

Day One—Plenary Session I

What Social Science Can Contribute to Sentencing Policy for Economic Crimes

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**PLENARY SESSION I:
WHAT SOCIAL SCIENCE CAN CONTRIBUTE TO
SENTENCING POLICY FOR ECONOMIC CRIMES**

VICE CHAIR STEER: Our first plenary discussion today focuses on the issue, generally, of what social science can contribute to sentencing policy for economic crimes. In thinking about someone who would coordinate and moderate this panel for us, Mike O'Neill and I quickly focused on Professor Jeff Parker, who serves as a member of the faculty here at George Mason Law School and, in a number of ways, helps bring together the perspectives of several social science disciplines and the application of those academic approaches to public policy.

Jeff has been in both arenas and has been successful in both. He currently serves here at the law school as the coordinator of the school's litigation law track and has been working in the areas of civil procedure and previously in the area of criminal law and sentencing. He has just returned here to the law school from a stint as a visiting professor at the University of Graz in Austria.

Previously, Jeff spent some time at the Sentencing Commission where he was deputy general counsel and later served as a special counsel in a consulting capacity. He has a background in both science and economics as well as law, has been in the private sector with several prominent law firms in New York City, and, of course, has now distinguished himself in academia.

Professor Parker, I would like to turn it over to you and ask you to introduce the members of your panel.

PROFESSOR PARKER: Thanks, John.

My role here is the moderator, and I am told that that is primarily to keep us on schedule. So I won't bore you with any personal observations except one which is no one has yet mentioned. Today is the 16th anniversary, to the day, of the Sentencing Reform Act of 1984. So, I don't know if this is purely accidental timing or it was intended to commemorate, but it is difficult for those of us who have been around for a long time, like John and myself, to believe that 16 years have already gone by.

But it may be an appropriate time to look back and forward in terms of the role of social science in the formulation of sentencing policy, and there is an interesting history here because I think social science has been there from the beginning even before the enactment of the Act, and we have three distinguished social scientists on this panel to discuss how social science can continue to inform the development of sentencing policy, with particular reference to economic crimes and new technology offenses.

Our panel members, I will introduce just briefly. Their biographies, of course, are in your materials, so I don't need to belabor them.

But, briefly, first, on my right, Professor Daniel Nagin of Carnegie Mellon whose field primarily is criminology; to my immediate left, is Mark Cohen from Vanderbilt, whose immediate field is economics; and on my far left is Donald Rebovich, who is with the National White Collar Crime Center, and I take it your principal field is criminal justice.

Without further adieu, what I think we should do is take in the order of Professor Nagin, then Dr. Rebovich and Professor Cohen.

Professor Nagin?

PROFESSOR NAGIN: Well, let me begin by just making a general observation that the criminal justice system dispenses justice, as you know, by apprehending, prosecuting and punishing lawbreakers. These activities also project a threat of punishment. Deterrence occurs when some would-be lawbreakers conclude that the price of crime is prohibitive.

I have been asked today to summarize what we know about deterrence and to discuss its implication for sanction policy in general with specific attention to economic crime. Because actually much of the evidence does not, in fact, pertain to economic crime specifically, most of my comments will actually address the more general issue of how this evidence can and cannot be useful for sanction policy.

Before I go and talk about that evidence, I think it is important to draw a distinction between what I call general and specific deterrence. General deterrence refers to the crime prevention impact of the threat of punishment has on the public at large; whereas, specific deterrence refers to the effect of punishment on the person actually punished.

The actual experience of punishment may alter an individual's perceptions and opportunities. Also, persons for whom general deterrence has failed; that is, people who stand before those like the judges in this room today may be systematically different and are systematically different than the public at large.

For both these reasons, specific deterrence may be smaller than general deterrence, and my remarks today focus on the evidence for general deterrence and on the implications of that evidence for policy.

In addition, the criminal justice system might avert a crime by a non-behavioral mechanism; namely, the incapacitation of convicted offenders who are incarcerated in jail or prison.

In a paper that I prepared for the conference, I summarize the evidence on deterrence and incapacitation and provide citations for a more general summary, literatures summarizing that evidence. But because my time is short, I am only going to summarize the main sources of evidence on general deterrence and then focus on policy implications. I also won't discuss the evidence on incapacitation because it seems less relevant for economic crime.

Before I go on, let me just briefly summarize the main sources of evidence on deterrence that we have. One source of evidence for deterrence is from so-called—what I call intervention studies. These examine the impact of targeted policy interventions, such as police crackdowns or implementation of statutes changing penalties.

The best designed of these studies mimic important features of a true experiment. They have a well-defined treatment regime, measurement of responses before and after treatment and some sort of control group. Two classic examples of this are H. Lawrence Ross's study of the impact on drunken driving of the British Road Safety Act and various Scandinavian-style drunk driving laws.

There is also another body of research called the perceptual deterrence research literature, and this literature examines the relationship of perceived sanction risks to either self-reported offending or intentions to do so. This literature was spawned by researchers interested in probing the perceptual underpinnings of a deterrence process.

Finally, there are correlational studies that examine the relationship between crime rates, generally measured by the FBI, and sanction levels, measured, for example, by imprisonment rates or average time served. These studies attempt to assess, for example, whether states with higher imprisonment rates have lower crime rates.

Now, each of these forms of evidence have specific strengths and weaknesses and, as such, in isolation, none I think can form a very convincing basis for judging deterrence. However, in combination, I think they do provide a firmer basis for inference. And, based on my review of this evidence. I have concluded that it generally supports the conclusion that the criminal justice system exerts not only a very substantial what I call absolute deterrent effect, but also a marginal deterrent effect as well.

As Jeff indicated, I am not an economist, but I hang around a lot with economists, and the price that I get from their wisdom is they make me impose upon audiences of non-economists graphs and charts, so I have one here for you.

The purpose of this chart is to draw a distinction between what I call marginal versus absolute deterrents, and the graph provides a graphical depiction of that. (See Figure Nagin-1.) In this figure, I have two forms of a response function relating crime rates to sanction levels. Both are downward sloping which captures the idea that higher sanction levels prevent crime.

At the status quo sanction level, which I call S1 in this graph, the two lines predict the same crime rate. The curves are also drawn so that they get the same crime rate for a zero sanction level. What I call the absolute deterrent level is the difference between the status quo crime rate, S1, and no sanctions at all. And I suspect that few would dispute that there is a big deterrent effect that comes from having some level of sanction. I think that few would dispute that conclusion.

However, from a policy perspective, this absolute effect is not the issue, and this brings me to the issue of the two shapes of the curve. Because the two curves have very different shapes, they apply a very different response if we were to increase sanction levels from one that is denoted by S1 to a higher level denoted by S2.

For the one curve, the response is small and, accordingly, it would be difficult to detect and likely not sufficient to justify change.

By comparison, the response for the straight line curve is drawn so that it is larger and I am trying to, therefore, capture the idea that it would be more easy to detect and then probably more easily justified as good policy.

As I have indicated, I think that there has been substantial evidence amassed that suggests that the criminal justice system exerts not only a substantial absolute deterrent effect, but also a marginal deterrent effect, as well. For example, I think that the toughening of sanctions over the last 25 years has also exerted a measurable marginal deterrent effect.

That said, it is also my view that this conclusion is of limited value in formulating policy. Policies to prevent crime generally target incremental change. So, for policy makers, the issue is not whether the criminal justice system in its totality prevents crime, rather it is whether a specific policy grafted onto the existing structure materially alters the preventive effect of sanctions.

While I believe that there is credible evidence on incremental impacts of some broad classes of policy options such as imprisonment, we have virtually no evidence on the impact of specific policy options. For example, there is good evidence that imprisonment appears to have a non-trivial crime reduction impact, probably in the neighborhood of 10 to 15 index crime per year of imprisonment.

However, there are a multitude of ways of altering imprisonment, from across-the-board increases in sentences for all types of convicted offenders to very targeted policies like sentence enhancements for persons convicted of specified violent crimes who have some number of prior convictions.

Our current capacity for predicting the preventive impacts of these very different options is virtually non-existent. Yet, this is precisely the sort of capacity that is necessary for formulating policy based on strong scientific evidence.

That said, I don't hold a nihilistic position on the utility of extant evidence for determining sanction policy, but I think that the role would best be described as framing rather than formulating policy.

One consistent finding in the deterrence literature is that the certainty rather than the severity of punishment seems to be the most effective deterrent.

From studies of tax compliance that I have done and others have done, what we find is that reporting rates are very high for sources of income—such as wages and dividends—that are highly visible to the IRS due to withholding and information reporting systems.

Compliance rates are only modest for sources of income like proprietorship income that are not subject to information reporting, but for which paper or electronic audit trails exist.

Finally, compliance levels are negligible for sources of income from the informal economy that are virtually invisible to the IRS.

The term "income visibility" was coined by Bob Kagan at University of California at Berkeley to describe this spectrum of compliance levels. But visibility is really just another way of talking about and characterizing the ease of apprehension. (See Figure Nagin-2.)

From this perspective we can see that, at least in the domain of tax compliance, compliance is nearly perfect when detection risk is very certain, and compliance is nearly zero when detection risk is negligible.

This finding, I believe, from the tax compliance literature, illustrates the importance of giving close attention to all reasonable and legal measures for increasing the chances of apprehension. For crimes in which apprehension is inherently difficult, such as economic crimes which we are going to be discussing today, it also suggests the importance of proceeding with criminal prosecution of apprehended offenders, again, for the purpose of projecting a credible threat of certain punishment.

The flip side of this conclusion, however, is that draconian penalties are unlikely to be an effective substitute for the more-difficult-to-achieve alternative of effective detection and prosecution. For example, a penalty of 25 years of imprisonment with a probability of .01 is unlikely to be as effective a deterrent as a 2.5 year punishment but with a probability of .1.

My second and closing comment is more in the way of a cautionary note. There is ample evidence suggesting, from this deterrence literature, that a very important component of the general deterrent effect of sanctions stems not so much from the length of the sentence but from fear of the social stigma and ostracism that attends to their imposition; specifically, these studies suggest that the deterrent effect of formal sanctions arises principally from the fear of the social stigma that their imposition triggers.

Economic studies of the barriers to employment created by criminal records confirm the reality of this perception. If fear of stigma is a key of the deterrent process, such fear would seem to depend upon the actual meting out of the punishment being relatively rare. Just as the stigma of Hester Prynne's scarlet "A" depended upon adultery being uncommon in Puritan America, a criminal record cannot be socially and economically isolating if it is commonplace.

Thus, policies that are effective in the short run may erode the very basis for their effectiveness over the long run if they increase greatly population the who are stigmatized. Thus, I think it is important that care be taken that we do not overuse the sanctions as a method for gaining legal compliance because their overuse may undo the very basis for their effectiveness.

Thank you.

PROFESSOR PARKER: Thank you. We now have Dr. Rebovich, who also has some evidence.

DR. REBOVICH: Good morning. I am Don Rebovich, director of research for the National White Collar Crime Center. For those of you who are not familiar with the Center, I just want to tell you that the Center is a private, non-profit organization dedicated to enhancing effectiveness in identifying and controlling economic and high-tech crime.

We have offices in Richmond, Virginia, and Morgantown, West Virginia, and through most of the history of the National White Collar Crime Center, we have spent most of our time training investigators, prosecutors to control economic crime and high-tech crime.

Fairly recently, the Center has embarked upon a new effort. To complement the work that we do with the criminal justice community, we have decided to develop a system of tapping into the concerns and interests of the general public and of serving the general public, and we have done this using a couple of methods. We have established two national complaint centers. One complaint center is the National Fraud Complaint Center, and a second complaint center was established in conjunction with the FBI that is centered on Internet fraud and that is, also, in West Virginia.

However, I am not going to talk about those two centers. I am here to talk about the third prong of the three-prong effort of tapping into the interests of the general public, and that is a national assessment that was conducted recently on perceptions, attitudes and thoughts about white collar crime by the general public.

Why is that important? Why should we talk about something like this? Why should we care about the perceptions of the general public when it comes to sentencing policy?

I think we all can agree that an objective of the Sentencing Commission is to develop sentences that are just sentences, just punishments. One way of defining a just sentence is: Does the public consider it a just sentence? Do we have public support that it is a just sentence? Therefore, we at the National Center believe it is important to find out from the general public what they think about white collar crime; how severe do they think these offenses are? What type of penalties do they deserve?

There should be some correspondence between what the public believes and what sentencing guidelines are. That is not to say that, of course, public opinion should be the sole determinant of what sentencing structures are, but I believe it should be considered in the general equation.

A first step in this direction of finding out what the public thinks is, of course, to ask them. What do you think about white collar crime? How serious is it? Does the public consider white collar crime to be serious? This is a question that has been debated probably ever since Edwin Sutherland, the famous sociologist, coined the term "white collar crime" in 1939.

At that time, he said that the public "was simply not aroused" by white collar crime. About 30 years later, the Presidential Commission on Law Enforcement and the Administration of Justice concluded that the public was, in fact, indifferent toward white collar crime, and they also concluded that, to a certain degree, the general public probably sympathizes with white collar crime offenders.

For those of you who are familiar with empirical research on the seriousness of white collar crime as expressed by the general public, you know that it paints a bit of a different picture. Some of the studies by Berk, Rossi, Wolfgang, Figlio and Cohen have demonstrated the general public expresses more concern than was previously believed, particularly in cases in which physical harm or injury is the end result of the white collar offense.

Most of these studies were conducted in the 1980s, and we thought at the National White Collar Crime Center that it was about time to revisit this issue, do a national household survey. I am going to go through a brief overview of what I consider are some of the key points relevant to today's symposium and relevant to the topic of what social science can do to contribute to the development of practical sentencing policy.

We developed the survey through meetings with subject matter experts, representatives of the Department of Justice, criminologists, representatives of business, and we came up with a survey of 43 questions. Households were randomly chosen. We had a sample size of 1,169 households, and the data was weighted by age, region, sex, and education. We could say it was demographically representative of the United States population.

What I am going to go through are a series of scenarios that we were giving to the general public on seriousness. I just want to point out that this is not a sentencing study. It was not intended to be a sentencing study. It was primarily tapping perceptions of seriousness and punishment.

We also asked a series of questions on victimization. I won't cover those, of course, but I will cover the seriousness issues.

This was one of the first questions we asked of the general public comparing a scenario: which is more serious, a robber or a contract fraudster who steals \$100? (See Figure Rebovich-1.)

The scenario or the vignette that we presented on the robber was an individual stealing a handbag with \$100 in it, and the vignette for the contract fraudster was someone contracting with an individual to repair a house or repair a driveway.

As you can see, 44 percent of those surveyed indicated that the contract fraudster was, indeed, more serious; he had committed a more serious offense than the robber. This was something that wasn't surprising to us. We had expected that this might be the case.

If you look, though, at a little bit of a tweaking of this type of scenario, we changed the second part of the scenario in the next question from a contract fraudster to an embezzler. (See Figure Rebovich-2.) Keeping the one half on the robber the same, now we are talking about a bank teller who has embezzled \$100. Which is more serious? Well, you see quite a bit of difference. Fifty-six percent now think the embezzler is more serious.

Why? Well, we can only speculate. I think the probability is that once you change the status of the offender in the minds of individuals—the minds of the general public—they might consider it more serious if it is a position of public trust, a position where a bank teller would be entrusted with someone else's money, maybe your money. This also confirms some of the earlier studies that were done by Berk, Rossi, and Figlio.

We also asked a question comparing different types of white collar crimes. Here you have a public official accepting a bribe, and a private citizen bribing a public official; which is more important? (See Figure Rebovich-3.) Well, the vast majority, almost three-quarters, indicated the public official accepting a bribe is a more serious offense.

Once again, the feeling here is that the status of the offender, the fact that it is a public official, an elected official, makes it more serious in the minds of the general public.

We also had a scenario comparing a public official accepting a bribe and a corporation bribing a public official, a little bit different vignette; still, the public official accepting a bribe is seen to be more serious. (See Figure Rebovich-4.)

What I found interesting about these scenarios and vignettes—I am only giving you a small sample of the total of them—was that, when we did ask questions in which the white collar crime offense ended in some type of harm or injury, there wasn't much difference in the percentage breakdown of how many people felt that the white collar crime was more serious.

We gave a couple of vignettes about an auto manufacturer that produced vehicles that were defective and did not recall them; another involved a meat packing company that knew that it had bad meat, sent it out, and it was consumed by people, and there were injuries or there was harm done.

The surprising part about the results here was that, in previous studies, if people were presented with those types of vignettes where there was some injury, the percentage of those who said the white collar crime was more serious was quite different. This was something that we did not expect.

Now, questions of control. We asked a series of questions about punishment and control, starting out with: who is the most likely to be caught? We gave the public a scenario of an armed robber who steals \$1,000 or a fraudster who steals \$1,000; who is most likely to get caught? (See Figure Rebovich-5.)

Well, it may not surprise you to see that most felt—by a wide margin—the robber would be caught: 74 percent to 22 percent, with three percent indicating equal.

Now, regarding punishment: who will be punished more severely? Here, you have the 82 percent saying that we are pretty sure that the robber is going to be punished more severely, going to be getting a more severe sentence. (See Figure Rebovich-6.)

The most interesting question or result, I think, of the series of questions we asked regarding punishment was the next one, and that is: who should be punished more severely? It was the same scenario, the same vignette, but a different type of question. And you see the difference; 31 percent believed the robber should be punished more severely, 31 percent believed the fraudster should be punished more severely, 38 percent equal. (See Figure Rebovich-7.)

So there is quite a disconnect between what people think will happen and what they would want to happen with regard to punishment of white collar offenders.

We also looked at some demographics. We asked people a series of questions about their political leanings. We really didn't find very much difference in how they responded to the seriousness issues; whether you are liberal, moderate, or conservative didn't really seem to make that much of a difference, which was also quite surprising. (See Figure Rebovich-8.)

We looked at demographics. We looked at age, race, region of country, income level, and education level. What was interesting is that we did not find many relationships that were strong between demographics and the way people thought.

What was most interesting to us was victimization. As I said earlier, we did ask questions about whether or not people were victimized by white collar crime. We thought that people who were victimized by white collar crime—within 12 months before the survey was conducted—would more likely feel that these offenses were more serious and would be more likely to consider that these offenses warrant greater punishment. That wasn't the case. The seriousness level, the level of punishment, was constant whether or not the individual was victimized by a white collar offense.

We did find some association between white collar crime punishment severity and some variables. For those who are statistically inclined, these are some of the stronger relationships; the gamma scores between seriousness and punishment, for instance, indicated a fairly moderate relationship, meaning that those who believe white collar crime offenses were serious tended to believe they would be punished more severely. (See Figure Rebovich-9.)

The only victimization category that related to perceptions of seriousness and punishment—and we had a list of about nine different types of white collar crime victimizations—was the victimization of having a credit card or bank account number taken. Once again, we can only speculate why, but possibly, these offenses were considered more serious because maybe these people have more to lose through losing a credit card.

PROFESSOR PARKER: Pardon me for interrupting, but could you explain "gamma score?"

DR. REBOVICH: The gamma score of .416 is a strength of relationship between white collar crime seriousness and punishment severity; that is basically considered a moderate relationship, meaning that there is some relationship between the two.

PROFESSOR PARKER: Is it a percentage relationship?

DR. REBOVICH: No. The closer we get to one, it would be stronger relationship. But it falls into a category of moderate relationship, which should be considered. .379 is also a moderate relationship.

Income level was a negative relationship, not quite as strong of a relationship, indicating that those individuals with higher incomes seemed to feel that the punishment level of the white collar offender would be less or didn't seem to feel that there should be as great a punishment for white collar offenders as those with lower incomes.

There was also a slight relationship regarding risk behaviors and feelings of punishment severity. We questioned the public on a series of risk questions to find out which would be the most vulnerable to white collar crime victimization, and these risk variables were developed by subject matter experts. We seemed to find that those who participated in more risk behaviors tended to feel less inclined to have white collar crime offenders punished more severely.

To wrap up, what influences public perceptions of punishment? Perceptions of white collar crime seriousness go hand-in-hand with perceptions of white collar crime punishment. Not surprising, but empirically, I think, it is pretty important. Those people who believe that white collar crime is quite serious, maybe more serious than certain types of street crimes, are more inclined to believe that white collar offenders should be punished more severely.

White collar crime victimization, in general, is not related to perceptions of punishment. It doesn't matter whether you are victimized by these offenses. It seemed like it was consistent, consistent across practically all demographics.

The risky behavior, I just mentioned; there might be an indication that those who have higher risk levels of risky behavior did not believe these offenses were quite serious.

And, except for income, demographic variables are not related to perceptions of punishment.

So, finally, in conclusion: how can we benefit from this? I think that the thing that comes out of this is really confirms other previous studies. I think, if Edwin Sutherland were here today, he would have to say that the American public does not consider white collar crime indifferently, based upon these results. It confirms earlier studies done in the 1980s. It also points out that these white collar crimes do not have to involve injury for people to think they are serious.

I think that the next step for Sentencing Commission or some other organization is to conduct an actual sentencing perception study, which I know had been done a couple of years ago by Berk and Rossi. I think it is time to do another one. I think that can contribute to our knowledge about public impressions and how that can fit in with developing just sentences.

PROFESSOR PARKER: Thank you. We will now hear from Professor Cohen.

PROFESSOR COHEN: Thank you. I have been asked to talk a little bit about the economic theory of crime control and its implications for sentencing policy. What I really want to talk about is both a little bit of theory, but also some of the empirical evidence.

It is hard to do all of this in 15 minutes. It was quite an interesting assignment when I was asked to do this. It turns out that Commissioner Block, Jeff Parker, who was at the time general counsel or some such thing, and I—when I was a little staff member at the Sentencing Commission in 1986—spent hours and hours on this very issue of how to think about crime from an economic perspective, how to model it and, more importantly, what some of the implications are for sentencing policy.

So I am going to try and distill some of that. Luckily, I kept my files from 14 years ago and found them actually quite useful. I didn't know whether I would ever use them again, but I wanted to spend a little bit of time talking about that today.

When we think, preliminarily, what is it that we are trying to do here, from an economic standpoint, what we are trying to do is minimize the costs of crime, the costs of the criminal justice system, and the costs of prevention.

So I think one of the themes you are going to find from this morning's talk is that it is not just the criminal or potential criminal that we have to worry about. There is an entire system out there, and we have to think about the costs and the benefits all the way through that system and the implications all the way through that system.

Underlying a lot of the analysis that we do is a very important assumption which is that individuals, including potential criminal offenders, are rational individuals who act in their own self-interest or at least what they perceive to be their own self-interest. That is important and probably borne out by a lot of empirical evidence, if we look at how people behave.

So, I think that much, but not all of the debate, can be informed by empirical analysis, as well as theory. Actually, Professor Nagin alluded to a lot of that empirical analysis on deterrence as well as, ultimately, on risk preferences, although he didn't put it that way.

One of the things that we think of most is the offender's decision, the potential offender's decision. So, when we think about somebody who is considering committing a crime in a rational framework, what they are essentially doing is weighing the costs versus the benefits; the benefits of criminal activity to them are essentially the expected value of the money stolen. (See Figure Cohen-1.)

But, in some cases, it goes beyond that. It is a psychic value. I mean, when we start to think about things like computer hacking and viruses, it is hard to think of this as being something that is purely monetarily driven. In fact, there is some obvious psychic value to the potential offender.

So anything that increases the expected benefits of criminal activity is likely to induce the offender, potential offender, to behave to commit more crime.

Similarly, there are costs associated with the offending behavior, and the offender then takes into account these costs. And, certainly, one of the costs that Eric Holder referred to this morning was the cost of committing a crime. So, if the cost of committing a crime goes down, we might expect there to be more crime. If the cost of committing a crime goes up, we would expect, everything else equal, to have less crime.

The second thing that affects expected costs is the perceived probability of detection and conviction. Again, this has been alluded to several times already. So, if crime is more detectable, more likely to be prosecuted, more likely to be convicted, then the crime rate is likely to go down.

The third, of course, is expected punishment. Obviously, longer prison sentences or higher fines are going to some extent deter or reduce criminal activity.

The fourth one is the issue of certainty versus randomness of punishment, and this is quite important. Again, it was alluded to by Professor Nagin, so I won't go into that much more. But this was clearly one of the goals of the Sentencing Commission itself, under the Crime Control Act of '84, to increase certainty and reduce disparity—and that actually has crime control benefits because of the way people perceive risk and behave relative to risk.

So, reducing disparity and increasing certainty actually has crime control benefits, even if you keep average sentences the same.

The length of time between the time that the crime is committed and when the punishment is actually meted out—we all discount the future, and criminals are no different. So, if we expect punishment to happen three years from now, it is a lot different than if we expect the punishment to happen tomorrow. So our behavior will change, accordingly.

Actually, it is said that we all are potential offenders. It is just a matter of what our costs and what our benefits are. In our theory, everybody in this room would be a potential offender. The bottom line is that the perceived costs to all of us are too high, and that gets at the last one, which is the non-criminal sanction.

I mean, I am a potential offender. But I don't commit a crime because I think, personally, that the cost to me is too high; the moral stigma for my family, for my community, and the loss in future income.

And that becomes a very important factor when we think about white collar crime because, in fact, empirical evidence suggests that there is a very large drop in income following conviction for white collar offenders of fraud, and that can overwhelm any other penalties that white collar criminals receive.

The point that I wanted to make is that we have to think of crime in a systems framework and that there are interrelationships that make this system very complex. Yet, it is very important that we take into account these interrelationships.

There are linkages across the actors: potential offenders, potential victims, law enforcement agencies, courts, and even individuals who I call potential innocent criminals, individuals who might be wrongfully accused of a crime. (See Figure Cohen-2.) For some crimes and for some white collar crimes,

that does become an important issue we will discuss a little bit. It is not always a driving issue, but it is something that we shouldn't forget.

Let me give you a few examples of some of these interdependencies. As individual consumers or business people, we take all kinds of precautions against fraud. We hang up on telephone solicitations, even if we might otherwise be interested in the product being sold. Since we are concerned that the party on the other end, whom we do not know, is attempting to bilk us out of our hard earned money.

Similarly on the Internet, we are reluctant to deal with merchants we are not familiar with since it is much easier to move on the Internet than to close up a store and open in another town where nobody knows the storeowner's reputation.

We are reluctant to give out credit card information over the Internet because unauthorized eyes can easily intercept our transmissions. We are reluctant to bid in online auctions because we don't know if the seller is trustworthy and will deliver what he promises.

Of course, as one who has purchased numerous products over the Internet and has bid in online auctions, I can attest to the fact that they can be relatively safe activities with low frequencies of fraud. The question is why?

Well, both individuals and businesses take costly actions to prevent or raise the cost to potential offenders from committing these frauds. Thus, I won't give out my credit card information, unless I know the company uses appropriate encryption technology.

I will not bid on online auctions, unless I know that the auction company has a feedback mechanism to check on the reputation of the seller or they offer some sort of insurance against fraud. And I will also look for a well-known firm with an established reputation.

All of these prevention activities are costly to businesses and, ultimately, consumers. In some cases, consumers will decide that taking these actions are too costly relative to the benefits, and they will decide to either take a chance or to forego the transaction altogether.

The availability of both civil and criminal remedies might have an effect on the amount of prevention activities undertaken by businesses and consumers. If I know that the penalty for computer fraud, for example, is very severe and the chance of getting caught is very high, I might be less reluctant to use the computer to make purchases. However, I might also take less care in avoiding a fraudulent vendor.

So the question then becomes, is it more cost effective to rely on individual consumers to protect themselves against fraud or to have the government spend money on detecting and punishing offenders? That is not an easy question to answer, and it depends on the type of fraud.

But now we start to think of a trade-off of how difficult it is for consumers to avoid becoming victims versus the government to enforce and protect potential victims. So these are very difficult questions to answer.

At the same time, if enforcement is very stringent and penalties are severe, in a climate of rapidly changing technology and intellectual property, some companies might decide that the risk of being tagged a

criminal, even if their intentions were not so bad, is too great to risk that line of business altogether. Thus, some innocent individuals might not engage in the socially beneficial activity at all.

Now we are seeing this to some extent in the area of privacy rights on the Internet; potential economic activity that is socially beneficial is being avoided because of the risk of either being tagged criminal or being sued for civil liability.

I think it is also important that we note throughout this conference that, when we are talking about economic and white collar crime, economic crimes, we are also talking about corporate crimes; not entirely, but the loss rules apply equally and the offense levels apply equally to corporate crime, and corporations can often be held liable for these types of offenses.

So you can see that the actions of any one actor in the system can affect the cost and the benefits of the other actors, and thus, change the decision in important ways that might or might not have been anticipated.

Well, that is just a very brief sketch. Let me go to some of the implications of this kind of a model for purposes of sentencing. I am going to do this very briefly.

Offenders should be held accountable for all losses and costs associated with their actions, and some of the details of what we will be talking about later today is what does that really mean? Secondly, certain punishment, reducing disparity, has a deterrent effect, even if average punishment is unchanged, and this also gets to issues such as foreseeability, intent, and those kinds of issues that we will be talking about later.

Third, reputation loss from conviction. Reduced future earnings, for example, can be more important than prison time, in terms of its deterrent effect. And that is true for some, but not all offenders. And I think that also gets to the issue of first-time versus repeat offenders; it might make more sense in terms of first-time offenders to rely on the reputation sanctions.

The next is monetary sanctions. To the extent they are collectible, they are preferred to prison, and that comes out primarily because of the cost of prison; it is cheaper to impose a monetary fine. Of course, we all know that that becomes problematic in many cases, actually collecting a fine, so we have to take that caveat into account.

Lastly, I think it is very important that we are aware of the interdependencies of crimes and actors. I want to talk about two specific examples of issues that we are going to be confronted with.

One is the most very basic: should severity levels increase? Should we increase the severity levels in these offense tables, loss tables? And the question is, why? If it ain't broke, don't fix it. The question is, is it broken? Is it increased fraud that we see or is it increased enforcement? For example, in the case of health care fraud, are we just going after more health care fraud because that is where people are now going to commit fraud?

So, are we seeing more enforcement, therefore, more punishment or are we seeing more activity itself? And I think those are empirical questions that need to be answered before we start thinking about increasing the severity of sanctions.

And what are other actors doing? In other words, what are the prosecutors doing? Are they focusing on these crimes? What are potential victims doing in terms of preventing or avoiding these crimes? And are we shifting between crimes; is fraud just moving from one venue to another? Is telemarketing fraud now moving to the Internet or is there now just more crime? And that is an important question.

I don't have an answer to that, but I think it is very important we address these questions before we think about increasing the severity of punishment.

The other thing that I wanted to note, which I don't think anybody has ever noted before, is the fact that we have had these offense guidelines in effect for 14 years and inflation has taken its toll. And, if you compare a \$6,000 fraud, for example, and you can do this anywhere in the guidelines from 1987 to the year 2000, the base offense level is essentially 8. However, in today's dollars, \$6,000 doesn't go very far.

So, if we think about what a \$6,000 fraud is in today's dollars, that is really a \$9,000 fraud. So to have the same impact on victims, to take the same equivalent amount of money, you would have to take \$9,000 today; whereas, in 1987, you only had to take \$6,000. That is the effect of inflation. (See Figure Cohen-3.)

Well, if I go to the guidelines and I look, \$9,000 is a higher level. \$9,000 gives us a guideline level of 9. And, when you do this across-the-board, it is essentially that passage of time has increased the severity level of these fraud loss tables by one whole offense level, just because of inflation. And that, in fact, will continue if they are not changed.

In 1989, the Commission increased the severity of the fraud loss tables, and inflation has increased them further. The bottom line is that time is money, and interest ought to be included because time is money. (See Figure Cohen-4.)

But, let me just wrap up, criminal sanction is only one penalty for committing a crime. It is important to consider the behavior of all actors, including prosecutors, including judges, including potential offenders, including potential victims. Ultimately, every increase or decrease in sentence severity comes with both a benefit and a cost. There is certainly a deterrent effect, but there is certainly a cost as well.

I guess, the bottom line is that both theory as well as empirical evidence can inform this debate.

Thank you.

PROFESSOR PARKER: Now, in the time we have remaining, I wanted to try and get a discussion going and, of course, the preference would be to take questions from the participants sitting out here in the room. Let me suggest one thing that might get your thinking going which is, again, I had thought that this session was supposed to be about how social science can be helpful.

I think these were all excellent presentations, but one common factor it seems to me, and I think it is correct, is that sentencing is an enormously complex business and you have to proceed very carefully and modestly and with attention to all of the consequences.

And, regrettably, social science tends to proceed rather slowly with a rather narrow focus. I mean, we academics earn points by sort of focusing on minutiae; whereas, sentencing policy has to consider things

more systematically. So, therefore, social science doesn't seem to me to have a huge amount of potential, although I think all of the speakers made points that can be very helpful.

Does anybody have any comments they want to make along these lines? I think this is an important feature. Panel members?

PROFESSOR COHEN: I will take that to some extent and that is, Jeff, I think it is very clear that, even if we can't answer all the questions empirically to some particular degree that we would like to, there are very many things that we can say. When it comes to, for example, how do you define "loss," well, we have an awful lot to say about what appropriate loss is, what should be included and what should not be included, what is harmful, and what isn't.

I think there are directional things we can say. Whether we can answer, "Should this offense level be a 7 or an 8 or a 13 or a 14," is a much more difficult question. But I think the bottom line is we can inform that debate.

PROFESSOR PARKER: An example might be the last point you made about inflation. You know, perhaps understandably, all we hear usually from the Justice Department is, "We need higher penalties." But, inflation works in a sort of an upside down way here.

QUESTIONER: Dr. Nagin, the question that I have is this: in speaking of the policy of deterrence and whether or not a specific public policy could have a measurable impact on a specific category of crime, as I understood your comments, you said that was a bit squishy and you weren't really certain about that, if I understood you correctly. I was wondering if you had examined Project Exile in Virginia as an example of how policy can impact specific criminal behavior?

PROFESSOR NAGIN: Yes. That was a two-part question. The first was asking me whether, in fact, I was pessimistic about the ability of social science research to answer questions about the effectiveness of very specific sanctions. That was the first part.

And, in the second part, the questioner noted a specific intervention, I believe it was Project Exile, here in Virginia, to control gun violence.

Let me respond to that. I did, indeed, indicate that I did not believe that social science research was up to answering the specific questions of the grid level of 8 or 10 for certain kinds of frauds. Instead, to the extent that social science was useful, it was useful in trying to frame the question of how penalties should be used.

So that, for example, I talked about the certainty principle and that we shouldn't try to use severity as an all purpose substitute for certainty.

With regard to the Project Exile in Virginia, I am not personally aware of that program, and I don't know whether it has been evaluated. But, ironically, that is specifically the kind of thing that, in principal, social science is well-suited to try to address—whether that specific program did have the impacts that it was intended to have or not. But I don't know whether it has been evaluated. I am not familiar with it.

QUESTIONER: My question is for Donald Rebovich. In your poll that gathered public opinions as to which is more serious, a robber or a contract fraudster, were your respondents told that the robber had a weapon; and if it was a pistol, whether it was loaded or not?

And, also, was the sex or age of the victim in each of the cases included in the question to the respondent? Because, frankly, I was astounded by your percentages here that 44 percent of the respondents considered the contract fraudster more serious than a robber.

Robbery, as I understand it, is the taking of property by force or violence from the victim.

DR. REBOVICH: The answer to your question is that for those vignettes, the example of a robbery was the taking of a handbag—

QUESTIONER: Is that a purse snatching or a robbery?

DR. REBOVICH: It was the taking of a handbag. That is the way it was described.

PROFESSOR PARKER: That is a theft, in other words.

DR. REBOVICH: It was the taking of a handbag with \$100 in the handbag. The age of the victim, the sex of the victim was not included. There were scenarios given where an armed robbery was part of the scenario and \$1,000 was taken, and it was a situation where the person was robbed by a person with a weapon and there was an injury.

QUESTIONER: My question is directed, really, at all the participants but particularly the panelists. Does anybody really think, in terms of deterrence, that the potential of a 20-month jail sentence is going to have any material impact, deterrent impact, on someone greater than the potential of a 12- or 15-month sentence, particularly when you consider that the recent studies have shown that even the death penalty doesn't seem to be acting as a deterrent? There is a greater incidence of murders in death penalty states than in non-death penalty states.

I mean, why are we considering ratcheting up guidelines by six and 12 months, in terms of a potential deterrent increase? Does anybody really believe that is going to change a bank robber's mind or that is going to change a fraudster, a person who goes online to steal money?

Does anybody think that anybody knows those numbers? I mean, if you are talking about changing 12 months to 240 months, maybe the word will get out, maybe somebody will think about it. But, other than that, what is the point?

PROFESSOR PARKER: I think that you can find out something about what the increment is and that sentencing guidelines are based, in part, on the notion that you can.

Now, let me then ask my colleagues, who wants to handle that one? Mark, do you like that one?

PROFESSOR COHEN: I will handle that, if I can. I will respond in a couple of ways. First of all, I think what evidence we do have is that certainty of punishment is much more important than severity of punishment, as has been talked about. We could debate whether or not every first-time offender of fraud

should go to prison. But, if you did that, if every first-time offender of fraud went to prison for six months, that would have a much more important deterrent effect than increasing current sentences by the equivalent expected amount. I think that is important to know, so I think your point is well taken on that.

The second point I had is that the reputation effect is very important in white collar criminals. Now, again, it depends on the kind of fraud. But, if we are talking about an individual who had a reasonable, legitimate income, the long-term expected future reduction in their legitimate earnings having been convicted of fraud is enormous, and it dwarfs—you know, it is hundreds of thousands of dollars—so that, if an extra six months in prison is not going to be valued at three or four hundred thousand dollars, again, it is the conviction itself that has the dramatic effect.

So I think your point is very well taken. There are some specific issues and some minor tinkering that we could debate, but I think the general point is very well taken.

PROFESSOR PARKER: Yes, I mean, from theory, there is clearly a point of diminishing returns. The question is how do you know when you are there; right, that is your point.

QUESTIONER: Since I understand the purpose of the panel is to talk about the usefulness of social science research for sentencing policy, I would like to take a big step back and ask a real fundamental question about the second presenter's presentation: namely, I wasn't sure that everybody in the room understood what the word "serious" meant.

There is a survey asking people how serious is crime? And I think there are a few steps that would have to be taken to get from an answer to that question to implementing that answer in sentencing policy. So I would like to hear from the second presenter, and from each of the other panelists. Please comment or help us understand because it goes to this bigger issue of how you do survey research in this area.

But I think we could start just by focusing on how should we be thinking about the answer to that question: what does "serious" crime mean? What did it mean to the people answering the question? How should we interpret the results? And then, how does that get translated into policy?

DR. REBOVICH: Yes. The question is on seriousness. The questions on punishment were developed out of the 23 subject matter experts we used and previous studies done by Wolfgang and Figlio.

"Seriousness" was the term used, and it was a relative term where individuals were given a choice: is this particular crime more serious than this crime? That, in fact, was the way the questions were posed as they were posed in the 1980s. We tried to replicate as much as possible the previous studies on seriousness.

Now, granted, it is up to the individual as to how he or she defines "serious." What we were trying to get at was to compare two types of crimes, which is more important, which is more serious to you?

PROFESSOR PARKER: Well, let me add to that and let me add to the questioner's point, as I think her point is, that, first of all, seriousness wasn't really defined in any way other than what the individual thought.

Let me add a second concern, very similar to contingent valuation; I mean, where you go into a shopping mall and you say, well, how much is an Alaskan seal worth? You know, people will say, "Oh, it is

worth a lot. It is worth \$10,000." But, if you go in and say, "Hey, I got an Alaskan seal out in the parking lot, how much will you give me for it," you get a different answer.

So, wouldn't this type of research be more useful if we said to people, "Who would you rather be victimized by, a robber or a contract fraudster?" And I think you might get a different answer.

Do you have any comments on that?

DR. REBOVICH: Well, I think—and I tried to preface this before giving the presentation, this was not intended to be a sentencing study, *per se*. It was a study on victimization, perceptions of seriousness and perceptions of punishment.

I think it is a first step to understanding what the general public thinks and only a first step. I think, for the Sentencing Commission, what would be of greater value would be a study of perceptions of actual sentences, where the general public is given vignettes and also sentencing penalties similar to the study that was done, I believe it was done about four years ago, by the U.S. Sentencing Commission. These are the types of studies, I think, that can really contribute to the development of sentencing guidelines, more so than a general study on white collar crime.

We tried to cover a lot of bases, frankly. Most of the questions were on victimization.

PROFESSOR NAGIN: Just a brief point on this. I guess I understand the questioner's point. I understand her concerns about the use of this term "seriousness," and I suppose if I were constructing this survey, I wouldn't use that term.

That said, I think it is, though, important to keep in mind that for many crimes the harm that is done is not the value of the property that is taken, but the symbolism that it has for the vulnerable. It makes us feel vulnerable, both in terms of our life and property. And I think many people feel that, for them, that describes their sense of the seriousness of the act.

So that, when a teller embezzles \$100 from a bank, it is not so much that we are concerned about the \$100 that he or she took, but the sense of insecurity it leaves us with about how safe our property is in an institution that we would otherwise like to trust.

And I think that, to some extent, these kinds of surveys are trying to get at that very important intangible because I think that is the most serious consequence of crime.

QUESTIONER: My question is for Professor Cohen. You talked about the reputational harm that goes into the calculus of committing crimes, and tomorrow we are focusing on a lot of new technology offenses. Has there been any attempt to focus on the reputational gain that goes into committing a crime?

At least in the cybercrime world where I work, there is a significant reputational gain to be able to say you committed a crime and you weren't caught. And there is even a reputational gain to say you committed a crime and you were caught. So, has that been factored into your analysis at all or is there going to be work in that area?

PROFESSOR COHEN: You raise a fascinating question. I think the answer is, no, it hasn't been thought about a lot because this is a relatively new issue.

I talked about the psychic value, the psychic benefits of crime, and I think that is partly the way to think about it; that is, these individuals are not monetarily gaining from the crime, they are gaining some psychic value.

Now you have added a new twist which is the concern that it is no longer a social stigma to have been convicted of a crime; in fact, there is a benefit from doing that. And that is troubling. I don't quite know what to do about that, except I guess the obvious response is then don't convict them; incapacitate them and don't ever let them out.

But that is a tough one to deal with, I think. It is one, I think, we are going to have to deal with more and more.

QUESTIONER: If we are interested in what is enough sanction to create deterrence, should we question the public or those who we are trying to deter? Is there anything either social science or the Commission can do about studying offenders to determine what deters them?

PROFESSOR NAGIN: Let me, as well as I can, respond to that question. I would like to, I think, respond to it in the context of the comment about does it matter whether it is 12 months or 18 months and the prior comment about some people valuing the reputational gain from getting away with a crime rather than feeling stigmatized by it.

I think that all these questions pick up on an important point that there are individual differences. Not everybody places the same value on their reputation and not all people place the same value on 12 months versus 18 months in prison.

While, for the reasons that I articulated earlier, I am quite sympathetic to the argument that it probably doesn't make a whole lot of difference about whether a sentence is 12 months versus 24 months. On the margin, it may make a difference for some people, for a small group of people. That group of people is difficult to identify but might be very important because these are precisely the people who are on the margin of offending and that is a hard group to put your hand around.

On one hand, the people who are before the judges in this room are people for whom deterrence has plainly failed. I mean, that is why they are there. And then, on the other hand, Mark has made the point that, in principle, all of us are in some sense potential offenders, but many of us don't commit offenses because we perceive the costs as being too great.

But, really, policy is somehow directed at a group of people who are invisible, invisible in the sense that we can't go out and poll them specifically, people who are on the margin of offending. So that, while I am personally sympathetic, for example, to the argument that you advance, I think you have to legitimately acknowledge the counter-argument of somebody who says it would matter. I think that is a credible argument that can't be dismissed.

PROFESSOR PARKER: Well, we have run out of time, so let me thank all for your participation.

VICE CHAIR STEER: I want to thank you, Jeff, and all the members of the panel for a most fascinating discussion.

