0.3*	-13.2	4.6	-5.3
1983	7.4	-3.0	-13.8*	-10.1	-5.9	-6.1	4.6	10.8	-1.1	-4.6#
1984	6.6	-8.7#	-1.2	-6.0*	-4.0	0.3	4.5	-12.0	-4.2*	-3.9
1985	8.5	5.3	-2.1	13.1	-0.4	-4.9	0.1	-20.4	-7.1	0.0*
1986	7.0	4.2	6.2	9.8	-1.9	2.0	0.4	6.4#	-11.6	-1.0
1987	6.2	4.2*	-5.8	8.9	-2.8	8.2#	0.9	-1.0	-13.3	1.0
1988	7.0	-4.8	0.2	8.6	2.9	2.8	3.1	0.6	-12.1	-3.8
1989	12.1	-8.6	3.1	2.5	-1.2	-9.3*	2.3	-5.3*	7.0	-5.0
1990	7.1	-9.0	3.9	1.2	-4.7	-1.6	1.8	-9.4	8.3	2.7
1991	6.8	3.6	-2.0	-0.5	2.5	-3.1	-1.8	3.7	7.7	-2.3
1992	5.6	3.8	-1.8	1.8	4.5	-7.8	1.2	-2.3	3.2	-2.8
1993	5.4	-2.6	4.1	-4.9	4.5	-5.8	-1.1	2.8	-0.8	0.0

The U.S. column is the average (mean) of the state percent changes in the year. The state columns are the percent change in prison population less the nationwide average change. The prison population is prisoners sentenced for more than a year. The 1993 data are preliminary.  
 # - The year of legislation creating the sentencing commission (there was no such legislation in Michigan).

\* - The year when sentencing guidelines went into effect. See the text at note 5, *supra*.