

Lott's Response to the Black and Nagin Critique⁶

In a second article in the *Journal of Legal Studies*, Lott addresses each of the criticisms raised by the Black and Nagin article regarding the original Lott and Mustard study. Lott's central concern is as follows:

"Black and Nagin claim that our original article assumes that the effect of concealed-handgun laws is constant over time, that the effect is the same across states, that our article does not control for local time trends, and that we did not investigate whether the results were sensitive to the missing values of the arrest rate. They are wrong. We raised these issues ourselves and then suggested (statistical) tests for them. . . . Normally, a comment (i.e., a critique) would explain why the approaches that we used to solve these (analytic) problems were inadequate and then offer alternative approaches. Instead, Black and Nagin claim that we completely ignored these issues and contend that they are raising them for the first time. . . . (This) is so easily verified by the reader."⁷

Lott's article, then, seeks to demonstrate how each of these methodological concerns was addressed in his original article with Mustard.

Perhaps the central methodological issue in this debate concerns the competing interpretations given to the empirical finding that in most of the states that have enacted a shall-issue carry law, the violent crime rate was increasing prior to the enactment and has decreased following the enactment.

- Lott and Mustard interpret and statistically model this reversal in the violent crime rate as being the effect of that law change (i.e., they view the law as having deterred violent crime).
- Alternatively, Black and Nagin interpret and statistically model this phenomenon as a "cyclical" trend, in which the enactment of shall-issue laws (and other major crime counter-measures) in any state occurs in response to public concern about rising violent crime in the state, and in which the violent crime rate would have turned downward even without the enactment of the shall-issue law, following inevitable cyclical trends and in response to a variety of other crime counter-measures.

⁶ "The Concealed Handgun Debate," John R. Lott, Jr., *Journal of Legal Studies*, Vol. XXVI (January, 1998): pp 221-243.

⁷ *Ibid*, p. 243.

Ludwig's Study of State Homicide Rates and Critique of the Lott and Mustard Study⁸

Ludwig's paper analyzes murder rates — defined as the ratio of adult homicides to juvenile homicides within the same state — between 1982 and 1991, and argues that no significant relationship exists between shall-issue licensing laws and adult murder rates. Ludwig reconciles these finding with conflicting findings from the Lott and Mustard study by asserting that Lott and Mustard's statistical model is improperly specified.

Most importantly, Ludwig asserts that states with increasing crime rates are more likely than other states to enact shall-issue licensing laws, and that the Lott and Mustard model fails to account for this factor, which he terms the cyclic pattern of crime rates across time. According to this reasoning, shall-issue licensing laws, as well as a number of other crime counter-measures, tend to be enacted during periods of rising crime; thus, the subsequent reductions in crime which Lott and Mustard attribute to the shall-issue licensing laws may be due to the other crime fighting measures and/or to a commonly observed downward drift in crime levels following peaks in those levels.

Ludwig also takes issue with several of the measures of variables used in the Lott and Mustard study, and substitutes several other measures for similar concepts in his own state-level analysis. Ludwig's study generally obtains different results, which he interprets as evidence that Lott and Mustard's model is improperly specified and, therefore, its parameter estimates are biased (i.e., that the Lott and Mustard study reached invalid conclusions). Ludwig concludes by acknowledging that laws which increase the prevalence of guns in public places could, in theory, have a deterrent effect on crime, but that there is potential for misuse as well. In his view, the Lott and Mustard study does not offer any convincing evidence for the claimed benefits of such a policy.

Webster's Critique of the Lott and Mustard Study⁹

Webster critiques the Lott and Mustard study, not with any empirical analysis of its own, but by accepting and discussing the findings of the Black and Nagin study and Ludwig's analysis. Nevertheless, Webster's critique adds some unique discussion.

Webster claims that Lott and Mustard's findings depart from established thinking and certain

⁸ "Do Permissive Concealed Carry Laws Reduce Violent Crime?" Jens Ludwig, Georgetown University: unpublished paper (October 8, 1996). The author is an economist and professor of public policy at the Public Policy Institute, Georgetown University.

⁹ "The Claims that Right-to-Carry Laws Reduce Violent Crime are Unsubstantiated," Daniel W. Webster, Baltimore: The Johns Hopkins Center for Gun Policy and Research, Johns Hopkins University (1997). A footnote to Webster's paper notes that The Johns Hopkins Center for Gun Policy and Research is dedicated to reducing gun violence.

known facts in criminology. According to his argument, shall-issue licensing laws were adopted principally to deter predatory street crime, most commonly robbery. But Lott and Mustard's results indicate that such laws have had little effect on robbery rates. Instead, the strongest deterrent effects found were for rape, aggravated assault, and murder. However, he argues, most rapes, aggravated assaults, and murders are not committed as predatory street crimes. Thus, Webster concludes, it seems counter-intuitive that the strongest impacts found by Lott and Mustard were for crimes for which the concealed carrying of a firearm in public is typically not highly relevant.

Webster further argues that the property crime substitution effect found by the Lott and Mustard study does not comport with any credible criminological theory because theft is the motive for only a small fraction of the violent crimes for which Lott and Mustard find effects for shall-issue licensing laws. Webster reasons, for example, that it is difficult to rationalize why a criminal would steal a car because he or she felt deterred from raping or assaulting someone.

Spillover Effects of Shall-Issue Licensing Laws: Further Analysis by Bronars and Lott¹⁰

This 1998 study by Bronars and Lott extends the analysis of the Lott and Mustard study by examining whether the adoption of a shall-issue licensing law in one state alters crime in neighboring areas. The authors remind the reader of the earlier analysis of the same data in which Lott and Mustard claimed to have found strong evidence that shall-issue licensing laws deter crime in counties of enacting states, and they hypothesize that some of the deterred crime is perhaps being shifted to nearby areas not having such laws.

The methodology of this study appears to address some of the methodological criticisms of the earlier Lott and Mustard study. Like the earlier study, the present study employs multiple regression analysis of annual county-level crime data from 1972 to 1992. However, it sharpens the statistical control for arrest rates to the same type of crime (violent versus property), and also assesses absolute changes in crime in addition to the relative (percentage) changes. Like the earlier study, this one includes variables to control for crime trends both before and after the law change, as well as a control for the nationwide trend in the same type of crime being analyzed. As with the earlier study, it applies the statistical model separately to each of the seven types of Part I crime from the FBI's Uniform Crime Report.

The analysis purports to reveal significant "geographic spillover" or displacement effects of crime in the counties that border the enacting states, with murders, rapes, and robberies all increasing (by 4.5 percent, 4.2 percent, and 7.5 percent, respectively), burglary also increasing (by an unspecified amount), and assaults decreasing by 3.6 percent in those neighboring counties.

¹⁰ "Criminal Deterrence, Geographic Spillovers, and the Right to Carry Concealed Handguns," by Stephen G. Bronars and John R. Lott, Jr.; *American Economic Review*, May 1998. House Research is not yet aware of any scholarly critiques of this recently published research article.

These spillover effects onto neighboring counties are found to be immediate following the law

change, and they increase for a period of years following enactment. However, the study finds that the magnitude of the spillover effects are mitigated and essentially erased for counties that have themselves already enacted shall-issue licensing laws.

The authors conclude that, taken together, these results imply that concealed handgun carrying deters criminals and that the largest reductions in violent crime will be obtained when all states adopt shall-issue licensing laws.

Part III: Other Key Research

A 1995 Study of Shall-Issue Licensing Laws in Three States, by McDowall, et al.¹¹

This study examines the frequency of homicides in the large urban areas of Florida, Mississippi, and Oregon, before and after their shall-issue licensing laws went into effect (in 1987, 1990, and 1990, respectively). The analysis provides no support for the idea that the laws reduced homicides; instead, it purports to have found evidence that shall-issue licensing laws increase murders committed with a firearm.

This study uses interrupted time-series analysis (ARIMA modeling) to separately analyze the firearms homicide number and rate for five large cities within these three enacting states. When properly performed, this type of analysis statistically controls for pre-enactment trends in the variable being analyzed. The methodology also statistically controls for national firearm homicide trends. The study found that homicide rates increased in four of the five cities following enactment of the law; on average, gun homicides increased by 26 percent in these five cities, ranging from a *decrease* of 12 percent in Portland to an *increase* of 75 percent in Jacksonville. Homicides by other means did not show any consistent pattern of effects. When controlling for population changes by analyzing rates of homicide, the study found that gun homicide rates increased by an average of 4.5 percent in the five cities, while non-firearm homicide rates did not change significantly.

From this study, McDowall and his co-researchers draw two conclusions about shall-issue licensing laws:

- 1) that such laws do not reduce homicides involving firearms; and

¹¹ "Easing Concealed Firearms Laws: Effects on Homicide in Three States," David McDowall, Colin Loftin, and Brian Wiersema; *Journal of Criminal Law and Criminology*, Vol. 86(1), Fall 1995: pp. 193-206. The authors are members of the Violence Research Group and Department of Criminology and Criminal Justice, University of Maryland at College Park.

- 2) that they may actually increase them.

The authors note that they must hedge on this second conclusion, due to the inconsistency in their findings (i.e., since firearm homicides were found to increase significantly in three of the five cities studied, but to decrease significantly in one city). The authors urge policymakers to be cautious in enacting such laws.

In their 1997 research paper, Lott and Mustard critique this study by McDowall, et al., for its sample selection techniques (i.e., for focusing on only three cities in Florida and one each in Mississippi and Oregon, and for not using the same time frame or area-definition method for all of the selected cities) as well as for their choices regarding certain definitions of key variables (i.e., by focusing on only murders involving firearms and, thus, in Lott and Mustard's view, rendering the research incapable of discovering any substitution effects involving other types of murders or other types of crimes).

Kopel's Summary of the Florida Experience with Shall-Issue Licensing¹²

Kopel's article summarizes the history of Florida's experience with the shall-issue licensing law enacted in that state in 1987. He credits that enactment with sparking a national movement leading to the adoption of shall-issue licensing laws in several other states since 1987.

Kopel relates that when Florida's law went into effect, Miami's police chief ordered his officers to compile detailed reports of all police encounters with permit holders. According to Kopel, the number of permits issued in Miami increased from 1,200 in September 1987 to 21,092 in August 1992, when the police department decided that the behavior of permit holders did not merit further study. In five years, permit holders were convicted of criminal misuse of a firearm in the following instances:

- two cases of aggravated assault involving a firearm;
- one case of armed trespass; and
- one case of a motorist shooting at another driver.

In addition, one permit holder attempted (reportedly unthinkingly) to enter the secure area at Miami's airport with a firearm in her purse, and another accidentally shot himself in the leg.

Kopel reports that the Dade County police also recorded the following incidents involving defensive use of licensed concealed firearms:

¹² "The Untold Triumph of Concealed Carry Permits," David Kopel; *Policy Review*, July-August 1996. Kopel is the research director of the Independence Institute in Golden, Colorado. Note that House Research has not yet confirmed this description of the Florida findings with the Miami/Dade County authorities.

- two robbery cases in which the permit holder produced a firearm and the robbers fled;
- two cases in which permit holders intervened to stop a robbery, but the robbers were not apprehended and no one was hurt;
- one robbery victim whose gun was seized by the robber;
- a man who shot a pit bull dog that was attacking him;
- two cases of a citizen capturing a burglar;
- three cases of a burglar who was frightened off but not captured;
- one case of thwarted rape; and
- a bail bondsman who fired two shots at a fleeing bail-jumper wanted for armed robbery.

According to Kopel, there were no reports of permit holders in Miami shooting innocent people by accident.

Kopel notes that in Florida statewide, 315,000 concealed carry permits had been issued by the end of 1995, with only five having been revoked because the permit holder committed a violent crime with a gun.

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