

# Looking at Prediction from an Economics Perspective: A Response to Harcourt's *Against Prediction*

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HARCOURT, BERNARD E. 2007. *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age*. Chicago: University of Chicago Press. Pp. viii + 336. \$25.00 paper.

*This article discusses Bernard E. Harcourt's Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age (2007). The book opposes the use of probabilistic methods, such as profiling, on efficiency, equity, and jurisprudence grounds. By contrast I argue that profiling is always efficient, that there is no theoretical flaw in reliance on actuarial methods, as long as they are implemented properly. I also show that the equity-based criticism of reliance on actuarial methods (Harcourt's ratchet effect argument) is based on two questionable assumptions: that profiling is perfectly efficient (as zero deterrence is assumed), and that the police are making an obvious logical mistake, by gradually increasing the extent to which they target the group with the higher offending rate instead of targeting only them in the first place.*

## INTRODUCTION

In *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age* (2007), Bernard E. Harcourt argues against reliance on actuarial methods (to which he also refers as prediction, profiling, or probabilistic methods)

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in criminal law, and calls on us to “celebrate the virtues of randomizations” (5). He suggests, for example, that “law enforcement should randomly sample IRS tax filings for audits or use numerical sequencing for consensual car searches on the highway” (5). Harcourt makes three arguments, summarized in the book’s prologue, to support his case “against prediction” (2–3). The first argument is based on efficiency grounds, the second on equity, and the third on jurisprudence (2–3).

According to his first, surprising, argument, profiling is potentially inefficient, as it may increase rather than decrease crime. For example, he argues that racial profiling on the highways probably increases the overall amount of criminal activity in society, since “the likely increase in drug and other offending among whites, will probably exceed the potential reduction in drug offending among minorities” (4).

Under his equity argument, “reliance on probabilistic methods produces a distortion in the carceral population . . . the profiled population becomes an even larger proportion of the carceral population—larger in relation to its representation among actual offenders—than the non-profiled population” (3). Harcourt envisions a process he calls a “ratchet effect” (3), by which, over time, the police keep increasing the extent of profiling based on their increasing success rates. Interestingly, Harcourt argues that profiling is bound to increase the relative representation of *any* targeted population in the incarcerated population: “we would see the same effect if the assumptions were wrong and the profiled group did not in fact offend more” (156). If, for example, the IRS decided to target drywall contractors, then, according to Harcourt, a “ratchet effect” would take place, and their relative representation in the incarcerated population would grow over time and become much higher than their initial representation in the tax evaders’ population (147). According to this argument, the relatively high representation of blacks in the incarcerated population in the United States is, at least partly, the outcome of racial profiling.

Under Harcourt’s third argument, reliance on profiling may distort our conception of just punishment—“our shared ideal that similarly situated offenders should be treated similarly, regardless of skin color” (4).

In the following short critique, I challenge the first two arguments. I argue that profiling is (nearly) always efficient in theory, and that Harcourt’s criticism may be justified only if interpreted as a positive account that criticizes the current, misguided use of profiling. Hence, my first criticism is that Harcourt’s claim is not a normative one. Normatively speaking, that is, from the point of view of a policy maker that contemplates alternative crime reducing policies, profiling should be considered efficient. It is only the misguided use of profiling that makes it inefficient. Clearly, if an efficient policy tool is being used in an inefficient manner, the argument against using that policy tool should focus on how to correct the way it is being used and not against its use in principle. The tool should be abandoned on efficiency grounds,

but only if implementing it properly is too costly. The book argues, or at least gives the impression, that there is a theoretical flaw in reliance on actuarial methods. It therefore does not discuss what it would take to properly implement the policy. I argue that reliance on actuarial methods, such as in the case of racial profiling, may raise equity concerns, but when it comes to efficiency, these methods, if properly implemented, are accurate and important policy tools that enhance efficiency.

With respect to Harcourt's second argument, I argue that the ratchet effect depends on two assumptions. First, the ratchet effect will take place only when there is no (or almost no) deterrence, whereas Harcourt's first argument is based on a framework of deterrence. Hence, the two arguments "against prediction" are mutually exclusive, assuming no deterrence means that profiling is perfectly efficient. Harcourt acknowledges this by saying that "not everyone believes in rationality. . . . What if the members of the higher-offending group continue to offend at higher rates despite the actuarial measures?" (146). But my critique is important because some readers, especially those that do not read the book carefully or read mostly the prologue, may get the impression that the first two arguments can apply simultaneously.

The ratchet effect is a process. In order for a ratchet effect to take place, the police need to be making a basic logical (mathematical) mistake. If indeed deterrence does not exist and incapacitation is the only means to minimize crime, police should search *only* targeted group members, and do so immediately. Harcourt assumes that the police decide which group to target, and to what extent, by looking at the composition of the incarcerated population, and slightly increasing the extent of profiling every year as the percentage of the targeted group members in the incarcerated population increases, supposedly showing their increasing tendency to commit crimes. (147, 149–56). This is inefficient because searching only the targeted populations right from the beginning would reduce crime.

If this is indeed what is happening in reality, there must be some political or other explanation as to why the police act so inefficiently. Harcourt provides no such explanation because he does not acknowledge the police's mistake. He posits that they are acting efficiently (154), when clearly they are not.

Finally, the book, as stated in the prologue, challenges the common-sense view that reliance on actuarial methods is good. I think that the common-sense view would justify the use of profiling, if it were welfare enhancing. The first two arguments—efficiency and the ratchet effect—take this line, arguing that profiling may be welfare reducing. Harcourt's third argument, that reliance on profiling may distort our conception of just punishment, belongs to a different literature. Assuming that the only profiling we are willing to consider is efficient profiling, and further assuming that we take all equity considerations into account, we reach an optimal policy that balances efficiency and equity to maximize social welfare. Such a policy would minimize

crime at the lowest cost to society—taking into account, and putting whatever weight society finds to be warranted, on the costs incurred by members of the targeted population, such as humiliation and feelings of discrimination. If such an optimal policy calls for the use of profiling, why should “our conception of just punishment” (3) matter? And if it matters, why not incorporate this as well into our concept of “equity”? Answers to these questions can only come from a school of thought that is separate, and plausibly contradictory, from the school on which the first two arguments are based.

My article proceeds as follows: Part A provides an overview that distinguishes between deterrence and incapacitation, clarifying that Harcourt’s efficiency argument is based on a deterrence framework, whereas his ratchet effect argument is based on an incapacitation framework. Part B analyzes Harcourt’s argument that profiling may be inefficient, arguing that profiling would nearly always be efficient. Part C analyzes the ratchet effect argument, explaining why such a process could not take place, unless there are other reasons not mentioned in the book, that limit police’s ability to minimize crime most efficiently, but allows them to reach that goal in a gradual way, over the years.

## A. THE FIRST TWO ARGUMENTS ARE MUTUALLY EXCLUSIVE

The ultimate policy goal is crime minimization. Crime may be reduced either by deterring potential criminals or by incapacitating them. Part A will show that the argument that profiling is likely to be inefficient is based on an assumption that crime minimization is to be achieved by deterrence, whereas the ratchet effect argument is based on an assumption of no (or almost no) deterrence.

### The Efficiency Argument

Harcourt argues that profiling may be inefficient because:

if the police shift their allocation of resources away from white motorists and toward minority motorists, the offending rate among minority motorists may well decrease, but simultaneously the offending rate among white motorists may increase. The problem is, of course, that there are more white motorists. Depending on the relationship between the comparative elasticity of offending to policing as between white and minority motorists and the comparative offending rates, the total increase in white motorist offending in absolute numbers may outweigh the total decrease in absolute numbers of minority offending. (124–25)

Hence, Harcourt's argument is based on the assumption that people react to the profiling policy by changing the level of their criminal activity.

### The Ratchet Effect Argument

Harcourt assumes that targeting any population would result in overrepresentation of members of that population group in the incarcerated population. The representation of targeted group members in the incarcerated population becomes much higher than their relative share in criminal activity.

For this to happen, one has to assume—as Harcourt does in that part of the book—zero or close to zero elasticity. Profiling a specific population group's members does not deter them from committing crimes, or at least does so to a much lesser extent than it would deter others. Otherwise, targeting a specific group would reduce the criminal activity of that group's members while increasing the criminal activity of all others, and the phenomenon of overrepresentation of targeted group members in the prison would not take place.

The fishing analogy that Harcourt draws is a perfect illustration of his assumption of zero elasticity. Bass fish cannot change their behavior and move to the Atlantic Ocean. They have to stay in the Mediterranean. Similarly, he assumes, people (e.g., motorists)—or at least people in the targeted group—do not reduce their criminal activity when faced with higher probability of being searched.

### Summary

To sum up, profiling cannot, at the same time, do both: it cannot be inefficient *and* create a ratchet effect. In fact, the latter argument is based on an assumption that profiling is highly efficient: it targets the group with the higher offending rate without having any effect on anyone's level of criminal activity, thus increasing the number of successful searches and thereby minimizing crime.

## B. ASSUMING DETERRENCE: IS PROFILING EFFICIENT?

Harcourt assumes, for the sake of his first argument (detailed in Chapter 4) that people change their criminal activity levels in response to law enforcement's profiling policy. Based on this assumption of deterrence, he argues that profiling may increase the crime level instead of reducing it. I will argue here that profiling, if properly implemented, cannot increase crime level and will nearly always reduce it.

The police have limited resources. This is always true, as we cannot search everyone with maximum intensity, however defined. Assuming (with Harcourt) that crime minimization is achieved by deterrence of potential criminals, society would like to utilize police resources in a way that will maximize their deterrence effect. This would be achieved if police were to allocate their resources so as first to target those individuals who are (nearly) equally likely to commit a crime or to abide by the law. I call these “marginal offenders” (Blumkin and Margalioth 2006, 323). The police should then continue, to the extent of the resources available, to target more inframarginal offenders in decreasing order; that is, individuals who are less and less easily deterred.

As we cannot directly observe the marginal offenders in the general population, profiling may be useful for targeting groups that can be identified by visible traits, such as race, whose members are overrepresented in the marginal offenders group relative to their share in the general population. This would enhance deterrence—that is, reduce crime—by focusing police enforcement efforts on individuals who are more likely to be marginal offenders. This would provide optimal deterrence; that is, minimize crime subject to resource constraints.

To put it more explicitly, the common assumption that certain minority group members in the United States have a higher offending rate, or, in other words, are more prone to engage in criminal activity, does not necessarily imply that those minority group members are overrepresented in the group of marginal offenders relative to their share in the general population. In fact, if we assume, as Harcourt does, that they have lower elasticity compared to whites, then this does not mean that racial profiling is not efficient. It means that using racial profiling to target *whites* may minimize total criminal activity (318).

Therefore, racial profiling will *always* be efficient, barring knife-edge cases where the racial composition of the group of marginal offenders exactly mirrors the racial distribution in society.

Moreover, I would like to draw attention to the fact that one should not necessarily assume that if African Americans have a higher (average) tendency to commit crimes, they also have lower elasticity. This is an open empirical question. The whole idea of conducting a marginal analysis is that there may be a difference between the average (i.e., inframarginal) tendency to commit a crime and the marginal one.

One last point of clarification: the efficiency of racial profiling does not depend on the relative size of the population group being targeted. In Chapter 4, Harcourt shows that racial profiling is especially unlikely to be efficient when the targeted population is a minority group. If it is correct that certain minorities in the United States tend to commit more crimes than whites do under a random search rule, Harcourt argues that targeting them may actually *increase* rather than decrease the overall number of crimes.

He explains this counterintuitive phenomenon by arguing that transferring police resources, from searching whites to searching minorities, will not only increase the deterrence of the minorities but will also reduce the deterrence of whites. And since there are many more whites than minority group members, we will end up having more rather than less crime.

The problem with this argument is that it does not account for the fact that searching one more, or one less, individual has a relatively greater effect on minority group members than on majority group members because one minority individual (being searched) represents a higher percentage of the minority population. The two effects work in opposite directions and exactly offset each other. Therefore, group size does not matter.

For illustrative purposes, let us assume a population of 1,000 people, 5 percent (50 people) in Group A and 95 percent (950 people) in Group B. Assume we have limited police resources (and this is always true—we cannot search everyone with maximum intensity) that allow us to conduct 100 searches (or search everyone, but search only 100 with higher scrutiny). Under a random search rule, that is, no profiling, we will search 10 percent of each group—5 from Group A and 95 from Group B.

If we believe we should search more individuals from Group A, that is, engage in profiling, and search, say, fifty people from each group, we will increase the likelihood of an individual from Group A being searched from 10 percent to 100 percent, but reduce the likelihood an individual from Group B of being searched from 10 percent to 5.2 percent. Increasing the probability of being searched from 10 percent to certainty has a greater positive deterrence effect than the negative deterrence effect of reducing it from 10 percent to 5 percent.<sup>1</sup>

What drives the result in the mathematical expression and in the illustration offered in Harcourt's Chapter 4 (125–27, 129–32) is not the fact that the targeted group is a minority, that is, a smaller group than the non-targeted one, but the assumption that minority group members are less responsive to policing than majority group members. In that case, targeting the minority population is indeed inefficient. If the majority group members are more responsive to policing, they are the ones that should have been targeted. It is not the combination of differences in groups' sizes *and* differences in elasticity that made profiling inefficient, as argued by Harcourt (126, 131, and Appendix B), but the difference in elasticities alone. The difference in group size is irrelevant.

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1. Note that this example is oversimplified. It assumes that elasticity is the same for both groups in the relevant margin, and it conflates deterrence with incapacitation. It is, however, useful as an illustration that deterrence depends on the ratio of searches to group size. The smaller the group, the greater the deterrence effect of one additional search on the group members.

### C. ASSUMING ZERO DETERRENCE: THE RATCHET EFFECT

Harcourt assumes that targeting any population would result in overrepresentation of members of that population in the incarcerated population. As noted above, this is based on an assumption of zero, or close to zero, deterrence.

I agree with Harcourt that if we assume that the only way to minimize crime is incapacitation, then even a miniscule difference between population groups in the average tendency to commit crime would lead, under an efficient profiling policy, to a huge overrepresentation of the targeted population group members in the incarcerated population. This raises significant equity concerns. Hence, employing profiling (which is always efficient) is a matter of finding the optimal efficiency-equity tradeoff, which must be determined on a per case basis. My criticism is limited to the following two arguments made by Harcourt.

The first argument is that targeting *any* group would lead to its disproportionate representation in the incarcerated population. Harcourt, for example, posits that “we would see the same effect if the assumptions were wrong and the profiled group did not in fact offend more” (156).

Harcourt’s argument that a ratchet effect will always take place, no matter what population group is being targeted, is not convincing because it takes the zero deterrence assumption too far. If, for example, lawyers were targeted, this would not create a ratchet effect. Because lawyers are likely to react by committing fewer crimes than nonlawyers, the next time the police adjust their profiling policy (which is the process that Harcourt assumes to take place), they will cease targeting lawyers. Thus, the argument that profiling is a self-fulfilling prophecy crucially depends on the assumption of zero elasticity, an assumption that is unrealistic in most cases.

My second critique has to do with the concept of a ratchet effect. A ratchet effect is defined by Harcourt to be a “social phenomenon that occurs in multiple stages” (147). According to his account, “the police distribute their stops and searches along the lines of the latest carceral distribution” (153). And as he notes: “if the police continue to use prior carceral data to update their resource allocation, chasing the new offending distributions, the disparity will simply continue to increase” (154). However, there is no reason to think that the police would choose their profiling policy in this way because doing so would be making an obvious mistake.

Let us use the following example to illustrate this. Assume you are a police officer. You can stop one hundred cars, of the thousands that pass by, and search them for drugs. Assume that you know that, all else being equal, there is a higher probability that drivers in Group A will carry drugs. Even if the difference in probabilities is small, say fifty-one to forty-nine, then as long as we assume no deterrence effect, you are better off stopping *only* drivers from Group A.

To see this, imagine starting from a random search rule, and consider searching one more targeted group member at the expense of searching one less nontargeted group member. As you will quickly realize, each time you consider whom to search, you will be better off searching a targeted group member. The end result is that all ten searches will be of targeted group members.

The ratchet effect is based on the assumption that the police officer would not go through this thought process. Instead, the police officer would search fifty-one cars driven by Group A drivers and forty-nine cars driven by Group B drivers. In the following year, after studying the results, the police officer will search fifty-two cars driven by Group A drivers and forty-eight cars driven by Group B drivers, and so on, *gradually* increasing search efficiency over the years.

To sum up my second critique, the ratchet effect is based on an assumption that the police make a mistake. Because if we assume with Harcourt that there is no deterrence, they should target only Group A drivers *in the first place*.

## CONCLUSION

Harcourt does a major service by bringing the important topic of profiling to the forefront of people's attention. I totally agree with him that it is possible that the use of racial profiling in the United States increases crime. But this does not mean that, as Harcourt argues, profiling is inherently inefficient. I think that, in theory, profiling is *always* efficient, but it is possible that in reality it is being implemented incorrectly. The relevant statistics, in the context of racial profiling, are the racial composition of the marginal offenders group. For example, it is possible that whites should be targeted even if their average propensity to commit crimes is lower than that of a particular group.

I agree with Harcourt that it is possible that the current use of racial profiling is contributing to blacks being overrepresented in the U.S. incarcerated population. But this conclusion requires strong assumptions regarding their relative inelasticity. I think that if indeed the police have been increasing the extent of racial profiling over the years, this was not due to the process that Harcourt describes, but rather for other reasons, such as political constraints. The assumption that the police have been making such an obvious mistake for years strikes me as implausible, or at least as calling for empirical support.

Lastly, even if racial profiling is efficient, in the sense that it reduces crime, it nevertheless may be welfare reducing due to the grave equity costs it entails when the targeted group is a group that suffered from past (or present) discrimination on other grounds.

REFERENCES

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