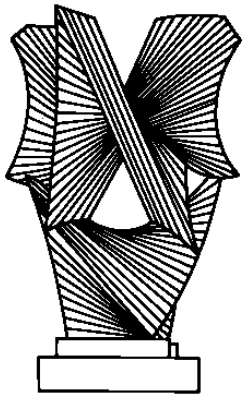
CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER NO. 535
(2D SERIES)
PUBLIC LAW AND LEGAL THEORY WORKING PAPER NO. 323



RISK AS A PROXY FOR RACE

Bernard E. Harcourt

THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO

September2010

This paper can be downloaded without charge at the John M. Olin Program in Law and Economics Working Paper Series: http://www.law.uchicago.edu/Lawecon/index.html and at the Public Law and Legal Theory Working Paper Series: http://www.law.uchicago.edu/academics/publiclaw/index.html and The Social Science Research Network Electronic Paper Collection.

DRAFT: September 18, 2010
Forthcoming in *Criminology and Public Policy*
© Bernard E. Harcourt

RISK AS A PROXY FOR RACE

Bernard E. Harcourt[1]

An increasing chorus argues, today, that risk-assessment instruments are a politically feasible method to redress our problem of mass incarceration and reduce prison populations. The argument, in essence, is that prediction tools can identify low-risk offenders for release and thereby protect correctional authorities from the political whiplash of early release. This progressive argument for actuarial methods has a lot of appeal.

An excellent illustration is Kelly Hannah-Moffat's forthcoming essay in *Criminology and Public Policy,* titled "Actuarial Sentencing: An 'Unsettled' Proposition." In her essay, Hannah-Moffat even-handedly evaluates the development, history, advantages, and dangers of using actuarial instruments in sentencing. Hannah-Moffat is careful to underscore the problems traditionally associated with risk-assessment tools—specifically, the recurring slippage from correlation to causation that plagues much discussion of risk (15-16), as well as the recurring problems of racial and gender discrimination (18-22). But despite these concerns, Hannah-Moffat ultimately leans toward using actuarial risk-assessment instruments as part of a strategy to reduce mass incarceration—or, at the very least, encourages us to reconsider the progressive argument for risk.

Hannah-Moffat writes that "risk can be used to generate a culture of penality that relies less heavily on incarceration and recognizes its criminogenic effects" (5). To be sure, she immediately follows that up with a call for further research: "Prison minimization is a laudable goal, but using actuarial risk to achieve it is not without consequence. Before risk is adopted as an organizing principle for sentencing, I argue that further research … is required." *Id*. But, elsewhere in the text, Hannah-Moffat, again cautiously, argues that "Risk can offer a politically defensible way out of mass incarceration" (37) and

[1] Julius Kreeger Professor of Law and Criminology, and Professor and Chair, Department of Political Science, The University of Chicago. Special thanks to Shawn Bushway, Kelly Hannah-Moffat, and the participants at the 2010 Sentencing Symposium.

that "risk (and some evidence-based practices) may facilitate a reduction in penal populations, and over time lead to the application of different and perhaps more constructive interventions" (39).

Hannah-Moffat anticipates the potential problems and criticisms and is, herself, genuinely concerned about the prejudices and biases—especially the racial biases—that may ensue. But the careful grammatical structure of the sentences suggests that, ultimately, Hannah-Moffat is encouraging us to reconsider the progressive argument for risk.

This raises the significant question whether, indeed, risk assessment tools should be embraced as a progressive method to disassemble our carceral state—or, more precisely, whether we need more research to revisit the issue. My sense is that the answer to both of these questions is "no." I would argue that we should resist the political temptation to reconsider the progressive argument for risk-prediction for the central reason that the use of risk-assessment tools to decrease prison populations, first, will unquestionably aggravate the already intolerable racial imbalance in our prison populations (at least in the United States) and second, will not address the real source of mass incarceration, namely the front-end admissions process. The fact is, risk today has collapsed into prior criminal history, and prior criminal history has become a proxy for race. The combination of these two trends means that using risk-assessment tools is going to significantly aggravate the unacceptable racial disparities in our criminal justice system.

There are, to be sure, political advantages to using technical instruments such as actuarial tools to justify prison releases. Risk-assessment tools protect political actors and serve to de-responsibilize decision-makers. Given that we are in an age of "governing through crime," these are undoubtedly important. But I think that this advantage is outweighed by the cost to racial justice. In the end, I believe we need to find other solutions to mass incarceration. Before making the argument, though, let me start here with a few cautionary tales about progressive arguments for prediction.

I. Cautionary Tales on Prediction

This is not the first time that we might be tempted to use a metric of dangerousness as a way to empty "total institutions." We did the same thing with our asylums and mental hospitals in the 1950s, 60s, and 70s. One thing that experiment revealed was that the turn to dangerousness had a distinctly disproportionate effect on African-American populations: the proportion of minorities in mental hospitals increased significantly during the process of deinstitutionalization. From 1968 to 1978, for

instance, there was a significant demographic shift among mental hospital admittees. In a 1984 study, Henry Steadman, John Monahan, and their colleagues tested the degree of reciprocity between the mental health and prison systems in the wake of state mental hospital deinstitutionalization, using a randomly selected sample of 3,897 male prisoners and 2,376 adult male admittees to state mental hospitals from six different states (Steadman et al. 1984:478). What their research revealed is that the proportion of non-whites admitted to mental facilities increased from 18.3% in 1968 to 31.7% in 1978: "Across the six states studied, the … percentage of whites among admitted patients also decreased, from 81.7% in 1968 to 68.3% in 1978."[1] The track record is damning: mental hospitals were deinstitutionalized by focusing on dangerousness and the result was a sharp increase in the black representation in asylums and mental institutions.

A second cautionary tale: selective incapacitation. Here, it is important to recall that the development of selective incapacitation in the 1970s was joined at the hip with the goal of *reducing* prison populations. One of the leading arguments for selective incapacitation in California was precisely the progressive line that it would lower overall prison populations while reducing crime. As we all know, the theory of selective incapacitation, which traced to the seminal research of Marvin Wolfgang, Robert Figlio, and Thorsten Sellin (1972), rested on the idea that only a small subset of youth—in their study, 627 youths or 6.3 percent of the cohort—was responsible for over 50 percent of the total crimes committed by the cohort (Wolfgang, Figlio and Sellin 1972: 248). The modern idea of selective incapacitation grew from this insight: locking up those 6 percent, and only those 6 percent, could cut crime in half, while at the same time reducing prison populations. The problem, naturally, became how to identify the 6 percent chronic offenders and the solution, as naturally, was to turn to actuarial methods. When Peter Greenwood and Allan Abrahamse issued their RAND report in 1982—the report that set forth the most fully articulated plan for implementing a strategy of selective incapacitation—they made clear that the benefit of selective incapacitation was that it saved money by reducing prison populations. Their seven-factor prediction instrument[2] was attractive, they argued, because it had the advantage of reducing the prison population. Greenwood and his colleagues concluded their study precisely on that note: "Increasing the accuracy with which we can identify high-rate offenders or increasing the selectivity of sentencing policies can lead to a decrease in crime, *a decrease in the prison population*, or both. Selective incapacitation is a way of increasing the amount of crime prevented by a given level of incarceration" (Greenwood 1982: xiii, emphasis added). Yet their report anticipated the

largest single increase in prison populations in history. With these cautionary tales in mind, let me turn then to the central issue: the relationship between risk and race.

II. From Race to Risk: Prior Criminal History as a Proxy for Skin Color

Today, risk is predominantly tied to prior criminal history, and prior criminality has become a proxy for race. The result is that deinstitutionalizing through the mechanism of risk-instruments is likely to aggravate the racial disparities in our hyper-segregated carceral sphere. The evolution from race to risk can be traced neatly by examining the factors used in risk-assessment tools during the early to mid-twentieth century. From their inception in the 1920s to at least the 1970s, many of the prediction tools explicitly used the nationality and race of the parents of the inmate as one of the central factors to predict future dangerousness. This practice ebbed in the 1970s as a result of the Civil Rights movement and constitutional developments in Equal Protection, but was nevertheless replaced with two other trends—the narrowing of the prediction instruments and the focusing of those tolls on prior criminal history. The combined effect of these various trends has been to turn risk into a proxy for race.

a. *Race as an early predictor of parole failure*

The first parole prediction instrument that was ever used in the parole decisionmaking process—the "Burgess method" developed in 1927 and 1928 by Professor Ernest Burgess at the University of Chicago—included the nationality or race of the father as one of twenty-one factors that predicted success or failure on parole (Harcourt 2007:57). Burgess was particularly interested in the question of national origin. In his study of 3,000 Illinois inmates released on parole, he discovered that "the smallest ratio of violations [are] among more recent immigrants like the Italian, Polish and Lithuanian," and "the highest rates of violation [are] among the older immigrants like the Irish, British and German" (Bruce, Burgess, and Harno 1928:259). Burgess also observed, referring to parole violators, that "The group second in size was the Negro with 152 at Pontiac, 216 at Chester, and 201 at [Joliet]." *Id*. Burgess' model was implemented by the Illinois Board of Paroles in 1933 and, as a result, nationality and race were used expressly as a factor in the "prognasio" that served as the basis for the decision whether or not to parole an inmate. Race and nationality predicted parole violation.

The use of parent nationality, race, color, and other ethnic identifiers, such as religious belief and church attendance, was a continuous thread that weaved through the evolution of the parole prediction studies and instruments, at least into the 1970s. In 1931, Clark Tibbitts, the former assistant

to Ernest Burgess on the Illinois parole study, replicated the Burgess method (using a sample of 3,000 youths paroled from the Illinois reformatory at Pontiac over a seven year period from 1921 to 1927) and included "nationality of his father" as one of his 23 factors (Tibbitts 1931:11). Not surprisingly, being "American (Colored)" was a predictor of parole violation, and being "American (White)" was a marker of success (Tibbitts 1931:43). The very next year, in 1932, Elio Monachesi published his Ph.D. dissertation on predicting probation violations and, like the others, included the nativity of the probationer, the nativity of his parents, the religion of the mother and father and probationer, and church attendance as predictors.

Nationality, race, and religion became staples of the prediction research. Courtlandt Churchill Van Vetchen included nationality and family religion in his 1935 study, Walter Argow included race and church attendance in his model the same year, Elizabeth Redden used color and nativity in 1939, and Bernard Kirby and F.J. Carney included race in their studies respectively in 1954 and 1967. United States Attorney General Homer Cummings commissioned a large survey of parole practices in 1936, reviewing over 90,000 federal parole cases, and specifically found that "whites had better records on parole than Negroes" (*Attorney General's Survey* 1939:541).

In terms of actuarial instruments that would actually be implemented, Burgess (1928), Tibbits (1931), and Hakeem (1948) all included race and nationality of the father in the prediction instrument. I discuss many of these tools in *Against Prediction* (2007), but failed there to mention whether the prediction instruments included race. I remedy that in a table in the Appendix here, a table which lists the major prediction studies and tools developed in the early to mid-twentieth century in the United States. The table discloses the use of race, nationality, or religion—and whether the tools were actually implemented. The table reveals a continued use of race until at least the late 1960s. In fact, when California began using a parole prediction instrument *in the 1970s,* it used an actuarial device that relied on race. The first California "Base/Expectancy Score" narrowed in on race and only three other factors—prior commitments, offense type and number of escapes (Simon 1993:173).

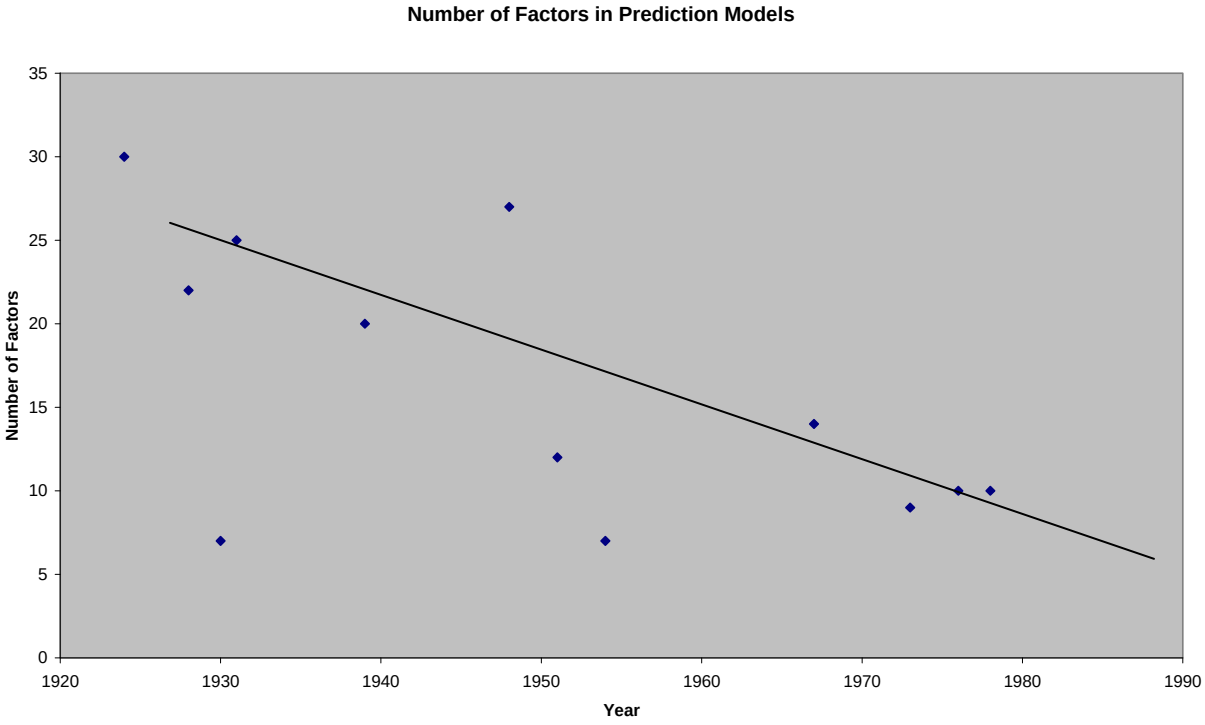
The link was not only direct, it was also at times metaphorical. Clark Tibitts, for instance, in his 1931 replication of the Burgess method referred to "white marks" and "black marks." So, he wrote, "A record of no work . . . which shows a violation rate of 38.5 percent would be an unfavorable sign or what we have chosen to call 'a black mark,' while a good work record with only 5.6 percent failure would be favorable or 'a white mark.' The rates of violation either above or below the average permit the factors

to be listed . . . according to whether they are favorable or unfavorable, 'white' or 'black'" (Tibbitts 1931:40). Not surprisingly—though one has to wonder whether Tibbitts caught the lack of irony—being "American (Colored)" was a "black mark" and being "American (White)" was a "white mark" (Tibbitts 1931:43).

b. *Narrowing on Prior Criminal History*

The actuarial instruments ultimately evolved away from race as an explicit predictor, but that trend was accompanied by two others—and these too would have significant race effects: first, a general reduction in the number of predictive factors used and, second, an increased focus on prior criminal history.

The first trend was fueled by Sheldon and Eleanor Glueck. They developed the principal competitor to the "Burgess method" in their book, published in 1930, *Five Hundred Criminal Careers*. The Gluecks conducted extensive investigation into the lives of 510 inmates whose criminal sentences expired in 1921 and 1922, and became strong advocates of reducing prediction tools to a narrower set of factors. Theirs ultimately focused on only seven factors.[3] The competition between the Burgess and Glueck methods generated a tremendous amount of research from the 1930s through the 1950s, and much of it was focused on narrowing the number of factors in the models.[4] University of Chicago sociologist and heir to Burgess, Albert J. Reiss, Jr., strenuously advocated limiting the number of factors in prediction instruments (Reiss 1951:561), as did Lloyd E. Ohlin, another prominent sociologist who taught at Harvard, and Daniel Glaser, who worked on the prediction tables used at the penitentiary at Pontiac, Illinois, in 1954 and 1955. Beginning in the 1970's, the federal government adopted more narrowly focused parole guidelines. The United States Parole Commission relied on the "Salient Factor Score" that used only seven predictive factors (and the majority of those seven factors related to prior delinquency). California adopted an actuarial model, the "Base/Expectancy Score," that narrowed in on four factors.[5] The narrowing of the prediction instruments can be visualized by plotting the number of factors used in parole prediction models over time and drawing a regression line through the plot:

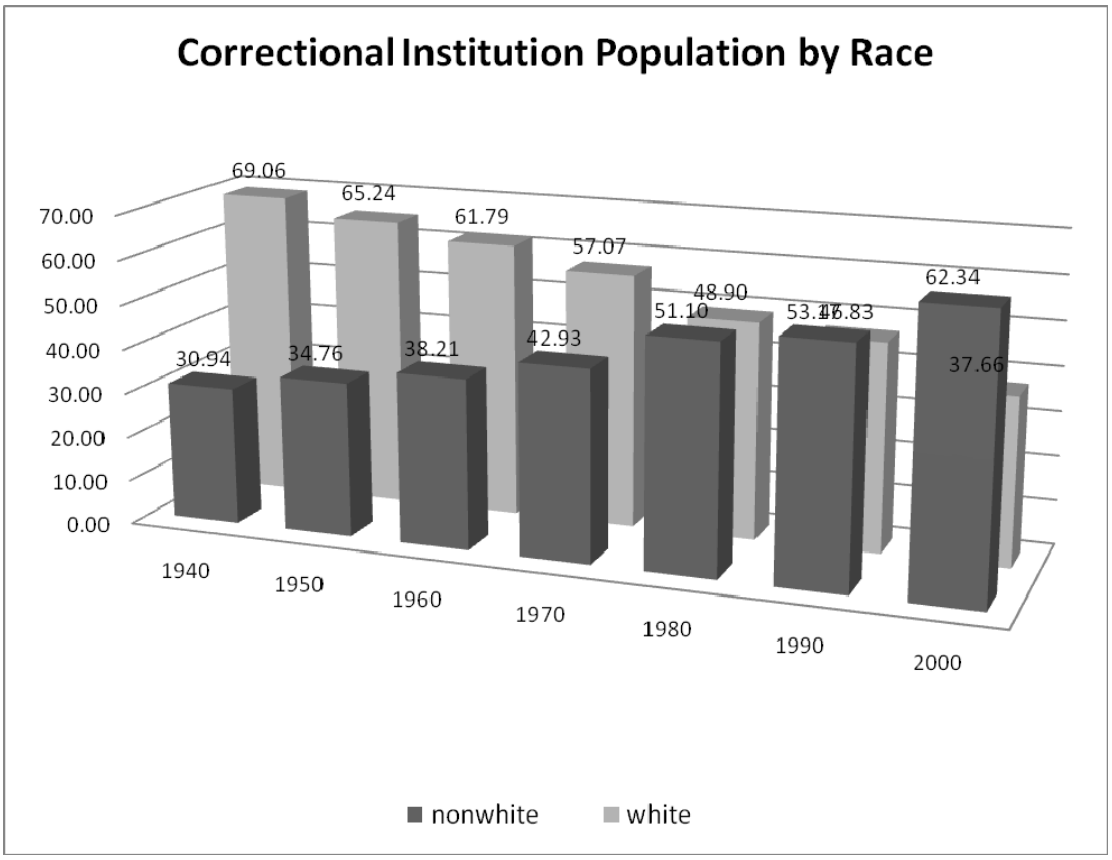


The second trend focused the predictors on prior criminal history as a proxy for future dangerousness. Practically all of the prediction studies converged on prior correctional contacts (arrests, convictions, and incarcerations) as one of the stronger predictors of recidivism. What developed, as a result, were more simplistic but easier to administer sentencing schemes that relied predominantly on prior criminal history (*see generally* Gendreau et al 1996). This is reflected well in the views of Paul Robinson, former commissioner on the United States Sentencing Commission and a professor of law at the University of Pennsylvania:

> The rationale for heavy reliance upon criminal history in sentencing guidelines is its effectiveness in incapacitating dangerous offenders. As the Guidelines Manual of the United States Sentencing Commission explains, "the specific factors included in [the calculation of the Criminal History Category] are consistent with the extant empirical research assessing correlates of recidivism and patterns of career criminal behavior." (Robinson 2001: 1431 n.7)

Whether prior criminal justice contact actually works to predict high or low risk offenders remains unclear, especially given the failure of most research to account for the non-random assignment to penal treatments (Bushway and Smith 2007). But what is clear is that prior criminality has become the predictor of choice in sentencing.

The combination of these two trends—narrowing and focusing on prior criminal records—has proven devastating to African-American communities—and can only continue to have disproportionate impacts in the future. The reason is, the continuously increasing racial disproportionality in the prison population necessarily entails that the narrower prediction instruments, focused as they are on prior criminality, are going to hit hardest the African-American communities. The trend in incarceration over the twentieth century has been one of increasing disproportionality, as evidenced by the following graph:



The combination of narrower risk-instruments focused on prior criminality is toxic. My sense is that today we know enough: relying on prediction instruments to reduce mass incarceration will surely aggravate what is already an unacceptable racial disproportionality in our prisons.

III. Back to Square One

This leaves me, once again, *against prediction*.[6] But that may not be such a bad thing. Recent evidence suggests that what fueled the carceral excess was not so much the length of sentences, but rather the front end: new admissions. John Pfaff at Fordham has some interesting findings along these lines. Pfaff's research shows that, at least since the mid-1990s, the stronger driver of prison growth has been increased admissions rather than longer sentences. In his paper, *A Plea For More Aggregation* (forthcoming), Pfaff finds that changes in time served since the late 1980s have had almost no effect on prison populations, while changes in numbers admitted have played a substantial role. In another paper, *Durability of Prisons* (forthcoming), Pfaff measures whether cuts to admissions or cuts to time served would reduce prison populations more quickly, and finds that cuts to admissions appear to be more important. The long-run projections in *Durability* are somewhat speculative, but they do give a good impression of the kinds of trends we could expect: looking forward, we are far better off trying to reduce admissions than shortening sentences.[7]

What then is to be done to reduce the prison population? Rather than release through prediction, I would argue, we need to be less punitive at the front end and remain extremely conscious of the racial imbalances in our sentencing laws. Reducing the crack-cocaine disparity to 18:1 is a step in the right direction; however, other immediate steps should include eliminating mandatory minimum prison terms, reducing drug sentencing laws, substituting diversion and alternative supervision programs, and decreasing the imposition of hard time. The research suggests that shortening the length of sentences (i.e. releasing low-risk convicts earlier than the expiration of their term) would not have as great an effect on prison populations, long term, as cutting admissions. The real solution, then, is not to cut short prison terms, but to reduce admissions to prison.

Year	Name of Researcher	Number of Factors Investigated	Factor involving race, ethnicity, national origin, or religion	Derived Workable Instrument?	Publication Citation
1923	Warner	66	Color; nativity of parents; religion of parents; religion of prisoner	No	Sam B. Warner, "Factors Determining Parole From the Massachusetts Reformatory," *Journal of Criminal Law and Criminology*, 14(1923): 172-207
1924	Hart	66	Religion of prisoner being "other"; claim to attend church regularly.	yes	Hornell Hart, "Predicting Parole Success," J*ournal of the American Institute of Criminal Law and Criminology* 41, no. 3 (1923): 405-413.
1927	Witmer	15	[none]	No	Witmer, Helen Leland. "Some Factors in Success or Failure on Parole." Journal of Criminal Law and Criminology 17, no. November (1927): 384-403.
1928	Borden	26	Nationality; race	No	Borden, Howard G. "Factors for Predicting Parole Success." *Journal of Criminal Law and Criminology* 19, no. November (1928): 328-36.
1928	Burgess	22	Nationality of father;	yes	Ernest W. Burgess, *The Workings of the Indeterminate Sentence Law and the Parole System*, (Springfield, 1928)
1930	Glueck	52	Nativity of parents and prisoner; religion; church attendance;	yes	Glueck, S. and E. T., *Five Hundred Criminal Careers*, New York: Alfred A. Knopf, 1930.
1931	Vold	34	[none]	yes	George B. Vold, *Prediction Methods and Parole*, Hanover: Sociological Press, 1931
1931	Tibbitts	25	Nationality of father;	yes	Clark Tibbitts, "Success and Failure on Parole Can Be Predicted," *Journal of Criminal Law and Criminology, 22(1931): 11-50*
1932	Monachesi	54	Nativity of prisoner; nativity of parents; religion of mother; religion of father; religion of prisoner; church attendance	No	Monachesi, Elio D., *Prediction Factors In Probation* (Hanover: Sociological Press, 1932)
1935	Van Vechten	225	Nationality; family religion;	no	Courtlandt Churchill Van Vechten, Jr., *A Study of Success and Failure of One Thousand Delinquents Committed to a Boy's Republic*, PhD and dissertation, Department of Sociology, 1935
1935	Argow	37	Race; church attendance	No	Walter Webster Argow, "A Criminal Liability Index for Predicting Possibility of Rehabilitation," *Journal of Criminal Law and*

						Criminology, 26(1935):
1935	Laune		54	[none]	No	Laune, Ferris F., *Predicting Criminality: Forecasting Behavior on Parole*, Northwestern University Studies in the Social Sciences, No. 1 (Evanston: Northwestern University, 1936)
1939	Redden		22	Color; nativity	No	Redden, Elizabeth, "Embezzlement: A Study of One Kind of Criminal Behavior with Prediction Tables Based on Fidelity Insurance Records," PhD Thesis U of C
1939	Survey of Release Procedures		82	Race of father; citizenship of father; religion of father	No	U.S. Dept. of Justice, *The Attorney General's Survey of Release Procedures*, volume 4 Parole (Washington: Government Printing Office, 1939)
1942	Jenkins et al.		95	[none]	No	R. L. Jenkins, Henry Harper Hart, Phillip I. Sperling, and Sidney Axelrod, "Prediction of Parole Success: Inclusion of Psychiatric Criteria." Journal of Criminal Law and Criminology 33 (1942): 38-46.
1943	Weeks		14	Nativity of mother; religion of mother; nativity of father	No	H. Ashley Weeks "Predicting Juvenile Delinquency," *American Sociological Review*, 8(1943): 40-46
1948	Hakeem		27	Nationality of father	yes	Hakeem, Michael, "The Validity of the Burgess Method of Parole Prediction," *American Journal of Sociology,* 53(1948): 376-86
1951	Ohlin		27	[none]	yes	Lloyd E. Ohlin, *Selection for Parole: A Manual of Parole Prediction* (New York: Russell Sage Foundation, 1951).
1954	Glaser	27+		[none]	yes	Glaser, D., "A Reconsideration of Some Parole Prediction Factors," *American Sociological Review*, 20(1954): 335-41.
1954	Kirby		33	Race	No	Bernard C. Kirby, "Parole Prediction using Multiple Correlation," *American Sociological Review*, 6(1954): 539-550
1967	Carney		14	Race	No	Carney, F. J. "Predicting receidivism in a medium security correctional instution," *Journal of Criminal Law, Criminology, and Police Science*, 58(1967): 338-48
1973	Hoffman and Beck		66	[none]	yes	Hoffman, P.B., and J.L. Beck, "Parole Decision Making: A Salient Factor Score," *Journal of Criminal Justice* 2(1974): 195-206
1976	Heilbrun, Knopf, and Bruner		10	[none]	No	Heilbrun, A.B., Knopf, I.J., and Bruner, P., "Criminal Impulsivity and Violence and Subsequent Parole Outcome," *The British Journal of Criminology*, 16(1976): 367-77
1978	Brown		10	[none]	yes	Brown, Lawrence D., "The Development of a Parolee Classification System Using Discriminant Analysis," *Journal of Research in Crime and Delinquency* 15(1978): 92-108

Bibliography

[Note: References to prediction studies are included in the table in the preceding Appendix]

Bruce, Andrew A., Ernest W. Burgess, and Albert M. Harno. 1928. "A Study of the Indeterminate Sentence and Parole in the State of Illinois." *Journal of the American Institute of Criminal Law and Criminology,* 19(1) Part II: 1—306 (May 1928).

Bushway, Shawn and Jeffrey Smith. 2007. "Sentencing Using Statistical Treatment Rules: What We Don't Know Can Hurt Us," *J. Quant. Criminology* 23:377-387.

Gendreau, Paul, Tracy Little and Claire Goggin. 1996. "A meta-analysis of the predictors of adult offender recidivism: What works!" *Criminology* 34(4):575-607.

Glueck, Sheldon, and Eleanor Glueck. 1930. *Five Hundred Criminal Careers.* New York: Alfred A. Knopf.

Greenwood, Peter W., and Allan Abrahamse. 1982. *Selective Incapacitation.* Santa Monica, CA: Rand Corporation.

Hannah-Moffat, Kelly. Forthcoming 2011. "Actuarial Sentencing: An 'Unsettled' Proposition."

Harcourt, Bernard E. 2007. *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age*. Chicago: University of Chicago Press.

------. 2008. "A Reader's Companion to *Against Prediction*." *Law & Social Inquiry*, 33:265-283.

Pfaff, John. Forthcoming. "A Plea For More Aggregation." *American Law and Economics Review*.

------. Forthcoming. "Durability of Prisons." *University of Chicago Legal Forum*.

Reiss, Albert J. 1951. "The Accuracy, Efficiency, and Validity of a Prediction Instrument," *American Journal of Sociology* 56(6):552-561 (May 1951)

Simon, Jonathan. 1993. *Poor Discipline: Parole and the Social Control of the Underclass.* Chicago, IL: The University of Chicago Press.

Steadman, Henry J., John Monahan, Barbara Duffee, Elliott Hartstone, and Pamela Clark Robbins. 1984. "The Impact of State Mental Hospital Deinstitutionalization on United States Prison Populations, 1968–1978." *Journal of Criminal Law and Criminology* 75: 474-90.

Wolfgang, Marvin E., Robert M. Figlio, and Thorsten Sellin. 1972. *Delinquency in a Birth Cohort.* Chicago, IL: The University of Chicago Press.

NOTES

1. Steadman et al. 1984:479. Note that there was a similar, though less stark shift in prison admissions: "Across the six states, the … percentage of whites among prison admittees was also relatively stable, decreasing only from 57.6% in 1968 to 52.3% in 1978." *Id*.

[2] The seven factors relied on three primary categories: prior criminal record, history of drug abuse, and employment history. (Notice, for later discussion, that the first four of the seven factors focus on prior criminal history and dominate the prediction instrument). Greenwood and his colleagues based their study on self-report surveys from 2,100 male prison and jail inmates from California, Michigan and Texas in 1977 (Greenwood 1982: xii). The study focused on robbery and burglary offenses, and excluded more serious crimes such as murder or rape because these low-rate crimes are harder to predict.

[3] The seven factors were: 1. industrial habits; 2.seriousness and frequency of prereformatory crime; 3. arrests for crimes preceding; 4. penal experience preceding; 5. economic responsibility preceding; 6. mental abnormality on entrance; and 7. frequency of offences in the reformatory. Iincidentally, they included the nativity of the parents and of the ex-inmates, as well as their religion and church attendance, in their study.

[4] *See, e.g.,* Monachesi 1945; Hakeem 1948; Reiss 1951; Glaser 1955.

[5] *See* Simon 1993:173. One of the four factors was prior commitments; another was race; and the other two were offense type and number of escapes.

[6] The reference here is to Harcourt 2008.

[7] Naturally, in the immediate term, a cut to admissions will have the identical effect as a similarly sized release of inmates, just by mathematical necessity; but reducing the length of sentences by means of prediction will, over the long term, only effect sentence length, not admissions.