

Mandatory Minimum Drug Sentences: Throwing Away the Key or the Taxpayers' Money

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Summary**

In recent decades, the American public has responded favorably to political leaders and candidates who have espoused longer sentences for the possession and sale of drugs. Among the more popular sentencing extensions are "mandatory minimums," which require that a judge impose a sentence of at least a specified length if certain criteria are met. For example, federal law requires that a person convicted of possessing half a kilogram or more of cocaine powder be sentenced to at least five years in prison.

Mandatory minimums have enjoyed strong bipartisan support from elected representatives and presidential candidates. To these proponents, the certainty and severity of mandatory minimums make them better able to achieve incarceration's goals than are more flexible sentencing policies. Those goals include punishing the convicted and keeping them from committing more crimes for some period of time, as well as deterring others not in prison from committing similar crimes. Critics, however, worry that mandatory minimums foreclose discretionary judgment where it may most be needed, and they fear mandatory minimums result in instances of unjust punishment.

These are all important considerations, but mandatory minimums associated with drug crimes may also be viewed as a means of achieving the nation's drug control objectives. As such, how do they compare with other means? Do they contribute to the central objective--decreasing the nation's drug consumption and related consequences--at a cost that compares favorably with other approaches? In this report, we estimate how successful mandatory minimum sentences are, relative to other control strategies, at reducing drug consumption, drug-related crime, and the total flow of revenue through the cocaine market. The latter is a worthy objective in itself--America would be better off if money spent on drugs were spent on almost anything else--and it is also associated with drug-related crime.

We focus on cocaine, which many view as the most problematic drug in America today. We take two approaches to mathematically modeling the market for cocaine and arrive at the same basic conclusion: *Mandatory minimum sentences are not justifiable on the basis of cost-effectiveness at reducing cocaine consumption, cocaine expenditures, or drug-related crime.* Mandatory minimums reduce cocaine consumption less per million taxpayer dollars spent than does spending the same amount on enforcement under the previous sentencing regime. And either type of incarceration approach reduces drug consumption *less* than does putting heavy users through treatment programs, per million dollars spent. Similar results are obtained if the objective is to reduce spending on cocaine or cocaine-related crime. A principal reason for these findings is the high cost of incarceration. (Note these findings are limited to relative cost-effectiveness. As mentioned above, mandatory minimums have been justified--and criticized--on other grounds.)

Reducing Consumption: More Enforcement Against Typical Dealers

First, we estimate the cost-effectiveness of additional expenditures on enforcement against the average drug offender apprehended in the United States (whether that apprehension is by federal, state, or local authorities). In this approach, we track the flows of users among light-use, heavy-use, and no-use categories, and we analyze how overall cocaine market demand and supply respond to price. That is, if more money is spent on enforcement and incarceration, costs to dealers are increased, and so is the street price of cocaine; higher prices mean lower consumption. If more money is spent on treatment, consumption is reduced for most clients while they are in the program, and, for some, after they get out. We estimate the changes in total cocaine consumption over time for an additional million dollars invested in the alternatives considered. These changes, discounted to present value, are shown in Figure S.1.

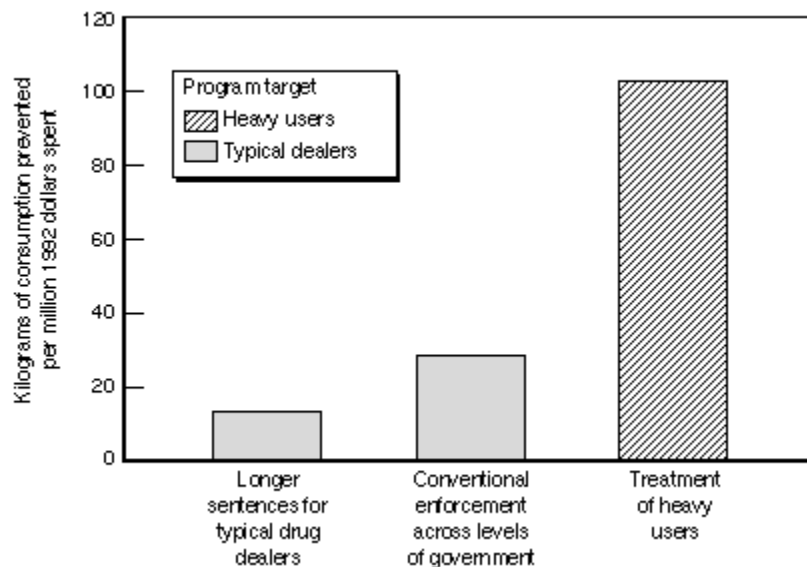


Figure S.1--Benefits of Alternative Cocaine Control Strategies

The first two bars in the figure show the results of spending a million 1992 dollars [\[1\]](#) on additional enforcement by agencies at various levels of government against a representative sample of drug dealers. As shown by the first bar, if that money were used to extend to federal mandatory minimum lengths the sentences of dealers who would have been arrested anyway, U.S. cocaine consumption would be reduced by almost 13 kilograms. If, however, the money were used to arrest, confiscate the assets of, prosecute, and incarcerate *more* dealers (for prison terms of conventional length), cocaine consumption would be reduced by over 27 kilograms. Spending the million dollars treating heavy users would reduce cocaine consumption by a little over 100 kilograms.

Note we are estimating the impact of an *additional* million dollars. The results can be extrapolated to multiples thereof, but not to extremely large changes in spending. They certainly do not suggest that the most cost-effective approach is to shift all drug control resources from enforcement to treatment. Note also that we refer in the figure to "longer sentences" rather than to "mandatory minimums." Data on drug dealers arrested at state and local levels are insufficient to isolate those associated with drug amounts sufficient to

trigger mandatory minimums. Instead, we analyze a hypothetical policy of applying the mandatory minimum sanction--longer sentences--to all convicted dealers.

The values shown are dependent, of course, on various assumptions we make. If the assumptions are changed, the values change. But for changes in assumptions over reasonable ranges, do the values change enough to make longer sentences more cost-effective than either of the other alternatives? We find they do not.

As an example, the values shown are dependent on the time horizon in which one is interested. The reason for this is as follows. When faced with extended sentences, drug dealers will want more income today to compensate them for the risk of increased prison time. As a result, cocaine prices will go up and consumption will go down. Benefits from reduced consumption will thus accrue immediately, while the costs of the extended prison terms will stretch out into the future. In contrast, if more users are treated this year, the costs accrue immediately, while the benefits in terms of reduced consumption by those who stay off cocaine stretch out into the future. Figure S.1 takes account of these different allocations of costs and benefits across future years in that future costs and benefits are discounted annually, out to 15 years--a time horizon typical in analyzing public policy. Beyond that point, any further costs and benefits count as zero. What if that terminal point were moved closer? What if one had not just a discounted interest in anything beyond the immediate future, but no interest? If the time horizon is set early enough, the effect is to "zero out" both the future stream of costs from mandatory minimums and the future benefits from treatment. Figure S.2 shows the relative cost-effectiveness of the three programs analyzed when time horizons are set at various points, from 1 to 15 years. At 15 years, the lines match the heights of the bars in Figure S.1. The time horizon must be reduced to only about three years before mandatory minimums look preferable to additional conventional enforcement, and close to two years before they look preferable to treatment. Hence, mandatory minimums appear cost-effective only to the highly myopic.

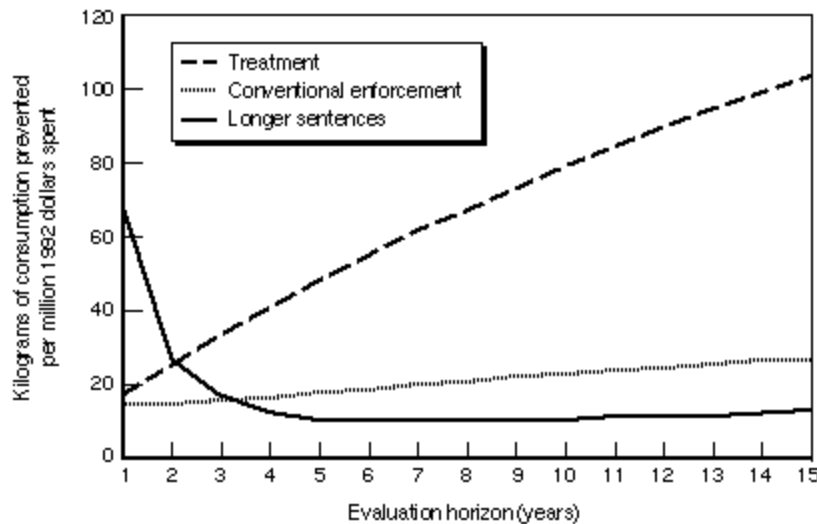


Figure S.2--Benefits of Alternative Cocaine Control Strategies, for Different Time Horizons

We also analyzed the implications of changing other assumptions. For example, dealers would want to be compensated for the increased risk of imprisonment they would incur in the event of increased enforcement. But the typical person would demand less compensation for being imprisoned five years from now than next year, and we assume drug dealers are even more "present-oriented." What would happen, though, if dealers wanted more risk compensation, and if they discounted future costs less heavily than we assume? Longer sentences would seem more burdensome than we assume, dealers would demand a higher premium for handling cocaine, the price of cocaine would rise even more with increased enforcement spending, and consumption would fall even more. Consumption would also fall more than we expected if users were more responsive to price increases, i.e., if demand were more "elastic." We attempted to swing the balance toward extended incarceration by simultaneously increasing risk compensation by one-third, cutting the dealer discount rate by two-thirds, and increasing the elasticity of demand by 50 percent. The general profile of our results did indeed change. The cost-effectiveness of longer sentences tripled, while that of additional conventional enforcement doubled, and that of treatment rose by about a quarter. However, longer sentences remained the least cost-effective alternative, and treatment the most.

Reducing Consumption: More Enforcement Against Higher-Level Dealers

The first two bars in Figure S.1 represent enforcement approaches applied to a representative sample of all drug dealers arrested. Perhaps mandatory minimum sentences would be more cost-effective if they were restricted to somewhat higher-level dealers. By "higher-level dealers," we mean those who operate at higher levels of the drug distribution system, who make more money and thus have more to lose from more intensive enforcement. To approximate such a restriction, we limit the set of offenders analyzed to those who are prosecuted at the federal level and possess enough drugs to trigger a federal mandatory minimum sentence.

The results are shown in Figure S.3. There, the darkest bars represent the reduction in cocaine consumption from spending an additional million dollars in enforcement against the federal-level offenders just defined. The light bars are those from Figure S.1. Reading from the left, each light/dark pair of bars represents the same kind of program. The distribution of long sentences is the same for the first two bars, and the kinds of additional enforcement actions funded (arrest, seizure, prosecution, and incarceration for conventional sentence lengths) are the same for the next two bars.

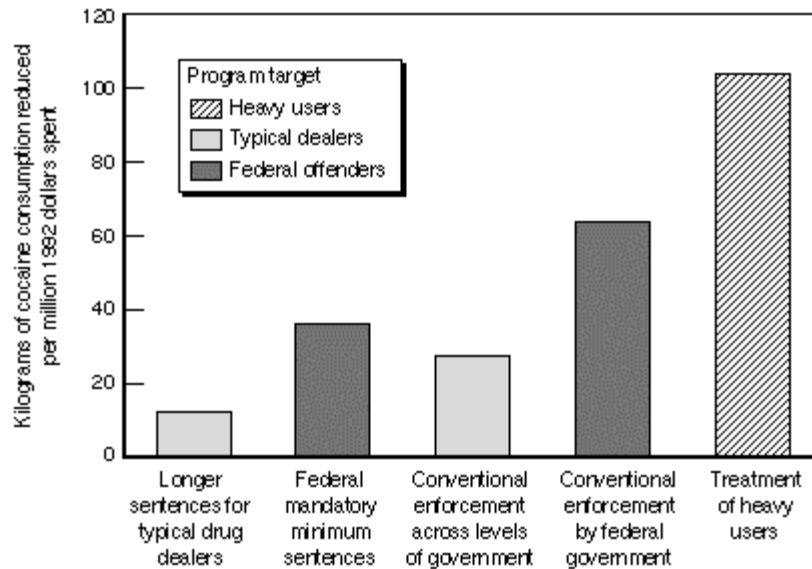


Figure S.3--Benefits of Alternative Cocaine Control Strategies

As shown by the darker bars in Figure S.3, the consumption change achieved per million dollars spent on mandatory minimums is closer proportionately to that achieved through the other alternatives. While longer sentences for a representative set of all dealers have 46 percent of the effect of additional conventional enforcement against such dealers, federal mandatory minimums have 57 percent of the effect of additional conventional enforcement at the federal level. And, obviously, federal mandatory minimums do better relative to treating heavy users than do longer sentences for all dealers. To the higher-level dealers considered in this analysis, time in prison carries a greater cost, and amounts of cocaine and other assets seized through increased enforcement are also larger. Thus, risk compensation must be higher, and the higher resulting cocaine prices drive down consumption more. Nonetheless, at any given level of government, or against any given type of dealer, mandatory minimums are less cost-effective than conventional enforcement.

Why is that the case? Drug enforcement comprises two types of components, each of which is costly for taxpayers and each of which contributes to keeping drugs expensive: (1) arrest and conviction, which impose costs on suppliers principally through the seizure of drugs and other assets, and (2) incarceration of convicted defendants. Amid complaints about the "revolving door" of justice, some overlook that arrest and conviction impose costs on dealers. In fact, on average, arrest and conviction impose greater costs on dealers per taxpayer dollar spent than does incarcerating dealers. Since mandatory minimums alter the mix of these two components of enforcement in favor of incarceration, they dilute or reduce the efficiency of enforcement relative to simply expanding both components proportionately.

As with the light bars, the precise heights of the dark bars in Figure S.3 depend on various assumptions. Again, these include assumptions about such uncertain values as the compensation dealers would demand for increased imprisonment risk, the rate at which dealers discount future costs, the responsiveness of buyers to shifts in cocaine prices,

what it costs to arrest a dealer, and the value of drugs and other assets seized. To test the sensitivity of our results to these assumptions, we vary the assumed values of factors such as these one at a time over substantial ranges. In all cases, conventional enforcement is more cost-effective than mandatory minimums, and treatment is more than twice as cost-effective as mandatory minimums. Even when assumed values are varied two at a time, large departures from assumed values are required for mandatory minimums to be the most cost-effective approach. In Figure S.4, for example, the government's cost of arresting a dealer and the compensation a dealer wants for risking a year of imprisonment are varied simultaneously. The star shows the values assumed for the results in Figure S.3. As Figure S.4 shows, mandatory minimums would be the most cost-effective alternative only if arrest costs were to exceed \$30,000 and a dealer were to value his time at some \$250,000 or more per year. Such dollar values would typify only those dealers at a fairly high level in the cocaine trade and who are unusually difficult to arrest.^[2] For dealers costing less to arrest, cocaine control dollars would be better spent on further conventional enforcement. For dealers demanding less risk compensation, the money would be better spent treating heavy users than on enforcement against such dealers.

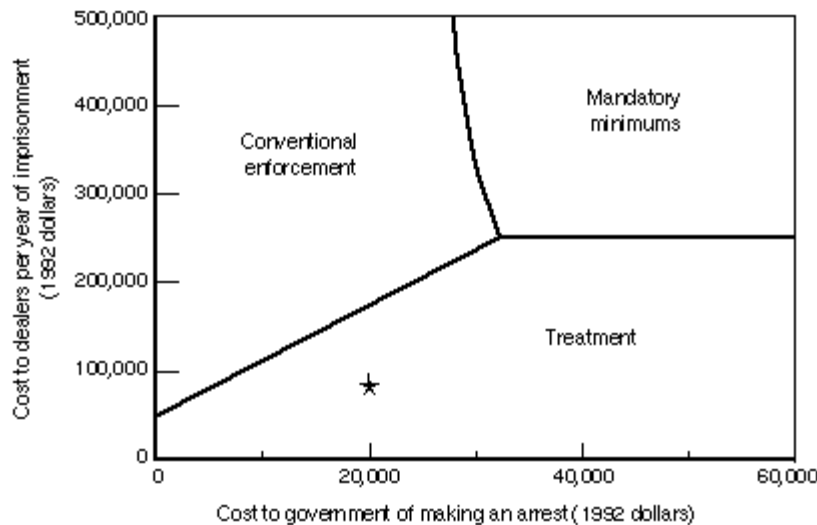


Figure S.4--Which Program Is More Cost-Effective at Reducing Cocaine Consumption Under Different Assumptions?

Long sentences could thus be a smart strategy if selectively applied. Unfortunately, because mandatory minimum sentences are triggered by quantity possessed and because those thresholds are low, they are not selectively applied to high-level dealers. (Indeed, anecdotal evidence suggests that high-level dealers can sometimes avoid mandatory minimums more easily than their subordinates. High-level dealers have more knowledge about their organization to use as bargaining chips with prosecutors. Furthermore, such dealers often do not physically possess their drugs, as is required for a mandatory minimum to take effect; they hire others to incur that risk. To the extent that this occurs, mandatory minimum sentences would be even less effective than these results suggest.)

Reducing Cocaine-Related Crime

Of course, cocaine consumption is not the only measure of interest. Many Americans are worried about the crime associated with cocaine production, distribution, and use. Using data on the causes of drug-related crime and our cocaine market analysis, we quantify the approximate crime reduction benefits of the various alternatives. We find no difference between conventional enforcement and mandatory minimums in relation to property crime; the former, however, should reduce crimes against persons by about 70 percent more than the latter. But treatment should reduce serious crimes (against persons as well as property) the most per million dollars spent--on the order of 15 times as much as the incarceration alternatives would.

Why do we get these results? Most drug-related crime is economically motivated--undertaken, e.g., to procure money to support a habit or to settle scores between rival dealers. Fewer crimes are the direct result of drug consumption--crimes committed "under the influence." However, we find very little difference between conventional enforcement and mandatory minimums in their effects on the money flowing through the market, and thus very little difference in their effects on economically motivated crime. We do find, as shown in Figure S.3, appreciable differences in consumption effects, and thus appreciable differences in effects on crimes committed under the influence. The latter are more likely than are economically motivated crimes to be crimes against persons.

Treatment, however, has an enormous advantage over enforcement in reducing the economic value of the cocaine market--larger even than that shown in Figure S.3 for reducing cocaine consumption. Why is that? When a treated offender stays off drugs, that means less money flowing into the market. But when a dealer facing the risk of a longer sentence raises his price, say one percent, to compensate, buyers will reduce the amount of cocaine they purchase. The best evidence suggests that reduction will be something on the order of one percent. Thus, the total revenue flowing through the cocaine market stays about the same, and so do the incentives for economically motivated drug-related crimes. Therefore, the effect of the enforcement alternatives is limited almost entirely to the relatively small number of crimes committed under the influence. Treatment, however, has an advantage against those crimes similar to that shown in Figure S.3 and an even greater advantage against the larger number of economically motivated crimes.

Conclusion

Long sentences for serious crimes have intuitive appeal. They respond to deeply held beliefs about punishment for evil actions, and in many cases they ensure that, by removing a criminal from the streets, further crimes that would have been committed will not be. But in the case of black-market crimes like drug dealing, a jailed supplier is often replaced by another supplier if demand remains. And not all agree whether mandatory minimums satisfy American standards of fairness and justice. Even those who believe they do must ask themselves to what extent might it be desirable to give up some punishment of the guilty to gain some further reduction in cocaine consumption--consumption that can victimize the innocent. This trade of punishment for drug use reduction must be considered because long sentences are expensive and cocaine control resources are limited. As we show, if reducing consumption or violence is the goal, more can be achieved by spending additional money arresting, prosecuting, and sentencing

dealers to standard prison terms than by spending it sentencing (fewer) dealers to longer, mandatory terms. (And that is to say nothing of what might be achieved by redirecting resources from enforcement to treatment--admittedly, a more difficult reallocation because those programs might be run by completely different agencies.) We find an exception in the case of the highest-level dealers--those who value their time most highly and are hardest to apprehend--where sentences of mandatory minimum length appear to be the most cost-effective approach. However, current mandatory minimum laws are not focused on those dealers.

[1] All cost calculations in this report are in 1992 dollars. The choice of a reference year for cost figures is arbitrary. We choose 1992 to facilitate comparison with the results of earlier analyses. To convert costs in 1992 dollars to costs in 1996 dollars (the latest year for which inflation data are available), multiply by 1.119. To convert kilograms of cocaine consumption reduced per million 1992 dollars spent to kilograms reduced per million 1996 dollars spent, divide by 1.119.

[2] Even for these dealers, it is possible that conventional enforcement would be more cost-effective than mandatory minimums. That would be the case if the range of conventional sentences could be matched to the range of offenders so that the highest-level dealers received very long sentences.