When queried about their concerns, Americans typically list crime near the top. FBI data on crime provide ample justification for that concern. Despite headlines about falling crime rates, in 1996 there was still one violent crime committed for every 160 U.S. citizens—a rate several times that in most other industrialized democracies. Yet despite the seriousness of the problem, most of the money and effort devoted to solving it are restricted to a narrow range of solutions, chief among them incarceration of persons who have already committed crimes. Much less attention has been paid to diverting youths who have not yet committed crimes from doing so.

This lopsided allocation of resources is in part quite rational. When a criminal is imprisoned, there is little doubt that crimes are being prevented by that person’s incapacitation. However, programs aiming to reduce the flow of children into criminal careers are not so easily evaluated. Children who will wind up in trouble with the law cannot be identified with certainty, program participation cannot ensure against eventual criminal activity, and any positive effects can wear off. Still, some benefit from such programs should be realized. How much? And at what cost?

In this report, we make an initial attempt to answer these questions, and our findings suggest that some approaches to preventing criminal careers look promising enough to warrant more extensive demonstration. Care must be taken in generalizing from our results, because the study was limited in scope and few reliable data are available on the efficacy of the programs examined. However, we tried to compensate for these shortcomings by thoroughly analyzing
the sensitivity of the results to the assumptions made about program efficacy and other factors.

We consider four different approaches to intervening early in the lives of children at some risk of eventual trouble with the law. Risk of that kind is, of course, difficult to determine, but research shows that the children of young, single, poor mothers are at greater risk of engaging in criminal activity than are others. The earliest interventions might be targeted to such families, while programs for older children could be based on their behavior. The four approaches examined are as follows:

- Home visits by child-care professionals beginning before birth and extending through the first two years of childhood, followed by four years of day care. The visits are intended to provide guidance in perinatal and infant care and ward off the likelihood of abuse or neglect, both of which are associated with troubled childhoods. Day care permits a higher family income than might be possible without it, and children seeing a higher income may find activities other than crime more attractive.

- Training for parents and therapy for families with very young school-age children who have shown aggressive behavior or otherwise begun to “act out” in school.

- Four years of cash and other incentives to induce disadvantaged high school students to graduate.

- Monitoring and supervising high-school-age youths who have already exhibited delinquent behavior.

Each of these approaches has been attempted, and the first line of Table S.1 shows the efficacies of these pilot programs in terms of reductions in arrest or rearrest rates. These reductions are likely to be smaller for larger, less-intensive programs and are also likely to decay with the passage of time, especially with respect to any effects on behavior beyond the juvenile years. Table S.1 shows hypothesized effective prevention rates taking into account these scale-up and decay penalties. Larger penalties are taken for the two earlier interventions. These have been tested less often, and their effects have more opportunity for decay before children reach a crime-prone age.
Table S.1

Program Effectiveness and Cost Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Visits and Day Care</th>
<th>Parent Training</th>
<th>Graduation Incentives</th>
<th>Delinquent Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot prevention rate (%)</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>10</td>
</tr>
<tr>
<td>Effective prevention rate for juvenile crime (%)</td>
<td>24</td>
<td>29</td>
<td>56</td>
<td>8</td>
</tr>
<tr>
<td>Effective prevention rate for adult crime (%)</td>
<td>9</td>
<td>11</td>
<td>50</td>
<td>8</td>
</tr>
<tr>
<td>Targeting ratio</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Cost per participant (thousands of dollars)</td>
<td>29.4</td>
<td>3.0</td>
<td>12.5</td>
<td>10.0</td>
</tr>
</tbody>
</table>

The table shows another factor influencing ultimate program benefit—the targeting ratio, or ratio of the crime rate in the group participating in the program to that in the population as a whole. Again, the later programs can be focused more narrowly on youths at risk of criminal activity. Finally, the table shows an estimate of the costs of each program per participant.

When combined with other information on crime rates and criminal careers, the data in the table permit estimates of how many serious crimes would be averted over the lives of all program participants. These estimates can be expressed in terms of serious crimes prevented for every million dollars spent on each program. These are presented in Figure S.1, along with a similar estimate for one high-profile incarceration program—California's “three-strikes” law mandating extended sentences for repeat offenders. As the graph shows, three of the four early-intervention approaches compare favorably in cost-effectiveness with incarceration. Some caution must be exercised, however, before taking these numbers at face value, for several reasons:

- The costs of the four early interventions are based solely on the program costs shown in the table. They do not take into account the savings realized by not having to eventually imprison those youths diverted from criminal careers. We estimated that graduation incentives would save enough money to pay most of the program’s costs. Parent training and delinquent supervision
would also save a significant portion of their costs—on the order of 20 to 40 percent.

- While three of the early interventions compare favorably to the three-strikes law in cost-effectiveness, their total impact on California's crime rate would be smaller even if implemented at full scale. A previous analysis has estimated that the three-strikes law might reduce serious crime by approximately 21 percent below the rate expected without the law.¹ Graduation incentives might bring about a reduction on the order of 15 percent, the other interventions less than 10 percent.

- Because the parameter estimates shown in Table S.1 are the results of limited demonstrations, actual values could vary consid-

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¹See Greenwood et al., 1994. The estimate given in that study is 28 percent for adult crime, equivalent to 21 percent for all crime.
erably from those shown and the results would change accordingly. We found, however, that substantial variations in the parameter values do not result in a reversal of the cost-effectiveness outcomes relative to the three-strikes law. The star in Figure S.2, for example, shows the assumed base-efficacy rate and program cost for graduation incentives. At any combination of prevention rate and program cost below the diagonal line, graduation incentives would still be more cost-effective than the three-strikes law.

None of this suggests that incarceration is the wrong approach. The crime reductions achievable through additional incarceration—on the order of 20 percent or so—are substantial. But, with 80 percent of serious crime remaining, Americans will want to know what else can be done. This study indicates that additional crime reduction could be achieved through parent training, graduation incentives, and delinquent supervision. It might be inferred from California's vote in favor of the three-strikes law that the public believes a 21 percent reduction in crime is worth the measure's cost of $5.5 billion a year. For less than an additional billion dollars, graduation incentives and parent training could roughly double that crime reduction, if they are as effective as our analysis suggests. To find out if they are would require broader demonstration programs costing in the millions of dollars. We conclude that such demonstration programs would be an investment worth the cost.
Figure S.2—How Different Combinations of Cost and Prevention Rate Influence Relative Cost-Effectiveness