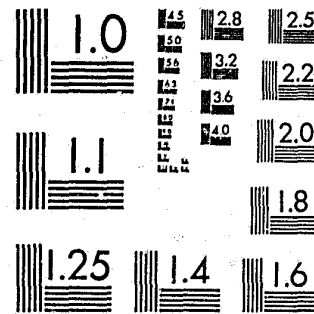


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N.I.J./HOOVER INSTITUTION CONFERENCE

ON ECONOMIC ACTIVITY AND CRIME

A Summary and Comments

by

Frederick C. Nold

October 20, 1982

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NATIONAL INSTITUTE OF JUSTICE - HOOVER INSTITUTION  
ECONOMIC OPPORTUNITY AND CRIME CONFERENCE

The Shoreham Hotel, Washington, D.C.  
October 2, 1981

Tentative Agenda

9:00 Youth Employment Opportunities and Crime  
Chairman - F. Nold  
Introductory Comments (alphabetically listed)  
D. Berk  
H. Brenner  
J. Laub  
P. Osterman  
B. Taggart

10:45 Coffee Break

11:00 Aggregate Economic Conditions and Crime  
Chairman - M. Block  
Introductory Comments  
H. Brenner  
R. McGahey  
F. Nold

12:30 Lunch

1:30 Program Interventions and Experiments (What we  
have found)  
Chairman - F. Nold  
Introductory Comments  
D. Berk  
M. Block  
P. Rossi  
B. Taggart  
J. Thompson

3:00 Coffee Break

3:15 Round Table Discussion and Summary

4:30 Adjournment

I. Introduction

Interest in the relationships between crime rates and unemployment rates increases dramatically during periods of high unemployment. During the last decade (a period when aggregate unemployment average 6.6 percent--as opposed to 4.1 percent during the preceding decade), there has been a broadly based research effort directed at assessing the importance of the supposed links between economic activity levels and crime rates. Contributions to the area have been made by researchers from most branches of the social sciences. While the topic would seem to fall naturally into economics, perhaps the best known work has been done by other social scientists, particularly sociologists.

Despite the recent research activity, no consensus about the existence or importance of the links between economic activity and crime has emerged. The objective of the joint Hoover/National Institute of Justice conference was to provide a forum for researchers from different disciplines to meet and discuss their work and ideas. An effort was made to identify and include researchers from each of the major schools of thought which have addressed the issue of unemployment and crime. Special emphasis was placed on reviewing the research on youth unemployment and crime.

## II. Approaches to Economic Opportunity and Crime

It is generally accepted that an individual with good legitimate means of generating income is unlikely to participate in criminal activities. This is not a very precise statement--in fact, it can be based on a number of somewhat different propositions about behavior. One hypothesis concerns labor supply behavior. If an individual has a high net wage in a particular legitimate occupation, he or she is more likely to pursue that occupation than another, perhaps illegal, vocation. A slightly different way in which legal income opportunities and the associated social status are thought to affect criminality is that high wage individuals have more to lose should they be apprehended and incarcerated for committing a crime. Still a different supposition is that good legal opportunities are associated with lower levels of frustration, anxiety and alienation. Consequently, participation by individuals with good economic prospects in anti-social acts of all sorts--from littering to homicide--is low, as is the incidence of suicide or other self-destructive behavior, such as drug abuse.

Amid this abundance of supposed links between economic opportunity and crime, it is perhaps surprising to find there is a paucity of reliable supporting empirical evidence. It is difficult to test any of these presumed relationships alone, much less assess the efficacy of each of them simultaneously. Also, while these theories describe individual

behavior, testing them using data on individuals has proven quite difficult. To model the "allocation of effort" between legal and illegal activities, one needs data on the characteristics of the choices open to the individual. This data must include information on current as well as future prospects associated with particular choices, income streams, and how the selections this individual makes changes his or her capabilities and opportunities. Such data is simply not available.

An alternative to modeling individual behavior indirectly is to conduct experiments with groups of individuals to determine how participation in illegal activities is affected by the variation in opportunities available to different experimental groups. However, it is not easy to alter these opportunities in the realistic or permanent way thought necessary to induce changes in behavior. In addition, experimental groups are often not chosen randomly. Enrollment in a program may be a reward for good behavior or be voluntary. Consequently, identification of the true source of any variation in criminal activity in the experimental individuals' behavior is problematic. Sample selection problems generally make the results from these studies difficult to interpret. In fact, to date, the most common way to quantify the hypothesized relationships between the economic opportunity and crime has been to use regression techniques on aggregate unemployment and crime data.

The objectives of the Hoover/NIJ Conference on Economic Opportunity and Crime were to identify and catalogue the ways in which economic opportunity might affect crime, determine whether any conclusions about the relationships between economic opportunity and crime have emerged, and assess the prospects for conducting further studies which could shed light on the area. The participants, whose names and addresses are given in Appendix 1, reflected the wide variety of backgrounds and orientations of the researchers that have studied this important social issue. The discussion at the Conference was organized around several topics: aggregate economic conditions and crime, youth unemployment opportunities and crime, and program intervention and experiments. In the following three sections we will summarize participants' comments on each of these topics, augmenting the discussion with observations about the literature where necessary. A final section draws together the conclusions from the Conference with a discussion of the prospects for progress in the area. A transcript of the discussion at the Conference is given in Appendix 2.

### III. Aggregate Economic Conditions and Crime

The researcher has great latitude in selecting a strategy for studying the relationships between economic conditions and crime. Correspondingly, studies in the open literature differ in a number of ways. One such difference is the kinds of crimes considered. A useful dichotomy is personal vs. property crime. For example, studies of personal crime and economic conditions are usually assessing the linkage between frustration and crime commission. Another difference between research strategies is the type of aggregate data used for measurement of crime: Uniform Crime Reports or Victimization Survey data. The UCR data offers breadth of coverage while Victimization data gives a way to identify general characteristics of those committing crimes involving confrontation with the victim. Similarly, the analyst has great flexibility in selecting measures of economic conditions. These measures range from age, race, and sex-specific participation rates to overall unemployment rates, and from wage rates for different occupations to family-based IRS income statistics. An analysis comparing labor force participation rates and property crime would probably be testing the proposition that individuals choose between legal and illegal occupations. A final point of difference which emerges is the degree to which the research emphasizes exploration of the relationships between crime and economic opportunity. In most of the aggregate studies of crime done by economists, variables used to measure economic opportunity are quite incidental to the major area of inquiry--i.e., deterrence.

As the researcher makes choices among these alternatives, the focus and limitations inherent in the available data sources is incorporated into the work. As a result, no study successfully handles the major statistical and conceptual problems in assessing the relationships between economic opportunity and crime. For example, Brenner's work (1976) on economic conditions and personal crime addresses the question of how current and past economic conditions such as unemployment rates, inflation and economic growth affect crime. The focus of his work is on the frustration, anxiety and alienation associated with economic uncertainty. Thus, he opted not to consider the choice aspect of participation in criminal activity and omitted salient characteristics of crime such as apprehension rates. Similarly, he failed to consider causes common to both poor economic conditions and crime, such as demographics. Unfortunately, his empirical results appear sensitive to these problems.

On the other hand, attempts to focus on the labor supply aspects of the choice between legal and illegal activity have been even less successful and defensible. An effort to develop a testable model of behavior which portrayed individual choice between various legal and illegal occupations was presented in Heineke (1978). This work fails to treat simultaneity problems, although sanctions, wages, and returns to crime are generally thought to be jointly determined. However, the fact that Heineke's empirical rendering of this model was procustean and, finally,

unbelievable, suggests that it is very difficult to bring even an unrealistically simple model of individual labor supply behavior to a point where it can be tested using aggregate data.

An exposition of the difficulties with the empirical implementation of Heineke's individual choice model is perhaps the easiest way to illuminate the problems associated with any effort to assess the relationships between economic opportunities and crime with aggregate data. This is because the data requirements of Heineke's model are extensive. The problems with this particular empirical economic analysis of crime are in no way unique, but their range and starkness makes the explication straightforward.

Using aggregate data to develop measures of the returns to legal and illegal activities and resolving exactly who should be studied are among the difficulties encountered on Heineke's study. These are basically issues of data availability and aggregation. Setting aside any qualms concerning whether individuals actually have accurate perceptions of their environment or whether they are capable of making expected value calculations, the researcher encounters obstacles between the general statement that returns to legal and illegal activity have certain determinants and an empirical statement of those returns. To illustrate, we will discuss the crime of burglary. The return to committing burglary,  $W_B$ , was calculated in the Heineke study according to

$$W_B = T_B - P_A \cdot P_C \cdot I (1 - \exp(-rS_B))/r$$



where  $T_B$  is the income earned in a burglary,  $P_A$  is the arrest ratio,  $P_C$  conviction rate given arrest,  $I$  the monetary equivalent of a year in prison,  $r$  the discount rate and  $S_B$  the average time served by a person convicted of a burglary.

These appear to be reasonable components from which to determine a wage rate for burglary. The gross return to burglary was measured by the average value reported stolen in the UCR for given SMSAs in different years. This is a deficient measure for at least two reasons. First, it covers, at most, crimes reported to the police. Worse, the value of items stolen is a positively associated and powerful determinant of the probability of reporting, so that this UCR-based average value probably overstates a burglar's average take. Second, the value is reported by the victim or the police and reflects, at best, retail costs. Except for cash, this neglects the fact that the criminal must sell the goods at wholesale to a fence. Both of these criticisms suggest that the gross return to burglars is inflated, a point that is significant later in our discussion.

The next element of the Heineke calculation is the probability of arrest. The UCR clearance rate for burglary was used to measure the probability of arrest for a particular burglary event. This is also deficient, again for two reasons. First, a large fraction of burglary events have a nearly zero probability of resulting in an arrest since they go unreported. Second, police are often accused

of exaggerating their clearance figures by marking a number of cases cleared which are similar to a case for which the suspect has been apprehended. Both of these problems lead one to believe that the UCR clearance rate substantially overstates the probability of apprehension for a given burglary.

Measurement of the probability of conviction is even more troublesome. There are no national court statistics which give us anything like the rate at which individuals are convicted of the crime with which they were initially charged. The UCR reports purport to give data on the disposition of cases, but the coverage of these statistics is spotty and they are unreliable. The basic problem with the disposition data is that police have neither the incentive nor the capacity to follow cases through the judicial system.

Determining the monetary equivalent to a year in prison is problematic. There are two pieces of information needed for this calculation: the income equivalent of a year of incarceration and the sentence length. Putting aside the difficulty of measuring the value of freedom, the form of even a simple minded calculation is debatable. One notion with some credibility is that an apprehended criminal sacrifices the discounted benefits of the income he or she could have earned net of living expenses.\* This means that we need some

\* Since economists tend to view individuals as making a choice between legal and illegal occupations, it comes as no surprise to economists that individuals apprehended for a crime are unemployed. These individuals are viewed as having simply made a choice between legal and illegal means of earning an income.

measure of the present value of what a criminal can expect to earn net of subsistence expenditures. Practically the only figures available over time for SMSAs are IRS taxable income series and corresponding family budget cost-of-living figures. Use of these data to reflect opportunity costs probably exaggerates the average criminal's access to legal opportunities. This is especially true of youths who are legally barred from certain jobs due to their age. In addition, this calculation fails to consider changes in reputation or other human capital associated with conviction which would be likely to erode future earning power even if no time were spent in prison.

While it would seem that data on average time served for burglary should be readily obtainable, prison data of this type is simply not available. For the Heineke study it was necessary to create a series using National Council on Crime and Delinquency data on time-to-first-release for parolees. Whether burglary parolee's time served is representative of the entire population of individuals sentenced for burglary in a particular SMSA and year is questionable. Furthermore, the time served by those released in a given year is used to measure the time which would be served by a person sentenced for that crime in that year. This ignores any change in statutory sentences and in sentencing practices. As noted in Avio and Clark (1976), the approach also suffers from a bias towards underestimating average sentence length if the number of individuals sentenced and subsequently released

on parole grows over time. Thus, we have only a very rough measure of the penalty in terms of time in prison.

The last element of the calculation is a discount rate. There is not much agreement about which, if any, discount rate should be used. Presumably the real rate at which people borrow is a good guide. The unsecured loan rate used in the study is not a very inspired choice, but it should, at least, have been adjusted for inflation.

Each data series is weak, and worse, in combination they exacerbate each other's flaws. As mentioned above, there are serious coverage problems in each of the measures in that it is possible to assemble the necessary information for only a small fraction of SMSAs for any year. While this is disturbing because of the potential for sample selection biases, the real surprise is that the expected returns are negative for at least one of the property crimes studied--robbery, burglary, or larceny--for half the observation on SMSA's for which this patchwork quilt of data was available. This occurs despite the fact that many of the deficiencies in the data tend to overstate the returns to crime. According to the theoretical development, doing nothing dominates those crimes where expected returns are negative. The fact that we observe people committing these crimes when expected returns are negative indicates that there is something terribly wrong with either the model, or our empirical rendering of it, or both.

Without passing judgment on the utility of Heineke's model, the quality of data available is simply not capable of providing a foundation for the sophisticated aggregate analysis necessary to realistically test the hypothesized relationships between economic opportunity and crime. While it is always possible to effectively criticize a single piece of empirical work, social scientists generally feel that an accumulation of research with different faults and using different data but generally lending support to a particular hypothesis is credible evidence. This argument does not hold for the aggregate analysis of economic opportunity and crime because the same data problems are common to all of the inquiries.

#### IV. Youth Unemployment and Crime

The arguments relating youth unemployment to youth criminal behavior are similar to those developed for adults. Criminal acts by youths are thought to reflect frustration, anxiety and alienation and/or a rational optimization of effort via employment in illegal enterprise. The links between unemployment and crime are much discussed and have helped form public policy aimed at reducing the crime rate for minors. However, empirical evidence for the efficacy of employment in reducing arrest rates for youths is not impressive.

Many studies\* have explored the relationships between youth unemployment and crime, looking at different types of work programs and their effects on different populations of young people (e.g., ex-offenders, deprived youth, different age groups, ex-addicts). Educational attainment, post-program employment and income, family patterns, work habits, and ideology were also examined. Through the Youth Employment Demonstration Projects Act, for example, some 750 million dollars was invested in experimental and demonstration programs between 1977 and 1979. Other, longer term work programs funded by the Department of Labor and by criminal justice agencies also tried to reduce young people's crime

\* For useful bibliographies see Hackler (1978), Rossi, et.al., (1980), Brenner (1976), and Taggart (1972).



rate by providing jobs. However, evaluations of these programs generate little or no evidence of effect in terms of reduced criminal activity.

The "supported work" program, conducted over a five-year period, provided full-time jobs for ex-addicts, ex-offenders, drop-out youths and AFDC mothers. While it appeared to benefit the ex-addicts and AFDC participants in terms of post-program income, the program did not decrease the arrest, incarceration or conviction rates of participants. Other work programs have had similar disappointing results. The "summer employment" program, for example, also had no discernable impact on post-program arrest rates, although in-program arrest rates were lower. The decrease in in-program arrest rates was observed primarily for 14 to 17 year olds, however, rather than participants between 18 and 21. The Youth Incentive Entitlement and Pilot Projects, a large scale program with some 33,000 enrollees in 17 locations, guaranteed disadvantaged 16 to 19 year old students a part-time school-year job and a full-time summer job as long as they stayed in school and maintained passing grades. This project did not lead to significantly lower arrest rates among participants either. Yet another ambitious effort placed youngsters in private sector jobs, with the government paying 100 percent of their wages. The difference between the post-program attitudes and experiences of these program participants and those of individuals placed in the public sector were negligible, however.

Most federal projects have been directed at the general category of disadvantaged youths. The benefits of work programs in crime prevention appear to be much greater for "hard core" populations. The Job Corps, a comprehensive residential treatment program, has served about 80,000 young people a year. Sixty-four percent of participants have a criminal record (and a majority, 60 percent, are from rural areas). Job Corps participation apparently reduces crime. The arrest rate in-program has been roughly two-thirds lower than the rate for non-participating youth, and the difference is still an impressive one-third in participants' first post-program year.

Only one of the programs created to reduce crime by increasing youth employment, Job Corps, clearly made things better. Job Corps participants were much less likely to be arrested than were those who did not participate. None of the other interventions appeared to make things worse, but this is modest praise indeed. To the extent that the programs did work, it is not clear that they were effective because of the job training and experience provided. For example, Job Corps successes may be due more to physically removing individuals from a "bad" environment, than to offering employment related skills. And the benefits may only be short term, whatever their origin.

Spurious or real, the existence of a relationship between youth unemployment and crime is, by and large, not supported by these studies. It may be, however, that while short-run

effects of the programs have been small, long-run effects will not be. Furthermore, the incidence of some types of crimes are perhaps more likely to be reduced by these interventions than are others. It also seems that some groups of youths are more likely effected by participation in work programs than are others. Ex-addicts, ex-offenders, females, and Hispanics seem to be less likely to be arrested if they have gone through some of the programs reviewed here. Important questions raised, however, are whether these studies adequately test the hypothesized relationships between unemployment and crime, and what refinements of these hypotheses they suggest.

The type of employment offered by work programs may account in part for the absence of an effect on crime rates. Most of the jobs offered were in the public sector, and were short-term, low-paying work. Some of the programs in fact constituted little more than holding actions (e.g., the "summer employment" program for 14 to 17 year olds). The most significant aspect of the relationships between unemployment and crime may well lie in the absence of job opportunity, rather than in holding a job per se. From this perspective, it is not surprising that federal work programs have had so little impact on crime rates. Jobs in or transferrable to the private sector, especially primary sector work, must be offered in order to test this claim.

## V. Program Interventions and Experiments

The third topic of the conference focused on a number of program interventions and experiments that, along with other goals, aimed to reduce crime rates for young people by providing jobs. Assessments of these programs as a whole do not report that they succeeded in significantly reducing crime among young people (or among adults who participated in the experiments). For example, the results of in-prison job training programs for prison inmates on post-prison arrest and conviction rates were not insubstantial.

A number of other programs attempted to reduce crime by providing transfer payments instead of employment. The theory underlying this approach emphasizes poverty rather than lack of opportunity as the source of high rates of crime commission. Experiments conducted in three locations, Baltimore, Texas and Georgia, gave modest cash payments (roughly the same size as unemployment benefits) to parolees. The rationale for the programs was that people leaving prison are not eligible for unemployment benefits, but often experience a jobless period. The incentive to gain income by illegal means is therefore great, especially since this is a group with prior experience in illegal enterprise. The Baltimore project, providing payments of sixty dollars a week for a thirteen week period, was associated with a reduction of eight percent for property crimes, but none at all for other sorts of crime. In the Texas and Georgia studies, which encompassed a wider range of treatments that

varied size of payments, duration of benefits, and tax on earnings, no effect on recidivism was observed for either property or personal crimes. In addition, it was noted that the increase in income might merely allow recipients to be more selective in the property crimes they commit, thereby achieving a lower rate of arrest by police.

While these experimental transfer programs have not been particularly successful, a similar program adopted by the State of California has been more effective in reducing crime. A California law provides unemployment compensation to newly released prisoners on the basis of work done in prison (which must exceed five hundred hours). Individuals who collect these benefits have a ten percent lower re-arrest rate for both property and personal crime than ex-offenders who do not collect. Furthermore, receiving unemployment compensation did not appear to merely postpone resumption of a criminal career. There were big differences, however, in the program's success in reducing re-arrest rates for different age groups. The recidivism rate for youthful offenders who received unemployment benefits was considerably higher than for people in their thirties and older.

Some research has found that stable income, even if low, reduces the likelihood of committing certain kinds of crimes. Genevieve's analysis of the Lenihan data\*, for example,

\* Rossi, Peter; Berk, Richard; Lenihan, Kenneth Money, Work and Crime: Experimental Evidence, N.Y.: Academic Press, 1980.

showed that holding a legitimate or quasi-legitimate job on a steady basis, even if it doesn't pay very well, has a major effect on reducing recidivism and increasing future post-prison employment. Background factors, prior arrests, and length of prison term are relatively unimportant. The bulk of the research reviewed, however, is not nearly so convincing. Programs that try to reduce crime by providing income, either through jobs or direct payments, do not have a very good track record.

## VI. Recapitulation and Prospects

The empirical evidence supporting a relationship between economic opportunity and crime presented at this conference was not very persuasive. The research using aggregate data is especially unconvincing. Plagued by data problems which preclude accurate characterization of the choices open to individuals likely to be at the margin between legal and illegal activities, attempts at analysis of the labor supply hypothesis using aggregate data have been quite unsuccessful. Similarly, the anxiety and alienation linkages between economic conditions and crime appear to be quite sensitive to the time period selected for the analysis and inclusion of other variables which measure demographic characteristics that are likely to affect both aggregate unemployment and crime rates.

The experiments and interventions were designed to increase the assessability of legal opportunities to individuals that have or are likely to, commit crimes. However, these experiments yielded, at best, ambiguous results on the relationship between program incentives and crime. Furthermore, the relationship between program incentives and actual economic opportunity for the participants is often tenuous. Finally, entrance requirements for the experimental programs range from conviction for committing a crime to special efforts on the part of an individual to seek help. Such special and self-selected samples pose serious problems for the analyst and make generalization of any results difficult. The experiments and quasi-experiments reviewed add little evidence in favor of the relationship between economic opportunity and crime.

## VI. Recapitulation and Prospects

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The combined results of these two branches of empirical analysis--experiments and aggregate studies--offers little evidence supporting the hypothesized relationships. Yet most of the researchers at the Conference believed that in some way poor economic opportunity causes individuals to commit crimes. It is disturbing that the combined work of the research community has yielded no convincing assessments of these fundamental but subtle relationships between crime and economic conditions. Part of the difficulty is deficient aggregate data, but another part is attributable to our rudimentary models of the choice process of individuals and how those choices accumulate to form histories, capabilities, and attitudes.

## Appendix 1

LIST OF PARTICIPANTS  
Conference on Economic Opportunity and Crime

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**END**