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PROSECUTOR PERCEPTIONS OF CRIME SERIOUSNESS*

JEFFREY A. ROTH**

INTRODUCTION

In explaining the need for a measure of the degree of seriousness of delinquent acts, Sellin and Wolfgang¹ point out that classification of crimes by legal nomenclature obscures an important qualitative dimension of crime, with detrimental effects to criminological research:

[I]nnumerable variables have been statistically correlated with the events covered by the legal terms "crime" and "delinquency" and provocative theories about these phenomena have been formulated, but even in the most sophisticated researches little or no account has been taken of the great diversity of conduct represented . . . by such legal categories as "offenses against the person," "offenses against property," criminal homicide, rape, robbery, burglary, larceny, and others. This, we think, is a cogent reason for the dissatisfaction with present definitions of juvenile delinquency and the demand that something be done about it.²

Their well-known solution to the problem was the development of an index scale of crime seriousness.³ This pioneering effort opened a new area of criminological inquiry and allowed examination of perceptions of crime seriousness in a variety of settings. Recent articles by Wellford and Wiatrowski⁴ and by Figlio⁵ exemplify such studies and provide references to earlier related analyses.

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¹ T. SELLIN & M. WOLFGANG, *THE MEASUREMENT OF DELINQUENCY* (1964).

² *Id.* at 72.

³ *Id.* at 289.

⁴ Wellford & Wiatrowski, *On the Measurement of Delinquency*, 66 J. CRIM. L. & C. 175 (1975).

⁵ Figlio, *The Seriousness of Offenses: An Evaluation by Offenders and Nonoffenders*, 66 J. CRIM. L. & C. 189 (1975).

The hiding hand of legal nomenclature creates difficulties for criminal justice practitioners as well as researchers. With respect to prosecution, Hamilton and Work have written:

No prosecutor would find it difficult to compare the priority of a first-degree murder case with that of a petty larceny case. However, it is a great deal more difficult . . . to differentiate among all assault cases in terms of priority The need for priorities is most obvious in major urban centers where the public prosecutor must handle thousands of cases on an assembly-line, mass-production basis. The combination of a high-volume work load and inadequate staffing means that there is little time for the prosecutor to prepare most of his cases. The prosecutor does not have sufficient staff to assign each case individually and, consequently, cannot hold any one of his assistants responsible for a case from beginning to end.⁶

As an aid to the public prosecutor in the District of Columbia, Hamilton and Work were instrumental in the development of a computerized Prosecutor's Management Information System (PROMIS), which maintains information about defendants, charges and the progress of cases through the judicial process.⁷ To assist the high-volume prosecutor's office in assigning priorities to cases within a single legal category, PROMIS computes and displays a crime seriousness score for each case, based on the original Sellin-Wolfgang index.

In recent years, PROMIS has attracted wide attention from prosecutors and courts, and installation of the system is either complete or in process in at least ninety-one jurisdictions.⁸ Moreover, PROMIS is providing a rich source of data on the criminal justice system useful for research by crim-

⁶ Hamilton & Work, *The Prosecutor's Role in the Urban Court System: The Case for Management Consciousness*, 64 J. CRIM. L. & C. 183 (1973).

⁷ For an overview of PROMIS, see Institute for Law and Social Research, PROMIS Briefing Series, Papers 1 to 21 (INSLAW, Washington, D.C., 1976).

⁸ For a description of the PROMIS transfer program, see D. Merrill, *Accelerating Reform in the Courts through Technology Transfer* (paper presented to the NATO Advanced Study Institute on Industrial Technology Transfer, Les Arcs-Bourg St., Maurice, France, June, 1975).

inologists, economists and operations research analysts.⁹ Thus, through PROMIS, the Sellin-Wolfgang index is helping practitioners to manage criminal justice processes as it helps researchers to understand them.

Over time, issues have arisen concerning the use in PROMIS of the Sellin-Wolfgang index. Practitioners installing the system have questioned the validity of assigning priorities today on the basis of perceptions measured in 1964.¹⁰ Moreover, in spite of the many successful replications of the Sellin-Wolfgang experiment in a variety of settings, the practitioners hesitate to generalize from the original sample to their own jurisdictions. Researchers attempting to use the index as an explanatory variable in analyses of PROMIS data have encountered a different problem. Since the PROMIS algorithm is based on only the Primary Index Scale crimes, no validated index is computed for cases in such high-volume categories as drug-related crimes and vice, or for cases in such newly prominent categories as organized crime and terrorism.

These problems stimulated the present study: an attempted revision of the PROMIS crime seriousness index, based on replications of the Sellin-Wolfgang experiment in interested PROMIS jurisdictions. Since systematic sampling of each jurisdiction's general population was impractical, assistant prosecutors were used as raters. When it was learned that Wolfgang and others had recently expanded the list of stimulus crimes to include additional crime types in a survey of the National Crime Panel, permission was requested and granted to use the expanded list in the present effort.

Besides producing a new crime seriousness index for use in PROMIS,¹¹ the replication permitted analyses of four interesting research questions:

- (1) Do crime seriousness perceptions of assistant prosecutors differ systematically by place of residence?
- (2) Are prosecutor perceptions of crime seriousness affected by such rater characteristics as age,

⁹ For examples of PROMIS-based research, see F. CANNAVALE & W. FALCON, WITNESS COOPERATION (1975); Forst & Brosi, *A Theoretical and Empirical Analysis of the Prosecutor*, 6 J. LEGAL STUD. 177 (1977); and Institute for Law and Social Research, PROMIS Research Project, Publications 1-17 (Washington, D.C., forthcoming).

¹⁰ Indeed, Figlio found that while the *relative* perceptions of offense seriousness among University of Pennsylvania students had remained fairly constant over a 10-year period, *absolute* perceptions were only about one-half as serious in the later sample. See Figlio, *supra* note 5.

¹¹ The revised PROMIS crime seriousness index will be described in a forthcoming paper.

race, sex and length of experience as a prosecutor?

- (3) Do prosecutors relate seriousness and dollar values according to the power function for money observed by Sellin and Wolfgang?
- (4) How do white-collar, drug-related and other crimes compare in seriousness to street crimes analyzed in previous studies?

The present study can also provide data which, in conjunction with the soon to be completed National Crime Panel survey, can be used to analyze what jurisdictional characteristics affect the degree of agreement between prosecutors and their constituents on perceived crime seriousness.

The next section of this article describes the rater sample and the derivation of scores from the experimental data. The two sections following state hypotheses concerning the effects of place of residence and rater characteristics on crime seriousness perception and present test results for those hypotheses. Following these sections an estimated power function for money based on the prosecutors' responses is presented. The article concludes with some observations concerning the seriousness of crimes not previously analyzed.

CONSTRUCTION OF INDEX

In October, 1976, representatives of twenty-three prosecutors' offices agreed to participate in a replication of the Sellin-Wolfgang experiment. The purpose of the replication, as noted above, was the revision of the PROMIS Crime Seriousness Score. Based on the estimated number of assistant prosecutors in each office, 1,549 test booklets were prepared, each containing thirty-six crimes from a list of 263. Thirteen of the crimes were designated as Primary Index items, included in all booklets; the remaining twenty-three items in each booklet were randomly selected from the remaining 250. A ten dollar larceny was the first stimulus crime in each booklet; the other thirty-five were presented in random order. Each booklet contained instructions similar to those used by Sellin and Wolfgang for the Magnitude Estimation Scale, except that no anchor score was preassigned to the first crime.¹² Each booklet concluded with a short series of optional questions concerning the rater's age, sex, race, and length of experience with his or her present office and elsewhere.

Each office's booklets were mailed to its PROMIS coordinator, together with individual stamped return-addressed envelopes. A cover letter asked each representative to circulate booklets and

¹² See note 1 *supra*, at 254.

envelopes to the raters, together with a memorandum from the chief prosecutor encouraging participation and instructing each rater to mail his completed booklet directly to the researchers. (It was believed that scores would be more spontaneous if the responses were not centrally collected in the offices.) Of the 1,549 booklets distributed, 909 usable responses were returned.¹³

To compute scores for all 263 crimes, a Primary Index scale was first computed for the first thirteen crimes, which were presented to all raters; then a relationship was estimated between Primary Index scale values and standardized log scores, and the relationship was used to generate scores for the remaining 250 crimes. Algebraically, "Aggregate Primary Index Scale" values, S_c , were computed for the entire group of raters for crimes, $c=1, 2, \dots, 13$, according to:

$$(1) \quad S_c = \text{antilog} \left[\frac{\sum_{i=1}^{N_c} \log y_{ci}}{N_c} \right],$$

where y_{ci} denotes the raw score assigned to crime c by rater i , and N_c is the number of usable scores for crime c .

For each of the twelve separate jurisdictions being considered, a "Jurisdiction Primary Index Scale" was computed analogously by:

$$(1a) \quad S_{cj} = \text{antilog} \left[\frac{\sum_{i=1}^{N_{cj}} \log y_{ci}}{N_{cj}} \right],$$

where $c=1, \dots, 13$, denotes the thirteen crimes, $j=1, \dots, 12$, denotes the twelve jurisdictions, and N_{cj} is the number of usable scores for crime c in jurisdiction j .

¹³ Participating offices and their response counts were as follows: Los Angeles Co., Cal. (273); Suffolk Co., N.Y. (70); St. Louis, Mo. (28); Jefferson Co. (Louisville), Ky. (20); San Diego City and County, Cal. (91); Orleans Parish (New Orleans), La. (33); Salt Lake City, Utah (25); Milwaukee Co., Wis. (44); Wayne Co. (Detroit), Mich. (90); Multnomah Co. (Portland), Ore. (50); Marion Co. (Indianapolis), Ind. (44); and New York Co. (Manhattan), N.Y. (74), all of which are treated as separate jurisdictions in this paper. Because of small sample sizes, the following six offices were combined into a composite jurisdiction for PROMIS case rating purposes: Norman, Okla. (8); Leon Co. (Tallahassee), Fla. (14); Little Rock, Ark. (17); Charlotte, N.C. (10); Savannah, Ga. (1); and Dayton, Ohio (8). These responses plus nine additional responses from four other offices were used in the aggregate analyses in this paper, but were not considered in the cross-jurisdictional analysis.

To construct aggregate scores, measured in Primary Index Scale units, for the remaining 250 crimes, each raw score was first converted to its logarithm, then standardized according to the rater's mean and variance. Then, letting y_{ci} denote the raters' standardized log scores, a mean z-score for each crime, z_c , was computed as:

$$(2) \quad z_c = \frac{\sum_{i=1}^{N_c} y_{ci}}{N_c}, \quad c=1, \dots, 263.$$

Then a relationship was estimated, based on crimes $c=1, \dots, 13$:

$$(3) \quad \log S_c = 1.24346 + 0.23102 z_c, \quad R^2 = 0.9921 \\ (0.00969) \quad (0.00621)$$

where figures in parentheses are estimated coefficient standard errors. Equation (3) was used to generate aggregate scores, S_c , measured in units of the Primary Index Scale, for the remaining 250 crimes.

The Primary Index Scale values for the first thirteen crimes, together with their standard errors, are shown in Table 1 for the entire sample and for the twelve separate jurisdictions.

Sellin and Wolfgang originally stated two conditions for assuring the validity of replications of their experiment. As a minimum condition, a replication's Primary Index Scale should bear a loglinear relationship to the original. At a maximum, the loglinear relationship would exhibit a slope coefficient of unity. Before proceeding further, it was of concern whether the aggregate prosecutor index constituted a valid replication of the crime seriousness scale, and, given the small sample sizes in some offices, whether the twelve separate jurisdiction scales constituted valid replications of the aggregate scale.

These issues are addressed in Figure 1, a graph drawn on log-log paper. Lines A, J and L compare the aggregate prosecutor scale with prosecutor scales from jurisdictions A, J and L. (These jurisdictions represent, respectively, the largest sample, the scale with the smallest range, and the scale with the largest range.) Although of the three only line A is smooth, the other two lines satisfy, with slight deviations, the minimum condition of a linear form.

Line S compares the aggregate prosecutor scale with the original Sellin-Wolfgang values (divided by ten to make the graphs comparable) for the six crimes common to both experiments.¹⁴ Except for

¹⁴ See note 1 *supra*, at 289.

TABLE 1

AGGREGATE AND JURISDICTIONAL PRIMARY INDEX SCALE VALUES FOR CRIMES PRESENTED TO ALL RATERS (STANDARD ERRORS IN PARENTHESES)

CRIME TYPE	SCALE VALUES												
	Aggregate (N=909)	Jur A (N=273)	Jur B (N=70)	Jur C (N=28)	Jur D (N=20)	Jur E (N=91)	Jur F (N=44)	Jur G (N=50)	Jur H (N=50)	Jur I (N=44)	Jur J (N=25)	Jur K (N=33)	Jur L (N=74)
1. \$10 Larceny	4.904 (3.945)	4.848 (3.342)	4.892 (2.924)	4.911 (2.371)	4.302 (2.891)	6.659 (3.483)	7.108 (2.133)	4.459 (3.750)	4.135 (28.840)	4.717 (2.710)	2.393 (2.208)	4.833 (3.516)	3.975 (2.704)
2. \$50 Larceny	7.188 (3.342)	7.198 (3.516)	6.754 (2.951)	6.722 (2.754)	6.263 (3.404)	10.106 (4.018)	9.736 (2.500)	6.244 (3.451)	9.240 (3.090)	5.292 (2.951)	3.203 (1.972)	7.620 (3.251)	5.631 (3.192)
3. \$100 Larceny	8.515 (3.342)	8.730 (3.381)	7.935 (3.155)	8.287 (2.704)	8.531 (3.396)	11.141 (4.188)	11.381 (2.443)	7.167 (3.350)	10.823 (2.979)	6.181 (3.097)	4.220 (2.208)	8.805 (3.055)	6.463 (3.097)
4. \$1000 Larceny	13.709 (3.784)	16.030 (4.159)	12.610 (3.243)	13.471 (3.532)	10.601 (3.483)	20.056 (4.266)	19.145 (2.477)	10.511 (3.420)	15.493 (3.724)	7.351 (3.236)	5.438 (2.132)	11.743 (3.532)	11.155 (3.556)
5. \$10,000 Larceny	20.373 (4.345)	25.336 (4.721)	20.484 (3.908)	18.982 (4.009)	15.256 (3.548)	36.309 (6.223)	29.640 (2.679)	12.866 (3.854)	17.862 (3.656)	9.150 (3.289)	6.824 (2.123)	15.315 (3.508)	17.211 (3.707)
6. \$10 Burglary	14.990 (4.920)	18.199 (4.529)	13.185 (3.381)	14.987 (4.560)	13.460 (3.281)	16.563 (17.783)	18.135 (2.582)	14.346 (4.677)	16.892 (3.524)	9.439 (3.083)	5.737 (2.178)	12.763 (3.524)	11.630 (3.396)
7. \$10 Unarmed Robbery	28.318 (4.539)	34.387 (5.272)	23.820 (3.758)	31.088 (4.560)	28.548 (3.733)	41.160 (6.152)	45.252 (2.773)	25.200 (4.887)	23.693 (3.428)	18.420 (3.148)	7.420 (2.037)	21.281 (3.936)	23.827 (3.350)
8. \$10 Armed Robbery	38.390 (4.943)	47.378 (5.662)	34.324 (4.345)	39.426 (4.875)	31.708 (2.704)	54.646 (7.161)	63.058 (3.055)	35.687 (5.093)	28.487 (3.565)	24.171 (3.811)	8.888 (2.061)	21.649 (3.622)	34.941 (4.083)
9. Assault-Death	74.865 (9.908)	84.124 (13.772)	75.027 (13.583)	76.019 (6.998)	72.578 (4.786)	131.877 (9.311)	122.438 (3.681)	59.901 (7.311)	50.388 (4.093)	76.520 (49.545)	14.069 (3.055)	53.636 (4.887)	71.501 (5.888)
10. Assault-Hospital	35.270 (4.932)	46.064 (5.433)	34.904 (4.842)	43.598 (5.546)	36.186 (4.487)	54.058 (6.237)	60.744 (3.133)	27.511 (4.797)	30.800 (4.256)	25.128 (3.846)	8.918 (1.919)	24.014 (3.784)	30.364 (4.236)
11. Assault-Physician	23.468 (4.603)	28.870 (5.224)	19.950 (3.606)	25.937 (3.926)	21.853 (3.673)	36.062 (6.095)	41.511 (3.508)	20.845 (4.721)	20.811 (3.890)	18.066 (3.412)	7.221 (2.576)	19.604 (3.648)	16.106 (3.715)
12. Assault-No Injury	3.895 (24.660)	4.038 (28.973)	4.385 (3.999)	5.936 (4.831)	1.622 (164.059)	8.472 (3.990)	9.837 (3.999)	6.201 (17.219)	4.613 (4.130)	1.214 (350.752)	2.212 (2.055)	6.322 (3.304)	1.220 (99.053)
13. Entice Minor Auto	25.644 (8.955)	30.234 (9.795)	24.029 (5.675)	25.731 (4.498)	18.898 (3.767)	34.780 (26.303)	59.202 (3.396)	27.748 (5.188)	25.677 (4.808)	15.866 (3.758)	6.248 (2.312)	22.378 (3.715)	13.698 (22.961)

assault leading to the victim's death, line S is very close to straight. With respect to that exception, it should be noted that the original Sellin-Wolfgang score for assault-death was 3.89 times the score for assault-hospital. The corresponding multiple was 3.00 in Figlio's retest of Pennsylvania students, ten years after the original experiment;¹⁵ the multiple is only 2.06 in the aggregate prosecutor scale. Thus, Figlio's results suggest a secular decline in the relative seriousness of taking a life; our results are consistent with such a decline, and further suggest that prosecutors consider homicide more similar to other assaults than does the general public.

In connection with prosecutors' perceptions of crime seriousness, it is instructive to examine line R, which compares the aggregate prosecutor scale with the scale obtained in Figlio's survey of Rahway Prison inmates. Its near-coincidence with line L, based on the ratings of prosecutors from the same metropolitan area as Rahway Prison, suggests that those who administer criminal justice may share a view of crime seriousness with those who are administered by it.

It is pertinent that several prosecutor-raters stated their view that whether a particular assault victim dies is a random event. While the assailant can affect the probability of death, the outcome in any single case is beyond his control. Similarly,

they argued that the amount stolen in a larceny is, to some extent, a matter of opportunity: having entered an unoccupied room, the thief will take \$50 if he finds it, or \$1,000 if he finds it. For this reason, in determining crime seriousness these raters did not consider degree of injury or amount stolen as important as the fact that an assault or theft took place. While the perpetrators of crime may share this "accidental" view of crime outcomes, members of the general public, considering themselves potential victims, probably do not. This could explain the disparity of perceptions between felons and prosecutors on the one hand, and the general public on the other.

It is important to note that despite this disparity, the maximum condition for a valid replication was satisfied. Using the scores for the six crimes in common, loglinear regressions were estimated relating the prosecutor scores (S_p) to the Sellin-Wolfgang scores (S_w) and to Figlio's Rahway scores (S_R). The results were as follows:

$$(4a) \quad \log S_p = -0.581 + 0.976 \log S_w, R^2 = .925 \\ (0.139)$$

and

$$(4b) \quad \log S_p = 0.153 + 0.956 \log S_R, R^2 = .995 \\ (.034)$$

¹⁵ See note 5 *supra*, at 197.

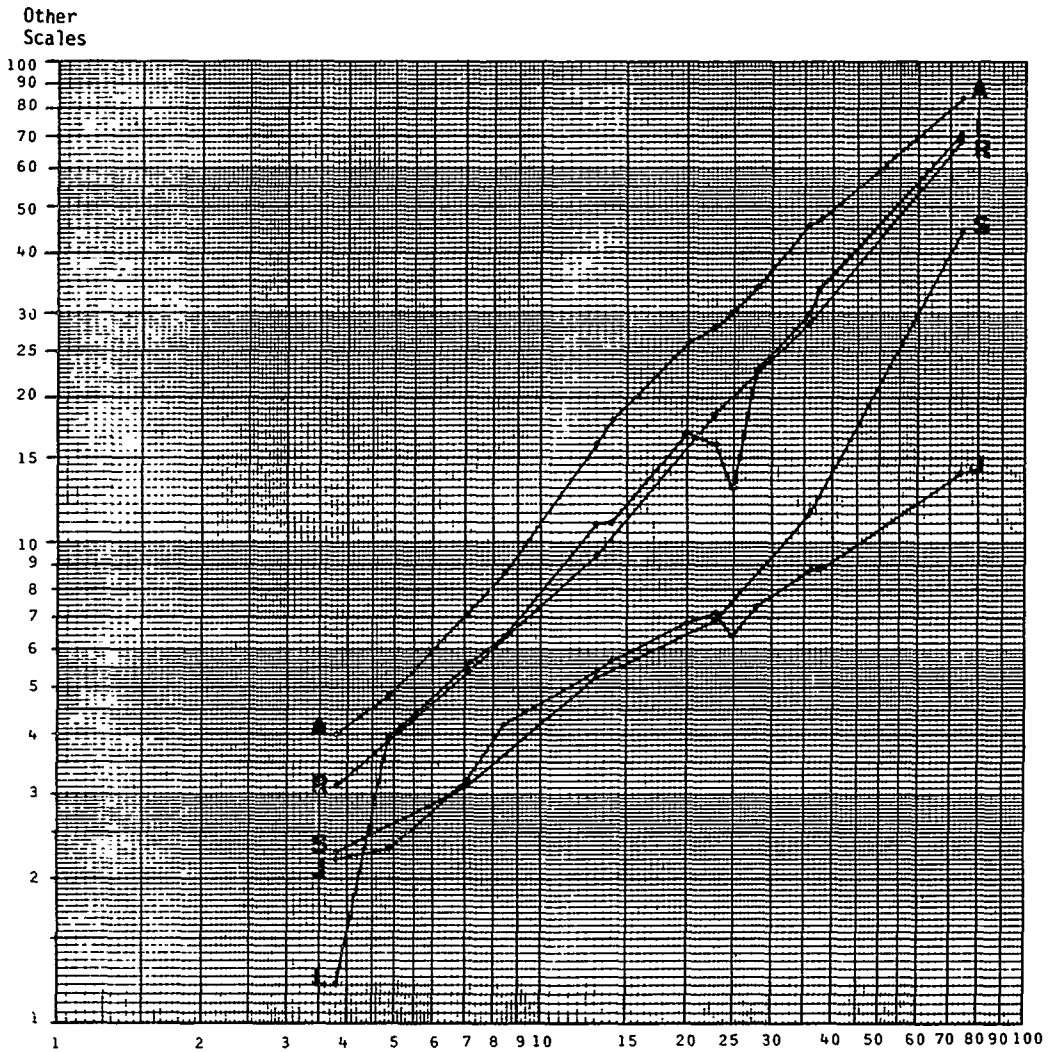


FIGURE 1
 AGGREGATE PROSECUTOR SCALE VS. 3 JURISDICTION PROSECUTOR SCALES AND 2 SCALES OBTAINED IN PREVIOUS STUDIES

Neither slope coefficient is significantly different from unity, according to Student's *t* test with four degrees of freedom.

Cross-jurisdictional Effects

Although the decision had already been made to produce a PROMIS crime seriousness scoring system for each jurisdiction, it was of intrinsic interest to learn whether the prosecutors in our sample represented a single population, or whether each jurisdiction's sample represented a separate population with reference to crime seriousness per-

ception. The null hypothesis that raters from all jurisdictions represent a single population was tested by multiple regression analysis of the Primary Index Scale values in Table 1, using jurisdictional dummy variables.

The Table 1 data were first reformulated into 156 records (twelve jurisdictions times thirteen crimes), each containing S_{cj} , S_c and I_{cj} . I_{cj} , the dummy variable for jurisdiction *j*, is defined by:

$$(5) \quad I_{cj} = 1 \text{ for the crime } c \text{ rating in jurisdiction } j \\
 = 0 \text{ for the crime } c \text{ rating in other jurisdictions.}$$

Then, based on Figure 1, a loglinear relationship was assumed between the jurisdiction scale values and the aggregate scale values:

$$(6) \quad \log S_{cj} = \sum_{j=1}^{12} a_j I_{cj} + b \log S_c + \sum_{j=1}^{12} d_j I_{cj} \log S_c + u_{cj}$$

where u_{cj} is a normally-distributed random disturbance associated with jurisdiction j 's rating of crime c . This relationship is useful for analyzing cross-jurisdictional effects, because, using $E(\)$ to denote expected value, for any jurisdiction j ,

$$(7) \quad E(\log S_{cj}) = a_j + (b+d_j) \log S_c$$

Since, under the null hypothesis of no cross-jurisdictional effects, $\log S_{cj} = \log S_c$, the null hypothesis may be stated as $a_j = 0$ and $(b + d_j) = 1$. These may be tested by estimating equation (6) and computing two test statistics:

$$t_1 = \frac{\hat{a}_j}{s_{\hat{a}_j}}$$

and

$$t_2 = \frac{\hat{b} + \hat{d}_j - 1}{\sqrt{s_{\hat{b}}^2 + s_{\hat{d}_j}^2 + 2s_{\hat{b}, \hat{d}_j}}}$$

where carats denote estimated coefficients and s denotes estimated coefficient standard errors and covariances. Under the null hypothesis, both statistics are distributed as Student's t with 131 de-

grees of freedom. The test results appear in Table 2. According to those results, the entire sample of prosecutors, with the exception of those from Jurisdictions E and J, belong to a single population of raters. Thus, in graphing jurisdiction scales against the aggregate scale, the Jurisdiction E line would exhibit a significantly positive intercept, but a slope of approximately unity. Jurisdiction J, in contrast, exhibits an intercept of zero, but a slope that is significantly less than unity.

Rater Characteristics and Crime Scores

This experiment offered the opportunity to explore the effects on perceived crime seriousness of personal rater characteristics such as age, sex, race, marital status and length of legal experience. It was hypothesized that such characteristics could affect the standardized score a rater assigned to any single crime.

Figure 2 displays the questions posed to each rater at the end of his booklet.¹⁶ Each rater's responses were used to construct the variables itemized in Table 3. These variables, in turn, were hypothesized as potential explanatory variables for the raters' scores for a ten dollar larceny and an assault causing the victim's death, which are, respectively, the anchor crime and the most serious crime on the Primary Index Scale.

Prior to estimation, the raw scores were standardized to Primary Index Scale values by means of:

$$(8) \quad \log S_{ci} = 1.24346 + 0.23102 y_{ci}^2, \text{ for } c=1 \text{ and } 8, \text{ and } i=1, 2, \dots, 902,$$

based on the estimated parameters of equation (3). A multiple regression equation was specified of the form:

$$(9) \quad \log S_{ci} = a_0 + \sum_{k=1}^{17} a_k z_{ki} + u_i$$

where the 17 Z 's are the personal characteristic variables shown in Table 3. Equation (9) was then estimated by stepwise multiple regression, excluding variables with F values less than 3.85, the five percent significance level of F with 1 and 903 degrees of freedom. Identical results were obtained under stepwise inclusion with the same F -level. These results are shown in Table 3.

As is apparent, personal characteristics explain very little of the variation in scores assigned to

TABLE 2

RESULTS OF TESTS FOR CROSS-JURISDICTIONAL DIFFERENCES IN CRIME SERIOUSNESS PERCEPTION

Jurisdiction	Test Statistics		Null Hypothesis
	t_1	t_2	
A	-0.157	0.500	Reject
B	0.079	-0.230	
C	0.259	-0.201	
D	-1.047	0.858	
E	1.856*	-0.719	
F	0.857	0.026	
G	0.097	-0.418	
H	1.129	-1.415	
I	-1.461	0.789	
J	-0.000	-2.463**	
K	0.963	-1.454	
L	-1.520	1.152	

* Indicates significance at the 0.1 level.

** Indicates significance at the 0.05 level.

¹⁶ To avoid antagonizing or inhibiting the raters, the personal questions were placed at the end of each booklet, rather than the beginning. They were not mentioned in the instructions at the beginning of the booklet.

General Information

- 1) Decade of birth: before 1930 ()
 1930-1939 ()
 1940 or later ()
- 2) Sex: Male () Female ()
- 3) Race: White () Black () Other ()
- 4) Marital Status: Single () Married () Other ()
- 5) State in which you have lived for the longest period of time:
-
- 6) Work experience as an attorney.
- A. An attorney for ____ years.
- E. A prosecutor with present district attorney's office for ____ years.
- C. A prosecutor with any other district attorney's office:
 Yes () - If Yes, for ____ years.
 No ()
- D. A defense attorney: Yes () No () - If Yes, for ____ years.
- E. In private practice: Yes () No () - If Yes, for ____ years.
- F. Other _____ for ____ years.

FIGURE 2

PERSONAL DATA ITEMS COLLECTED FROM RATERS IN PROSECUTOR SAMPLE

either the ten dollar larceny or the assault causing death. The lone exception is marital status. The signs and significance of the coefficients on *MARRIED* suggest that married prosecutors differentiate more strongly between minor and serious crimes than do their single, divorced or widowed colleagues.

The Power Function of Money

The original Sellin-Wolfgang survey instrument included the following stimulus offense, "with varied amounts of money: 'Without breaking into or entering a building and with no one else present, an offender takes property worth (\$5), (\$20), (\$50), (\$1,000), (\$5,000).'" The magnitude scale scores obtained were used to estimate the following power function relating crime seriousness to dollar value:

$$(10) \quad S = 16.93 V^{0.165},$$

where *V* denotes value stolen, and *S* denotes perceived seriousness.¹⁷ Fairly similar results were obtained by Figlio:¹⁸

$$(11a) \quad S = 3.42 V^{0.141},$$

based on a sample of felony convicts;

$$(11b) \quad S = 4.35 V^{0.240},$$

using a sample of juvenile delinquents; and

$$(11c) \quad S = 3.30 V^{0.287},$$

using a 1974 sample of University of Pennsylvania students.

The same stimulus crime, with dollar amounts of \$10, \$50, \$100, \$1,000 and \$10,000, was included in the survey of prosecutors. Therefore, it was of interest to estimate a prosecutor's power function for money and compare it to previous results. Using the aggregate prosecutor scale scores for crimes 1 through 5, the following regression equation was estimated:

$$(12a) \quad \log S = 9.503 + 0.206 \log V, R^2 = 0.996 \\ (0.008)$$

which is equivalent to the power function

$$(12b) \quad S = 3.194 V^{0.206},$$

and is reasonably consistent with the earlier results.

Power functions (10), (11a)-(11c) and (12b) may

¹⁷ See note 1 *supra*, at 284-85.

¹⁸ See note 5 *supra*, at 195.

be used to infer a subjective value of human life for the samples that generated them. By setting S equal to the score assigned to "assault causing death," one may solve for the value of V that yields an equal seriousness score. The results appear in Table 4. The extreme value computed for "Felons, 1974," is at least partially an artifact of the insensitivity, noted by Figlio, of their seriousness scores

to changes in dollar values. More significantly, the decrease in dollar value for Pennsylvania students between 1964 and 1974 is consistent with the suggestion above of a secular decline in the value of human life. The prosecutor sample yields a value, \$4,518,559, which is reasonably consistent with the samples of Pennsylvania students and juvenile delinquents.

TABLE 3

RESULTS OF REGRESSION ANALYSIS OF CRIME RATINGS AND RATER PERSONAL CHARACTERISTICS

VARIABLE NAME AND DEFINITION	ESTIMATION RESULTS					
	Dependent Variable = \$10 Larceny Score			Dependent Variable = \$ Assault-Death Score		
	Coefficient	Std Error	Coef/Std Error	Coefficient	Std Error	Coef/Std Error
DOB: 1 if born after 1940 0 otherwise	—	—	—	—	—	—
SEX: 1 if female 0 otherwise	—	—	—	—	—	—
RACE: 1 if nonwhite 0 otherwise	—	—	—	—	—	—
MARRIED: 1 if married 0 otherwise	-0.136	0.047	-2.894*	0.085	0.036	2.361*
STATE: 1 if state of longest residence is CA ^f 0 otherwise	—	—	—	—	—	—
XATTY: Years of experience as attorney	—	—	—	—	—	—
XOFFICE: Years of experience in current office	—	—	—	—	—	—
IPROSEC: 1 if prosecution experience elsewhere 0 otherwise	—	—	—	—	—	—
YPROSEC: Years of prosecution experience elsewhere	—	—	—	—	—	—
IDEFENSE: 1 if indigent defense experience 0 otherwise	—	—	—	—	—	—
YDEFENSE: Years of defense experience	—	—	—	—	—	—
IPRIVATE: 1 if private bar experience 0 otherwise	—	—	—	—	—	—
YPRIVATE: Years of private bar experience	—	—	—	—	—	—
IOTHER: 1 if nonlegal experience 0 otherwise	—	—	—	—	—	—
YOTHER: Years of nonlegal experience	—	—	—	—	—	—
JURIS E: 1 if rater from Jurisdiction E [†] 0 otherwise	—	—	—	0.114	0.049	2.327*
JURIS J: 1 if rater from Jurisdiction J [†] 0 otherwise	—	—	—	—	—	—
R ² =		0.01			0.03	

— indicates deleted in stepwise regression with $F = 2.0$.

*indicates significance at the 0.05 level.

^fOther states examined produced less significant results than California.

[†]Indicators for Jurisdictions E and J were included because of their significance in Table 2.

TABLE 4

SUBJECTIVE VALUE OF LIFE INFERRED FROM POWER FUNCTION FOR MONEY, FOR SEVERAL SAMPLES

Sample	Score for Assault = Death	Dollar Value Producing Equal Score
Penn students, 1964	449.20	\$ 420,726,600
Felons, 1974	68.450	\$1,655,770,000
Juvenile Delinquents, 1974	171.109	\$ 4,425,883
Penn students, 1974	181.308	\$ 1,156,112
Prosecutors, 1977	74.865	\$ 4,518,559

Relative Seriousness of New Crimes

This replication of the Sellin-Wolfgang experiment included a number of stimulus crimes not incorporated in the original analysis. The new crimes, developed by Wolfgang and others for presentation in a survey of the National Crime Panel, were of the following types: graft, fraud, crimes against criminal justice (e.g., perjury, withholding evidence), organized crime activities, environmental pollution causing injury, terrorism and several drug-related crimes.

For these crimes, as for all 250 crimes not presented to the entire group of raters, the standardized log scores were used to compute a mean z-score for each crime, according to equation (2). Then equation (3) was used to transform the mean z-scores into values measured in units of the Primary Index Scale. Figures 3 through 6 illustrate some interesting comparative results concerning these values.

In Figure 3, values for several white-collar crimes involving \$10,000 are shown, together with the score for a \$10,000 larceny as a benchmark. For

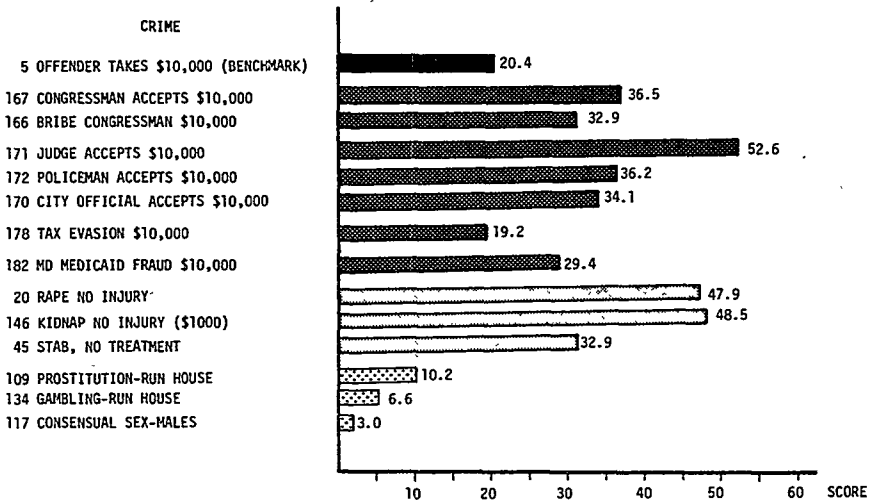


FIGURE 3

COMPARATIVE SCORES FOR WHITE-COLLAR, VIOLENT, AND VICTIMLESS CRIMES

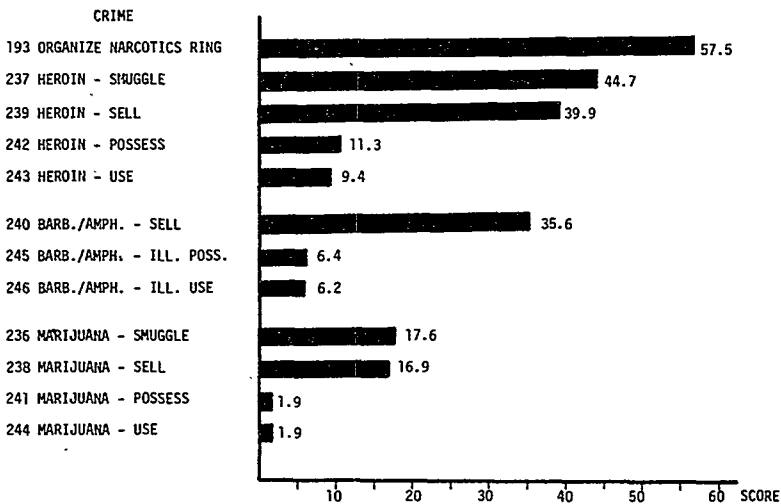


FIGURE 4

SCORES FOR DRUG-RELATED CRIMES

comparative purposes, the figure also shows scores for several street crimes of comparable seriousness, and for several "victimless" crimes. The number for each crime corresponds to its position in the expanded Wolfgang list. It is apparent from the figure that with the exception of tax evasion, white-collar crimes are considered by prosecutors to be far more serious than larceny of the same dollar amount. In fact, the white-collar crimes are equated with such major crimes against the person as rape, kidnaping and stabbing. In contrast, victimless crimes—prostitution, gambling and consen-

sual sex—are considered minor. It is interesting to note that the prosecutors rate corruption of a judge as sixteen points more serious than the identical corruption of other public officials.

Figure 4 illustrates scores assigned by prosecutors to several drug-related crimes. The scores are consistent with prior expectations in the following senses. First, for any drug, smuggling or sale is far more serious than possession or use. Second, equivalent crimes are most serious if related to heroin, less serious if related to synthetic drugs, and least serious if related to marijuana.

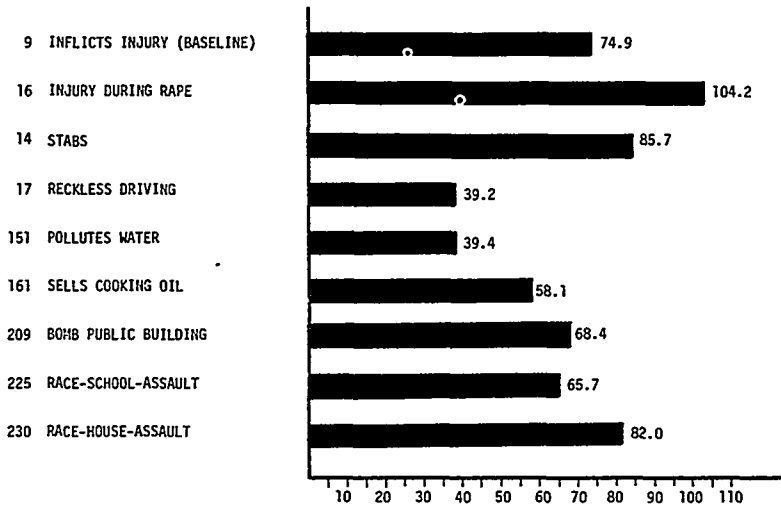


FIGURE 5
SCORES FOR CRIMES INVOLVING ONE DEATH

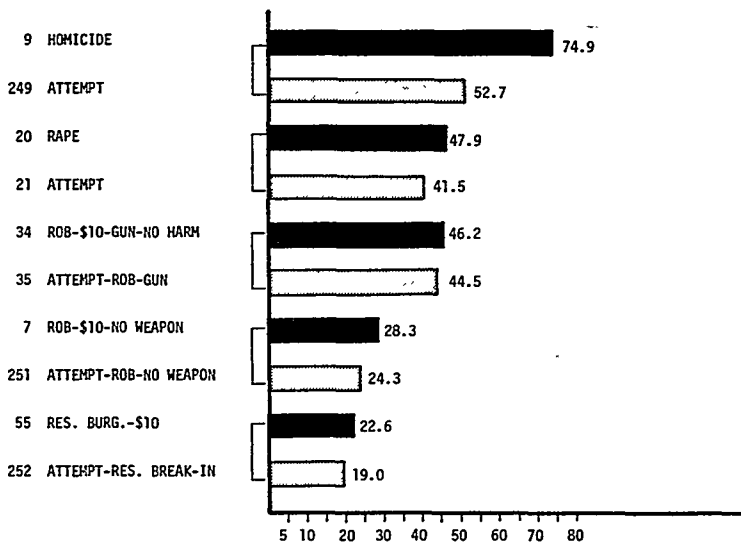


FIGURE 6
SCORES FOR CRIMES AND ATTEMPTS

Figure 5 examines how the perception of crime seriousness is affected by the context of the crime. It displays the score assigned to each of nine crimes, all leading to the victim's death, but differing with respect to intent, motive or other circumstances. Compared to the benchmark description, which gives no indication of surrounding circumstances, death during a rape and death by stabbing are both rated as more serious. Incidents where death could be considered an unexpected outcome of the crime—reckless driving and water pollution—were considered least serious. Sale of adulterated cooking oil and bombing, in which death is a somewhat more probable outcome, were rated somewhat more serious. Racial motivation had a mixed effect on perceived seriousness. Death from assault to prevent the victim from attending school was rated as slightly less serious than the benchmark, while if the assault was to prevent the victim from buying a house, the crime was rated slightly more serious than the benchmark.

Figure 6 illustrates the comparative seriousness attached to commission of a crime and an attempt to commit the same crime. Comparisons are shown for homicide, rape, armed robbery, robbery and residential burglary. As might be expected, an attempt to commit each of these crimes is rated as slightly less serious than the successful completion of each one.

SUMMARY AND CONCLUSIONS

Revision of the crime seriousness score used by PROMIS (Prosecutor's Management Information System) afforded an opportunity to replicate the original Sellin-Wolfgang experiment, using a panel of 909 assistant prosecutors from twenty-three offices around the country. The prosecutors' aggregate Primary Index Scale proved to be a valid replication of the original Sellin-Wolfgang scale, although it covered a somewhat narrower range

than have the scales generated by surveys of the public at large.

A test for cross-jurisdictional differences in Primary Index Scales revealed that scales from only two jurisdictions differed significantly from the aggregate scale. A test of the effect of rater characteristics on scores revealed that married prosecutors make stronger distinctions between trivial and serious crimes than do their single colleagues, but that overall, rater characteristics explain very little of the variance in scores assigned to any single crime. These results are consistent with previous evidence that the crime seriousness scale is invariant with respect to a wide variety of geographical and personal characteristics.

Previous research on the relationship between seriousness and value was also confirmed. A power function relating these quantities was estimated, and its coefficients were similar to those previously obtained by Sellin and Wolfgang and by Figlio.

This experiment presented an opportunity to examine the seriousness of several crime types not previously studied. White-collar crimes involving \$10,000 were found to be far more serious than larceny of the same amount and equivalent in seriousness to such street crimes as rape and kidnapping. In turn, these crimes received ratings similar to the score for smuggling heroin. In general, smuggling and sale of drugs received higher scores than possession or use. All four drug-related offenses received their highest scores when related to heroin, their next highest scores when related to synthetic drugs, and their lowest scores when related to marijuana.

The data and analysis performed in this study form the basis for a revised crime seriousness score for use in PROMIS. The data also raise the question for future researchers whether prosecutors view crime seriousness in the same way as their constituents.