Electronic Monitoring: Preliminary Analysis of Monetary Benefits and Costs

Results First is a pilot project of the Joint Fiscal Office. The project is intended to provide legislators with a tool to compare the benefits and costs of State programs. This issue brief utilizes the Vermont Results First model to take a preliminary look at the potential benefits and costs of increasing the use of electronic monitoring in Vermont. This analysis examines the use of electronic monitoring as an alternative to incarceration and as a form of enhanced supervision.

Purpose:

The Joint Fiscal Office has produced this analysis in response to the proposed Windham County Electronic Monitoring Pilot Project. The Pilot Project’s goals include reduced Department of Corrections costs and improved public safety. Based on this preliminary financial analysis, there is reason to believe the Pilot Project can achieve both of these goals.

Conclusions:

Increased use of electronic monitoring is likely to save money and reduce recidivism.

- When used as an alternative to incarceration, electronic monitoring produces both immediate savings and long-term savings because electronic monitoring costs less than incarceration.
- Electronic monitoring costs more than standard probation but saves money in the long run because participants are less likely to commit new crimes.
- Electronic monitoring is expected to reduce recidivism regardless of risk level.

Next Steps:

The Vermont Results First model can be customized to predict the performance of new programs and set benchmarks against which actual performance can be compared. The following steps will take place as part of the Windham County Electronic Monitoring Pilot Project:

- Tailor the Vermont Results First model to the population expected to participate in the Pilot Project.
- Establish a baseline performance expectation for the Pilot Project.
- Establish data collection regime to ensure Windham County Electronic Monitoring Pilot Project produces the data necessary to compare Pilot Project performance to the predicted performance.

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1 The Pew-MacArthur Results First Initiative is a joint initiative of the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation that helps states build their capacity to conduct cost-benefit analysis. This approach draws on a national database of program evaluations and is being customized using Vermont’s program and cost data. More information on this initiative can be found at: [http://www.pewstates.org/research/state-fact-sheets/the-pew-macarthur-results-first-initiative-in-vermont-85899509909](http://www.pewstates.org/research/state-fact-sheets/the-pew-macarthur-results-first-initiative-in-vermont-85899509909)
**Monetary Benefits and Costs: Electronic Monitoring of Adults in Criminal Justice System**  
**Vermont Results First Model, (2012 Dollars)**

<table>
<thead>
<tr>
<th>Policy Scenario</th>
<th>Recidivism Reduction</th>
<th>Savings/ (Costs) per Participant</th>
<th>Total Benefits</th>
<th>Taxpayer Benefits</th>
<th>Social Benefits</th>
<th>Benefits Minus Costs (Net Present Value)</th>
<th>Benefit to Cost Ratio</th>
<th>Participant Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electronic Monitoring as an Alternative to Incarceration</strong></td>
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<tr>
<td>Pretrial diversion from detention</td>
<td>-17.6%</td>
<td>$3,184</td>
<td>$15,697</td>
<td>$2,691</td>
<td>$13,007</td>
<td>$18,881</td>
<td>n/a*</td>
<td>Adult Prison General</td>
</tr>
<tr>
<td>Post-conviction low risk inmates diverted</td>
<td>-26.6%</td>
<td>$3,192</td>
<td>$1,754</td>
<td>$583</td>
<td>$1,171</td>
<td>$4,946</td>
<td>n/a*</td>
<td>Adult Prison Low Risk</td>
</tr>
<tr>
<td><strong>Electronic Monitoring as Enhanced Supervision</strong></td>
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<tr>
<td>Post-conviction enhancing probation – general</td>
<td>-21.9%</td>
<td>($859)</td>
<td>$9,479</td>
<td>$1,773</td>
<td>$7,706</td>
<td>$8,620</td>
<td>11.05</td>
<td>Adult Supervision General</td>
</tr>
<tr>
<td>Post-conviction enhancing probation – assault/DV</td>
<td>-23.7%</td>
<td>($859)</td>
<td>$8,114</td>
<td>$1,467</td>
<td>$6,647</td>
<td>$7,254</td>
<td>9.46</td>
<td>Adult Supervision Assault/DV</td>
</tr>
<tr>
<td>Post-conviction enhancing probation – high risk</td>
<td>-14.2%</td>
<td>($859)</td>
<td>$16,053</td>
<td>$2,697</td>
<td>$13,357</td>
<td>$15,195</td>
<td>18.73</td>
<td>Adult Supervision High Risk</td>
</tr>
</tbody>
</table>

*Benefit to Cost Ratio cannot be calculated because there are no net costs to switching from incarceration to electronic monitoring. Instead, there are net savings because electronic monitoring is less expensive than incarceration.

**Understanding the Results**

**Crime Impact**: The average expected reduction in recidivism among participants that receive electronic monitoring compared to those participants who do not receive electronic monitoring.

**Budget Impact**: The average initial budget savings or costs, per participant, of increasing the use of electronic monitoring. For each participant that would otherwise be incarcerated, switching to electronic monitoring would avoid approximately $3,000 of jail costs (assuming 57 days of monitoring and after deducting the cost of providing electronic monitoring). For enhancing supervision, electronic monitoring adds additional equipment and personnel costs to probation.

**Monetary Benefits**: Benefits reflect the avoidance of future crime (due to less recidivism). Benefits to taxpayers are direct State and local government savings. Social Benefits reflect the benefit to individuals of avoided crime victimizations. In all cases, would-be victims stand to gain the most from reduced crime. The majority of benefits are realized within 10 years.

**Summary Statistics**: In all scenarios, the expected benefits exceed the costs of the program. Benefits Minus Costs is a per participant average. Some participants will not produce positive benefits if they commit new crimes. The Benefit to Cost Ratio reflects the return on each dollar invested.

**Sensitivity Analysis**: The model was run 1,000 times to account for the uncertainty involved in predicting recidivism and estimating costs. Expanding the use of electronic monitoring is likely to produce positive benefits for each population examined in this analysis.