## RESEARCH SPOTLIGHT

## **Are Criminals Rational?**

BY AARON STEELMAN

conomists use models to explain a wide variety of phenomena. Most of the models assume that people are rational — that they act purposively and respond to incentives. This assumption applies to people in all walks of life, from investors to politicians to criminals.

David Friedman, an economist at Santa Clara University and author of *Hidden Order: The Economics of Everyday Life*, nicely summarizes the way economists look at crime: "A burglar burgles for the same reason I teach economics—because he finds it a more attractive profession than any other. The obvious conclusion is that the way to reduce burglary—whether as a legislator or a homeowner—is by raising the costs of the burglar's profession or reducing its benefits."

One might say, "That's ridiculous. I don't break into

"And a Hockey Game Broke Out:

Crime and Punishment in the NHL" by

Jac C. Heckelman and Andrew J. Yates.

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people's homes because it's morally wrong, not because I have decided that it isn't worth the risk." This is probably true for most people—and it may be the most significant reason why we don't have more crime than we do. But that doesn't necessarily mean that such law-abiding citizens haven't done a benefit-cost analysis of their own.

"Crime also has asso-

ciated with it psychic costs. Many people do not commit crimes because they believe doing so is ethically wrong. And the feelings we have about what is right and wrong are important," writes University of Chicago economist Gary Becker. In other words, guilt is a real cost. You may not have to answer to the law for committing burglary, but you will have to answer to your conscience.

Still, we need legal sanctions to protect us from those less scrupulous: criminals and would-be criminals. What those sanctions should be and how they should be enforced are matters of opinion. But, generally, economists would say that if you want less crime, you should stiffen penalties and expend more resources on enforcement—though the exact mix is a matter of debate, since empirical studies differ over the relative effectiveness of these two forms of deterrence. You should also keep in mind that the optimal amount of crime is not zero. Eradicating all crime would be extremely costly and probably would require draconian measures that most people would reject as unworthy of a free society.

If criminals are indeed rational, where is the evidence? Economists Jac C. Heckelman of Wake Forest University and Andrew J. Yates of the University of Richmond use a novel data set to test this hypothesis: penalty statistics from the National Hockey League (NHL).

During the 1999-2000 season, the NHL experimented with a new system: Some games had two referees, others just one. There were more penalties called during two-referee games, meaning that players were less likely to get away with breaking the rules than they were in a one-referee game. But what about deterrence? Did the additional referee prevent players from committing penalties that they otherwise would because they knew their chance of being caught was greater? It doesn't seem so. "The number of referees is not statisti-

cally significant in any of the regressions, suggesting that players do not commit fewer infractions in response to the increased number of referees."

Does this give us reason to doubt the rational criminal hypothesis? Perhaps. But there are at least three reasons why it might not.

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First, the statistical techniques used to measure deterrence, or

the lack thereof, are imperfect and may not capture the full effects of an additional referee. Second, it's not clear that all teams would respond to an additional referee in the same way. For instance, teams that play relatively well in "short-handed" situations — penalty periods in which they have fewer players on the ice — might not be as concerned about being called for penalties because the costs to them are not as high. (Conversely, the additional referee should have a greater deterrent effect for teams that play relatively poorly shorthanded.) Third, and most important, hockey is a game of reaction. Decisions have to be made on the fly, with little time for serious contemplation. So the conditions are very different than when one is planning a burglary.

"Because many sports infractions take place during the heat of competition and may be accidental or retaliatory in nature rather than planned in advance, the act of committing a sports infraction may be more analogous to a crime of passion than a calculated benefit-cost analysis performed by a rational criminal," Heckelman and Yates conclude. **RF**