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CRIMECONFERENCE85: PROCEEDINGS

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INTRODUCTION

CRIMECONFERENCE85:

Throughout the 1960s and 1970s we became accustomed to news reports and government studies proclaiming that crime rates were increasing at a dramatic pace. While Americans have always been accustomed to relatively high levels of crime, these rapid increases in the incidence of criminal acts were nonetheless startling. Experts, as well as the public, found these patterns particularly difficult to understand since this was a period when the nation's economy was on the upswing and the general quality of life, even for the underprivileged, seemed to be improving.

Then in 1981 a curious shift appeared in the statistics: the annual rate at which serious crimes are reported to the police dropped significantly in California and the nation as a whole. This surprising decline continued for the next three years so that the California Bureau of Criminal Statistics Crime Index rate dropped from a peak of 119.4 (per 100,000 population) in 1980, to 93.1 in 1984. National Uniform Crime Reporting data showed a similar decline from 116.8 in 1980 to 97.6 in 1983. As evidence that the apparent trend was more than just a quirk in official statistics, the decline was also reflected in the National Crime Surveys (NCS), based on interviews with samples of the public.

Just as a definitive theory for the precipitous rise in crime was lacking in the preceding decades, sociologists and criminologists have been at a loss to provide a single, conclusive explanation for this recent shift in crime patterns. Despite this lack of consensus, however, two prominent explanations have emerged: a demographic thesis which stresses the importance of the decline in the so-called Baby-Boom population; and an incapacitation argument which focuses on the impact of increased imprisonment of offenders. Yet neither of these theories has been adequately substantiated with rigorous, empirical research and neither can claim full support from the academic community or from policy makers.

Confronting this serious issue, with the broad policy implications and the diversity of opinions surrounding it, the Attorney General of California, operating through his Bureau of Criminal Statistics, convened *CRIMECONFERENCE85*: to explore the question: "Why is crime down?" Held on the campus of UCLA on March 28 and 29, 1985, the conference brought together a distinguished array of academicians and policy makers from around the country to share their views and research on this important question.

Rather than attempt to reach a final, conclusive answer to the question or to set specific policies, the primary goal of the conference was to generate a dialogue that would establish the parameters for future discussions and analyses of the issue. The conference provided a forum in which the leading explanations for the recent decline in crime rates could be compared, critiqued, and synthesized, as well as communicated to the general public. Moreover, during the course of the two days' discussions it became clear that the question of "Why crime is down?" could not be addressed without considering the questions, "Why did crime go up?" and "What is a 'high' vs. a 'low' crime rate?" Thus, beyond its primary charge, the conference served as a vehicle for the examination of critical issues concerning crime and society.

SYNOPSIS

Panel 2....

considered the question, "*WHAT IS THE ROLE OF CHANGING DEMOGRAPHICS?*" Appropriately, the panel's chair was Marvin Wolfgang, who introduced the topic by citing his own research that has demonstrated the concentration of crime within certain segments of the juvenile population. In perhaps the most technical discussion of the conference, Alfred Blumstein presented data that calculated the specific contribution of the American population's changing age structure to the recent changes in the crime rate. By combining, in complex equations, estimates of the amount of crime committed by persons in certain age groups and the changing age composition of the population over time, Blumstein concluded that between 15 and 40 percent of the recent shifts in the crime rate are attributable to demographic factors. The remaining variance in rates of crime are explainable by factors such as unemployment, family structure, and incapacitation, although their precise influence cannot be specified at present.

Panel responses . . .

to Blumstein's presentation focused on both methodological and theoretical issues. Concerns over operational definitions of crime were expressed by Don Gottfredson. David Greenberg stressed the need for combining cross-sectional data on arrests with longitudinal data on criminal histories. Travis Hirschi commented on the need to focus on offense-specific trends in relation to the changing age structure of society. More conceptual concerns were addressed by Freda Adler, who argued that high levels of criminality in certain age brackets are not inevitable but are related to the characteristics of particular societies and their forms of formal and informal social control.

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CHAIRMAN:

Marvin Wolfgang
Professor of Criminology and of Law, and
Director of the Center for Studies in Criminology
and Criminal Law, University of Pennsylvania

SPEAKER:

Alfred Blumstein
Director, Urban Systems Institute School of
Urban and Public Affairs, Carnegie-Mellon
University

EXAMINERS:

Freda Adler
Professor of Criminal Justice, Rutgers University

Donald Gottfredson
Dean and Professor, School of Criminal Justice,
Rutgers University

David Greenberg
Professor of Sociology, New York University

Travis Hirschi
Professor of Criminal Justice, University of
Arizona

PANEL 2

**WHAT IS THE ROLE OF
CHANGING DEMOGRAPHICS ?**



*Marvin Wolfgang,
Chairman*

WOLFGANG: Ladies and gentlemen, please take your seats. Coming from Philadelphia, I learned from Eugene Ormandy that the symphony never begins until everybody is seated.

I am Marvin Wolfgang and I have been asked to chair the second panel of this conference. The second panel has a question: what is the role of changing demographics?

The very title of the panel, "What is the Role of Changing Demographics?" suggests that the decreasing rates of crime are, indeed, real. Perhaps the paper that Professor Blumstein will be giving makes that assumption, in general.

The UCR data show that young adults — that is, persons aged 18 to 24 and older juveniles aged 15 to 17 — have been responsible disproportionately for acts of particularly criminal violence. Although young adults constitute about 13 percent of the population of the United States according to the UCR statistics, they account generally for more than 30 percent of those arrested for criminal homicide and aggravated assault and for about 40 to 45 percent of those arrested for forcible rape and robbery.

Older juveniles — that is, again, the 15 to 17 age group — constitute nearly 6 percent of the total population but have accumulated approximately 10 to 15 percent of the arrests for forcible rape and between 20 and 25 percent of the arrests for robbery. They are responsible for a disproportionately greater share of the arrests for criminal homicide at 8 percent; and aggravated assault at about 11 percent.

Some of you know that I have been involved in my Center for some 20 years doing longitudinal research, first with a birth cohort of 10,000 boys born in 1945 and followed up through age 18, and subsequently, 30; and now we are continuing work up to age 38. The second cohort has followed about 13,000 boys born in 1958 — 13 years later. Our report has just recently been submitted to the Office of Juvenile Justice and Delinquency Prevention.

I mention those two because in both groups the proportion that had at least one arrest before reaching age 18 is substantially the same — 35 percent of the 10,000 boys from the cohort born in 1945 and 34 percent of those born in

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1958. That's called the prevalence rate. It has not changed. I would hypothesize if you took almost any other birth cohort that was separated by a dozen years, the prevalence rate would be similar.

However, the incidence rate, the frequency of committing crimes, and the gravity of the crimes have all, indeed, been significantly greater (and I use the word "significantly" in its statistical sense) for Birth Cohort II. Those in the second group, who were born 13 years later and grew up primarily in the late 60s and early 70s up until 1976, were at least three times more violent at age 18 than the first birth cohort.

These are issues I think will be drawn out in some of the remarks to be presented by our paper presenter, Dr. Blumstein.

There are many questions that have been posed by the staff for this particular panel. Most of them you have already heard (at least, the significant ones) from the Attorney General. I shan't repeat those.

I would like to go immediately into our paper, which will be presented by Professor Alfred Blumstein, a J. Erik Jonsson Professor of Urban Systems and Operations Research and Director of the Urban Systems Institute in the School of Urban and Public Affairs at Carnegie-Mellon University.

One particular thing I should bring to your attention, even though you all have the biographical section on our panelists, is that Al Blumstein was a significant person in the President's Commission on Law Enforcement and Administration of Justice; for he was the task force director of an important volume on science and technology.

He is currently Chairman of the Panel on Criminal Careers of the National Research Council of the National Academy of Sciences.

I present to you Alfred Blumstein.

BLUMSTEIN: Thank you.

Coming to Los Angeles in the Spring makes me think very fondly of what it's like to be back East in the Fall. At that time, the leaves turn colors. We all wait anxiously for the announcement about the Nobel prizes. By October, the football teams have gotten it together. Then the UCR comes out. The UCR contains a fascinating array of data. Almost always the newspapers give us two data points, last year's crime rate and the crime rate of the year before.

I then begin my annual scramble to collect every newspaper article I can that attempts to explain the slope of the line connecting those two points. The array of explanations is fascinating: better policing throughout the nation, even though we know that 95 percent of the police departments last year did precisely what they did the year before. One city attributes this decline to the use of the K-9 corps, even though 90 percent of the cities had a similar decline. Unemployment always shows up. It does so regardless of whether crime is up or down or whether unemployment is up or down. Of course, demography does show up increasingly and is the issue for our panel today.

I also find it fascinating to note that, during the 60s and 70s, when crime rates were increasing, it was usually the police chiefs or the attorneys general who reported that fact. It's interesting that in recent years, it's governors and mayors who take over that burdensome responsibility.



Alfred Blumstein

"... we see some clear and systematic effect in the neighborhood of about 15 to 40 percent of the total changes in crime rate are due to changing age composition."

It's refreshing to see a political figure address this issue of crime rates and their trends by acknowledging its complexity, acknowledging the difficulty of really knowing what is going on, and convening this conference to address it. I personally think the Attorney General has done the community a considerable service in convening this conference.

The topic today is demography. By that we usually mean the variables age, race, and sex. We are interested in them, in part because they are so readily measured, and in part because rates of involvement differ so considerably across them. I am not going to be addressing all three of those variables today. I am going to focus on the aspect of demography I think most people talk about when they refer to demographic contribution to the changing crime rate, and that's the effect associated with the changing age composition.

This is important because the age composition is changing significantly. The difference between the sexes is larger, of course, but the sex composition of the population is not changing very quickly.

I think it's important that we start with some recognition of the nature of age-specific involvement in crime. Here is a typical picture of the age-specific arrest rate for property crimes (Figure 1). Of course, we know about demography of offenders predomi-

nantly through arrest data rather than through explicitly knowing who commits crimes. Thanks to some excellent work by Mike Hindelang, however, we know that there is generally close correspondence between victim reports of offenders' demographic characteristics and those reflected in arrest statistics. This work has been an important factor in enhancing the reliability of arrest statistics as indicators of who is involved in crime.

The arrest rate for property crimes, in rate of arrest per 100,000 persons of each age, peaks at age 16 and falls to half of its peak by age 20. The corresponding figure for robbery typically peaks at about 17 and comes down to half of its peak by age 23 (Figure 2).

The violent crimes, which are dominated by aggravated assaults, show an older age structure. The peaks are reasonably flat through the late teens (18 through 21) and the curve declines to half of its peak by age 34 (Figure 3). So you see that robbery looks very much like the property crimes, but with a bit older population. Both have this very sharp peak in the late teens. It's the recognition of that peakedness that raises the issue of the demographic contribution.

All of this would be very interesting, but not terribly relevant, if the composition of the population were reasonably stable. Each year would simply see successive birth cohorts become involved in crime and

Figure 1. Age-Specific Arrest Rates for Property Crimes

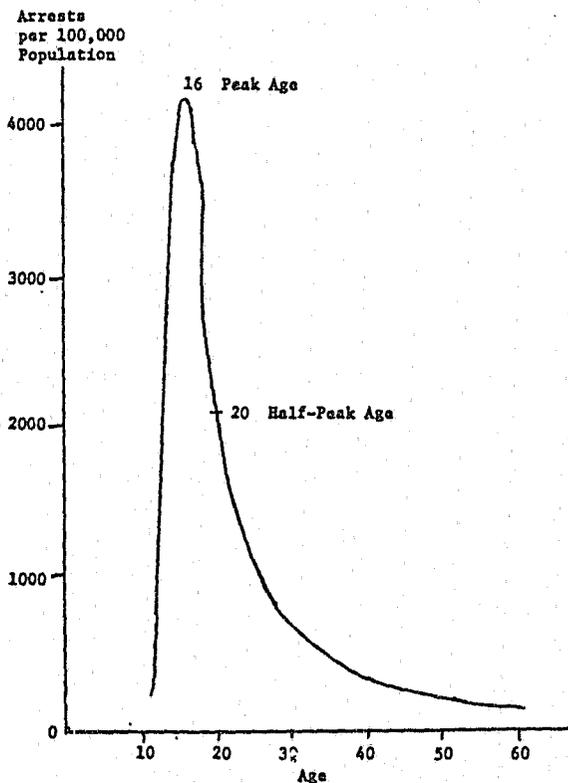


Figure 2. Age-Specific Arrest Rates for Robbery

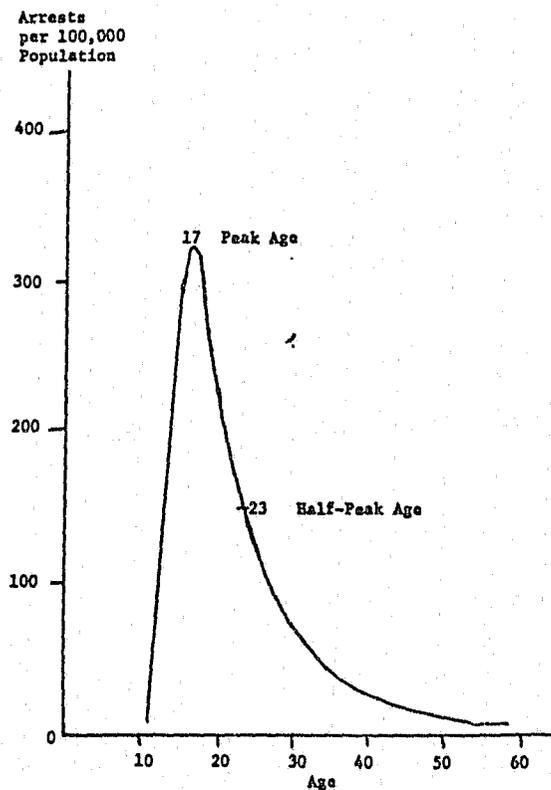
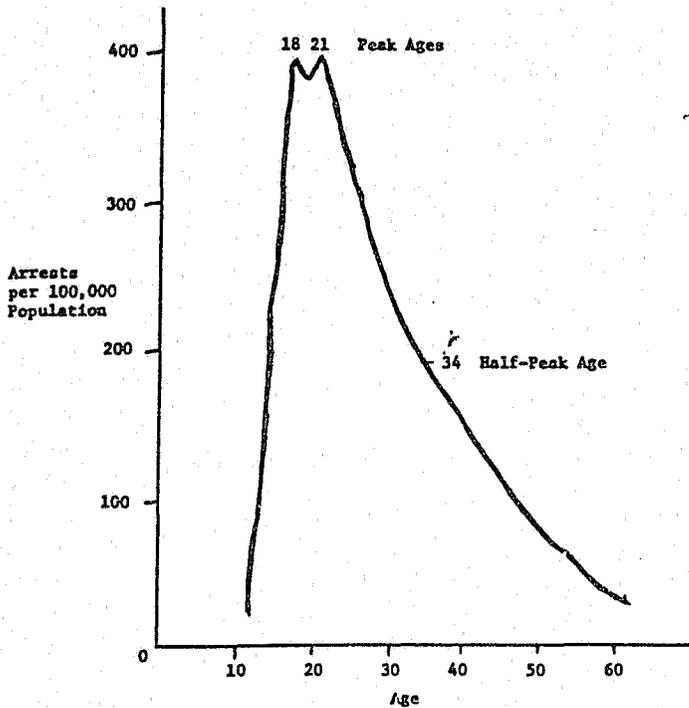


Figure 3. Age-Specific Arrest Rates for Aggravated Assault, Murder, and Rape (1978-80)

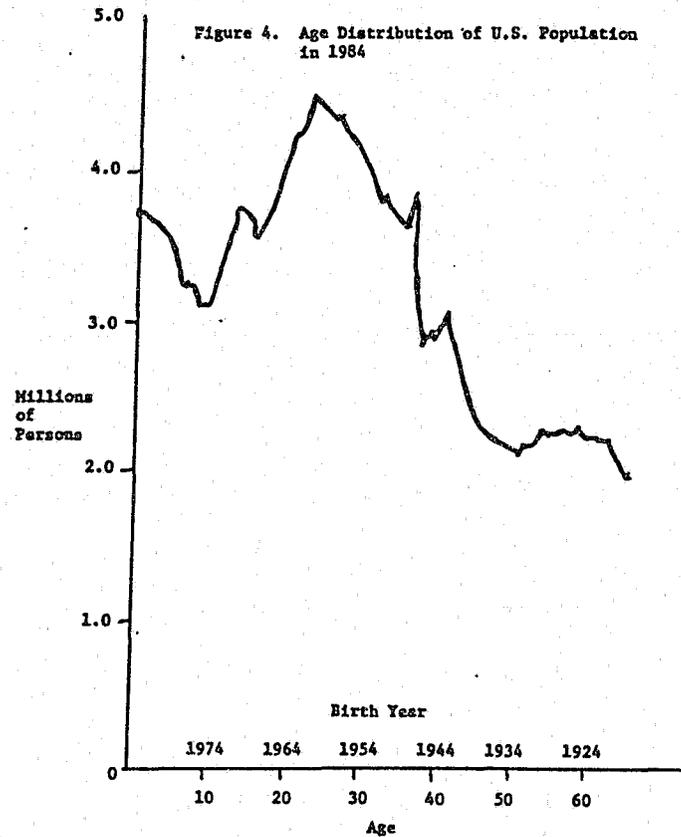


then drop out, as reflected by the sharp-edged peaks, and in ways similar to their predecessors. The real issues relate to the degree to which cohort sizes may be changing, so that larger or smaller numbers of people are involved in these high-rate peaks.

It's useful, therefore, to look at a picture of the demographic composition of the United States population. Figure 4 is the age distribution of the United States population in 1984, showing the number of people at each age in the United States in 1984. Now, obviously, there is a correspondence between a person's age and the year he was born. For example, people who were 40 in 1984 were born in 1944, people who were 20 in 1984 were born in 1964. Thus, Figure 4 also tells us something about the size of successive birth cohorts. They weren't all born in the United States; the 1984 population reflects a mixture of the effect of migration and death as well as the United States birth cohort sizes.

I want to call your attention to a number of interesting observations on this picture. Notice the 1946 cohort, who were 38 in 1984. The point to the left, those who were 37 in 1984, is the 1947 cohort. The number is about 30 percent higher than the 1946 cohort. Remember that World War II ended in 1945; there was a considerable amount of family formation during that next year; and with gestation periods

Figure 4. Age Distribution of U.S. Population in 1984



averaging nine months, there was a large number of births in 1947.

That began the rise of the Baby Boom. The number of births generally increased as we move to the left on the curve through successive years, and reached a peak with the cohort born in 1961 (the people who were 23 years old in 1984). That peak was followed by a subsequent decline, a little blip in 1970-71, continued decline to a trough in the cohort of 1976 (the people who were 8 in 1984), and the rise following that known as the Echo Boom (the children of the Baby Boomers) starting to appear on the scene. The drop from the 23-year-old peak (those born in 1961) to the 8-year-old trough (those born in 1976) is about 30 percent.

If we consider that the very sharp peakedness in the age structure of offending (Figures 1-3) stays that way over time, we can see the influence of the changing age composition over time. Figure 5a shows on the same chart the age-specific involvement in crime (the property crimes of Figure 1) and the age composition of the population as it was in 1964. In the figure, I am approximating the 1964 age composition simply by sliding the 1984 age composition (of Figure 5) 20 years to the left. Here we see that only the first few years of the Baby Boom have entered the ages of high crime-commission rates.

We next look at the situation 10 years later, in 1974. In that year (Figure 5b), the Baby-Boom peak is almost coincident with the crime-committing peak, and so one would expect the age-composition effects on crime to be strongest.

Slipping history 10 more years to 1984 (Figure 5c), we see that the peak of the Baby Boom has moved past the peak crime-committing ages, suggesting that during the 1980s changing age composition should contribute to a reduction in crime rates.

I would like to put on the same picture just one more curve which reflects a different aspect of the criminal justice system. This final curve, in the lower part of the picture (Figure 6) is the age-specific incarceration rate; that is, the proportion of the people of each age who are in prison on any given day. The peak of that curve occurs at age 23.

This peak is later than the peak of crimes because not very many 16-year-olds are sent to prison for property crimes. Even most adult first offenders are given probation, so most offenders get several bites of the apple before they show up in prison. That makes prisoners older than those who commit crime generally. Taking account of time served adds even more to the age difference.

We examined some of these issues some years ago,⁴ looking at age-specific rates of involvement in crime

and of flow through the criminal justice system. Using a projection of data from the 1970s, we came out with an intriguing observation: we projected that the Baby Boom would pass through the peak crime ages and that crime rates ought to peak in about 1980. Others had anticipated a similar effect.

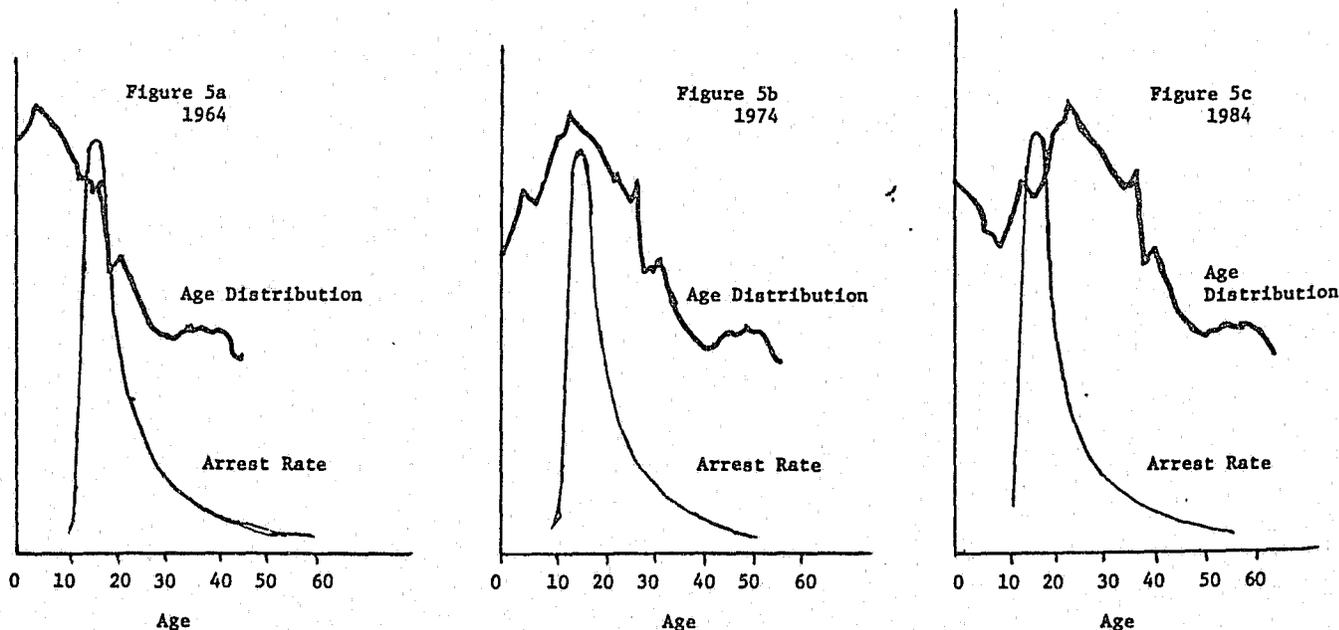
We looked not only at crime rates, but also at prisons. Most intuition suggests that prison populations should change with crime rates. When the crime shift is caused by an age shift, however, it is necessary to take account of the differences between the peak crime age (16 on Figure 6) and the peak prison age (23 on Figure 6). It takes a while after the Baby Boom has passed through the crime peak before it can pass through the prison peak, so we projected that during the 1980s crimes would be coming down and prison populations would be going up. So far, that has indeed been the case.

One of the concerns we displayed at the time was that somebody was going to look at those two curves and conclude that one was causing the other; in particular, simply that the increased use of imprisonment was driving crime down. I have already had occasion to review at least three papers that have drawn precisely that conclusion.

I am not arguing at all that increased incarceration, through some combination of deterrence and incapa-

⁴Blumstein, A., J. Cohen, and H. Miller, "Demographically Disaggregated Projections of Prison Populations," *Journal of Criminal Justice*, Vol. 8, No. 1 (1980); reprinted in *Research in Public Policy Analysis*, Vol. 1 (1981).

Figure 5. Comparison of Age-Specific Arrest Rates for Property Crimes with U.S. Age Distribution in 1964, 1974, and 1984



$$(1) \quad C(t+1) - C(t) = \Delta C_{t,t+1} = \sum_a \frac{\beta(a,t) + \beta(a,t+1)}{2} [n(a,t+1) - n(a,t)] \\ + \sum_a \frac{n(a,t) + n(a,t+1)}{2} [\beta(a,t+1) - \beta(a,t)]$$

where $\beta(a,t)$ = age-specific crime rate in year t

$$= \frac{\rho(a,t) C(t)}{A(t)}$$

where $\rho(a,t)$ = age-specific arrest rate in year t

$A(t)$ = total U.S. arrests in year t

$C(t)$ = total U.S. reported crimes in year t

$n(a,t)$ = U.S. population of age a in year t

citation, is *not* bringing the crime rate down. I am arguing that, in order to make that assessment, one first has to take account of the natural effects associated with the changing age composition, which, in itself, will bring crime rates down and prison populations up. Thus, at a minimum, age composition is one necessary and important exogenous factor that should be considered along with other exogenous factors, including the sanction policy within the criminal justice system.

The real challenge we now have involves finding a means of isolating the effect of changing age composition on aggregate crime rates. These issues are addressed in a paper that is now being prepared by Jacqueline Cohen and Richard Rosenfeld, two colleagues at Carnegie-Mellon. That paper ought to be available in the next few months. What we are trying to do is separate the effects of changes in the age composition from changes in age-specific rates of involvement in crime.

For those of you who want to know how to do it, there is a set of equations.

The formula for isolating the demographic and criminality effects in year-to-year changes in aggregate crime rate is given in the equation shown above.

Here, the first term represents the demographic component and the second term represents the effect of the change in criminality.

We do this by finding the change in the crime rate in each pair of successive years. We partition that change, first, by finding the average age-specific rate between those two years, and multiplying that by the change in the population composition. We call that the "demographic effect," by which I mean just the age-composition effect.

The second component involves taking the average population size in each age, and multiplying it by the change in the age-specific crime rate. That reflects a change in "criminality."

I'd like to show you a curve depicting four of the years in which we have examined the age-specific rates for robbery (Figure 7). To a degree, the four curves follow very similar patterns. Each peaks at about 17 or 18; rather sharp fall-offs follow that peak. There was considerable growth in these rates between 1964 and 1970, and 1975 and 1980, with the growth taking place predominantly in this peak window of the ages of 15 to 20; much less growth, even in percentage terms, takes place in the later ages.

One could account for that growth in a variety of ways. Some of it could be artifactual, and that aspect will have to be sorted out. To what extent, for example, were police in the earlier years less likely to record arrests of young kids involved in crime? They became more professional in the later years, and so may have become more vigorous in recording arrests.

One might account for the growth by larger groups of kids, so that more kids get arrested when a crime is cleared. One might account for it by a greater increase in vulnerability to arrest at the younger ages, less at the older ages.

My sense is that these artifacts may represent only secondary corrections to what is fundamentally represented as a growth in criminality. The fundamental observation of this growth is sufficiently consistent and sufficiently pervasive that I believe it to be a reasonable reflection of a growth in involvement in crime. What we would like to do now is to get a sense of the way the age-specific robbery rate is changing across ages and across years.

One might try to do this in a rather detailed way on a table that shows age and year, and entering the rates for each age and year. That has been done in Figure 8 for the ages 15 through 24 and for the years 1965 through 1983. I should point out that the numbers in the table are all divided by 10 – that is, the rate of robbery crimes (per 100,000) for 15-year-olds in 1965 is 220, rather than 22. I should also emphasize that the rates are projected up to represent age-specific *crime* rates as reported to the UCR, taking account of the fact that only a fraction of crimes lead to arrest.

I have drawn a number of “contour lines” of roughly constant rates on the table, at rates of 300, 500, 700, and 900. These contour lines highlight a peak of about 1,000 in 1974-75. Another peak event occurred in 1980, with a crime rate of 1,180 robbery crimes per 100,000 17-year-olds in that year.

Those who are comfortable reading contour maps can get a sense of a real climb starting in the early years up to a peak in about 1975, a bit of a dip in the late 70s, up again to a peak in 1980, and then a bit down. Looking in the other direction to the ages above 18, the fall-off with age is also apparent, reflecting the curves of Figure 7.

Since contour maps may not be easy to deal with, we can also plot this picture as a three-dimensional graph (Figure 9). This is a graph of the robbery rate (the height of the “mountain”) as the age and years vary. I have plotted the same ranges as on Figure 8, the ages 15 through 24 and the years 1965 through 1983.

I think both these figures (8 and 9) convey this clear climb through the mid-1970s, and some of the oscillations since then that were talked about earlier.

There is also an intriguing little wrinkle in Figure 9 that someone might have noticed in Figure 8 if you really studied the numbers. The bottom of Figure 9

Figure 6. Comparison of Age-Specific Incarceration Rate with Age-Specific Arrest Rate and U.S. Population Distribution in 1984

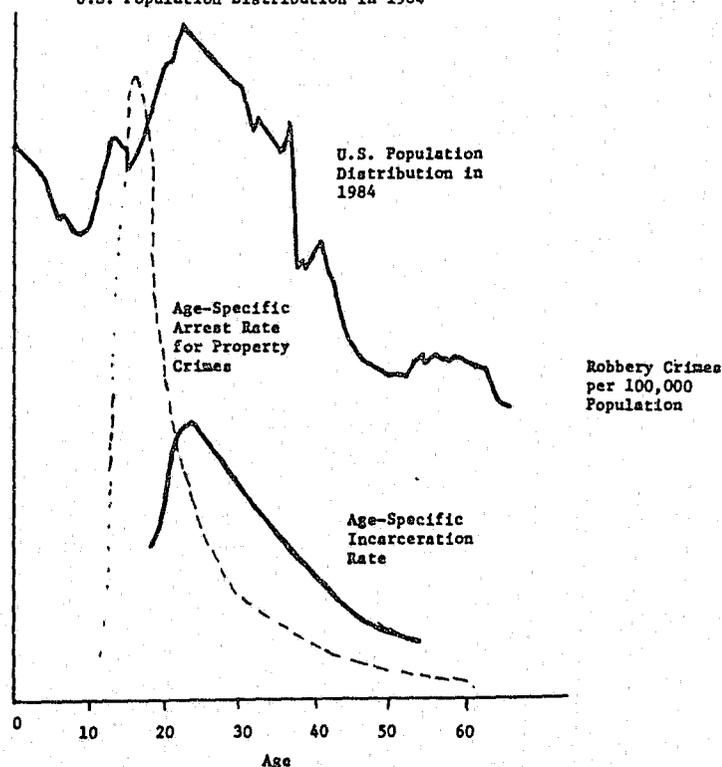


Figure 7. Age-Specific Robbery Crime Rates in 1965, 1970, 1975, and 1980

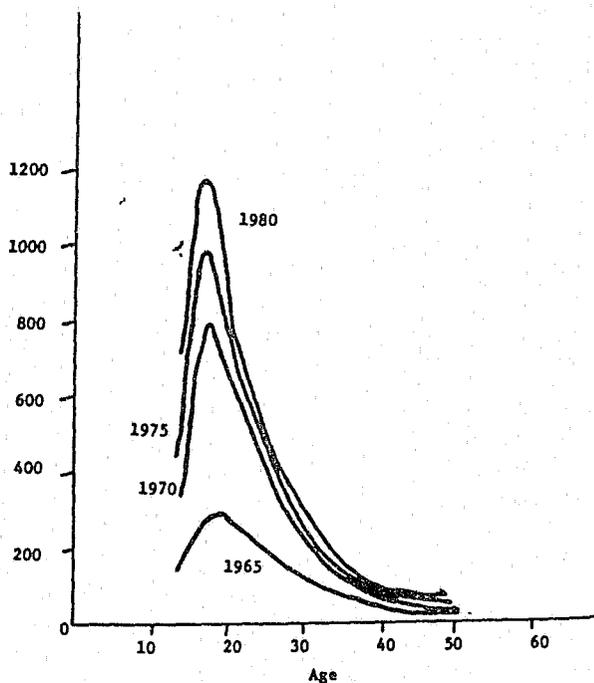


Figure 8. Contours of Age-Specific Robbery Crime Rates for 1965 through 1983

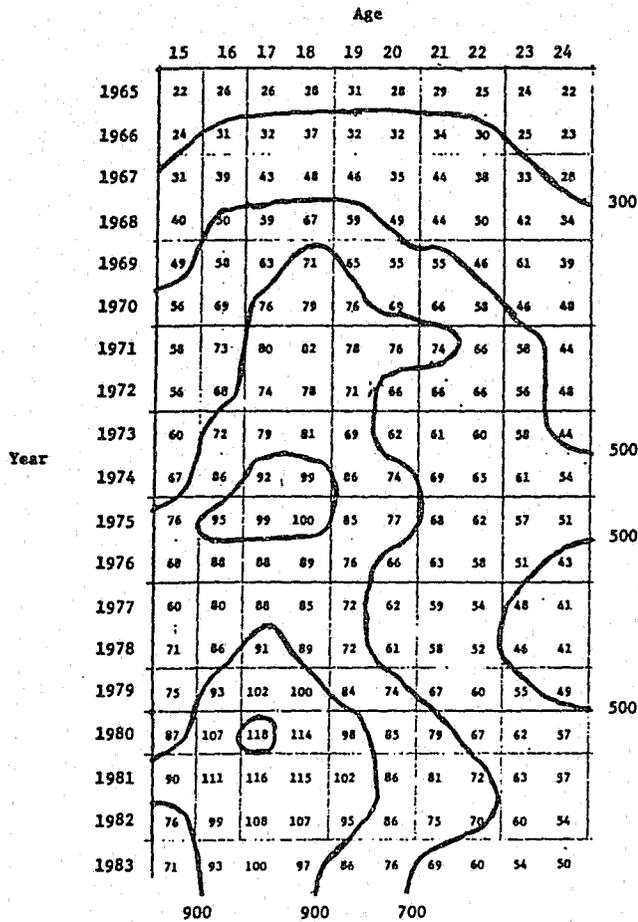
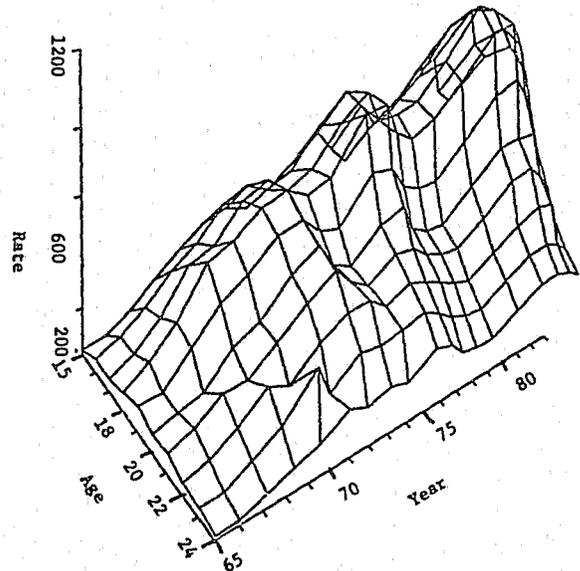


Figure 9. Age-Specific Robbery Crime Rate for 15- to 24-Year-Olds from 1965-1983



shows a "valley" in the "mountain." That valley corresponds to the 1947 birth cohort. There was probably a disproportionately large number of first-borns in that cohort, and first-borns are well known to be fulfillers of expectation (doing what is expected of them) so it is not unreasonable to anticipate that the valley may, indeed, represent reduced criminality associated with that particular cohort. One could have seen that effect on the contour map (Figure 8) but it certainly shows up much more visibly and clearly on the perspective drawing (Figure 9).

This isolation of the age-specific crime rate provides us with an opportunity to sort out the *demographic effect* (associated with the changing age composition) from the *criminality effect* reflected in the changing age-specific rates.

Let us first look at the contribution associated with the changing age composition (Figure 10). Starting with the change from 1965 through 1966, we see a positive contribution *adding* to the crime rate in each year until 1977-78. Then starting with 1978-79, changing age composition begins *subtracting* from the crime rate until the present.

When we look at the other component, which I am calling "criminality," we see much more volatility

(Figure 11). This could occur for a variety of reasons, some of which could well be year-to-year variations in the measurement process. For example, an erroneously high measurement for some reason in, say, 1974, would result in a large *positive* change in 1973-74 and a large *negative* change in 1974-75 when measurement returned to normal.

You might have the sense from Figures 11 and 12 that the two effects are of comparable magnitude; I did change the scale in Figure 12. When we put the graphs on the same chart (Figure 12), we see an age-composition effect that is consistent and steady, first having a positive effect (adding to the crime rate) and then a negative effect (subtracting from the crime rate). Those effects are certainly much smaller in magnitude and much less volatile than those of criminality. The fraction of the total effect attributable to demography turns out to be in the order of 15 to 30 percent.

We now have the opportunity to focus on changes in criminality alone, with the changes in age composition removed. Figure 13 shows the growth in the robbery crime rate since 1965 attributable only to the increments in "criminality" shown in Figure 11. We see a steady growth until the early 1970s, and

then some oscillation around an upward trend. My sense is that, to a reasonable degree, we may have been seeing an upward trend with oscillations around it. From this figure (Figure 13), it is difficult to know with certainty whether the decline since 1980 is a real downward trend or merely a downward phase of an oscillatory cycle. A true trend is very difficult to establish in two or three years of data.

Let me just make some brief observations on what I called "criminality." First, we see a strong age effect on criminality. Second, there was an important rise in criminality that I think is quite unambiguous from 1965 to about 1975, with some fluctuations since then, and with some decline in the last few years. I think we still have to be somewhat uncertain about the degree to which that is going to continue.

Now that we have identified in Figure 13 the time series of criminality, we ought to talk about some of the components that contribute to it. One is measurement variation; it would be desirable to sort some of that out. It would also be important (and much more do-able) to sort out changes in the other components of the demographic composition.

We specifically would like to focus on the effects or sanctions within the criminal justice system, which work through general deterrence and incapacitation (which Jacqueline Cohen will be talking about this afternoon).

We would like to sort out the wide variety of features that are much more directly related to causal constructs associated with criminality: unemployment, economic conditions, family structure, and the contextual effect of age structure.

I do want to say something about age structure, which is another aspect of demography. We have talked about the *age-composition* effect. There is also a *contextual* effect of the age structure. That can affect criminality before there is a large number of people in the high-crime ages who mutually reinforce each other in the things they do or who overwhelm the instruments of social control. Age structure can also affect some of the other factors associated with criminality like family structure. Single-parent households tend to be very related to age; when there are many people in the child-bearing ages we have more parentage and also more single-parent households. The two can work together, so this is another aspect of demography we have to take into account.

We tried to get estimates of the influence of these factors on the criminality changes shown in Figure 13. Any such analysis at this stage is limited, however; there are only 18 data points in the time series of change. At least we can start to see what is working, not as definitive proof, but as a suggestion of where we ought to look harder.

Figure 10. Absolute Change in Robbery Crime Rate Due to Changing Age Composition

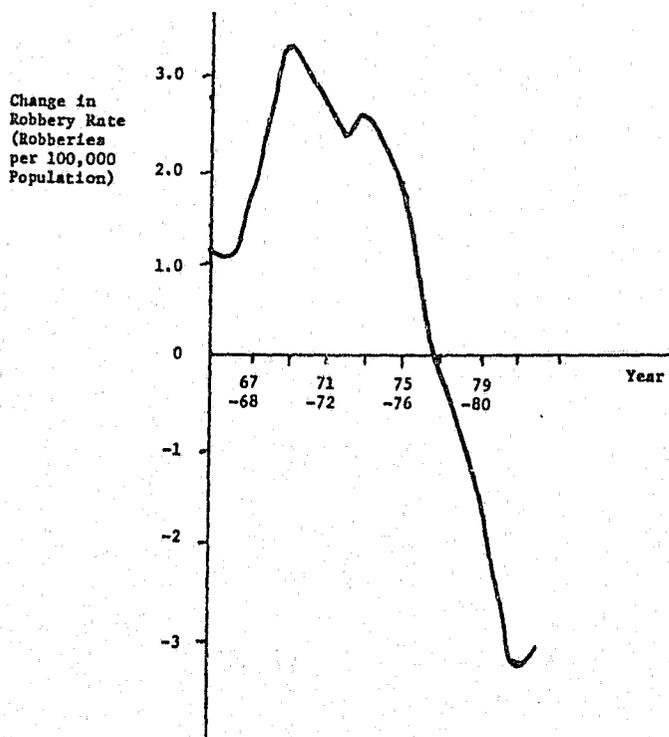


Figure 11. Absolute Change in Robbery Crime Rate Due to Changing "Criminality"

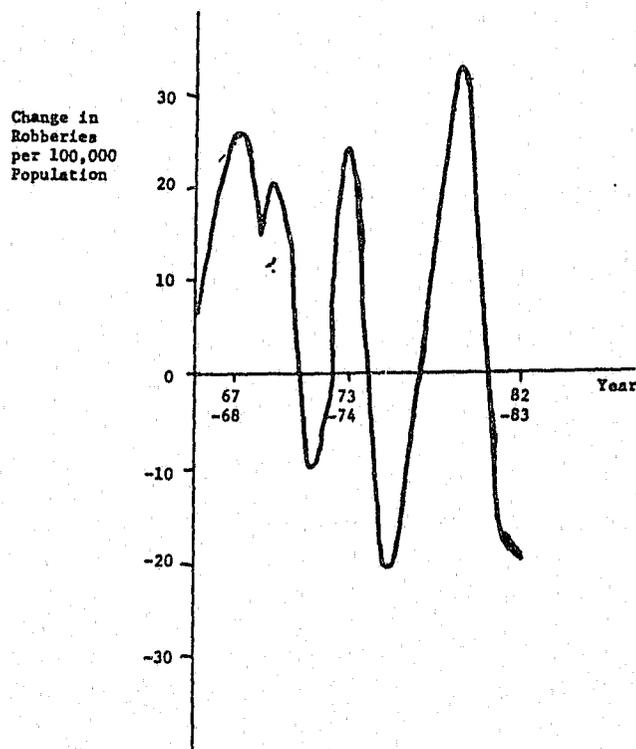


Figure 12. Absolute Change in Robbery Crime Rate Due to Changing "Criminality" and Age Composition

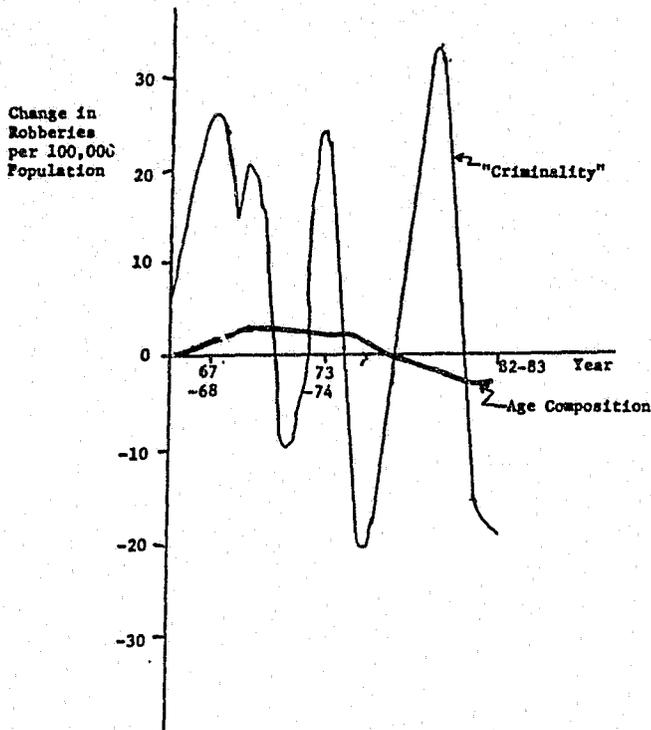
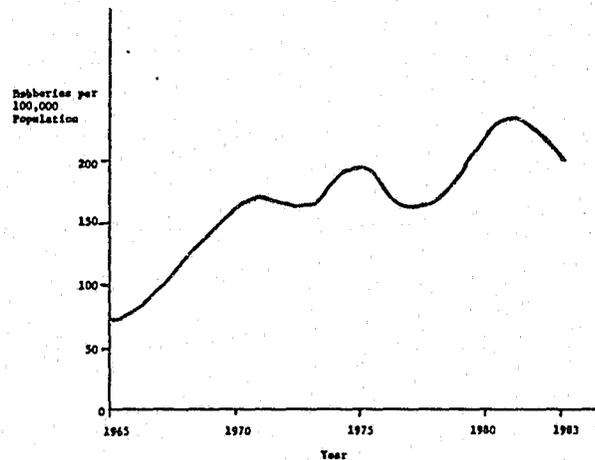


Figure 13. Growth in Robbery Rate since 1965 Resulting from Changes in "Criminality" Alone



Economic variables don't seem to show up very much. The strongest effects are those associated with age composition (as measured by the percent of the population aged 15 through 29) and family structure (as measured by the percent of poverty families headed by females). These are both related to the age structure of the population, and different from the compositional effect reflected in Figure 10. Thus, while the compositional effect may be relatively small, the contextual effects augment the total demographic or age-composition effect.

We also found a significant effect of sanctions associated with the expected time served per arrest.

Let me talk briefly about where we might go with this. Clearly, we have to unbundle some of these effects of age composition as they relate to family structure and other aspects of socialization. We would like very much to unbundle the other demographic components of race and sex, and particularly the interaction between age and race, which is important but which one cannot get from current UCR statistics. It would be important to unbundle the criminal career parameters of participation and frequency of offending. It is also important to start to get at some of the measurement issues. Two other issues are terribly important. One is drugs. The other is the degree to which the political environment of the

1960s to 1970s might have contributed to the rise in criminality during that period.

Let me sum up briefly by saying that we see some clear and systematic effects in the neighborhood of about 15 to 40 percent of the total changes in crime rate due to changing age composition. There are continuing effects of changing age structure that should be identified. Age structure is one of the few determinants of crime rates whose future we know anything about. Even if we identified the other determinants as predictors, there is not much we can do about most of them, other than sanctions within the criminal justice system.

We have started an unbundling, but very much is still left to be explained. Data availability is getting better. Some methods for doing this research are starting to become available. There is an emerging research community that is trying to address these issues. Hopefully, a few Octobers from now, when the UCR comes out, people will really be able to say why crime rates are changing and do it before the results come out rather than after.

WOLFGANG: Thank you. I would like my panel now to come forward to the podium.

I missed the third line of your equation, Al, but I will pick it up later.



Freda Adler

"It bothers me, as a criminologist, to think of an inevitability of age structure as determinative of crime."

Freda Adler is well known as a Professor of Criminal Justice at Rutgers University in the Graduate School of Criminal Justice. She is well known for having been one of the pioneers in the development and concerned analysis of crime among women, particularly with her book called *Sisters In Crime*, but she has done many things since then, and many things since she graduated with a Ph.D. at the University of Pennsylvania.

ADLER: I must say that I was made a bit uneasy by the opening part of Professor Blumstein's paper. It bothers me, as a criminologist, to think of an inevitability of age structure as determinative of crime.

What does age mean? I suppose we are referring to youthful age when we talk about criminality. In that sense, age might mean the Sturm-und-Drang years. It might refer to the age of greatest frustrations. It might refer to the years of unsiphoned energy. We could run through even more theories. Thus, age could refer to the years of peer pressure which Professor Blumstein mentioned. It would encompass the years of family and school problems that we know exist, but then, why not include problems of the work place and of marriage and of other social control institutions which no longer exercise the control that we would like them to have. We should also look at groups which suffer most from the breakdown of the family structure: 55 percent of black families are headed by a single parent — female for the most part. Of course, all of this goes into making up our risk-prone group.

I don't think, however, that high crime is inevitable even within a high-risk group. Let me explain this

by reference to a United Nations study with which I was fortunate enough to be associated. The assignment was difficult: Identify the 10 countries in the world with the lowest crime rates and tell us why they have such low crime rates. We had the crime figures for 66 countries and 47 international data sets. It took us several months to put all the data sets into the computer. Among them were divorce rates, the gross national product, the number of hospital beds, telephones, rural and urban migration, literacy rates, infant mortality, etc., but when we ran the computer, looking for correlations, we came out with garbage — nothing.

So we went back to the drawing board and undertook an intensive study of those 10 countries, which ranged from the richest to the poorest, representing all political persuasions, including the most developed and least developed countries. This time we looked at soft data, unquantifiable items, social phenomena. We were searching for what the countries might have in common.

We found that all 10 of those countries did, indeed, have a common denominator — all of them share a very strong informal social control system. Some of these are rooted in religion (Islamic countries), while others have very strong family structures. Others, like the Japanese society, have very strong social controls at the work place. And yet others (e.g., Switzerland) have very intensive public participation in their criminal justice system.

So we did indeed find a factor constellation that seemed to be related to low crime rates. Consequently, there is some evidence,

albeit limited, that the age structure of any given society need not determine its crime rate. There appear to be many other variables related to crime causation. To stop with only one — age — means giving up on crime control, and I am not ready to do that.

What happens if, for example, we were to create some kind of intervention for our high-risk group? A good example might be compulsory national service for 18- to 20-year-olds. What might that do to that high risk-prone group? What about massive gang control? I think you have done that here in Los Angeles from what I have been reading; and, from the homicide rates through the years, it appears that you have had quite a bit of success with your gang-related programs.

Or what if we were to initiate new intervention techniques in our schools? After all, we don't have to have a nine-month school year. Is it possible to have a 12-month school year and to regulate that system, so as to gain greater control over youngsters? If we determine that a home and family are no longer functioning as social controls, maybe we have to create new ones. Maybe that control could be the school. Or perhaps we could create better economic opportunities for youngsters whose education ends with high school. The shop in the school could give status to those who are in vocational training, rather than stigmatizing them as incompetents, as second-class citizens. In addition, we might create a surrogate family at the place of work, as in Japan, if it can be adjusted to our cultural traditions.

It seems that even if we have a high-risk group, we may, in fact, be able to do something about it. I don't think enough of our efforts

are directed toward that goal. As far as I am concerned, it is not going to be an easy task. The crime rate rise and fall still remains an empirical problem. We have no fast answers, but for purposes of policy making, we need those answers. The theory of the inevitability of age is just too pessimistic for me.

Thank you.

WOLFGANG: Thank you, Freda.

Don Gottfredson is known to many of you on both coasts of America, having been in this state and functioning for much of his career as National Council on Crime and Delinquency Director of Research Center; and he is well known in his writings about parole, sentencing, sentencing guidelines, and prediction. As you know, he is the Dean of the School of Criminal Justice at Rutgers.

Don.

GOTTFREDSON: Thank you very much, Marvin.

Marvin has emphasized the point, as he should, that we have about 10 minutes for a reply. When I first heard that, my initial reaction was that this is a very short time. Then a moment's reflection led me to think to myself: no, I surely can tell you all I know about this topic in 10 minutes. Then I became a little bit more cynical and thought: I can tell all anybody knows about the topic in 10 minutes.

After hearing Professor Blumstein's and Professor Reiss' papers and the discussion this morning, I am back to wanting more time; but I know I am not entitled to it, so I will hasten along.

I want first to comment on a couple of the contributions of Professor Blumstein's paper just to focus attention on them before



Donald Gottfredson

"... although the age effect is powerful, it certainly is not enough to account for the changes we are examining."

offering some criticisms. The things that strike me particularly are that he has given, in this paper and in his work in recent years on the same topics, a very convincing demonstration of the role of age in crime. It is quite noteworthy that (as he mentioned very quickly in passing) he made the prediction about both the crime trend — that is, the UCR crime trend — and the prison population trend before they happened.

There is a Danish humorist who plays the piano. You might know him. He commented that: "Prediction is very difficult, especially when it involves the future."

These predictions that Professor Blumstein made were made before the fact, and that gives increased confidence in their validity. That, associated with the age effect that was described, gives even more credence to the belief that the age effect is a real one and an important one. It has the status of being as close to anything we have in criminology that might be called a law.

I am very grateful that I, alphabetically, get to talk before Professor Hirschi, because I have learned most of this from him recently. Actually, he has probably known it for a long time, because it was noticed at least by Quetelet in 1835, which is 150 years ago. Quetelet presented precisely the shape of the curve that we saw this morning and wrote: "Of all the causes which influence the development of the propensity to crime or which diminish that propensity, age is unquestionably the most energetic." So for 150 years that has been a common finding, as Professor Hirschi and Professor Michael Gottfredson have pointed out in a recent article.

By the way, some of the data Professor Blumstein discussed related to the prison system in Pennsylvania. Quetelet looked at the age structure of prisons in France and in Belgium and also in Philadelphia. He found precisely the same age distribution in prisons, including those in Philadelphia.

Hirschi and Gottfredson, in their recent article, present and defend the thesis that: "the age distribution of crime is invariant across social and cultural conditions." That's a very strong, sweeping statement, but they show that the shape of the distribution has survived for about 140 years and they are looking for challenges to that from anyone who has some data that show the contrary.

The paper by Professor Blumstein also shows, of course, that although the age effect is powerful, it certainly is not enough to account for the changes we are examining. I believe he said that about 15 to 20 percent of the variability in delta crime (that's change in crime) would be attributable to the age distribution context; so that gives a lot of room for improvement in our ability to explain the changes.

You noticed, when he put the equation on the board (if you read it very quickly and carefully as I did) that the equation has two parts.

One is the part that relates to increases or decreases; that is, to changes in crime rate associated with the age distribution of crime that we have been discussing. The other part is the part that he termed "criminality."

Now, I know that the equation was not on the board very long, but it is my belief that on hurried inspection it did not include any of the concepts that Professor Blumstein then listed as possibly attributing to that kind of construct (that is, "criminality"). The point I am making is simply that there is a lot of room for the kinds of studies that Dr. Adler has just mentioned and for the kind of studies that are implied by the listing by Professor Blumstein. We are not there yet, but the conceptualization does provide a structure for the kind of studies implicitly suggested by both Professor Blumstein and Professor Adler.

Obviously, if we want to better understand the changes in crime rate, we must understand what some of those variables are, such as they listed and discussed; and we must determine how we are going to measure them. At the same time, we must attempt to identify the determinants of the variable first listed by Professor Blumstein, which had to do not with criminality, but with reliability of the measurement of the dependent variable. That is, it concerned the reliability of our measurement of crime rates.

I think Professor Blumstein should take that out of the list and discuss it separately, because I cannot imagine how criminality is defined by measurement error in the measurement of crime rate. In most of our discussion, it is very important to remember the definition of that dependent variable.

It is perfectly reasonable to use Uniform Crime Report statistics for this purpose. We must do so; but we must also remember the concept of operational definition; that is, we must remember the meaning of the terms we use.

It has not been as long ago as Quetelet, but it has been 50 years since we have had *The Logic of Modern Physics* by Bridgeman, in which he introduced that concept of operational definition of terms. He explained that a concept is defined by the set of operations used in arriving at the concept. That means that crime, as we are using it here, or the crime rate, means only the whole set of operations employed in the generation, collection, and production of UCR or arrest statistics. It is very easy to ascribe surplus meanings to those concepts and to forget the limitations given by the operational meaning of a measure of crime rate.

It would be very easy to ascribe surplus meanings to the concept of criminality, as Professor Blumstein has used it. He is entitled, like Humpty Dumpty, to use any word, with the explanation that, "when I use a word, I mean exactly what I intend it to mean and nothing more or less." He is entitled to the concept of operational definition, and he has a formula that says "this part is called criminality." That is perfectly legitimate, so long as it is remembered that that is the meaning of the concept.

One additional point has to do with the problem of prison population projections as merely alluded to but discussed previously by Professor Blumstein. His work in making long-range prison population projections is a very useful thing for long-range, general planning about correctional systems. We have a terrible problem in our country of prison crowding and we have a great prison population. We have nearly half a million now in prison.

There is so much concern about planning, including the question of whether or not to build more institutions, that it is important to look at what drives prison populations in a closer sense than can be done using only "distant" variables that might predict prison population in the long range, such as the age phenomenon discussed, or factors such as employment.

What leads people to be in prison, if you take the closest view of it? What accounts for people being in prison? What do you need to take into account if you want to estimate how many beds you need?

What we need to know from this perspective is: who is in prison now? How long will they stay? Who is apt to go to prison and for how long?

We are talking now about decisions by judges, parole boards, and a little earlier, by legislators. If you look at who is eligible to go to prison and classify

those persons with respect to the likelihood of going to prison and the length of time they are expected to stay, and look also at who is in prison already, and similarly, how long they are going to stay, you can get a much more accurate prediction of space needed for prison population programs.

Furthermore, by conducting this analysis you will have a definition of the confinement policy in somewhat explicit terms; then you can model the sentencing and paroling structure in such a way that you can control the prison populations. I am arguing that we should not use those long-range forecasts to make policy decisions about corrections. Rather, we should get closer to the phenomenon of sentencing and paroling policy that determines the use of confinement in the short run.

Thank you.

WOLFGANG: Thank you, Don. I failed to mention that, in view of the number of children Don has working in criminology and criminal justice, he is a genetic contributor to our field.

David Greenberg received his Ph.D. from the University of Chicago in 1969; he is now a Professor of Sociology at New York University. He is probably best known to many of you for his major contribution in mathematical criminology, and also the book on *Crime and Capitalism: Readings in Marxist Criminology*.

David.

GREENBERG: Like Al Blumstein, I have been quite interested over the years in following the newspaper reports of each year's edition of the Uniform Crime Report. I collect only the *New York Times* clippings, and not others, but I have been particularly perturbed at the way criminologists have been cited in those articles.

Back in the late 70s, when there was one year in which a slight dip in the rates showed up, a prominent criminologist was quoted as saying: "Yes, the Baby-Boom cohort is aging." The following year, when it went up again, he said, "what can you expect when unemployment is so high?"

Those kinds of responses have been glib. They have been especially appealing to liberals, because they are always eager to find a way of saying, "you don't have to crack down so hard on those criminals; just give them jobs; and what's more, you don't need to build prisons, because soon the Baby-Boom cohorts will get older and you won't need so many beds."

David Greenberg

"... even though demographics may be part of the story, it's far from all of it."

On the other hand, it's been a surprising response because most criminologists are sociologists by training, and to look only at demographics is to deny that there could be any sociological component to this.

For a long time we have known that even though demographics may be part of the story, it's far from all of it. As long as 15 years ago, people began to ask how much demographic change had contributed to the rise in crime during the 1960s; and, typically, came up with answers like: "about 15 percent," not much different from what we've heard today.

It was evident during the 60s that each year (year after year) 16-year-olds in a given year had higher arrest rates than in the year before. Holding age constant, criminality, as measured however imperfectly by arrests, was rising during that period.

In leafing through the book of graphs and tables we've been given, I noticed the number of blacks in the population in those so-called high-crime age brackets had not changed very much in the last few years; but arrest rates were coming down for blacks as well as for whites.

It's clear that there are other things besides demographic changes going on. What they are is a little hard to say, on the basis of three years of decline. There are a lot of potential contributions. It's hard to tease them all out with three years' worth of National Crime Series data. If we go back into the 60s, we have a little bit more, but still not a lot of data points to analyze. I am sure we will hear many suggestions today and tomorrow about what some of the contributing factors may be.

I thought Al's presentation was methodologically interesting in a number of respects. Commonly, age effects have been discussed by looking at age distribution of arrests or convictions in a given year only. Today, we looked at how they are distributed across a number of years, and we saw some changes.

Had you been able to read the tables, you would have noticed that 20 years ago the age distribution was somewhat flatter than it is today. The dropping off from that peak age has sharpened. If one can believe those figures, crime seems to be somewhat more concentrated in the teen and early-adult years than it was a generation ago.

Those tables are also useful for following a given cohort over time along the diagonal. Again, you weren't able to see that, but some of the details of the age distribution look different if you follow a given cohort over time than if you look at it cross-sectionally. Earlier, Al and Jacqueline Cohen did work on a Washington, D.C. sample of felons; a similar tracing of individual criminal histories over time showed some differences, depending on whether you took cohort membership into account.

For some years, I have been arguing that there is some advantage in looking at longitudinal patterns; not only at cross-sectional distributions, but also at age cohort patterns. It seems to me that Al's presentation is a very positive step in that direction. One might hope, eventually, to add a third component to this, combining the individual criminal histories that Professor Wolfgang has been collecting for successive cohorts, with the aggregate data.

The aggregate data may be able to tell us how many arrests can be

traced or attributed to an aggregate number of people in a given age and year, but they don't tell us how they are distributed within that collective population. It would be very useful to have this kind of information.

Even though cross-sectional information alone is less useful than longitudinal data, much of the presentation today looked at *national* trends. The trends, though taking place broadly throughout the country, have not been uniform across cities. Someone mentioned Detroit as an exception; there are others. Pooling together these cross-sectional variations with the longitudinal change in each of those units of analysis may be able to give us more data points from which to tease out the contributing factors to the change.

WOLFGANG: Thank you, David.

Travis Hirschi is a Professor of Sociology at the University of Arizona. He has also served on the faculty of the University of Washington, University of California at Berkeley and at Davis, and most recently at the School of Criminal Justice at Albany.

He is well known for his book *Causes of Delinquency*, which all of my students are required to read, and, most recently, for his *Age and the Explanation of Crime*, published in 1983, which makes it most appropriate for him to be on this panel.

Travis.

HIRSCHI: I want to direct my comments to Al's papers distributed earlier, where he correctly predicted the current downtrend in crime rates. I note today that he has followed the natural tendency to move on to the murky waters of

sociological theory; and we welcome him, eventually, to those waters. I think, however, it would be a mistake to move there before we fully exploit the previous work he has done. I would not want to say anything today that would take away from the value of that work.

I think his approach to crime prediction is both simple (which I take as a compliment) and powerful; that it produces useful and meaningful results; and that it should not be obscured by the suggestion of complexity, either in the mathematical formulas or in the number of variables that he considers.

In his earlier work, Al suggested that he was dealing with the topic of his panel, the demographic effects on the crime rate; and he included the variables age, ethnicity, and sex. I think it fair to note that the operative or main variable in his earlier work was the age distribution of crime.

I think we should understand, again, as he expressed, why age is the operative variable. Age is strongly related to the commission of criminal acts *and* the age distribution of the population varies over time as a result of the Baby Boom. No other demographic variable has both these features. Sex is strongly related to the commission of criminal acts, but the sexual distribution of the population does not change over time, at least within the high crime-rate portion of the population.

Race or ethnicity represents a mixed case. Within Blumsteins's model, it is important because it is strongly related to the commission of criminal acts and, at the same time, varies over time because the ethnic groups considered have different age distributions.



Travis Hirschi

"... predictions about specific crimes tend to suggest trouble with the logic... of the model; and that this suggestion is misleading. Therefore, crime-specific predictions should be avoided or made only with great caution."

The Book of Curves suggests that in the Southwest, particularly California, ethnicity may also vary over time because of migration. The large increase in the number of Hispanics in the California population would require modification of the crime projection of the Blumstein model, even if the age distribution of the Hispanic population were the same as that of the general population.

Beyond ethnicity, however, no demographic variable comes close to qualifying for inclusion in a predictive model. The unemployment rate, indeed, varies. It varies over time, but this variation, as Al again notes, is, itself, unpredictable. Worse, unemployment is (to put it mildly) only problematically related to the crime rate, if it is related at all.

The same is true of such demographic factors as inflation and school enrollment. They are either unpredictable or unrelated to crime, or both.

I hate to throw out everything from the Book of Curves. I think the divorce rate may be important; that somewhere down the line, maybe 15 or 16 years from now, the current divorce rate may have an impact on the crime rate, but I think, for now, it too should be excluded from consideration.

Al has performed a useful service in calculating the effects on the crime rate of change in the age distribution of the population. After this effect has been calculated and removed, it will be easier to assess the effect of such long-term and uncertain factors as divorce rate.

Another point I think I would like to make is that predictions about specific crimes tend to suggest trouble with the logic or content of the model; and that this suggestion is misleading. Therefore, crime-specific predictions should be avoided or made only with great caution.

In this connection, I note that, in his earlier paper, Al predicted that aggravated assault and rape would peak later than other crime types because people arrested for these crimes tend to be older. This prediction has turned out to be false, in both California and in the country as a whole, although the rate of decline for those crimes is slower. Generally, the model has not been disconfirmed by the minor miss in the prediction.

My concern for the crime-specific problem of prediction was enhanced by reading James Allen Fox's testimony before a House of Representatives Committee in 1981. At that time, Fox correctly

predicted the eventual decline in the violent crime rate, but his predictions about the property crime rate are looking less and less good every year. Property crimes are supposed to be roughly flat now, and to begin climbing again in the near future.

I think we make a mistake in assuming that one crime is going to behave differently from another. Since the same people tend to be committing all crimes, the prediction should be the same for all of them, at least over a reasonable span of time.

Given the simple importance of age to the interpretation of crime statistics, given the availability of age information on offenders, and given the availability of information on the age distribution of the population, it seems to me statistics on changing crime rates should be routinely adjusted for shifts in the age distribution of the population. In other words, I think that federal, state, and local agencies should adjust the rates for the age distribution before they are presented to the public.

In this connection, I think it fair to say that, after 150 years of awareness of the strong connection between age and crime, it is unfortunate that calculation of the age effect on crime remains a formidable task. Al and his colleagues are to be congratulated for their diligence and effort, as much as for their wisdom and logic, because it is still difficult to do what they have done.

Finally, on a more optimistic note, I can't help noting that, when we deal with the age effect on crime, we are, for some reason, less likely to talk about the career criminal. Apparently, this creature loses some of this plausibility in the face of evidence that crime declines instantly or rapidly with age. Apparently, the 60s and 70s did not create criminals who, like college professors, once created lived forever. The 60s and 70s created criminals much like those in the past, people uninterested in pursuing a steady line of work, whether it be criminal or non-criminal.

WOLFGANG: Thank you, Travis.

Following my predecessor, I would like to give Al a few minutes in response before we turn to the audience.

Al.

BLUMSTEIN: Let me try to address a few issues. I am glad Freda and Travis took each other on, on the issue of the degree we go at theory or not go at theory.

My sense is that part of the problem in sorting out what is affecting criminology is that the compositional effects are so profoundly important. Unless we sort out compositional differences, all our attempts to find contributing factors will really be extremely weak.

I was intrigued to note, for example, that Marvin Wolfgang opened the session by pointing out that the participation rate or prevalence in Cohort I and Cohort II were the same — 34 percent.

It turns out, however, that participation in arrest is lower for whites *and* lower for blacks, but it's just that blacks had a higher composition in the population the second time, so that the average participation is brought back up to 34 percent.

One gets a different kind of picture depending on whether one looks at the *sameness* between Cohorts I and II, or looks at the *difference* in prevalence. I think it's the same issue when we look at the age composition in the population. Attempts to get at theory by drawing gross correlations among a whole variety of variables and this very aggregate-dependent variable called "crime rate" requires dealing with participation differences, individual incidence differences, changes in race and age composition, and so on. It's absolutely crucial that we start unbundling this variety of compositional factors I think are so important.

I agree strongly that any coefficients or any effects one measures on 18 data points in a time series, as I tried to indicate, has got to be, at least, speculative initially.

One can get at those issues by digging much deeper across jurisdictions and within the jurisdictions, but being careful to deal with their differential composition.

My sense is that, given the rapid changes of age composition and given the important differences across jurisdictions in their racial composition, it's terribly important to sort out those two variables and get age-by-race-specific rates. I apologize to Don for calling all that "criminality." For lack of a better word, I kept it in quotes in all of my discussion, and then talked about factors that would affect real crime-committing propensities on the list I presented near the end.

Let me also point out that, in the estimation of those statistical models, we really did not include all the variables; we tested a small subset at a time. That doesn't forgive all the sin, but acknowledges that it

was an attempt to try to get an indication of what is working or seems to be working. The ones that did come out were, I think, most provocative.

WOLFGANG: The floor is open. Please announce your name.

AUDIENCE: Daniel Glaser, USC. I was reminded by this discussion of age-specific factors of a study I was inspired to do 25 years ago when I had some time to kill before getting started with spending some money for the Ford Foundation to study the federal prison and parole system; and that was to get a graduate student to study — to test a hunch I had that unemployment had a different relationship to crime according to the age-specific nature of the population with which you were dealing.

The finding was essentially that unemployment was directly correlated with crime most consistently for the young workers, 18 to 25, just entering the labor force, and had practically no relationship above 25. It had a slight negative relationship; that is, that crime was negatively correlated with people 16 years and under (was negatively correlated with unemployment).

In those days, we operated with desk calculators and we did the plain zero correlations. I had to get data from the annual reports that I could find in the marvelous University of Illinois library for three cities that had age-specific arrest rates (I think they were Boston, Cincinnati, and Chicago) for over a long period of time. You don't get them — this study has not been replicated, as far as I can tell, by economists and others writing on crime and unemployment.

Flescher of Ohio State did some replication in a book on unemployment and crime or delinquency, but he didn't break it down — he had only "under 18" and "over 18."

I had a hypothesis (and I have seen scattered data confirming it even from Wales and plenty of black communities) that unemployment makes the family more cohesive and actually reduces crime when the father is present and unemployed, causes a certain amount of difficulty for those in early adolescence; and has the opposite effect for different age groups. I hope some of you younger, more sophisticated, mathematically-equipped and monetarily-equipped-for-research people will repeat this study nowadays.

WOLFGANG: Thank you, Dan.

Any comment from members of the panel?

BLUMSTEIN: I agree fully with that. I think the function of employment with regard to crime is one of easing the transition from the relatively high participation of teen-agers into another form of adult social control. Unemployment is not going to be terribly relevant to crime by the laid-off steel worker or by the 16-year-old. The 16-year-old who is working is probably more deviant from his peer group, and that, undoubtedly, relates to that negative finding.

We've been looking to do a similar kind of examination, but looking at the *drop-out* rate rather than crime rate. Again, this is an attempt to disaggregate from aggregate crime rates to look much more narrowly at the drop-out rate from participation in crime and its relationship to the age-specific unemployment rate. At least early indications are very consistent with what we are saying.

WOLFGANG: Another question, back there. Tell us who you are.

AUDIENCE: Joe Rynearson. Dr. Blumstein, are you suggesting that a more accurate way of measuring the crime rate and its trends would be to examine age groups for a particular age, itself, within a category, rather than take the entire population, which includes a large percentage of non-criminals (50-, 60-, 70-year-olds) who don't really contribute?

BLUMSTEIN: You put it in too absolute a term. I think aggregate crime rate is terribly relevant as an aggregate measure, for example, of the risk of victimization, but what you measure and the way you organize your measurements depend terribly much on what you are trying to find out.

To the extent that we are interested in seeing changes in criminality, for example, it is terribly important to control first for changes in composition, and then sort out that change in involvement. I think age is so important; and when it is changing, it can be masking the fact that involvement or criminality is going up or down. Getting rid of those composition change masks I think reveals a truer picture of the factors contributing to the change.

I am not sure the public is prepared to accept the age-specific crime rate curves yet, but one can get started moving toward developing a diversity of statistics representing different aspects and different perspectives on the phenomena that are all too often lumped into "crime rate."

WOLFGANG: Another question? Yes.

AUDIENCE: Brian Taugher, Attorney General's Office. Professor Blumstein, as the war babies move from the youth generation of the 60s to the yuppie-ism of today, you some time ago predicted that crime would fall.

As we move past the turn of the century into a gerontocracy, are you willing to predict that it will fall further?

BLUMSTEIN: Some of us are going to move into gerontocracy. There are others to take our place.

I indicated that the demographic structure of the United States population, the "Echo Boom," is starting up again. That Echo Boom is anticipated to continue growing until the cohort of 1988, which is projected by the Census Bureau to be the peak of the Echo Boom, and then cohort sizes are supposed to begin declining.

That projects into growth in crime rate, other factors being unknown or unprojected, so that the contribution of changing age structure alone should lead to an upturn in crime rate in the early 1990s.

Now, again, the importance of demographics is that we really have a rather good view of our demographic future. We don't have a very good view of the future of very many other factors that influence crime or crime rate, so that it's always averaged over everything else.

Al Reiss mentioned this morning that someone told him to project trends. I am very uncomfortable projecting trends. I am much more comfortable projecting something that has been fairly stationary over time, just because most trends end up turning around. I try to look for something that isn't changing terribly much as one looks into the future. With regard to the wide variety of other factors that contribute, they are awfully tough to project one year, let alone 5 or 10 years. We know who is going to be relevant over the next two decades to the criminal justice system, and at least we can get some sense of that piece of it. By no means is it the whole picture, but it gives us a departure point for considering variation around it.

WOLFGANG: Our time is about up. I want to thank my panel for their contributions to this very focused topic.

I can't help mentioning, since Travis mentioned it, that James Allen Fox's dissertation at the University of Pennsylvania forecasting crime up to the year 2000 did, indeed, predict very successfully so far through the 80s with respect to crimes of violence, but he projected a continued amount of monotonic increase in property crimes up to the year 2000. We see we are witnessing some change in that.

Relative to prediction, I am reminded, recently having met with a group of colleagues from the Soviet Union, the Academy of Science, who are now living

in the United States, that we were talking about problems of prediction. One of my colleagues from Moscow who is in the Academy said: "well, we had an old joke when I was an economist working back there that, considering the way in which history is so often rewritten in the Soviet Union, the hardest thing to do is to predict the past."

I want to thank my silent chairman, James Q. Wilson, who has been turning over the time cards for our panel. Thank you, Jim, very much.

We now adjourn for lunch.

CRIMECONFERENCE85: